

EARLY CHILDHOOD EDUCATION ACCELERATOR Simulation Model User Guide

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1. Introduction

Purpose

This simulation modeling and costing tool will support countries in estimating needs to ensure universal access to pre-primary education in line with SDG 4.2. It also provides a detailed outlook of the human, infrastructural, and financial resources needed to meet country targets for the provision of Early Childhood Education (ECE) as defined by national Education Sector Plans (ESP). This document provides a step-by-step guide for using the tool. The key features include:

1. Enabling countries to estimate requirements to ensure achievement of SDG 4.2 targets.
2. Enabling countries to comprehensively assess the resource requirements associated with subsector strategies and targets articulated in ESP or other subsector planning processes.
3. Projects enrolment figures through 2030 and associated human resource, material, and infrastructure requirements.
4. Calculates gaps in resource requirements.
5. The model incorporates various ECE enrollment policy scenarios (1-year, 2-year and 3- within a single template.

The costs and budgets identified through the simulation model will facilitate improved planning for the provision of quality ECE services within specific country contexts as part of the ESP or other subsector planning processes, while supporting countries in the achievement of SDG 4.2 targets by 2030. It is important to ensure a balance between the ambition (in terms of targets) and the financing gap. The simulation model helps in establishing this balance by adjusting the ambition, varying targets, and adjusting the policy decisions. The budgets and targets to be achieved should also be discussed with the political leadership and their buy-in sought for allocating the required resources for ECE provision in the country.

2. Overview

PURPOSE	Estimating material, human, and financial resources required for ESP and ECE subsector planning processes
COVERAGE	2021 – 2030; ages 3-5 years; applicable to national and sub-national levels
PLATFORM	Microsoft Excel
KEY FEATURES	<ul style="list-style-type: none">• Shows annual enrolment and resource projections• Inclusive of considerations for children with special needs• Calculates human resource and infrastructure needs• Adaptable to various subsector strategies
SIMULATION INPUTS	<ul style="list-style-type: none">• Inputs sheet allows for various inputs (population, enrolment, infrastructure, human resource etc.• Policy decisions included based on discussions and agreement between Technical Working Group and policymakers• Allows for country contextualization using the Semantics sheet
OUTPUTS	Projections for enrolment, NER, HR, Infrastructure, and financial resources required through 2030
OUTCOMES	Policy options created for better planning and financing of ECE service delivery through evidence-based decision-making

3. Using the Tool

Please refer to the simulation modeling MS-Excel exercise sheet. It is assumed that the participants will have a basic understanding of the MS-Excel and using formulae. Year 2021 is currently used as the base year in the model. However, this can be changed to any subsequent value in the upcoming years. In case data is unavailable for the base year, the latest available figures can be used for population growth rate, and dropout rates etc. For enrolment data, the country teams can analyze the available data for the last five years (even if it is lagged) to see the enrolment growth rate. This growth rate can then be applied to the enrolment figures for the latest available data to get the baseline figure for the base year.

It is important to note that the model in its current form looks at 3 years of pre-primary education with biological ages of 3-5 years. Countries prioritizing one year of pre-primary education, before going for the full three-year program, can make use of the same model. The only change will be to skip the cells in 'inputs' sheet where data related to pre-primary

year 2 and pre-primary year 3 are sought. This is further elaborated in the 'inputs' sheet and at relevant places in the simulation model itself.

All data for the model will be added in the 'inputs' sheet. All the other sheets will be automatically populated based on data provided in 'inputs' sheets. The following basic datasets will be required for the simulation model to work effectively:

1. Population data for nationals and refugees' population
2. Enrolment data for public, private, community, and public-private schools¹
3. Dropout and repetition rates for the baseline year
4. Teachers and caregivers² data for personnel engaged in ECE and the existing gap
5. Infrastructure available for ECE and the existing gap
6. Unit costs of basic infrastructure and human resource inputs
7. Trends of ECE budgets over the last ten years

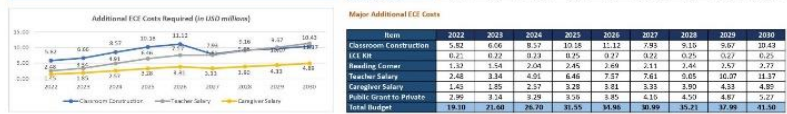
Dashboard Sheet

This Dashboard sheet provides an overview of ECE simulation modeling. All the tables and graphs on this sheet are automatically generated.



Semantics Sheet

The model uses generally recognized terms for the ECE subsector; however, these terms will vary depending on country context.



This Semantics sheet allows users to use context appropriate terms. For example, the ECE kit may be named differently in some countries. The names currently used in the model are listed in column B and can be modified accordingly by the planners.



Gender	Age	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	3-5y	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
Female	3-5y	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
Total	3-5y	39%	39%	39%	39%	39%	39%	39%	39%	39%	39%

Gender	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	516,293	518,722	521,151	523,580	526,009	528,438	530,867	533,296	535,725
Female	689,455	687,827	686,199	684,571	682,943	681,315	679,687	678,059	676,431
Total	1,205,748	1,206,549	1,207,350	1,208,151	1,208,952	1,209,753	1,210,554	1,211,355	1,212,156

Gender	Age	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	3-5y	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%
Female	3-5y	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Total	3-5y	14%	14%	14%	14%	14%	14%	14%	14%	14%	14%

Gender	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	184,403	186,034	187,665	189,296	190,927	192,558	194,189	195,820	197,451
Female	139,467	138,693	137,919	137,145	136,371	135,597	134,823	134,049	133,275
Total	323,870	324,727	325,584	326,441	327,298	328,155	329,012	329,869	330,726

Gender	Age	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	3-5y	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%
Female	3-5y	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Total	3-5y	24%	24%	24%	24%	24%	24%	24%	24%	24%	24%

Gender	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	331,890	332,688	333,486	334,284	335,082	335,880	336,678	337,476	338,274
Female	357,565	356,134	354,703	353,272	351,841	350,410	348,979	347,548	346,117
Total	689,455	688,822	688,189	687,556	686,923	686,290	685,657	685,024	684,391

Gender	Age	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	3-5y	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Female	3-5y	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Total	3-5y	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%

Gender	2022	2023	2024	2025	2026	2027	2028	2029	2030
Male	61,678	61,843	62,008	62,173	62,338	62,503	62,668	62,833	62,998
Female	61,678	61,843	62,008	62,173	62,338	62,503	62,668	62,833	62,998
Total	123,356	123,686	124,016	124,346	124,676	125,006	125,336	125,666	126,000

All other sheets will automatically pick these names and no other changes are required by the user.

¹ These are generally low-cost private schools run through public grants.
² Caregivers for this tool refer to human resources working in ECE schools and centers that are not considered teaching staff.

4. How to input data into the simulation model tool

This section will detail how to add data into each sheet within the tool to build your model.

Inputs Sheet

Step 1: Population Projection Rate

Using population trends, identify the population growth rate during the last ten or more years, depending on the data availability, for nationals and refugees' population. This should be done separately for male and female population. Only the growth rate of newborns (0 years biological age) will be required for trend analysis. The data on refugees' population may not be readily available from country sources and might require engaging with agencies like UNHCR and local partners working on refugee education.

For example, the number of newborns was 1,000 in 2019 while it increased to 1,020 in 2020. This means an increase of 2 percent which will be used as the annual population projection rate for male (0 years). Do not use negative percentage here (use zero percent in this case). In case gender disaggregated data of 0 years is not available, percentage shares will be used based on the best possible assumptions. Put the calculated population growth rate in cell B9 and B14 for male population and cell B10 and B15 for female population.

In cells J10 and J11, add migration rates if relevant. These will be applicable in contexts where migration is a significant challenge. This will be more relevant in sub-national contexts. If not applicable, add zero or keep the cells blank. The migration data may be available through government sources. In case it is unavailable through official sources, this might require engagement with partners like International Organization for Migration (IOM) and local partners working on migration related issues.

Step 2: Mortality Rates

Use appropriate international or national sources to identify the mortality rates from ages 0-4 years. Put them within the sheet (F10:G14) for undertaking population projections. For keeping the work simple, we are assuming that the current mortality rates would remain constant throughout the simulation period under consideration.

Step 3: Baseline Population

Add baseline population data for nationals, refugees, and children with special needs based on latest available census for biological ages 0-5 years (B20:B25, G20:G25, and L20:L25 for male and C18:C23, G18:G23, and L20:L25 for female). In case, data on children with special needs is not available, the relevant table should be left blank.

Step 4: Drop-out and Repetition Rates

Acquire baseline data for drop-out rates and repetition rates in pre-primary education for biological ages 3-5 years in public, private/community schools and other³ schools; disaggregated by gender. In case of data unavailability, the repetition rates can be set at

³ These include schools running under the PPP mode or those that are not covered under the public or private category.

0 percent since repetition in pre-primary education is seldom done at country level. For unavailable drop-out rate figures at pre-primary level, drop-out rate for primary education can be used as a proxy. Given the lack of data, the assumption is that the conditions in primary schooling will be similar to those in pre-primary education. That's why the same rates are applied. Add this data at the relevant places (C31:E36 for drop-out rates and I31:K36 for repetition rates) in the sheet.

Step 5: Enrolment

The baseline enrolment data (normal and special needs children) for public schools (D43:D48 & K43:K48), private and community schools (E43:E48 & L43:L48), and other schools (F43:F48 & M43:M48) will be added using the official statistics from government sources. Note that the age-specific enrolment is entered and not in gross terms.

For example, Grade/Year 1 of pre-primary has a total of 29 enrolled children with varied ages: age 3 years = 22, age 4 years = 5 students; age 5 years = 2 students. Only enter 22, as Grade/Year 1 of pre-primary should ideally have children of 3 years' age only. In case, age-specific data is unavailable, use the gross enrolment figures and apply the percentage difference in NER and GER to estimate the age-specific enrolment (example provided in the annexures).

Step 6: Baseline Teachers Data

The existing number of ECE teachers and the gap of ECE teachers in public schools will be added in cells C55:D60 using the official statistics from government sources. The existing gap will be the difference between sanctioned posts and the working teachers. In case of unavailability of this information, it can be calculated using following steps:

- Divide the ECE enrolment by official Student Teacher Ratio (STR) standard adopted by the country. This will provide the number of teachers required.
- Subtract the existing number of teachers from the above calculated number.
- The resulting number will be the teachers' gap to be added in these cells.

The number of skilled (trained) teachers will be added in cells. H55:H60. The number of unskilled (untrained) teachers will be automatically calculated using the total number of teachers and the number of skilled teachers.

Step 7: Baseline Caregivers Data

Caregivers for this tool refer to human resources working in ECE schools and centers that are not considered teaching staff. These are different from ECE teachers and caregivers at homes. The existing number of ECE caregivers and the gap of ECE caregivers in public schools will be added in cells H55:I60 using the official statistics from government sources.

Step 8: Baseline Classrooms Data

The existing number of ECE classrooms⁴ and the classrooms gap in public schools will be added in cells C67:D72 for single grade classrooms and in cells H67:I72 for multigrade classrooms using the official statistics from government sources. For multigrade classrooms, only enter the existing multigrade classrooms in public schools. The gaps column will automatically fill and will be equal to the number of existing multigrade classrooms (as at least one additional classroom is needed in all of these). The model assumes that classroom construction will be done by government in public schools only. For other schools, grants mechanism has been used in the tool. In case grants are not given in a particular country's context, all the relevant values should be made zero.

Step 9: Baseline ECE Kits Data

The existing number of ECE kits and the gap of ECE kits in public schools will be added in cells M67:N72 using the official statistics from government sources.

Step 10: Baseline Reading Corners Data

The existing number of ECE reading corners and the gap of ECE reading corners in public schools will be added in cells R67:S72 using the official government sources.

Step 11: Public Grants to Private Schools

The number of schools (private, public private, and community schools) provided public grants for ECE provision in the base year will be added in cells C78:C86 using the official statistics from government sources. In case the information is unavailable, this table should be left blank.

Step 12: Unit Costs

The current unit costs of various items (infrastructure and human resources) will be added in cells C92:C105. Generally, these unit prices are available with the Ministry of Finance through Market Rate System (MRS) for infrastructure related items and yearly pay scale charts for human resource related items. In case they are not publicly available, these can be sought from the relevant ministries (Finance, Planning & Development, and Education). In some cases, the countries will have to compute these unit prices as they may not be readily available.

For infrastructure, a policy decision will be required to determine the nature of construction (temporary / semi-permanent / refurbishment of existing / new permanent etc.). For furniture, table and chairs can be used for planning and costing purposes. In other contexts, mats may suffice for ECE children. These need to be discussed and decided at the policy level.

Step 13: ECE Budget Trends

The ECE budget trends for the last ten years will be added to the table starting at A110. The years indicated in the table can be changed as needed but should be the previous ten years. The budget is categorized into salary, non-salary, and development components.

⁴ An ECE classroom is a permanent structure, with varying facilities and space based on the country contexts.

The annual increase in L111:L114 will be automatically calculated. The total education budget over the last ten years will be added in row 115. This will be used to calculate the share of ECE in overall education budget and automatically reflected in row 116.

Policy Decisions Sheet

These policy decisions will be added based on the consultations among planners, experts, and Technical Working Group (TWG) members,

Step 1: Achievement Rates

Two types of values will be added here: a) decrease in percentage points expected or planned in drop-out rates per year (B8:D9), b) decrease in percentage points expected or planned in repetition rates per year (B11:D12).

Step 2: Increase in Enrolment

The planned increase in enrolment for each school type will be inserted in percentage terms. It should be kept realistic as this would be used to calculate resources required to entertain the existing and additional enrolment. This increase in enrolment will be added for public, private, and other schools in rows 19, 25 and 31 for male and rows 20, 26, and 32 for female students, respectively. This increase will help in projecting enrolment figures and resultantly reflect in the NER and GER.

Step 3: Human Resource

The planned number of new students for which a new teacher is required will be entered in cells C36 & C37. The planned number of new students for which a new caregiver is required will be entered in cells C50 & C51. Both these ratios will be automatically adjusted for migration rates (inputted in 'inputs' sheet) and added in the 'human resource' sheet. The number of years in which the existing gap of ECE teachers, ECE caregivers, and ECE special needs staff will be addressed are to be added in cells C41:C46, C55:C60, and C64:C69, respectively. All policy decisions are to be made and added separately for male and female categories and pre-primary years.

Step 4: Classrooms and Materials

The planned number of new students for which a new classroom (K36 & K37), ECE kit (K50 & K51), and reading corners (K64 & K65) is required is added in the mentioned cells. Similarly, the number of years in which the existing gap of ECE classrooms, ECE kits, and reading corners will be addressed are added in cells K41:K46, K55:K60, and K69:K74 respectively. Cells P78:P83 will be used for policy decisions regarding percentage increase in number of private and community schools receiving public grants per year.

Population Sheet

Step 1: Population Growth

The population growth rate for both nationals and refugees will be automatically added using the data inputted in the 'inputs' sheet.

Step 2: Mortality Rates

The mortality rates will be automatically added using the data inputted in 'inputs' sheet.

Step 3: Population Projections

The baseline population data for biological ages 0-5 years will be automatically populated using the data inputted in the 'inputs' sheet. The population projections will be automatically undertaken using the mortality rates through a cohort model. The projections' work will be done in a diagonal manner, separately for male and female population. The yellow highlighted diagonal in the exercise sheet presents this conceptualization of undertaking a cohort model for projections. All of this will be automatically done in the sheet and no user inputs are required.

Achievement Rates Sheet

Step 1: Baseline Data

The baseline data for drop-out rates and repetition rates for biological ages 3-5 years in public, private and other schools will be automatically populated using the data inputted in the 'inputs' sheet.

Step 2: Policy Decisions

The policy decisions on achievement rates will be automatically populated using the data inputted in the 'policy decisions' sheet.

Enrolment Sheet

Step 1: Baseline Data

The baseline enrolment data for public schools (P22:P24 for male & P27:P29 for female), private schools (AC22:AC24 for male & AC27:AC29 for female), and other schools (AP22:AP24 for male & AP27:AP29 for female) will be automatically added using the data inputted in the 'inputs' sheet.

Step 2: Policy Decisions

The increase in enrolment for each of the projection years and school types will be automatically added using the data inputted in the 'policy decisions' sheet.

Human Resource Sheet

Step 1: Increase in Enrolment

In this sheet, the increase in enrolment is automatically calculated using the data from the 'enrolment' sheet. The increase shows the number of additional students that are expected to be inducted into ECE during the next years.

Step 2: Additional Teachers

Based on the above increase in ECE enrolment and considering the policy decisions added to the 'policy decisions' sheet, the requirements of additional ECE teachers will be automatically calculated.

Step 3: Existing Teachers Gap

The existing gap of ECE teachers will be automatically added in cells C41:C52 using the data inputted in the 'inputs' sheet. Based on the existing ECE teachers' gap and

considering the policy decisions added to the 'policy decisions' sheet, the requirements of additional ECE teachers for each year will be automatically calculated.

Step 4: Additional Caregivers

Based on the increase in ECE enrolment and considering the policy decisions, the requirements of additional ECE caregivers will be automatically calculated.

Step 5: Existing Caregivers Gap

The existing gap of ECE caregivers will be automatically added in cells C89:C100 using the data inputted in the 'inputs' sheet. Based on the existing ECE caregivers' gap and considering the policy decisions, the requirements of additional ECE caregivers for each year will be automatically calculated.

Step 6: Existing Special Needs Staff Gap

The existing gap of ECE Special Needs staff will be automatically added in cells C121:C132 using the data inputted in the 'inputs' sheet. Based on the existing gap and considering the policy decisions, the requirements of additional special needs staff for each year will be automatically calculated.

Classrooms⁵ & Materials Sheet

Step 1: Increase in Enrolment

In this sheet, the increase in enrolment is automatically calculated using the data from the 'enrolment' sheet. The increase shows the number of additional students that are expected to be inducted into ECE during the next years. These are the same numbers earlier available in the 'human resource' sheet as well.

Step 2: Additional Classrooms

Based on the above increase in ECE enrolment and considering the policy decisions added to the 'policy decisions' sheet, the requirements of additional ECE classrooms will be automatically calculated.

Step 3: Existing Classrooms Gap

The existing gap of classrooms will be automatically added in cells C44:C55 using the data inputted in the 'inputs' sheet. Based on the existing classrooms' gap and considering the policy decisions, the requirements of additional classrooms for each year will be automatically calculated. The total classrooms required during the next years will be automatically calculated in the subsequent table.

Step 4: Additional ECE Kits

Based on the above increase in ECE enrolment and considering the policy decisions, the requirements of additional ECE kits will be automatically calculated.

⁵ It is assumed that the ECE program will be running in single shift. However, in the short-term, countries may implement double shift ECE program. This should be discussed among the TWG members when setting milestones for enrolment.

Step 5: Existing ECE Kits Gap

The existing gap of ECE kits will be automatically added in cells C92:C103 using the data inputted in the 'inputs' sheet. Based on the existing ECE kits' gap and considering the policy decisions, the requirements of additional ECE kits for each year will be automatically calculated. The total ECE kits required during the next years will be automatically calculated in the subsequent table.

Step 6: Additional Reading Corners

Based on the above increase in ECE enrolment and considering the policy decisions, the requirements of additional reading corners will be automatically calculated.

Step 7: Existing Reading Corners Gap

The existing gap of reading corners will be automatically added in cells C140:C151 using the data inputted in the 'inputs' sheet. Based on the existing reading corners' gap and considering the policy decisions, the requirements of additional reading corners for each year will be automatically calculated. The total reading corners required during the next years will be automatically calculated in the subsequent table.

Step 8: Public Grants to Private Schools

The number of schools provided public grants for ECE provision in the base year will be automatically populated in cells C172: C183 using the inputted data in 'inputs' sheet. The number of schools for subsequent years will be automatically calculated using the percentages in policy decision cells.

Supporting Strategies Sheet

In this sheet, additional strategies for ECE provision will be added. The sheet will outline the number of units and the unit costs for these strategies.

Step 1: Units

In the table starting from row 7, the strategies, unit, unit cost for the base year, and number of units will be added for each year. The existing strategies can be modified, and new strategies can be added to the table in cells A8:A18.

Step 2: Unit Costs

In the table starting from row 25, the envisaged increase per annum in the unit costs will be added in cells B26:B36. Cells C26:C36 contain percentage increase in view of the COVID-19 situation. For the unit costs in 2022 and 2023, no increase is factored in considering hoarding or supply shortages due to the pandemic. This zero percent increase can be modified to reflect an increase. For rest of the years, increases added in B26:B36 will be used. The rest of the table will be automatically populated. Any additional strategies added to the above table will be automatically reflected in this table in relevant rows.

Costs Sheet

In this sheet, the cost of ECE provision will be calculated. The sheet looks at the costs of additional resources needed for ECE expansion based on the policy decisions. The policy decisions are listed in various sheets of the model.

Step 1: Unit Costs

The current unit costs of various items (infrastructure and human resources) will be automatically added in cells D8:D19 using the data inputted in the 'inputs' sheet. The envisaged increase in unit prices (under normal circumstances) will be added in cells C8:C19. Cells D8:D19 contain percentage increase in view of the COVID-19 situation. For the unit costs in 2022 and 2023, no increase is factored in considering hoarding or supply shortages due to the pandemic. This zero percent increase can be modified to reflect an increase. For rest of the years, increases added in C8:C19 will be used. The increased unit prices till year 2030 will be automatically calculated in the table.

Step 2: Additional Costs

Based on the unit costs table and resource requirements in the previous sheets, the additional costs table will be automatically calculated. No changes are required to the table. Row 50 will present the total additional costs required per year for providing additional ECE inputs.

Step 3: Supporting Strategies – Costs

Based on the units and unit costs in the 'Supporting Strategies' sheet, the costs of supporting strategies will be automatically calculated.

Financing Sheet

In this sheet, the budgets required for ECE provision will be calculated. The sheet looks at the additional budgets required for ECE expansion based on the policy decisions. The policy decisions are listed in various sheets of the model.

Step 1: Budget Increase – Without Additional Intervention

The increase calculated from budget trends in the inputs sheet will be automatically used to calculate the increase in ECE budget and education budget over the next years. Review cells B8:B12 for the annual increase percentages. These are annual increases based on trends. In case a revision is needed in line with the policy decision, the percentages in cells B8:B12 can be changed. The budgets for the next years will be automatically revised and calculated.

Step 2: Additional Costs

The table starting at A15 automatically picks the cost of ECE expansion from the previous sheet. The table includes an additional column that outlines the category for each budget line. Review and modify the categories in line with the country budgeting systems. The rest of the table will be automatically populated.

Step 3: Financial Resources Required

Based on the above, the annual budgets required for ECE will be automatically calculated in the table starting at A30. This table will be automatically populated and should not be altered. This is the financial resource required for ECE expansion in the country.

Policy Options Sheet

In this sheet, the budgets required for ECE provision will be presented against various policy options. Five policy options are presented in the sheet, which automatically picks data from the previous sheets to present ECE budgets. The five policy options include a) business as usual, b) full package, c) only public provision, d) no development, and e) no meals. These options are further explained below:

- Business as usual assumes that no additional ECE intervention will take place and budget increase will depend on trends.
- Full package means all the options added in the model are being exercised. These options include all infrastructural requirements, human resource, and including the budgets for additional strategies to be implemented (as highlighted in the model).
- Only public provisions means that the government is taking care of public schools only and grants to private schools are not given.
- No development option assumes that the government will pick the cost of salary and non-salary expenses and increase development budget as per trends.
- No meals option assumes that the government will not pay for student meals. This cost can be passed onto parents.

Below this budget table, the proportion of ECE budget in total education budget for each of the policy options is also presented. These calculations are automatically made.

5. ANNEX

Annexure 1

Example of Using GER for NER

The model assumes that age-appropriate enrolment will be used within the model for calculation purposes. However, it is acknowledged that some countries might not have the latest age-appropriate enrolment data for calculating Net Enrolment Rate (NER). However, generally enrolment data is available in all countries including under- and over-age children. This can be used for calculation of NER. If GER is available (even if dated), NER can be proxied in the following way.

GER (2015) = 91%

NER (2015) = 71%

Difference (2015) = 20%

GER (2021) = 95%

NER (2021) = 95% - 20% = 75%

In the above example, the difference between NER and GER for a previous year has been used for calculating NER for a recent year. It is noted here that this is a proxy method that can be used until exact NER data becomes available. In case NER figures are not available for any of the years, subtract 20% from the GER to calculate NER.

Annexure 2

Suggested Standard Teaching and Learning Materials (TLM) Package

The following is a list of teaching and learning materials that is suggested for use in an ECE setup. This standard list can be used for costing TLM package in a country context.

Teacher Material

1. Lesson Plans
2. Teacher Guides

Student Learning Material

1. Workbooks and Exercise Books
2. Activity Sheets
3. Storytelling Books
4. Building and Puzzle Blocks

Art and Craft Material

1. Drawing Pads
2. Colored Pencils
3. Crayons
4. Pencils
5. Sharpeners
6. Erasers
7. Scissors
8. White Paper Roll
9. Colored Paper Pads
10. Transparent Adhesive Tape
11. Modeling Clay
12. Glue



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