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## [Education sector analysis](#)

[Educational planning methodology](#)

[Educational systems evaluation](#)

**An education sector analysis (ESA) is an in-depth, holistic diagnosis of an education system. It assists with understanding how an education system (and its subsectors) works, why it works that way, and how to improve it. An ESA provides the evidence base for decision-making and is the first step in preparing an education sector plan.**

An ESA is a nationally driven process, involving collaboration and dialogue among different actors and institutions in a system. Empowering and consulting the different stakeholders throughout the process are essential, as ‘sustainable changes that lead to improved learning outcomes cannot be brought about in the absence of involvement of the individuals and groups who will implement the change’ (Faul and Martinez, 2019: 29).

The ESA process must therefore be participative and aim to create an understanding of the key stakeholders in the education system, their incentives, relationships and accountability, as well as how these dynamics shape education systems (IIEP-UNESCO et al., 2021).

### **What does an ESA cover?**

An ESA includes context analysis, existing policy analysis, cost and finance analysis, education performance analysis, and system capacity analysis, including stakeholder analysis (IIEP-UNESCO and GPE, 2015). Any challenges identified through the ESA should be analysed through the lens of Sustainable Development Goal 4 (UNESCO, 2016). Quality of learning is one factor analysed in the performance of the education system along with issues related to access and coverage, equity and inclusion, and internal and external efficiency of the system. Quality of learning involves analysing the range of inputs and processes including teachers, learning and teaching materials, school facilities, and learning outcomes (IIEP-UNESCO and GPE, 2015; IIEP-UNESCO, World Bank, and UNICEF, 2014).

#### **Teachers**

Teachers play a decisive role in ensuring learning quality. Teacher management features – ranging from recruitment and deployment to pre- and in-service training, career pathways, motivation and job satisfaction, absenteeism and effective teaching time – also need to be analysed. Typical indicators include (IIEP-UNESCO, World Bank, and UNICEF, 2014):

- Pupil/teacher ratio by level for primary education
- Pupil/trained teacher ratio

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- Teacher utilization rate
  - The consistency in teacher allocation (R2 coefficient)
  - Theoretical teaching time in relation to theoretical instruction time for secondary teachers
  - The percentage of pre- and in-service teachers trained by level
  - The number of teachers disaggregated by status (civil servants, contract, or community teachers)
  - Qualifications and teaching experience
  - Deployment

## **Learning and teaching materials**

An ESA should analyse the equitable allocation of learning and teaching materials and other inputs among different schools and regions. An ESA should include indicators such as the proportion of teachers with teacher guides, pupil/textbook ratios, and the notion of useful pupil/textbook ratio (IIEP-UNESCO, World Bank, and UNICEF, 2014). Qualitative information gathered through teacher interviews, for example, can also be integrated into the analysis to complement quantitative data. For instance, in crisis-affected areas, quantitative data may be weak regarding the actual distribution and use of textbooks throughout the country (IIEP UNESCO and GPE, 2016).

## **School facilities**

School facilities (school buildings and infrastructure such as electricity or school landscaping) can have a significant impact on students' learning achievements. Proper water, sanitation and hygiene (WASH) facilities in schools can improve access to education and learning outcomes, particularly for girls (UNICEF and WHO, 2018). Relevant indicators include classroom utilization rate and, when applicable, type of classroom (such as temporary, open air, permanent, or home-based classrooms); the percentage of schools with functioning WASH facilities; the percentage of schools with electricity; the percentage of schools with boundary walls for security reasons; and the percentage of classrooms that need to be rehabilitated (IIEP-UNESCO, World Bank, and UNICEF, 2014).

## **Learning outcomes**

Student assessments include national examinations and admission tests, national large-scale learning assessments, regional or international standardized assessments, citizen-led assessments, and household surveys. The analysis of learning assessments enables education planners and decision makers to understand whether the education system is transferring knowledge to students as expected, as well as whether this transfer is equitable or is leaving certain population groups or geographic areas behind. Learning assessments can further help countries track the progress of learning achievements over time, compare results with comparable countries, and identify plausible causes for weak learning outcomes (IIEP UNESCO, World Bank, and UNICEF, 2014).

However, there are several risks when using learning data, such as the accuracy of data and their interpretation; the use of a single test score for decision-making; the use of learning assessment data to legitimize predefined agendas; and narrowing educational measurements to simplified indicators (Raudonyte, 2019).

Changes in learning assessment results over time should be interpreted with caution and cross-checked with other evidence. For instance, a sharp increase in enrolments may affect learning outcomes (IIEP-UNESCO, World Bank, and UNICEF, 2014).

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## ESA data sources

An effective ESA relies on both qualitative and quantitative rigorous data. Relevant data sources include (IIEP-UNESCO and GPE, 2015; IIEP-UNESCO et al., 2021; IIEP-UNESCO, World Bank, and UNICEF, 2014):

- National, regional and international learning assessments: provide information on whether the education system is transferring knowledge as expected; track progress on learning achievements over time; allow comparisons with comparable countries; and identify plausible reasons behind weak learning outcomes.
- School data on students, textbooks, teachers, and subsidies: provide information on resource distribution and learning time, among others.
- Administrative manuals: provide information on teacher management, teaching time, and other resources.
- Teacher training institute data: provide information on whether the capacities of teacher training institutes meet current and projected needs.
- Human resources data: provide information about teacher recruitment, deployment and utilization, among others.
- Sample surveys: can be used to assess teaching and learning time.
- Household surveys: provide information on the relationship between the level of literacy and the number of years of schooling.
- Specific research exercises: provide valuable information on relevant issues faced by education systems.
- Interviews and questionnaires of stakeholders: provide relevant qualitative information, for instance related to institutional capacity.

An ESA should further assess information gaps and whether primary data collection will need to be undertaken to obtain missing information (IIEP-UNESCO and GPE, 2015).

### Plans and policies

- **Liberia:** [Education Sector Analysis](#)
- **Somalia:** [Education Sector Analysis](#)

### Tools

- IIEP-UNESCO; Global Partnership for Education. 2015. [Guidelines for Education Sector Plan Preparation](#)
- IIEP-UNESCO; Global Partnership for Education; UNICEF; Foreign, Commonwealth and Development Office. 2021. [Education Sector Analysis Methodological Guidelines: Vol. 3:](#)

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### [Thematic Analyses](#)

- IIEP-UNESCO; World Bank; UNICEF. 2014. [Education Sector Analysis Methodological Guidelines: Vol 1: Sector-wide Analysis, With Emphasis on Primary and Secondary Education](#)
- IIEP-UNESCO; World Bank; UNICEF. 2014. [Education Sector Analysis Methodological Guidelines: Vol. 2: Sub-sector Specific Analysis](#)
- UNESCO-UIS. 2009. [Education Indicators: Technical Guidelines](#)

### References and sources

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IIEP-UNESCO; GPE (Global Partnership for Education). 2015. [Guidelines for Education Sector Plan Preparation](#). Paris: IIEP-UNESCO.

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IIEP-UNESCO; GPE (Global Partnership for Education); UNICEF; FCDO (Foreign, Commonwealth and Development Office). 2021. [Education Sector Analysis Methodological Guidelines: Vol. 3: Thematic Analyses](#). Dakar: IIEP-UNESCO.

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Raudonyte, I. 2019. [Use of Learning Assessment Data in Education Policy-making](#). Paris: IIEP UNESCO.

UNESCO. 2016. [Mainstreaming SDG4-Education 2030 in Sector-wide Policy and Planning: Technical Guidelines for UNESCO Field Offices](#). Paris: UNESCO.

UNICEF; WHO (World Health Organization). 2018. [Drinking Water, Sanitation and Hygiene in Schools: Global Baseline Report 2018](#). New York, NY: UNICEF and WHO.

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