

# The Education for All Development Index

The EFA Development Index (EDI) is a composite index that provides a snapshot of overall progress of national education systems towards Education for All.<sup>1</sup> Due to data constraints, the index has until now captured only four of the six goals. The development of an ECCE index this year (see Panel 1.2) allows the EDI to be broadened to five goals.<sup>2</sup> The first part of this Annex assesses countries across four dimensions of the EDI. The next part extends the EDI to include the ECCE index and shows how this affects the ranking of countries for which data are available.

The value of the standard EDI for a given country is the arithmetic mean of the four components:

- universal primary education (goal 2), measured by the primary adjusted net enrolment ratio;
- adult literacy (goal 4), measured by the literacy rate for those aged 15 and above;
- gender parity and equality (goal 5), measured by the gender-specific EFA index (GEI), an average of the gender parity indices (GPIs) of the primary and secondary gross enrolment ratios and the adult literacy rate;<sup>3</sup>
- quality of education (goal 6), measured by the survival rate to grade 5; in the absence of comparable indicators on quality, notably on learning outcomes, the survival rate is used as a proxy because of its positive correlation with average international learning assessment scores.

The EDI value falls between 0 and 1, with 1 representing full achievement of EFA across the four goals.

## The EDI in 2010

Out of 205 countries, 120 have the data on all four indicators required to calculate the standard EDI. By

region, the coverage ranges from over 90% in Central and Eastern Europe and North America and Western Europe to less than 40% in East Asia and the Pacific and in South and West Asia. Given that the standard EDI excludes goals 1 and 3, the relatively low coverage means the index provides only a partial global overview of progress towards EFA. In 2010, Japan had the highest EDI score and the Niger the lowest.

Countries are grouped in three categories according to the value of the EDI (Table EDI.1). There are fifty-eight countries in the top category (EDI>0.95). About 60% of the countries in this group are in either Central and Eastern Europe or North America and Western Europe.

In the middle category, there are forty-two countries, mostly in the Arab States (70% of countries in the region included in the EDI) and Latin America and the Caribbean (60% of countries in the region included in the EDI). In many of the countries in this category, progress across its components is unbalanced: half the countries in this group had a score of over 0.95 on the gender equity component but only five reached this score on the adult literacy component.

In the low category (EDI<0.80) there are twenty low and lower middle income countries. Six out of ten countries in this category are in sub-Saharan Africa, as well as two of the three countries in South and West Asia included in the analysis (India and Pakistan). All these countries had a poor record across the EFA goals. However, a few have made great progress towards universal primary enrolment. The primary adjusted net enrolment ratio was as high as 98% in India and Rwanda.

Similar scores may reflect differences in the effort a country is putting into EFA. Colombia and Tunisia, for example, have the same EDI score in the middle category. Tunisia has high primary enrolment and survival rates but a low adult literacy rate. Colombia has a much higher adult literacy rate but a low primary adjusted net enrolment ratio and an especially low survival rate. Tunisia's low adult literacy may reflect in part a historical legacy and not necessarily its current effort, while Colombia's lower scores on indicators associated with primary school age children suggest that it could face lower adult literacy rates in the future.

1. Additional information on the EDI is available on the Report's website.

2. The remaining goal, learning needs of youth and adults (goal 3), is excluded because progress is still not easy to measure and monitor.

3. An additional step is sometimes required to compute the GEI. When expressed as the ratio of female to male enrolment ratio or literacy rate, the GPI can exceed unity when more females than males are enrolled or literate. For the purpose of the GEI, the standard formula (female over male) is inverted (male over female) in cases where the GPI is higher than 1. This ensures that the GEI remains below 1 while maintaining the ability of the GEI to show gender disparity. Once all necessary adjustments are made, the GEI is obtained by calculating a simple average of the three GPIs.

## Changes between 1999 and 2010

For a subset of fifty-two countries, it is possible to observe the evolution of the EDI since the World Education Forum in Dakar (Figure EDI.1). The EDI improved in forty-one of the fifty-two countries between 1999 and 2010. A particularly large increase took place in the twelve sub-Saharan African countries in this group.

Mozambique, which recorded the highest increase in the EDI, achieved improvement across all four of the index's components. It caught up with Angola in terms of education development thanks to a strong government commitment to education. Ethiopia, which recorded the second highest increase in the EDI over the period, made faster progress in terms of the universal primary enrolment component but regressed on survival to grade 5.

Four countries moved from the low EDI category in 1999 to the middle category in 2010 as a result of their commitment to education: Ghana, Guatemala, Lesotho and Malawi. In Ghana and Lesotho, the main driver was an increase in primary enrolment. Nicaragua advanced due to an increase in primary school participation and survival. In Malawi, the increase in the EDI was mainly due to the improvement in survival rate. The country is also reaping the positive results of primary education expansion in the 1990s in the form of higher adult literacy rates.

## Extending the EDI

Expanding the EDI to include ECCE provides insights in comparative progress towards EFA. The extended EDI is the arithmetic mean of five components, the ECCE index being the fifth component.

One effect of extending the EDI is that the absolute value of the index falls, on average, indicating that countries are farther from achieving goal 1. Among the fifty-two countries for which the extended EDI can be calculated, just three have a high score, above 0.95: Belarus, Kazakhstan and Kuwait. This is partly because high income countries are under-represented due to a lack of information on child nutrition. By contrast, thirty-four countries are in the middle group, and fifteen countries are in the low group (Table EDI.1).

Another effect of extending the EDI is that it reveals which countries have put more emphasis on early childhood. Some countries – notably in Central Asia, such as Kyrgyzstan and Uzbekistan, and in East Asia, such as Indonesia and the Philippines – drop in ranking. By contrast, other countries – notably in Central and Eastern Europe, such as Belarus and the Republic of Moldova, and in Latin America and the Caribbean,

such as Jamaica and Mexico – improve their standing considerably when the ECCE index is included.

EFA will not be achieved unless equal attention is paid to all goals. Breaking the intergenerational cycle of educational deprivation requires particular attention to those considered as the most neglected, including ECCE and adult literacy.

**Figure EDI.1: Countries furthest from EFA have progressed, but not enough, since 1999**

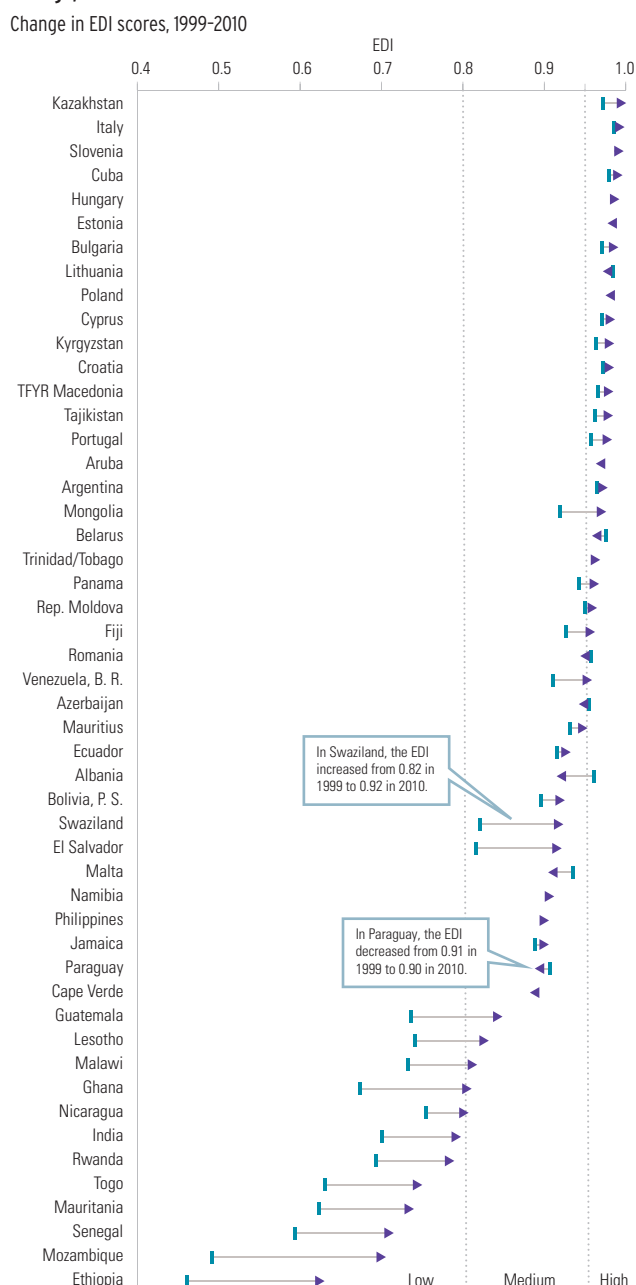


Table EDI.1: The EFA Development Index and its components, 2010

Ranking	Countries	Standard EDI					Extended EDI				
		EDI	Primary adjusted net enrolment	Adult literacy rate	Gender-specific EFA index	Survival rate to grade 5	ECCE index	Extended EDI	EDI ranking (1)	Extended EDI ranking (2)	Difference between (1) and (2)
High EDI > 0.95											
1	Japan <sup>2</sup>	0.997	1.000	0.992	0.999	1.000	...	...	...	...	...
2	Sweden <sup>2</sup>	0.996	0.994	1.000	0.995	0.995	...	...	...	...	...
3	Norway <sup>2</sup>	0.995	0.991	1.000	0.993	0.995	...	...	...	...	...
4	United Kingdom <sup>2</sup>	0.994	0.998	0.998	0.992	0.990	...	...	...	...	...
5	Iceland <sup>2</sup>	0.994	0.994	1.000	0.990	0.990	...	...	...	...	...
6	Switzerland <sup>2</sup>	0.993	0.992	1.000	0.989	0.990	...	...	...	...	...
7	Kazakhstan <sup>2</sup>	0.992	0.997	0.997	0.988	0.988	0.805	0.955	1	2	-1
8	France <sup>2</sup>	0.992	0.992	0.994	0.992	0.990	...	...	...	...	...
9	Netherlands <sup>2</sup>	0.992	1.000	0.985	0.993	0.990	...	...	...	...	...
10	Ireland <sup>2</sup>	0.992	0.997	0.994	0.983	0.993	...	...	...	...	...
11	Italy	0.991	0.991	0.989	0.989	0.996	...	...	...	...	...
12	Slovenia	0.990	0.972	0.997	0.996	0.996	...	...	...	...	...
13	Finland <sup>2</sup>	0.990	0.978	1.000	0.984	0.997	...	...	...	...	...
14	Spain	0.989	0.998	0.977	0.985	0.997	...	...	...	...	...
15	New Zealand <sup>2</sup>	0.989	0.995	0.988	0.983	0.990	...	...	...	...	...
16	Cuba	0.989	0.998	0.998	0.989	0.970	...	...	...	...	...
17	Denmark <sup>2</sup>	0.987	0.960	1.000	0.992	0.997	...	...	...	...	...
18	Australia <sup>2</sup>	0.986	0.972	1.000	0.982	0.990	...	...	...	...	...
19	Belgium <sup>2</sup>	0.986	0.990	0.999	0.989	0.965	...	...	...	...	...
20	Hungary <sup>2,3</sup>	0.985	0.980	0.990	0.990	0.977	...	...	...	...	...
21	Germany <sup>2,3</sup>	0.985	0.998	1.000	0.981	0.962	...	...	...	...	...
22	Estonia	0.984	0.963	0.998	0.989	0.988	...	...	...	...	...
23	Georgia	0.983	1.000	0.997	0.972	0.964	...	...	...	...	...
24	Bulgaria <sup>3</sup>	0.983	0.995	0.984	0.981	0.974	...	...	...	...	...
25	United States <sup>2</sup>	0.982	0.957	0.989	0.993	0.990	...	...	...	...	...
26	Lithuania <sup>3</sup>	0.982	0.957	0.997	0.991	0.983	...	...	...	...	...
27	Poland <sup>2</sup>	0.982	0.960	0.995	0.991	0.980	...	...	...	...	...
28	Cyprus	0.979	0.990	0.983	0.990	0.954	...	...	...	...	...
29	Israel <sup>2</sup>	0.978	0.970	0.971	0.982	0.990	...	...	...	...	...
30	Kyrgyzstan <sup>3</sup>	0.978	0.953	0.992	0.991	0.976	0.728	0.928	2	11	-9
31	Croatia <sup>2</sup>	0.978	0.959	0.988	0.974	0.991	...	...	...	...	...
32	Luxembourg <sup>2</sup>	0.977	0.968	0.990	0.987	0.964	...	...	...	...	...
33	TFYR Macedonia <sup>2</sup>	0.977	0.982	0.973	0.983	0.970	0.809	0.944	3	7	-4
34	Tajikistan <sup>2</sup>	0.976	0.978	0.997	0.943	0.989	0.601	0.901	4	20	-16
35	Russian Federation <sup>2</sup>	0.976	0.957	0.996	0.991	0.961	...	...	...	...	...
36	Latvia	0.976	0.958	0.998	0.990	0.957	...	...	...	...	...
37	Portugal	0.975	0.994	0.952	0.965	0.990	...	...	...	...	...
38	Serbia <sup>2</sup>	0.973	0.945	0.979	0.983	0.986	0.843	0.947	5	5	0
39	Republic of Korea <sup>2</sup>	0.972	0.989	0.935	0.969	0.994	...	...	...	...	...
40	Aruba	0.971	0.997	0.968	0.987	0.930	...	...	...	...	...
41	Uzbekistan <sup>3</sup>	0.970	0.921	0.994	0.985	0.981	0.716	0.920	6	14	-8
42	Samoa	0.970	0.979	0.988	0.950	0.964	...	...	...	...	...
43	Argentina	0.970	0.990	0.978	0.958	0.954	...	...	...	...	...
44	Ukraine <sup>2</sup>	0.969	0.911	0.997	0.989	0.977	...	...	...	...	...
45	Mongolia	0.968	0.991	0.974	0.967	0.941	0.807	0.936	7	9	-2
46	Belarus <sup>2</sup>	0.966	0.920	0.996	0.952	0.997	0.967	0.966	8	1	7
47	Bahamas <sup>2</sup>	0.964	0.978	0.988	0.975	0.914	...	...	...	...	...
48	Mexico	0.962	0.996	0.931	0.963	0.960	0.901	0.950	9	4	5
49	Trinidad and Tobago	0.962	0.974	0.988	0.965	0.921	...	...	...	...	...
50	Kuwait	0.960	0.982	0.939	0.957	0.960	0.914	0.950	10	3	7
51	Panama	0.959	0.987	0.941	0.963	0.946	0.805	0.928	11	10	1
52	Armenia <sup>3</sup>	0.957	0.871	0.996	0.984	0.977	...	...	...	...	...
53	Republic of Moldova <sup>3</sup>	0.957	0.901	0.985	0.988	0.953	0.892	0.944	12	6	6
54	Fiji <sup>2</sup>	0.955	0.991	0.929	0.955	0.943	...	...	...	...	...
55	Qatar	0.954	0.962	0.963	0.937	0.955	...	...	...	...	...
56	Romania <sup>3</sup>	0.953	0.876	0.977	0.989	0.971	...	...	...	...	...
57	Bosnia and Herzegovina <sup>3</sup>	0.953	0.871	0.979	0.975	0.987	0.771	0.917	13	15	-2
58	Venezuela, B. R.	0.951	0.949	0.955	0.960	0.938	0.881	0.937	14	8	6

Notes: Data in blue indicate that gender disparities are at the expense of boys or men.

1. The primary adjusted net enrolment ratio measures the proportion of children of primary school age who are enrolled in either primary or secondary school.

2. Adult literacy rates are unofficial UIS estimates.

3. The survival rate to the last grade was used because the primary education cycle is less than five years.

Source: Annex, Statistical Tables 2, 5, 6 and 7 (print), Statistical Table 5 (website); UIS database; EFA Global Monitoring Report calculations.

Ranking	Countries	Standard EDI					Extended EDI				
		EDI	Primary adjusted net enrolment	Adult literacy rate	Gender-specific EFA index	Survival rate to grade 5	ECCE index	Extended EDI	EDI ranking (1)	Extended EDI ranking (2)	Difference between (1) and (2)
Medium 0.80<EDI<0.94											
59	Azerbaijan <sup>2</sup>	0.949	0.847	0.998	0.989	0.964	0.733	0.906	15	18	-3
60	Montenegro	0.948	0.832	0.984	0.984	0.990	0.849	0.928	16	12	4
61	Mauritius	0.945	0.934	0.885	0.980	0.980	...	...	...	...	...
62	Antigua and Barbuda	0.942	0.878	0.990	0.965	0.935	...	...	...	...	...
63	Peru	0.942	0.981	0.896	0.959	0.932	0.849	0.923	17	13	4
64	Indonesia	0.938	0.991	0.926	0.973	0.861	0.706	0.891	18	24	-6
65	Turkey	0.932	0.975	0.908	0.928	0.918	0.794	0.905	19	19	0
66	Saint Lucia <sup>2</sup>	0.931	0.897	0.901	0.979	0.947	...	...	...	...	...
67	Barbados <sup>2</sup>	0.930	0.951	0.884	0.964	0.922	...	...	...	...	...
68	Suriname	0.929	0.909	0.947	0.918	0.941	0.852	0.913	20	16	4
69	Syrian Arab Republic <sup>3</sup>	0.928	0.991	0.834	0.942	0.946	0.754	0.894	21	23	-2
70	Lebanon	0.927	0.932	0.896	0.928	0.953	...	...	...	...	...
71	Macao, China	0.926	0.826	0.935	0.955	0.989	...	...	...	...	...
72	Ecuador	0.924	0.985	0.919	0.975	0.817	...	...	...	...	...
73	Albania	0.923	0.799	0.959	0.980	0.952	0.803	0.899	22	21	1
74	Bolivia, P. S.	0.917	0.942	0.912	0.963	0.851	0.740	0.881	23	26	-3
75	Swaziland	0.915	0.856	0.874	0.968	0.962	0.689	0.870	24	29	-5
76	Colombia	0.914	0.915	0.934	0.963	0.845	0.835	0.898	25	22	3
77	El Salvador	0.913	0.953	0.845	0.962	0.894	0.769	0.885	26	25	1
78	Saudi Arabia	0.913	0.899	0.866	0.947	0.939	...	...	...	...	...
79	Malta	0.912	0.938	0.924	0.953	0.835	...	...	...	...	...
80	Botswana	0.912	0.873	0.845	0.965	0.966	0.677	0.865	27	32	-5
81	Tunisia	0.910	0.994	0.776	0.909	0.961	...	...	...	...	...
82	Namibia	0.903	0.864	0.888	0.945	0.915	...	...	...	...	...
83	Sao Tome and Principe	0.902	0.986	0.892	0.957	0.773	0.768	0.875	28	27	1
84	Philippines	0.898	0.887	0.954	0.964	0.787	0.678	0.854	29	35	-6
85	Jamaica	0.897	0.824	0.866	0.938	0.961	0.944	0.907	30	17	13
86	Paraguay	0.896	0.857	0.939	0.967	0.823	0.774	0.872	31	28	3
87	Egypt	0.890	0.963	0.720	0.903	0.972	0.724	0.857	32	34	-2
88	Cape Verde	0.889	0.935	0.843	0.883	0.897	...	...	...	...	...
89	Algeria	0.888	0.973	0.726	0.903	0.950	0.794	0.869	33	30	3
90	Honduras	0.884	0.972	0.848	0.938	0.778	0.755	0.858	34	33	1
91	Guyana <sup>2</sup>	0.877	0.841	0.849	0.952	0.867	0.819	0.865	35	31	4
92	Guatemala	0.841	0.986	0.752	0.920	0.706	0.657	0.804	36	36	0
93	Lesotho	0.824	0.737	0.896	0.857	0.804	...	...	...	...	...
94	Morocco	0.813	0.941	0.561	0.811	0.939	...	...	...	...	...
95	Cameroon	0.810	0.939	0.707	0.831	0.763	0.700	0.788	37	39	-2
96	Malawi	0.809	0.975	0.748	0.906	0.609	...	...	...	...	...
97	Ghana	0.803	0.842	0.673	0.913	0.784	0.765	0.795	38	38	0
98	Bhutan	0.803	0.899	0.528	0.854	0.930	...	...	...	...	...
99	Lao PDR	0.802	0.968	0.727	0.843	0.670	0.671	0.776	39	40	-1
100	Cambodia	0.801	0.959	0.739	0.883	0.621	0.654	0.771	40	41	-1
Low EDI <0.80											
101	Nicaragua	0.799	0.939	0.780	0.962	0.514	0.811	0.801	41	37	4
102	India	0.790	0.982	0.628	0.865	0.685	...	...	...	...	...
103	Rwanda	0.781	0.987	0.711	0.956	0.472	0.597	0.744	42	43	-1
104	Uganda	0.771	0.910	0.732	0.872	0.571	0.646	0.746	43	42	1
105	Timor-Leste	0.769	0.859	0.583	0.930	0.705	...	...	...	...	...
106	Togo	0.742	0.943	0.571	0.679	0.777	...	...	...	...	...
107	Mauritania	0.732	0.744	0.580	0.862	0.743	...	...	...	...	...
108	Nigeria	0.721	0.576	0.613	0.830	0.863	...	...	...	...	...
109	Senegal	0.707	0.780	0.497	0.815	0.737	0.673	0.701	44	44	0
110	Mozambique	0.698	0.919	0.561	0.775	0.537	...	...	...	...	...
111	Angola	0.685	0.857	0.701	0.734	0.448	0.685	0.685	45	45	0
112	Gambia	0.677	0.693	0.500	0.866	0.651	0.684	0.679	46	46	0
113	Pakistan	0.656	0.741	0.549	0.720	0.615	...	...	...	...	...
114	Guinea	0.634	0.770	0.410	0.668	0.686	0.573	0.621	47	47	0
115	Eritrea	0.623	0.349	0.678	0.777	0.690	...	...	...	...	...
116	Ethiopia	0.622	0.822	0.390	0.772	0.505	0.531	0.604	48	50	-2
117	Central African Republic	0.617	0.705	0.560	0.639	0.563	0.564	0.606	49	48	1
118	Mali	0.612	0.620	0.311	0.678	0.840	0.575	0.605	50	49	1
119	Burkina Faso	0.594	0.583	0.287	0.754	0.751	0.569	0.589	51	51	0
120	Niger	0.528	0.572	0.287	0.612	0.643	0.508	0.524	52	52	0