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**Sustainable Development Goal 4: Quality Education\***

*Review of SDG 2020-21, Niti Aayog (June 2021)*

By

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**Background**

It has been a practice to compute indices to know the health of the school education system which are also helpful to look into the areas which need intervention. [NIEPA](http://niepa.ac.in/) also computed [Educational Development Index (EDI)](https://educationforallinindia.com/educational-development-index-edi-niepa/) during the period 2005-06 to 2015-16, an index one each for the primary and upper primary level of education based on a set of 24 parameters all of which were based on UDISE. Recently two more indices, namely School Education Quality Index (SEQI) by the [NITI Aayog](https://niti.gov.in/) (the first year 2016-17) and Performance Grading Index (PGI) by the Department of School Education & Literacy, Ministry of Education in consultation with the NITI Aayog were initiated. The objectives of both the SEQI & PGI being almost the same. The objective of SEQI developed by NITI Aayog was to evaluate the performance of States & Union Territories intending to provide them a platform to identify strengths and weaknesses so that necessary course corrections are initiated. The SEQI also strives to facilitate the sharing of knowledge and best practices amongst States & UTs. On the other hand, PGI envisages that the Index would propel States & UTs towards undertaking multi-pronged interventions to pinpoint the gaps and prioritize areas for intervention. Like SEQI, PGI is also expected to act as a good source of information for best practices to share amongst the States & UTs. Both the indices are based on a set of the same domains (see Table 1) but the number of indicators used and weightage assigned are different. [While the review of SEQI](http://educationforallinindia.com/school-education-quality-index-seqi-niti-aayog/) and [Performance Grading Index has already been undertaken separately,](https://educationforallinindia.com/performance-grading-index-2018-19-comments-by-aruncmehta/) the present article undertakes a review of the latest SDG 2020-21 recently released by the NITI Aayog.

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*\*Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.*

First, details of the School Education Quality Index is briefly presented below.

**School Education Quality Index (SEQI)**

While the total number of indicators and sectors which have been used in SEQI is comprehensive but a few of the crucial indicators, like retention rate, the ratio of primary to upper primary and upper primary to secondary schools/sections, and percentage of schools with female teachers, and a few others, such as, average annual drop-out rate at the primary level of education has not been considered which has got significant implications for the country to achieve the goal of universal school education. It may also be of high importance to observe that enrolment in school education in India during 2015-16 and 2016-17 has shown a decline of about 9 million of which 6.8 million (primary, 5.32 million & upper primary, 1.51 million) alone declined in case of elementary level of education i.e. Grades 1 to 8 which has got serious implications for the country to achieve the goal of universal elementary level of education but declining enrollment has not been considered in computing SEQI. It was perhaps for the first time that enrolment at the upper primary level of education (Classes VI to VIII) had also been declined in 2016-17 from its previous level i.e. 2015-16. Individually also, Grade I, V, VI & VII and Grade X, XI & XII all declined in 2016-17 which has got serious implications for enrolment at other higher levels of education to grow in years that follow. At least, the net apparent entry rate which is considered crucial for achieving universal enrolment should have been utilized. Needless to mention that even enrolment in Grade I had also declined to 25.29 million in 2016-17 from its previous level, i.e. 27.17 million in 2015-16.

As many as 30 indicators have been used in computing 2016-17 SEQI which are classified under two categories, namely Outcomes and Governance Processes Aiding Outcomes. Category one Outcome is further divided into four domains, namely Learning, Access, Infrastructure and Equity outcomes which have as many as 16 indicators as against 14 indicators including student and teacher attendance, teacher availability, training, accountability, and transparency all of which are not part of the regular collection of administrative data but provided by the states and is not available in the public domain and not an easy task to examine the validity of such data sets. Limited information has been provided on how such data set as stated by the States & UTs

**Table 1**

**Domain-specific Number of Indicators used in PGI 2018-19 & Weightage Assigned**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Domain** | **Number of Indicators** | **%age Indicators** | **Weightage** | **%age**  **Weightsgae** | **Number of Indicators with Same Values used in 2018-19 of 2017-18** | **Number of Indicators used in SEQI, NITI Aayog** |
| I: Outcomes | 1: Learning Outcomes & Quality | 9 | 13 | 180 | 18 | 08 | 03 (360) |
| 2: Access | 8 | 11 | 80 | 8 | 08 | 03 (100) |
| 3: Infrastructure & Facilities | 11 | 16 | 150 | 15 | 00 | 03 (25) |
| 4: Equity | 16 | 23 | 230 | 23 | 00 | 07 (200) |
| II: Governance & Management | 1.  Governance Processes | 26 | 37 | 360 | 36 | 00 | 14 (280) |
| **Total** |  | **70** | **100** | **1000** | **100** | **16** | **30 (965)** |

*Source: The table prepared is based on PGI 2018-19, DoSE&L, Ministry of Education, Government of India.*

was validated. On the other hand, as many as 10 indicators from NAS 2017-18 have been used as compared to 9 indicators from the U-DISE sources. The rest of the indicators are either obtained from the GoI portal, namely ShaGun, or have been reported by the States & UTs. Depending upon the nature of an indicator, a few indicators have been used for all the schools including Private Aided & Unaided management while a few others have been used only for Government and Government aided schools/management.

**Sustainable Development Goal (SDG)**

SDG India Index 3.0 was recently launched by the NITI Aayog (in June 2021) for all the 16 SDG Goals including Goal 4: Quality of Education which is based on a set of 11 indicators all of which accept one indicator, namely percentage of students in Grade VIII achieving at least a minimum proficiency level is used for the year 2018-19. This brief note presents a few observations about *Goal 4: Quality of Education*. Overall SDG India Index 3.0 is based on a set of 115 indicators across 16 goals of which only 26 indicators are used for the year 2020-21 followed by 31 and 34 indicators respectively for the years 2019-20 and 2018-19, rest all indicators used are of the previous years. SDG India Index 3.0 is however based on the updated values of 55 indicators which need not necessarily be updated for the year 2020-21 for which the current report is presented. A cursorily one gets the impression that even after so many years of Millennium Development Goals (MDG) and now after the SDG, the information system is not in a position to provide adequate data on all the indicators in a year for which an index is being computed. Maybe the efforts being made towards strengthening the information system are yet to be reflected in the availability of data. For example, efforts are being made in school education in India through the UDISE+ but the time lag in the availability of data in the case of school education has recently increased to more than 2 years from earlier less than a year.

**Table 2**

**List of Quality Education Indicators used in SDG Index 2020-21**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl. No.** | **Indicator** | **Source** | **Year** | **Present Value** | **Targeted Value & Justification** | |
| 1 | Adjusted Net Enrolment Ratio (ANER) in elementary education (class 1-8) | UDISE+ | 2018-19 | 87.26 | 100 | This target corresponds to the global SDG target 4.1 which aims to ensure that all girls and boys complete free, equitable, & quality primary and secondary education. |
| 2 | Gross Enrolment Ratio (GER) in higher secondary (class 11-12) | UDISE+ | 2018-19 | 50.14 | 100 | National Education Policy, 2020 aims to ensure that all students have universal, free and compulsory access to high-quality and equitable schooling from early childhood care and education (age 3 onwards) through higher secondary education (i.e., until class 12). |
| 3 | Gross Enrolment Ratio (GER) in higher education (18-23 years) | All India Survey of Higher Education | 2018-19 | 26.3 | 50 | National Education Policy, 2020 aims for GER in higher education to reach 50 percent by 2035. |
| 4 | The average annual dropout rate at the secondary level (class 9-10) | UIDSE+ | 2018-19 | 17.87 | 8.8 | This target corresponds to the global SDG target 4.1 which aims to ensure that all girls and boys complete free, equitable, & quality primary and secondary education. The National Education Policy, 2020 also aims to achieve a 100 percent Gross Enrolment Ratio at school education by 2030. |
| 5 | Percentage of students in Grade VIII achieving at least a minimum proficiency level in terms of nationally defined learning outcomes to be attained by the pupils at the end of the grade | Department of School Education & Literacy [Sourced from the NIF Progress Report 2020 V2.1, MoSPI/NAS, NCERT | 2017-18 | 71.9 | 100 | This target corresponds to the global SDG target 4.1 which aims to ensure that all girls and boys complete free, equitable, & quality primary and secondary education with relevant and effective learning outcomes |
| 6 | Percentage of persons with disability who have completed at least secondary education (15 years and above) | Ministry of Statistics and Programme Implementation [National Sample Survey - Report No. 583: Persons with Disabilities in India] | July to December 2018 | 19.3 | 100 | This target corresponds to global SDG target 4.5 which aims to ensure equal access to all levels of education for the vulnerable, including persons with disabilities by 2030. |
| 7 | Gender Parity Index (GPI) for higher education (18-23 years) | AISHE | 2018-19 | 1 | 1 | This target is aligned with the global SDG target 4.5 which aims to eliminate gender disparities in education. |
| 8 | Percentage of literate persons (15 years and above) | Periodic Labour Force Survey 2018-19 | 2018-19 | 74.6 | 100 | This target is aligned with the global SDG target 4.6 that aims to ensure that all youth and a substantial proportion of adults, both men, and women, achieve literacy and numeracy, by 2030. |
| 9 | Percentage of schools with access to basic infrastructure (electricity, drinking water) | Ministry of Education | 2018-19 | 84.76 | 100 | National Education Policy 2020 aims to provide effective and sufficient infrastructure so that all students have access to safe and engaging school education at all levels from pre-primary school to Grade 12. It aims to take special care to ensure that no school remains deficient in infrastructure support. |
| 10 | Percentage of trained teachers at the secondary level (class 9-10) | Ministry of Education | 2018-19 | 82.62 | 100 | This target is aligned with global SDG target 4.c which aims to substantially increase the supply of qualified teachers. |
| 11 | Pupil-Teacher Ratio (PTR) at the secondary level (class 9-10) | UDISE+ & Ministry of Education | 2018-19 | 21 | 30 | The National Education Policy 2020 proposes to ensure a pupil-teacher ratio (PTR) of under 30:1 at each level of school education |

*Source: SDG 2020-21, NITI Aayog.*

A glance at the five top and bottom states (Table 3) across SEQI, PGI, and SDG indices suggested that different states appeared in these groups but a few states are common to all the three indices which is true for both the five top and bottom states. So far as the SEQI 2016-17 is concerned Kerala, Tamil Nadu, Haryana, Gujarat, and Himachal Pradesh appeared in the top five amongst large states. On the other hand, Tripura, Goa, Manipur, and Mizoram are the states which had found in top amongst the small States/UTs. On the other hand, only Kerala and Tamil Nadu who were the top within the five states are also listed within the top five so far as PGI 2019-20 is concerned. So far as the SDG 2020-21 is concerned, only Kerala found a place in the top five states but Chandigarh also appeared in the list of five top SDG 2020-21 states which is also true for PGI 2019-20. Himachal Pradesh also appeared in the top five in the case of both SEQI 2016-17 and SDG 2020-21. Overall, Kerala is the only state which found a place in top five states across all the three index type followed by Tamil Nadu and Himachal Pradesh each were amongst the top in case of only two of the three indices. So far as the SDG 2020-21 is concerned, only Kerala and Himachal Pradesh could appear in the top five. Within the small States & UTs, it is Chandigarh which appeared in two indices including SDG 2020-21. Like the top five states, Bihar and Arunachal Pradesh are the only states which have got a place in the bottom five across three indices. Madhya Pradesh and Assam also appeared in two indices out of three analyzed in the present note.

**Table 3**

**Five Top & Bottom States Distributed by Index**

|  |  |  |
| --- | --- | --- |
| **Index** | **Top Five States/UTs** | **Bottom States/UTs** |
| SEQI 2016-17 | **Large States**  Kerala  TN  Haryana  Gujarat  HP  **Small States/UTs**  Tripura  Goa  Manipur  Mizoram | **Large States**  Jammu & Kashmir  UP  Telangana  Bihar  Jharkhand  **Small States/UTs**  Sikkim  Meghalaya  Nagaland  Arunachal Pradesh |
| PGI 2019-20 | Andaman & Nicobar Islands Chandigarh  Kerala  Punjab  Tamil Nadu  (Level 2) | Assam  Bihar  Madhya Pradesh  Mizoram  Arunachal Pradesh  Chhattisgarh  Nagaland  Meghalaya  Ladakh (LEVEL 6 to 10) |
| SDG 2020-21  (All States & UTs together) | |  | | --- | | Kerala | | Chandigarh | | Delhi | | Himachal Pradesh | | Goa | | Uttarakhand | | |  | | --- | | Madhya Pradesh | | Odisha | | Assam | | Tripura | | Arunachal Pradesh | | Nagaland | | Bihar | |

*Source: Grouped as per SDG, PGI & SEQI of the corresponding year.*

Irrespective of indices or a set of indicators used in computing an index, Kerala appeared to be on top of the major states, to some extent the other such states are Tamil Nadu (except SDG 2020-21), Himachal Pradesh, and Chandigarh (except SEQI 2016-17). So far as the bottom five states are concerned as mentioned above Bihar and Arunachal Pradesh appeared in all the three indices followed by Madhya Pradesh (except SEQI) and Assam (except SEQI). Thus, a detailed analysis of these states concerning SDG 2020-21 about all the 11 indicators used in the computation is undertaken to know what these states have attained and what is the quantum of the unfinished task.

**SDG 4.1 & 4.3: Enrolment Ratio**

The first set of four indicators that we discussed below fall under SDG 4.1, 4.3 & 4.5 all of which related to enrolment at school and higher education level which is presented in Table 4 along with the indicator values of top and bottom states, indicator values at the all-India level, their targeted value and year by which targets are to be realized.

The first indicator we discuss below is adjusted-NER at the elementary level of education which at present at the all-India level in 2018-19 is 87.26 percent. An adjusted-NER of 87.26 percent suggests that a little over 87 percent are enrolled either in Grades I to VIII or also in the higher grades. The balance of about 13 percent of children of age group 6 to 13 years are not enrolled a few of them may either be dropped out, never enrolled or a few of them are enrolled in one level up than the elementary level of education. A glance at the state-specific adjusted-NER reveals that none of the states even if they appear in the top five are perfect and still need improvement. The targeted adjusted-NER is 100 percent which is as described in the NEP 2020 by 2030 but SDG 2020-21 has failed to fix the annual target so on what basis & in what reference a particular indicator, its progress will be monitored. The targets at the national level show national commitment towards SDG and its indicators but in the absence of a state-specific target how it is achieved is an important question that needs to be answered even though in the *Samagra Shiksha* guidelines, there is the provision of result framework under which annual targets have been fixed but there is no provision for district-specific targets even though district annual plans are being formulated and appraised by the Project Approval Board annually. It is also quite possible

**Table 4**

**Gross Enrolment Ratio: 2018-19**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Category** | **State/UT** | **Adjusted Net Enrolment Ratio at Elementary Level (Grades 1-8)** | **GER at**  **Higher**  **Secondary**  **Level**  **(Grades 11-12)** | **GER at**  **Higher**  **Education**  **Level:**  **18-23 years** | **Gender Parity Index**  **in Enrolment**  **at**  **Higher Education**  **Level:**  **18-23 years**  **x (years)** |
| **SDG Indicator** |  | **4.1** | **4.1** | **4.3** | **4.5** |
| **TOP States/UTs** | Kerala | 92.07 | 80.26 | 37.0 | 1.40 |
| Himachal Pradesh | 97.82 | 81.79 | 39.6 | 1.30 |
| Tamil Nadu | 85.49 | 72.32 | 49.0 | 0.97 |
| Chandigarh | 85.78 | 83.43 | 50.6 | 1.54 |
| **BOTTOM States/UTs** | Arunachal Pradesh | 80.98 | 38.48 | 29.7 | 0.99 |
| Bihar | 86.54 | 26.39 | 13.6 | 0.79 |
| Jammu & Kashmir | 67.88 | 42.31 | 30.9 | 1.09 |
| Madhya Pradesh | 81.19 | 43.73 | 21.5 | 0.97 |
| Assam | 96.36 | 30.94 | 18.7 | 0.95 |
|  | **All India** | **87.26** | **50.14** | **26.3** | **1** |
|  | **Target** | **100** | **100** | **50.0** | **1** |
|  | **Target Year/Annual Target** | Not Mentioned | Not  Mentioned | **2035** | Not  Mentioned |

*Source: Grouped as per SDG: 2020-21, NITI Aayog, Government of India (June 2021).*

that a state that found a place in the bottom states has a better indicator value than a state that has placed in the top five. One such state is Assam, which is reported to have an adjusted-NER of 96.36 percent much better than even Kerala which is on top of the states. It is good that target on adjusted-NER at the elementary level of education is set out but that itself is not sufficient to achieve unless a similar target is set for the primary level of education in general and entry rate, in particular, to ensure that all children aged-6 are enrolled and entered the system through Grade I unless that happens one cannot even dream of having achieved a 100 percent adjusted-NER. Instead of an apparent entry rate, better to have a target on net entry rate (meaning how many aged-6 children are enrolled in Grade I) separately for boys and girls and also for the Scheduled Castes, Scheduled Tribes & Other Backward Class children preferably first at the block and subsequently at the district and state levels.

The independent target of adjusted-NER has little or no meaning and may not be realized in isolation of entry rate which has become more important because of the recent decline in enrolment at school education in general and Grade I and primary level of education in particular. Further, a glance at adjusted-NER reveals that except Himachal Pradesh (97.82 percent), none of the other top placed states are in a position to attain a 100 percent which present is as described above is 87.26 percent at the all-India level. Needless to mention that unless all the States & UTs attain 100 percent adjusted-NER, India may not afford to move towards universal enrolment at the elementary level of education. For example, in Bihar, about 13 percent of children of age 6+ to 13+ are yet to be enrolled in the corresponding elementary grades, i.e. Grades I to VIII as against the same in Madhya Pradesh and Arunachal Pradesh which still have a high percentage of about 19 percent such children of this age group. Both Tamil Nadu and Chandigarh are also placed in the top five states but 14 percent of children of age 6+ to 13+ are still not enrolled in the corresponding grades.

Apart from the adjusted-NER, Table 5 presents a variety of enrolment ratios which are based on UDISE at different levels of education at the all-India level which reveals that despite significant improvement in all spheres of school education in India, the goal of universal school education is still a far distant dream which is not likely to be realized shortly. Enrolment decline during 2018-19 over the previous 2017-18 was in the tune of 2.63 million (Grade I declined by 0.34 million, 1.3 percent) will further deteriorate efforts being made towards achieving the goal of school education in general and universal primary education in particular.

The other SDG indicator we discuss below is Gross Enrolment Ratio at Higher Secondary level which is reported to be 50.14 percent at the all-India level in 2018-19. All the four top states have GER higher than at the all-India level and the five bottom states have lower values than at the all-India level. Even the top-notch state, namely Kerala has only 80 percent GER at the higher secondary level as against, 83.43 percent in the case of Chandigarh. It may be recalled that it is gross enrolment ratio and not adjusted-NER considered in case of elementary level of education all which suggest that India has still miles to go to attain a GER of 100 percent in 2030. Amongst the bottom states, the lowest GER at this level of education is observed in one of the most populous states of the country, namely Bihar which reported to be having a GER as low as 26.39 percent as against 30.94 percent in the case of Assam. It may be reminded that Bihar and Arunachal Pradesh are the only two states which were placed at the

**Table 5**

**Enrolment Ratio: All India Level: 2017-18 & 2018-19**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Education**  **Level** | **Type of Enrolment Ratio** | | | | | | | |
| **GER** | | **NER** | | **ASER** | | **Adjusted-NER** | |
| **2017-18** | **2018-19** | **2017-18** | **2018-19** | **2017-18** | **2018-19** | **2017-18** | **2018-19** |
| Primary | 102.79 | 92.56 | 90.05 | 89.14 | 95.57 | 94.26 | 95.56 | 93.60 |
| Upper primary | 88.27 | 89.98 | 70.52 | 68.99 | 88.23 | 88.55 | 80.20 | 76.97 |
| Elementary | 97.22 | 91.64 | 89.02 | 81.46 | 92.75 | 92.08 | 92.73 | 87.26 |
| Secondary | 76.47 | 79.55 | 50.23 | 48.60 | 73.61 | 72.14 | 61.61 | 55.64 |
| Higher Secondary | 48.13 | 58.56 | 27.77 | 30.78 | 39.32 | 44.64 | - | 30.78 |

*Source: UDISE 2017-18 (NIEPA, New Delhi) & UDISE+ 2018-19 (Department of School Education*

*& Literacy, Ministry of Education, Government of India).*

bottom in the case of all the three indices, namely SEQI, PGI, and SDG. Low GER across the country further reiterated that to attain 100 percent GER at school education, more efforts in terms of disaggregated targets at the lower levels of education as well as meticulous planning is required to ensure that all aged-6 children enter into the system through Grade I at the appropriate age without ensuring which neither the goal of universal primary not elementary and secondary level of education is expected to realized shortly. NER at the secondary and higher secondary level of education further indicates that more than 50 and 70 percent of children in 2018-19 were yet to be enrolled in the corresponding grades.

The next indicator used in SDG 4 is GER at the higher education level which is reported to be 26.3 percent at the all-India level which as per AISHE 2019-20 has further increased to 27.1 percent as against a targeted 50 percent in the year 2035. The entire top-placed states as per SDG 2020-21 has much higher GER at the higher education level compared to 26.3 percent at the all-India level but the same is not true for the bottom-placed states except in the case of Jammu & Kashmir (30.9 percent) and Arunachal Pradesh (29.7 percent). The highest, 50.6 percent is observed in the case of Chandigarh UT followed by Tamil Nadu (49.0 percent) and Himachal Pradesh (39.6 percent). Even Kerala having on top of all indices has a low GER of 37 percent. On the other hand, GER at the higher education level in Bihar is reported to be as low as 13.6 percent compared to 21.5 percent in Madhya Pradesh and 18.7 percent in Assam all of which suggest a way to go to attain a 50 percent GER at higher education level in 2035.

The next indicator we discuss with the present set of SDG indicators is the gender parity index in enrolment at higher education level which indicates that the same concerning the targeted value of one is satisfactory which is also indicated in percent share of women enrolment at higher education level but the same in case of Bihar is as low as 0.79 which is the lowest amongst top and bottom states covered in the present note. Only such targets at lower levels of education will ensure that higher education level gets an adequate number of women higher secondary graduates to move towards a GPI of one.

The moot question is whether higher education grows independently? Can higher education enrolment grow independent to the lower level i.e. higher secondary level which is expected to send graduates to it? Certainly not. Higher education enrolment will grow in the line of enrolment at the immediate lower level, i.e. higher secondary level which is supposed to supply a continuous flow of higher secondary graduates to the higher education level. This means that the population of age 18 to 23 years, all cannot be admitted to the higher education system simply because of the reason that they are not eligible. Higher education level can only accommodate higher secondary graduates. In the light of these observations, there is a need to redefine the Gross Enrolment Ratio at the higher education level to get a better picture of the participation of the relevant age population in higher education programmes. Therefore, instead of a total 18 to 23 years population, the number of higher secondary graduates may be considered in computing ratio which can be termed as Effective Enrolment Ratio at the higher education level.

**SDG 4.1 & 4a, 4b & 4c: Dropout Rate, Basic Infrastructure & Teacher Indicators**

The next of four of the total 11 indicators used in SDG 2020-21 is presented in Table 6 which includes the average annual dropout rate at secondary level and percentage of school with basic infrastructure i.e. electricity and drinking water facility in the school. The remaining two indicators related to teachers are the percentage of trained teachers and PTR at the secondary level of education. It is not known why the average annual dropout rate at the primary/elementary level is not used in SDG without checking which secondary level is not expected to receive an adequate number of elementary graduates. Average of three best performing states i.e. 8.8 percent is considered targeted dropout rate at secondary level but no annual target is set out for the same. An average annual dropout rate of 8.8 percent may be considered high and which, even

**Table 6**

**Dropout Rate, Basic Infrastructure & Teacher Indicators: 2018-19**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Category** | **State/UT** | **Average**  **Annual**  **Dropout**  **Rate: Secondary**  **Level, Grades 9-10** | **%age of**  **Schools with Access to Basic Infrastructure**  **: Electricity &**  **Drinking**  **Water** | **%age**  **of**  **Trained Teachers at Secondary Level**  **(Grades 9-10)** | **Pupil-Teacher**  **Ratio at**  **Secondary**  **Level**  **(Grades 9-10)** |
| **SDG Indicator** |  | **4.1** | **4a** | **4c** | **4c** |
| **TOP States/UTs** | Kerala | 9.14 | 99.24 | 94.53 | 16 |
| Himachal Pradesh | 7.81 | 97.59 | 79.55 | 9 |
| Tamil Nadu | 13.02 | 96.08 | 93.31 | 18 |
| Chandigarh | 4.52 | 100.00 | 89.49 | 12 |
| **BOTTOM States/UTs** | Arunachal Pradesh | 35.98 | 50.94 | 79.04 | 14 |
| Bihar | 28.46 | 88.66 | 78.44 | 58 |
| Jammu and Kashmir | 17.81 | 80.14 | 80.09 | 12 |
| Madhya Pradesh | 24.85 | 75.34 | 81.19 | 36 |
| Assam | 31.47 | 59.51 | 29.29 | 11 |
|  | **All India** | **17.87** | **84.76** | **82.62** | **21** |
|  | **Target** | **8.8** | **100** | **100** | **30** |
|  | **Target Year/Annual Target** | **No annual target but mentioned 2030 as a part of NEP 2020** | **No annual target but referred NEP 2020** | **No annual target** | **No annual**  **target,**  **referred**  **NPE 2020** |

*Source: Grouped as per SDG: 2020-21, NITI Aayog, Government of India (June 2021).*

if achieved will help India to attain 100 GER at school education in 2030, is the moot question?. It may be observed that in addition to the dropout rate at this level of education, lower levels, especially primary level also have a high incidence of dropout which if not checked, the goal of 30 percent GER will be difficult to achieve. For states having a high dropout rate, a target of 8.8 percent annual dropout rate may be considered challenging, maybe separate state-specific targets based on enrolment projections techniques be set out. Rather the whole exercise is initiated at least at the district level, if not block-level based on which in turn state targets should be fixed. SDG baseline indicators, if presented would help in accessing progress concerning a specific indicator and its progress over time. If required, a mid-term course correction of the target set must also be undertaken.

Table 7 reveals that the drop-out rate at the primary level, irrespective of the social category has shown an increase for the 2017-18 cohort from its previous level. Of the total enrolment (123.81 million) in Grades I to V in 2016-17, 3.51 percent dropped out from the system before the completion of a grade as against 4.45 percent during the year 2017-18. It may be recalled that the size of enrolment in primary grades in 2017-18 was in the tune of 122.38 million in 2017-18. A 4.45 percent drop out at all-India level is termed as average annual drop out rate which over the primary cycle of five years come to around 17.8 percent which means that of the total enrolment in Grades I to V, roughly about 18 percent dropped out from the system before the completion of the primary level.

So far as the average annual dropout rate at secondary level within the top placed states are considered, the lowest 4.52 percent is observed in the case of Chandigarh and the highest, 13.02 percent in case of Tamil Nadu which may still be considered low, if the same is compared with the bottom-ranked states. It is better to have ambitious targets but still not well if the same is not achievable. How with the present 35.98 percent annual dropout rate in the case of Arunachal Pradesh is brought to 8.8 which is also not likely to be attained in the case of Assam with a 31.47 percent dropout rate at this level of education. Another major state within the bottom list is Bihar which had an average annual dropout rate of 28.46 percent which means that at least 56.92 percent of students used to drop out without completion of secondary level of education. At the all-India level, the annual dropout rate at the secondary level is 17.87 percent.

The next indicator used in SDG we discuss is the percentage of schools with access to basic infrastructure for which electricity and drinking water facility in school has been considered target value of which is 100 percent as against the existing 84.76 percent in 2018-19. However, it is not mentioned how the combined indicator is arrived at and why two separate indicators, one each for electricity and drinking water have not been considered. All the top placed states, such as Kerala, Chandigarh (100 percent), Tamil Nadu, and Himachal Pradesh are very close to achieving the targeted 100 percent but the same is not true for bottom place states i.e. Arunachal Pradesh, Bihar, Jammu & Kashmir, Madhya Pradesh, and Assam. A little lower than 50 percent of the total schools in Arunachal Pradesh still do not have access to basic facilities in the school. It is also not known out of 84.76 percent of schools how many schools have got access to tap

**Table 7**

**Dropout Rate at Different Levels of School Education, 2018-19**

**All-India**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Social Category** | **Primary Level, 2018-19** | | | **2017-18** |
| **Girls** | **Boys** | **Overall** |
| General | 3.62 | 3.61 | 3.62 | 1.92 |
| Scheduled Castes | 4.90 | 5.41 | 5.16 | 4.86 |
| Scheduled Tribes | 5.23 | 5.71 | 5.48 | 3.65 |
| Other Backward Class | 4.18 | 4.55 | 4.37 | 3.76 |
| Overall | 4.30 | 4.60 | 4.45 | 3.51 |
| **Social Category** | **Upper Primary Level, 2018-19** | | | **2017-18** |
| **Girls** | **Boys** | **Overall** |
| General | 2.78 | 2.27 | 2.51 | 2.87 |
| Scheduled Castes | 6.48 | 5.62 | 6.04 | 6.69 |
| Scheduled Tribes | 6.46 | 6.89 | 6.69 | 6.06 |
| Other Backward Class | 5.60 | 4.22 | 4.89 | 5.35 |
| Overall | 5.14 | 4.26 | 4.68 | 5.02 |
| **Social Category** | **Secondary Level, 2018-19** | | | **2017-18** |
| **Girls** | **Boys** | **Overall** |
| General | 13.02 | 13.37 | 13.2 | 14.95 |
| Scheduled Castes | 18.95 | 21.3 | 20.18 | 21.79 |
| Scheduled Tribes | 23.25 | 26.26 | 24.8 | 22.27 |
| Other Backward Class | 17.34 | 19.22 | 18.34 | 19.58 |
| Overall | 17.01 | 18.64 | 17.87 | 18.96 |

Source: Downloaded from the U-DISE+ portal.

water? just having access to drinking water will not serve the purpose unless the source of water is considered which in most cases is either a hand pump or well.

The last two SDG indicators we discuss are the percentage of trained teachers and the pupil-teacher ratio at the secondary level whose present value in 2018-19 is 82.62 percent and 21 students per secondary teachers respectively which are perhaps the most important indicators towards attaining quality school education in general and secondary education in particular. Irrespective of whether a state is placed either in the top or bottom list, the percentage of trained teachers barring Assam is above 78 percent but the same in Assam is as low as 29.29 percent against an all-India value of 82.62 percent. It is not only Assam that has a majority of untrained teachers but most of the other states from the north-eastern region too have this percentage low which is also true for other levels of school education. Despite the high percentage of trained teachers, still, the absolute number of untrained teachers across India is large in number given the total number of teachers which is to the tune of 9.4 million. It is not mentioned whether untrained teachers lack academic or professional qualifications? Because of a large number of untrained teachers, district, as well as state plans which are being formulated annually, must set annual targets which must be attained in a time-bound manner. Apart from untrained teachers at the secondary level, there are untrained teachers also at the lower levels of school education in addition to which percentage of contractual teachers across the country are also on the rise.

The last indicator used in SDG 2020-21 is the pupil-teacher ratio at the secondary level which at present at the all-India level is 1:21which is targeted to be brought to 1:30; however NEP 2020 envisages a PTR of 1:30 irrespective of a level of education. 1:21 PTR at the secondary level at the all-India level doesn’t mean that all the States & UTs are comfortable concerning PTR which is reflected in PTR of Bihar (1: 58) and Madhya Pradesh (1: 36) and a host of other such states at this level of education. However, the same in most of the other top or bottom-placed states are comfortable. Another important question users would like to be enlightened on is whether the targeted PTR of 1:30 is based on enrolment and teacher projections? if yes, at what level these projections are undertaken, and its methodological details.

**SDG 4.1. 4.5 & 4.6: Literacy Status, Education of Disabled Persons & Proficiency Level in Grade VIII**

The last three of the total eleven indicators used in SDG 2020-21 we discussed below is proficiency level of students concerning learning outcomes, persons with disability completed secondary education and percentage of people who are literate none of which is available on regular basis from the official administrative sources such as UDISE-plus because of which year of each indicator used is different. So far as the percentage of students in Grade VIII achieving at least a minimum proficiency level (in terms of nationally defined learning outcomes) is concerned is used for the year 2017-18; the only source of which is the National Achievement Survey (NAS) conducted by the NCERT on 13th November 2017 which is used for government and aided schools but in SDG, it is not mentioned that the indicator is used only for government & aided schools. It may also be observed that indicators concerning learning outcomes used in SEQI, PGI 2017-18, 2018-19 & 2019-20 and SDG 2020-21 all are based on the same previously used indicators generated through the NAS 2017-18.

A glance at the percentage of students in Grade VIII achieving at least a minimum proficiency level attained reveals that the same is above the all-India level (71.9 percent) in the case of two of the five bottom place states, namely Bihar (78.3 percent) and Assam (79.6 percent). On the other hand, one of the top placed states, namely Tamil Nadu with this percentage (71.3 percent) lower than at the all-India level (Table 8). All the states, both the top and the bottom-placed states have a much lower percentage of students in Grade VIII achieving at least a minimum proficiency level. Further, the gap between the proficiency level of two of the top-notch states, namely Kerala (86.8 percent) and Chandigarh (81.6 percent) is much higher than the two of the bottom-placed states, namely Arunachal Pradesh (60.0 percent) & Jammu & Kashmir (59.8 percent) but the still the same is much lower than the targeted 100 percent. Because of the pandemic, the next round of delayed NAS is now expected to take place in October/November 2021. Can we expect all schools including the private unaided schools to be included in the forthcoming round?

The last two indicators we discuss below are the percentage of persons with disability (15 years & above) who have completed secondary education and the percentage of persons (15 years & above) who are literate both of which as mentioned above are not available from the regular sources. The target of both of these indicators is a hundred which is to be attained by 2030. Given the present value at the all-India level (19.3 percent), it seems difficult to attain 100 percent disabled persons to complete the secondary level, especially when the same in case of most of the top and bottom-placed states have low to very low values. Even, in one of the top-notched states, namely Tamil Nadu, only 19.1 percent of the disabled persons have had completed secondary education in 2018 as against only 24.3 percent such persons in Kerala and

**Table 8**

**Dropout Rate, Basic Infrastructure & Teacher Indicators**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Category** | **State/UT** | **%age of Students in Grade VIII Achieving at least a Minimum Proficiency Level, 2017-18** | **%age of Persons with Disability (15 years & above) who have Completed Secondary Education: July-December 2018** | **%age of Persons (15 Years & above) who are Literate, 2018-19** |
| **SDG Indicator** |  | **4.1** | **4.5** | **4.6** |
| **TOP States/UTs** | Kerala | 86.8 | 24.3 | 94.60 |
| Himachal Pradesh | 72.8 | 25.6 | 84.20 |
| Tamil Nadu | 71.3 | 19.1 | 80.70 |
| Chandigarh | 81.6 | 37.4 | 89.10 |
| **BOTTOM States/UTs** | Arunachal Pradesh | 60.0 | 10.3 | 79.90 |
| Bihar | 78.3 | 18.5 | 64.70 |
| Jammu & Kashmir | 59.8 | 19.7 | 76.40 |
| Madhya Pradesh | 70.5 | 17.2 | 70.50 |
| Assam | 79.6 | 16.8 | 84.90 |
|  | **All India** | **71.9** | **19.3** | **74.6** |
|  | **Target** | **100** | **100** | **100** |
|  | **Target Year/Annual Target** | Not mentioned | 2030 | 2030 |

*Source: Grouped as per SDG: 2020-21, NITI Aayog, Government of India (June 2021).*

25.6 percent in Himachal Pradesh. The bottom-placed states have even much lower percentages; to mention a few Arunachal Pradesh (10.3 percent), Bihar (18.5 percent), Assam (16.8 percent), and Jammu & Kashmir (19.7 percent) are a few such states. It may also be quite possible that a few of the 15+ years person are still pursuing lower levels, such as primary & elementary levels in addition to which a few of them may never been to schools or a few are dropped out from the system before the completion. The average annual dropout rate as presented above at the secondary level is very high (17.87 percent). It is required to check the dropout rate not only of the disabled population but need to ensure that whosoever enter into the system irrespective of the level must continue and transit from one level of education to another without which the goal of 100 percent enrolment ratio in 2030 as envisaged in NEP 2020 may not be realized. Further, it is observed that all the top and bottom places states, except Bihar (64.70 percent) have a higher percentage of 15+ year population who were termed literate than at the all-India level (74.6 percent). The same in Kerala is as high as 94.60 percent compared to 89.10 percent in Chandigarh UT which with a little push can move towards attaining a 100 percent literacy rate but the same is not true for the rest of the states. Perhaps more emphasis on adult literacy programmes like in the 1990s is required to meet the challenges on the literacy front.

**Concluding Observations**

While analyzing 11 indicators used in SDG 2020-21 computation one gets the impression that the goal of 100 percent GER at school education level in 2030 is not the right insight. Concerning a few indicators, the improvement is quite satisfactory but the same is not true for the bottom-placed states which are also true for a few of the top-notched states. It may be recalled that details of how targets have been arrived at are not made available, in addition to which in most of the cases no annual targets have been set out in the absence of which it is not possible to monitor the progress over time which, if available may help in making the mid-course corrections. The targets fixed show the national commitment to attain SDG and the same must also be reflected in the school education plans being developed annually. A cursorily look at the state's plans indicates that targets are generally missing and if available, disaggregated target setting with the district as a unit of planning are not set out. It may be recalled that block-level was supposed to be in the focus when *Sarva Shiksha Abhiyan* was launched but largely plans were never been formulated based on the outcome of block & school development plans as envisaged in SSA. In the later years of SSA, district plans were even formulated at the state level based on the EXCEL tables provided by the national level. Unless the district officers engaged in planning are thoroughly oriented and disaggregated targets are set out, the desired results are not expected to be reflected in India's efforts towards SDG. It has also been observed that the district and block level officers engaged in district plan formulation are generally not aware of the SDG goals in general and SDG 4 indicators in particular which were also true for Millennium Development & Education for All goals. Right now, for all indicators of SDG 2020-21, only one target is set out which applies to all the 38 States & UTs. How can there be one target for the entire country? Targets in each state must be based on a thorough diagnosis of the existing status of school education.

Another point that has been observed during the analyses of SDG 2020-21 is that none of the indicators used relates to the year 2020-21 as mostly they are of the year 2018-19. So far as the outcome indicator is concerned it is as old as of 2017. It is curious to know how inputs based on SDG 2020-21 (based on 2018-19 data) will be used in formulating annual work plan for the year 2021-22 currently under preparation, especially when more recent data is available i.e. 2019-20. A devise mechanism is required to be developed to ensure that SDG uses the current year’s data while computing SDG 2021-22.

It has also been observed that SDG uses few indicators for all schools; on the other hand, it uses only the government & aided schools in case of other indicators. It has been observed that the learning outcomes of 2017 have been in use irrespective of indices (SEQI, PGI & SDG) & the year for which the same is computed. There is no point in repetitive using the previously used indicators because of which it is envisaged that the next round of NAS will soon be commissioned and SDG will use learning outcomes of all schools including private unaided schools in its future computation. The outcome of SDG must be shared with the states and in turn with the district teams engaged in plan formulation and let there be a scop of its mid-year review.