

## **Education for Sustainable Development (ESD) Gaps between Goals & Adaptability in the Indian School & Pre-University Education**

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### **Abstract**

The dictum “knowledge is power and education empowers” has its relevance world-over since time immemorial, as education is the mother of all disciplines. Education has multiple roles to play in the process of Sustainable Development by way of up-keeping the so called developments; irrespective of the kinds, structures and functions, sustainable. This conceptual study aims to identify and analyse various initiatives formulated and carried-out by the Agencies of Governments at various levels - international, regional, national and local - from time-to-time. All these initiatives have stressed the need of ‘Quality Education for Sustainable Development’ by implementing the suggestions, recommendations and insights put forwarded by various Committees and Commissions from time-to-time. The objectives of the agenda in the latest global advocacy month held jointly by the UNESCO & UNICEF in India, as part of the Global Education First Initiative (GEFI); to promote education for all, launched by the UN Secretary General under the slogan “Sustainable Development Begins with Education” in 2012 is one among various milestones of such initiatives. The Right to Education Act (RTE) enacted by the Parliament of India on 4<sup>th</sup> Aug 2009 is also one of the feathers on the cap of the aspirations of our constitution. This paper aims to cite the gaps between Sustainable Development Goals by way of analysing different ways education can influence the new Seventeen (17) different global goals and the actual adaptation in the context of Indian School Education. Education for Sustainable Development requires far-reaching changes in the way education is often provided with, facilitated & practised today. A close periodic monitoring; the mandate of regulatory norms to check, control and assure the quality at each level of imparting and imbibing (integrated interaction between the learnt & the learner) is imperative. This manuscript also aims to suggest various ways and measures to set-aside, overcome and move-ahead of those stumbling blocks on the ways to achieve the targeted goals and the ways forward to eliminate or at-least reduce the felt gap. Besides obtaining and enlisting of numerous facts, figures, concepts and inputs from the existing literature reviewed and relevant sources gathered by the researchers, efforts have also been made to have an insight on the topic to curb such menace by opting of various measures and reducing the gaps. The researchers have also endeavored to construct a holistic model conducive and adaptable to the schools in the country like ours to get such goals achieved in the days and years ahead.

**Key words:** *Sustainable Development, Quality Education, Holistic Model, Stumbling Blocks, Insights*

## 1. Introduction

Education, being the very foundation of all spheres of life, has ever increasing demand for strengthening, enhancing and retaining both the knowledge and skills reducing the felt gap of ever-evolving vistas of specific domains of life in general and sustainability in particular. The origin of the term 'sustainability' with a formal definition, trace back to 1987 with the Report of the World Commission on Environment and Development (the so-called Brundtland Report) with a vivid statement of definition as 'sustainability causes to meet the needs of the present without compromising the ability of the future generation to meet their-own needs'. This definition throws some lights on the need of optimum utilization / judicious consumption of various available resources of any form for the right cause in the right way at the right time. The definition necessitates us to ponder on some vital issues pertaining to the "Education for Sustainable Development" which aims to allow us in acquiring the knowledge, skills, attitudes and values necessary to mould a sustainable future. Today's world proactively seeks out to have sustainability everywhere; be it in the realm of environment, healthcare, education, business/commercial transactions, economic development, social progress, political pursuits, international relations, national security, corroboration of cultural ethos etc., on the one-hand and to have much more comfort and convenience even by compromising the very survival of the generation to come. The rudiments of such sustainability must starts with very basic education itself as behavioural modification of the learners at the grass root level is possible and inevitable to achieve such targets for overall progress and development of the society with prudent approach and active involvement of teachers is imperative. Since the learners can assimilate many things with ease and enthusiasm; the priority must be given on areas such as climate change, disaster risk reduction, biodiversity, poverty alleviation, and sustainable consumption. Among these, much emphasis is to be given to optimum and sustainable consumption. It also requires participatory teaching and learning methods that motivate and empower learners to change their behaviour and take action for sustainable development. Education for Sustainable Development consequently promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way. The United Nations' ambitious Sustainable Development Goals stresses on the need for 'New and Ambitious world-wide efforts to reduce poverty and hunger, improve health, enable quality, protect the planet: where education is the panacea. The statistics of recent research results by UNESCO shows [17] show education can influence and promote overall sustainable development. The purpose of this study enables the readers to understand various issues and concerns confronted by school educational system in our country and also to imbibe various aspects which may be utilized to have an ideal model adaptive throughout our country nay the world in accordance with current socio-environmental needs and necessities.

The primary aim of adopting ESD to have an educational-culture; especially in the school curriculum that would promote learning and help students at the tender age itself to nurture them to be responsible, socially productive and useful individuals in the mainstream of sustainability their role as torch-bearers for the sake of conservation of natural resources and promote equality, sustainable consumption, lifestyle and practices to protect our environment and make this planet a place of sustainable habitat for the generation to come.

## 2. Literature Review:

Van Den Branden, K. (2012): The author, through this study, reminds us that education runs on energy just as cars run on fuel. Here all the stake holders - students, teachers, administrators, parents and all other well-wishers involved in the process of education have pivotal role to play. The author highlights the fact that education is to sustain what goes well and to fight what goes wrong. We need to fight the loss of human talent and potential, the loss of energy for learning, the loss of dignity and pride, the loss of precious time to foster development in crucial domain.

Santone, S., Saunders, S. and Seguin, C. (2014): The authors pointed out that Sustainability Education has the relevance in the whole curriculum, rather than a mere segment of content area. The Sustainability Education Framework for Teachers (SEFT) includes the requisite knowledge, skills, and dispositions to confront and to develop solutions to sustainability issues such as plastic pollution. The four interconnected approaches as mentioned by the authors are: Futures Thinking; Values Thinking; Systems Thinking; and Strategic Thinking.

Mogren, A. and Gericke, N. (2017): In this study, the authors opined that the sole key factor on the educational sustainability is the Leadership Practices at the school organization level. The authors, at the end of the study, came up with certain criteria on the basis of statistical analysis viz. Collaborative interaction among and between all the stakeholders; Student centred education; reflection of Corporate Social Responsibility (CSR); and Proactive leadership and consistency.

Leicht, A., Heiss, J. and Byun, W.J. (eds), UNESCO (2018): This study expounds various competencies required to be adapted for thinking and acting in favour of sustainable development. The enlisted competencies are systems thinking competency, anticipatory competency, normative competency, strategic competency, collaboration competency, critical thinking competency, self-awareness competency, and integrated problem solving competency. The authors emphasize that individuals must learn to understand the complexities, uncertainties, trade-offs and risks related to global and local sustainability challenges to become "sustainability citizens". The challenges-driven-driving forces aim to make the learners holistic and transformational citizens; There are certain changes, the authors say, which need to be adopted for strengthening curricula, innovating pedagogies and teacher training, transforming learning experience etc..

Mohanty, A. and Dash, D. (2018): In this study, the researchers stressed on the importance of UNESCO Sustainable Development Goal (SDG), especially the SDG-4 'Education for Sustainable Development' and 'Sustainability in Education' to assess the definition and best practices of Sustainable Education'. The authors have also developed a conceptual model of Sustainable Education' where many vital components under three major drivers have been identified and given viz: Driver – 1 (Profit – MHRD), Driver – 2 (People-HR), and Driver – 3 (Planet – Environmental Education); besides inter-driver-interaction between and among these drivers in multiple directions and orientations.

### 3. Objectives of the Study:

- (i) To examine the existing scenario of Sustainability in Education and the role of Education for overall Sustainable Development.
- (ii) To understand the gaps between planning and implementation in respect of Education for sustainable development.
- (iii) To analyse the various factors which help achieving the aims of strategy and the role of different stake holders involved in the process of obtaining the set targets.

### 4. Hypothesis:

- (i) It is tested and proved that there is a close relationship between the higher the level of knowledge, skills and competencies better the achievement of Sustainability of a society.
- (ii) The ensuing data of facts and figures in this manuscript reveals that the better educated populace the society, the country, the region or the state has; greater would be the vistas of the sustainability; as informed decision makers make wise decisions and in-turn creates sustainability easier, faster and be more fastened.

### 5. Methodology of the Study:

Data has mainly been collected by two methods:

#### (i) Primary Data

Data collected for the first time and hence are fresh. Direct interaction among various stakeholder's viz. - students, parents, teachers, principals of a few schools were carried out in Bangalore aiming to obtain inferences of opinion on the effectiveness of various awareness programmes conducted by schools on the importance of sustainable education from time-to-time- for safeguarding the environment.

#### (ii) Secondary Data

Data which is already collected and used by other scholars, researchers, academicians, government and non-government agencies at various levels – international, regional, national, local etc., which includes:

- ❖ Research and statistical reports collated by UNO and its allied agencies and departments, periodically.
- ❖ Reports on survey conducted by universities at regional level on the significance of implementation of Sustainable Education in less developed or underdeveloped countries of Asian, African and Latin American countries collaboratively.

**Sampling design:**

Sampling aims to have an apt sample size, having unique features or traits of participants because of extremes in their performance indicators or the target yielded by them against the set goals.

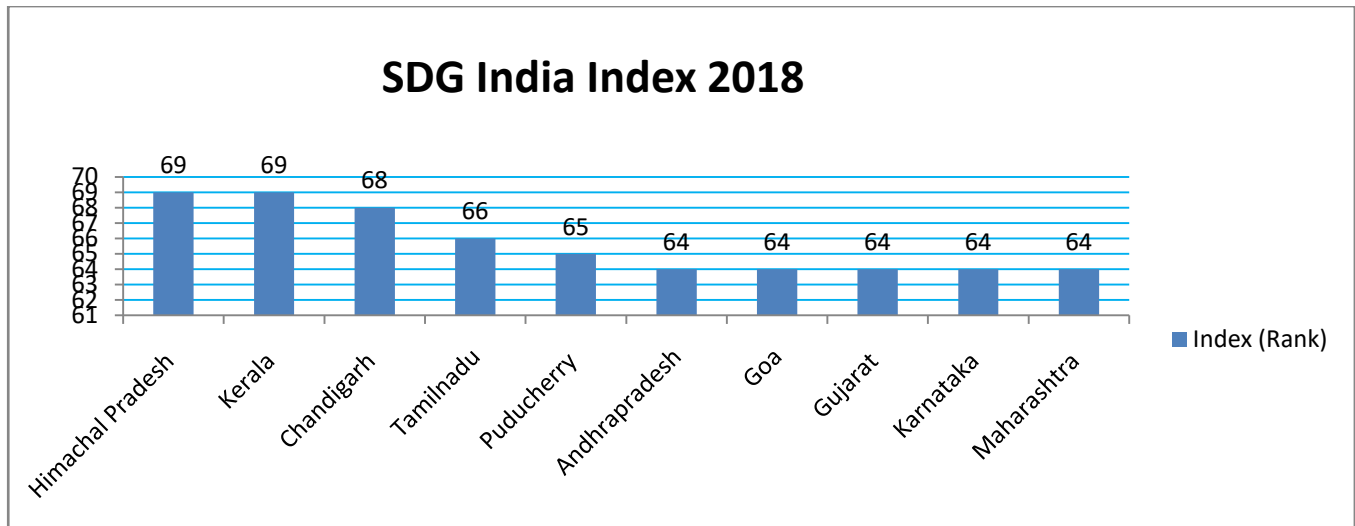
Sampling method: The performance indicators of the eastern & north eastern states of our country; pertains to achieving very slow or low progress in education for sustainable development; in providing even the basic amenities to elementary level of school education.

Population: Segments of primary, upper-primary, secondary and senior-secondary schools of eastern and north eastern states of India.

**6. Conceptual Framework of Sustainable Education in India:**

The United Nations' ambitious Sustainable Development Goals stresses on the need for 'New and Ambitious world-wide efforts to reduce poverty and hunger, improve health, enable quality, protect the planet: where education is the panacea. In the Agenda 2030 and the Sustainable Development Goals adopted by all the member states of the United Nations in 2015, describe a Universal Agenda 'applicable to and 'must be adhered to' by all the member countries to ensure seventeen (17) agenda items viz.: (1) No poverty, (2) Zero Hunger, (3) Good Health and Well-being, (4) Quality Education, (5) Gender Equality, (6) Clean Water and Sanitation, (7) Affordable and Clean Energy, (8) Decent Work and Economic Growth, (9) Industry Innovation and Infrastructure, (10) Reduced Inequalities, (11) Sustainable Cities and Communities, (12) Responsible Consumption and Production, (13) Climate Action, (14) Life Below water, (15), Life on Land, (16) Peace, Justice and Strong Institutions, (17) Partnership for the goals.

The statistics of recent research results by UNESCO shows [17] how education can influence and promote overall sustainable development: The Vision/Goal, Mission and its impact as per the survey has depicted a roadmap to be imbibed by the nations irrespective of their economic growth and technological advancements. The recent reports released by NITI Aayog reflects the Base Line Report of the Sustainable Development Goals (SDG) India Index 2018 documenting the progress made by India's States and Union Territories (UTs) on various Agenda Items. It aims to instil a sense of healthy competitions and competitiveness among states and Union Territories on various agenda items which will in turn monitored by a real-time-basis. This index is a measure to align our Prime Minister's clarion call of '*Sabka Saath*' – '*Sabka Vikas*' which embodies the Five Ps of the Global SDG Movement – People, Planet, Prosperity, Partnership and Peace. The Index shows that though India's position in the world rankings is 58 among 192 member countries, some of the states in our Country have crossed the half way towards the target. The top performer among States and Union Territories as depicted below shows the spirits imbibed by them in achieving the targets:



Kerala's top rank is attributed to its superior performance in providing good health, reducing hunger, achieving gender equality and providing quality education. Himachal Pradesh ranks high on providing clean water and sanitation, in reducing inequalities and preserving the mountain ecosystem. Tamilnadu attributes its contribution towards eradication of poverty and also providing clean and affordable energy. Among UTs, Chandigarh's exemplary performance is due to its potential in providing clean water and sanitation to its people besides its contributions in providing affordable and clean energy, generating decent work, economic growth and also in providing quality education. Sikkim and UTs Andaman & Nicobar Islands and Chandigarh have achieved the goal of Gender Equality. However, Jharkhand, Odisha and Nagaland are the states that have a lot more ground to cover in the overall performance.

### Reasons for the progress in Performance:

- Poverty eradication and various schemes implemented by government to satiate the hunger.
- Mid-day meal programme.
- Improved standard of living.
- Better health-care facilities coupled with active initiatives and infrastructure facilities even at the remotes parts of the country.
- Scholarship schemes for single girl child for higher education.
- Digital Education coupled with smart classrooms
- Free and compulsory education for children.
- Prohibition of child labour and strict monitoring of human trafficking.
- Primary Health-care facilities especially taking care of the health of women and children.

### 7. Data Analysis:

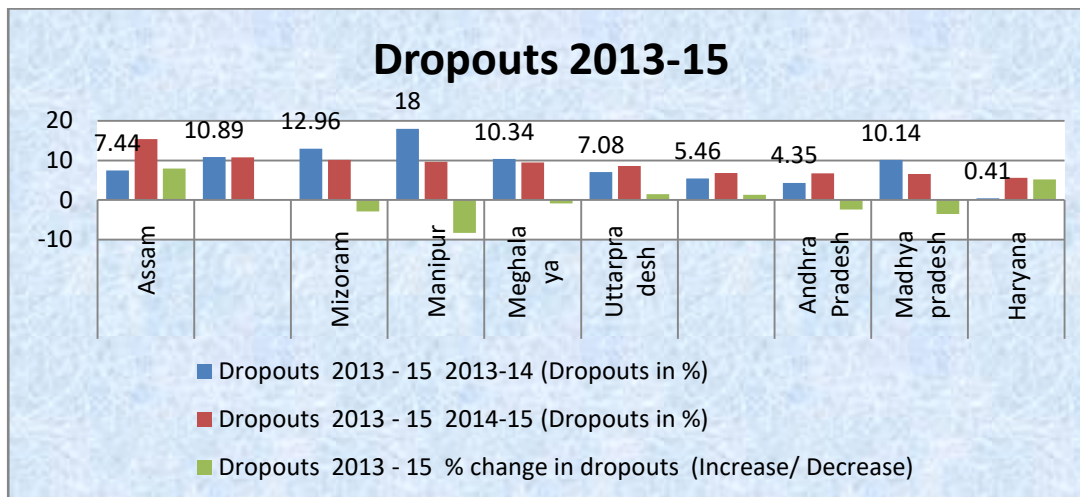
#### Challenges or Stumbling blocks on the path of Education for Sustainable Development:

(i) Table 1: Dropout (%) of 10 states

Sl. No.	State	2013-14 (Dropouts in %)	2014-15 (Dropouts in %)	% change in dropouts (Increase/Decrease)
1	Assam	7.44	15.36	7.92
2	Arunachal Pradesh	10.89	10.82	-0.07
3	Mizoram	12.96	10.1	-2.86
4	Manipur	18	9.66	-8.34
5	Meghalaya	10.34	9.46	-0.88

6	Uttarpradesh	7.08	8.58	1.5
7	Jammu & Kashmir	5.46	6.79	1.33
8	Andhra Pradesh	4.35	6.72	-2.37
9	Madhyapradesh	10.14	6.59	-3.55
10	Haryana	0.41	5.61	5.2

[Table 1 – OGD, Platform, India. Community.data.gov.in - A Comparative Analysis on the Top 10 States, in respect of dropout rate at Primary Level School Education in India during 2013-14 & 2014-15].



**(ii) States where Textbooks were not made available within 30 of the commencement of the academic year**

Sl. No.	State	Rural	Urban
1	Andaman & Nicobar Islands	No	No
2	West Bengal	No	No
3	Uttarpradesh	No	No
4	Uttranchal	No	No
5	Meghalaya	No	No
6	Nagaland	No	No
7	Himachal Pradesh	No	No
8	Manipur	No	Yes
9	Bihar	No	Yes

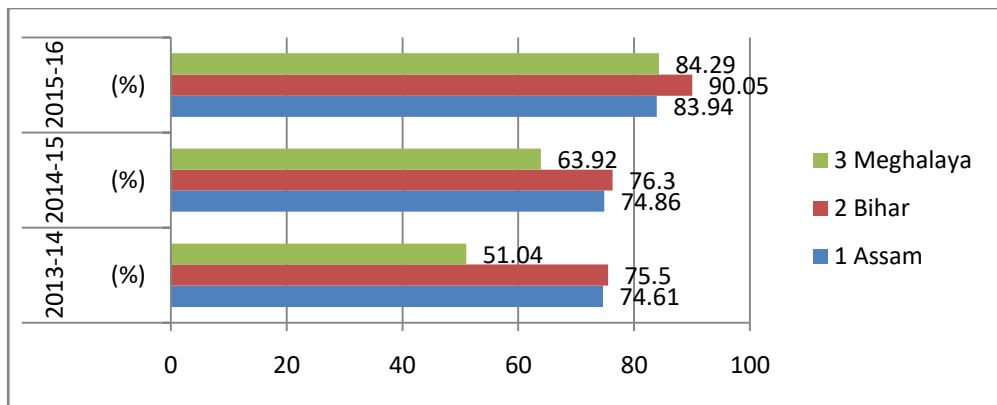
[Table 2: Textbooks were not made available to the students of Elementary Classes within 30 days from the commencement of the Academic Session 2015-16]

**(iii) Lack of basic amenities in Schools - a deteriorating scenario:**

Below Table shows the percentages of Schools with Girls Toilet (states showing deterioration in adequate facilities)

Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)
1	Assam	74.61	74.86	83.94
2	Bihar	75.5	76.3	90.05
3	Meghalaya	51.04	63.92	84.29

[Table 3: Percentage of toilet facilities provided for girls of total schools in particular state the above three states – Meghalaya Assam & Bihar; though the existing conditions of Bihar have been drastically improved in the recent past compared to the corresponding previous years.]

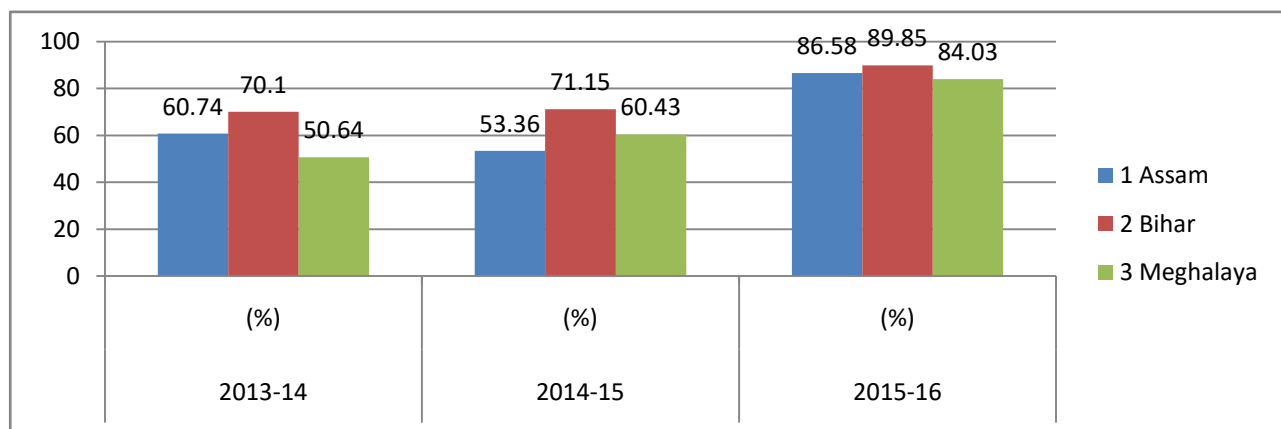


(iv) The States- percentage of school having Girls Toilets facilities

Primary Level					Upper Primary Level				
Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)	Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)
1.	Assam	60.74	53.36	86.58	1	Assam	57.71	53.94	78.47
2.	Bihar	70.1	71.15	89.85	2	Meghalaya	50.32	61.91	89.14
3.	Meghalaya	50.64	60.43	84.03					

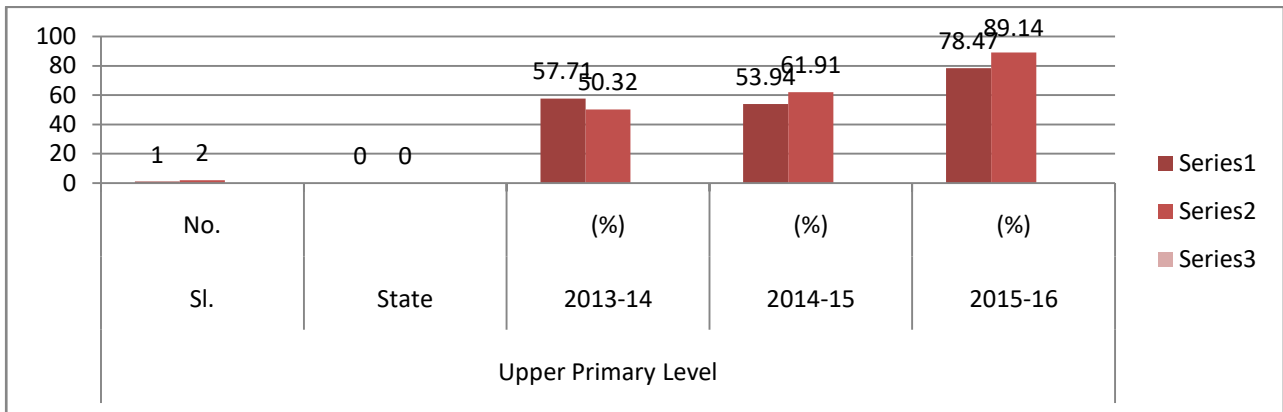
Secondary					Senior Secondary				
Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)	Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)
1	Assam	72.49	71.32	84.73	1	Assam	79.37	79.77	88.22
2	Meghalaya	62.56	68.49	73.56	2	Meghalaya	84.13	81.75	85.57

[Table 4: Shows the percentage of toilet facilities provided for girls of total schools in particular state the above three states – Meghalaya Assam & Bihar; though the existing conditions of Bihar have been drastically improved in the recent past compared to the corresponding previous years.]

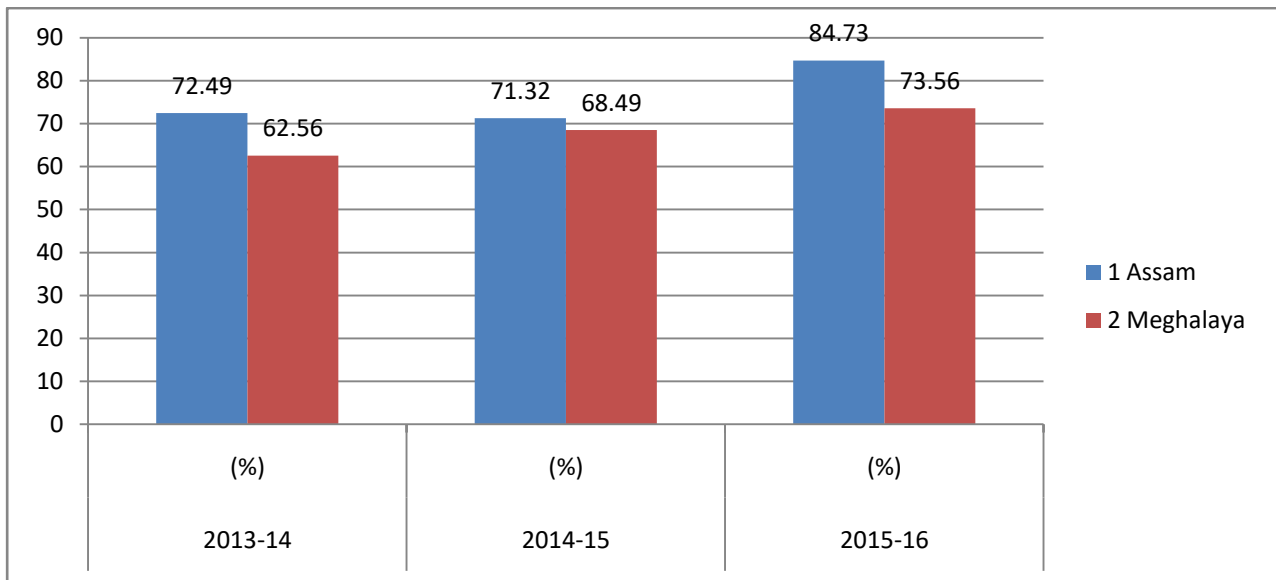




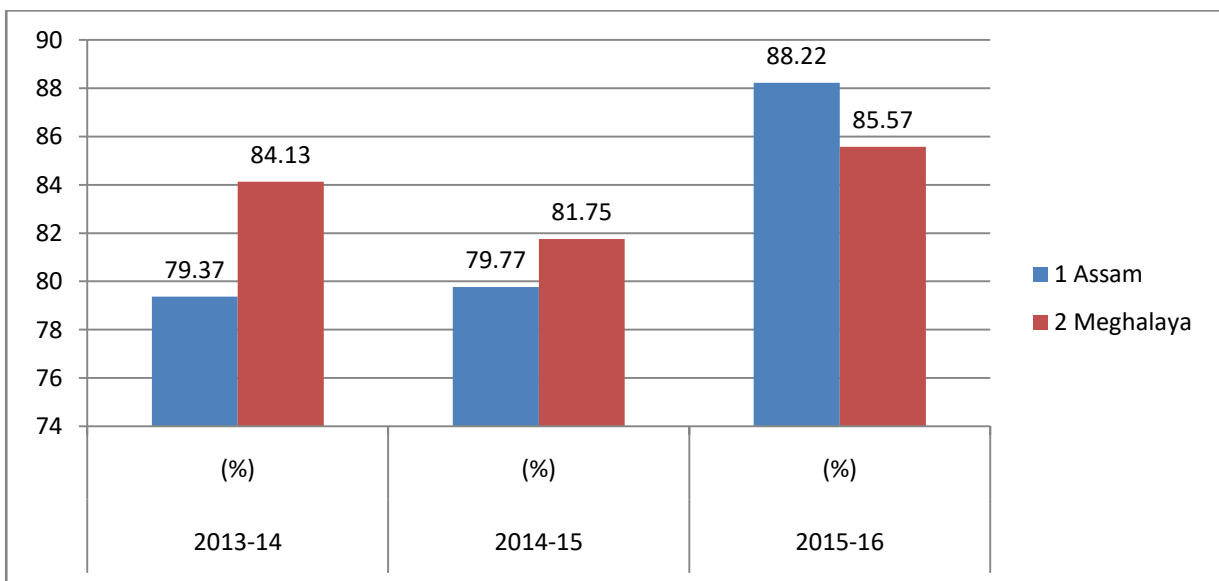
**Primary Level**



**Upper Primary Level**



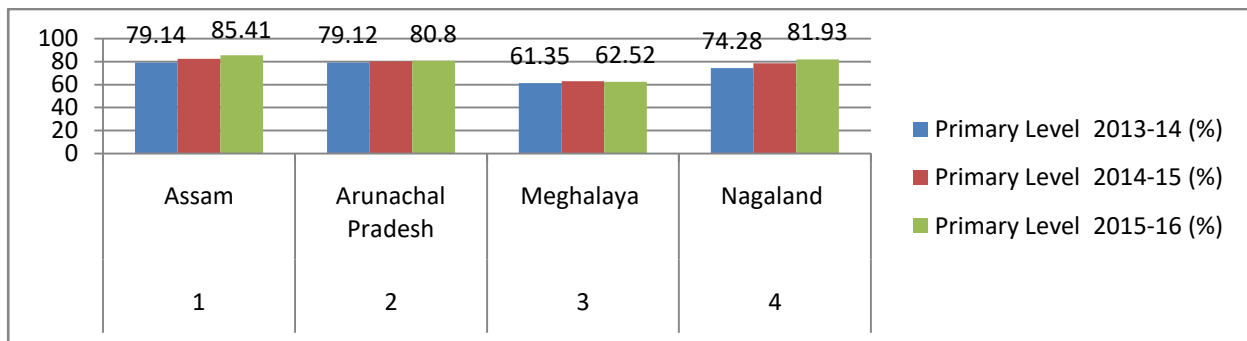
**Secondary Level**



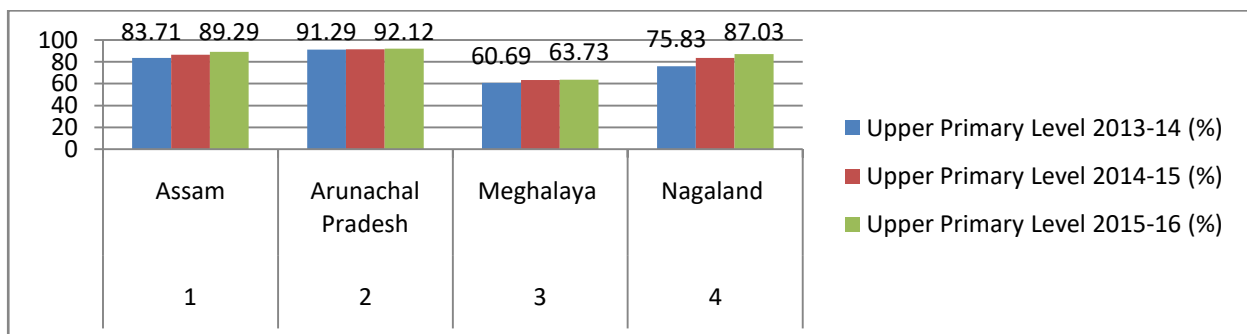
**Senior Secondary Level**

**(v) Inadequate Drinking Water Facilities:**

Primary Level					Upper Primary Level				
Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)	Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)
1	Assam	79.14	82.51	85.41	1	Assam	83.71	86.62	89.29
2	Arunachal Pradesh	79.12	80.13	80.8	2	Arunachal Pradesh	91.29	91.42	92.12
3	Meghalaya	61.35	62.92	62.52	3	Meghalaya	60.69	63.47	63.73
4	Nagaland	74.28	78.64	81.93	4	Nagaland	75.83	83.58	87.03



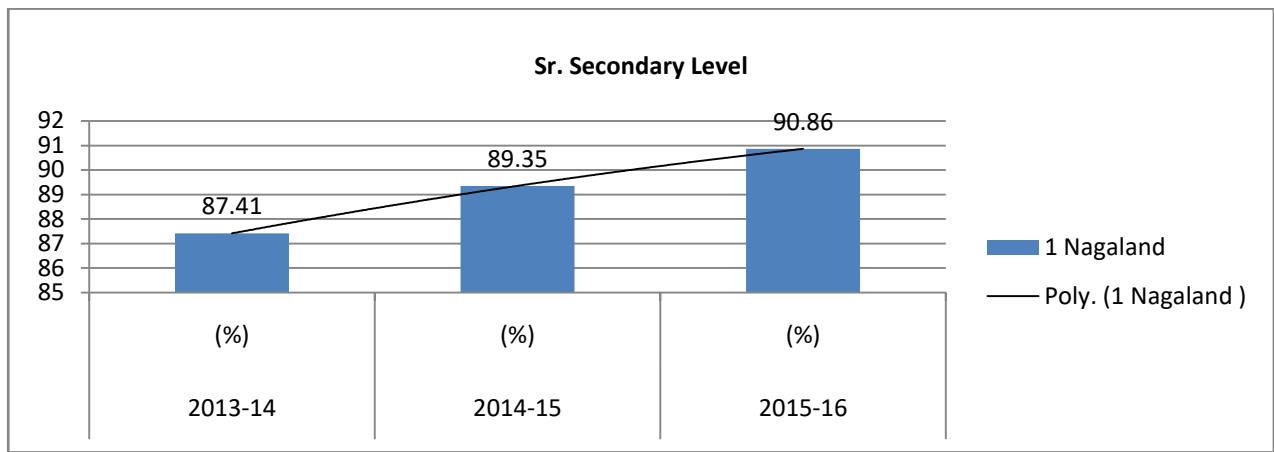
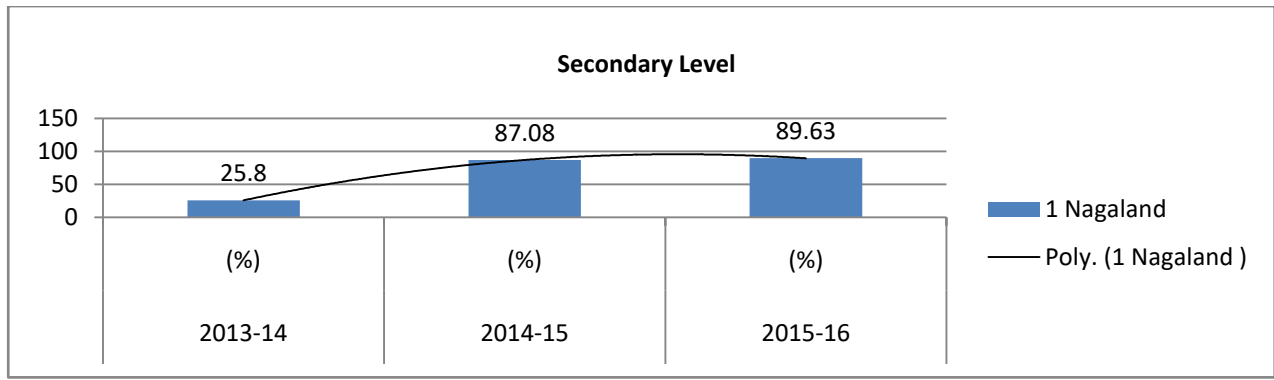
Primary Level



Upper Primary Level

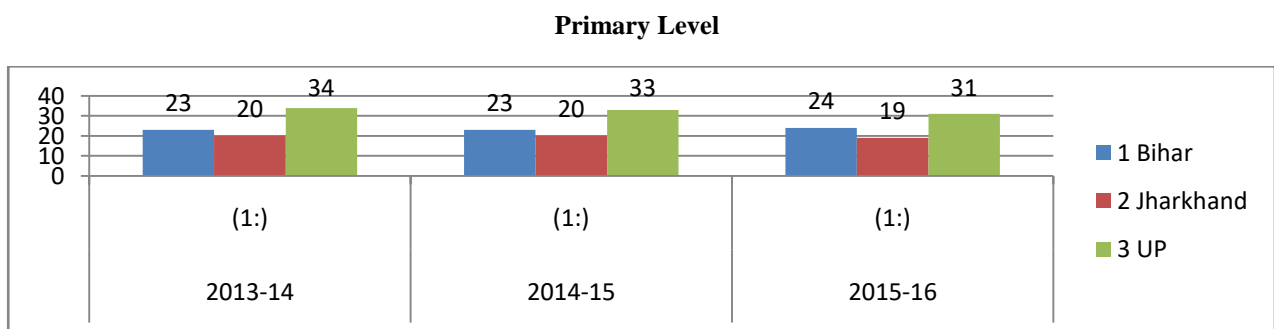
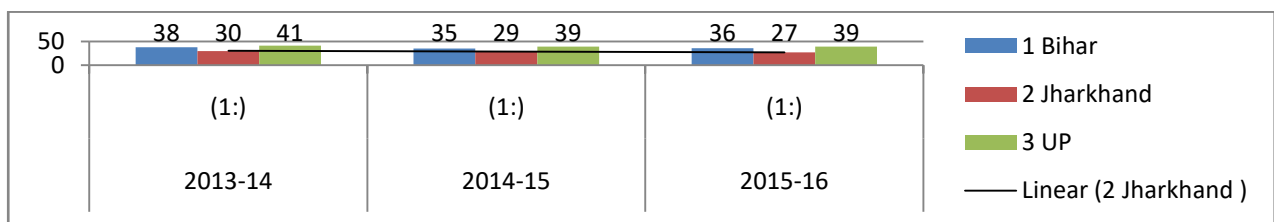
Secondary				
Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)
1	Nagaland	25.8	87.08	89.63

Senior Secondary				
Sl. No.	State	2013-14 (%)	2014-15 (%)	2015-16 (%)
1	Nagaland	87.41	89.35	90.86



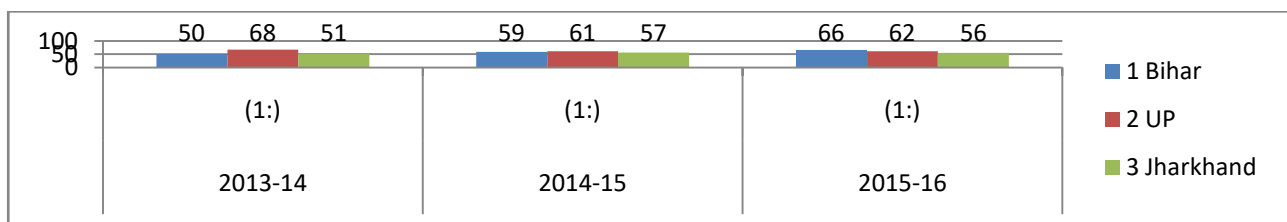
**(vi) Pupil Teacher Ratio (PTR = given figure : 1Teacher)**

Primary Level					Upper Primary Level				
Sl. No.	State	2013-14 (1:)	2014-15 (1:)	2015-16 (1:)	Sl. No.	State	2013-14 (1:)	2014-15 (1:)	2015-16 (1:)
1	Bihar	38	35	36	1	Bihar	23	23	24
2	Jharkhand	30	29	27	2	Jharkhand	20	20	19
3	UP	41	39	39	3	UP	34	33	31

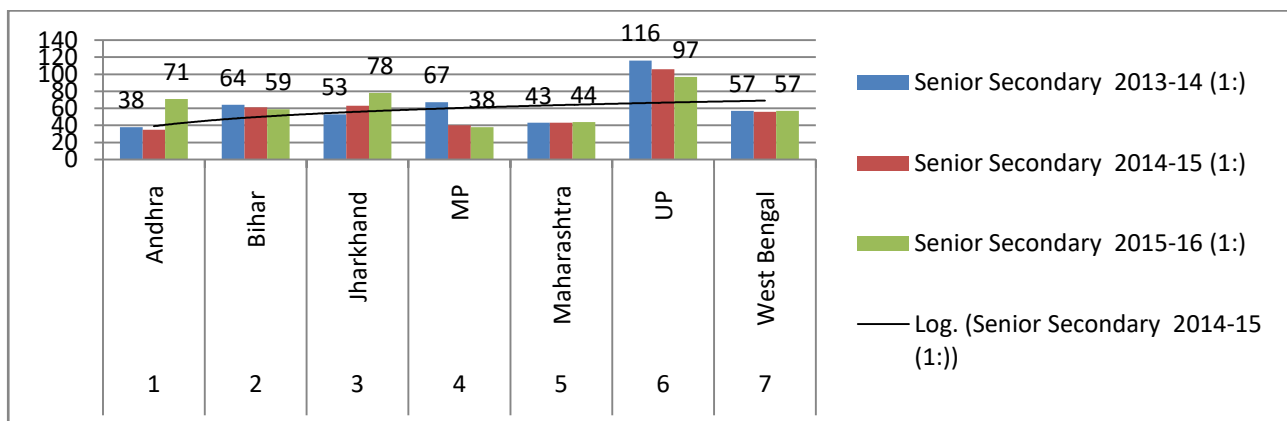


Upper Primary Level

Secondary					Senior Secondary				
Sl. No.	State	2013-14 (1:)	2014-15 (1:)	2015-16 (1:)	Sl. No.	State	2013-14 (1:)	2014-15 (1:)	2015-16 (1:)
1	Bihar	50	59	66	1	Andhra	38	35	71
2	UP	68	61	62	2	Bihar	64	61	59
3	Jharkhand	51	57	56	3	Jharkhand	53	63	78
					4	MP	67	40	38
					5	Maharashtra	43	43	44
					6	UP	116	106	97
					7	West Bengal	57	56	57



Secondary Level



Senior Secondary Level

(vii) Country Specific on Gross Enrolment Rate & Public Expenditure on Education - 2015

Gross Enrolment Rate & Public Expenditure on Education - 2015					
Countries	Primary	Lower Secondary	Upper Secondary	Tertiary	Public Expenditure on Education (As per % of GDP)
	(I-V)	(VI - VIII)	(IX - XII)		
China	104.10	99.10	89.70	43.40	NA
Germany	105.00	101.50	104.80	68.30	4.95 <sup>-1</sup>
India	99.20	92.80	68.10	24.50	4.13 <sup>-2</sup>
Russia	100.50	101.00	113.60	80.43	3.86 <sup>-3</sup>
South Africa	99.7 <sup>-1</sup>	97.1 <sup>-3</sup>	88.5 <sup>-3</sup>	19.4 <sup>-2</sup>	6.02 <sup>-1</sup>
UK	108.70	112.7 <sup>-1</sup>	138.2 <sup>-1</sup>	56.5 <sup>-1</sup>	5.68
USA	100.20	102.10	93.3 <sup>-1</sup>	85.80	5.38 <sup>-1</sup>

### Interpretations of the results analyzed:

**Table 1:** The dropout trends in India in the primary school level of education reflect a mixture of both positive and negative outcome year-on-year – 2013-14 & 2014-15. The data of top 10 States, in respect of dropout rate at Primary Level during the referred period are given as exhibit. In case of the dropout of two consecutive years 2013-14 & 2014-15, Assam shows an increasing rate of drop-out i.e., 7.92% on the previous year, followed by Haryana from 0.45% to 5.3%, Uttar Pradesh shows 1.5% increase and Jammu & Kashmir shows an increase of 1.33%. On the other hand, Manipur could bring the percentage down drastically by 8.34% followed by Madhya Pradesh 3.55%, Mizoram 2.86 & Andhra Pradesh 2.37% in the Primary School Level.

Though the various initiatives of the Governments of India from time to time to promote basic elementary education by way of legislation – say ‘evidence-based-policy-making’, implementing and executing various schemes and ‘*abhiyans*’ coupled with initiatives of respective State Government (since education being the item under concurrent list) initiatives to facilitate the so called ‘accessible’, ‘affordable’ and ‘quality education’ in an equitable manner, still has a huge gap to be bridged. The latest data based on research report made available for the public by the Statistics Division of the Department of School Education & Literacy, The Ministry of Human Resource Development (MHRD), Government of India titled ‘Educational Statistics at a Glance’ dated 5<sup>th</sup> March 2018 depicts the ground realities of the same gaps, lacunae, inadequacy and insufficiency in working of the policy implementation.

Among various inadequacies and inefficient system of implementation at different levels of governance it is worth-mentioning to understand the lacunae where a serious forethought and time-bound action-oriented approaches are inevitable to have a balanced and equitable system of Education for Sustainable Development.

**Table 2:** The data on question ‘whether textbooks were made available to the students within 30 days from the commencement of Academic session 2015-16 (at primary level) catering two different segments viz: Urban and Rural. Out of the total 37 independent Governing Units of the Country (28 states + 9 Union Territories) the Sl. No. 1 to 7 couldn’t provide even the text books in a month’s time and the Sl. No. 8 and 9 could provide the text books only in Urban areas leaving the Rural areas aside. Out of the nine (9) states, seven (7) couldn’t provide text books to the schools were Andaman Nicobar Islands, West Bengal, Uttar Pradesh, Uttaranchal, Meghalaya, Nagaland, Himachal Pradesh, Manipur in both Urban and Rural areas. However, Manipur and Bihar could provide the text books only in Urban areas leaving the Rural areas aside.

**Table 3& 4:** Percentage of toilet facilities provided for girls of total schools in particular state the above three states – Meghalaya, Assam & Bihar; though the existing conditions of Bihar have been drastically improved in the recent past compared to the corresponding previous years. On an average the segment-wise results have also shown the same trend.

**Table 5:** In the given table it is shown that the total percentage of schools having adequate drinking water facilities is less in Meghalaya & Nagaland especially in Primary Level schools.

**Table 6:** The given table shows the Pupil Teacher Ratio. Uttar Pradesh, Jharkhand & Bihar shows the ratio much higher than the prescribed norms of RTE Act 2009, from levels - Primary till Senior Secondary. The Right to Education Act (RTE) 2009 set the norms on Pupil Teacher Ratio (PTR), the 30:01PTR has been prescribed at primary level in both rural and urban areas whereas for upper primary level it is 35:1.

**Table 7:** This table shows the Country Specific data on Gross Enrolment Rate & Public Expenditure on Education - 2015. Compared to the given countries, India’s spending on education, especially on higher education is meager compared to other countries.

## 8. Findings and Implications:

- The research reports on Global scenario don't depict a different status which visibly or invisibly supports the data given in the table above.
- The disparity in mandated framework v/s. equity in implementation or adaptation is the root-cause which supports a societal gap between the haves and have-nots.
- Global snapshots reflect the world's richest 500 individuals have a combined income that is greater than the combined income of the World's poorest 41.60 Cr. [14].
- Every year 1.10 cr children die before the age of 5 yrs. [14].
- Every 10 days 3.00 lac children die from malnutrition, poor sanitation or preventable diseases. [14].
- Armed conflicts itself denies 2.80 cr children access to education and expose them instead to violence, bereavement and abuse. 5.70 cr of the world's children are out of school; half of them in the 32 countries suffering severe conflicts.[14]
- 80.00 crs of the world's adults can't read and write and only 60% of the countries achieve gender parity in primary school enrolment. [14].
- In 2009, world-wide military expenditure was US\$ 1.5 TN whereas only \$16 BN of aid is needed annually to provide basic primary education in poor countries (about 1% of what is spent on arms.) but in 2009 these countries received only \$2 BN (0.001%) in aid for basic education. [14]

## 9. Suggestions and Conclusion of the study:

- The answer to these issues of Education for Sustainability and Sustainable Development and problems has multi-dimensional perspectives; as various factors have equal importance in the process to make it happen.
- The real drivers who can make it happen are the teachers of all levels of Schooling both formal and informal as indicated by Katrine, Dahl, Madsene in support of the opinion expressed by Scot, W, Gough, S. [16]; the vital role of teachers to make the young generation to cope up with uncertain and shifting knowledge; is not an easy task though not impossible.
- A more focused, identical, universally acceptable, relevant to the time, inclusive, integrative, participative & practical curriculum is to be designed and disseminated throughout the world.
- A strict & impartial quality monitoring system is to be in place to ensure that the quality of education is imparted in mushrooming private schools and also the quality and productivity of the staff is ensured in aided and government run schools. These two extremes coupled with orientations and skills developments of the teaching faculties are to be assessed periodically to ensure the competency level of the faculty members to impart the curriculum and various allied activities according to the changing needs of the society.
- Awareness to parents on the importance of education especially remotest areas of the country is unavoidable.
- Adequate allocation of resources is imperative to achieve the goal for long term basis where active involvement of all stakeholders – Governments & teachers, being the torch bearers of the process, Non-government organizations, private industrial sectors, Parents and the Management of the Educational institutions (for doing it more as a social cause than profit making), to help achieve the stated objectives and also bridge the gaps.

**References:**

1. Bapna, A. and Sharma, N. (2015), School education in india: A handbook
2. Discovering how digital technologies can transform education systems and shape a better world (2018), issue 8.
3. Education for sustainable development toolkits, education for sustainable development in action learning & training tools n°1 , october 2006
4. Leicht, A., Heiss, J. and Byun, W.J. (eds), unesco 2018. Issues and trends in education for sustainable development, isbn 978-92-3-100244-1.
5. Lotz-Sisitka, H., Wals, A., Kronlid, D. and McGarry, D. (2015), “Transformative, transgressive social learning: rethinking higher education pedagogy in times of systemic global dysfunction”, *Current Opinion in Environmental Sustainability*, Vol. 16, pp. 73–80.
6. Kelley, C. and Dikkers, S. (2016), “Framing Feedback for School Improvement Around Distributed Leadership”, *Educational Administration Quarterly*, Vol. 52 No. 3, pp. 392-422.
7. Mogren, A. and Gericke, N. (2017a), “ESD Implementation at the School Organisation Level, Part 1– Investigating the Quality Criteria Guiding School Leaders’ Work at Recognized ESD Schools”, *Environmental Education Research*, Vol. 23 No. 7, pp. 972–992.
8. Mogren, A. and Gericke, N. (2017b), “ESD Implementation at the School Organisation Level, Part 2– Investigating the Transformative Perspective in School Leaders’ Quality Strategies at ESD Schools”, *Environmental Education Research*, Vol. 23 No. 7, pp. 993–1014.
9. Madsen, K.D. (2013), “Unfolding education for sustainable development as didactic thinking and practice”, *Sustainability*, Vol. 5 No. 9, pp. 3771-3782
10. National policy on education 2016, government of india 30/04/2016
11. Pauw, J.B.D., Gericke, N., Olsson, D. and Berglund, T. (2015), “The effectiveness of education for sustainable development”, *Sustainability*, Vol. 7, pp. 15693-15717.
12. Posthumus, M. (2013), "The education triple bottom line", *colleagues*, Vol. 10 No. 1.
13. Quality education for sustainable development a priority in achieving sustainability and well-being for all, march 2014, paul ofei-manu & robert j. Didham.
14. Robin, Alexander. University of Cambridge – Chair of the Cambridge Primary Review Trust – *Children, Their World, Their Education, Sustainability and Global Education*.
15. Santone, S., Saunders, S. and seguin, C. (2014), “Essential elements of sustainability in teacher education”, *journal of sustainability education*, Vol. 6.
16. Scott, W, Gough, S. *Sustainable Development & Learning: Framing the Issues*; Routledge’s London, UK and New York, NY, USA, 2003
17. UN General Assembly Resolution of 6<sup>th</sup> July 2017 (71<sup>st</sup> Session) vide Resolution No. A/RES/71/313 – Agenda item 13 and 17 71/313 – *Work of the Statistical Commission pertaining to the 2030 Agenda for sustainable Development*.
18. Van Den Branden, K. (2012), “Sustainable education: basic principles and strategic recommendations”, *school effectiveness and school improvement*, Vol. 23 No. 3, pp. 285-304.
19. Van Den Branden, K. (2015), “Sustainable education: exploiting students’ energy for learning as a renewable resource”, *Sustainability*, Vol. 7, pp. 5471-5487.
20. Voluntary national review report on implementation of sustainable development goals, united nations high level political forum (2017).

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