

Quality Education and Employability, A Testimony of Government Sponsored Schemes in Education Sector: An Analysis of Effectiveness and Financial Feasibility of Education Schemes of Central Government in the Hill Region in North India

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ABSTRACT

Global agenda 2030 focuses on advancements in education sector for sustainable entrepreneurial economic growth of a nation. On this agenda, the Government of India provisions funds for promoting education sector by launching various schemes. However, there is a theoretical pinning i.e. the theory of maximum / aggregate social advantage that finally equates benefits with costs in the social context of developmental / welfare expenditure. As such provisioned funds cater to quality education for economically and educationally backward population of the country. Based on secondary data, the study analyses the financial feasibility and the effectiveness of government sponsored education sector schemes, aligned with Sustainable Development Goal 4 in hill States / Union Territories in North India. The analysis highlights the contribution of these schemes in quality education upto senior secondary level, the criterion being productive employability. The research explores avenues to bridge gap between 'Education' and 'Employability'. The findings reveal that largely operational schemes is yet to become optimally effective. For transforming the education pattern and producing skilled workforce, the outcome of study proposes unattended dimensions of existing policy framework for researchers, policy makers and other stakeholders.

1. INTRODUCTION

Education is visualized as a fundamental catalyst for sustainable growth in social, economic and environmental sectors on the global platform (Devi, 2023). Universalization of Education at the global level had been initiated on Dakar Platform of Action for 'Education for All' (EFA-1990) followed by 'Millennium Development Goals' (MDGs 2000) aimed at universal Primary education (UNESCO UIS, 2015). In 2015, a global declaration (UN Agenda 2030) of 17 Sustainable Development Goals (onwards SDGs) with 169 targets opened multidimensional visionary skylights for developing and underdeveloped nations (United Nations, Department of Economic and Social Affairs, 2015). The global world perceives 'Quality Education' as an essential tool for providing sustainable security to human race and eliminating poverty from the planet (UNESCO, Global Education Monitoring Report, 2015). Hence, the provision of inclusive and equitable quality



education in SDG-4 aimed at facilitating basic literacy and numeracy accessible to all. “It further targets to substantially increase the number of youth and adults who are trained with technical and vocational skills and prepared for decent jobs and entrepreneurship” (UN agenda 2030).

In 2015, the harbinger approach of ‘National Institution for Transforming India’ (NITI) Aayog was initiated toward the strategic growth of the nation. The initiatives of NITI Aayog overarched all sectors focussing on people-centric welfare schemes and programmes aligned with SDGs across all states and Union Territories (UTs) under the global agenda 2030 (NITI Aayog, 2024).

The people-oriented Indian governance formulates policies for noticeable development in several sectors of society i.e. agriculture, healthcare, education, business, environment, etc. (NITI Aayog, A compendium 2023). The Government realized its goal of public welfare by spending more and voluminous resources on various welfare schemes in India. Such as;

- i. Central Sector Schemes (CS) - formulated, implemented, and 100% funded by the central government,
- ii. Centrally Sponsored Schemes (CSS) - implemented by state governments of India largely funded by the central government with substantial fund sharing by the state government,
- iii. State Sponsored Schemes (SSS) - planned, funded and executed by the State government only.

It is globally accepted that sustainable economic growth and opportunities for decent work for the aspirational population cannot be visualized without skill-based high-quality education. (Rai, et al., 2019). The relative aspect of SDG-4 (*Quality Education*) and SDG-8 (*Decent Work and Economic Growth*) signifies that there is a need for job-oriented quality education inclusively and indiscriminately accessible to all (Makarenko, et al.,2021). Goal 8 targets on promoting labour-intensive sectors for the creation of decent jobs. Further, it emphasizes on skill development and entrepreneurship with a provision of reachable financial services. Ultimately, a high level of economic growth is envisioned through targets of SDG 8 on creating dynamic employment opportunities for the aspirant youth. Given human development with sustainable livelihood, the provisions of quality education with skill training and learning for the young population ensure an optimistic future and self-sufficiency for productive decent employability (Saini, et al., 2023).

In the foothills of the Himalayas, a hilly land area blessed with heaven-like nature's beauty has remained a place of attraction for tourists. The sector of tourism contributes a big share of revenue to the state government (Ministry of Tourism, Tourism Satellite Account for India, 2006). A rare bio-diversity, a variety of commercial opportunities in horticulture, floriculture and agriculture, and very rich deposits of minerals open up the pathways for investors to set up new ventures in the industry sector, and thereby, ensure employment generation with visible economic growth of the state (Directorate of Economics and Statistics, J&K, Economic Survey 2024). It is proven through past research that sustainable economic growth can be visualized in the fast developing education sector (Hanushek, et al.,2007). Entrepreneurship and technological advancement are the productive and creative outcome of quality education at secondary and senior secondary level. (Lackéus, 2015)

Therefore, this research attempts to draw the attention of the central as well as state governments to create a compatibility between the education system and industry requirements, especially in hilly regions. ‘Education is a fundamental catalyst for economic and social advancement by way of improving income distribution.’ (Adams, 2002). The policymakers must be specific in provisioning government fund allocation in the education sector, and thereby, provide skill-oriented educational resources for the beneficiaries at the senior secondary level. Thus, the gap between education and job could be minimized (World Bank, Education Public Expenditure Review Guidelines, 2017).

With regard to India's commitment for attaining the targets of Sustainable development Goals by 2030, Beena Pandey highlights the leads taken by the Indian government in respect of the SDG 4 (Quality Education) via ‘Sarva Shiksha Abhiyan (SSA)’ and ‘Right to Education (RTE)’ to ascertain all-encompassing impartial ‘Quality Education’ for the population up to the age of 14 years. The study further throws light on the achieved learning outcome which is more quantitative than qualitative. However, the infrastructural development and noteworthy progress in enrolment at the elementary level of education have been positively acknowledged. Notwithstanding, the ongoing challenges indicate that there should be a comprehensive strategy for qualitative visibility in the education sector by 2030 (Pandey, 2019).

The SDG targets encompass a broader range of education from pre-primary to higher secondary with vocational and adult education (Grotlüschen, et al.,2024). Although the ideas of quality, equality and inclusion in education generate a better scope for augmenting Human Rights at global level, yet critical to determine the opportunities for inclusively equitable and quality education to people at several levels (Kamalakar, et al., 2024). The provision of free education is encountered with politically influenced demography and fiscal challenges (Jenkner, et al., 2004). Therefore, it is proposed to incorporate quality and equality of education in the 4th SDG with clear expression, not to impose these concepts with specific outlines (Unterhalter, 2019).

The concept of ‘Quality Education’ perceived by individuals varies with the changing priorities of stakeholders from different streams of education. The findings after a comparative study of all states and UTs performance indicators show a declining index score. Very few states have been observed sustaining the category of Front Runner. The outcome of the study suggests that policymakers to add a few more indicators to focus on the less addressed area of education (Gowda, et al., 2022).



The targets of gender parity and universalisation of education have been emphasised in the UN agenda aiming at the visible transformation of global communities to literate and numerate everyone by 2030. Several dimensions of quality education have been highlighted that entail employability with a decent life, reducing social inequality, sustainable advancement, realization and utilization of full potential, and long-lasting global development (Adipat, et al., 2022).

The mobilization of insufficient funding obstructs fulfilling the commitment to the universalization of education for all as mentioned in SDG 4. State sovereigns are constrained to prioritize the funds towards enhancing educational dimensions such as equitable, inclusive and quality education. They are not enough précised in facilitating the 'Right to Education' for all, and thus, fail to achieve measurable developmental objectives. The stakeholders including donors and policymakers also find the dissatisfactory outcome of multi-featured educational development programmes (Bantekas, 2023).

In spite of availing financial assistance from the World Bank, poor countries fail to attain the core objectives of SDG 4 due to the commercialization of education through public-private partnership schooling. Oxfam's research reveals the commercial interest of private schools. Their unequal and inappropriate dealing with helpless children and very insensitive approach to inaptly qualified teachers on low salaries discourage the donors who endeavour to enhance literacy and numeracy among economically deprived children. It is suggested that financial and infrastructural support to Public schools is a better and more effective option to cater education to children as a human right for all rather than Public Private Partnership in the education sector' (Malouf Bous, et al., 2019).

The quality of education depends on a strategic and efficient teaching-learning process (Chapman, et al., 2002). The prominent role of well-trained and qualified teachers is admitted to the excellence of school education at the primary level. He criticizes the temporary/ contract/ ad-hoc appointment of teachers. Such appointment of teachers raises questions on the quality of education as well the sincerity on the commitment of teachers and the school system. Therefore, in this prevalent situation of the Primary school system, the author reflects his doubt that the efficacy and excellence of education at the foundational stage which is determined in the targets of SDG 4 (Quality Education), may be compromised (Pandey, 2006).

A report on the 'Sustainable Development of Himalayan Region' prepared by a 'Five Thematic Working Groups' organized by NITI Aayog in 2017, brought to notice the demographic, environmental and socio-economic stress in the hilly states of Northern India. Economic instability, unemployment and lack of opportunities for higher education have been pinpointed as major issues that force the aspirant young generation to migrate from hilly regions to urban plains. On the crucial pathways of developmental instabilities, NITI Aayog identified five major thematic areas for a detailed analysis which could produce significant inputs for policymakers for sustainable development in demanding sectors of the Himalayas region. 'Strengthening Skill and Entrepreneurship Landscape in the Himalayas' was one of these areas addressed in the targets of SDG 8. (NITI Aayog Report, 2018)

Patra has highlighted the importance of skill education elucidating the principle of '*Learning by doing*'. According to him, vocational education is, in its true sense, the practical application of learning that reinforces the learners with skills of facing the day-to-day challenges of life. Skill-oriented education equips the learners with the ability of social and economic craftsmanship. It ensures the emergence of a sufficiently self-reliant workforce with productive employability. He quotes the recommendation of WHO that emphasizes life skills such as "*problem-solving, decision-making, creative thinking, critical thinking, communication, social awareness, empathy and managing stress*" and the vocational education to promote a participatory learning environment for young aspirants.

A relationship between 'Quality of education' and 'Quality of life' has been established by way of cross-sectional analysis. The contextual and influential approach to equitable quality Education (SDG 4) penetrates in the framework of National education policy (NEP) 2020. Though, the Policy has tabled qualitative educational reforms w.r.t. curriculum with multidisciplinary approach and integrated teaching-learning process, yet the execution of digitalized, skill based, job oriented and experiential quality learning for improving quality of life is on the backfoot. (K Muralidharan, et al, 2022)

In brief, the review of literature brings forth the following research gaps:

- i. Very few studies mention the alignment of Government schemes/ Programmes/missions with indicators/targets of SDG 4;
- ii. There is least emphasis on the aspects of education sector schemes which may ensure productive employability with a sustainable future specifically in the hill region of India;
- iii. Very few studies analyse the financial viability w.r.t. available benefits to intended beneficiaries with sustainable future prospects to justify the effectiveness of government schemes on ground.

Therefore, the current analysis would endeavour to envisage the possibilities such that the opportunities for decent work might be explored through skill-oriented quality education. The outcome of the study proposes several avenues in the perspective sustainable productive employability for beneficiaries.

Thus, the objectives of the present research are:

- i. To identify SDG-4 attuned flagship schemes of Government (Central & State) implemented in Northern hill states/UTs in India.



- ii. To analyse the effectiveness of Government schemes/programs/missions implemented in hill states/ UTs of Northern India in attaining respective targets of SDG 4; and
- iii. To suggest measures for enhancing the effectiveness of education sector schemes by promoting skill-oriented vocationally smart quality education with prioritized budgetary management.

2. MATERIALS & METHOD

The methodology for the present study largely includes an exploratory and descriptive approach with mixed method. The data was collected through the local Block Education Office of hill region. Also, the data was gathered through the survey reports issued and published by NITI Aayog on the performance of schemes in hill States/Union Territories (Himachal Pradesh, Uttarakhand, Jammu & Kashmir, Ladakh) and other government websites. The data was analysed to evaluate the performance of schemes launched by the central and state governments. The analysis captures the attainment of schemes' goals viz *inclusive, equitable, quality education, and opportunities for decent work for all*, together with budgetary allocation for specific/prioritized schemes. Based on results, the interpretation have been drawn and interventions required to improve the performance of schemes, have been proposed.

3. RESULTS

In SDG 4, the notion of Sustainable Quality Education has been perceived as inclusive and equitable for all. 'Quality' and 'Sustainability' are relative perceptions as 'Quality' ensures 'Sustainability' with security. In this context, the analysis finds that all centrally sponsored flagship schemes implemented in hill states of Northern India consist very impressive components of vocational skill-oriented quality education in the policy framework. However, It cannot be denied that the perceptible benefits of government schemes are very short-term in the hill region of northern India owing to natural calamity and unstable topographical structural upheaval. Besides that, the heavy tread of tourists, the inhabitants of the hill region face routine problems like pollution of lakes, sanitation issues, water scarcity and depletion of green areas resulting from unplanned construction. Such problems are evidenced in the forms of major obstructions on the happening of developmental activities. Hence, the Central government bears 90% share of the total fund to allocate for welfare schemes specially in hilly states and union territories.

In 2015, the Indian Government mandated NITI Aayog to formulate and launch developmental schemes/programs aligned with Sustainable Development Goals in core sectors including education sector. In 2020, the Government guidelines for the National Education Policy initiated a remarkable acceleration in promoting vocational and skill-oriented quality education for all.

(A) Identification of Centrally Sponsored Education Sector Schemes

In education sector, the centrally sponsored several schemes have been launched to cater quality education to economically and educationally backward population of the country. The fundamental objectives of these schemes are to strengthen the education sector financially, technologically and qualitatively for providing quality education accessible to all including people with disability and socially backward. To encompass the prospects of applicability and availability of education sector schemes' benefits, the study identifies the centrally sponsored flagship schemes/programmes in selected hill states/union territories of India namely Himachal Pradesh, Uttarakhand, Jammu & Kashmir and Ladakh. The 'Department of School Education and Literacy' of the central government launched different nature of flagship schemes aligned with National Education Policy 2020 and attuned with SDG 4 such as ;

- (i) 'Samagra Shiksha' to enhance quality education and to promote vocational education (class 1-12);
- (ii) 'PM POSAN Mid-Day Meal' to provide free meal for improving nutritional status of poor students (class 1-8);
- (iii) 'PM Schools for Rising India'(PM SHRI) to establish model school for high quality education for children (class 6-12) and;
- (iv) 'New India Literacy Programme'(NILP) to provide foundational literacy and numeracy, vocational and life skills to non-literates of age 15 years and above.

These schemes/Programmes specifically underpin gender parity with the provision of relevant school infrastructure and equipment, educational materials and resources, scholarships and trained teaching force for students upto secondary level (refer Table-1). An overview study of the schemes finds that the major aim of the government is to make sure an equitable access to affordable academic and skill-based vocational education in a safe and conducive learning environment for poor and vulnerable children, and also, lifelong learning opportunity for all by 2030 (Refer Table-1).

(B) Analysis w.r.t. Skill orientation of Schemes in Hill states/Union Territories

i. Samagra Shiksha Scheme

Samagra Shiksha scheme was launched in 2018 after the consolidation of three erstwhile Scheme namely 'Sarva Shiksha



Abhiyan (SSA'), 'Rashtriya Madhyamik Shiksha Abhiyan (RMSA)' and 'Teacher Education (TE)'. The main objective of 'Samagra Shiksha scheme' is to make the 'Education accessible for all with basic literacy and numeracy'. The financial outlay of centrally sponsored schemes contains a considerable share of central and state governments. The nationwide government fund allocation of Rs 2,94,283.04 crore spread over the period of five years (2021-2026) that includes the Central share of Rs. 1,85,398.32 crore. The total allocated funds expenditure foresees a significant visibility of expected outcome against set objectives such as universal access to equitable and quality education, promotion of vocational education and strengthening of Teacher Education Institutions (TEIs).

With reference to SDG-4 (Quality Education) the Baseline report-2018 produced by NITI Aayog, Uttarakhand and Jammu & Kashmir scored 68 and 51 respectively achieving only two targets (4.1& 4c). The indicative outcome qualifies only a few parameters such as; adjusted enrolment ratio elementary to secondary level, increase in percentage of professionally qualified teachers and pupil-teacher ratio. The effectiveness of schemes is thoroughly compromised in Jammu & Kashmir as data reveals a significant dropout rate after upper primary or secondary level (Refer Table 2). The available online data produced by NITI Aayog reveals that the Northern region hill states of India are comparatively performing better than Union Territories in registering students at the primary level. Gender Parity Index reflects that girls are more inclined to access education than boys from 2021 onwards. It is an indicator of women empowerment (Refer Table 3 & 4). No doubt, the efforts for achieving the target of basic literacy and numeracy increases the literacy rate. But the increased literacy rate does not reduce rate of unemployment due to lack of skill education.

A notable improvement may be observed in 2020-21 performance index score. The coverage of SDG-4 targets i.e., 4.1, 4.3, 4.5, 4.6, 4a, 4c in 2020-21 increased as compared to Baseline report of 2018. The report of 2020-21 indicates that the enhanced prospects for inclusive and equitable education increased literacy rate of age group of 15 years and above. The annual drop-out rate at secondary level is also at inclining trend. The gross enrolment ratio in higher secondary is declining both states and UTs as compared to Baseline Report 2018 (Refer Table-3). On viewing the performance report of 2023-24, there is considerable improvement in gross enrolment, availability of 90% and above trained teachers, declining dropout rate of students, and 80 -90 % school with access to basic amenities of electricity, and drinking water. A generic focus of government may be observed towards computer education in 2023-24. Pupil-teacher ratio shows a smaller number of students at secondary level which indicates very high drop-out rate of students after upper primary. The accessibility of inclusive education w.r.t. target 4.5 is also very discouraging and much far away from achieving the defined target. Data shows that approx. 50% schools have installed computers which is very disappointing in a fast progressive and digitalized computer age in the global perspective. (Refer table 4)

The Baseline Report (NITI Aayog, 2018) further reveals that the due weightage w.r.t. quality education has been given to selective targets of SDG-4. Theoretically, the formulation and implementation of schemes, aligned with National Education Policy open up avenues for accessibility to vocational education. Referring to ground reality, the delivery of skill based vocational subjects in schools is not enough to develop self-sufficiency in youth. Data source of local Block Education office and field observation unveils the curriculum status of vocational subjects which are provisioned in NEP-2020. In fact, these are introduced at senior secondary level with very nominal importance in the academic calendar of schools. The observations in rural hill areas reveal the shortage of proficient teachers/professional trainers and technology-equipped infrastructure hinders in attaining documented targets in most of the schools. Although some schools are taking help from Non-Government Organisations to train students for vocational subjects under hired trainers which is not sufficient for learners to attain desired employability in future.

ii. Strengthening Teaching-Learning and Results for States

The central government sponsored Project 'Strengthening Teaching-Learning and Results for States (STARS)' was implemented in 2021. It was also financially supported by the world bank through a loan of US\$ of 500 million including a contributory state share over a period of five years (FY: 2021-22 to 2024-25). This project strengthens as a supplement to 'Samagra Shiksha' scheme for the improvement of the quality education and efficiency of governance in schools in Himachal Pradesh of northern hill region. The targeted beneficiaries of this project are the students from the age of 3 to 18 years (Pre-school to class 12th) According to Index score of SDG 4, Himachal Pradesh holds the status of front runner performing much better than other hill states in education sector. It indicates that STAR Project in Himachal Pradesh cultivates a harmony of quality education, teachers' development, best practices of teaching and learning and efficiently co-ordinated governance of school education system. (Ministry of Education, About STARS, 2021). Governments must promote such projects for improving quality education in schools, though the component of digital/computer skill and vocational education is missing.

iii. Mid-Day Meal Scheme

The government launched the Centrally sponsored 'National Programme of Nutritional Support to Primary Education (NP-NSPE)' also known as 'Mid-Day Meal Scheme' on 15th August 1995 initially in 2408 blocks in the country. Since 2021, this flagship scheme renamed as 'Pradhan Mantri Poshan Shakti Nirman' (PM-POSHAN' onwards) has been achieving its targets under a revised budget of Rs 14,464 crore in the financial year 2024. The PM-POSHAN scheme provides free meal to children in government schools across the nation. The focused objectives of the scheme have been set to enhance enrollment, retention and attendance with nutritional support to students from class 1st to 8th. However, it appears that the provision of



free meals for children is a facility more to satisfy the hunger of starved children rather than to cultivate their interest towards educational literacy. Of course, Mid-Day Meal scheme is the most applicable and acceptable by all government managed schools. Contrary to achieving an objective of students' attendance and retention in school, the facility of free food satisfies the hunger of poor children whose parents are daily wagers or vendors, get relieved from the responsibility of nurturing their children.

iv. **PM Schools for Rising India (PM SHRI)**

On 7th Sept. 2022, the cabinet took the decision for remodelling more than 14500 schools under centrally sponsored scheme 'PM Schools for Rising India (PM SHRI)'. With the co-ordinated efforts of central/state government and local bodies, the selection of total 12,079 existing schools has been done through Transparent Challenge Method to set up exemplar schools in 33 states/union territories in 4 stages. The national financial outlay of Rs. 27360 crore (Central & State) for the scheme 'PM Schools for Rising India (PM SHRI)' spreads over a period of 5 years (2022-23 to 2026-27). **Under this scheme, the schools have been planned to develop with a quality learning environment for children with vibrant academic abilities** according to National Education Policy 2020 (NEP 2020). The major focus of these schools is on catering learner-centred education, particularly in the foundational years of schooling. The entire concept of PM SHRI schools is documented focusing on quality education in its real sense. The competency-based assessment criteria has been set on the parameters of conceptual understanding and application of knowledge in practical and real-life situations.

Available data reflects inconsistency in building PM SHRI schools w.r.t. continuity of quality education from primary to senior secondary level, as there is no Upper primary PM SHRI school in Himachal Pradesh and Uttarakhand under this scheme (Refer Table-5). Heavy funds have been allocated and released for repair and renovation of school buildings, installation of academic facilities like ICT labs, digitally enabled smart classrooms, sports facilities, well equipped science labs and digital library etc. Field observations reveal the fact that the advancement process of selected schools started under this scheme. However, a very slow pace of reconstruction, repair and developmental initiatives in these schools, it appears very difficult in attaining its core objectives within stipulated timeline.

v. **New India Literacy Programme**

'New India Literacy Programme' (NILP) aimed at providing foundational literacy and numeracy to the non-literate population in the age group of 15 years and above. The scheme targets education for all adults, so the term 'Adult Education' is replaced by 'Education for all'. The central and state governments sponsored this scheme for five years (2022-23 to 2026-27) with a fund allocation of Rs.1037.90 crore. During the stipulated period, the scheme targets on five crore non-literate adults to benefit them technology-based teaching and learning mode through mobile apps on the DIKSHA platform of NCERT. The beneficiaries who get registered voluntarily under this scheme, accessed online teaching learning material based on life skills and vocational skills.

The availability of accounted benefits of this scheme for the targeted population is very limited. The foremost requirements entail online network facilities, digital literacy, localized educational centres with technology-equipped infrastructural resources, etc. exclusively in hilly regions for the effectiveness of this scheme.

Besides that, the available data reveals a bulk of scholarship schemes that financially assist and encourage children from the families belong to schedule caste, schedule tribes, deprived and below poverty line. Many online scholarship schemes provision financial assistance in cash as well in kind through respective government schools to socially marginalized and disadvantaged poor students. But, the availability of benefits of these schemes is very complicated due to lengthy process of documentation across different channels of government organizations. Thus, the core purpose of schemes seems to be defeated. Such scholarships are not so effective to retain the beneficiaries for continuing their education because only selective students avail the benefits.

In a nutshell, the analyses showcase value added quality framework of policy document for education sector flagship schemes, launched and implemented by central and state government with their shared financial and physical obligations. However, the clear visibility of lapses w.r.t. effectiveness of schemes on ground level cannot be overlooked. The achievement of goals w.r.t. 'Equitable and inclusive Quality Education' and 'Skill based Vocational Education for generation of Employability for young aspirants' is far away from the set targets mentioned in the policy document.

4. DISCUSSION

(A) An analytical perspective of Government Sponsored Schemes w.r.t. 'Quality Education'

Notably, Indian governance endeavours to provide a comprehensive, unbiased and worthy education to people belonging to deprived and economically weaker sections of society by 2030 (SDG-4). In view of this, the Central and State Governments formulated and launched varied natures of SDG attuned schemes/programs to visualize sustainable growth in the education sector of hilly region. The allocation of funds for schemes/programs is shared with 90% and 10% by the central and state governments respectively in the hill region of India. In the hill states / UTs of Northern India, there is a preferred approach of central and state governments in allocating funds and resources to the schemes/programs implemented in the labour-intensive sectors including tourism, agriculture, handicraft, horticulture, etc. as these sectors help in revenue generation.



Nevertheless, the states invest in education sector with a secondary approach.

It is evident that SDG-4 addresses the foundational level of education for all. It focuses on promoting basic literacy and numeracy to acquire lifelong learning opportunities, especially for SC, ST, OBC and other vulnerable groups of society. The linkage (association) of SDG4 (Quality Education) with other SDGs (3,5,8,10,12,13) sounds its remarkable significance for the socio-economic and environmental sectors' growth of the nation. The respective central government departments namely 'School Education and Literacy', 'Social Justice and Empowerment', 'Tribal Affairs', 'Minority Affairs', 'Skill Development and Entrepreneurship', 'Labour and Employment', and 'Youth Affairs and Sports' play an important contributory role for fund allocation and launch of the central sector and centrally sponsored schemes aligned with SDG-4.

The analysis of the performance report of a flagship scheme (Samagra Shiksha) reveals that the rate of dropout cases increases generally after the upper primary or secondary level. It indicates that the focused attention of the government is required to plug the loopholes in management of school education. Field observations reflect that parents do not show interest to continue their wards' education after 8th class as they foresee no future prospects of employability even in their family run occupation.. They prefer to make their children engaged in family occupation for livelihood rather than sending them school after upper primary or secondary level. . Girls drop from schools due to getting married on their parents compulsion. Therefore, It is most desirable and also the need of hour for the governments/policymakers to prioritize a viable financial assistance in boosting the education sector for promoting employment generation in demanding sectors with value addition and technological advancement in the school education system

B- Sustainable Employability through Government Schemes

In the 21st century, the changing demography of India witnessed the strong potential of youth, men and women. Their smart access to globally advanced information and technology enhanced the scope of skill-oriented education with no gender bias. In this digitally advanced scenario, the people have developed a strong sensitivity for maintaining human dignity, self-respect for the nation and sustainable development in all sectors. In addition to that, the Central and state governments are undoubtedly sensitive to major key challenges such as social disparity, political and economic instability, poverty and unemployment, etc. The formulation and implementation of need-based developmental policies and programs are required to set a target of attaining sustainable progress in a transformed perspective with changing dynamics.

Hence, this analysis attempts to explore the contribution of government schemes which could impart 'Quality Education' oriented to skill based vocational education, and further, enhance the future prospects of sustainable productive employability for intended beneficiaries on completing class 12th. So far as sustainable Quality Education is concerned, the government-sponsored skill/ Job-oriented education schemes exist lesser in number than required. The identified schemes in hill states are performing at a very slow pace at ground level. 'Such schemes are less effective in attaining the desired goal due to lack of awareness and accessibility to the benefits of schemes specifically in hill states/UTs in Northern India (Sharma, R. 2023). However, the indicators show very secondary (subaltern) approach of state government towards demand of 'Vocational Education' which is required to be addressed with utmost priority by concerned policymakers.

As far as the relative targets of SDG-4 (4.4) are concerned, a limited number of schemes have been initiated for vocational and skill development in the young generation. The 'Department of Higher Education' and 'Department of Skill Development and Entrepreneurship' launched a few schemes/programs namely 'Skill India Programme', 'Skill Strengthening for Industrial Value Enhancements'(2023-24), 'Strengthening Of Infrastructure for Institutional Training' (2021-22), Development of Skill (2020-2023), 'Development of Apprenticeship' (2020-21). Table data indicates that Ladakh and Jammu and Kashmir are lagging much behind than hill states where students leave schools either after upper primary or secondary. It also indicates that young aspirants who are seeking opportunity for higher education or job prefer to migrate from hill region to plains. However, it clearly indicates that the least importance given to skill oriented vocational subjects and lack of professionally trained teachers for beneficiaries reduce the prospects of employability for a sustainable decent livelihood, and thus, the defined purpose of quality education remains defeated. The abundance of senior secondary/college pass-out/degree holder candidates every year gets added to the already existing large crowd of educated unemployed youth. The problem of unemployment is more prominent amongst the socially, economically and educationally backward population, even then, the government has not budgeted any expenditure on skill development schemes for scheduled castes in FY 2024-25 for hill states except Ladakh. (Refer Table. 7)

It is a revealed fact that the education sector contributes the most and at a fast pace to socio-economic growth as well as the environmental sustainability of the nation. It enhances productivity and creativity in the field of entrepreneurship, digitalization and technological advancement, and socio-economic and environmental development. In such a scenario, the young generation seeks educational facilities with worth quality education that may generate accessible opportunities for productive employability with sustainable livelihood.

The analysis finds that all centrally sponsored flagship schemes that are implemented in hill states of Northern India, consist very impressive components of vocationally smart quality education in the policy framework. As far as the performance of these schemes at ground level is concerned, the outcome is far away from the slated objectives on the policy document.

(C) Feasibility of government budgetary allocation



The main aim of governments is to ensure the social welfare of people. The study emphasizes on the ‘Principal of Maximum Social Advantage’ of Dalton’s Theory that the “public authority should collect revenue and spend the money to maximise the welfare of the people as a whole.” She further Quotes, according to Dalton, “maximum social advantage is at a point where the Marginal Social Sacrifice (MSS) of taxation and Marginal Social Benefit (MSB) are equal” while British economist Arthur Pigou named it as ‘Principle of Maximum Aggregate welfare’. The national income, employment and output of other fiscal operations are the key drivers in public finance for economic growth of a nation (Sweta Sharan, 2020).

Government expenditure on social welfare aims at minimising social and economic inequality of disadvantaged section of society. Therefore, the feasible budgetary allocation is desirable in various sectors for balanced economic development (SIES College of Economics and Commerce).

For the upliftment of the weaker section of society, the central government’s Department of Action Plan for Scheduled Castes, (DAPSC) allocate sufficient funds for providing financial and physical benefits to disadvantaged people through public welfare schemes in respective financial years. In spite of regular budgetary support, the data shows inconsistency in DAPSC fund allocation and continuity of government sponsored flagship schemes supervised under ‘Department of School Education and Literacy’ in corresponding years. In FY 2023-24 the table data shows no fund allocation for any education sector schemes in Jammu & Kashmir. Also, the expenditure budget is reduced in amount with a broad gap in 2023-24 as compared to previous financial years which indicates a least prioritized approach of government towards education sector (Refer Table 6).

Further, DAPSC allocate funding through ‘Ministry of Skill Ministry of Skill Development and Entrepreneurship’ to schemes that focus on encouragement of skill-oriented vocational education for marginalized and disadvantaged children. The data of expenditure is completely disappointing as no funds have been planned in 2024-25 except for one scheme ‘Skill Acquisition and Knowledge Awareness for livelihood’ in Ladakh. Whereas, in FY 2022-23 and 2023-24 the expenditure is at a declining trend. Only two out of five schemes in Uttarakhand and Himachal Pradesh have been included in expenditure plan in FY 2023-24 (Refer Table 7).

The governments release financial resources to implement education sector schemes through various inputs such as school infrastructure, learning materials, teachers and trainers etc. to provide quality education. Such inputs do not ensure the quality education rather may affect marginally the learning outcomes. The guidelines of world bank states that “*Governments are under increasing pressure to use education resources efficiently but often lack guidance on the optimal ways to invest and manage their school finance system*” and further suggests that “*the way money spent – and not simply how much is spent-matters in education finance*”. (World Bank, Education Public Expenditure Review Guidelines, 2017). For proper justification of the financial layout of schemes and their corresponding benefits to intended beneficiaries, it is critical that the Centrally sponsored education sector schemes, allocated with a heavy budget, lack periodical monitoring for finding the visible facts and realities on ground about their performance. Evaluation-based monitoring and revamping of schemes is the need of the hour. It is only the education sector that shoulders the sole responsibility of government run educational institutions to supply a professionally trained and vocationally skilled employable workforce to win over the burning issue of unemployment.

It is the recurring demand of time that the performance of all educational schemes is required to be assessed in the implicit and explicit manner. There is a broad gap between the theoretical description of shiny objectives of the schemes scripted on paper and the identified outcome on ground. The central and state governments are adequately concerned for allocating huge funds for advancing education sector to produce the human resource equipped with skills and knowledge. Hence, the financial viability of government sponsored schemes is required to be verified on the basis of attained benefits. Rendering policy suggestions to diverse stakeholders (governments/ doners), the research proposes specific interventions which would be expected to improve funding and further promoting more of such schemes. The specific interventions include the following:

- i. To restructure the academic curriculum at the secondary level that emphasizes skill development based quality teaching, learning and training under professionally trained teachers / industry experts.
- ii. To rationalize and prioritize the government-sponsored schemes more of a qualitative nature rather than quantitative bulk, to increase their effectiveness at ground level with optimum utilization of funds.
- iii. To introduce the government-sponsored skill specialisation courses mandatory for teachers/trainers;
- iv. To boost up small-scale business entrepreneurship in collaborative/joint ventures for employment generation for young aspirants,, and also, set an equilibrium between supply and demand of trained workforce;
- v. To establish government training centres for enhancing Digital literacy in hill regions with better internet connectivity and smooth online accessibility to actual benefits of the schemes;
- vi. To organize very frequently the programs, seminars, workshops, exhibitions and door-to-door campaigning to spread awareness about government schemes and their benefits.
- vii. To transform knowledge delivery pattern by converting school premises into a workshop / laboratories after upper



primary education.

- viii. To impart secondary and senior secondary education in technologically advanced infrastructure with practical skills and hands-on learning integrated with local industry demands in rural areas.
- ix. To link and co-ordinate the local industries with senior secondary schools and set up a strong monitoring and evaluation system of government for vocational training in schools.

5. CONCLUSION

The analysis of the 'Vision Document-2030' prepared by the select State Governments underpins progressively ambitious schemes / programs / missions for human development, social development and environmental sustainability. The roadmap therein showcases wider coverage of interventions. The coverage includes capacity-building programs, workshops / training for improved awareness of schemes and programs. The objective behind is the maximised attainment of SDGs. However, issues and challenges concerning the delayed implementation of schemes, insufficient state budget, lack of departmental sync, etc. are attention seeking as these factors obstruct effective / expected outcome of certain schemes. Additionally, shortage of skill / job-oriented education schemes, that too, aligned with the 4th and 8th SDGs is one of the reasons for the problem of unemployment in India.

Necessary allocations in the Government Expenditure Budget (2023-24) cover the government and private Institutions towards upgrading infrastructural and equipment facilities under the currently running schemes¹. Undoubtedly, 'Pradhan Mantri Kaushal Vikas Yojna' (PMKVY), a flagship scheme,² has set higher objectives i.e. facilitate the skill training on government financial and placement assistance / assist youths in categories of unemployed dropouts of school / college). These interventions have taken into consideration industry demands and thereby counter the problem of unemployment. However, the reported data of unemployed youth is still increasing. Therefore, the improvement(s) in the policy framework addressing sustainable and productive employment growth requires a consistently monitored and optimal / viable measure to secure the nation's prosperity in the times to come.

It is time tested that the Education sector has been contributing towards catalysing socio-economic growth as well as the environmental sustainability of the nation. It enhances productivity and creativity in the field of entrepreneurship, digitalization and technological advancement, socio-economic and environmental development. However, the secondary data reveals that the education sector is seemingly yet at the receiving end, whereas bundle of schemes implemented in the labour-intensive sectors are supposedly achieving the stated objectives.³

This research opens the way forward for researchers, policymakers and stakeholders to revamp certain schemes. This approach shall require rationalization and prioritization of existing schemes in education sector. The schemes ought to focus on skill-oriented quality education while addressing sustained productive employability as the final outcome. The entire perspective shall base upon improved and efficient budgetary management.

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Conflict of Interest

The authors declare no conflict of interest.

¹ 'Skill Strengthening For Industrial Value Enhancements' (Uttarakhand, Himachal Pradesh and Jammu & Kashmir), 'Skill India Programme' (Himachal Pradesh).

² Launched in 2015 by the 'Ministry of Skill Development & Entrepreneurship', of the Government of India.

³ Tourism, agriculture, handicraft, horticulture, etc.,



Author Contributions

Ms. Ranjana Sharan and Dr. Ridhi Khattar contributed equally to the conceptualization, methodology, data analysis in studying the research gap area with reference to SDG 4 and SDG 8.

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