

THE ROLE OF SKILL DEVELOPMENT PROGRAMMES IN PROMOTING SUSTAINABLE DEVELOPMENT IN KARNATAKA

Devaraju A R

Lecturer

Department of Economics, Government First Grade College, Malleshwaram, Bangalore – 12

ABSTRACT:

The present study explores how skill development programmes have become a cornerstone of Karnataka's strategy for achieving sustainable development. These initiatives aim to bridge the gap between education and employment by equipping youth, women, and marginalized communities with industry-relevant competencies. Flagship programmes such as Kaushalya Karnataka, Yuva Yuga, and sector-specific training under the Karnataka Skill Development Corporation (KSDC) have significantly enhanced employability, fostered entrepreneurship, and supported green and inclusive economic growth. By aligning training with emerging sectors like renewable energy, digital technology, and sustainable agriculture, these programmes contribute to both environmental sustainability and economic resilience. The decentralization of training centres to rural and semi-urban areas further promotes balanced regional development and mitigates urban migration. Karnataka's skill development ecosystem actively supports the United Nations Sustainable Development Goals (SDGs), particularly those related to quality education, decent work, reduced inequalities, and climate action. This paper examines the contribution of these programmes to sustainable development across the state.

Keywords: Education, Skill Development, Sustainable Development, Regional Development and Sustainable Agriculture.

INTRODUCTION

Skill development and sustainable development are closely linked, with the former serving as a catalyst for economic empowerment, environmental responsibility, and social inclusion. In Karnataka, a state known for its technological innovation and demographic diversity, skill development has become a strategic priority. Programmes like Kaushalya Karnataka, Yuva Yuga, and initiatives under the Karnataka Skill Development Corporation (KSDC) aim to bridge the gap between education and employability. These efforts focus on equipping youth, women, and marginalized communities with industry-relevant skills that enhance their job readiness and entrepreneurial potential.

Beyond traditional sectors, Karnataka's approach emphasizes training in emerging and sustainable fields such as renewable energy, digital technology, organic farming, and waste management. This green-skills orientation ensures that economic growth aligns with ecological sustainability. Additionally, the decentralization of training centres to rural and semi-urban areas promotes regional equity, reduces urban migration, and strengthens local economies. By fostering an inclusive and environmentally conscious workforce, Karnataka's skill development strategy contributes meaningfully to long-term sustainable development.

DEFINING KEY CONCEPTS:

Skill Development:

Skill development refers to the process of enhancing an individual's abilities, knowledge, and competencies to perform tasks efficiently and adapt to evolving work environments. It involves acquiring new skills or upgrading existing ones through various means such as formal education, vocational training, on-the-job experience, and informal learning. This process encompasses a broad spectrum of learning experiences, including technical education, soft skills enhancement, digital literacy, and sector-specific training.

Sustainable Development:

Sustainable development is a comprehensive approach to progress that seeks to balance economic growth, social inclusion, and environmental protection to ensure long-term well-being for current and future generations. It emphasizes responsible resource use, equitable access to opportunities, and the preservation of ecosystems while promoting innovation and resilience. First defined in the 1987 Brundtland Report, sustainable development has since become a global priority, guiding policies and practices across sectors. It is embodied in the United Nations' 17 Sustainable Development Goals (SDGs), which address challenges such as poverty, education, climate change, and inequality. By integrating sustainability into decision-making, societies can foster inclusive prosperity without compromising the planet's health or future potential.

Review of Related Literature

The study attempts to review the literature related to skill development in promoting sustainable development.

Pitamber Singh Chauhan (2023), emphasizes that education and skill development are vital for building sustainable livelihoods in today's rapidly changing world. They enhance individual resilience, economic adaptability, and environmental awareness. However, systemic reforms are needed to address infrastructure gaps, outdated curricula, and weak industry linkages.

Sarkhan Jafarov (2025), highlights that education and skill development are key to building a resilient, future-ready workforce. Integrating vocational training, digital learning, and lifelong education bridges skill gaps and boosts employability. Collaborative efforts across sectors can drive inclusive growth and sustainable development.

Jagan Mohan Guduru (2025), focuses on India's education system is shifting toward skill-based learning to meet global workforce demands. While progress is evident, challenges like poor infrastructure and outdated curricula persist. Skill education enhances employability and personal growth, fostering a more inclusive and innovative society. Collaboration among stakeholders is key to sustaining this momentum.

Research Gap

Existing studies on skill development in Karnataka focus primarily on employability and economic growth, with limited attention to sustainability outcomes. There is a lack of research on how these programmes integrate green skills and support environmentally conscious livelihoods. Few studies assess region-specific impacts or long-term community resilience. This gap highlights the need for deeper analysis linking skill development to sustainable development goals in Karnataka.

Significance of the Study

The study of skill development programmes in Karnataka is significant as it highlights the state's strategic efforts to enhance employability, promote inclusive growth, and align with sustainable development goals. By examining initiatives such as the Kaushalya Karnataka Mission, the State Skill Development Policy (2025–2032), and the role of the Karnataka Skill Development Corporation, the study reveals how targeted training in sectors like IT, healthcare, green technologies, and entrepreneurship is empowering youth and marginalized communities. It also underscores the importance of industry-academia collaboration and digital platforms in bridging the gap between education and employment, ultimately contributing to a resilient, future-ready workforce and a more equitable economy.

Objectives of the Study

The following are the major objectives of the present study

1. To study the concept of Skill Development and sustainable development.
2. To analyse the skill development programmes in Karnataka.
3. The role of skill development programmes in promoting sustainable development.

Research Methodology

The research study is mainly based on secondary sources. Secondary data has been collected from various reports of Central Government and State Governments. Karnataka Economic Survey, Directorate of Statistics and Planning, Karnataka, and articles published in newspapers, journals, and books.

Skill Development Programmes in Karnataka

Skill development programmes that focus on these sectors help build a workforce capable of supporting climate action and environmental conservation. By aligning training with the needs of green industries, governments can ensure that economic progress does not come at the cost of ecological degradation, thus reinforcing the environmental pillar of sustainable development. Karnataka has taken a proactive approach to skill development through a range of structured programmes aimed at enhancing employability, promoting entrepreneurship, and aligning with sustainable economic growth.

1. **Kaushalya Karnataka Mission (KKM):** Launched by the Department of Skill Development, Entrepreneurship and Livelihood (SDEL), this mission provides free short-term training to youth aged 18–35 across various sectors such as information technology, construction, healthcare, and retail. It places special emphasis on marginalized groups, including women, Scheduled Castes and Tribes, and differently-abled individuals. The programme also offers certification and placement support, helping bridge the gap between education and employment.
2. **Karnataka Skill Development Corporation (KSDC):** KSDC serves as the nodal agency for skill development in the state. It facilitates partnerships between training providers, industries, and academic institutions to ensure that the training offered aligns with current market needs. KSDC also supports global workforce mobility by promoting internationally recognized certifications and skill standards. Through its digital platform, Kaushalkar, the state enables youth to register for training, explore job opportunities, and access career guidance online, making skill development more accessible and transparent.

3. **State Skill Development Policy (2025–2032):** In 2025, Karnataka introduced the State Skill Development Policy (2025–2032) with a vision to transform the state into a global talent hub and support its ambition of becoming a \$1 trillion economy by 2032. With a budget of ₹4,432.5 crore, the policy aims to unify fragmented skilling efforts under a single framework, promote future-ready skills such as artificial intelligence, robotics, and green technologies, and improve access to training in both urban and rural areas. The policy also emphasizes measurable outcomes such as job creation, entrepreneurship, and sustainable livelihoods, ensuring that skill development contributes meaningfully to the state's socio-economic progress.
4. **Green Skill Development Programmes:** These initiatives train individuals in renewable energy, sustainable agriculture, waste management, and water conservation. By preparing a workforce for green jobs, the state supports climate action and aligns with global sustainability goals. Additionally, entrepreneurship and livelihood programmes such as the Udyogini Scheme empower women and rural entrepreneurs by providing financial assistance, mentorship, and business training. These efforts not only promote self-employment but also stimulate local economies and reduce regional disparities.
5. **Industry-Academia Collaboration:** Karnataka's emphasis on industry-academia collaboration has strengthened the practical relevance of its skill development efforts. Through partnerships with companies like Infosys, Bosch, and Toyota, the state has established Skill Development Centres in polytechnics and Industrial Training Institutes (ITIs). These centers offer hands-on training, apprenticeships, and customized courses tailored to industry demands. By integrating real-world experience into education, Karnataka ensures that its youth are not only skilled but also job-ready, contributing to a more dynamic and resilient workforce.

Role of Skill Development Programmes in Promoting Sustainable Development

The relationship between these two concepts is increasingly recognized as vital for achieving inclusive and resilient societies. According to research, skill development is a key enabler of sustainable livelihoods, particularly in developing economies where unemployment and poverty are pressing concerns. By empowering youth, women, and marginalized communities with market-relevant skills, governments and organizations can foster economic self-reliance, reduce inequality, and promote social mobility.

Moreover, skill development plays a crucial role in preparing the workforce for green job roles that contribute to preserving or restoring the environment. Training in areas such as renewable energy, sustainable agriculture, and waste management equips individuals to support climate action and ecological conservation. This alignment ensures that economic progress does not come at the expense of environmental degradation. Skill development plays a crucial role in achieving sustainable development in Karnataka. Here are some reasons why:

1. **Economic Sustainability**
 - ❖ **Employment Generation:** Skill development reduces unemployment by preparing individuals for jobs in high-demand sectors.
 - ❖ **Entrepreneurship Promotion:** Training in business and financial literacy fosters self-employment and innovation, especially in rural and underserved areas.

- ❖ **Increased Productivity:** A skilled workforce enhances efficiency and output, contributing to long-term economic resilience.
- ❖ **Industrial Growth:** Skilled labor supports the growth of industries, especially in manufacturing, services, and technology sectors.

2. Environmental Sustainability

- ❖ **Green Skills Training:** Focused training in areas like renewable energy, sustainable agriculture, and waste management supports eco-friendly industries.
- ❖ **Sustainable Practices:** Skilled workers help implement environmentally responsible methods in construction, farming, and manufacturing.
- ❖ **Climate Action Support:** A workforce trained in sustainability contributes to reducing carbon emissions and adapting to climate change.

3. Social Sustainability

- ❖ **Inclusion of Marginalized Groups:** Skill development initiatives often prioritize women, youth, differently-abled individuals, and rural populations.
- ❖ **Poverty Reduction:** Skills lead to better job opportunities and income generation, helping lift families out of poverty.
- ❖ **Empowerment and Equity:** Training fosters self-reliance, confidence, and access to opportunities, reducing social and regional disparities.
- ❖ **Community Development:** Skilled individuals contribute to local development through entrepreneurship and civic engagement.

4. Alignment with Sustainable Development Goals (SDGs)

- ❖ **SDG 4 – Quality Education:** Promotes lifelong learning and vocational training.
- ❖ **SDG 8 – Decent Work and Economic Growth:** Enhances employability and supports inclusive economic development.
- ❖ **SDG 10 – Reduced Inequalities:** Targets disadvantaged groups to bridge opportunity gaps.
- ❖ **SDG 13 – Climate Action:** Prepares a workforce for green jobs and sustainable industries.

5. Policy and Institutional Support

- ❖ **Government Initiatives:** Programmes like Skill India Mission, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), and Kaushalya Karnataka integrate skill training with sustainability goals.
- ❖ **Public-Private Partnerships:** Collaboration between industries, NGOs, and educational institutions ensures relevant and future-ready training.
- ❖ **Curriculum Innovation:** Integration of sustainability principles into vocational and technical education enhances awareness and action.

In essence, skill development is not merely a pathway to employment. It is a strategic enabler of sustainable development. By cultivating a skilled, adaptable, and environmentally conscious workforce, societies can build inclusive economies that are resilient to future challenges and aligned with global sustainability goals.

Key Challenges in Skill Development for Promoting Sustainable Development

Skill development plays a crucial role in promoting sustainable development in Karnataka; however, the state continues to face several challenges in this area.

1. **Skill-Industry Mismatch:** Many training programmes do not align with current industry needs, leading to underemployment and skill redundancy.
2. **Lack of Green Skills Integration:** Most curricula lack focus on sustainability-related skills like renewable energy, waste management, and eco-friendly technologies.
3. **Access and Inclusion Barriers:** Rural populations, women, and marginalized groups face limited access to quality training due to social, economic, and geographic constraints.
4. **Poor Training Quality and Infrastructure:** Many centers lack modern equipment and qualified trainers, affecting the effectiveness of hands-on learning.
5. **Fragmented Governance:** Overlapping schemes and poor coordination between central and state bodies reduce efficiency and impact.
6. **Weak Monitoring and Evaluation:** Success is often measured by enrollment rather than job placement or long-term livelihood outcomes.
7. **Digital Divide:** Limited internet access and digital literacy in remote areas hinder participation in online or blended learning models.

SUGGESTIONS

Here are some focused suggestions to strengthen skill development programs aimed at promoting sustainable development in Karnataka.

- ❖ Some specific subjects related to skill development should be included in the education system to better prepare students for future employment and sustainable livelihoods.
- ❖ Integrate green skills such as renewable energy and organic farming into agricultural training programmes to promote sustainable development.
- ❖ Collaborate with industries to align curricula with real-world job demands.
- ❖ Set up training centres in rural and semi-urban areas for regional inclusion.
- ❖ Use digital platforms to provide flexible, lifelong learning opportunities.
- ❖ Support eco-friendly startups through funding and mentorship.
- ❖ Track programme outcomes with robust monitoring and evaluation systems.
- ❖ Conduct local skill gap studies to tailor region-specific training.
- ❖ Offer incentives to private firms that invest in sustainable skill development.
- ❖ Design inclusive programmes to increase women's participation in training.
- ❖ Involve community groups and NGOs in grassroots skill delivery.
- ❖ Include soft skills and environmental ethics in all training modules.
- ❖ Link training with job placements or internships in green sectors.

CONCLUSION

Skill development programmes in Karnataka have emerged as a cornerstone for advancing sustainable development by fostering economic growth, environmental responsibility, and social inclusion. Through initiatives like Kaushalya Karnataka, KSDC, and the State Skill Development Policy (2025–2032), the state has strategically aligned training with industry needs and sustainability goals. These programmes empower youth, women, and marginalized communities with future-ready and green skills, promoting entrepreneurship, reducing unemployment, and supporting climate action. Despite challenges such as infrastructure gaps, skill mismatches, and limited access in rural areas, Karnataka's integrated and inclusive approach demonstrates a mountable model for building a resilient, skilled, and sustainable workforce. Continued innovation, collaboration, and policy support will be vital to sustaining this momentum and achieving long-term development goals.

REFERENCES

1. *Pitamber Singh Chauhan* (2023), Evaluating the Role of Education and Skill Development in Promoting Sustainable Livelihoods, IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 25, Issue 2. Ser. I (February. 2023), PP 80-85.
2. Sarkhan Jafarov (2025), Education and Skill Development: A Pathway to Sustainable Growth, International Journal of Scientific Research and Management (IJSRM), Volume - 13, Issue - 02, Pages - 3963-3969, ISSN (e): 2321-3418.
3. Dr. Jagan Mohan Guduru (2025), Skill Development and Vocational Training Initiatives, International Journal of Social Impact, Volume 10, Issue 1, ISSN: 2455-670X.
4. Hanushek, E. A., & Woessmann, L. (2008). The role of cognitive skills in economic development. *Journal of Economic Literature*, 46(3), 607–668. <https://doi.org/10.1257/jel.46.3.607>.
5. Ministry of Skill Development & Entrepreneurship. (2024). Annual Report 2024- 25. Government of India.
6. Kapoor, R. (2014). Skill development in India. *International Journal of Transformations in Business Management*, Vol. 4 No. II, pp. 25-33.
7. Singh, A. (2018). "Skill Development and Employment Generation in India: Challenges and Opportunities." *Journal of Education and Work*, 31(2), 178-192.
8. Pulles, N., Velde, C., & Jansen, P. (2019). The Impact of Skill Development on Business Performance. *Journal of Business Research*, 75, 50-60.
9. Smith, R., & Jones, T. (2018). Employee Satisfaction and Skill Development: A Study of Best Practices. *Journal of Human Resource Management*, 30(3), 345-360.
10. Ratne Lahre., (2018), The Impact of Skill Development Programs on Economic Growth and Employment Generation in India, *International Research Journal of Commerce and Law* Volume 5 Issue 06, June 2018 ISSN: 2349-705X Impact Factor: 6.616.