

HELD Academia-Industry Nexus Report, Volume 3

Back to the Future – Green Jobs for the Bangladeshi Textile Sector and Related Industries



PROJECT

Higher Education and Leadership Development for Sustainable Textiles in Bangladesh (HELD)

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CONSULTANCY

REED Consultancy Bangladesh (RCB)

RESEARCH TEAM

Mohammad Abbas Uddin, PhD, Team Leader

Abul Kalam Azad, Expert

Arafat Abubakar, Expert

Kazi Farhan Hossain Purba, Youth advisor

Md. Sakib Al Montasir, Youth Advisor

PREFACE

As part of the project Higher Education and Leadership Development for Sustainable Textiles in Bangladesh (HELD), implemented by GIZ, we emphasized fostering meaningful dialogue between the education sector and private industry on sustainability within the textile and education spheres. At the core of this initiative is the Academia-Industry Nexus, which focuses on strengthening collaboration between academic institutions and industry stakeholders.

This initiative is brought to life through a structured cooperation network that brings together representatives from higher education, vocational training institutions, government bodies and the textile industry. As part of these efforts, we have organized multiple events addressing contemporary issues related to higher/vocational education and industrial growth. The insights and discussions from these events are compiled as a series of report volumes.

This report has been prepared by Reed Consultancy Bangladesh (RCB) and published by GIZ Bangladesh. We extend our sincere gratitude to RCB, the speakers, participants, and panelists for their invaluable contributions to this publication.

Bikash Chandra Sarkar
Technical Advisor HELD
GIZ

Dr. Christian Bochmann
Head of Project HELD
GIZ

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ABBREVIATIONS

AUST	Ahsanullah University of Science and Technology
BIM	Bangladesh Institute of Management
BTEB	Bangladesh Technical Education Board
BUTEX	Bangladesh University of Textiles
CCS	Carbon capture and storage
ECA	Ecologically Critical Areas
ESG	Environmental, social, and governance
ETP	Effluent treatment plant
GHG	Greenhouse gases
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HELD	Higher Education and Leadership Development for Sustainable Textiles in Bangladesh
Higg FEM	Higg Facility Environmental Module
KPI	Key Performance Indicators
LCA	Life Cycle Assessment
NAPA	National Adaptation Programme of Action
NCSA	National Capacity Self-Assessment
NEMAP	National Environmental Management Action Plan
NPI	Net Positive Impact
OSH	Occupational Safety and Health
R&D	Research and development
SDG	Sustainable Development Goals
SEMP	Sustainable Environment Management Programme
SHED	Society for Health Extension and Development
SLCP	Social & Labor Convergence Program

1 INTRODUCTION

Bangladesh is the world's second-largest exporter of clothing and textiles after China. While the industry has been enjoying impressive growth over the last two decades, further progress in sustainable development in social, ecological and economic terms remains challenging. The situation is getting worse due to the loss of biodiversity, lack of renewable resources and growing water, air and soil pollution. Green jobs can be the missing piece of the puzzle to reduce the consumption of energy and raw materials to dematerialize the economy, to avoid GHG emissions to decarbonize the economy, to protect and restore ecosystems, and to minimize waste and pollution. In this scenario, creating green job opportunities with a systematic shift to a circular economy where materials are used up to their maximum possible value, can mitigate the related drawbacks by transforming the nature of work, with an emphasis on necessary skill sets and policy requirements. As a result, job market policies for green jobs are becoming more widely recognized for facilitating the shift to more sustainable green growth.

This report is based on insights gathered from a network as part of the work under Output 4 (Academia-Industry Nexus) of the bilateral project "Higher Education and Leadership Development for Sustainable Textiles in Bangladesh (HELD)", to strengthen the application-oriented competencies of future specialists and managers in the textile industry and related sectors in Bangladesh.

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2 METHODOLOGY

This report is based on insights gathered from a network session on green jobs, on 5 October 2024 and a comprehensive literature review of existing reports, publications, websites, and other publicly available resources from relevant organizations on green jobs in the textile industry and related sectors in Bangladesh. During the event, key findings from the background study were presented through two keynote presentations, followed by a panel discussion and interactive group activities. A total of 45 participants, divided into seven groups, engaged in in-depth discussions, allowing for a more detailed exploration of green jobs in the sector.

45 participants from different sectors participated in the event representing Bangladesh Technical Education Board, Bangladesh Institute of Management, Bangladesh University of Textiles, Ahsanullah University of Science and Technology, Central Women's University, Rangpur Begum Rokeya University, Rangpur Textile Engineering Institute, Begum Amina Monsoor Textile Engineering Institute, UCEP Institute of Science and Technology, Bangladesh Garment Manufacturers and Exporters Association, DBL Group, Crown Wear Pvt Ltd., Cute Dress Industry Ltd., Palmal Group, Jamuna Group, Urmi Group, Design In Global, UN Women, GIZ and Reed Consultancy Bangladesh

3 BACKGROUND STUDY

3.1 Concept of green jobs for bangladesh

Green jobs contribute substantially to preserving or restoring environmental quality, specifically but not exclusively jobs that help to protect and restore ecosystems and biodiversity. Green jobs reduce energy, materials, and water consumption through high-efficiency and avoidance strategies, de-carbonize the economy and minimize or altogether avoid the generation of all forms of waste and pollution.¹ Jobs can be referred to as 'Green Jobs' when they help to reduce negative environmental impact, leading to environmentally, economically, and socially sustainable enterprises and economies.² Green jobs contribute to environmental improvement, whether in traditional sectors such as manufacturing and construction or in emerging green sectors such as renewable energy and energy efficiency.³



Keynote speaker 1: Mr Abul Kalam Azad, Assistant Professor, Bangladesh University of Textiles

The concept of green jobs was explored through various sectors in Bangladesh, e.g.

- **Agriculture** (small-scale sustainable farming, organic farming)
- **Biodiversity** (reforestation/afforestation, agroforestry, sustainable forestry management)
- **Construction** (green buildings, retrofitting, efficient equipment and appliances)
- **Industry**
 - Steel: secondary steel production based on scrap
 - Aluminium: recycling aluminium scrap
 - Pulp and paper: recycling paper
 - Cement: energy efficiency improvements
 - Recycling: All forms, including electronics and composting
 - Textile: Circularity supply chain
- **Energy**, e.g. renewables, carbon capture and storage (CCS)
- **Transportation**, e.g., fuel-efficient cars, mass transit, rail

¹https://wedocs.unep.org/bitstream/handle/20.500.11822/8825/UNEPGreenJobs_report08.pdf?sequence=3&am%3BisAllowed=

²<https://www.ilo.org/media/274571/download>

³<https://www.ilo.org/publications/green-jobs-green-economy-just-transition-and-related-concepts-review>

3.2 Opportunities of green jobs

The transition to a greener economy presents numerous opportunities for green jobs across both government and non-government sectors in Bangladesh. In the government sector, initiatives can focus on:

- Green policy implication and dissemination
- Green impacts assessment
- ESG reporting and authenticity checking
- OSH assessment
- Green energy audit and validation
- Hazardous waste management and safe disposal
- Carbon accounting validation
- Green finance
- Due diligence and capacity-building training

Meanwhile, the non-government sector can play a crucial role by emphasizing:

Local and international fashion brands focusing on	Local textile manufacturing industries focusing on	Consultancy firms focusing on
<ul style="list-style-type: none">■ Brands sustainability■ Green energy■ Human rights and safety■ Green component and eco-design■ Carbon and water footprint■ Environmental and social governance (ESG)■ Recycling■ Circular economy■ Lean management■ Due diligence■ Data, such as internal green performance assessment	<ul style="list-style-type: none">■ Social compliance■ Worker rights and safety■ Chemical management■ Fire and safety■ Effluent treatment plant (ETP)■ Industrial production engineering, i.e., to increase production efficiency, reduce waste■ Social and environmental tools management, i.e., Higg Facility Environmental Module (FEM), Social and Labor Convergence Program (SLCP)	<ul style="list-style-type: none">■ Sustainability■ ESG■ Energy■ Footprint■ OSH■ Fire and safety■ Capacity building through training, workshops

3.3 Challenges of green jobs

Despite the growing potential for green jobs in Bangladesh, several challenges hinder a smooth transition to a sustainable workforce. These challenges include –

- The need for green jobs may not be recognized by the concerned organizations, authorities, individuals or civil society
- The area of green jobs may be wide-spreading, so focusing on specific areas may be difficult
- Certain green jobs can be less attractive because of nature of work e.g. landfill sites, sewage treatment plants etc.
- Some green jobs may not be a well-paid jobs
- Green jobs may not be 'green' after all

3.4 Future scopes and skills and policy requirements for green jobs

The evolving landscape of green jobs demands a workforce equipped with specialized skills to meet emerging challenges. Key professions such as climate change analysts, environmental restoration planners, environmental certification specialists, environmental economists, industrial ecologists, water resource specialists, and water/wastewater engineers play a crucial role in driving sustainability.

However, existing skill gaps pose significant occupational challenges. To address these gaps, several strategic measures can be implemented, including –

- Developing a framework that includes relevant indicators for the government to regularly assess progress and performance towards bridging the skill gaps as no skills response strategies are incorporated into a wider greening policy agenda;
- Review of current policies and strategies for bridging the skill gaps

Key professions such as climate change analysts, environmental restoration planners, environmental certification specialists, environmental economists, industrial ecologists, water resource specialists, and water/wastewater engineers play a crucial role in driving sustainability.

- Placing stronger focus on the education and training providers on skills development opportunities that are relevant to the needs of learners, society, and the economy
- Ensuring active participation of employers in developing skills and making effective use of skills in their organizations to improve productivity and competitiveness
- Enhancing and evaluating the quality of teaching and learning at all stages of education
- Emphasizing continuous and seamless pathways of learning
- Development of core skills– including literacy, numeracy, communication, teamwork, problem-solving, and learning ability
- Development of higher-level skills– professional, technical and human resource skills
- Development of employability by portability of skills

Although not exhaustive, there are several existing policies and frameworks related to green jobs in Bangladesh, namely:

National Environment Policy 2018, Ecologically Critical Areas (ECAs) Management Rules 2016, National Industrial Policy 2016, Bangladesh Water Act 2013, Bangladesh Climate Change Strategy and Action Plan 2009, The Renewable Energy Policy of Bangladesh 2008, National Environmental Management Action Plan (NEMAP), Sustainable Environment Management Programme (SEMP), National Adaptation Programme of Action (NAPA), National Capacity Self-Assessment (NCSA) for Global Environmental Management



*Keynote Speaker 2:
Dr. Mohammad Abbas Uddin Shiyak, PhD
Assistant Professor, Bangladesh University of Textiles*

4 WORKSHOP FINDINGS

4.1 Group activity 1

After the first keynote speech and Q&A on “Understanding the Concept of Green Jobs and Current Opportunities and Challenges of Green Jobs” was delivered, a group activity consisting of three specific questions was divided among the groups separately.



Different groups brainstormed and discussed during the group activity.

All the teams parallelly brainstormed and discussed within the group, and presented the findings. The main findings can be summarized as-

Question	Focus Points
How to attract youths more into green sectors and ensure green jobs are not just jobs but a meaningful lifestyle?	<ul style="list-style-type: none"> ■ Curriculum development ■ Internship opportunities ■ Awareness session (webinar) ■ Culture of innovation and recognition ■ Governmental policy implementation ■ Maintaining green human resources policy
What are the different ways to mitigate the challenges of green jobs in Bangladesh?	<ul style="list-style-type: none"> ■ Training for concerned personnel ■ Diversification of profession ■ Policy recommendation ■ Law enforcement ■ Action plans ■ Incentives (financial, strategic) ■ Budget allocation to sustainable practices ■ Awareness raising market gimmick
Other scopes and opportunities you can think off to incorporate green jobs into the textile supply chain?	<ul style="list-style-type: none"> ■ Government sectors: Academicians and trainers, administrative officers, textile sustainability experts in assessment monitoring, inspectiin and certification, customers and export-import bureau ■ Non-government organisation: Academician and trainer, sourcing personnel, chemical management, energy management, Life cycle assessment (LCA) experts, sustainable auditing

Participants also suggested ways to make green jobs more meaningful by

- Linking with Sustainable Development Goals (SDGs)
- Alignment with Paris Agreement and Net Positive Impact (NPIs)
- Sharing success stories
- Introducing organization-wide sustainability Key Performance Indicators (KPIs)
- Providing incentives for reducing carbon footprint

Participants also presented sector-specific activities/technologies to strengthen future scopes to incorporate green jobs into the supply chain through

- Waste management and recycling practices
- Internet of Things (IoT) tech and data management
- Sludge management and disposal
- Renewable energy infrastructure
- Green technology-focused R&D
- E-waste management
- Process development for waste reduction
- Sourcing green products locally and globally
- Sustainable accounting
- Sustainable practices, monitoring, and utilities
- Green education and training



Different groups brainstormed and shared their findings

4.2 Panel impulse discussion

The members of the panel impulse discussion included Prof. Dr. Mohammed Mahbubur Rahman, Pro Vice-Chancellor, Ahsanullah University of Science and Technology (AUST); SM Shahjahan, Deputy Director, Bangladesh Technical Education Board (BTEB); Md. Sayeedur Rahman, Management Counselor Bangladesh Institute of Management (BIM); Sheikh H M Mustafiz, Managing Director, Cute Dress Industry Ltd. and Jahidul Islam Akash, President, BUTEX Career Club.

The panellists discussed-

- The role of the government and private sector to foster the development of a skilled workforce to meet the demands of green industries
- The pathways educational institutions in Bangladesh can adopt in their curriculums to better equip graduates with the skills needed for green jobs
- Future growth of green jobs opportunities in Bangladesh and the most potential sectors to witness the most significant transformation
- Potential benefits of green jobs for local communities in Bangladesh



Panel discussion

4.3 Group activity 2

The second group activity of the focused on policies, job prospects, and required skillset related to green jobs to be better aligned to ensure their effective reflection on the job market and increase awareness among graduates to benefit the local community, to predict the future growth and to specify the role of government and private sectors. The finding were as follows:

Policy Alignment, such as Incentives for green institutes, tax benefits/subsidies, support and promote legislation, enabling framework;

Enhancing job prospects, for example, a clear vision and mission for greening, green jobs-specific recruitment board;

Skillsets-based curriculum development and certification;

Increasing awareness through campaign, alumni, and industry-academia collaboration;

Preparing students through job fairs, career fairs, and job placements;

Developing ethical and cognitive skills among the students along with giving a real-life professional demonstration to make them job-ready;

A structured supply chain involves different stakeholders, e.g., youths (students/fresh graduates), academia, and industry, and incorporates the opinions of the relevant stakeholders.



Different groups shared their findings

5 RECOMMENDATIONS

The overall greens jobs transition in a developing country seems chaotic and may require extensive support. Green jobs in the textile sector and related industries in Bangladesh are increasingly important to acquire economic growth and environmental sustainability, aligning with global trends and consumer demand and contributing to the resilience to climate change. Our recommendations to focus on this transition are-

Coining mindsets early: Shifting of mindsets and awareness of sustainability from the early stages of education is crucial for fostering green jobs. This can be done (a) by integrating sustainability topics into curricula on all levels, (b) by targeted, age-appropriate awareness campaigns and (c) by greening selected education institutions that act as landmarks of sustainability practice in everyday school lessons, (d) optimally in collaboration with the private sector.

Professional skills development: The development of green skills needs both national and international expertise so that green professions, which are already established abroad and proven effective, can serve as a first idea generator to pave the way forward to green job profiles in Bangladesh. Main target groups are students in vocational and higher education as well as professionals at work in different industries, topping up their green skills in relation to their existing tasks. Focus areas in Bangladesh, that can lead to new or updated professions should be circularity, renewable energies as well as industrial and environmental safety.

Academia-industry-policy cooperation: Collaboration between academia, industry and policymakers can bridge existing gaps: Educational institutions can collaborate with companies to provide students with real-world experience in sustainable practices and enhance their employability in green jobs. Graduates entering work with a solid understanding of sustainability identify with their daily tasks.

Job counselling and mentorship: Students and graduates need to be better informed about their job opportunities and career prospects regarding green jobs by means of

Green jobs in the textile sector and related industries in Bangladesh are increasingly important for acquiring economic growth and environmental sustainability, aligning with global trends and consumer demand and contributing to the resilience to climate change.

career counselling in both high schools and technical/higher education. The latter can also benefit from mentorship in cooperation with role-models working in green jobs which is particularly essential for female students and graduates. They can learn about the current reality and prospects of green jobs through knowledge/experience sharing events, offline meetups and online platforms.

Closing existing policy gaps: Closing the existing policy gaps related to green jobs in the textile sector and related industries in Bangladesh for promoting both social and environmental sustainability can be done by policy framework and related action plan development aligned with international standards, providing financial incentives and subsidies for green companies, and enforcing, monitoring and regularly updating green jobs related regulations. Various ministries should join hands in that.

Bridging the past, present and future: Policymaking and planning should not only focus on previous/existing professions but also refer to upcoming/ future roles and consider new technologies that are changing the nature of the textile sector and related industries of Bangladesh. This involves strategic planning, market research and trend analysis, investment in education and training, and collaboration between concerned national and international stakeholders with a long-term vision and strategy.



6 CONCLUSION

Job market policies for green jobs are increasingly recognized worldwide as key to facilitating the transition to sustainable green growth by creating new employment opportunities. Similarly, green jobs strategies are expected to play a bigger role in employment creation efforts in Bangladesh, as having a workforce with in-demand green skills fosters sustainable growth, increases innovation, and boosts competitiveness. While the number of green jobs in the textile sector created in Bangladesh is expected to account for only a small percentage of total employment, linkages with other enterprises and sectors will be substantial, inducing new jobs and shifting towards more environmentally friendly modes of production. Creating green jobs to achieve environmentally, economically, and socially sustainable enterprises and economies can be the missing piece of the puzzle in Bangladesh's journey towards a sustainable future. The GIZ HELD Academia-Industry- Nexus network session on green jobs emphasized the conceptualization of green jobs while highlighting the benefits, impacts, opportunities, challenges, and future scopes along with the skillset and policy gaps, requirements, and corrective measures in Bangladesh. This session has promoted knowledge transfer, skills enhancement, and career development, paving the way for a more diverse and vibrant workforce through green jobs.

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Higher Education and Leadership Development for
Sustainable Textiles in Bangladesh (HELD)
GIZ Bangladesh
PO Box 6091, Gulshan 1
Dhaka 1212, Bangladesh
Phone +880 9666 701 000
Email giz-bangladesh@giz.de
www.giz.de/en

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Mynul Kader Mahmud, GIZ

Author:

Reed Consultancy Bangladesh
Laura Sophie Schnieders, GIZ
Bikash Chandra Sarkar, GIZ

Responsible:

Dr. Christian Bochmann

On behalf of the
German Federal Ministry for Economic Cooperation and
Development (BMZ)