Online Conference

Bridging Asia-Pacific and Europe: New Qualifications and Competencies in TVET

27-28 April 2021
ADVANCING VOCATIONAL EDUCATION & TRAINING IN INDIA

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Joint Director,
PSSCIVE, Bhopal, India
Presentation Outline

1. Background

2. Advancing Vocational Education & Training in India

3. GREENING TVET: New Initiatives

4. Key Factors of Success and Major Challenges Faced

5. Concluding Remarks

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CLIMATE CHANGE & VULNERABILITY

INDIA: **1.39 Billion** Population & Average Age **27.9 yrs**.
**Target:** **400 Million Skilled Workforce by 2022; 5 Trillion by 2024**
“The crisis of un-sustainability can not be solved by the kind of education that helped create the problem”.

We need a new way of thinking, new methodologies of teaching & new content to create Sustainable Future!
National Skill Development & Entrepreneurship 2015

Polytechnic Program

Higher Secondary School
IX | X | XI | XII

Class 12 Pass

Year 1
NSQF Diploma

Year 2

Year 3
NSQF B.Voc.

College/University Program

Community College Program

School Program

Industry Employment

Skilling on a large Scale at Speed with high Standards

National Skill Qualification Framework

National Education Policy, 2020

INDIA: STRATEGIC ACTION AGENDA

Skilling on a large Scale at Speed with high Standards

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PROMOTING GREENING TVET AT PSSCIVE, BHOPAL

Part 1
Introducing Green Skills in VET Curriculum

Part 2
Greening Institution

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Vocational Education & Training in School Curriculum
(CLASS 9 & 10: 200 HRS) (CLASS 11 & 12: 300 HRS)

Part 1

Employability Skills (37%)
- Communication Skills
- ICT Skills
- Self-management
- Entrepreneurial Skills
- Green Skills

Vocational Skills (63%)
- Sector & Job Specific Skills
CATCH THEM YOUNG: FOR SDG 2030

- VET is developing a significant no. of workforce for creating, re-creating & transforming resources, often with environmental implications.

- Vocational education reforms most important tool in realising SDG 2030 & Sustainability

- Increase environmental awareness

- Aware @ environmentally friendly technologies,

- Change the mind-set and prepare for new green occupations.

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### Class 9: UNIT 5: GREEN SKILLS – I

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Theory (07 Hrs)</th>
<th>Practical (03 Hrs)</th>
<th>Duration (10 Hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrated the knowledge of the factors influencing natural resource conservation</td>
<td>1. Introduction to environment&lt;br&gt;2. Relationship between society and environment ecosystem and factors causing imbalance&lt;br&gt;3. Natural resource conservation&lt;br&gt;4. Environment protection and conservation</td>
<td>1. Group discussion on hazards of deteriorating environment&lt;br&gt;2. Prepare posters showing environment conservation&lt;br&gt;3. Discussion on various factors that influence our environment</td>
<td>05</td>
</tr>
<tr>
<td>2. Describe the importance of green economy and green skills</td>
<td>1. Definition of green economy&lt;br&gt;2. Importance of green economy</td>
<td>1. Discussion on the benefits of green skills and importance of green economy&lt;br&gt;2. Prepare a Poster showing the importance of green economy with the help of newspaper/magazine cuttings</td>
<td>05</td>
</tr>
</tbody>
</table>

Total 10

### Class 10: UNIT 5: GREEN SKILLS - II

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Theory (07 Hrs)</th>
<th>Practical (03 Hrs)</th>
<th>Duration (10 Hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demonstrate the knowledge of importance, problems and solutions related to sustainable development</td>
<td>1. Definition of sustainable development&lt;br&gt;2. Importance of sustainable development&lt;br&gt;3. Problems related to sustainable development</td>
<td>1. Identify the problem related to sustainable development in the community&lt;br&gt;2. Group discussion on the importance of respecting and conserving indigenous knowledge and cultural heritage&lt;br&gt;3. Discussion on the responsibilities and benefits of environmental citizenship, including the conservation and protection of environmental values&lt;br&gt;4. Preparing models on rain water harvesting, drip / sprinkler irrigation, vermicompost, solar energy, solar cooker, etc.</td>
<td>10</td>
</tr>
</tbody>
</table>

Total 10

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# Class 11: UNIT 5: GREEN SKILLS - III

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Theory (07 hrs)</th>
<th>Practical (08 hrs)</th>
<th>Duration (15 Hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe importance of main sector of green economy</td>
<td>1. Main sectors of green economy: E-waste management, green transportation, renewable energy, green construction, water management Policy initiatives for greening economy in India</td>
<td>1. Preparing a poster on any one of the sectors of green economy 2. Writing a two page essay on important initiatives taken in India for promoting green economy</td>
<td>08</td>
</tr>
<tr>
<td>2. Describe the major green Sectors/Areas and the role of various stakeholder in green economy</td>
<td>1. Stakeholders in green economy 2. Role of government and private agencies in greening cities, buildings, tourism, industry, transport, renewable energy, waste management, agriculture, water, forests and fisheries</td>
<td>1. Preparing posters on green Sectors/Areas: cities, buildings, tourism, industry, transport, renewable energy, waste management, agriculture, water, forests and fisheries</td>
<td>07</td>
</tr>
</tbody>
</table>

**Total 15**

# Class 12: UNIT 5: GREEN SKILLS - IV

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Theory (05 hrs)</th>
<th>Practical (10 hrs)</th>
<th>Duration (15 Hrs)</th>
</tr>
</thead>
</table>

**Total 15**

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LEARNING OUTCOME BASED VOCATIONAL CURRICULUM

JOB ROLE: Solanaceous Crop Cultivator
(QUALIFICATION PACK: Ref. No. AGRI/QP013)
SECTOR: Agriculture
Classes 9 and 10

PSS CENTRAL INSTITUTE OF VOCATIONAL EDUCATION
(a constituent unit of NCERT, under MHRD, Government of India)
Shyamia Hills, Bhopal- 462 012, M.P., India
http://www.psscive.ac.in

http://www.psscive.ac.in/stud_text_book.html
http://www.psscive.ac.in/Employability_Skills.html

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17 JOB SECTORS & 152 JOB ROLES

Agriculture
Plumber
Construction
Security
Electronics & Hardware
Apparels

Food Processing
Health care
Textiles
ITeS
Organised Retail
Tourism & Hospitality

Automotive
Media & Entertainment
BFSI
Power
Telecom

27
No. of States/UTs

10,843
No. of Schools

1.20 million
No. of Students

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KEY DIMENSIONS OF GREEN PSSCIVE MOVEMENT

**Phase 1:** Getting Acquainted
- Managing Campus
  - Energy Mng’t
  - Water Mng’t
  - Waste Mng’t
  - Pollution Control

**Phase 2:** Getting Involved
- Offering Courses
  - Green Technology
  - Clean Technology
  - Green Jobs
  - ESD Program

**Phase 3:** Infusing Green
- Adapting Community
  - Capacity Building
  - Renewable Tech
  - Resource Support
  - Unique Practices

**Phase 4:** Transforming Lives
- Fostering Research
  - Renewable Energy
  - Water Treatment
  - Green Innovations
  - Waste Recycling

- Promoting Culture
  - Green Values
  - Green Attitude
  - Green Ethics
  - Green Practices

- Managing Campus
- Offering Courses
- Adapting Community
- Fostering Research
- Promoting Culture

**Green Policy**

“PSSCIVE envision that TVET Institutions would vigorously explore & develop practical knowledge and green skills and clean technology applicable to their respective service area.”

Source: Dr Majumdar 2010

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Major Challenges Faced

- Inertia, and Lack of Understanding @ SDG
- Willingness to Learn & Experimentation
- Attitude- Status quo maintain, Inflexibility
- Lack of Passion/Commitment/Teamwork

Key Factors of Success

- Strategic Focus
- Collective Decision making & Transparency
- Emphasis on building Green Culture and Professional Ethics
- Care & Value Environment

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We ourselves feel that what we are doing is just a drop in the ocean. But the ocean would be less because of that missing drop.

Mother Teresa