



# Education and Skills for Inclusive Growth and Green Jobs

## Country findings - India

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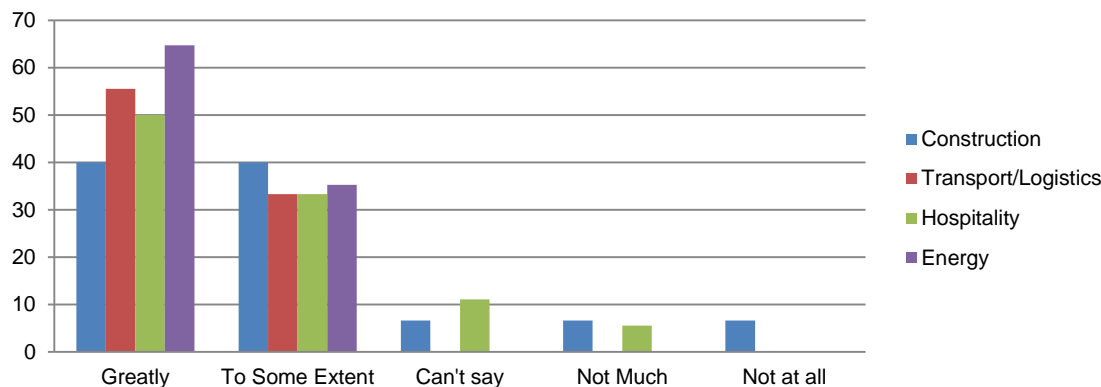


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## Performance pressures across industry high

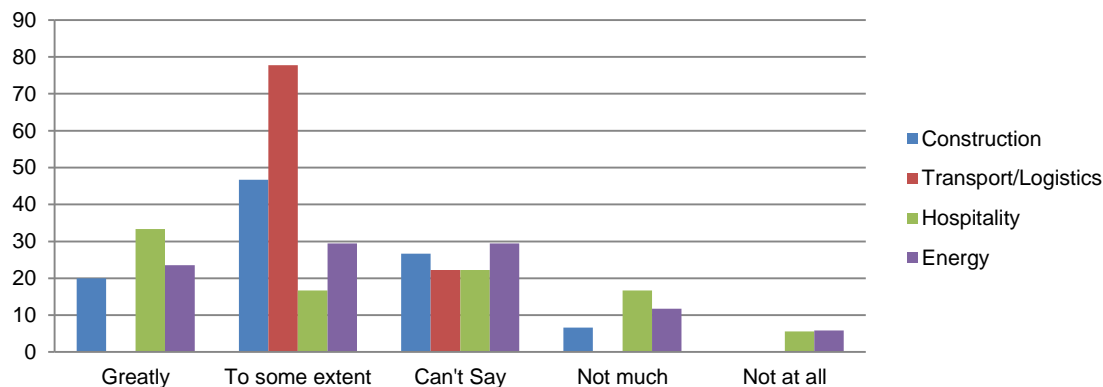
... such as economic squeeze, competition, regulatory pressures

**%-Share of industry sectors who felt government regulatory impact on business in the last one year**



## Climate change issues taking a backseat

**%-Share of industry sectors developing new skills based on need to undertake environmental impact assessments**

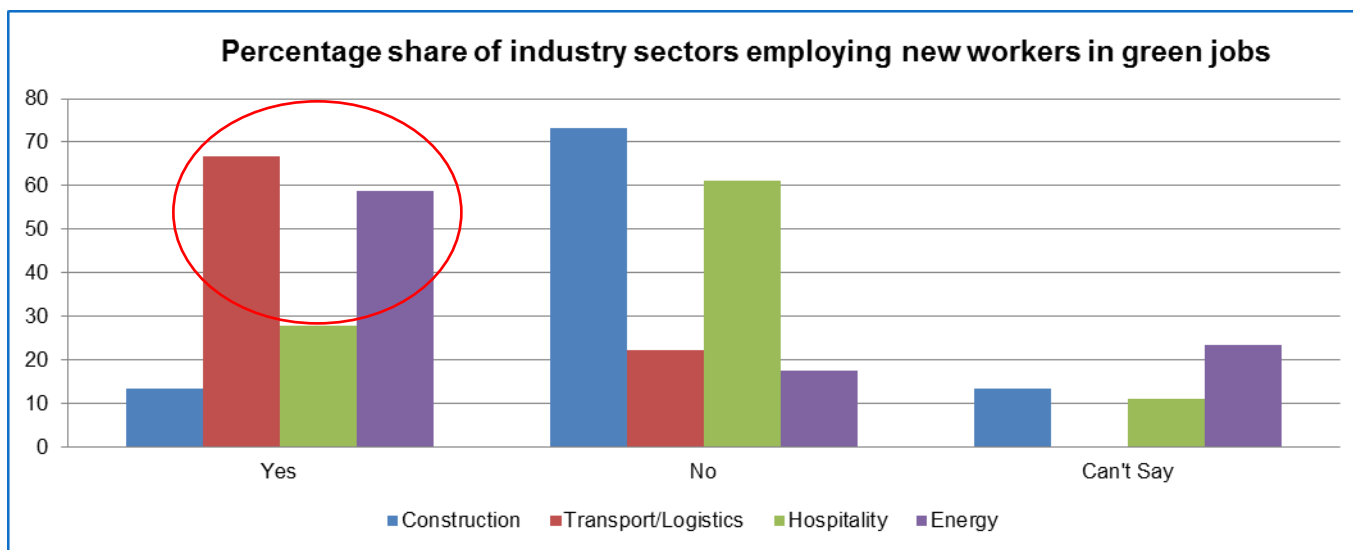


## Sectors having more directed policies respond better to changes related to green jobs and green skills

- National Action Plan for Climate Change and its Eight Missions
- National Urban Transport Policy, Emission Norms etc.
- Energy Conservation & Building Code – more understood under energy sector than construction
- New and Renewable Energy Policy
- Sustainable Tourism Criteria for India – less understood by un-starred hotels

For example green jobs more understood in transport & energy sectors...

...less in other sectors like construction



## More familiarity with Green Skills than Green Jobs...

Greening does not imply a new sector nor means the creation of new jobs...

....it means ways to reduce the environmental impact of enterprises and economic sectors to levels which are sustainable

### Green Skills

**Agricultural Sector:**  
Sustainable practices such as water conservation, use of fertilizers etc.

**Industry/Manufacturing Sector:**  
Sustainable processes such as pollution control, recycling etc.

**New Industry Sector:**  
Renewable energy production – wind, solar

## Emerging Green Skills...

### Construction Sector

Skills for

- environmental compliance and regulations;
- impact assessments;
- sustainable building designs, water audits, water-saving initiatives,
- recycling materials in operations, minimizing waste at the construction site

### Energy Sector

Skills for

- Commissioning, grid integration of wind, solar farms
- Wind turbine erectors, farm site managers, maintenance technicians,
- Solar Photovoltaic installers, maintenance
- Carbon capture, use of coal washery rejects, shale gas, coal bed methane, bio-fuel etc.

### Transport Sector

Skills for

- hybrid automobile engineer, environmental engineer
- CNG drivers, mechanics, fuel station staff etc.
- Rapid mass transport including freight transport
- Handling hazardous materials, route planning,

### Travel & Tourism Sector

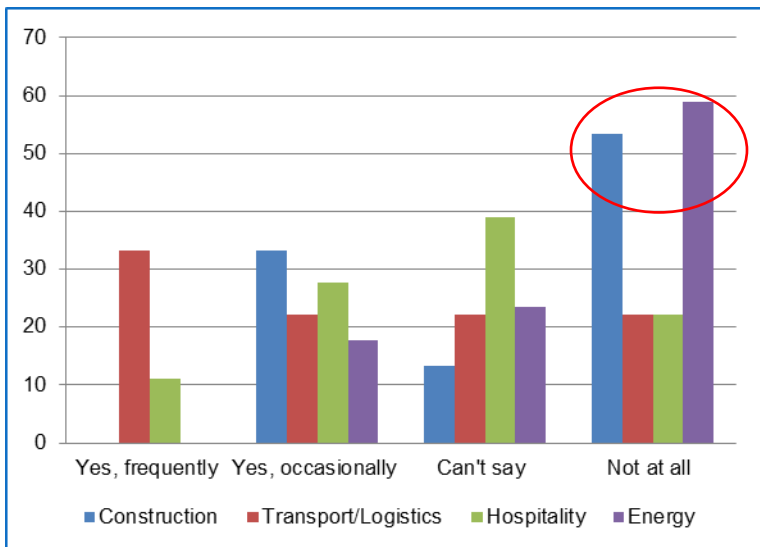
Skills for

- polo grooms, nature guides, high altitude service providers, river rafting guides, golf caddies, masons for heritage conservation, wellness service providers

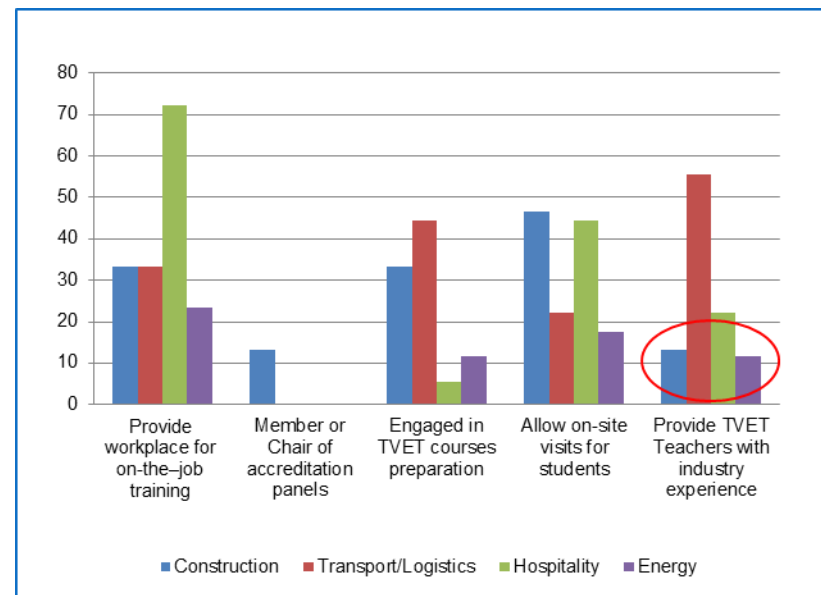
## Formal training systems are less prepared to take up green skill demands...

- ...least control over content & curriculum of Govt. TVET system
- ...poor employability of graduates from the TVET institutions
- ...highly regulated apprenticeship system
- ...poor standards and accreditation system
- ...poor quality of instructors with limited exposure

Percentage share of employers giving feedback on graduate skills to TVET institutes for *course improvements*

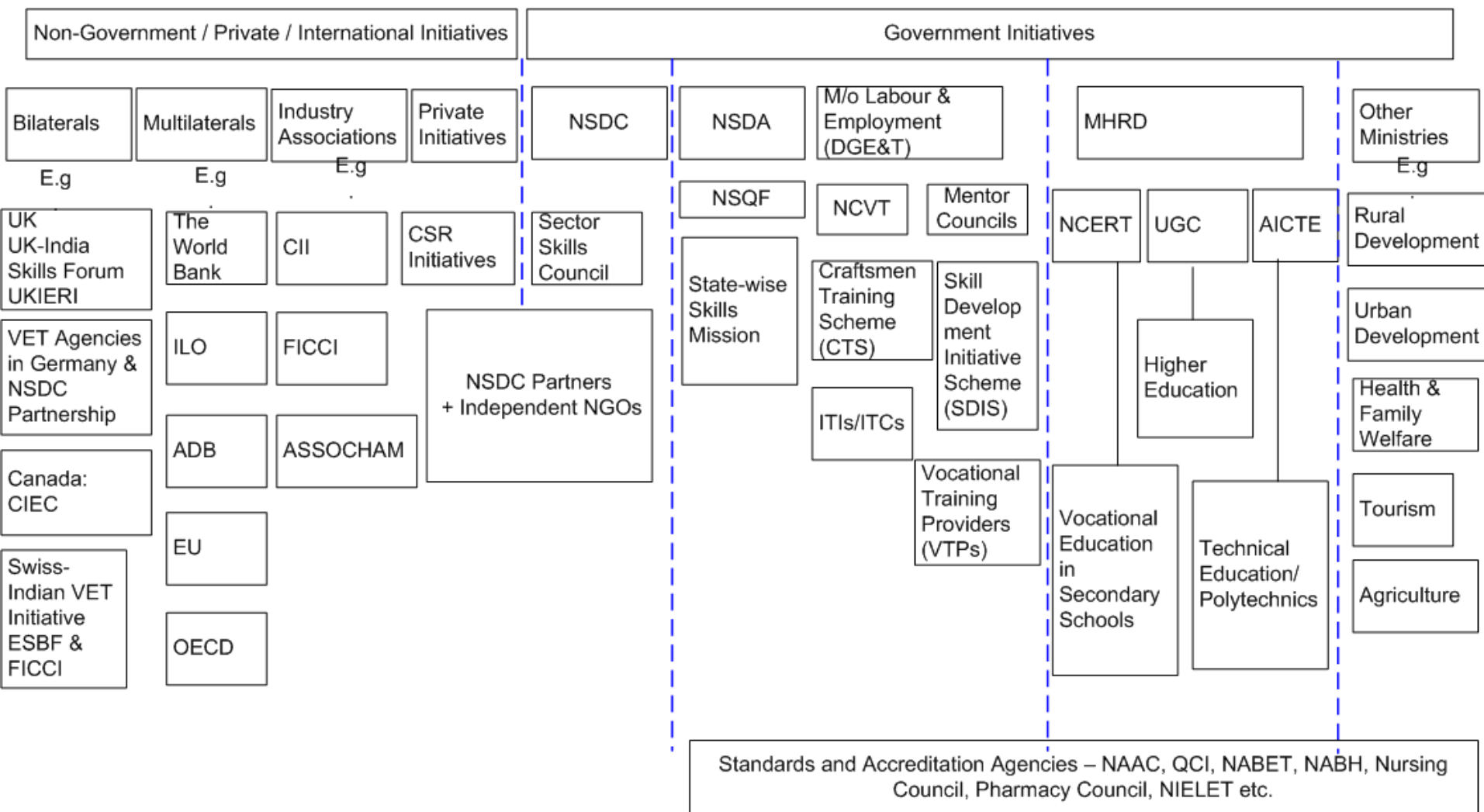


Percentage share of employers on *engagement methods* with TVET institutes



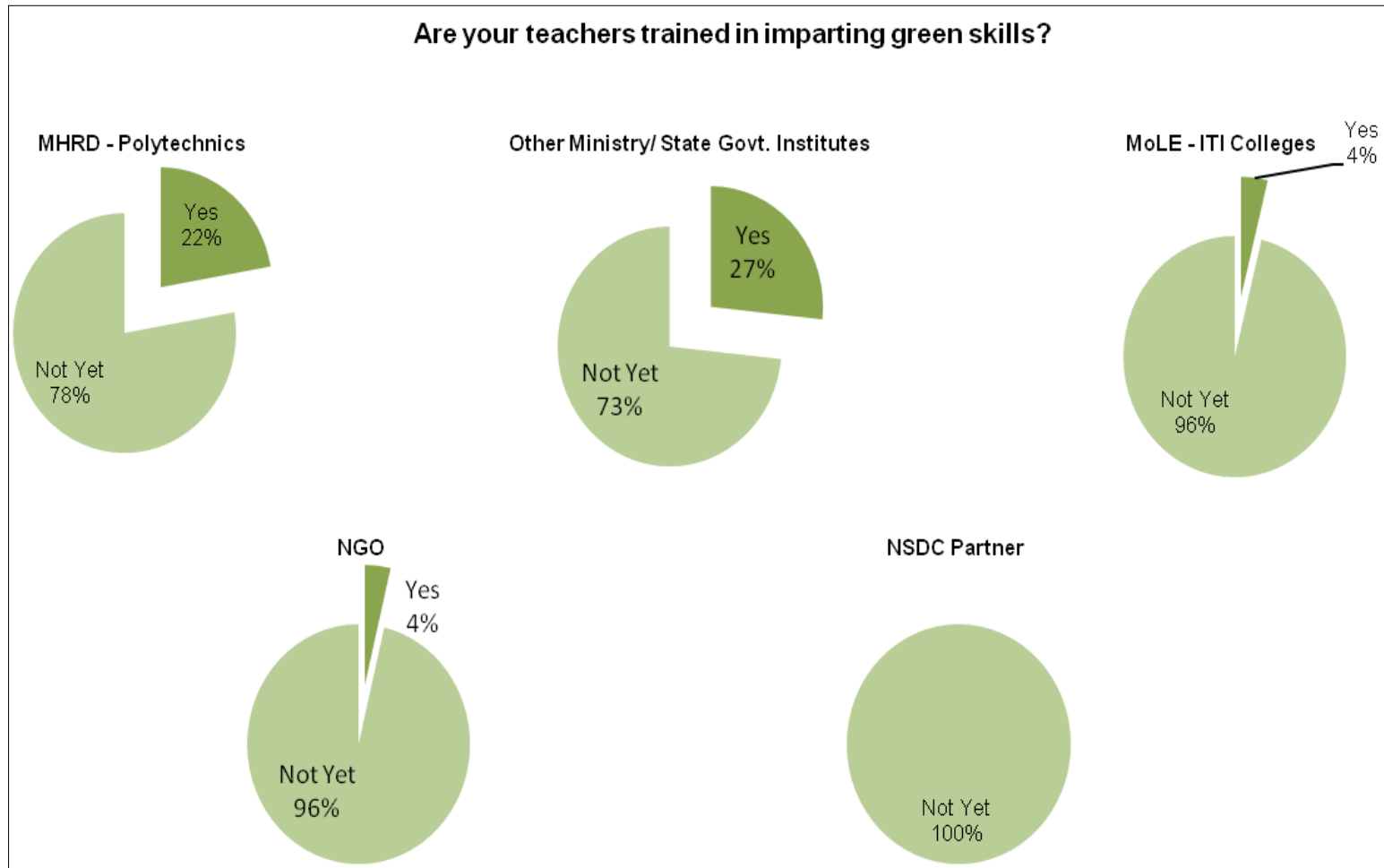
## The Training Maze...

...stiff challenge to introduce green skills



## Even Instructors need significant training on Green Skills...

...need to target Higher Education Institutions as well





## Some realizations...

- Individuals are well aware of green economy, jobs, skills. Institutions are not.
- Sharp contrast between primary, secondary and tertiary sectors w.r.t. “green practices”
- Short-run goals often overshadow long-term outcomes – profits in industry, political mandates in government
- Large corporations are more responsive towards green practices
- Private TVET is more responsive to adapt to changing industry requirements
- Government TVET needs legislations to change

## Some recommendations...

### Strategic Level

- Policy integration through frameworks
- Green practices to become a 'business' issue
- Support for green growth, green jobs and green skills from foreign aid and investment agencies

- Aligning with eight climate change missions
- Good practices
- Green standards
- 'Make in India' initiative
- Smart cities, SEZs

### Operational Level

- Initiate easily implementable activities around green skill development
- Outcome based incentives for enterprises and TVET institutions
- Sensitivity towards sustainability to become a 'social' issue

- Inclusion of green skills in NSQF, Qualification Pack and Model Curriculum
- Target short-term training schemes – aajeevika, star scheme, SDIS-MES
- Target National Council for Teacher Education

Over to the Moderator...