



ADB



Education and Skills for Inclusive Growth and Green Jobs in Asia

Skills Forum, December 2014

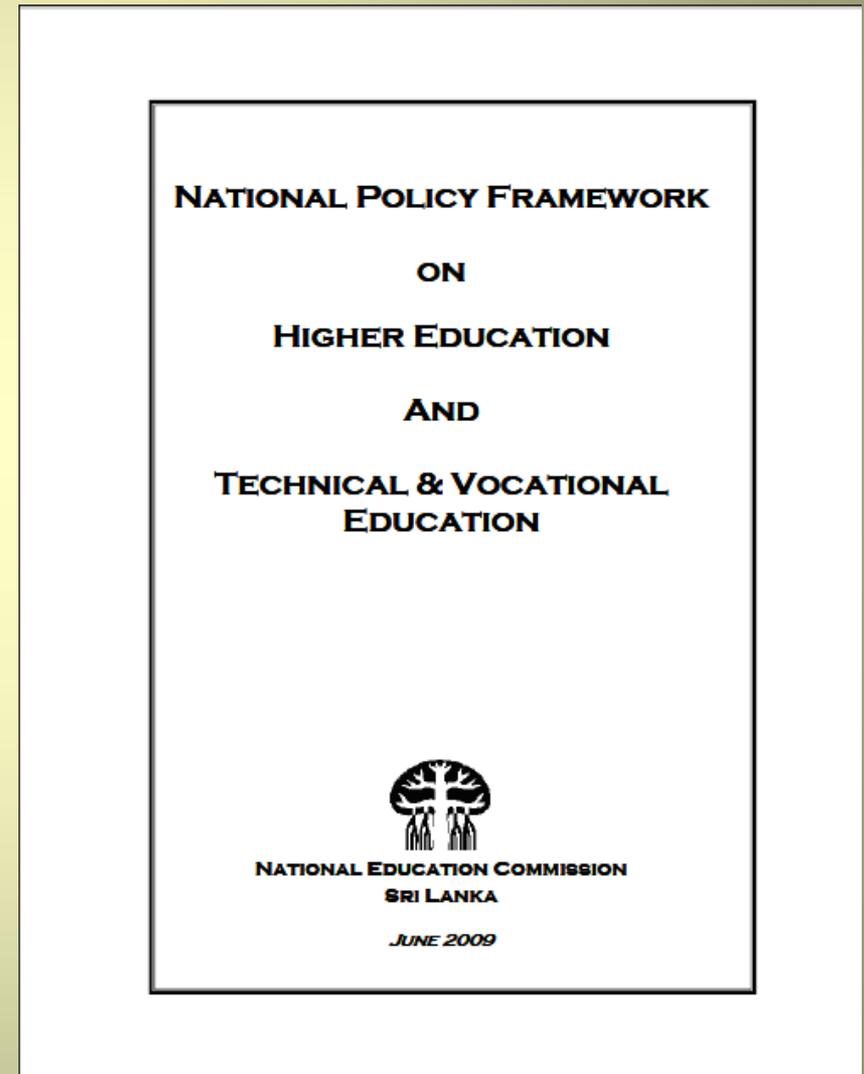
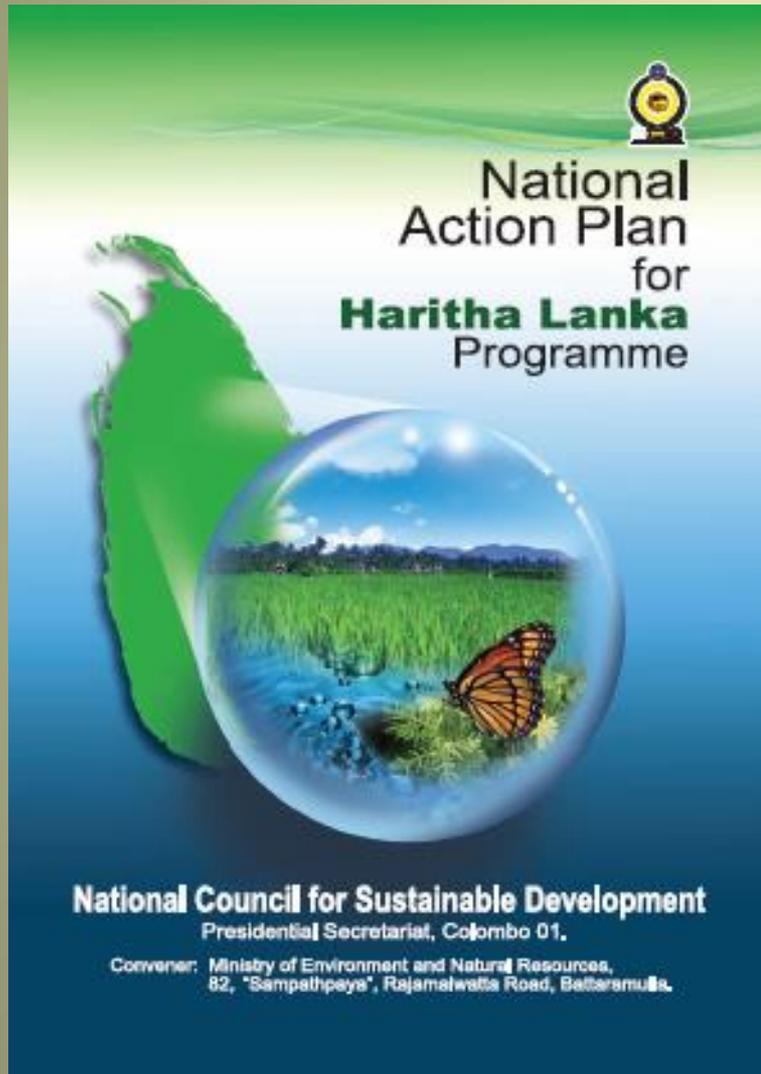
Sri Lanka

Margarita Pavlova

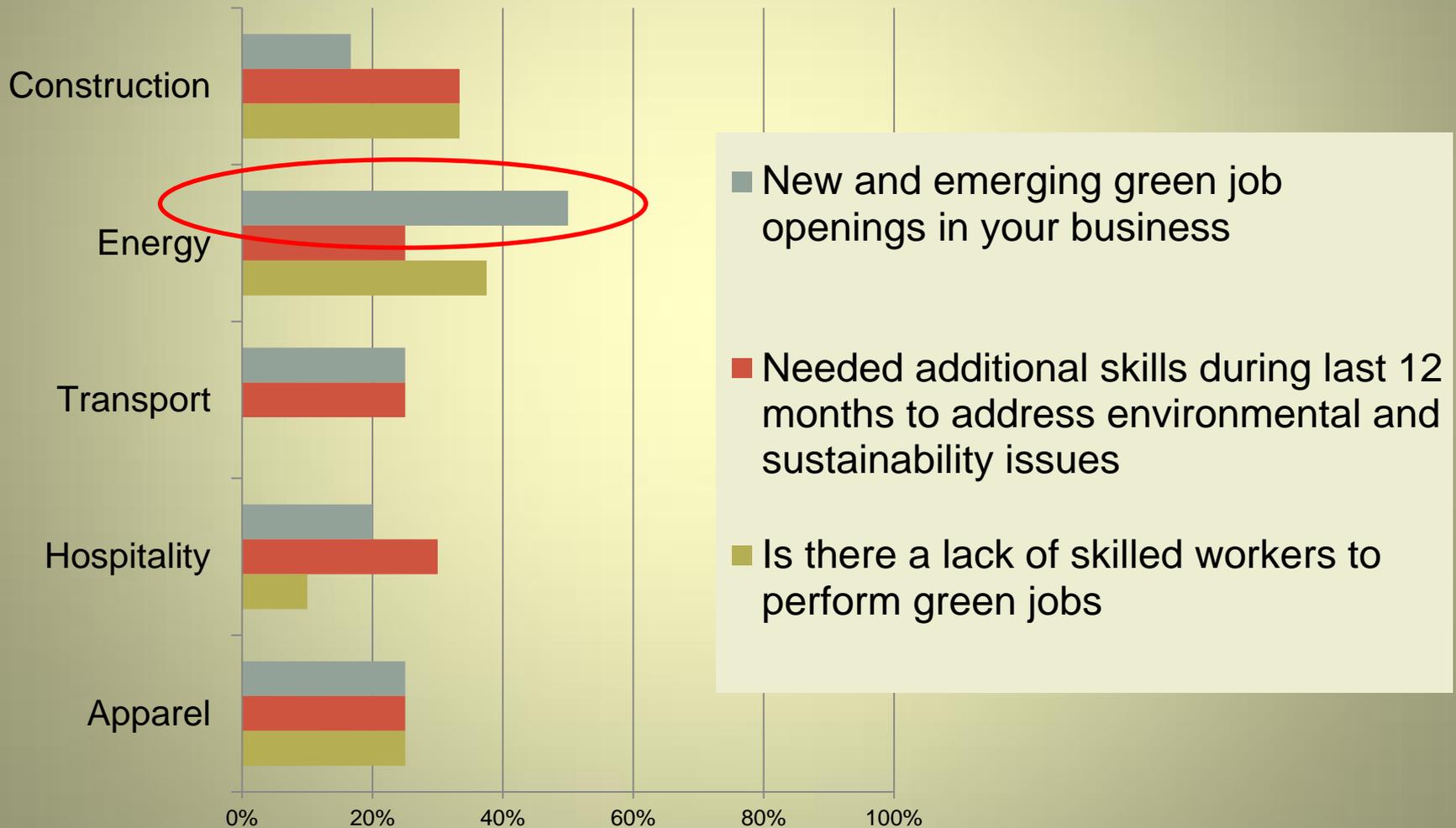
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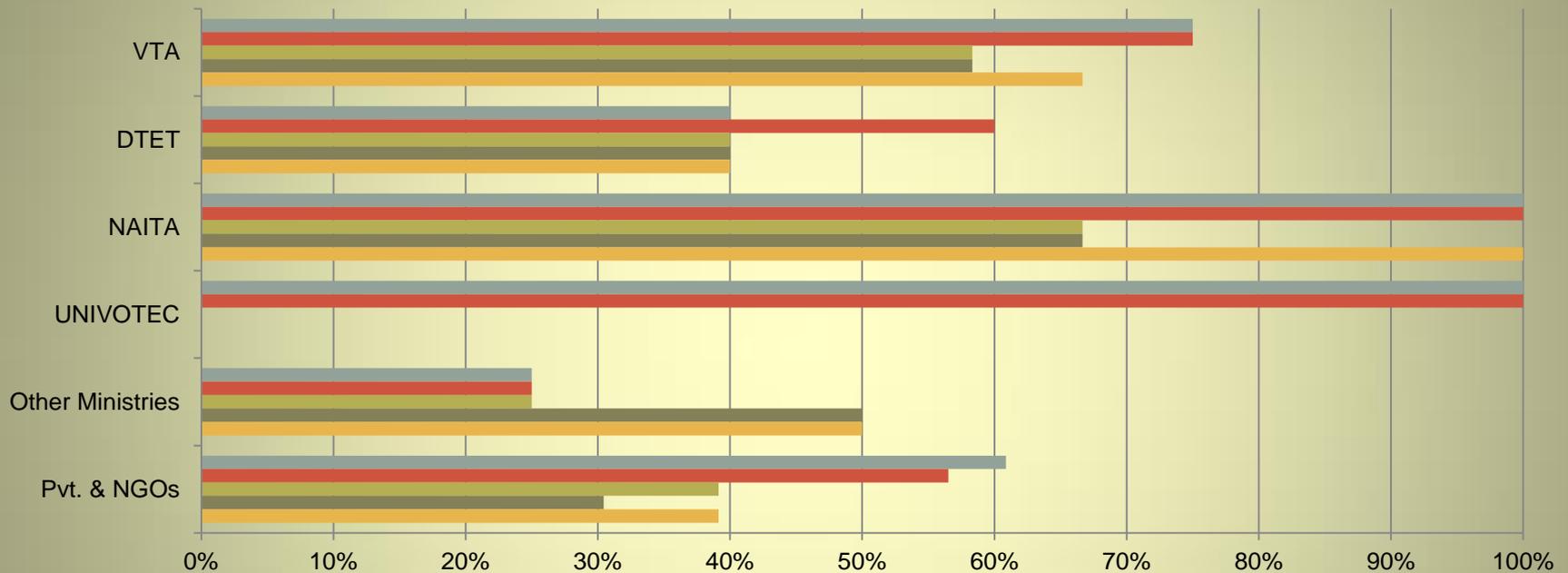
Government initiatives



Impact of demand for green skills



Change in institute's programmes resulting from greening of the economy



Transition to greater use of energy from renewable sources

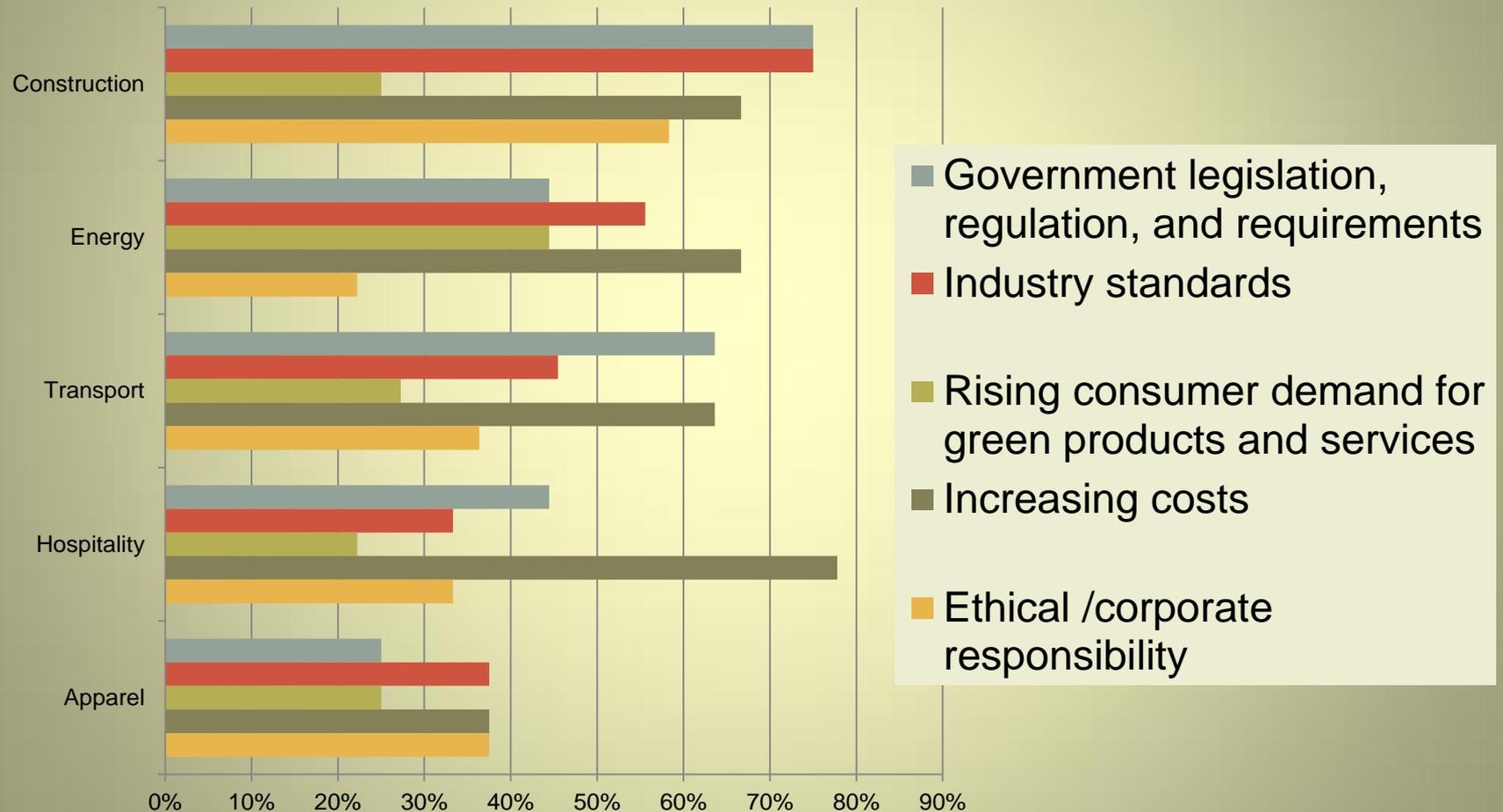
Transition to greater use of products and services that increase energy efficiency

Transition to greater use of processes that reduce/remove pollution and greenhouse gas emission and transition to recycling and reuse

Transition to greater use of products and services that conserve natural resources

Transitions to greater use of products and services that comply with environmental regulations and standards

Issues that have affected businesses over the last 12 months



Green Jobs and Green Compliance

Sector	Hospitality	Construction	Transport	Energy	Apparel
Large Sector – Green Jobs	✓	✓	✓	✓	✓
Influenced by:					
Industry Standards	✓👍	✓			✓👍
State policies /regulations	✓	✓	✓	✓	✓
SME Sector – Green Jobs				✓	✓
Influenced by:					
Industry Standards					✓👍
State policies /regulations	✓	✓	✓	✓	✓
Micro Sector – Green Jobs					
Influenced by:					
Industry Standards					
State policies /regulations	✓	✓	✓	✓	✓

Resource recovery 👍

Greening Trends

K & S requirements

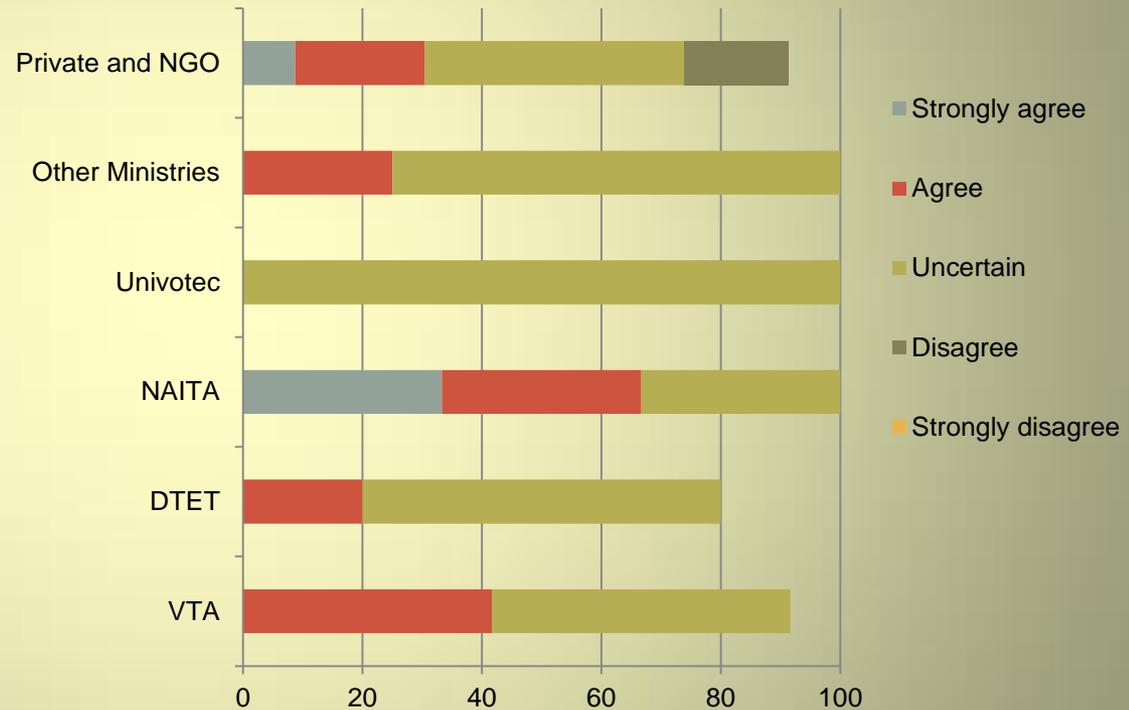
Sector

Knowledge and skills needs

Hospitality	To manage water , energy and waste .
Construction	Use of alternate building construction materials ; to reduce use of natural resources. Green building concept ; to optimise the use of water and energy ; waste management.
Transportation	Efficient use of water and energy ; waste management
Energy	Energy-efficient products ; Efficient use of energy; production of clean energy ; energy auditing ; energy generation from waste .
Apparel	Efficient use of water and energy ; waste management requires attention.

Current-future gaps

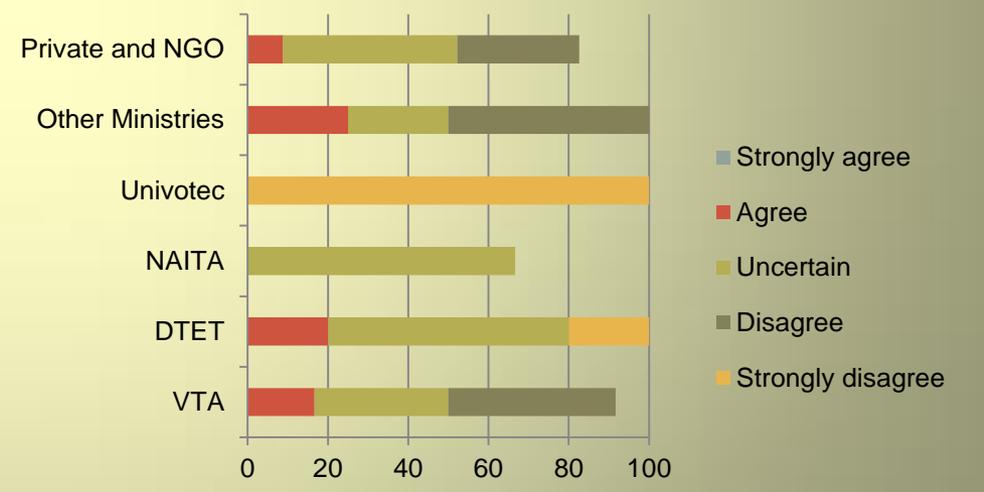
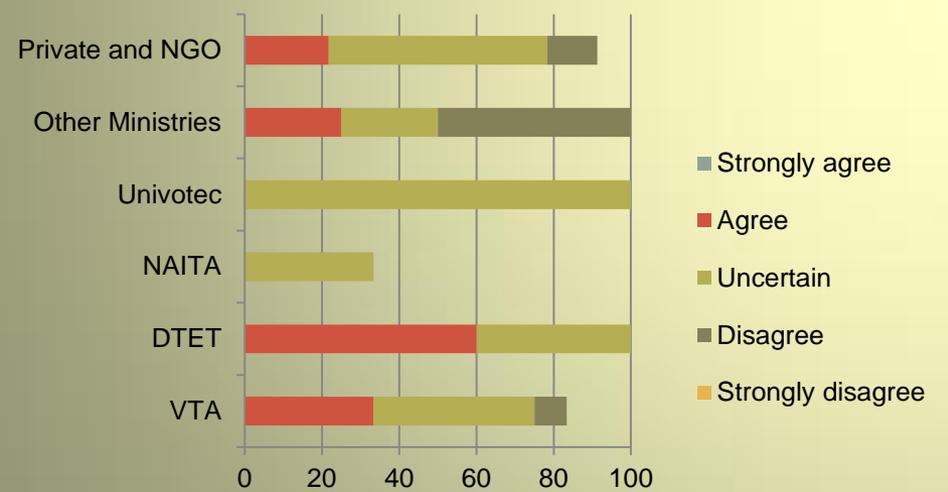
Q: Scope of 'green' job creation in my region is limited so it does not generate enough demand for green skills training



TVET is not greening on a large scale

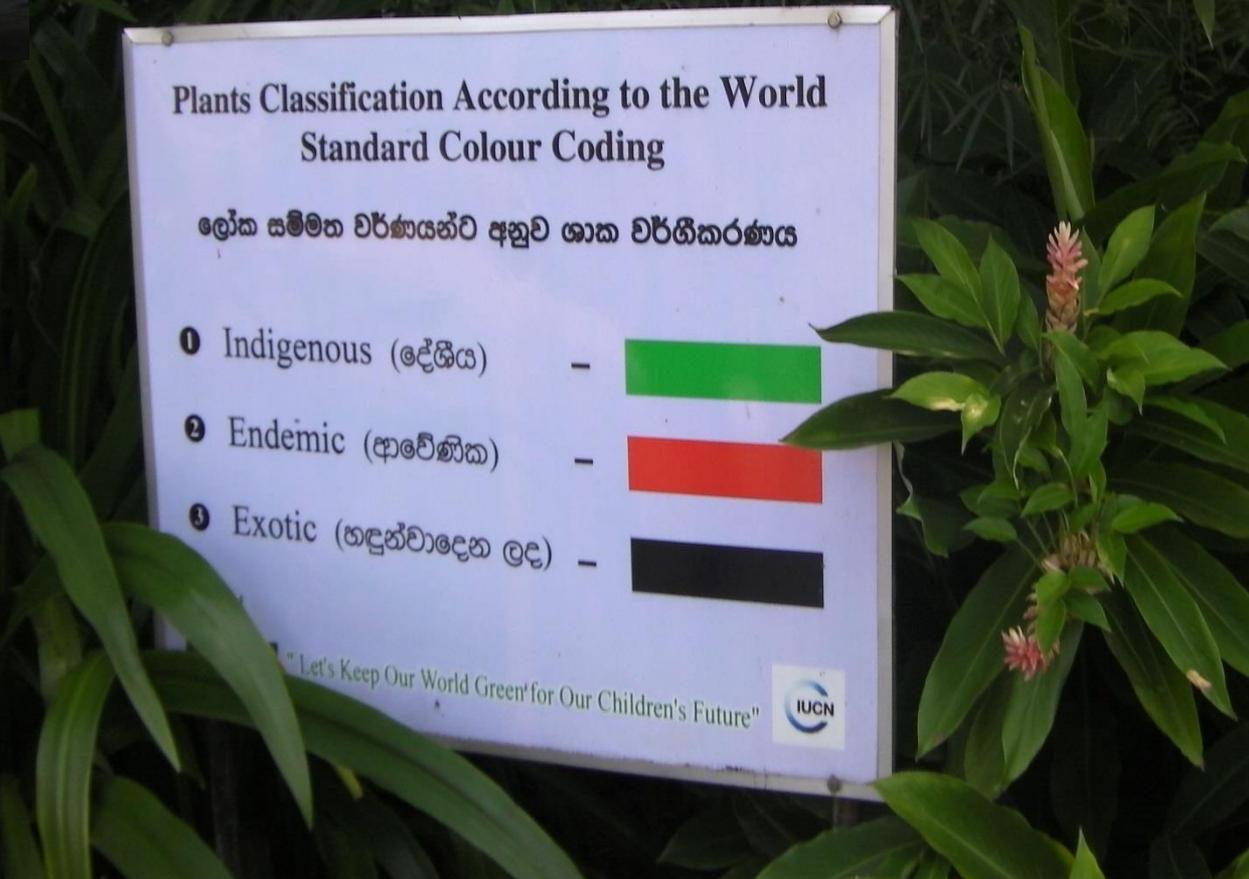
Additional skills and competencies have been added into existing courses to meet green skills requirements

New courses/programs have been developed to train students in 'green' skills



Reasons for greening TVET programs

- **International training standards** used by VTPs often include environmental protection issues (e.g. for marine training International Marine Organisation standards)
- **Environmental legislation** (e.g., emission control systems)
- **Rules and regulations in an industry sector** (e.g. in training for the hospitality sector - hygiene in food preparation; security in a hotel includes environmental protection)
- **New occupations** (e.g., specialised green skills - eco-tourism is one of the subjects in a tour guide specialisation, Municipal Solid Waste Operation Assistant NCS).
- **VTPs initiatives** (e.g., a hybrid engine module)
- **Government initiatives** (e.g. *The National action Plan for Haritha Lanka program; NCS “Basic Competencies to work”*)



Module No 17

Code ECS

Subject Emission Control Systems

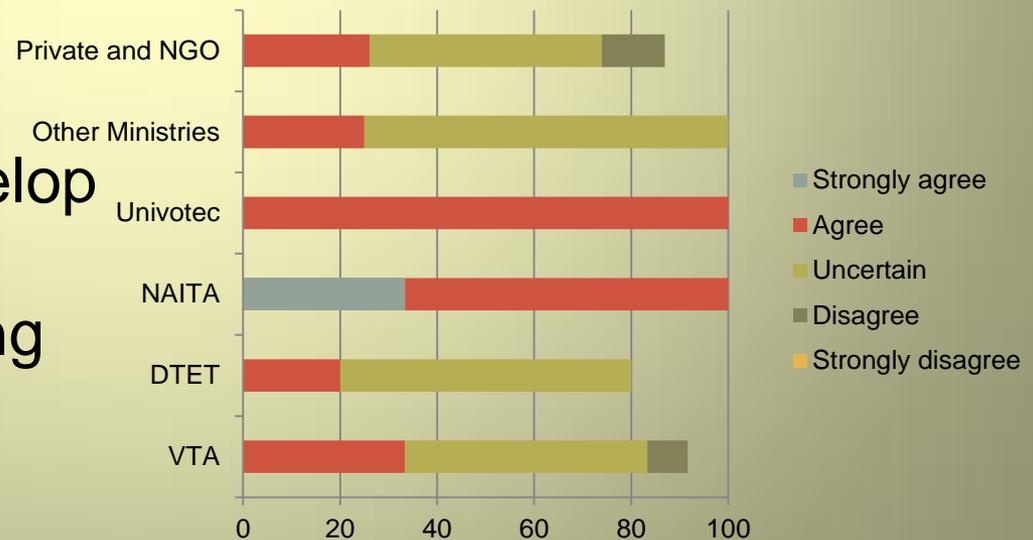
Topics	Total hour	
	Practical	Theory
17.1 Emission control		1.5
17.2 Evaporating purge canister solenoid	05	
17.3 EGR solenoid	05	0.5
17.4 Lambda sensor	05	0.5
17.5 Exhaust GAS analyzers	12	0.5
17.6 Exhaust GAS recirculation	06	0.5
17.7 Positive crank ventilation	04	0.5
17.8 Effect of exhaust emission with air-fuel ratio		1.5
17.9 Catalytic converter	03	1.5
17.10 Open loop /closed loop control system	09	0.5
17.11 Secondary air pump systems	03	0.5
Covering Hour	52	08



Current processes: realising the need

- Some modules, subjects, and units have been developed for both specific and generic green skills and at all levels (low, middle, high)
- Extra curricula activities

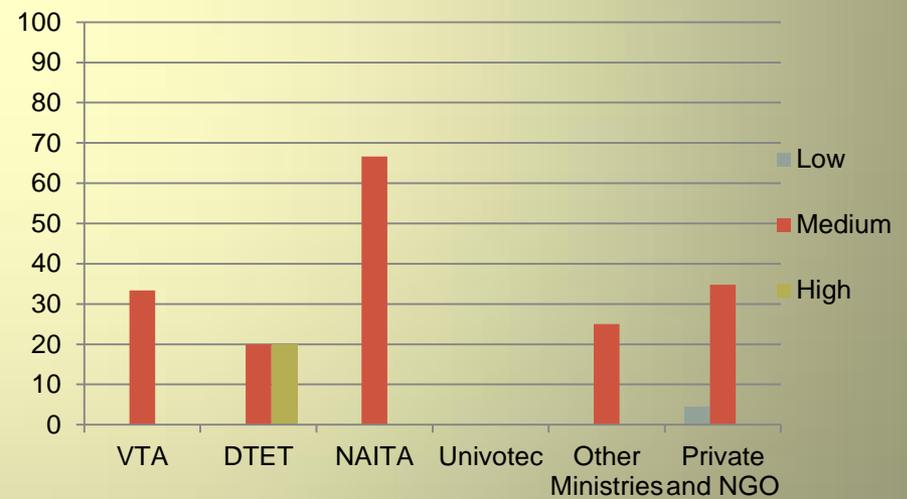
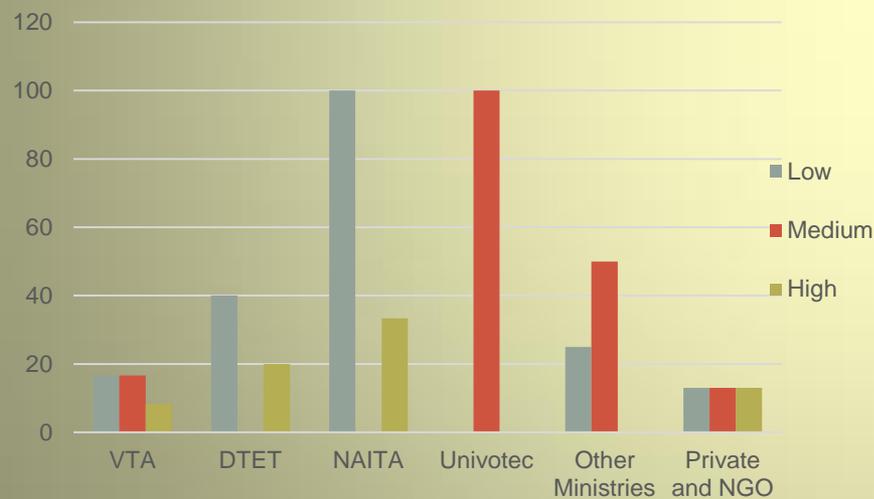
Q: Institution needs to develop a full approach to adjust training to needs of greening economy



High skills - low skills

Additional skills and competencies have been added into existing programs/courses to meet new green skills requirements. What level skills do they mainly represent?

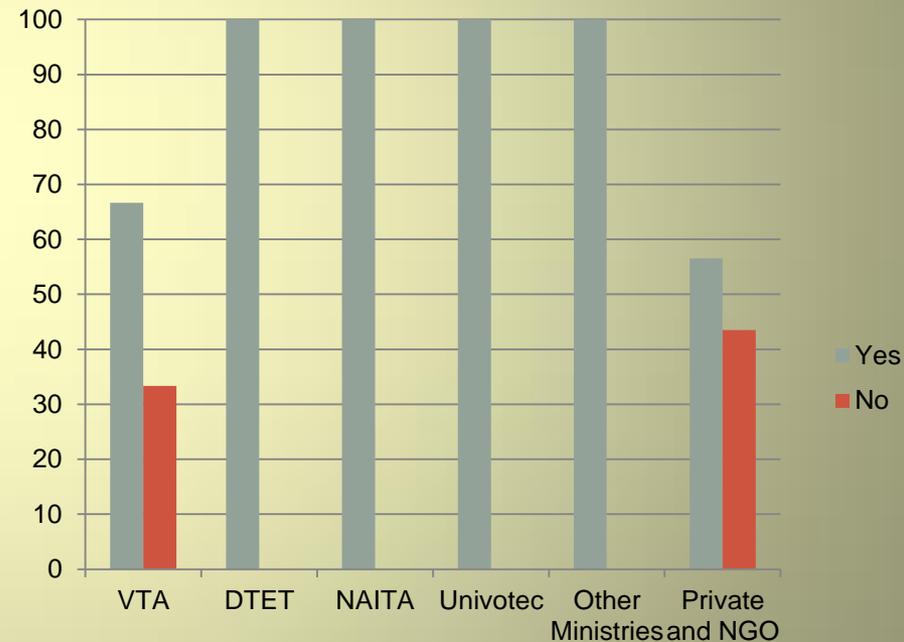
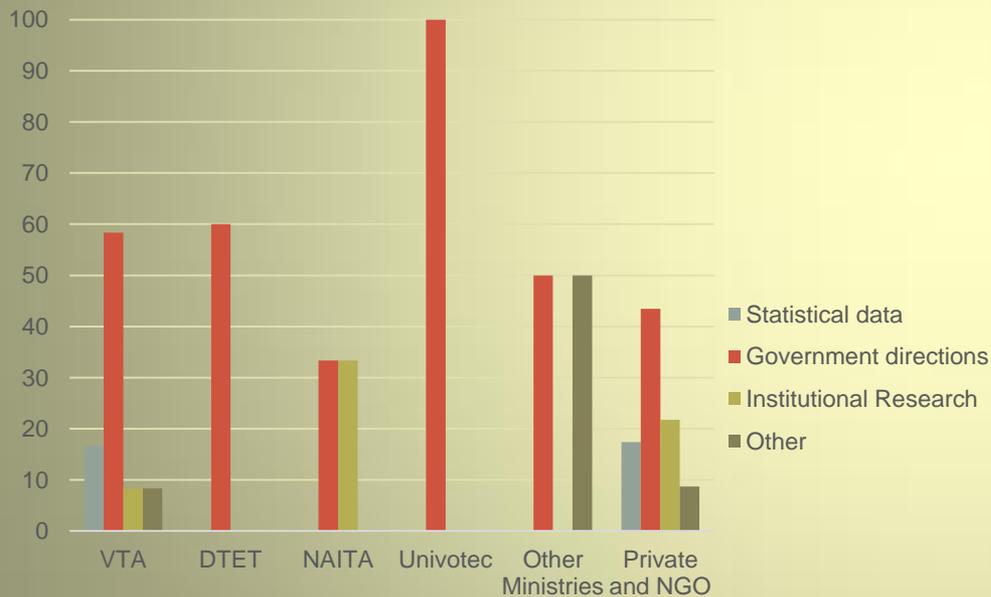
New 'green' courses and program have been developed. What level skills do they mainly represent?



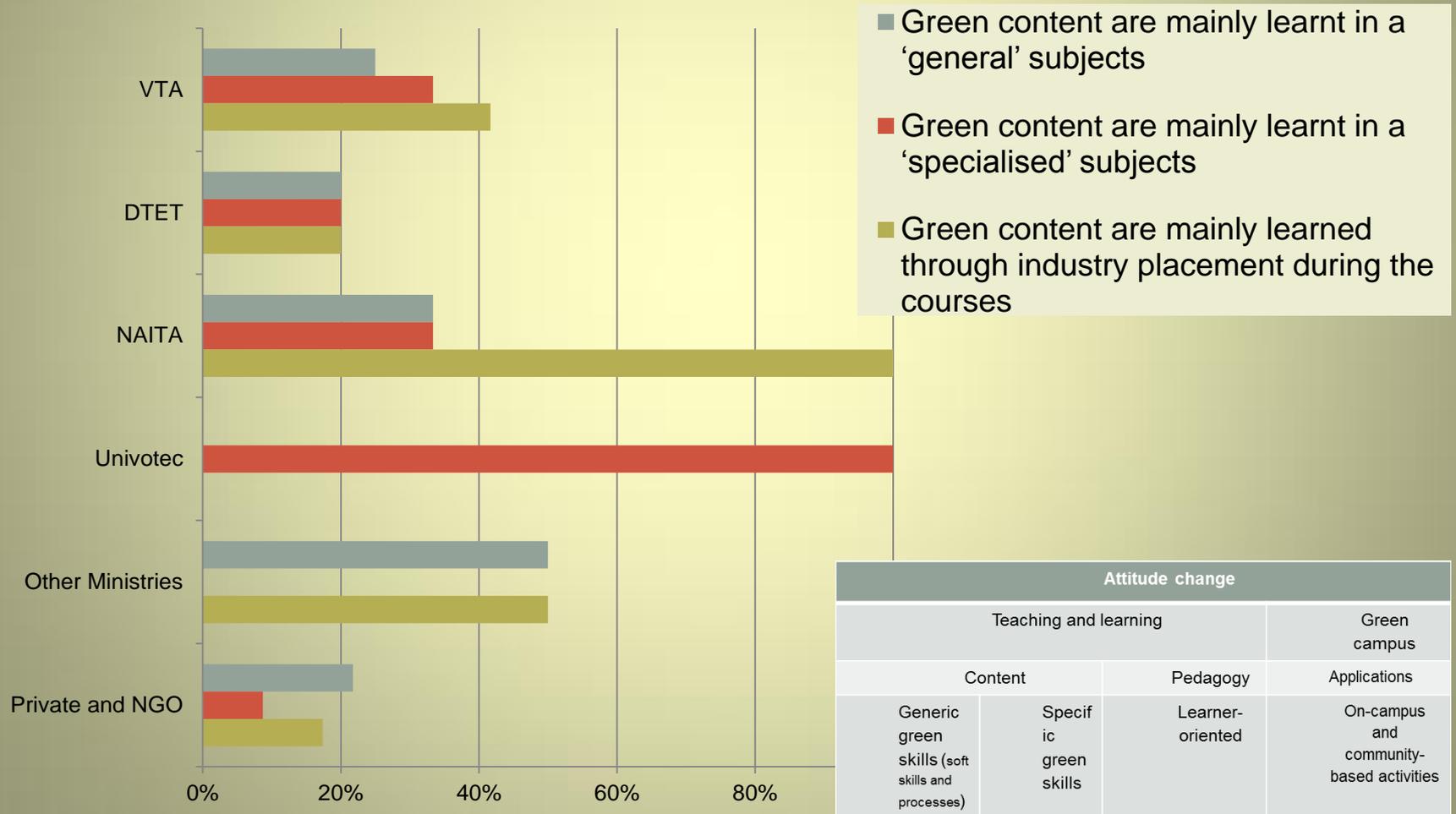
Importance of the government and VTPs

Types of data sources and information used to decide on courses and programmes to offer?

Have you been approached by companies for training assistance for workers or new recruits?



Ways in which green content is learnt



- Green content are mainly learnt in a 'general' subjects
- Green content are mainly learnt in a 'specialised' subjects
- Green content are mainly learned through industry placement during the courses

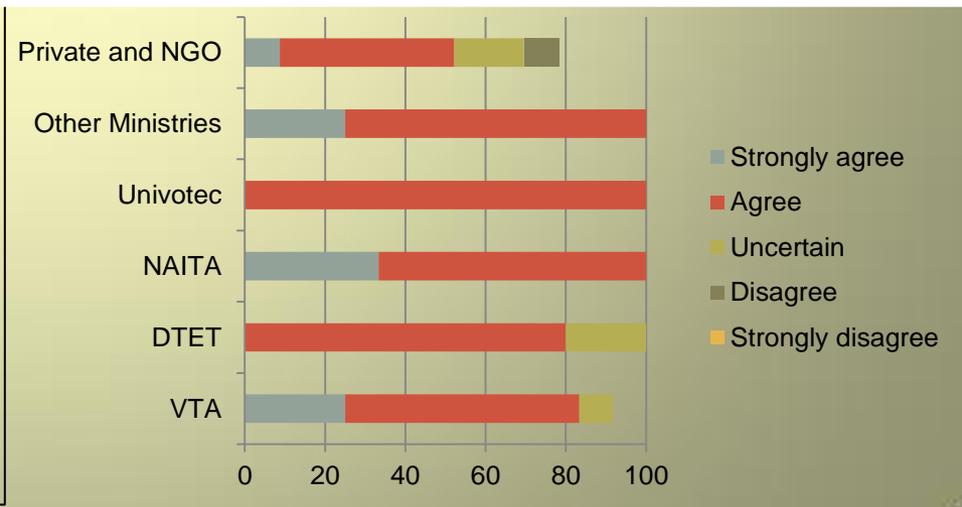
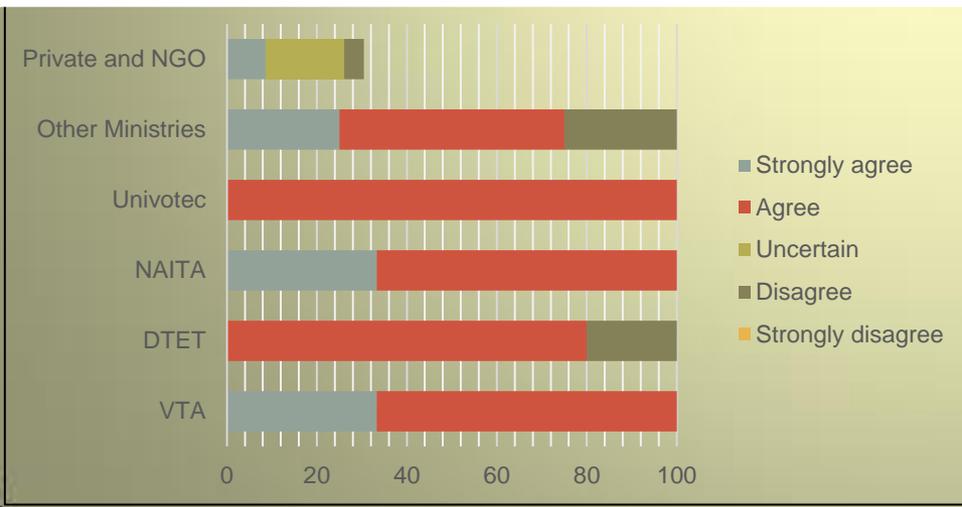
Attitude change			
Teaching and learning			Green campus
Content		Pedagogy	Applications
Generic green skills (soft skills and processes)	Specific green skills	Learner-oriented	On-campus and community-based activities

Recommendation 1

Support measures to green economy through development of green industries and developing green practices in all industries (to formulate the demand).

Our current training offerings are meeting skills demands at the local and regional levels

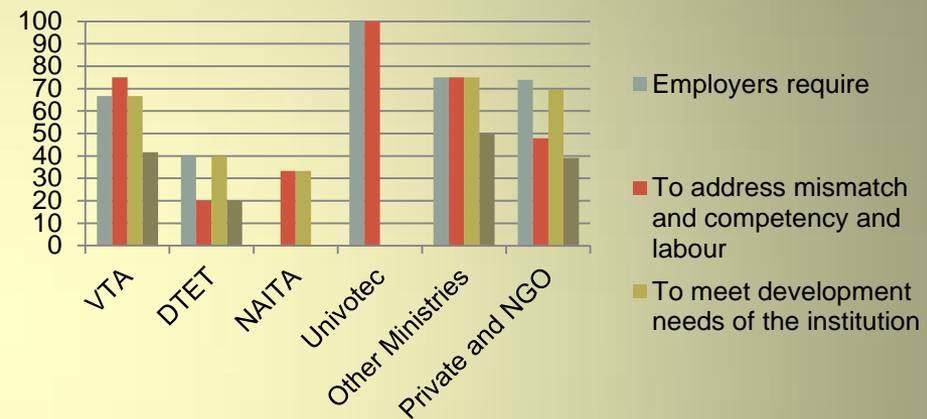
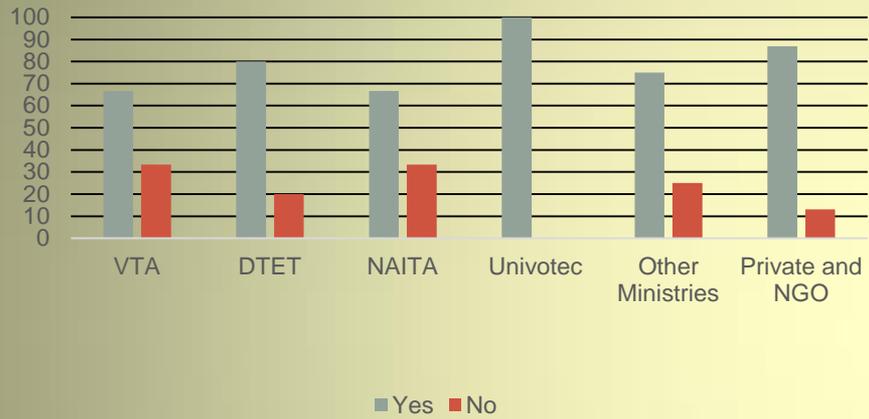
I believe that policies and practices in my institution are very effective for keeping skills and knowledge of graduates up to date



Importance of greening economy

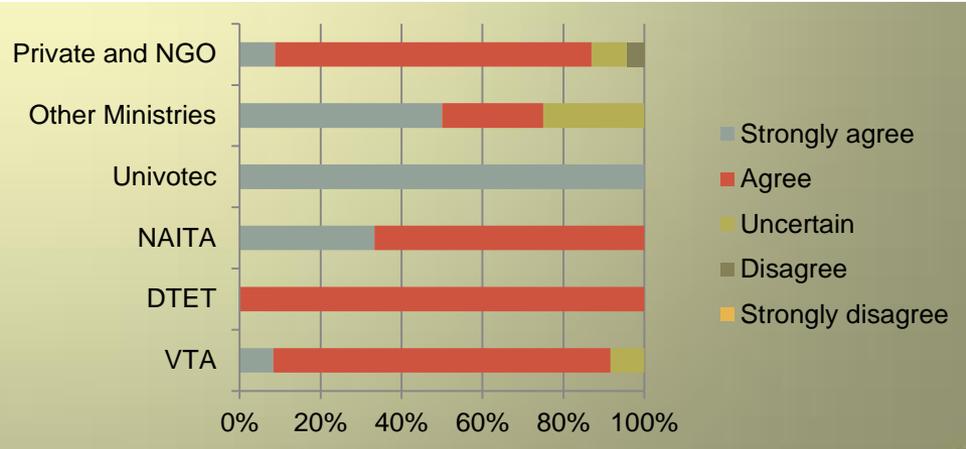
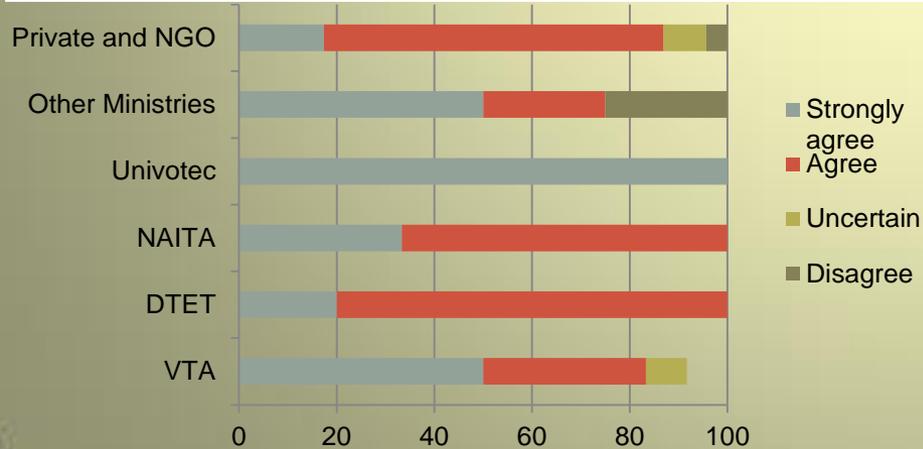
Procedures in place to review courses /programmes?

The purpose of reviewing is ...



Work-based training is a part of our programs

Over the last three years economic restructuring has influenced development of programmes



Recommendations: 2

TVET need to be proactive in awareness raising and developing generic green skills within two categories (soft skills and common processes).

Teachers and practitioners are the key change agents.

High skills training in specific green skills is required.

Recommendations: 3

Table 1.1. Formal and informal sector employment shares, selected groups (%)

	Formal sector	Informal sector
Total employment	39.8	60.2
Males	37.6	62.4
Females	45.2	54.8
Agricultural employment	16.7	83.3
Non-agricultural employment	51.4	48.6

Source: Department of Census and Statistics. See Statistical Annex.

Recommendations: 3 (cont.)

- Green skills should be incorporated in NCS for NQF certificates.
- Training system between private and government systems need to be rationalised.
- Need to expand the scope of green skills to informal sector and rural sector.