



UNDESA - ESCAP - ILO - UNEP

Expert Group Meeting on

GREEN GROWTH AND GREEN JOBS FOR YOUTH

12-13 December 2012

Session 3: Education and skills for green jobs

Presentation


Tertiary Education & Training for Green jobs

by

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GREEN GROWTH AND GREEN JOBS FOR YOUTH

Tertiary Education & Training for Green jobs

Prioritizing Education, Job Training and Skills Development to
prepare Young People for a Green Economy

Presented by
Vajira Perera, Director (NVO), TVEC, Sri Lanka



Key to presentation

- Recent reforms in Tertiary & Vocational Education and Training in Sri Lanka
- Education, Training and Skills Development for a Green Economy

Reforms in Tertiary & Vocational Education and Training in Sri Lanka
Sri Lankan socio-economic context in brief

| | |
|---------------------------------|----------------------|
| Population | 20.6 M |
| Per capita GDP | 2,368 US \$ |
| GNP Growth rate | 7.9% |
| Labour force | 8.1 M. |
| Employment | 7.2 M. (Public 1.2M) |
| Rate of unemployment | 4.9% |
| Student enrollment to Grade 1 | 332,000 approx. |
| Completion of primary education | 98% |
| Completion of Grade O/L | 58% (2010) |
| University admission | 22,500 approx. |
| Literacy rate | 92% |
| Population below poverty line | 8.9% |

Reforms in Tertiary & Vocational Education and Training in Sri Lanka

Present scenario of GDP

| Industry/sector | 2009 (Rs. B) | 2010 | Share of GDP (%) |
|------------------------|--------------|------|------------------|
| Agriculture | 295 | 315 | 12 |
| Industry | 701 | 760 | 28 |
| Services | 1452 | 1569 | 60 |
| Gross Domestic Product | 2449 | 2645 | |

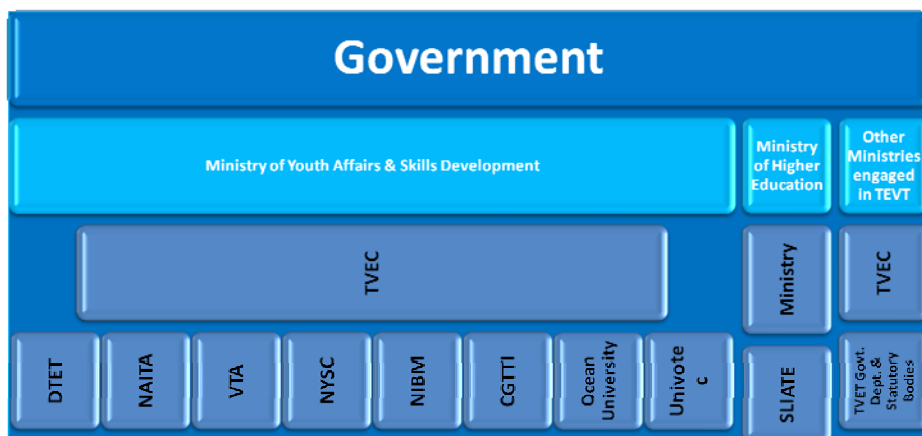
Source: Central Bank Report

Reforms in Tertiary & Vocational Education and Training in Sri Lanka

Conventional Education

- Primary and Secondary Education
 - Primary (year 1 – 5). At year 5 there is a competitive scholarship exam
 - Junior secondary (year 6 – 9)
 - Senior secondary (year 9 – 13). At year 11 GCE (O/L Examination)
 - After studying another two years in selected subject streams (Science, Mathematics, Commerce and Arts streams) the students appear for GCE A/L Examination for university admission
 - couple of days back Government extended G.C.E A/L with Technology stream where students could choose TVET as their career

Reforms in Tertiary & Vocational Education and Training in Sri Lanka



Reforms in Tertiary & Vocational Education and Training in Sri Lanka

Thrust of Reforms

The main thrust of the reforms proposed were to build the Sri Lankan workforce with quality assured requisite skills that are essential for industrial upgrading and diversification. In achieving this objective, the TVET system is to be demand driven, in cooperation with the private sector who will be the eventual employers

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Reforms in Tertiary & Vocational Education and Training in Sri Lanka

Cause for establishment of NVQ

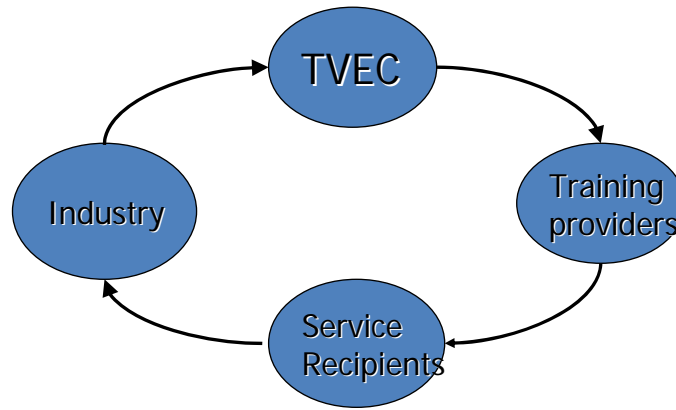
TVET system prior to reforms

- Different qualifications
- No clear quality assurance process
- Lack of industry focus
- No qualification upgrading pathways

Objective of NVQ

- Provide a framework for quality assurance in TVET with distinctively identified levels of competencies

Reforms in Tertiary & Vocational Education and Training in Sri Lanka
 Integrate model with key stakeholders of NVQ

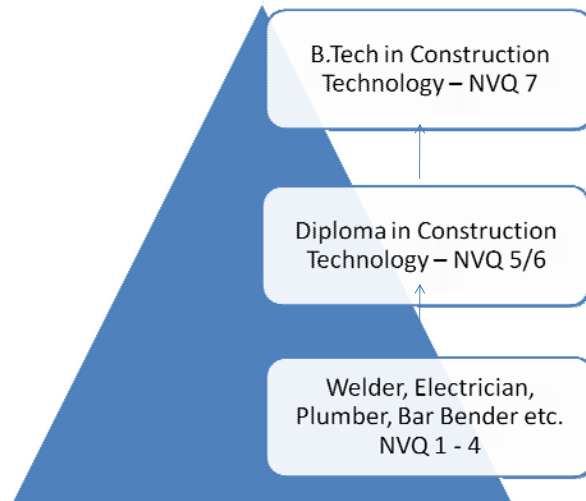


Reforms in Tertiary & Vocational Education and Training in Sri Lanka
 Structure of NVQ

| Level | Qualification | Generalised Description |
|---------|----------------------|--|
| Level 1 | National Certificate | Level 1 recognizes the acquisition of entry level competencies |
| Level 2 | National Certificate | Levels 2, 3 and 4 recognize increasing levels of competencies. Level 4 qualification provides for full craftsmanship/ workmanship. |
| Level 3 | | |
| Level 4 | | |
| Level 5 | National Diploma | Levels 5 and 6 recognize the increasing levels of competencies of technicians including supervision and process management. |
| Level 6 | | |
| Level 7 | Bachelors Degree | Level 7 recognizes the vocational/technological competencies at Bachelors Degree level |

Reforms in Tertiary & Vocational Education and Training in Sri Lanka

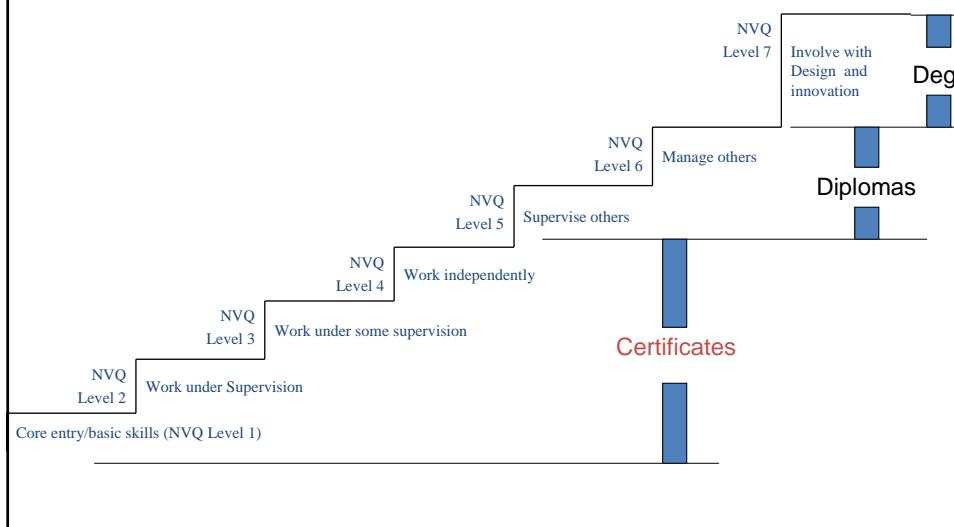
Hierarchy of qualification upgrading

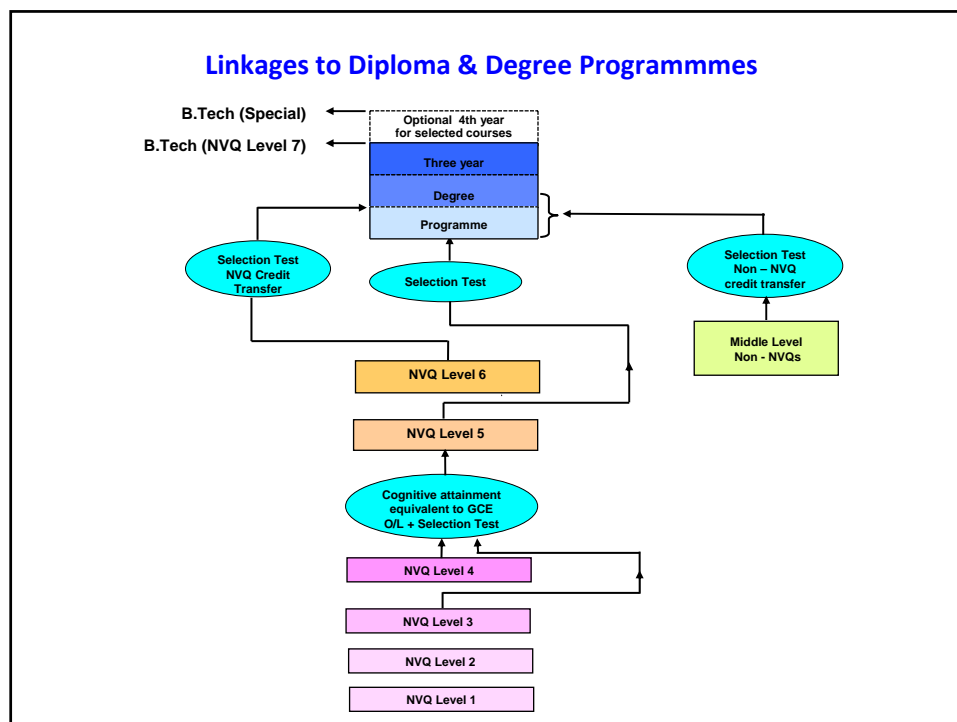


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Reforms in Tertiary & Vocational Education and Training in Sri Lanka

National Vocational Qualification Levels





Reforms in Tertiary & Vocational Education and Training in Sri Lanka

Quality assurance

TVEC is responsible for quality assurance

- Registration of training providers (Public and Private)
- Course accreditation
- Auditing of Quality Management Systems
- Periodic monitoring for maintenance of accreditation and QMS

Reforms in Tertiary & Vocational Education and Training in Sri Lanka

NVQ certificates

Since 2006 over 66,000 NVQ certificates issued
Two routes to award qualifications – CBT & RPL



Education, Training and Skills Development for a Green Economy Tertiary Education & Training for Green jobs

TVEC's commitment for Environment

Quality Policy – ISO 9001:2008

We maintain a sound Human Resource Management system to achieve
TVEC's corporate objectives and also to protect the environment in and
around TVEC

Education, Training and Skills Development for a Green Economy

Tertiary Education & Training for Green jobs - current/future directions

To address competencies required for Green Jobs in the main training material of NVQ

– National Competency Standards

With a view of (3Rs)

- reduce
- recycle
- reuse

All three scenarios provide financial returns

- Municipal Solid Waste Operations Assistant
- Solid Waste Operators
- Basic Competencies to Work
- Environmental Management Technology and Forestry
- Other occupations/technology with sufficient component of environmental aspects as common competency units
- Occupational specific competency units

Education, Training and Skills Development for a Green Economy

Tertiary Education & Training for Green jobs - current/future directions

Municipal Solid Waste Operations Assistant – NVQ Level 2

Competency Units

- Promote solid waste minimization & reuse
- Segregate solid waste at source
- Collect segregated solid waste
- Transport segregated solid waste
- Treat solid waste
- Dispose residue
- Maintain cleanliness of the environment
- Maintain relationship with general public, supervisors/colleagues

**Education, Training and Skills Development for a
Green Economy**
Tertiary Education & Training for Green jobs
- current/future directions



Education, Training and Skills Development for a Green Economy
Tertiary Education & Training for Green jobs
- current/future directions

Solid waste Operators in action at an assessment – NVO Level 2



Education, Training and Skills Development for a Green Economy
Tertiary Education & Training for Green jobs
- current/future directions

Solid waste Operators in action at an assessment – NVO Level 2



Education, Training and Skills Development for a Green Economy

Tertiary Education & Training for Green jobs
- future directions

Municipal Solid Waste Operators (supervisory capacity)

Promote solid waste minimization and reuse
Supervise solid waste operational workforce

Maintain equipment, tools & material
Ensure appropriate solid waste collection

Supervise transportation & unloading of solid waste
Ensure appropriate segregation, storing & recycling of solid waste

Ensure systematic composting process
Ensure the systematic bio gas process


Ensure sanitary land filling operations
Perform selling activities

Education, Training and Skills Development for a Green Economy

Tertiary Education & Training for Green jobs
- future directions

Basic Competencies to Work – World of Work

- Apply occupational numeracy & literacy
- Practice workplace communication & interpersonal relations
- Practice occupational Health, Safety and basic competencies required for environmental protection
- Use of basic hand tools
- Work in teams



Education, Training and Skills Development for a Green Economy
Tertiary Education & Training for Green jobs
- future directions

Environmental Management Technology

- Waste Management, e-waste management
- Effluent Management
- Toxic chemical waste Management
- Recycling, reuse & reducing techniques
- Environmental Conservation
- Air, sound, water, soil pollution
- Conservation of water
- ISO 14001 EMS



Education, Training and Skills Development for a Green Economy
Tertiary Education & Training for Green jobs
- future directions

Way forward.....

- Training of Trainers with special emphasis for green jobs
- Introduce new courses embedded with green concept
- Special technological training on effluent treatment, waste minimization techniques, pollution controls
- Exposure of good practices on green jobs
- Special On the Job Training programmes for green aspects
- Techniques for transformation of attitudinal changes among TVET students for a better image building in green aspects
- Modern teaching/delivery techniques for courses/programmes with green jobs
- Incorporate environmental aspects for G.C.E A/L technology stream

