



# ***GREEN JOBS FOUNDATION TRAINING WORKSHOP***

**MARRIOTT HOTEL, PUTRAJAYA**

**16 – 17 JULY 2012**

**REPORT**

**July 2012**

## 1. INTRODUCTION

The third strategic thrust, as stipulated under the National Green Technology Policy, focuses on intensifying human capital development in Green Technology. In order to heighten Green Technology development, the upscale of human resources to become more skilful, qualified, competent and productive are essential. This could be achieved through the implementation of retraining programs and the formulation of grading and certification mechanism to enhance competency of the labour to meet the demands of the Green Technology and its adoption in industries. In addition to that, the design and enhancement of training and education programs to improve human resource capacity related to Green Technology could provide a base for continuous development.

To fulfil the requirement of skilled workforce especially in the Green Technology sector, Ministry of Energy, Green Technology and Water (KeTTHA) is working in collaboration with Ministry of Human Resource (MOHR) and International Labour Organization (ILO) are to develop a national definition for green jobs in Malaysia. The potential for green jobs is enormous and the concept of green jobs encompass jobs that contributes to environment sustainability and that are decent jobs, which provides the worker with a safe environment to work in and also promotes gender equality.

ILO has been appointed to conduct a study in relation to the National Roadmap for Green Jobs for Malaysia. With that the 'Green Jobs Foundation Training Workshop' was held by KeTTHA in collaboration with MOHR, Malaysian Green Technology Corporation (MGTC) and ILO. This two-day training workshop was held to disseminate knowledge and information with regards to the development of green jobs in Malaysia.

The training workshop was held as follows:

Date : 16 and 17 July 2012 ( Monday and Tuesday)

Location : Bilik Selangor, Marriott Hotel, Putrajaya

## 2. OBJECTIVE

The objectives of the training workshop are as follows:

- a) To introduce participants to the framework that provides the foundation for initiatives promoting green jobs and principles of a just transition;
- b) Key concepts of climate change and environmental issues;
- c) Malaysian national context and policy framework for climate change and green economy;
- d) Disseminate information on links to employment and green skills;
- e) Measuring green jobs across the economy and modelling the impacts of environment related policies;
- f) Green businesses and green jobs case studies in Malaysia;
- g) Potential roles and contribution of the Employer's and Trade Union organization in the promotion of green jobs and a just transition;
- h) The national industry development based on green economy.

### **3. IMPLEMENTATION / WORKSHOP EXECUTION**

The training workshop was organized for two (2) days, and 63 participants from various ministries, government agencies, private sector and non-governmental organization attended the workshop. The list of participants is attached as **Appendix 1**.

Presentations made throughout the training workshop encompassed various topics that enhance the understanding of the participants on the concept and importance of green jobs, the challenges faced in developing green jobs as well as presentation on several case studies from other countries. Furthermore, a short video presentation on climate change was also shown to the participants on the first day of the training workshop.

The main topics that were presented are follows. Each presenter was given about 20 minutes to present on the topic. The program agenda are attached in **Appendix 2**.

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***Presentation topic***

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**Day 1 (16 July 2012)**

- (i)** Green Economy in Malaysia by Mr. Mohamed Azrin Mohamed Ali (MGTC)

This presentation focuses on the overview of sectors in Malaysia that has the potential to contribute to green economy, with emphasis on the global green businesses. A Green Economy can be thought of as an alternative vision for growth and development; one that can generate growth and improvements in people's lives in ways consistent with sustainable development. In addition to that, Green Economy promotes a triple bottom line: sustaining and advancing economic, environmental and social well-being.

- (ii)** Introduction to Green Jobs Concepts by Mr. Ian Barnes (ILO)

This presentation describes the definition of green jobs and its significance to environmental sustainability. Green jobs are decent work that contributes directly or indirectly to reducing the environmental impact by enhancing / expanding green sectors, for example jobs in the renewable energy sector and also diversification of old industry practices. In addition, green jobs are also jobs that improves the environmental performance, including energy efficiency, of existing sectors (for example jobs that are critical in improving any sector's environmental impact).

- (iii)** Green Jobs in Malaysia by Mrs. Punitha A/P Silivarajoo (KeTTHA)

This presentation discusses on the need to develop green jobs in

Malaysia in relation to the growing threat of climate change. It also presents on the policies and strategies currently in place in Malaysia and its impact on future employment. Transition towards Low Carbon Economy will create large number of green jobs across sectors, hence becoming an engine of growth towards sustainable development. The presentation also shared examples of good practices (benchmarking) of various countries. Currently, the tracking mechanism used to determine the green jobs in Malaysia includes:

- Number of workers from projects with Green Certificate issued under Green Technology Financing Scheme (GTFS);
- Number of worker involved in production of eco-labelled product issued by Standard and Industrial Research Institution Malaysia (SIRIM); and
- Number of workers in Small Renewable Energy Power Program (SREP) and Renewable Electricity Power Purchase Agreement (REPPA) signed between entrepreneur and utility authorities.

**(iv)** Green Technology Roadmap Baseline Study and Suggested Green Jobs Creation by Ms. Wan Nadia Kamarudin (MGTC)

This presentation discussed Green Technology Roadmap Baseline Study with the emphasis on human capital development and employment opportunities. The number of jobs created or green jobs from green business is one of the parameters for social indicators, and in the year 2009, jobs created from green businesses (within the six (6) sector mentioned in the baseline study) employs about 1% (which is estimated to be around 91,405 jobs) of the total workforce in the year mentioned. In addition, higher learning institution are already offering courses in environmental fields, green technology as well as introducing green

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subjects into the existing courses including green design for architecture courses and energy efficiency for electrical engineering among others.

- (v) Skills Development in the 21<sup>st</sup> Century: Malaysia Experience by Mr. Amir Omar (MOHR)

This presentation discussed labour market demand and supply for green jobs in Malaysia. Besides that, it also highlighted the overall human capital development and talent management thus far. In human capital planning, it is necessary to take into account of both the demand and supply side. As for the planning for the demand side labour, three (3) approaches are commonly used, namely, Manpower Requirement Approach (MRA); Labour Market Approach; and HRD CGE Modelling. In the supply planning of the human capital, it looks from the angle to provide and intensify education and delivery system at all level based on national development policy, changes in demographic structure and economic growth. Examples of human capital planning for the supply side are the *Pelan Strategik Pengajian Tinggi Negara (2007 – 2020)* and *Pelan Induk Latihan dan Pembangunan Kemahiran Pekerjaan (2008 – 2020)*.

### **Day 2 (17 July 2012)**

- (i) Green Jobs Development in Malaysia by Mr. Amir Omar (MOHR)

This presentation focuses on the skill development undertaken in the field of green technology for the creation of green jobs. It also outlines the development of National Occupational Skills Standards (NOSS) for a green job. NOSS is defined as a specification of the competencies expected of a skilled worker who is gainfully employed in Malaysia for an occupational area and levels as well the pathway to achieve the competencies. In trainings, the NOSS can be used for skill training curriculum requirement, training

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requirement analysis, assessment and also for certification. As for occupational aspect of it, the NOSS can be used for recruitment, counselling, workers performance assessment and a guide for career pathway.

**(ii)** Green Jobs Mapping Study in Malaysia: Coverage of the Desk Studies by Ms. Jane Romero (IGES)

This presentation discussed the methodology to estimate the number of green jobs in the economy as well as to identify entry points for further green jobs creation. The purpose of green jobs mapping is to examine the current and the future potential development of green jobs in Malaysia. Furthermore, it is also to estimate the number of jobs sustained by environmentally sustainable economic activities in compliance to the decent work criteria. The importance of the desktop research is to propose a list of key priority economic sectors and industries for further characterization of green jobs. It is also to compile existing information on the number of green jobs by sector on the basis of the identified indicators for characterizing green jobs.

**(iii)** DySAM Modelling for Green Jobs Impact Assessment by Mr. Christoph Ernst (ILO)

This presentation discussed an overview of the DySAM modelling tool as well as the various steps and project requirements and policy scenarios. Employment impact assessment is vital to limit the social cost of environmental changes and environmental policies, while optimizing the positive economic and employment effect, especially in the development of green jobs. The key aspect to achieve this is to understand the links and transmission channels between external shocks (natural disasters, climate change) / public (environment), policies, sectoral implication and impact on workers / households. The technology choice is also essential as it

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determines the employment outcome.

**(iv)** Challenges Faced by Employers in Human Capital Development by Dr. Michael Chiam Tow Hui (Malaysian Employers Federation)

This presentation focuses on the recent development of issues and challenges faced in employment. This includes labour law amendments, challenges to employment, the issues of foreign workers, and also the creation of green jobs. The priorities in human capital development are to enhance competitiveness through the increase in productivity and for the development of skills and certification of employees. Moreover, a review to the labour legislation is also important to promote flexibility in management to tackle challenges such as ageing workforce, foreign workers and increasing participation of women in labour market. Such steps are vital to ensure inclusive growth for all segments of the workforce.

**(v)** Challenges by Trade Unions Embracing Changes by Mr. K. Somasundram (Malaysian Trades Union Congress)

This presentation discussed the social and decent work dimensions of a new agreement on climate change. There are close inter-linkages between climate change and the world of work and it is important to promote policy coherence between climate, social and labour policies. Thus, trade unions are keen in promoting healthy working conditions for the employees and at the same time help in preserving the environment. In addition, the trade unions currently have about 14 OSHE training throughout the country for about 15 years, in relation to green jobs, and had conducted training on sustainable development for hotel sector workers.

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During the afternoon session of the training workshop (16 July 2012), the participants were separated into six (6) groups for a participatory exercise. The objective of the exercise was to harness ideas from the participants about green jobs in relation to a green economy. Each group was assigned a sector to discuss (based on general questions posted to all the groups) and was required to present on the outcome of the discussion. About 35 minutes was allocated to each group for discussion and 10 minutes to present on the outcome. The breakdown of the groups and the sectors assigned are as follows:

Group 1	:	<i>Transport</i>
Group 2	:	<i>Water</i>
Group 3	:	<i>Energy</i>
Group 4	:	<i>Waste</i>
Group 5	:	<i>Other sector</i>
Group 6	:	<i>Building</i>

The general questions for all the groups to discuss on are as in the list below:

- a) *What jobs will be created?*
- b) *What jobs to be transformed / changed and lost?*
- c) *What are the new skills required?*
- d) *What are the challenges and constraints?*
- e) *How do you propose dealing with it?*

#### 4. WORKSHOP OUTCOME

Each of the groups had answered all the questions fairly. Each group was able to relate the concept of green jobs to the questions given. Nevertheless, each group gave somewhat the same answers, despite being in different groups. The outcome from the exercise conducted, based on the questions are as follows:

a) *What jobs will be created?*

- EV Mechanics
- Energy auditor
- Transportation planner
- Electronic engineers
- EV charging station operator
- Fuel cell engineer / technologist
- Data analysts
- System operators
- Researcher (R&D)
- Renewable energy manager
- Environmental engineer
- Waste to energy specialist
- Architects
- Green building consultants
- Building planners
- Environmental consultants

b) *What jobs to be transformed / changed and lost?*

- Toll booth operator (job lost)
- Drivers (job transformed)
- Enforcement officer (job changed)
- Engineers (job transformed)

c) *What are the new skills required?*

- EV Mechanics
- IT programming
- Designer
- Green design (building orientation)
- Environmental skills
- Understanding on green technology
- R&D
- Financial modeling

d) *What are the challenges and constraints?*

- Cost
- Time constrain
- Training
- Creating demand
- Policy (rules and regulation)
- Infrastructure
- Awareness
- Manpower

- Expertise
- Enforcement
- Low tariff / subsidies

e) *How do you propose dealing with it?*

- Incentives by governments
- Awareness
- Technology transfer program
- Green Transport Policy formulation
- Private – Public Engagement
- Public education
- Preliminary study
- Continuous training

The overall outcomes from the training workshop conducted are as follows:

- (i) There is a need to inculcate in-depth knowledge and understanding on National Green Technology Policy especially on the development of human capital in green jobs to be in-line with the national transitions towards a more 'green' economy;
- (ii) Need to improve understanding of purpose and criteria of green jobs
- (iii) Need to identify the challenges and barriers faced in the development of human capital with regards to green jobs.

## 5. CONCLUSION

The participants were satisfied with the overall progression of the training workshop and that the presentations made were fruitful and provided them with basic knowledge on green jobs. They had also learned:

- (i) The concept and method used in the DySAM modelling tool, using the input and output approach
- (ii) Steps that are currently being taken to heighten the development of human capital especially those that involve green jobs.

It is recommended that this training workshop session to be organized from time to time with the participation of more stakeholders in order to receive feedbacks and comments on the development of green jobs in Malaysia. Green jobs have a vast potential to be developed and encompass various sectors in Malaysia.