Construction Industry Council
Construction Industry Training Board
Meeting No. 006/15 of the Construction Industry Training Board for 2015 was held on 23 June 2015 (Tuesday) at 9:30am at Conference Room, CIC Headquarters, 15/F Allied Kajima Building, 138 Gloucester Road, Wan Chai, Hong Kong.

Summary Notes of Meeting No. 006/15 of the Construction Industry Training Board for 2015:

		006/15 of the Construction Industry Training Board for 2015:
Agenda	Paper	Major Resolutions/ Progress Highlights
Item		
6.1	CIC/CTB/R/005/15	Confirmation of the Progress Report of the Previous Meeting
		Members confirmed the minutes of 5 <sup>th</sup> CITB Meeting held on 19 May 2015.
6.2	CIC/CTB/R/005/15	Matters arising from the last meeting
		Members noted that members of the steering group on consultancy services on Training & Development
		would include Mr Albert LAM, Ir Albert HO and Mr TSE Chun-yuen. The group would be led by CITB
		Chairman to give guidance to the consultant and help scrutinize the report.
6.3	CIC/CTB/P/065/15	Proposed work plan and financial estimates of CITB for 2016
	(for discussion)	Members noted the work plan of CITB for 2016, and the related training places and financial estimates.
	,	Members also noted the original estimates of CITB for 2015, the revised estimates of CITB for 2015, the
		disparity in the amount of the major items between the revised estimates of 2015 and the estimates of 2016,
		and the total amount of deficit of respective year. The Secretariat would arrange for members an
		explanatory session on the financial estimates if needed.
6.4	CIC/CTB/P/066/15	Supplementary document of Advanced Construction Manpower Training Scheme (ACMTS) - Pilot
	(for discussion)	Scheme
	(	Members took note of the newly added key items in the supplementary document of the above Pilot
		Scheme, and discussed the difference between the basic monthly salary, worked out proportionally
		according to the trainee's actual attendance which was less than 20 days a month because of construction
		needs and the rain, and the full monthly salary, paid under the condition that trainee's monthly working days
		were equal to or more than 20. It was suggested to adjust the basic monthly salary to narrow down the
		difference. As for the Skills Enhancement Courses - Pilot Scheme to be jointly organized with unions,
		further details of the Scheme would be worked out and it was expected to be launched in September 2015.
6.5	CIC/CTB/P/067/15	Report on benchmarks for effectiveness of full-time courses (application rate and enrolment rate)
	(for discussion)	Members accepted the report on two benchmarks for effectiveness, i.e. the application rate and the
		enrolment rate, of Basic Craft Courses and Construction Supervisor/Technician Programme offered in
		September 2014 and the short courses offered from January to March 2015, and the suggestions made by
		the Task Force on Training.
6.6	CIC/CTB/P/068/15	Proposal on introducing trade test for Cable Jointer (without power)
	(for discussion)	Members accepted the proposal by the Task Force on Trade Testing to introduce trade test for the above
		trade and the related trade test questions, and to outsource the test.
6.7	CIC/CTB/P/069/15	Construction Manpower Seminar 2015 – Post-event Report
	(for information)	Members took note of the post-event report (enclosed in Annex A) of Construction Manpower Seminar
		2015 co-organized by CIC and DEVB on 30 March 2015. Suitable topics from the report would be selected

Agende	Danon	Major Resolutions/ Progress Highlights
Agenda Item	Paper	Wajor Resolutions/ Frogress riighinghts
		to have thorough discussions in future CITB meetings.
6.8	CIC/CTB/P/070/15	Summary Notes of Meeting 003/15 of Task Force on Training
	(for information)	Members noted the above summary notes. As regards the pass mark for the certification test of crane
		operators, members requested Task Force on Trade Testing to review the pass mark the soonest possible
		and to make adjustment according to actual needs. It was also suggested offering a half-day or one-day
6.0	CIC/CTD /D/071 /17	course for frontline supervisory staff to enrich their knowledge on the supervision and operation of cranes.
6.9	CIC/CTB/P/071/15	Summary Notes of Meeting 003/15 of Task Force on Trade Testing
	(for information)	Members noted the above summary notes and the management had already responded to the request of the
		Task Force to recruit at the same time a total of 18 staff members already approved and 9 staff members for contingency purpose. In order to step up publicity and to address the need for prior setup of venue and
		facilities for trade testing, the estimated expenditure of the Trade Testing Centre would have to be adjusted
		upwards. In addition, the management was requested to: i) submit a monthly brief report on the number of
		applications for trade tests and the number expected; ii) invite the Secretariat of Construction Workers
		Registration Board and Trade Testing Centre to brief members on an all-round promotion plan in the next
		CITB meeting, and iii) follow up on the suggestion on promoting trade testing by collaborating with other
		organizations and the arrangement for workers of these organizations to take trade tests.
6.10	CIC/CTB/P/072/15	Summary Notes of Joint Meeting 003/15 of Task Force on Contractor Cooperative Training and
	(for information)	Apprenticeship Scheme and Task Force on Sub-contractor Cooperative Training, On-the-job Training,
		E&M Training and Subsidy Scheme
		Members took note of the above summary notes, especially the part of CIC discussing with Vocational
		Training Council (VTC) on the full arrangements for subsidizing E&M courses in the future, including i)
		VTC had to submit a proposal of extending the subsidized places for technician courses to cover 8
		disciplines for CITB's consideration; ii) VTC must provide data on course effectiveness and trainees' employment over the past 2 years for CIC to consider the feasibility and appropriate number of subsidized
		places; iii) CIC would help promote the Diploma in Construction course to be offered by VTC in this
		September by informing trainees that they could consider applying for the course upon graduation. In
		addition, VTC would not make individual request for subsidizing their courses or transferring the remaining
		subsidies to other courses.
6.11	CIC/CTB/P/073/15	Summary Notes of Meeting 003/15 of Steering Group on Implementation of CWRO Amendments
	(for information)	Members took note of the above summary notes.
6.12	Any other business	Members noted that the management would submit the respective revised financial estimates of the Trade
	(A.O.B)	Testing Centre and the Management and Safety Training Centre in 2015, and the proposal of optimizing the
		model workshops in Trade Testing Centre to the Committee on Administration and Finance for approval.
		The representative of ICAC would brief members on the Prevention of Bribery Ordinance in the next CITB
		meeting to be held on 17 July 2015.

<u>Remarks</u>: The mentioned papers discussed at the Construction Industry Training Board and the full progress report can be made available to Council Members from the CIC Secretariat upon request.

Construction Manpower Seminar 2015 30 March 2015

Post-event Report

Co-organised by Construction Industry Council and Development Bureau

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#### 1. Summary

The Construction Manpower Seminar 2015, co-organised by Construction Industry Council ("CIC") and Development Bureau, was successfully held on 30 March 2015 at ZCB of the CIC. Over 70 industry stakeholders attended the Seminar to understand the latest manpower situation, challenges and training strategies for the construction industry. Valuable comments and suggestions were also provided in response to manpower shortage in the industry and the strategies for future manpower development.

Apart from eagerly asking questions pertinent to the presentations, attendees also actively took part in the discussion. They proposed ways of attracting new entrants and helpful measures for the development of construction industry in the long run which included improving the working conditions in the industry and enhancing the image of the industry and workers. Some groups even continued their discussions during the break. In the subsequent panel discussion, the moderator invited the industry representatives on the stage to share their views regarding the questions raised in group discussions and provide recommendations based on the actual situation of the industry.

This report not only includes the presentations of the Seminar and the questions for discussions, but also states the comments from participants in details so as to provide good reference for the CIC in addressing the manpower shortage issue and setting the future direction for training and development. The success of the Seminar with positive feedback from participants relied on the active participation and support from various stakeholders. Development Bureau and Construction Industry Council would like to thank all trade associations, trade unions, professional bodies, contractors, private organisations, academic institutions and government departments. Every suggestion raised in the Seminar will be considered seriously and will work hand-in-hand with industry stakeholders for the development of construction industry.

#### 2. Objectives of the Seminar and Participants

The objectives of the Seminar include:

- briefing the industry stakeholders on the forecast results from the Construction Industry Council Manpower Forecasting (CICMF) Model 2014 on construction workers, site supervisory personnel & technicians and professionals;
- introducing the current and future works and strategies on training as well as the strategies on labour supply for short and medium terms; and
- collecting feedback from industry stakeholders regarding the proposed professional development and progression pathways for construction practitioners so as to provide reference for formulating training strategies in the future.

A total of 94 organisations / members were invited to attend the Seminar, which include members of the CIC, members of Construction Industry Training Board, government departments, trade associations, trade unions, professional bodies, employers/private companies and training/tertiary institutions. Please refer to <u>Appendix I</u> for the invitation list. Over 70 guests attended the Seminar and they provided valuable comments and suggestions for the development of the industry.

Presentations, group discussion and panel discussion were covered in the Seminar. Please refer to Appendix II for the programme rundown.

3. Topics for Presentation and Discussion Sessions, Guests for Panel Discussion

#### <u>Presentation</u>

Presentations by different speakers were arranged at the Seminar:

- Contractors' Key Considerations on Tendering (Speaker: Ms. KWAN Sin-wo, Senior Statistician of Census and Statistics Department)
- Hong Kong Construction Cost Review (Speaker: Mr. KONG Chau-ming, Deputy Director of Langdon & Seah)
- CIC Manpower Forecasting Model (Speaker: Dr. Thomas TONG, Chief Research Consultant of Construction Industry Council)
- Introduction of Current and Future Works and Strategies on Training by the CIC (Speaker: Ir Alex LEUNG, Director-Training & Development of Construction Industry Council)

For the presentation slides of the above topics, please refer to Appendix III.

#### **Group Discussion**

Subsequently, six groups of participants conducted a 30-minute discussion on two questions assigned to their groups and group secretaries reported the discussion results afterwards. Questions for group discussions include:

- Question 1: Construction industry is facing the manpower shortage challenge of (a) workers & (b) technicians. How do you think the industry should tackle?
- Question 2: Professionals are in shortage as well. What is the role of the industry stakeholders (including post-secondary educational institutions & relevant government departments) in dealing with shortage of manpower on **professionals** & what actions should they take?
- Question 3: Supply of construction workers is shrinking (aging population & decreasing no. of enrollment at the right age) in coming years. CIC and the industry have carried out several measures to attract new entrants and retain labour in the industry. What other measures do you think that can:
  - attract new entrants to the industry
  - decrease drop-out rate of trainees
  - increase retention rate

Question 4: Facing competition of new workers in the market and manpower shortage, how should strategy on construction training be formulated and make good use of current labour force and skills?

Question 5: Do you have any suggestions on progression pathways for construction workers and technicians? How can the industry stakeholders contribute on this?

Question 6: In order to enhance training efficiency, CIC focuses on **training places & quality** to train workers. Do you have any suggestions on it? Besides, to enhance workers' competitiveness, the Advanced Construction Manpower Training Scheme (ACMTS) is preliminarily proposed to train skilled workers, including **multi-skill** training. What measures should CIC formulate to encourage **multi-skill**?

For responses from participants in relation to individual questions in group discussion, please refer to <u>Appendix IV</u>.

#### Panel Discussion

Subsequent to reports and conclusions from group discussions, the panel discussion was led by a guest host to discuss related topics with the following guests on stage:

Professor Albert CHAN, Head of Department of Building and Real Estate, The Hong Kong Polytechnic University (moderator)

Mr. LAM Kai-chung, Deputy Secretary for Development (Works), Development Bureau

Ir Dr. PANG Yat-bond, Chairman of Construction Industry Training Board

Ir CHAN Sau-kit, President of Hong Kong Construction Association

Mr. NG San-wa, President of Hong Kong Construction Sub-Contractors Association

Mr. CHOW Luen-kiu, Chairman of Hong Kong Construction Industry Employees General Union

Mr. LAI Chi-wah, Chairman of The Federation of Hong Kong Electrical & Mechanical Industries Trade Unions

Ir MA Ka-chun, Chairman of Manpower Committee of Hong Kong Federation of Electrical and Mechanical Contractors Limited

Questions for panel discussion include:

- Question 1: According to the latest report from the CICMF Model, the challenge on manpower shortage is seen among professionals, site supervisory personnel & technicians and workers in construction industry. With the launch of large-scale infrastructure projects and public and private works projects in the market, what would the Government do to tackle the problem of manpower shortage?
- Question 2: Hong Kong is now facing an aging population and shrinkage in working population which further worsen the problem of manpower shortage in construction industry. There is keen competition on manpower among different industries. Yet, the construction industry is perceived to be a dirty industry with long working hours and high demand on physical strength. Would there be any better measures in attracting young people to join the industry and making their parents/teachers to encourage them to join?
- Question 3: Regarding the manpower demand for E&M trades, what measures do we have to attract new entrants?
- Question 4: The Government will provide HK\$100 million for the CIC to strengthen their work in training skilled workers for the industry. How would CIC make use of the funding?
- Question 5: What does the Government expect from the industry and how to meet the expectations?
- Question 6: What would be the expectations from Hong Kong Construction Association regarding the plan in enhancing the skill level of the industry?
- Question 7: Some groups have recommended "multi-skills" in enhancing the competitiveness of workers to ensure they are under employment. However, implementation of such measure is not that easy. Could our guests provide some good suggestions on this matter?

For responses from panel members in relation to individual questions in panel discussion, please refer to Appendix V.

### 4. Consolidated Comments from Group Discussion and Panel Discussion

The consolidated comments and suggestions from discussion sessions are as follows:

For resolving manpower shortage on workers and technicians:

	Consolidated Comments and Suggestions				
Manpov	ver Supply				
4.1	To encourage females to join construction industry. Measures include arranging a special				
	recruitment day for recruiting female workers, enhancing skills and exploring the feasibility				
	of stipulating in the contracts for requesting contractors to recruit a certain proportion of				
	female workers.				
4.2	To strengthen the training for ethnic minorities.				
4.3	To attract construction workers who have left the industry (including retired workers) to				
	re-join the construction industry.				
4.4	To understand the drop-out reasons for trainees.				
4.5	To import skilled workers, where necessary, to alleviate the situation of manpower shortage.				
Working	g Conditions				
4.6	To improve site environment such as exploring the provision of shelters for workers on sites,				
	especially the sites for civil engineering works.				
4.7	To enhance safety of construction sites.				
4.8	To explore flexible working hours for newly-joined young people.				
4.9	To explore the feasibility of 5-day work week and consider rolling out in public works first.				
4.10	To ensure workers have stable monthly income to maintain their living.				
Impleme	entation of Projects				
4.11	To roll out various public works projects as coordinated by the Government.				
Prospec	ts of Construction Industry and Image of Construction Workers				
4.12	To provide professional development and progression pathways for semi-skilled workers				
	and skilled workers.				
4.13	To introduce the professional development and progression pathways of construction				
	industry to young people and parents.				
4.14	To enhance awareness and interest in construction industry among primary and secondary				
	school students.				
Skills ar	nd Productivity of Workers				
4.15	To train workers to become "multi-skills".				
4.16	To enhance training for semi-skilled workers and uplift the skills and productivity of				
	graduates.				
4.17	To train semi-skilled workers to become skilled workers to cope with the demand on skilled				
	level as required by the industry.				

### For resolving manpower shortage on professionals:

	Consolidated Comments and Suggestions		
Increase	Supply		
4.18	To encourage universities and tertiary institutions to increase training places.		
4.19	To provide pathways for tertiary students from other disciplines to obtain professional		
	qualifications.		
4.20	To consider subsidising those self-financing courses in construction-related disciplines so as		
	to encourage the institutions to provide relevant part-time courses for professionals.		
4.21	To explore the feasibility of stipulating in public works contracts for requesting contractors		
	to recruit a certain proportion of engineering graduates.		
4.22	To attract professionals to come to work in Hong Kong through the "Quality Migrant		
	Admission Scheme".		
4.23	To encourage small to medium-sized contractors to join the Graduate Scheme "A" Training		
	and train more professionals.		
4.24	To explore the provision of more practical opportunities for engineering graduates		
	participating in the Graduate Scheme "A" Training so as to reduce the drop-outs.		
4.25	To simplify the design and monitoring procedures for construction works and to explore		
	using advanced materials and prefabrication to reduce demand on manpower.		
Recogni	ition for Professionals		
4.26	To promote the quality services provided by Hong Kong professionals in neighboring		
	regions.		

#### 5. Feedback from Survey

A total of 28 questionnaires were received. Survey results for the Seminar were summarised as follows. Considering that some groups were not able to have detailed discussion on the two assigned questions and the guests should have more in-depth sharing on the discussion topics in the panel discussion, the management understood that more time should be given for the two discussion sessions.

1.	Presentation Topics	Very	Quite		Not Quite	Not Useful
		Useful	Useful	Average	Useful	At All
a.	Contractors' Key Considerations on	29%	68%	3%	0%	0%
	Tendering and Hong Kong					
	Construction Cost Review					
b.	Construction Industry Council	25%	68%	7%	0%	0%
	Manpower Forecasting (CICMF)					
	Model Results					
c.	Introduction of Current and Future	36%	53%	11%	0%	0%
	Works and Strategies on Training by					
	the CIC, and Proposed Professional					
	Development and Progression					
	Pathways for Construction					
	Practitioners					
2.	Discussion Sessions	Very	Quite		Not Quite	Not Satisfied
2.	Discussion Sessions	Very Satisfied	Quite Satisfied	Average	Not Quite Satisfied	Not Satisfied At All
2.	Discussion Sessions  Group Discussion	•		Average		
2. a.		•		Average		
	Group Discussion	Satisfied	Satisfied	_	Satisfied	At All
a.	Group Discussion  Questions for group discussion	Satisfied 29%	Satisfied 64%	7%	Satisfied 0%	At All
a. b.	Group Discussion  Questions for group discussion  Format of group discussion	Satisfied 29% 29%	Satisfied 64% 50%	7% 21%	Satisfied  0%  0%	At All 0% 0%
a. b.	Group Discussion  Questions for group discussion  Format of group discussion  Time allocation (no response on this	Satisfied 29% 29%	Satisfied 64% 50%	7% 21%	Satisfied  0%  0%	At All 0% 0%
a. b.	Group Discussion  Questions for group discussion  Format of group discussion  Time allocation (no response on this item in one of the returned	Satisfied 29% 29%	Satisfied 64% 50%	7% 21%	Satisfied  0%  0%	At All 0% 0%
a. b.	Group Discussion  Questions for group discussion  Format of group discussion  Time allocation (no response on this item in one of the returned questionnaires)	Satisfied 29% 29%	Satisfied 64% 50%	7% 21%	Satisfied  0%  0%	At All 0% 0%
a. b. c.	Group Discussion  Questions for group discussion  Format of group discussion  Time allocation (no response on this item in one of the returned questionnaires)  Panel Discussion	Satisfied  29%  29%  15%	Satisfied  64%  50%  41%	7% 21% 37%	Satisfied  0%  0%  7%	At All 0% 0% 0%
a. b. c.	Group Discussion  Questions for group discussion  Format of group discussion  Time allocation (no response on this item in one of the returned questionnaires)  Panel Discussion  Questions for discussion	Satisfied  29%  29%  15%	Satisfied  64%  50%  41%	7% 21% 37%	Satisfied  0%  0%  7%	At All  0%  0%  0%
a. b. c. a. b.	Group Discussion  Questions for group discussion  Format of group discussion  Time allocation (no response on this item in one of the returned questionnaires)  Panel Discussion  Questions for discussion  Format of discussion	29% 29% 15% 25% 29%	Satisfied  64%  50%  41%  71%  57%	7% 21% 37% 4% 14%	Satisfied  0%  0%  7%  0%  0%	At All  0%  0%  0%  0%
a. b. c. a. b.	Group Discussion  Questions for group discussion  Format of group discussion  Time allocation (no response on this item in one of the returned questionnaires)  Panel Discussion  Questions for discussion  Format of discussion	29% 29% 15% 25% 29%	Satisfied  64%  50%  41%  71%  57%	7% 21% 37% 4% 14%	Satisfied  0%  0%  7%  0%  0%	At All  0%  0%  0%  0%

b.	Venue setting	36%	61%	3%	0%	0%
c.	Food and drinks	32%	57%	11%	0%	0%
d.	Audio effect	46%	54%	0%	0%	0%
4.	Overall Satisfaction of the Seminar	25%	71%	4%	0%	0%
		Very	Quite		Not Quite	Not Interested
		Interested	Interested	Average	Interested	At All
5.	If CIC would organise seminar in	25%	68%	7%	0%	0%
	future, how interested would you be in					
	attending?					

- 6. If CIC would organise seminar again in future, what topics/content that you would like to cover?
- Propose to have another workshop some time after the Seminar, to review the items that have been discussed in the Seminar.
- Topics related to construction industry, such as manpower, working procedures, development etc.
- Explore the feasibility for construction practitioners to have higher chance in getting Home Ownership Scheme flats as they take part in construction works for Hong Kong. (Trust that would attract more young people in joining construction industry and no reasonable objections could be made by practitioners in other industries).

#### 7. Other Comments

To reduce construction costs and manpower shortage on supervisors, the monitoring of construction quality and safety should be largely undertaken by the on-site registered engineer of the contractor. He should have a lifetime responsibility for the construction quality under his management. If it is found to be jerry-built or has quality issues, he will be subject to criminal prosecution. The current monitoring mechanism is redundant and too many people are involved in the process which increases the cost while slowing down the progress. If it has quality issues at the end, no one will bear the responsibility.

6. Appendices

6.1 Appendix I: Invitation List

**Government Departments** (No.: 14)

Development Bureau Architectural Services Department **Buildings Department** Civil Engineering and Development

Department

Electrical and Mechanical Services **Drainage Services Department** 

Department

Water Supplies Department Census and Statistics Department

**Education Bureau** University Grants Committee Secretariat

Transport and Housing Bureau **Highways Department Housing Department** Labour Department

**Trade Associations** (No.: 17)

Hong Kong Construction Sub-Contractors Hong Kong Construction Association

Association

Hong Kong Construction Materials The Hong Kong Federation of Electrical and

Association Mechanical Contractors Limited

Hong Kong General Building Contractors Hong Kong Hydraulic Truck Cranes

Association Association

Hong Kong Licensed Plumbers Association The Registered Elevator and Escalator

Contractors Association

The Association of Consulting Engineers of Hong Kong Association of Property

Hong Kong Management Companies

Minor Works Contractor Association Contractor's Authorised Signatory

Association

The Association of Consultant Quantity Registered Minor Works Contractor

Surveyors Signatory Association

The Association of Architectural Practices Professional Building Surveying Consultants

Association of Hong Kong

The Hong Kong Chinese Enterprises

Association

**Labour Unions** (No.: 6)

Construction Site Workers General Union Resident Site Staff Association The Federation of Hong Kong Electrical & Hong Kong Construction Industry

Mechanical Industries Trade Unions **Employees General Union** 

Hong Kong Electrical Engineering Hong Kong General Union of Lift and

Professional Employees Association Escalator Employees

**Professional Bodies** (No.: 6)

The Hong Kong Institute of Architects

The Hong Kong Institute of Landscape

Architects

The Hong Kong Institution of Engineers Hong Kong Institute of Construction

Managers

**Employers / Private Companies** (No.: 8)

The Airport Authority Hong Kong MTR Corporation Limited

The Real Estate Developers Association of HK Electric Investments Limited

Hong Kong

CLP Group

The Hong Kong and China Gas Company

Limited

Gammon Construction Limited Rider Levett Bucknall Limited

**Training / Tertiary institutions** (No.: 6)

The University of Hong Kong

The Chinese University of Hong Kong

The Hong Kong University of Science and The Hong Kong Polytechnic University

Technology

City University of Hong Kong Vocational Training Council

Members of Construction Industry Council and Construction Industry Training Board

(No.: 37)

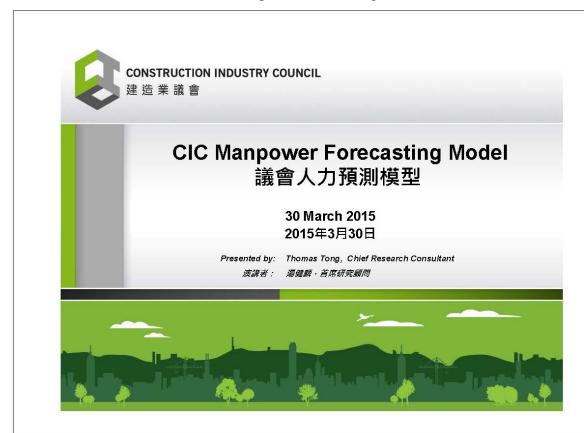
### 6.2 Appendix II: Programme Rundown

Time	Programme	Speaker
2:00 - 2:15	Registration	-
2:15 - 2:20	Welcome Speech	Ir Dr. PANG Yat-bond Chairman of the Construction Industry Training Board
2:20 - 2:25	Opening Remarks	Ir WAI Chi-sing Permanent Secretary for Development (Works), Development Bureau
2:25 - 2:55	Contractors' Key Considerations on Tendering; and Hong Kong Construction Cost Review	Ms. KWAN Sin-wo Senior Statistician, Census and Statistics Department Mr. KONG Chau-ming Deputy Director of Langdon & Seah
2:55 - 3:25 Construction Industry Council Manpower Forecasting (CICMF) Model Results, which cover the following construction personnel:		Dr. Thomas TONG Chief Research Consultant, CIC
	Introduction of Current and Future Works and Strategies on Training by the CIC, and Proposed Professional Development and Progression Pathways for Construction Practitioners	Ir Alex LEUNG Director-Training & Development, CIC
3:25 - 3:55	Group Discu	ussion
3:55 - 4:20	Presentation of Discussion Result	Group Secretary
4:20 - 4:35	Tea Brea	ı ak

4:35 - 4:40	Summary of Discussion Result	Ir Alex LEUNG
		Director-Training & Development,
		CIC
4:40 - 5:25	Panel Discussion	Professor Albert CHAN (Moderator)
	Ir Dr. PANG Yat-bond, Chairman of	Head of Department of Building and
	Construction Industry Training Board	Real Estate, The Hong Kong
	Mr. LAM Kai-chung, Deputy Secretary	Polytechnic University
	for Development (Works), Development	
	Bureau	
	Ir CHAN Sau-kit, President of Hong	
	Kong Construction Association	
	Mr. NG San-wa, President of Hong	
	Kong Construction Sub-Contractors	
	Association	
	Mr. CHOW Luen-kiu, Chairman of	
	Hong Kong Construction Industry	
	Employees General Union	
	Mr. LAI Chi-wah, Chairman of The	
	Federation of Hong Kong Electrical &	
	Mechanical Industries Trade Unions	
	Ir MA Ka-chun, Chairman of Manpower	
	Committee of Hong Kong Federation of	
	Electrical and Mechanical Contractors	
	Limited	
5:25 - 5:30	Closing Remarks	Ir Alex LEUNG
		Director-Training & Development,
		CIC

#### 6.3 Appendix III: Presentation Slides

CIC Manpower Forecasting Model



### CICMF Model 議會人力預測模型

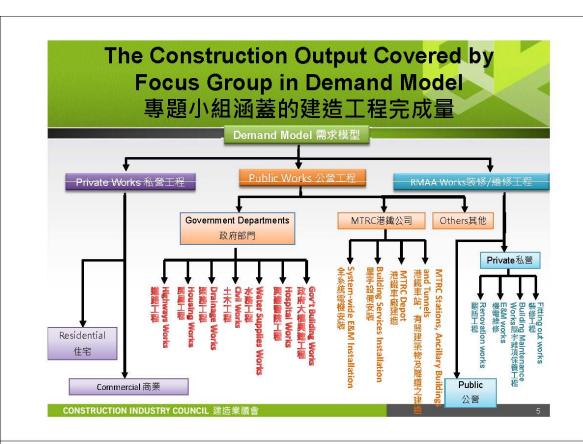


### Objectives 目標

- Estimate the trend of the supply and demand of the construction manpower
- 估計建造業的人力需求及供應的趨勢
- · Classification of manpower resources:
- 建造業人力資源的分類:
  - ➤ Construction worker 建造業工人
  - ➤ Site Supervisory Personnel 工地監督人員
  - ➤ Technician 技術員
  - ➤ Professional 專業人員

CONSTRUCTION INDUSTRY COUNCIL 建造業議會



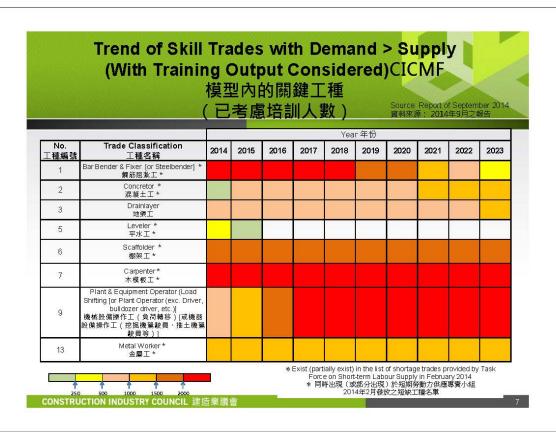


### Critical Trades 關鍵工種



- Critical trades are those which have been forecasted with possible demand figures are larger than the supply figures in the future years
- 關鍵工種是指CICMF模型預計未來數年可能出現人手短缺的工種
- Trades shown on the list are presented with relatively higher confidence on the reliability of the forecasted figures
- 只顯示預測數據可靠度相對較高並有人手短缺情況的工種
- Trades do not appear on the list do not necessarily represent their supply fulfill the forecasted demand
- 個別工種因數據不足而未有出現於下列表中,並不一定代表該工種沒有出現人手短缺的情況

CONSTRUCTION INDUSTRY COUNCIL 建造業議會



# Trend of Skill Trades with Demand > Supply (With Training Output Considered)

CICMF 模型內的關鍵工種 (已考慮培訓人數)

Source Report of September 2014 資料來源: 2014年9月之報告

	_					Ye	ar年份				
No. L種編號	Trade Classification 工種名稱	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
16	Plasterer Terrazzo & Granolithic Worker * 批盪工*										
20	Structural Steel Welder * 結構鋼材焊接工*										
21	Structural Steel Erector * 結構鋼架工*										
22	Rigger/Metal Formwork Erector * 索具工(叻噢)/金屬模板装嵌工 *										
27	Mechanical Fitter 機械打磨裝配工										
28	Refrigeration/AC/Ventilation Mechanic * 空調製冷設備技工*										
45	Shotfirer * 爆石工*										
46	Tunnel Worker * 隧道工 *										
	250 500 1000 1500 2000			8	*Exist(p TaskFo * 同	orce on Sh 時出現(享	ort-term Li 部分出現	st of short abour Sup ) 於短期勞 文之短缺工	ply in Febr 動力供應	provided b uary 2014 專實小組	ıy

CONSTRUCTION INDUSTRY COUNCIL 建造業議會

### Additional Skilled Workers in Coming Years (Considered training & its limitation and the potential workforce)

未來需增加有工種技術的建造業工人的人數

(已考慮培訓及其局限和潛在勞動力) Source Report of September 201

Year 年度	2014	2015	2016	2017	2018
Additional skilled workers required* (approx.) 大約需增加有工種技術工人之數* (大約)	Below about 10,000 低於10,000	About 10,000 to 15,000 大約10,000 至 15,000			

\*Figures are in absolute at the end of corresponding years and are non-cumulative \*為該年年終數字之非累積絕對值

Attention: The CIC encourages readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions.

注意:議會建議讀者須在可能的情況下,向其專業顧問尋求適當獨立的意見,不應依賴本文件之內容取代任何相關行動之專業意見。

- Better utilization of potential workforce including unemployed workers, underemployed workers and those who have left the industry (industry leavers)
- 已考慮潛在勞動力包括失業工人、就業不足之工人及已離開建造業之工人
- Workers from those trades with a surplus of labours are assumed to be able to work in other shortage trades
- 假設不同工種的註冊工人可有互補的效果,或以幫工的形式參與其他工種的工作

CONSTRUCTION INDUSTRY COUNCIL 建造業議

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### Concluding Remarks – Construction Workers 結語 - 建浩業工人

- 10,000 to 15,000 skilled workers are required from 2015 to 2018 after considered the potential workforce and the assumption that workers can work in other trades based on the forecast of the CICMF Model in 2014
- 基於2014年年中CICMF模型的預測,即使已考慮潛在勞動力及不同工種的工人在工作上可互補的效應,由2015至2018年,預測每年仍需10,000至15,000名有工種技術的工人
- Please note the result of the forecast can be affected by politics, economics and other factors
- 須留意上述預測或會受政治、經濟及其他因素影響

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# No. of Employees from the 2013 Manpower Survey Report Building and Civil Engineering Industry, Vocational Training Council

職業訓練局2013年度土木工程及建築業人力調查報告內的僱員人數

Job Title 工種分類	No. of Employees (incl. Branch 1-9) 僱員人數(包括1-9項分類)
Architect 建築師	2,859
Landscape Architect 園境建築師	444
Civil Engineer 土木工程師	4,414
Structural Engineer 結構工程師	2,416
Geotechnical Engineer (incl. Engineering Geologist) 岩土工程師(包括土力工程技術員)	1,139
Environmental Engineer 環境工程師	493
Builder/Construction Manager 營造師	1,512
Building Services Engineer 屋宇裝備工程師	1,040
Electrical Engineer 電機工程師	386
Mechanical Engineer 機械工程師	312
Building/Maintenance Surveyor 建築測量師	693
Land Surveyor 土地測量師	958
Quantity Surveyor 工料測量師	2,069
Town Planner 城市設計師	441

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### No. of Employees from the 2013 Manpower Survey Report Electrical and Mechanical Services Industry, Vocational Training Council

職業訓練局2013年度機電工程業人力調查報告內的僱員人數

A	Job Titles 工種分類	No. of Employees under the Electrical & Mechanical Engineering Sector (incl. Branch 1-4) 機電業內僱員人數(包括1-4項分類)		
	illding Services Engineer 宇裝備工程師	932		
2000000	ectrical Engineer 機工程師	2,455		
En	efrigeration/ Air-conditioning/ Ventilation gineer 凝 / 空氣調節 / 通風設備工程師	1,190		
100000000000000000000000000000000000000	echanical Engineer 械工程師	664		
1000040372	e Services Engineer 防設備工程師	477		
200	t/Escalator Engineer 降機/自動梯工程師	324		

Remarks: The above figures are for reference only and they have not been considered into the calculation in the CICMF Model due to the unclear proportion of employees working in the construction industry. 註: 因暫未能確定以上人數內從事建造業之比例,上述數字沒有包括於2014年CICMF模型內計算,只供參考。

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#### Trend of Manpower Situation of SSP (in number) (Demand - Supply) 工地監督人員的人力趨勢(以人數計算) Source: Report of October 2014 資料來源: 2014年10月之報告 (需求-供應) Attention: The CIC encourages readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions. 注意:議會建議讀者須在可能的情況下,向其專業顧問尋求越當獨立的意見,不應依賴本刊物之內容取代任何相關行動之專業意見。 2014 2015 2016 2017 2018 Trade Classification工種分類 Construction Manager 營造師 / 建造經理 Engineer 工程師 Technical Officer 技術主任 Supervisor 監工 Clerks of Works 工程監督 Inspector 督察員 Agent 總管 Foreman 管工 Coordinator 協調員 Further verification is required. Result to be advised . Safety Officer 安全丰任 預測數據需進一步驗證,稍後公佈 Assistant Safety Officer/Safety Further verification is required. Result to be advised Supervisor 預測數據需進一步驗證,稍後公佈 助理安全主任/安全監督 >50 to ≤150 >150 to ≤250 >250 to ≤350

Range refers to figures rounded to the nearest ten. 上述範圍根據取整數至十位

CONSTRUCTION INDUSTRY COUNCIL 建造業議會

### I rend of Manpower Situation of SSP (in percentage) (Demand - Supply)/ Supply (Demand - Odeph.), 工地監督人員的人力趨勢(以百分率計算) Source: Report of October 2014 資料来源: 2014年10月之報告

Attention: The CIC encourages readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions. 注意:議會建議讀者須在可能的情況下,向其專業顧問尋求趣當獨立的意見,不應依賴本刊物之內容取代任何相關行動之專業意見。

Trade Classification工種分類	2014	2015	2016	2017	2018
Construction Manager					
營造師 / 建造經理					
Engineer 工程師					
Technical Officer 技術主任			1		
Supervisor 監工			1		
Clerks of Works 工程監督				- 1	
Inspector 督察員					
Agent 總管					
Foreman 管工					
Coordinator 協調員					
Safety Officer 安全主任	Further verification is required. Result to be advised . 預測數據需進一步驗證,稍後公佈				
Assistant Safety Officer/Safety Supervisor 助理安全主任 / 安全監督	Further verification is required. Result to be advised . 預測數據需進一步驗證,稍後公佈				
	< 50/	>5% to	>10% to	>15% to	>20%

≤15%

≤20%

≤5%

Range refers to figures rounded to the nearest percent

上述範圍根據取整數至百分率 CONSTRUCTION INDUSTRY COUNCIL 建造業議會

#### Trend of Manpower Situation of Technicians (in number) (Demand - Supply) 技術員的人力趨勢(以人數計算) Source: Report of October 2014 資料來源: 2014年10月之報告 (需求-供應) Attention: The CIC encourages readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions. 注意:議會建議讀者須在可能的情況下,向其專業顧問尋求適當獨立的意見,不應依賴本刊物之內容取代任何相關行動之專業意見。 **Trade Classification** 2014 2015 2016 2017 2018 工種分類 Draftsman 繪圖員 Surveying Technician (Quantity) 工料測量技術員 E&M Engineering Technician Further verification is required. Result to be advised . 機電技術員 預測數據需進一步驗證,稍後公佈 Civil/Structural/Geotechnical **Engineering Technician** 土木 / 結構 / 土力工程技術員 >50 to ≤150 >150 to ≤250 >250 to ≤350

Range refers to figures rounded to the nearest ten.上述範圍根據取整數至十位

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## 技術員的人力趨勢(以百分率計算)

(需求 - 供應)/供應 Source: Report of October 201 資料來源: 2014年10月之報告

Attention: The CIC encourages readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions. 注意:議會建議讀者須在可能的情況下,向其專業顧問尋求適當獨立的意見,不應依賴本刊物之內容取代任何相關行動之專業意見。

Trade Classification 工種分類	2014	2015	2016	2017	2018
Draftsman 繪圖員					
Surveying Technician (Quantity) 工料測量技術員					
E&M Engineering Technician 機電技術員	Fur		n is required. Re 需進一步驗證		sed .
Civil/Structural/ Geotechnical Engineering Technician 土木 / 結構 / 土力工程技術員					
≤5%		% to >	10% to ≤15%	>15% to ≤20%	>20%

Range refers to figures rounded to the nearest percent 上述範圍根據取整數至百分率

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#### Trend of Manpower Situation of Professionals (in number) (Demand - Supply) 專業人員的人力趨勢(以人數計算) Source: Report of October 2014 資料來源: 2014年10月之報告 (需求 - 供應) Attention: The CIC encourages readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions. 注意:議會建議讀者須在可能的情況下,向其專業顧問尋求適當獨立的意見,不應依賴本刊物之內容取代任何相關行動之專業意見。 Trade Classification工種分類 2014 2015 2016 2017 2018 Architect 建築師 Landscape Architect 園境建築師 Civil Engineer 土木工程師 Structural Engineer 結構工程師 Geotechnical Engineer 岩土工程師 Environmental Engineer 環境工程師 Building Engineer 建造工程師 E&M and Building Services Further verification is required. Result to be advised. Engineer 預測數據需進一步驗證,稍後公佈 電機與機械及屋宇裝備工程師 Building Surveyor 建築測量師 Land Surveyor 土地測量師 Quantity Surveyor 工料測量師

Remarks: Data on number of employees in the VTC report is adopted for the supply of the CICMF model. This relies heavily on the feedback from respondents. Membership of professional bodies has been taken as a reference only

註:模型內供應的數據參考職訓局報告內的僱員人數・此項數據倚靠回覆者答覆的準確度・專業學會人數只作參考・

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Town Planner 城市設計師

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### Trend of Manpower Situation of Professionals (in percentage) (Demand – Supply)/ Supply

專業人員的人力趨勢(以百分率計算) (需求 - 供應)/供應

(需求・供應)/供應
Scurce Report of October 2014 資料来源:2014年10月之報告
Attention: The CIC encourages readers to seek appropriate independent advice from their professional advice for taking any relevant actions. 注意:議會建議讀者須在可能的情況下・向其專業顧問尋求越當獨立的意見・不應依賴本刊物之內容取代任何相關行動之專業意見。

Trade Classification工種分類	2014	2015	2016	2017	2018
Architect 建築師					
Landscape Architect 園境建築師					
Civil Engineer 土木工程師					
Structural Engineer 結構工程師					
Geotechnical Engineer 岩土工程師					
Environmental Engineer 環境工程師					
Building Engineer 建造工程師					
E&M and Building Services Engineer 電機與機械及屋宇装備工程師	Further verification is required. Result to be advised. 預測數據需進一步驗證,稍後公佈				
Building Surveyor 建築測量師					
Land Surveyor 土地測量師					
Quantity Surveyor 工料測量師					
Town Planner 城市設計師					

Remarks: Data on number of employees in the VTC report is adopted for the supply of the CICMF model. This relies heavily on the feedback from

respondents. Membership of professional bodies has been taken as a reference only 註:模型内供應的數據參考赣訓局報告內的個員人數・II近數據倍靠回覆者签覆的整確度・重業總會人數只作參考・

武:模型內供應的數據參考稿訓局報告內的僱員人數,此過數條份單向繼者發播的基備度,畢業營營人數只作參考。
 Range refers to figures rounded to the nearest percent
 上述範圍根據取整數至百分率

 | ≤5% | ≤10% | ≤15% | ≤20% |
 | ≤20% | |

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### Insight from the Age Profile of Professional provided by Professional Bodies 專業人員的年齡分佈的啟示

- · Among the professionals with age profile available from the relevant professional bodies, more than 40% of the existing members are over 50 years old for Civil Engineers, Structural Engineers, Geotechnical Engineers, Environmental Engineers, Building Engineers, Building Services Engineers, Electrical Engineers, Mechanical Engineers and Land Surveyors
- 從專業學會2014年初可提供的資料,50歲以上會員佔會員之人 數的百分比多於40%的專業人員如下:土木工程師、結構工程師、 岩土工程師、環境工程師、建造工程師、屋宇設備工程師、電機 工程師、機械工程師及土地測量師
- · Building Engineers shows the highest percentage of members over 50 years old (68%)
- 50歲以上的建造工程師會員比例在各項專業人員中最高(68%)

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### **Number of Enrolments** (Full-time Locally-accredited Self-financing Post-secondary Programmes) 學生數字 (全日制經本地評審自資專上課程)

Area of study:

Architecture, Construction & Town Planning

研究範疇

建築、建造與城市規劃

	Total 總數	No. change compared to the previous year 與上一年的人數差異	% change 百分比轉變
2013/14	421	78	+19%
2012/13	343	86	+25%
2011/12	257	96	+37%
2010/11	161	<u> </u>	

Source 資料來源: http://www.cspe.edu.hk/content/Stat-Student-Enrolments

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#### Number of Enrolments

(Full-time Locally-accredited Self-financing Post-secondary Programmes)

學生數字

(全日制經本地評審自資專上課程)

Area of study:

**Engineering & Technology** 

研究範疇 工程及科技

	Total 總數	No. change compared to the previous year 與上一年的人數差異	% Change 百分比轉變	
2013/14	2325	521	+22%	
2012/13	1804	586	+32%	
2011/12	1218	96	+8%	
2010/11	1122	===		

Source 資料來源: http://www.cspe.edu.hk/content/Stat-Student-Enrolments

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# Concluding Remarks – SSP & Technicians

結語 - 工地監督人員及技術員

- SSP and Technicians
- 工地監督人員及技術員
  - Foreman, Supervisor, Coordinator, Inspector, Clerk of Works and Draftsman require additional workforce when considering numbers
  - ▶ 人數計算,管工、監工、協調員、督察員、工程監督及繪圖員需要注意額外人手的情況
  - ➤ Agent, Technical Officer and Civil/ Structural/ Geotechnical Engineering Technician require additional workforce when considering percentages
  - ▶ 以百分比計算,總管、技術主任及土木/結構/土力工程技術員需要注意額外人手的情況

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### Concluding Remarks - Professional 結語 – 專業人員

- · Professional
- 專業人員
  - ➤ If considering the difference between Demand and Supply, Civil Engineer, Structural Engineer and Quantity Surveyor show critical manpower situation throughout all or most of the period from 2014-2018.
  - ▶ 在2014至2018年間,考慮需求與供應人數的相差,土木工程師、結構工程師及工料測量師呈現較嚴峻的人手情況
  - ➤ By considering shortage %, Landscape Architect and Quantity Surveyor appear to have a high level of shortage in for all or most of the period from 2014-2018
  - 考慮短缺百分率,則園境建築師及工料測量師在2014至2018年間會有稍高的短缺情況
  - > Aging is a concern among most of the professionals
  - ▶ 多類專業人員有人手老化的情況

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## Concluding Remarks – SSP, Technician & Professional

結語 - 工地監督人員、技術員及專業人員

- The report of the CICMF Model in 2014 reflected Site Supervisory Personnel, Technicians and Professional are generally facing the short of manpower issue
- 在2014年的CICMF模型預測中·反映一般工地監督人員、 技術員及專業人員正面對人手緊張的情況
- The raise in the number of self-financing places in construction-related studies in recent years may provide an indirect source of supply to fill the gap between supply and demand of the construction personnel
- 近年與建造業有關的自資專上課程有所增加,這或可提供一個非直接增加供應量的渠道以縮減建造業人力供應與需求的空隙

CONSTRUCTION INDUSTRY COUNCIL 建造業議會

Introduction of Current and Future Works and Strategies on Training by the CIC





# Major Manpower Challenges Faced by the Construction Industry

建造業在人手方面所面臨的主要挑戰

- Ageing of personnel, with particular concern on workers 從業員老化,特別關注到工人
- Facing manpower shortage issue from workers to professionals 從工人至專業人士均面臨人手短缺
- Increased demand for skilled workers 市場對熟練技工的需求增加



Source from: http://2012books.lardbucket.org



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### Reasons behind 原因

- Increased construction works in the past years; construction expenditure is expected to maintain at a high level in the
  - coming years 過往幾年建造工程量上升,預計未來幾年建造工程支出仍然維持高水平
- Lack of comprehensive manpower forecast for proactive manpower planning in the past 以往缺乏全面的人力預測以作高瞻遠矚的人力計劃
- Aging population & declining number of youngsters 人口老化及年輕人數目減少
- Youngsters' or their parents' preference to academic route rather than vocational training 年輕人或其家長偏向學術路徑而非職業訓練
- Jobs & working environment seen to be dirty, dangerous, demanding, dead end & of low social status 工作及環境看來較骯髒、危險、吃力、缺乏工作前景及社會地 位較低
- Industry seems to lack training ladder without gap, development and progression opportunities 行業看來缺乏無縫的系統性訓練階梯、發展及晉升機會

Source from: http://cnx.org

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### **Current and Future Works to Improve the** Situation

現時及未來的工作以改善情況

- Execute & Enhance the manpower research 執行並提升人力研究
- Increase training capacity 增加培訓名額
- Increase training allowance of trades with acute manpower shortage 增加嚴重缺人工種的培訓津貼
- Improve retention during training and in industry 改善培訓期的流失情況及加入行業後的留職率
- Image building of industry and labour 提升建造業及工人的形象
- Advance labour to Skilled Level 提升工人至熟練技術水平
- Develop multi-skill of labour 發展工人一專多能
- Integrate professional development and progression pathways of construction personnel 整合建造業從業員的專業發展及晉升階梯



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### Works to Improve the Situation – Execute & **Enhance the Manpower Research**

改善情況的工作-執行並提升人力研究

- Enhance the CIC Manpower Forecast Model to consider manpower requirement in different stages of projects
  - 提升議會人力預測模型以考慮工程不同階段的人力需求
- Research for a better estimation on areas which lack information e.g. RMAA 就缺乏資料的部份如裝修維修方面,研究更好的估算



Source from: http://goc.com.kw/images/manpower/manpower-5.png

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# Works to Improve the Situation – Increase Training Capacity

改善情況的工作-增加培訓名額

- Increased training places of CIC in-house courses 已增加議會課程的培訓名額
- Enhance partnership with stakeholders to provide collaborative training 增強與業界合作培訓
- Provide subsidy schemes to encourage trainees of other training institutions to join the industry 提供資助計劃以鼓勵其他培訓機構的學員加入建造業
- Spatial re-arrangement for better space utilisation and enhance training facilities for more training places 重整訓練場地以更有效使用空間及加強培訓設施以增加培訓名額
- Review possibility of outsourcing some of the training courses 檢視外判部分培訓課程之可行性
- Use of simulator as part of training for more effective training and for more training places 於部分培訓課程使用模擬器作更有效的培訓及增加培訓名額
- Integrate teaching aids with e-learning for more effective training (是)研究在教學工具內應用電子教學作更有效的培訓





Source from: http://rsoftwares.com/index.php/services/e-learning

CONSTRUCTION INDUSTRY COUNCIL 建造業議會

# Works to Improve the Situation – Increase Training Allowance

改善情況的工作-增加培訓津貼

- "Build Up" Publicity Campaign, including:
  - 「Build升」計劃,包括:
- Enhanced Construction Manpower Training Scheme 強化建造業人力訓練計劃
- Enhanced Construction Supervisor/ Technician Training Scheme etc.
   強化建造業監工/技術員訓練計劃等



CONSTRUCTION INDUSTRY COUNCIL 建造業議會

# Works to Improve the Situation – Improve Retention

改善情況的工作--改善流失情況及留職率

- Briefing Sessions 入學前簡介會
- Industry representatives to introduce work conditions 業界代表簡介工作情況
- Site practice 工地實習
- Mentorship Programme 建造人生師友計劃
- CIC Trainees Alumni Association 建造業議會畢業同學會





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# Works to Improve the Situation – Image Building

改善情況的工作—提升形象

- Construction Industry Ambassadors 建造業活力大使
- Dreams Come True 「總有出頭天」劇集
- Construction Industry Uniforms 行業制服
- Liberal Studies: Hong Kong Construction Industry Information Kit

通識教材:香港建造業

- WorldSkills Competition 世界技能大賽
- Construction Industry Resource Centre 建造業資訊中心
- Construction JobsNet 建工網
- Advertisements etc. 廣告等





CONSTRUCTION INDUSTRY COUNCIL 建造業議會

### Works to Improve the Situation - Advance Labour to Skilled Level

改善情况的工作—提升工人至熟練技術水平

- Subsidy to apprentices 向學徒提供津貼
- On-the-job Training Scheme 在職培訓計劃
- Pilot Advanced Construction Manpower Training Scheme (ACMTS)

進階工藝培訓計劃 - 先導計劃

- To train semi-skilled workers to become skilled workers in 1-2 years 於1至2年培訓期內訓練半熟練工人成為熟練工人
- Mainly focus on the current trades in collaborative training schemes 主要涵蓋現有合作培訓計劃的工種
- Target to roll out in Q3 2015 計劃於2015年第3季推出



CONSTRUCTION INDUSTRY COUNCIL 建造業

### Works to Improve the Situation - Develop Multi-skill of Labour

改善情況的工作-發展工人一專多能

- Organise part-time training courses & encourage in-service workers to participate 開辦兼讀制培訓課程及鼓勵在職工人參加
- · ACMTS subsidy to encourage trainees to acquire semiskilled qualifications of other trades

進階工藝培訓計劃-資助學員考取其他工種的中工



CONSTRUCTION INDUSTRY COUNCIL 建造業

# Works to Improve the Situation - Progression Pathways

改善情況的工作-整合發展及晉升階梯

 A clearer ladder for skill and professional development, and clearer career progression pathways

在更清晰的技術及專業發展階梯, 及事業發展途徑

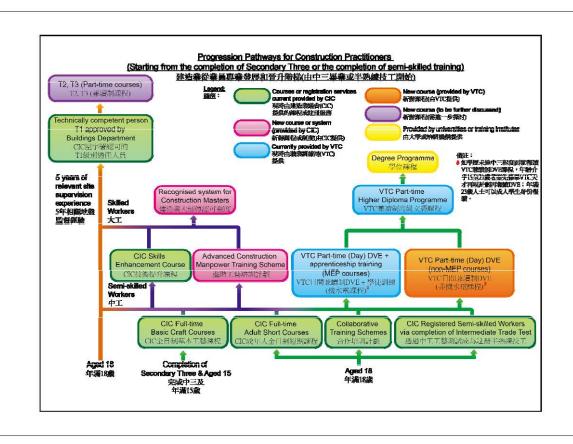
 Graduates under vocational training can progress along the academic route

職業培訓的畢業生可朝學術路徑繼續進修

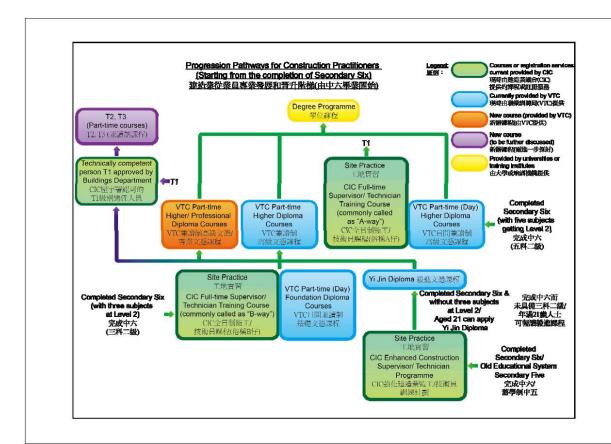


Source from: http://imgkid.com/moving-boxes-upstairs-clipart.shtml http://chronicle.com/article/article-content/134214/

CONSTRUCTION INDUSTRY COUNCIL 建造業議會



### <u>Restricted</u> Not For Circulation



## Views and Input required from Industry Stakeholders

需要業界持分者提供意見及投入的事項

- Construction Industry is facing the manpower shortage challenge of (a) workers &
  - **(b) technicians**. How do you think the industry should tackle?

建造業面對(a)技術工人及(b)技術人員人手短缺的挑戰。你認為業界應怎樣應對?

2. Professionals are in shortage as well. What is the role of the industry stakeholders (including post-secondary educational institutions & relevant government departments) in dealing with shortage of manpower on **professionals** & what actions should they take?

建造業亦面對專業人員人手短缺的挑戰。你認為業界持分者(並包括專上教育機構及相關政府部門)在有關問題上應擔當甚麼角色及怎樣應對?



Source from: http://www.presentermedia.com/index.php?target=closeup&maincat=clipart&id=10888

CONSTRUCTION INDUSTRY COUNCIL 建造業議會

Τb

# Views and Input required from Industry Stakeholders (Con't)

需要業界持分者提供意見及投入的事項(續)

- 3. Supply of construction workers is shrinking (aging population & decreasing no. of enrollment at the right age) in coming years. CIC & the industry have carried out several measures to attract new entrants and retain labour in industry. What other measures do you think that can:
  - · attract new entrants to the industry
  - · decrease dropout rate of trainees
  - · increase retention rate

未來建造業工人的供應面對萎縮(人口老化及適齡入學人數減少)的情況 議會和業界已推行了多項吸引新人 入行並留職業內的措施。你認為還 有哪些方法去:



- 降低在學流失率
- 提升留職率

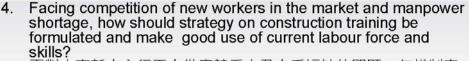
Source from: http://www.atmanco.com/wp-content/uploads/2014/07/Employee-retention-rate.jpg

CONSTRUCTION INDUSTRY COUNCIL 建浩業議

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# Views and Input required from Industry Stakeholders (Con't)

需要業界持分者提供意見及投入的事項(續)



面對未來新人入行工人供應競爭大及人手短缺的問題·怎樣制定 未來建造業的**培訓策略**及**善用在職工人的勞動力及技能**?

5. Do you have any suggestions on progression pathways for construction workers and technicians? How can the industry stakeholders contribute on this?

你對有關技術工人及技術人 員的專業發展及晉升階梯有 甚麼建議?業界持分者可以 怎樣作出貢獻?



Source from: http://www.ajtqatar.com/images/manpov

CONSTRUCTION INDUSTRY COUNCIL 建造業議會

### <u>Restricted</u> Not For Circulation

# Views and Input required from Industry Stakeholders (Con't)



6. In order to enhance training efficiency, CIC focuses on training places & quality to train workers. Do you have any suggestions on it? Besides, to enhance workers' competitiveness, ACMTS is preliminarily proposed to train skilled workers, including multi-skill training. What measures should CIC formulate to encourage multi-skill?



為提升培訓效率,議會主張從培訓名額及培訓質素兩方面,即「量質兼備」入手培訓工人,就此你有何方法?另外,為提昇工人的競爭力,初步建議培訓熟練工人的計劃(ACMTS)包括「一專多能」的元素,你認為應如何制訂措施以鼓勵「一專多能」?

Source from: https://optimizeyourdataquality.files.wordpress.com/2010/09/data-quality-tools.jpg

CONSTRUCTION INDUSTRY COUNCIL 建造業議會

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### Thank You 謝謝



Will continue to work with stakeholders for long-term development of the construction industry

會繼續就建造業的長遠發展與業界共同努力



CONSTRUCTION INDUSTRY COUNCIL 建浩業議會

### Remarks:

Regarding the presentation slides on "Contractors' Key Considerations on Tendering" and "Hong Kong Construction Cost Review", please contact Development Bureau for details.

### 6.4 Appendix IV: Responses to Individual Questions in Group Discussion

#### Question 1

Construction industry is facing the manpower shortage challenge of (a) workers & (b) technicians. How do you think the industry should tackle?

- To make good use of female workers to increase manpower supply, which includes encouraging females to join construction industry, providing on-site training from being general workers to become skilled workers, and considering the option of stipulating in public works contracts for requesting contractors to recruit a certain proportion of female workers so as to drive the industry to make good use of female workers.
- To improve site environment, especially on the sites for civil engineering works where no shelters are available. Since newly-joined young people may not adapt to work early in the morning, flexible working hours can be considered to attract new entrants / retain in the industry.
- The Government shall take the lead in reviewing the construction period so as to allow sufficient time for workers, who act as trainers, to provide on-the-job training to new joiners.
- To promote the progression pathways in construction industry to parents in order to attract young people to join.
- Apart from young people, more efforts should be given to their parents in introducing the professional development and progression pathways for construction practitioners.
- Under tight construction period and manpower shortage, re-work on certain tasks will further increase the manpower demand. This situation should be tackled properly to reduce wastage.
- Implementing same type of work at the same time will cause pressure on manpower demand. Construction works of similar type should be well coordinated before roll-out.
- When planning the construction period, it should take into consideration whether there are other similar construction projects to be rolled out at the same time, and to get well prepared for the initial works to facilitate more accurate estimation of construction time.
- It is agreed to import labour in the short run, to relieve workers from their tight working schedule such that they could finish their work on hand.
- The monthly income of workers, which consists of daily wage and number of working days, will only be appealing if it is sufficient to maintain the living for their families.
- To provide professional development pathways for semi-skilled workers and skilled workers.
- Workers should be trained to be multi-skills in order to participate in different stages of construction work so as to increase their number of working days.

- Employers have the responsibility in training workers to be multi-skills at the workplace such that workers will be more willing to stay working for the same employer.

#### Question 2

Professionals are in shortage as well. What is the role of the industry stakeholders (including post-secondary educational institutions & relevant government departments) in dealing with shortage of manpower on **professionals** & what actions should they take?

- To encourage universities and tertiary institutions (including those funded by University Grants Committee and self-financing institutions) to increase training places.
- To provide pathways for tertiary students from other disciplines to obtain professional qualifications, for example, tertiary students from other non-construction related disciplines are now allowed to register as authorised surveyors after they have gained sufficient and relevant working experience and obtained the professional qualifications.
- To encourage other self-financing institutions to provide part-time courses related to the training of construction professionals. Since the cost of self-financing courses is higher than that of publicly-funded courses, the self-financing institutions may consider offering courses of other industries with costs lower than that of construction industry. Thus, it is also proposed that the Government should consider subsidising those self-financing courses related to construction industry.
- To start promoting construction industry in primary schools to develop students' awareness and interest towards the industry.
- Referring to the current practice of requesting contractors to employ a certain percentage
  of skilled workers in public works contracts, it could also consider requesting consultancy
  companies or contractors to hire a certain percentage of engineering graduates in public
  works contracts.
- To attract talents to come to work in Hong Kong through the "Quality Migrant Admission Scheme".
- The Government can take up more coordination work on increasing the training places for professional education.
- The industry stakeholders can provide more opportunities on practical training for the Graduate Scheme "A" Training.
- Currently, those who participated in the Graduate Scheme "A" Training for training
  professionals are mostly from large-scale contractors and consultancy companies. More
  options should be explored to encourage small to medium-sized contractors to join the
  scheme.
- Graduates may drop out during the Graduate Scheme "A" Training due to heavy workload. Industry stakeholders can explore ways to enhance the coordination of on-the-job training for graduates.

- Either the Government or the CIC to take the lead in enhancing recognition of Hong Kong professionals in neighboring regions.
- The Government can consider providing subsidies to support the training of professionals for the industry.
- To provide career counseling to secondary school students and introduce to them the professional development and progression pathways for construction practitioners so as to attract young people to join the industry.
- System: The system and procedures for monitoring construction works are relatively redundant. For example, over tens of people are required to take part in the design or regular progress meetings. It should take into consideration the manpower situation in the market. Another view is that all stakeholders should simplify the procedures to enhance efficiency of work.
- Planning and design: Unclear or ever-changing working drawings will lead to wastage of manpower resources.
- Competitiveness of industry: Recognition for professionals like engineers and architects in the market has declined and need to explore the reasons behind. Another view is that the level of work for landscape architects in Hong Kong are complicated and they cannot fully develop their potentials, thus landscape architects choose to work outside Hong Kong.
- It is proposed to have better planning in rolling out construction projects to maintain a stable construction output such that practitioners can secure their jobs and stay in the industry.
- It is proposed to extend the construction period so as to reduce the revision for working drawings and improve site safety, thus reducing the wastage of manpower resources.
- Simplify the design, usage of advanced materials and explore if prefabrication is applicable to Hong Kong market.

### Question 3

Supply of construction workers is shrinking (aging population & decreasing no. of enrollment at the right age) in coming years. CIC and the industry have carried out several measures to attract new entrants and retain labour in the industry. What other measures do you think that can:

- attract new entrants to the industry
- decrease drop-out rate of trainees
- increase retention rate

- To provide systematic and practical training for the industry.
- To explore the feasibility of 5-day work week.
- To strengthen the training for ethnic minorities.
- To attract housewives to join the industry and acquire them to the workforce.
- 5-day work week can attract new entrants in the long run, can start implementing such in public works.
- To build up the image of construction industry and to promote the prospects of construction industry to parents.
- Apart from the income of construction workers, it is necessary to improve the overall conditions in construction industry.

#### Question 4

Facing competition of new workers in the market and manpower shortage, how should strategy on construction training be formulated and make good use of current labour force and skills?

- Review on possible ways to ensure young workers having sufficient working days per month to maintain their living, which includes assisting them in developing multi-skills so that they can work on other trades apart from their principal trade.

#### Question 5

Do you have any suggestions on progression pathways for construction workers and technicians? How can the industry stakeholders contribute on this?

(The group concerned did not have enough time to discuss in details and to provide suggestions.)

#### Question 6

In order to enhance training efficiency, CIC focuses on **training places & quality** to train workers. Do you have any suggestions on it? Besides, to enhance workers' competitiveness, the Advanced Construction Manpower Training Scheme (ACMTS) is preliminarily proposed to train skilled workers, including **multi-skill** training. What measures should CIC formulate to encourage **multi-skill**?

- It is proposed to enhance the site practice for semi-skilled workers in uplifting their capabilities so as to meet the needs of the market.

#### 6.5 Appendix V: Responses to Individual Questions in Panel Discussion

#### Question 1

According to the latest report from the CICMF Model, the challenge on manpower shortage is seen among professionals, site supervisory personnel & technicians and workers in construction industry. With the launch of large-scale infrastructure projects and public and private works projects in the market, what would the Government do to tackle the problem of manpower shortage?

- Every year, the Government will do the planning for public works projects according to the needs, manpower and other resources on medium and long term basis so as to maintain a stable or stable with slight increase in construction output. However, it will be affected by unforeseeable factors during the implementation, such as legal proceedings and funding procedures, etc. If project roll-out were delayed due to manpower shortage, it will have impact on economic efficiency brought by the projects and it may not ease the situation of manpower shortage when the projects are implemented.
- CIC will launch a training scheme, to systematically train semi-skilled workers to become skilled workers, for bridging the current training courses at semi-skilled levels provided by the CIC. The advancement to Higher Diploma courses for trainees is being followed up to consolidate the professional development and progression pathways for construction practitioners so that a clear prospect can be provided in attracting new entrants.
- It can consider enhancing vocational education and training. It should also introduce the construction industry and different types of vocational training to students at early stage of their study to attract them in joining the industry.

### Question 2

Hong Kong is now facing an aging population and shrinkage in working population which further worsen the problem of manpower shortage in construction industry. There is keen competition on manpower among different industries. Yet, the construction industry is perceived to be a dirty industry with long working hours and high demand on physical strength. Would there be any better measures in attracting young people to join the industry and making their parents/teachers to encourage them to join?

- For workers, apart from attractive income, the image of construction industry should also be enhanced which includes improvement on site safety.
- 5-day work week.
- To implement training through "apprenticeship".
- Higher salary.

- To reduce drop-out and put resources to understand the reasons for trainees to drop out.
- When there is no work, employers are willing to continue the employment of their workers through other work arrangements to retain them in the industry so as to reduce drop-outs.
- To employ female workers. It is proposed to arrange a recruitment day for hiring females to make up the shortfall.
- When designing and planning of construction projects, there is a need to review the roll-out time for different projects to see if they are reasonably distributed.
- Considering the skill level and productivity of semi-skilled graduates are not yet advanced, the short-term measure would be to enhance the Supplementary Labour Scheme (SLS) to make up the shortfall in the short run. In the long run, it should ensure the quality of training so that semi-skilled graduates can meet the expectation of the industry in terms of skill level and productivity.
- It is agreed that progression pathways for skills advancement and training of skilled workers should be provided.
- Considering the progress and cost of construction projects, other construction practitioners like engineers and architects cannot have 5-day work week. There are reservations for implementation of 5-day work week for workers.

### Question 3

Regarding the manpower demand for E&M trades, what measures do we have to attract new entrants?

- It is proposed to enhance promotion to secondary school students about the prospects and income of construction industry.
- Make good use and attract retired people to join construction industry.
- Income level of workers should reflect their efforts and level of hardship in the working environment.
- Stable income.
- Safe working environment.
- Image of construction industry and workers should be enhanced in the long run.

#### Question 4

The Government will provide HK\$100 million for the CIC to strengthen their work in training skilled workers for the industry. How would CIC make use of the funding?

- CIC will subsidise and collaborate with industry stakeholders for the provision of Advanced Construction Manpower Training Scheme - Pilot Scheme (ACMTS-Pilot). It

will train about 1,000 semi-skilled workers with potential to become skilled workers within a 2-year training period. Contractors, sub-contractors and labour unions will be subsidised to provide systematic training.

#### Question 5

What does the Government expect from the industry and how to meet the expectations?

- The ACMTS-Pilot is to address the shortage issue on skilled workers. In addition to implementing more flexible importation of labour, local training of skilled workers should also be strengthened. It is hoped that manpower supply for trades with labour shortage can be increased.

#### Question 6

What would be the expectations from Hong Kong Construction Association regarding the plan in enhancing the skill level of the industry?

- The industry stakeholders support the training scheme for training semi-skilled workers to skilled workers in order to meet the demand on workers with relatively advanced skills and to train elites for the industry. This is a good start.

### Question 7

Some groups have recommended "multi-skills" in enhancing the competitiveness of workers to ensure they are under employment. However, implementation of such measure is not that easy. Could our guests provide some good suggestions on this matter?

- It is agreed and worthwhile to promote "multi-skills" in the training scheme for skilled workers. Yet, it can only be applied to similar or related trades, such as timber formwork, scaffolding or concreting, to ease the shortage of manpower and increase employment of workers.
- It is agreed to implement "multi-skills" but the "skills" do not require a very high level of technical capability. It is rather to encourage workers to learn more trade skills to increase employment opportunities and income. Besides, the total monthly income of construction workers is related to daily wage and number of working days, which will be affected by weather conditions will lead to under-employment due to rainy weather. Thus, careful consideration is required in implementing 5-day work week.

### 6.6 Appendix VI: Questionnaire



c. Time allocation



### Construction Manpower Seminar 2015 Questionnaire

	Please fill in the questionnaire and return to the group secretary after the event.								
arr	Thank you for your participation in the Construction Manpower Seminar 2015. To help us further improve the trangement for coming events, grateful if you could fill in this questionnaire for our reference in organizing events in future. Thank you for your kind assistance.								
lf y	ou would like to provide more information and comm	ents, please	leave down	your contac	t details.				
Na	me: Organization	1:							
	nail dress:	out for your participation in the Construction Manpower Seminar 2015. To help us further improve the ment for coming events, grateful if you could fill in this questionnaire for our reference in organizing 1 future. Thank you for your kind assistance.  Dut a "/" in the appropriate box.  Sentation Topics  Organization:							
Ple	ease put a "✓" in the appropriate box.								
1.	Presentation Topics	•		Average					
	Contractors' Key Considerations on Tendering and Hong Kong Construction Cost Review								
	Speakers: Ms. KWAN Sin-wo - Senior Statistician, C&SD Mr. KONG Chau-ming - Deputy Director, Langdon & Seah								
	<ul> <li>Construction Industry Council Manpower Forecasting (CICMF) Model Results</li> <li>Speaker: Dr. Thomas TONG - Chief Research Consultant, CIC</li> </ul>								
	c. Introduction of Current and Future Works and Strategies on Training by the CIC, and Proposed Professional Development and Progression Pathways for Construction Practitioners								
	Speaker: Ir Alex LEUNG - Director-T&D, CIC								
2.	Discussion Sessions	•		Average		Satisfied			
	Group Discussion					At All			
	a. Questions for group discussion								
	b. Format of group discussion								
	c. Time allocation								
	Panel Discussion								
	a. Questions for discussion								
	b. Format of discussion								

3.	Arı	rangement of Venue	Very Satisfied	Quite Satisfied	Average	Not Quite Satisfied	Not Satisfied At All
	a.	Location of venue					
	b.	Venue setting					
	C.	Food and drinks					
	d.	Audio effect					
4.	Ov	erall Satisfaction of the Seminar	0				
5.		CIC would organise seminar in future, w interested would you be in attending?	Very Interested	Quite Interested	Average	Not Quite Interested	Not Interested At All
6.	If C	CIC would organise seminar again in future	, what topics	s/content th	nat you woul	ld like to co	ver?
7.	Otl	her Comments					

<sup>~</sup> Thanks for your valuable comments ~

 $<sup>\</sup>sim$  Please return this questionnaire to group secretary  $\sim$ 

### 6.7 Appendix VII: Expenses of the Event

	Actual Expenses (HK\$)
Photo-taking, video-taping, rental of	14,500.00
microphone system	
Catering service, rental of banquet	14,010.00
tables and chairs	
Bottled water and snacks	472.90
Stationery (color papers, labels & tape)	30.00
Lunch for helpers and DEVB staff	481.00
Total	29,493.90

Expenses to be shared equally between the CIC and DEVB.

### 6.8 Appendix VIII: Photos















