

Safety Management of Ethnic Minority Workers in the Hong Kong Construction Industry

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Outline of the Presentation

- Introduction
- Background
- Research aim and findings
- Conclusions
- Q & A



Introduction



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Research Team Members

Safety Research Group



Prof Francis Wong
Co-Investigator



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P-Investigator



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Joint PhD student



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Research Background



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Age <25, only 6.8%

	Age of registered const Kong as at 17 August 2	truction workers in Hong 2014	ฟumber (%)
Ì	Below 20		1 893 (0.6%)
	20-24		21 401 (6.5%)
	25-29		23 569 (7.1%)
	30-34		27 182 (8.2%)
	35-39	Ago > 50 42 00/	33 519 (10.1%)
	40-44	Age >50, 42.9%	40 337 (12.1%)
	45-49		41 394 (12.5%)
	50-54	//	51 364 (15.5%)
	55-59		51 095 (15.4%)
	60 or above		39 959 (12.0%)
_	Total		333 995 (100.0%)

Source: Construction Workers Registration Authority (2014). *Total Number of Valid Registered Construction Workers*. Available from: http://www.cwra.org.hk/information/total.asp [Accessed 17 August 2014].

Backgro

Value of major works projects:

• Ten infrastructure (2009/10) to HKD45.1 billion (2009/10) to HKD49.6 billion (2013/14)

Transportation Infrastructure

- West Island Line and South Island Line
- Shatin to Central Link
- Tuen Mun Western Bypass & Tuen Mun-Chek Lap Kok Link

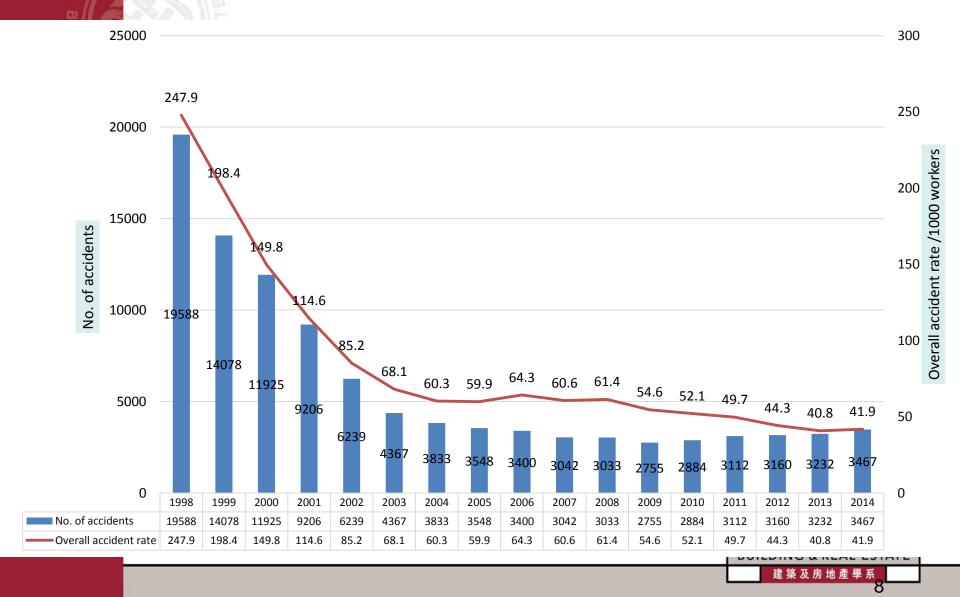
Cross-boundary Infrastructure Projects

- Guangzhou-Shenzhen- HK Express Rail Link
- HK-Zhuhai-Macao Bridge
- HK-Shenzhen Airport Cooperation
- HK-Shenzhen Joint Development of Lok Ma Chau Loop

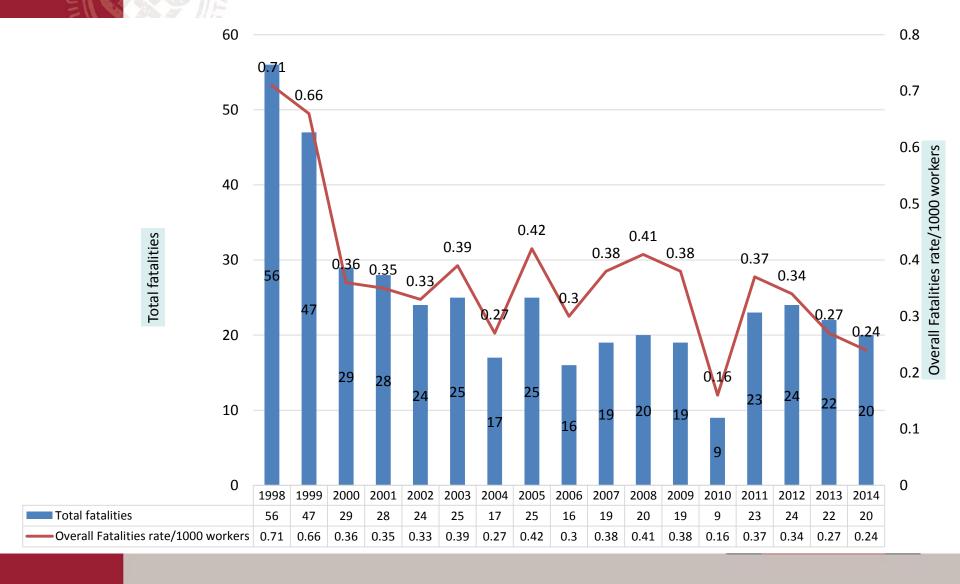
New Urban Development Areas

- West Kowloon Cultural District
- Kai Tak
 Development Plan
- New Development Areas

Number of industrial accidents and accident rate per 1000 workers in construction industry from 1998 to 2014 (Labour Department)



Number of industrial fatalities and fatality rate per 1000 workers in the construction industry from 1998 to 2014 (Labour Department)





Few young new entrants

 Increasing number of construction projects

Shortage of construction workers

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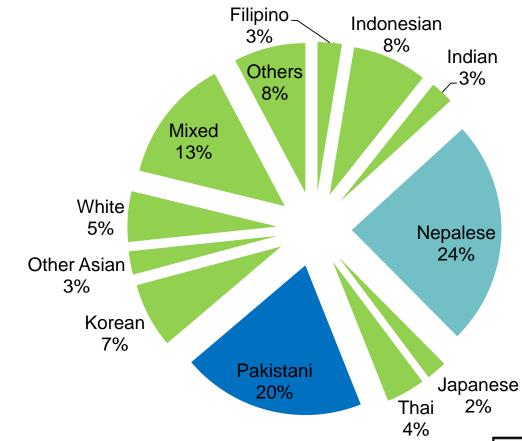
- HK government has formulated strategies to encourage ethnic minorities to join the local construction industry
- Construction Industry Council Training Academy (CICTA) of the Construction Industry Council (CIC) provides training courses in English for ethnic minorities
- A new centre was set up at Tin Shui Wai to facilitate ethnic minorities training.
- A recruitment day for ethnic minorities was jointly organized by HKCIEGU and CICTA.

- 451,183 ethnic minority persons in 2011
- 6.4% of the population in Hong Kong
- 7.4% of ethnic minority males (4,656) worked in the construction industry; representing 1.5% of the total workforce in construction



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Distribution of male ethnic minorities in the construction industry of Hong Kong



- Ethnic minority workers have high chances of construction accidents
- In the US, Hispanic construction workers were nearly 30% more likely to have work related injuries than local non-Hispanics workers between 1996 and 2002 (Dong et al. 2010)
- In Germany, foreign construction workers were four times more likely to be killed by falling objects than local counterparts (Arndt et al. 2004)
- In Portugal, the fatality rate was 4% higher for non-Portuguese construction workers (European Working Conditions Observatory 2011)

 Increasing number of construction accidents involved ethnic minorities in Hong Kong

Vietnamese bar bender died from fall of person from height (7/12/2011)

Nepali died from struck by moving object (9/8/2011)

South Asian died from fall of person from height (11/7/2007)

Indian painter fell from scaffolding died (19/8/2010)

Pakistan worker died when repair air-conditioner (27/4/2009)

Vietnamese worker died from fall of person from height (25/03/2014)



Preliminary Findings

Year	Ethnicity	Trade	Causes of Accident
1998	Philippine	Painter	Fall of person from height
1999	Thai	Labour	Trapped by collapsing or overturning object
KE.	Nepalese	Labour	Struck by falling object
	Nepalese	Labour	Slip, trip or fall on same level
	South Asian	Engineer	Fall of person from height
	Nepalese	Welder	Slip, trip or fall on same level
	South Asian	Engineer and Labour	Exposure to explosion
2000	South Asian	Welder	Exposure to fire
	Nepalese	Labour	Trapped in or between objects
	Nepalese	Labour	Struck by falling object
	Nepalese	Labour	Fall of person from height
	Indian	Labour	Struck by falling object
2001	Nepalese	Security	Others
	Nepalese	Bar bender	Struck by falling objects
	Vietnamese,Pakistani	Demolition worker	Trapped by collapsing or overturning object
	Nepalese	Labour	Fall of person from height
2002	Nepalese	Labour	Fall of person from height
	Nepalese	Labour	Struck by falling objects
2003	Nepalese	Repair & Demolition	Fall of person from height
	Nepalese	Labour	Fall of person from height
	Nepalese	Repair & Maintenance	Fall of person from height
	Nepalese	Labour	Struck by falling object

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Preliminary Findings

2004	Nepalese	Electrician	Struck by falling object
1/4	South Asian	Labour	Slip, trip or fall on same level
2005	Nepalese	Labour	Fall of person from height
Be a	Nepalese	Labour	Others
2006	South Asian	Labour	Exposure to explosion
	Nepalese	Labour	Exposure to or contact with harmful substance
	Pakistani	Labour	Trapped by collapsing or overturning object
	Nepalese	Labour	Fall of person from height
	Pakistani	Caretaker	Injured in workplace violence
	Nepalese	Labour	Fall of person from height
2007	Nepalese	Labour	Struck by falling object
	Nepalese	Labour	Struck by falling object
2008	German,Pakistani	Engineer and technician	Contact with moving machinery or object being machine
	Nepalese	Labour	Exposure to explosion
2009	South Asian	Repair & maintenance	Exposure to or contact with harmful substance
	Pakistani	Maintenance Labour	Fall of person from height
	Pakistani	Maintenance Labour	Struck by moving object
	Pakistani	Painter	Fall of person from height
	South Asian	Demolition worker	Fall of person from height
2010	South Asian	Plumber	Fall of person from height
	South Asian	Labour	Fall of person from height
	South Asian	Labour	Struck by moving object
	South Asian	Painter	Fall of person from height

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Preliminary Findings

2011	South Asian	Labour	Trapped by collapsing or c	irning object	
115	Nepalese	Labour	Struck by falling object		
	Nepalese	Labor	Struck by moving c'		
TOE!	·¬amese	Bar/	all of person fr		
2012		La ^r	of pers/		
	Sou	L			
	Nepales	At least 69 ac	cidents (including 20	fatal	
	• At least 69 accidents (inc cases) involving ethnic m				
		•	ust 2014 (approx. <mark>5</mark> %		
		_	• • • • • • • • • • • • • • • • • • •		
			nstruction; 3.3 times	more	
2013	Iveho	likely than the local to get killed).			
	NI •	Fall of person	from height was the t	op killer	
		and 23 accidents were related to this cause.			
	ı anısıdNl				
	Pakistani		A	ertun.	
	German	Eng	ped by	erturning ob,	
	South Asian	Labo	uck by fallii.		
	Nepalese	Plum	truck by moving		
	Nepalese	Labou	Contact with electric. or e level	lectric discharge; slip, trip or fall on same	
	South Asian	Labour	Exposure to explosion		
	Philippine	Electric an	Contact with electricity or ele	ectric discharge	
2014	Vietnamese	Labour	Fall of person from height		
	Nepalese	Security	Others		
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Principal causes for accidents:

- Take up higher risk duties
- Safety communication
- Lack of proper safety training
- Lack of safety awareness
- Unaware of safety and health information in English or their languages produced by the Occupational Safety and Health Council







- Occupational Safety and Health Council
 - Construction safety of ethnic minorities has been a recognized problem.
 - Safety talks in the language of the ethnic minorities were organized in 2009, 2011 and 2013
 - Organized events such as "1st Cantonese Challenge for South Asians on Construction Safety"



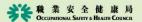
परिचय • 序言 • Introduction

हङ्कङ्को अर्थतन्त्रमा योगदान पुन्याउने क्षेत्रहरूमध्ये निर्माण उपोग एउटा प्रमुख हो । हामो स्पूर्त निर्माण कार्यदल एउटा मूल्यवान बहुसांस्कृतिक स्वभावको छ । यिनीहरूमध्ये निर्के मात्रामा नेपाली जातिका कामदारहर रहेका छन् । उनीहरूलाई योटपटकहरूबाट बाँचन आवश्यक सुरक्षा जान दिनलाई श्रम विभाग पेशावर सुरक्षा तथा स्वास्थ्य परिषद् अनि हङ्कङ् निर्माण संघ मिलेर पेशावर सुरक्षा नियमहरू, निर्माणस्थलका जोखिमहरूको पहिचान तथा व्यक्तिगत सुरक्षा उपकरणको सठिक प्रयोगबारे जानकारी प्रदान गर्मलाई एउटा सुरक्षा छलफल आयोजना गर्म गइरहेका छन् ।

建选業是香港經濟的重要支柱之一,建选業僱員來自多個族裔人士,其中尼泊爾族裔佔有 一定數目,為了協助這些僱員能夠認識到建造業和健康的知識,預防意外發生,勞工處 勝同職業安全健康局將會率辦建选業安全講座,為與會者簡介建选業安全條例、地盤常見 悉會與及控制措施防止震外發生。

Construction Industry is one of the key sectors contributing to the economy of Hong Kong. Our vibrant construction workforce is of rich multicultural composition. Among them, a sizable proportion is of Nepali ethic group. To equip them with the necessary safety knowledge for injury prevention, the Labour Department and Occupational Safety and Health Council is going to organize a safety talk providing information on occupational safety regulation, various hazards encounter at construction site and the control measures for prevention of accident.







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Aim of the Research

To improve the safety management of ethnic minorities in the construction industry of Hong Kong

Literature Review

Journal papers on ethnic minorities in the construction industry

Literature

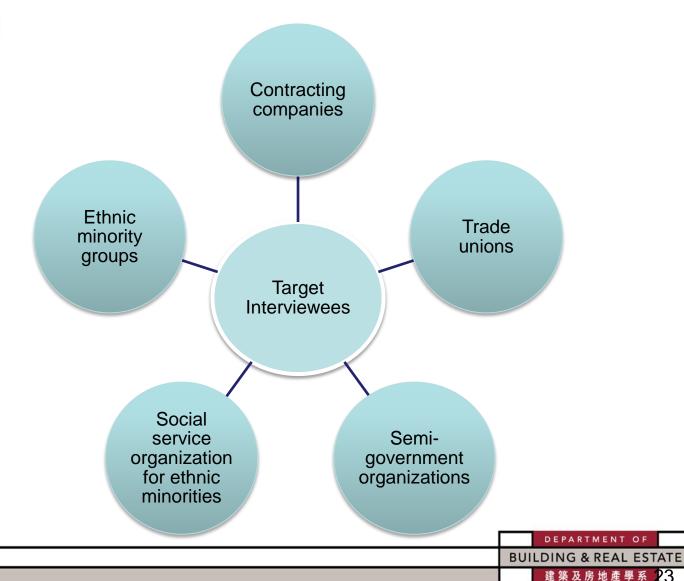
review



Interviews with ethnic minority construction workers and other stakeholders

Statistics of accidents involving ethnic minority construction workers

22 Semi-structured Interviews





中國建築工程(春港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.





A member of the **Bouygues Construction group**













We rely on our eople to achieve

商



香港房屋委員會 Hong Kong Housing Authority

























SAMSUNG C&T CORPORATION

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Interviewees details

No 1	Position of interviewees Operational Safety Director	Organization	Nature of organization
1	Operational Safety Director		
		Dragages HK	Contractor
2	Safety & Environment Manager	China State Construction	Contractor
3	President	HK OSHA	
4	Safety Officer	Gammon-Leighton JV	Contractor
5	Director Safety Manger	Build Jet Engineering Ltd.	Contractor
6	Health, Safety and Compliance Support Manger	Leighton Contractors (Asia) Ltd	Contractor
7	Group HSEQ Manager	Hsin Chong Construction Company Limited	Contractor
8	Engineer/Safety&Environmental Advisor	Civil Engineering and Development Department	HKSAR government
9	Senior Manager/Safety & Health	Housing Department	HKSAR government
10	Director	Gammon Construction Limited	Contractor
11	HSEQ Manager	Laing O'Rourke-Hsin Chong-Paul Y. Joint Venture	Contractor
12	Senior Safety Manager	Maeda-China State Joint Venture	Contractor
13	Project HSEQ Manager	Samsung-Hsin Chong Joint Venture	Contractor
14	Senior HSE Manager	K.WAH Construction Materials	Construction material
15	Deputy General Manager-Safety&Security	Sun Hung Kai Properties Group	Private Developer
16	Consultant	Occupational Safety & Health Council	Construction Industry Institute- Hong Kong
17	Const Safety Engineer	HK Airport	
18	Director	Chun Wo Construction & Engineering Co., Ltd.	Contractor
19	Manager-Project Safety	MTR Corporation Limited/ MTR West Island Line Project	Semi governement
20	Safety Manager	Paul Y. Management Limited	
21	Ganger	Laing O'Rourke, Hsin Chong, Paul Y J	Joint Venture
- 22	Head Corporate Health, Safety & Environment (President)(HK FOSHA)	Towngas	Utility company

- Interview with Mr. Paul C P Wong on 17/05/2014
- · HSEQ Manager
- <u>Laing O'Rourke-Hsin Chong-Paul Y. Joint Venture</u>





- Interview with Mr. Alfred W.H. Leung on 03/07/2014
- Director
- Chun Wo Construction & Engineering Co., Ltd.

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- Interview with Mr. Dilip Gurung_on 4/06/2014
- Senior Safety Manager
- Maeda-China State Joint Venture





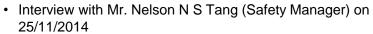
- Interview with Mr. Tom K.M. Wong_on 22/07/2014
- Safety & Env Manager
- China State Construction

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- Interview with Mr. Victor CL Kwong on 27/08/2014
- Head Corporate Health, Safety & Environment (President) (HK FOSHA)
- <u>Towngas</u>



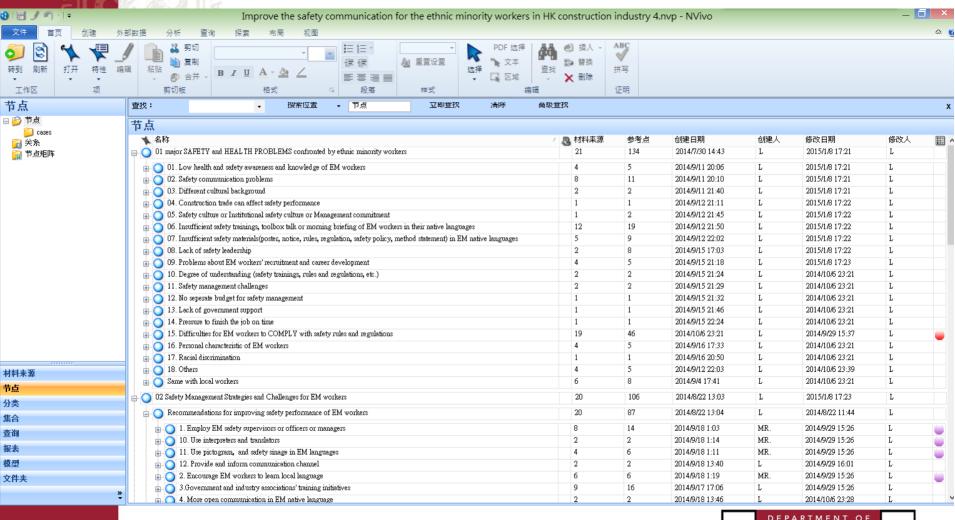


- West Kowloon Terminus Station South construction site
- Laing O'Rourke-Hsin Chong-Paul Y. Joint Venture

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Consolidating the interview results



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Safety management problems of EM construction workers

- 1. Low health and safety awareness and knowledge of EM workers
- 2. Safety communication problems (e.g. inadequate language ability of EM workers)
- Different cultural and religious background
- 4. Low skill level of ethnic minority workers
- 5. Lack of safety culture/management commitment for EM workers
- 6. Insufficient safety trainings (e.g. toolbox talk or morning briefing) for EM workers in their native languages
- 7. Insufficient safety materials (e.g. poster, notice, rules, regulation, safety policy, method statement) in EM native languages

Safety management problems of EM construction workers

- 8. Insufficient safety staff, e.g. supervisors/officers/trainers of ethnic minority origin
- 9. Lack of opportunities for EM workers' recruitment and career development
- 10. Low level of understanding and compliance of safety rules and regulations, etc.
- No separate budget and government subsidy for safety management of EM workers
- 12. Lack of government support for enhancing EM workers' construction safety performance
- 13. EM workers are assigned more laborious and dangerous/unsafe work
- 14. Personal characteristic of EM workers influences their safety performance (e.g. less outspoken, keep quiet etc.)
- 15. Racial discrimination against EM workers



Measures to improve safety performance of EM workers

- 1. Employ EM safety supervisors, officers or managers
- 2. Encourage EM workers to learn local language
- Government and industry associations should take an active role for promoting health and safety awareness of EM workers
- 4. Open and frequent safety communication in EM native language
- Promote ethnic integration and respect EM workers' cultural and religious values
- 6. Provide career growth and development opportunities for EM workers
- 7. Provide safety training in EM native languages

Measures to improve safety performance of EM workers

- 8. Safety materials (e.g. notice, rules, regulation, safety policy, method statement) in EM native languages
- 9. Allocation of safety budget for EM workers
- 10. Use interpreters and translators as if deemed necessary for communication with EM workers
- 11. Encourage to use more safety posters, pictograms, graphics and signage in EM languages
- 12. Encourage EM workers to use suggestion box more actively
- 13. Ensure that EM ganger is doing his job properly (e.g. communicating and explaining safety instructions into EM native language)
- 14. Identify language abilities of EM workers and manage them accordingly



Conclusions



Safety management problems of EM workers were identified.

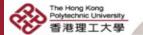
Construction safety communication of ethnic minorities is of rising importance

Strategies on how to improve safety management of EM workers were recommended

Acknowledgment

•The work described in this project was fully supported by a grant from the Central Policy Unit (Project No. K-QZ1F) entitled "Improving Safety Communication of Ethnic Minorities in the Construction Industry".

•We also thank the anonymous interviewees for their valuable comments.







Improving Safety Communication of Ethnic Minorities in the Construction Industry

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Home

Introduction

The construction workforce in Hong Kong is experiencing a severe ageing problem and labour shortage. One initiative to enhance the supply of manpower is to assist ethnic minorities joining the industry. It is foreseeable that the percentage of ethnic minorities in the construction workforce will keep increasing

Statistics show that ethnic minorities were nearly 30% more likely to have work-related injuries than local workers in some developed countries. However, official statistics on the safety of ethnic minorities are not available in Hong Kong. A search in newspaper archive revealed that ethnic minorities in the construction industry of Hong Kong are subjected to higher fatality rate than local workers, just as is the case in many developed countries. This reflects that the safety of ethnic minorities has not received the attention it rightly deserves.

Safety communication has been one of the key factors leading to accidents. Safety communication barriers of ethnic minorities impede them from receiving safety training and acquiring safety information effectively. Research towards improving the safety communication of ethnic minorities in the construction industry of Hong Kong becomes more urgent.

This study will focus on improving the safety communication of ethnic minorities in the construction industry of Hong Kong.

Objectives

- i. To evaluate the safety communication problems of ethnic minorities;
- ii. To evaluate the predominant safety communication structure and safety performance of ethnic minorites;
- iii. To identify effective safety communication structure for ethnic minorities;
- iv. To recommend measures to improve safety communication of ethnic minorities.

Significance and Value

Construction safety for ethnic minorities, in particular safety communication, is a rather uncharted research area of pressing importance. Safety communication of ethnic minorities in the construction industry of Hong Kong deserves more attention by the research community and the society. Both culturally and linguistically appropriate safety interventions targeting the ethnic minority groups are needed. Significance of this study lies on filling the research gap in safety communication of construction ethnic minority workers in Hong Kong. Findings of this study will help remove safety communication barriers for ethnic minorities in the construction industry and thus enhance the effectiveness of the existing safety initiatives for ethnic minorities which in turn help improve safety performance.

News

- November 2, 2015 The files of 38th Ethnic Minority Meeting Minutes are uploaded
- October 14, 2015 The files of 37th Ethnic Minority Meeting Minutes are uploaded
- September 30, 2015 The files of 36th Ethnic Minority Meeting Minutes are uploaded
- September 8, 2015 The files of 35th Ethnic Minority Meeting Minutes are uploaded
- August 25, 2015 The files of 34th Ethnic Minority Meeting Minutes are uploaded

Hits

Until Now:

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Research Outputs

CPU Full Report

Publications

PUBLIC POLICY RESEARCH FUNDING SCHEME

公共政策研究資助計劃

Project Number : 項目編號:

2013.A6.007.13A

Project Title: 項目名稱:

Improving Safety Communication of Ethnic Minorities in the Construction Industry

改善少數族裔在建造業的安全溝通

Principal Investigator:

Professor Albert P. C. CHAN

院校 / 智庫:

The Hong Kong Polytechnic University

Institution/Think Tank:

Project Duration (Month): 推行期(月):

Funding (HK\$):

總金額 (HKS):

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中英文版本如有任何歧異、概以英文版本為準

Chan, APC, Jayed, AA, Lyu, SN, Hon, CKH, and Wong, FKW (2016) Strategies for improving safety and health of ethnic minority construction workers. ASCE Journal of Construction Engineering and Management, DOI: 10.1061/(ASCE)CO.1943-7862.0001148, 05016007-1-10.

Chan, APC, Jayed, AA, Wong, FKW, Hon, CKH, and Lyu, SN (2017) Evaluating the safety climate of ethnic minority construction workers in Hong Kong. ASCE Journal of Professional Issues in Engineering Education and Practice.

Zahoar, H. Chan, APC, Masood, R. Choudhry, RM, Jaygd, AA, and Utama, WP (2016) Occupational safety and health performance of Pakistani construction industry: stakeholders' perspective. International Journal of Construction Management, http://dx.doi.org/10.1080/15623599.2015.1138027, Vol.16, Issue 3, 2 July 2016, 209-219 (Accepted on 26 November 2015, Published online on 28 January 2016).

Chan, APC, Javed, AA, Wong, FKW, Hon, CKH, and Lyu, SN (2015) Safety communication of ethnic minority workers in the Hong Kong construction industry. Proceedings of the Second International Conference on Sustainable Urbanization (ICSU2015), 7-9 January 2015, Hong Kong, China, 106.

Chan, APC, Javed, AA, Wong, FKW, Hon, CKH, Zahoor, H, and Lyu, SN (2014) The application of social network analysis in the construction industry of Hong Kong. Proceedings of the First International Conference on Emerging Trends in Engineering, Management and Sciences, December 28-30, 2014 (ICETEMS-2014) Peshawar, Pakistan.

Chan, APC, Javed, AA, Wong, FKW, and Hon, CKH (2014) Improving Safety Communication of Ethnic Minorities in the Construction Industry of Hong Kong. ICCREM 2014: Smart Construction and Management in the Context of New Technology, ASCE, September 27-28,2014, Kunming, China, 463-474.

Hon, CKH, Skitmore, M, Biggs, HC, Chan, APC, and Alexander, G (2015) Improving health and safety communication of migrant construction workers. COBRA AUBEA 2015, 8-10 July 2015, Sydney, Australia.

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19.F., Cayplara Three, 14 Taikoo Wan Raod Trikoo Shing, Hoog Keng Alle Website: http://www.coc.org.hk

: EOC/EMT/10 Our Ref. : 2106-2218 Tel No. : 2877-7600 Fax No.

22 April 2016

Postdoctoral Research Fellow [via email: arshad.javed@connect.polyu.hk]

Dear Dr. Javed and Ms. Sainan Lyu.

Presentation of sour research findings to the FOC

Thank you for sparing time out of your busy schedules to share with us your

Your presentation on 19th April was extremely insightful and informative. The EOC is constantly watchful of industry trends and practices that may be disadvantageous to any group or community. Your study of the construction unsuvamageous to any group or communay. Four study of the construction industry with specific reference to health and safety concerns of ethnic minority. mussuy was specific reference to nearin and safety concerns of empire mino workers is therefore of interest to us. Thank you once again for sharing the

We will took out for opportunities to bring the issues highinglied in the study to

Do keep us informed of further projects and studies you carry out that may be To acep as informed of further projects and studies you carry out that may be of relevance to our work. If there are any areas where the EOC may be of help, please do let us know.

Many thanks and regards,

Michael Chan Chief Operations Officer Equal Opportunities Commission

Public Policy Research Funding Scheme Comments on Final Report

2013.A6.007.13A
Improving Safety Communication of Ethnic Minorities in the Construction Industry Project No.:

改善少數族裔在建造業的安全溝通 Project Title (English):

Professor Albert P. C. CHAN Project Title (Chinese):

The Houg Kong Polytechnic University Principal Investigator:

Institution/Think Tank:

Project Duration (Month) 488,750.00 Funding (HK\$):

Overall Comments from Reviewers:

Excellent research!

Reviewer 1 (Rating: Satisfactory)

This is an exemplary report. The objectives are well achieved, including dissemination of

findings and publications. Reviewer 2 (Rating: Satisfactory)

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Question & Answer



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Contact Information:

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