

Asia Electrical Safety Program

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**International Copper
Association Asia**
Copper Alliance

Introduction

Electrical safety is a key program component of ICA (worldwide, and Asia)

ICA Asia Electrical Safety Programs (India, Thailand, Vietnam, Philippines, Indonesia, China):

- Assistance to standard making bodies to develop/update/improve building code and electrical safety standards
- Development of training materials, and implementation of training programs for electrical technicians and electrical systems designers (engineers)
- Organization of electrical safety campaigns (public awareness)
- Strong relations with authorities and local experts and influencers

Background

(Lack of) Electrical safety is critical issue in Asia:

	OECD countries	China, India, Indonesia, VN, TH, PH
% of fires in buildings due to defaults in electrical systems	30%	60-80%
# fatal casualties from fires with electrical origin	USA + EU \approx 5,000	> 80,000
Cost	USA + EU \approx 10 bn USD	> 20 bn USD
<i>Source: adapted from FISUEL, World Electrical Safety Barometer, 2014</i>		

Common problems ...

- Importance of counterfeited cables, wires and other components
- Lack of appropriate standards
- Lack of capacity among inspectors
- Lack of appropriate inspection regime
- Lack of capacity among electrical technicians (installers) and electrical system designers
- Lack of awareness among the public

... Coordinated solutions

- A regional program to minimize cost, accelerate implementation of actions, benefit from cross-country experiences, and mobilize international agencies

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Problems	Consequences	Solutions
Standards for C&Ws are in place but lack of proper inspection regime	15-20% of C&Ws used are counterfeited (probably up to 80% or more in slums and poor rural areas)	Adoption of periodic inspection regimes by governments Capacity building for inspectors
Lack of capacity among electrical designers	Electrical systems are designed below load capacity (especially in slums and poor rural areas)	Capacity building for engineers on design of electrical systems in accordance with national standards
Lack of capacity among installers	Electrical systems are poorly installed (especially in slums and poor rural areas)	Capacity building for installers on good installation practices and on identification of counterfeited C&Ws
Lack of awareness on electrical safety among end-users	End-users (contractors, households, owners/operators of commercial and industrial buildings) do not pay attention to electrical safety during design and construction	Education campaigns through consumer associations, contractors' associations, industry associations, media

Solutions

Adoption of periodic inspection regimes by governments

Capacity building for inspectors

Capacity building for engineers on design of electrical systems in accordance with national standards

Capacity building for installers on good installation practices and on identification of counterfeited C&Ws

Education campaigns through consumer associations, contractors' associations, industry associations, media

Approach

Inform government; prepare White Paper; provide technical assistance to design national inspection regime; create National Electrical Safety Alliance to engage all key stakeholders

Engage with inspection authorities and customs departments; **train trainers**; provide training materials through Clearinghouse

Engage with Institutes of Engineers; **train trainers**; provide training materials through Clearinghouse

Engage with training institutions; **train trainers**; provide training materials through Clearinghouse

Engage key stakeholders (**National Alliances**); build their capacity and provide support for them to conduct education campaigns during and after the project

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Coordination and Secretariat: regional and in each country



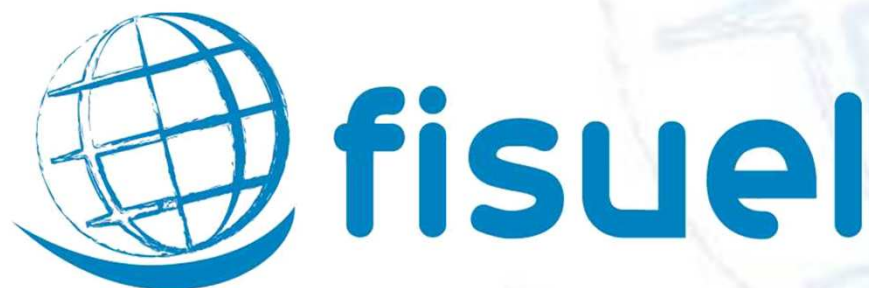
Technical support
Liaison with authorities

Ministry;
authority

Program counterpart; ensure active engagement of national stakeholders; provide in-kind contributions

THANK YOU

MERCI - 감사합니다



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