

## Tales from trying to improve transportation in the Philippines



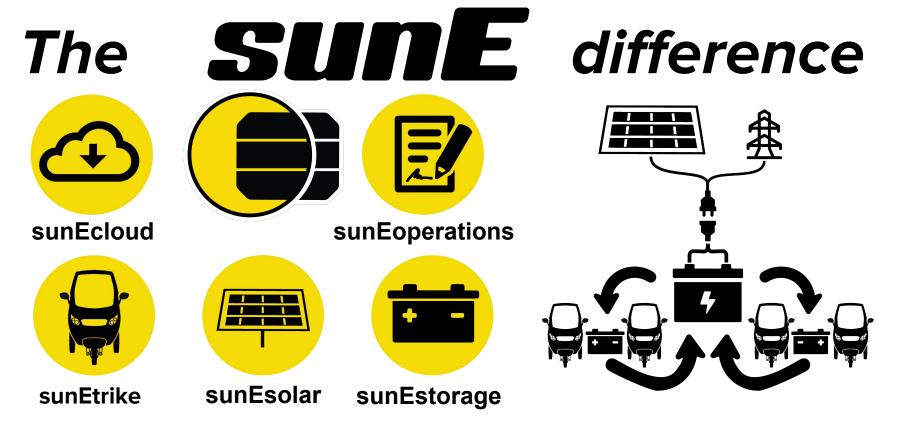
#### Allan Gray - sunE November 3, 2018

#### We provide solar electric shuttle services



#### with

## CLEAN ENERGY THAT MOVES PEOPLE



The sunE system is an integrated package that allows entrepreneurs without prior Renewables or Electric Vehicle experience get started with an expected Profit & ROI





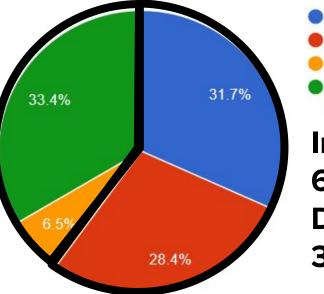
- Above-average stable wages
- Job security
- Access to healthcare and other government services

### What it means for Drivers and other staff

## ASEAN/Philippines Energy Mix

- Highest energy costs in Asia
- Transmission Losses = 10% usage
- > 5000 islands (micro-grids)

Energy Imports vs Domestic Production - 2012



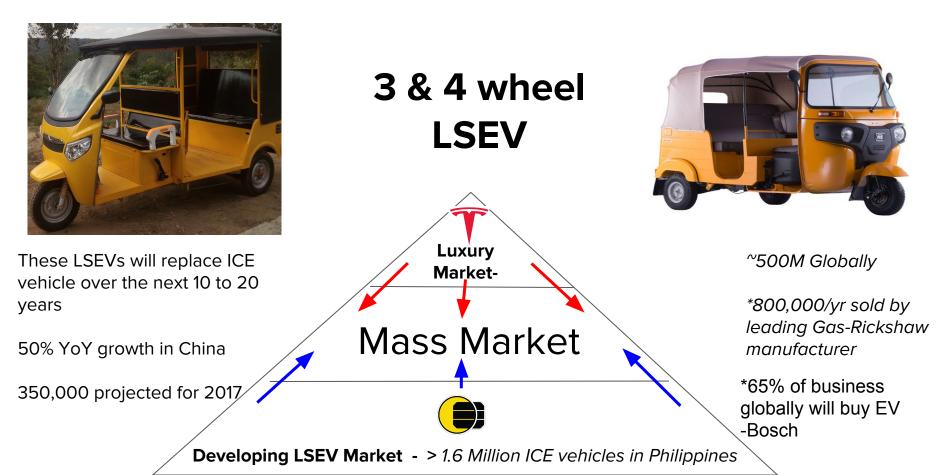
Coal Imports Oil Imports Geothermal Domestic Fossil Fuel

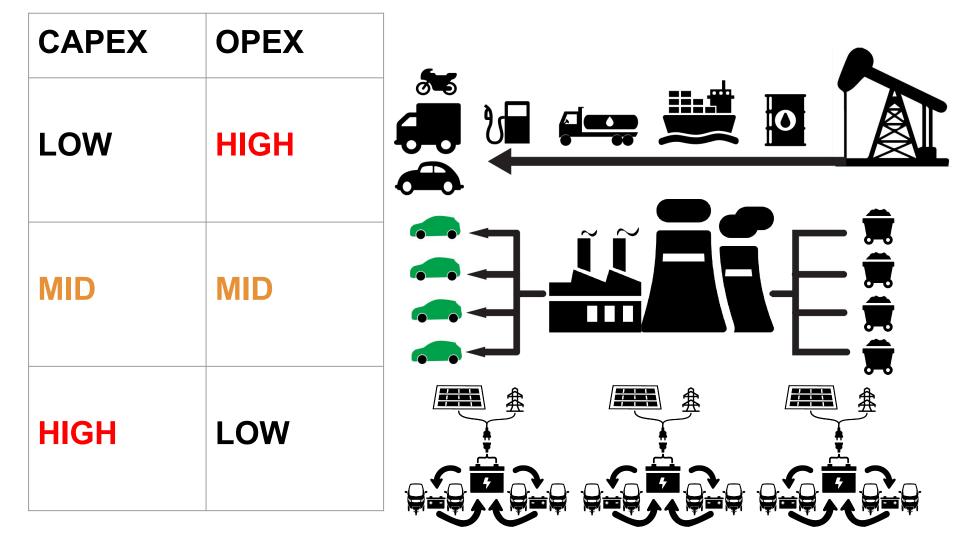
Imports 60.1 % Domestic 39.9 %





#### Market Segment - Low speed (Electric) Vehicles





### **Institutional & Market Responses**



#### ADB & DOE USD500 million

4 years to develop.

#### PROJECT SCRAPPED only 3000 vehicles built



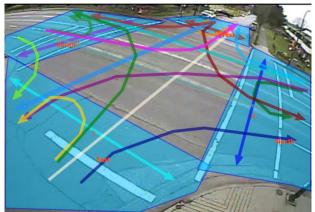
Private electric vehicle dealerships

**BUYER BEWARE!** 

#### **Smart Transport Calabarzon** Traffic Management Planning & the PUJ Restoration program











2018 SMAR1 **INFRASTRUCTURE** CHALLENGE





Founded: 1963

HQ: Manila, Philippines

#### 151b in Capital

#### \$20.1 B Loans, Grants, and Others \$201 M **Technical Assistance** \$11.9 B

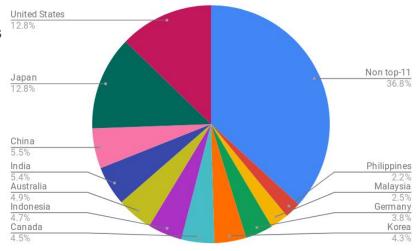
Cofinancing, incl Trust Funds



#### List Of Presidents

#### **Name Dates Nationality**

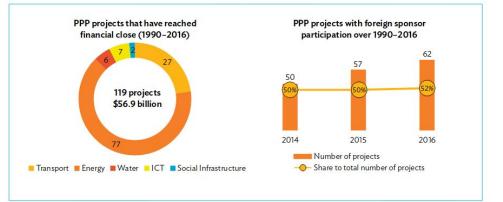
Takeshi Watanabe	1966–1972
Shiro Inoue	1972–1976
Taroichi Yoshida	1976–1981
Masao Fujioka	1981–1989
Kimimasa Tarumizu	1989–1993
Mitsuo Sato	1993–1999
Tadao Chino	1999–2005
Haruhiko Kuroda	2005–2013
Takehiko Nakao	2013–



ADB Annual Report - 2017 - adb.org

## P3 Financing

- Became more popular after the \_ Asian Financial Crisis (1990s)
- Rep of Korea has the most \_ successful cases



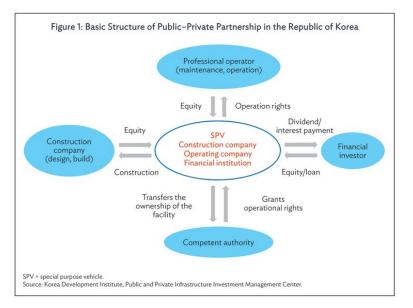


Table 5: Net Benefits from Public-Private Partnerships in the Republic of Korea, 2012

Sector	Number of Projects	<b>Total Benefit</b> (Won trillion)	Total Cost (Won trillion)	Net Benefit (Won trillion)
Road	18	8.79	6.36	2.42
Environment	9	1.37	1.18	0.19
Culture	2	0.72	0.62	0.10
Rail	2	2.97	3.04	-0.07
Others	2	0.90	0.92	-0.02
Total	33	14.74	12.11	2.63

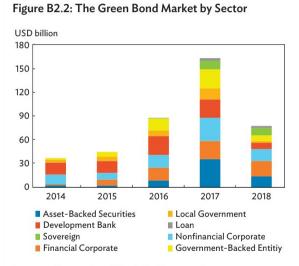
Note: Total benefit is based on a feasibility study of a certain project and estimated as the cost savings or time savings from implementation of a certain project. Users' benefit from using the facility is one of the expected benefits. Source: Korea Development Institute, 2014, Comprehensive Evaluation on Public-Private Partnership Projects in Korea, Sejong,

#### **Green Bonds**

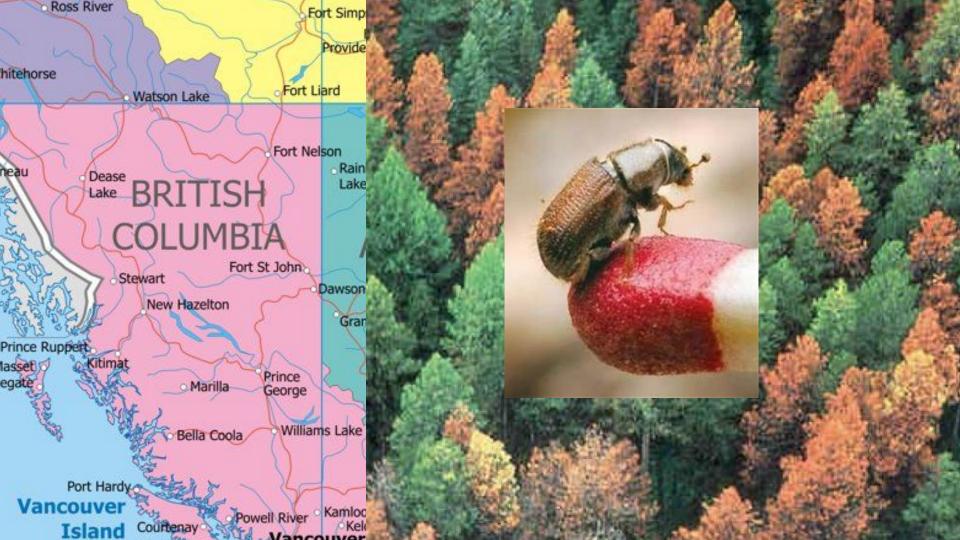
Green bonds are a key tool for governments to raise capital to implement emissions reduction and new infrastructure plans in line with their Nationally Determined Contributions as set out in the Paris Agreement—the commitment to keep global warming to a maximum of 20C.



Energy - 35%, Buildings - 30%, Transport - 16%



Note: Data for 2018 through first half of the year only. Source: Climate Bonds Initiative.



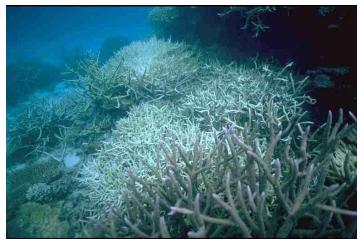


## **Rotary as a Global Institution**









# SOLARIMPULSE

When I was flying around the world in my solar airplane, I remember looking at the sun that was giving energy to my four electric motors and their huge propellers. There was no noise, no pollution, no fuel... and I could fly forever."

**Bertrand Piccard** 



