



**Asia-Pacific  
Economic Cooperation**

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**2017/SOM3/EPWG/023**

Agenda Item: 9.2

## **Regional and Local Best Practices of Post-Disaster Recovery: Building Sustainability and Resilience Through Scientific Approaches**

Purpose: Information  
Submitted by: Chinese Taipei




**12<sup>th</sup> Emergency Preparedness Working Group  
Meeting  
Ho Chi Minh City, Viet Nam  
21-22 August 2017**



# Regional and Local Best Practices of Post-Disaster Recovery: Building Sustainability and Resilience through Scientific Approaches



July 17<sup>th</sup> – 21<sup>st</sup>, 2017  
Chinese Taipei



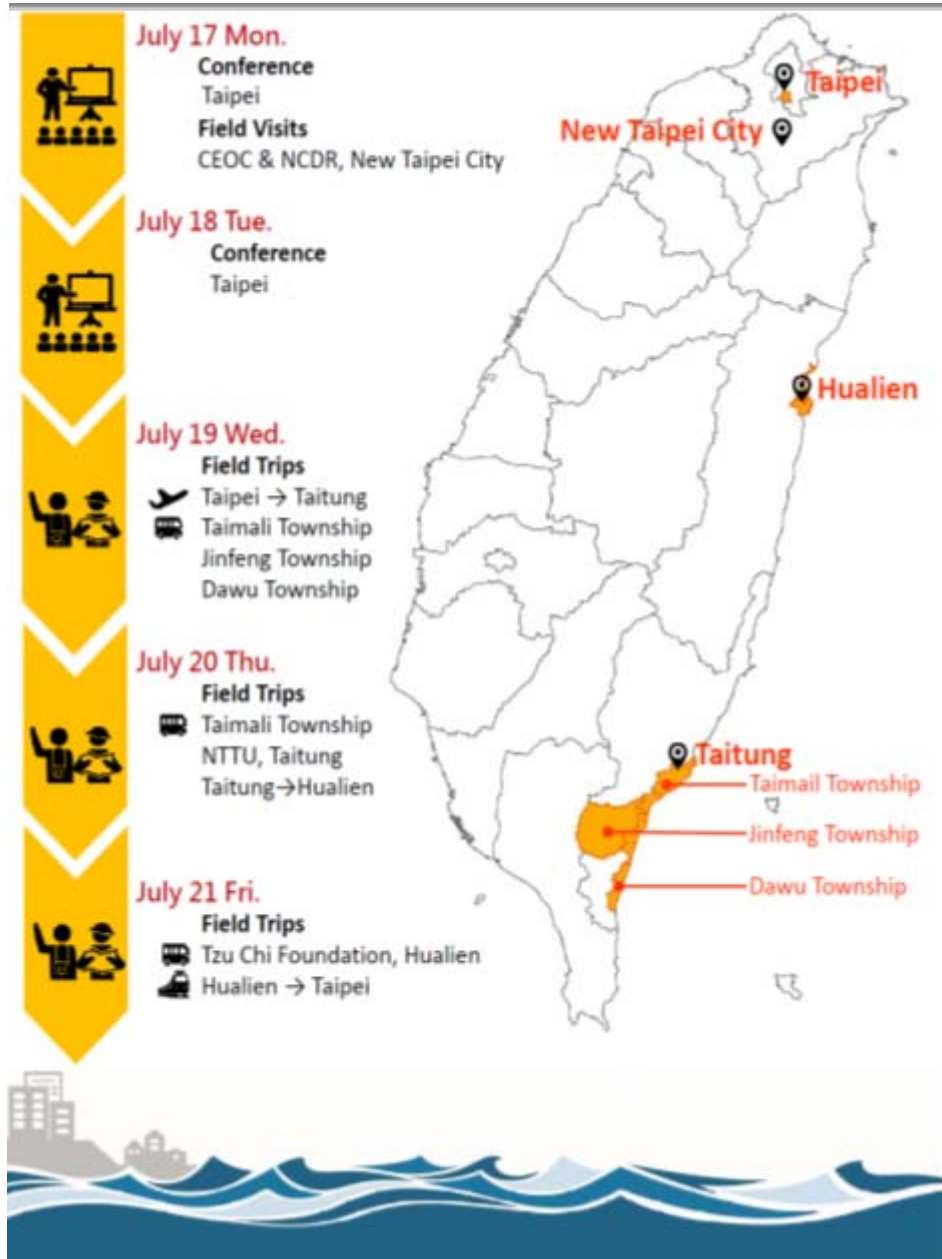
# Regional and Local Best Practices of Post-Disaster Recovery: Building Sustainability and Resilience through Scientific Approaches

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- **Date: July 17 to 21, 2017 (Self-funded)**
- **Venue: Nagoya, Japan**
- **Participating APEC member economies: 9**
- **Organizers:**
  - Chinese Taipei: APEC Emergency Preparedness Capacity Building Center (EPCC)
- **Participation by private sectors**
  - Research community, government official, practitioners, NGOs and business sectors
- **Core discussed issues:**
  - Efforts contributed by the whole society for “Build back better”
  - Sharing the best practices of community-level post-disaster recovery



## Agenda setting



- **Tow-days indoor presentations and discussions**
  - Regional recovery experiences shared by member economies
- **Three-day excursion**
  - Visits to typhoon-affected communities after recovery and reconstruction
  - Understanding about how NGOs and research communities to help



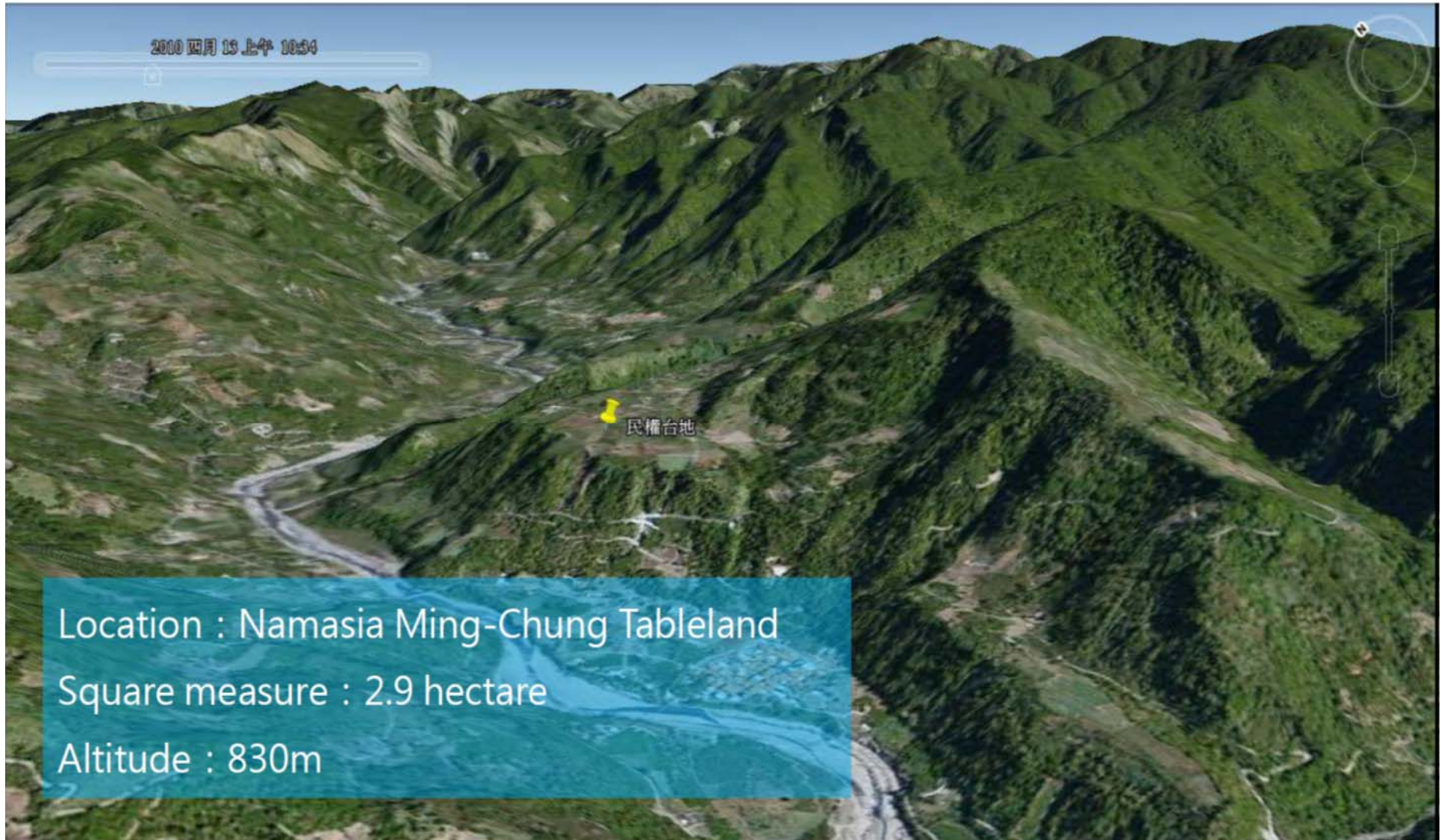
# Build back better and greener for a remote elementary school

- Rebuilding Namasia- A Case of Green building to Increase Climate Resilience
- Delta Electronics Foundation
- The story began after Typhoon Morakot in 2009





## Namasia located in a mountainous and with high risk of slope-land disaster



Location : Namasia Ming-Chung Tableland

Square measure : 2.9 hectare

Altitude : 830m



# Makeshift classrooms for students



Photo: bio-architecture Formosana



Delta Confidential



# Initiate ideas of “disaster risk reduction and green school” in kids’ mind



“THE FUTURE” is our children.





# Green school builds with a solar panel generating electricity



Solar Panel System

- 10.5kWp
- Contribute 11,000kwh in 2012

## Solar System

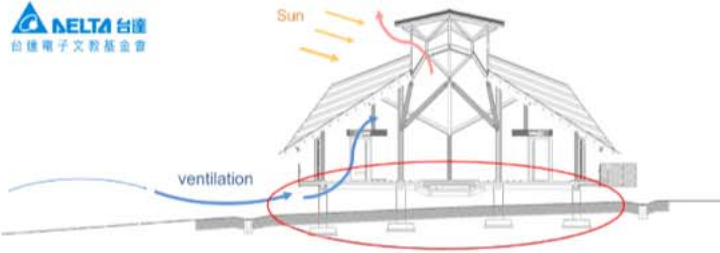
- 10.5 kWp (Kilowatt “peak” of a system)
- 11,00 kWh generated in 2012



# Traditional and environmental friendly

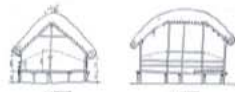


DELTA 台達  
台達電子文教基金會



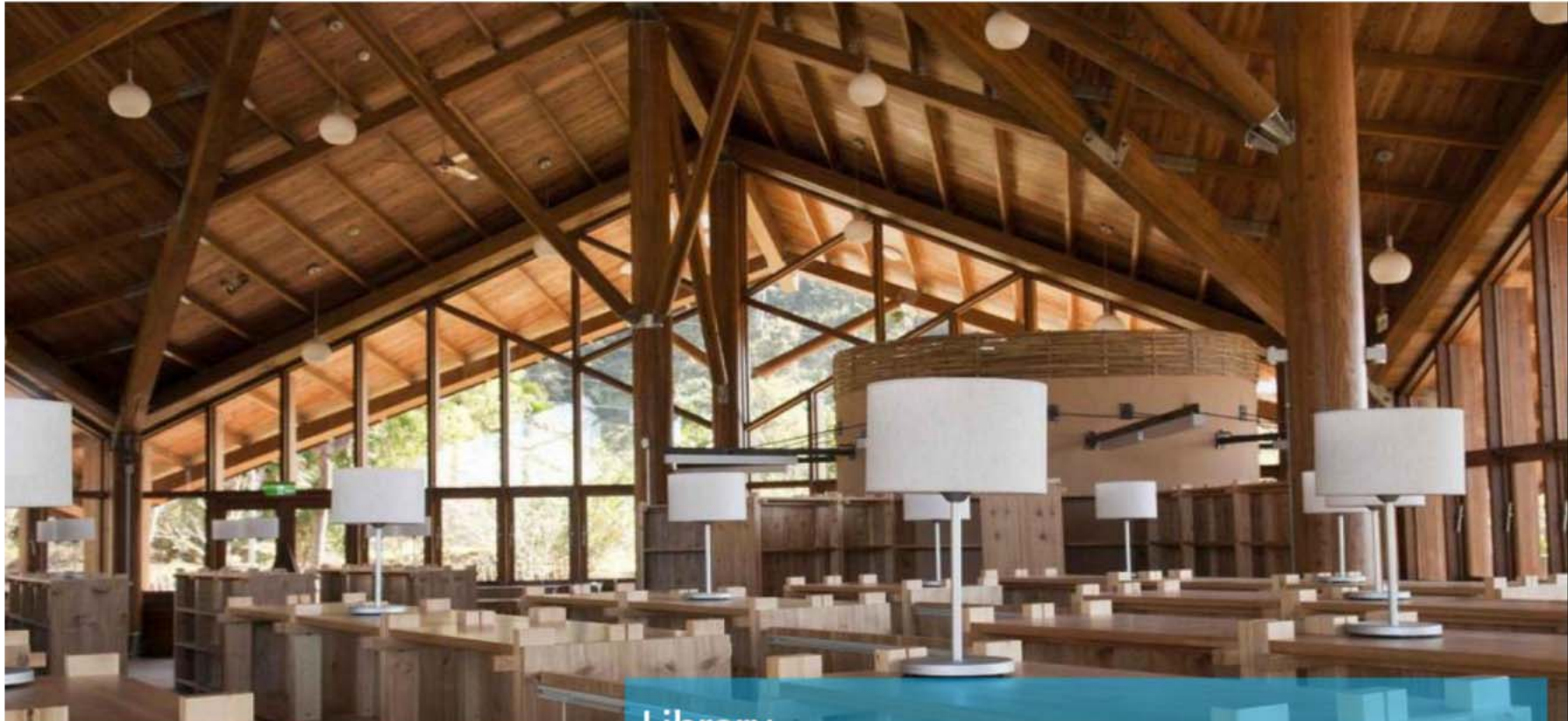
**The Feet**

- The Library – Kanacanavu Cakuru transformed





# Illumination by natural light and LED system in the library



## Library

- 善用自然採光、節能燈具和通風的圖書館



## A display panel

- To report total produced electricity
- To report total power consumption



## Multi-function open space



### Main Building

- Consider the traditional type of residence of Bunun and Kanakanafu.
- Make the school become a big house.



# Becoming a shelter whenever needed





# Excursion route



1. Jialan



2. Fushan



3. Dazhu



5. Binmao





# Site #1: Jia-lan

## Permanent Housing Site #1: Jialan

- 【 Population targeted 】 victims of Jialan
- 【 Builders 】 World Vision & Red Cross
- 【 Land tenure 】 private

	Haitang Site	Morakot Site	
		Westside	Eastside
Commencement date	May 5, 2010	May 28, 2010	May 28, 2010
Completion date	Jan. 29, 2011	Nov. 30, 2012	April 14, 2011
Site area (Ha)	0.9	2.3	6.4
Housing Units	16	41	48





# Site #1: Jia-lan

## Permanent Housing Site #1: Jialan





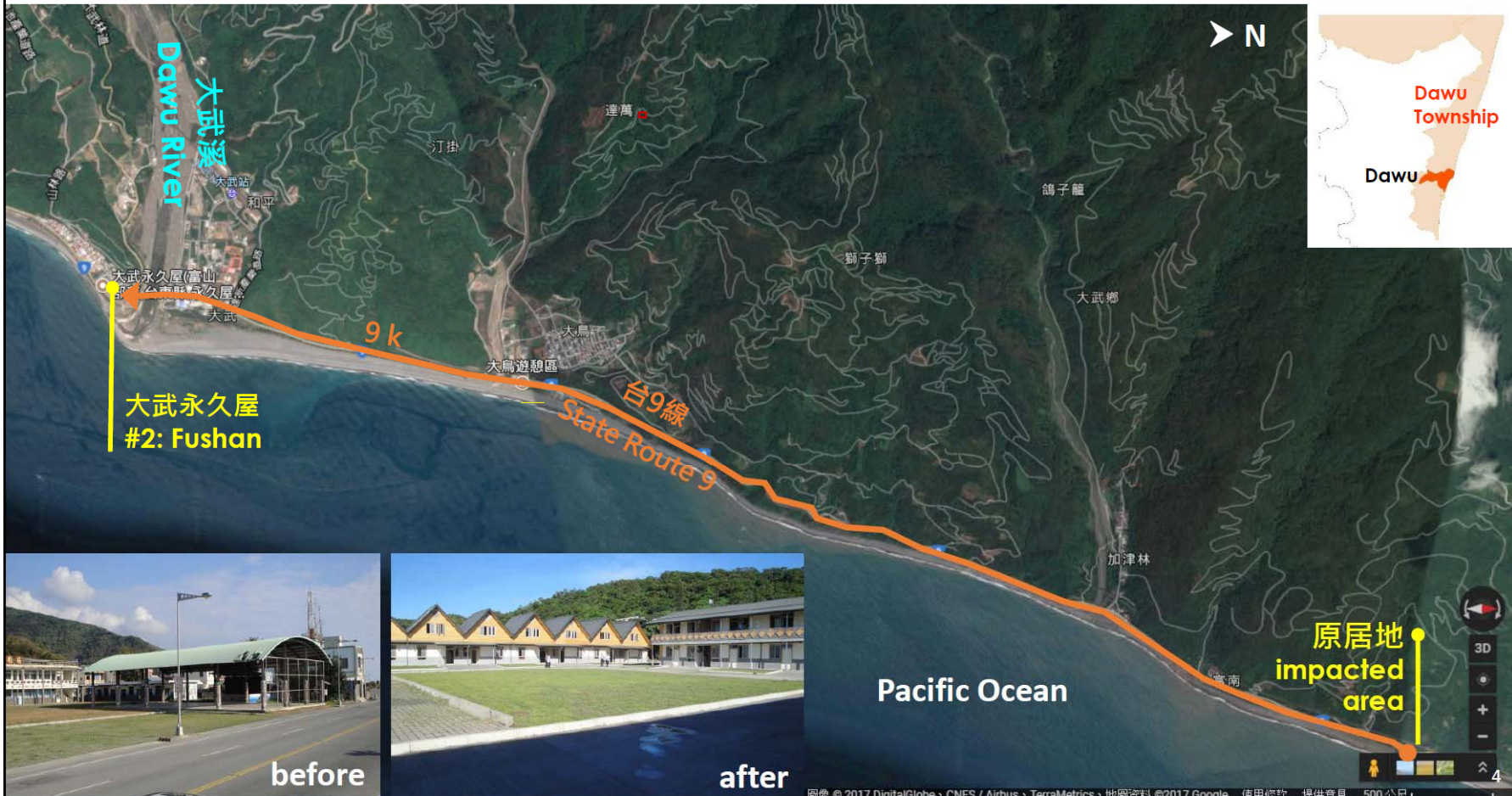


# Site #2: Fu-shan

## Permanent Housing Site #2: Fushan

【Population targeted】 victims of Fushan Tribe  
【Builders】 World Vision  
【Land tenure】 public (Township Gov.)

【Commencement date】 Jan. 2010  
【Completion date】 July 4, 2010  
【Site area】 0.72 Ha  
【Housing Units】 31





# Site #2: Fu-shan





## Reflections on “Recovery”:

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- **Fast one or Time-consuming one**
- **Economy and Ecology**
- **Where and How**
- **By whom?**
- **Culture preservation?**
- **Change in social connection**
- **Future for young generation**
- **Feeling of ownership**
- **Role of outsiders?**
- **Government and NGOs**
- **How long it takes to say, “We build back better”**



# Thank for your kind cooperation

