



# **How Public-Private Partnerships (PPPs) can Diminish Disaster Risk through ICT Applications**

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# Backgrounds

- Public-Private Partnerships (PPPs) play a key role in building resilience in APEC member economies.
- PPPs include collaborative partnerships across all levels of government, the NGO, business and communities.
- Disaster reduction can be benefited by PPPs via applications of ICTs.

# Natural Disasters in Chinese Taipei

- There are **plum rains** every May~June and **typhoons** every July 7~October. This special type of climate often brings about torrential rains.



# Natural Disasters in Chinese Taipei

- Also, the steep landform and short river connections often cause serious **flooding**.
- Meanwhile, it is considered one of the regions in the world with the most frequent felt **earthquakes**.
- Therefore, the frequent occurrences of natural disasters often result to serious damage and loss of lives and properties.





# Disaster Reduction: Organizational Arrangement

- As the technology advisory staff to the National Disasters Prevention and Protection Commission, Executive Yuan, the **National Science and Technology Center for Disaster Reduction (NCDR)** coordinates and collaborates with governmental sectors for planning, organizing and promoting technology innovation, providing a platform of information service and technology integration, plus designing the policies of disaster prevention.



# Disaster Reduction: Organizational Arrangement

- Missions of NCDR:
  - **Coordinate**, plan and implement disaster prevention and response technology related research and development.
  - Deploy disaster prevention and response technologies to support the actual field tasks.
  - Promote research and development and apply those results on the disaster prevention and response system.
  - Other implementation and design for any tasks related to disaster prevention and response.



# Disaster Reduction: e-Government Initiatives

- Disaster forecasting technology has emerged as an area that governments cannot afford to neglect.
  - Taiwan government authority has been implementing a **Disaster Prevention and Emergency Response Communications System Integration Plan** as part of the Third Stage of the E-Government Promotion Project in Taiwan.
  - In June 2011 Taiwan government authority approved the plans for a Fourth Stage of the E-Government Promotion Project, which will integrate the concepts of **Web 2.0 and cloud computing of central and local government disaster prevention, emergency response and firefighting information systems**, thereby enhancing the coordination of the government's disaster prevention measures.



# Disaster Reduction Without ICTs

- Flow of Information may be
  - too slow
  - divergent
  - conflict
  - inaccurate

# Disaster Reduction through ICTs

- Google service (GAE.Map.Doc)
- MS office
- Twitter
- Plurk
- Skype

**# Based upon the experience of Association of Digital Culture, Taiwan (ADCT).**

# Disaster Reduction through ICTs

- Establishing an Morakot Information Platform
- Integrate with disaster response center
- Providing citizens with multiple simultaneous information in relation to
  - housing, schooling, medical, and transport conditions
  - donated goods and availability of food
  - realtime update of government's recovery efforts

**# Based upon the experience of Association of Digital Culture, Taiwan (ADCT).**

## 莫拉克災情網路中心

應行政院內政部請示，台灣縣政府、屏東縣政府與高雄縣政府邀請，義務協助提供即時資訊的網站服務

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08121712：為研經格式【八月十二日下午五點十二分】。

- 08151629 [中央應變中心] [嘉義] 阿里山茶山村衛生室請由物資。已請社會處、直昇機救援。 #taiwanfloods #Morakot #Chiayi #EOC 42秒前 發自 Twitter - 評論
- 08151655 [屏東物資中心] 8/14止社會處1F、明正國中、仁愛、東港國小及體育館災難物資清單下載 <http://tinyurl.com/pd900015> 或 <http://gfb.tw/pingtung/> #Pingtung #taiwanfloods #Morakot 2分钟前 發自 Twitter - 評論
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Association of Digital Culture Taiwan



# Based upon the experience of Association of Digital Culture, Taiwan (ADCT).

## Conclusions: Differences between Government and Civil Society in terms of Information Processing

- **Government**

- top-down/ hierarchy
- departmentalism & turf
- responsibility & accountability

- **Web Citizens**

- bottom-up/ self-organizing
- takes the network as a platform for information sharing
- interoperability
- user-centered
- collaboration

# Conclusions: Main Characteristics of PPPs

- Creating synergies
  - Efficiency & Effectiveness
  - Equitable & Inclusive
  - Responsive
  - Accountability
  - Public Trust
- Holistic governance
- Look for possibilities and potentials



# Conclusions: Contributions of the NGO

- **Fulfill the gap** between government and citizen information structure
- Take over the online public communication of central government
- Further requested by National Fire Agency to develop NGO Disaster Prevention and Relief Information System
- Hope to save more people and disaster relief in more states and societies in the future

**# Based upon the experience of Association of Digital Culture, Taiwan (ADCT).**



# Lessons learned

- Partnerships should be based on shared responsibilities and clearly assigned roles and tasks that engage the NGO/ private sector not merely as a source of funding but use **core competencies and expertise**.
- Public-private partnerships aiming to build disaster reduction in an economy should be understood as **learning journeys** where mistakes are allowed to be learnt from.





# Lessons learned

- Governments should explore ways to **create incentives to leverage PPPs** in disaster reduction with the NGO/ private sector who are engaged in partnership
- Governments should work with the NGO/ private sector to ensure the resilience and continuity of **supply chains and essential services** in the context of potential disasters.



# Lessons learned

- Partnerships should be fully funded and staffed. Rather than rely on good will or personality based leadership, long term success is developed through **consistent and adequate funding, dedicated staff and the resources** needed to build and grow the partnership (e.g. Issues of training and volunteer management and support).

**THANK YOU !**

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