



VIET NAM NATIONAL MEKONG COMMITTEE

People Centered Approach in Flood and Land Management in the Mekong Basin

Luang Phrabang, 23-25 Feb 2011

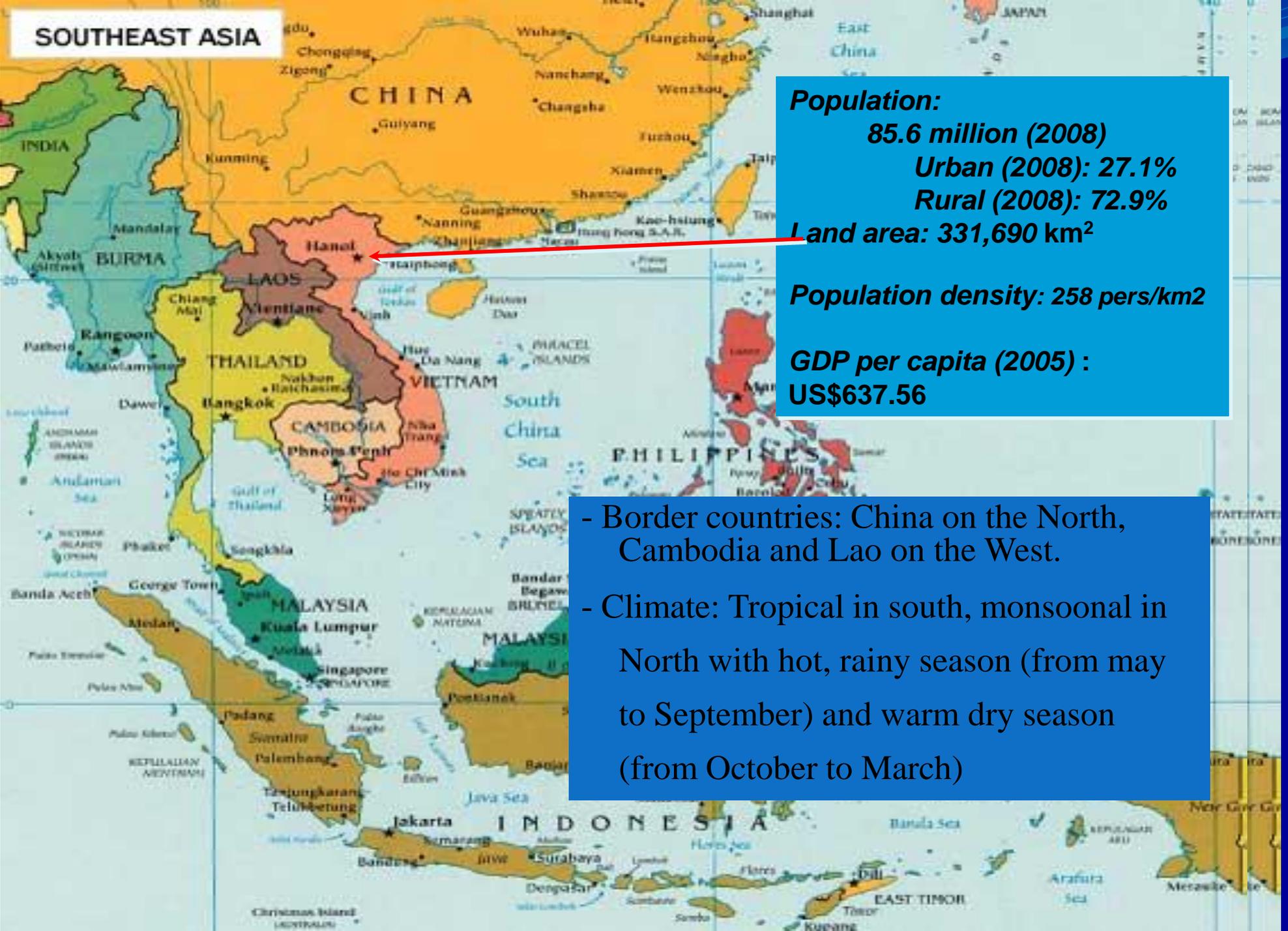
**OUTLOOK CONCERNING THE C5 –APPROACH-
POTENTIAL IN IN VIETNAM**

VU MINH THIEN

CONTENT

-  ***1 Introduction***.....●
-  ***2 C5 approach***.....●
-  ***3 Potential application***.....●

SOUTHEAST ASIA



Population:

85.6 million (2008)

Urban (2008): 27.1%

Rural (2008): 72.9%

Land area: 331,690 km²

Population density: 258 pers/km²

GDP per capita (2005) :

US\$637.56

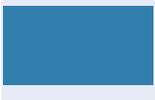
- Border countries: China on the North, Cambodia and Lao on the West.
- Climate: Tropical in south, monsoonal in North with hot, rainy season (from may to September) and warm dry season (from October to March)

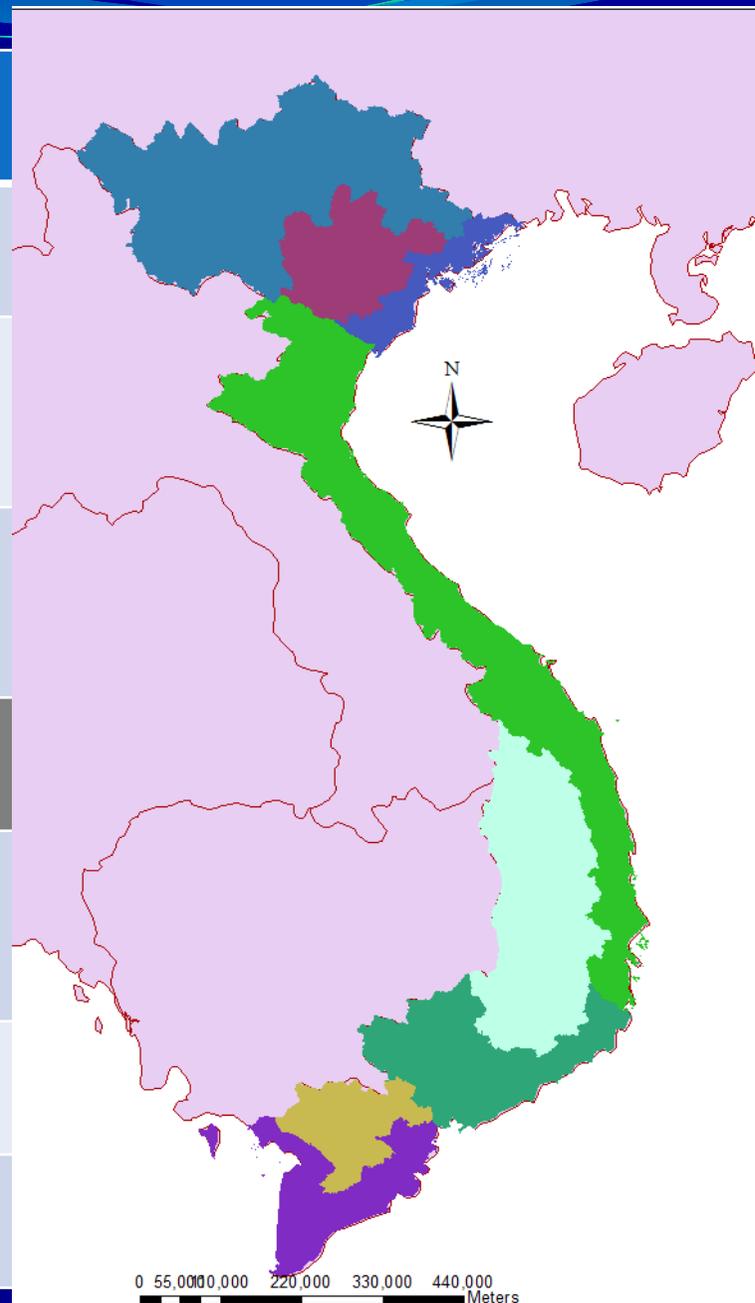


Water Resources in Vietnam

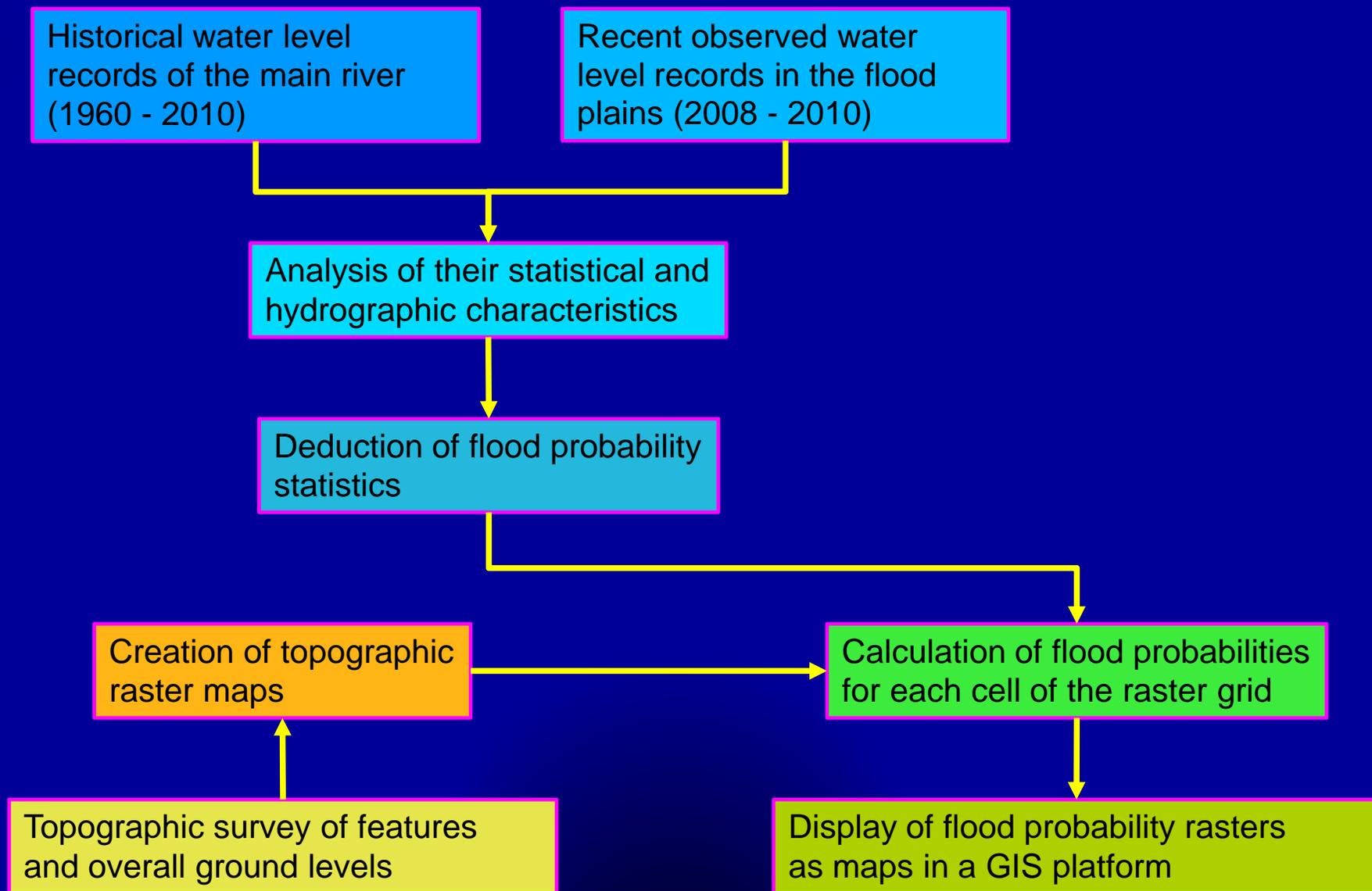
- Average annual rainfall: 1,600 -2,000 mm
- Total annual water volume: 830-840 km³ (> 60% from neighbor countries)
- River systems: 2360 rivers with length > 10 Km,
- 14 main river basins with catchments area more than 10,000 Sq. Km.
- Two seasons: Wet/rainy: from April to October; dry season: from November to March.

Map of Hazard Zones in Vietnam

	Red river delta and Midland of Northern VN	Flood, storm/typhoon, whirlwind
	Coastal area of the Northern VN	Storm surge, storm/typhoon, flood, whirlwind
	Mountain area of the Northern VN	Flash flood, flood, landslide, whirlwind
	Coastal area of the Central VN	Storm/typhoon, flood, storm surge, flash flood, whirlwind, salinity intrusion, drought
	Central High lands	Flash flood, drought, whirlwind, forest fire
	East of the Southern VN	Storm/typhoon, flood, flash flood, whirlwind, salinity intrusion, drought
	Coastal area of Cuu Long Delta	Storm/typhoon, flood, whirlwind, salinity intrusion
	Flood area of the Cuu Long delta	Flood, whirlwind



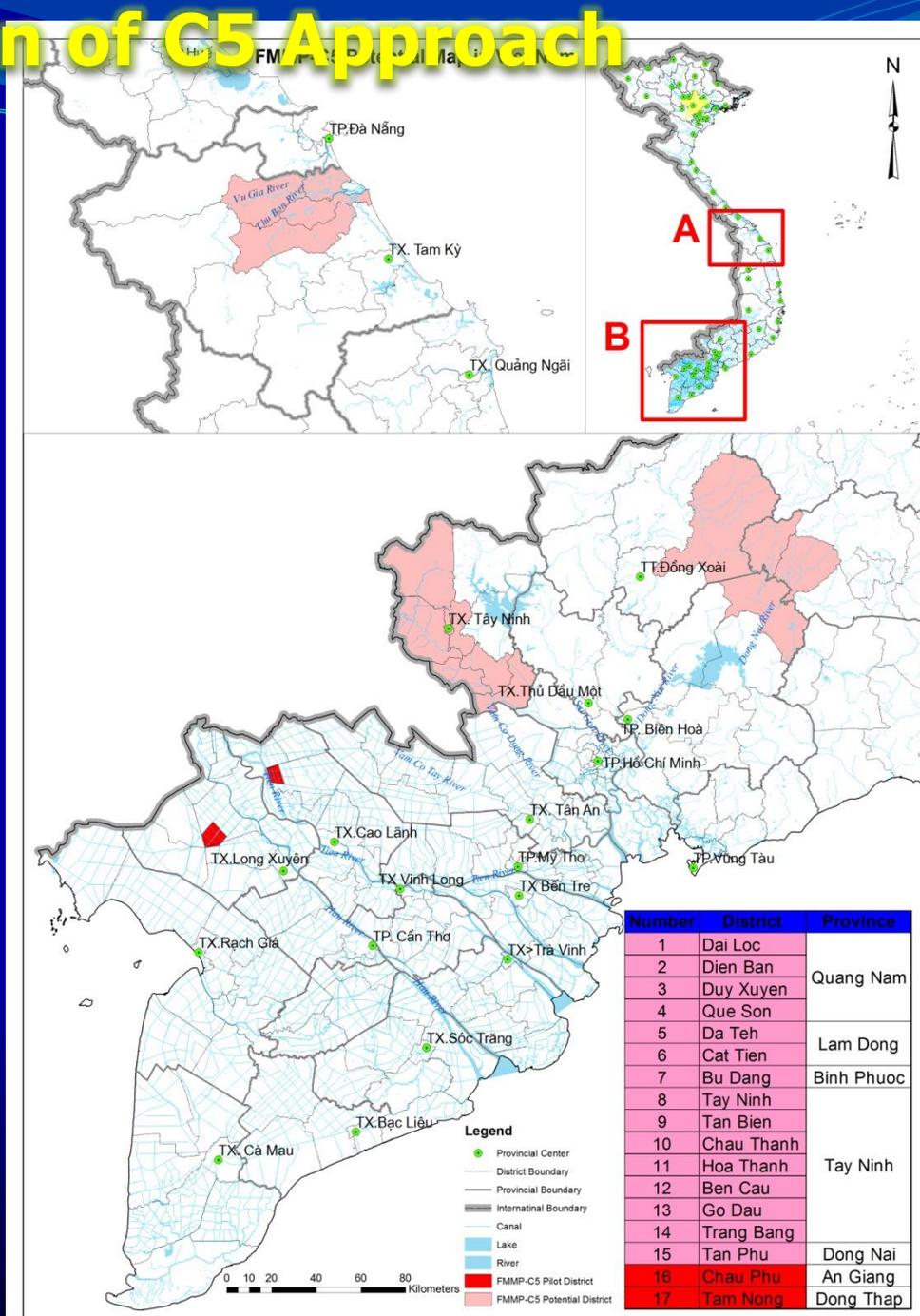
C5 – APPROACH IN LAND MANAGEMENT



Potential application of C5 Approach

Preconditions for the Pilot-area, located in flood plains, to be chosen:

1. Topographic DEM established
2. Flood marks established
3. Flood Plain is connected to the Mekong main course supplied with an adjacent Hydro-Station
4. Flood history (hydrographic data) is available for the pilot district area
5. The pilot districts are land management-registered & land use planning is initiated (optional)



Potential application of C5 Approach

District	District area [km ²]	Flood hazard area [km ²]	Inhabitants	C5-Approach implementation costs [US\$]	Potential damage cost [US\$]	Absolute potential avoided loss [US\$]	Ratio "damage costs/input costs"	ratio "damage costs/C5 costs"
Tan Bien	853	41	85,630	41,500	1,052,205	1,010,705	2535%	25.4
Trang Bang	340	48	151,568	41,500	1,998,769	1,957,269	4816%	48.2
Chau Phu	451	397	252,066	78,500	4,273,000	4,194,500	5443%	54.4
Tam Nong	474	344	99,646	78,500	9,609,000	9,530,500	12241%	122.4

A scenic view of a lake with a red bridge, framed by tree branches. The bridge is a traditional-style structure with a red railing and is supported by several red pillars. The water is calm and reflects the surrounding greenery and the bridge. The sky is overcast and grey. The foreground is dominated by the dark, intricate branches of a tree, some with green fern-like leaves. In the background, there are more trees and a small structure on the left side.

Xin cảm ơn – Thank you very much

29 1 2008