



# Viet Nam Country Water Assessment

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# This Paper

- This paper presents the concept of a Country Water Assessment (CWA), a new approach for ADB water management
  - using current work for the preparation of the Viet Nam CWA to indicate benefits, issues and results.
- Some of the main Viet Nam CWA findings are presented – this is the main purpose of the Paper



# What is a CWA

- The concept arose from international concerns about water security in the context of the water-food-energy nexus:
  - ADB is encouraging DMCs to respond to water insecurity by introducing good water governance
- CWAs will provide a fact-base on present /forecast water demand / supply, and measures to deal with future water security
- The water fact-base will enable the formulation of a comprehensive national water policy, as part of a framework for improved water governance



# CWA Process

- The CWA concept is being trialled in Viet Nam and 4 countries; more are planned for 2014
- A Template has been prepared for CWAs and is outlined in Table 1 in the paper
  - The Viet Nam draft as at January 2013 had covered Chapters I to V, with some initial work on Chapter VI
- The analytical work for the Viet Nam CWA started mid 2012 with my engagement - most of the work has been undertaken from home base
- Another international consultant is engaged to undertake water demand modelling on a national scale.



# The CWA process - Issues

- **Issue 1:** how to get meaningful buy-in from the Government side
- So far there has only been preliminary discussions with counterparts in MoNRE
  - However any resultant governance reform will affect many Ministries
- **Issue 2:** As no new studies are to be undertaken, this has provided some limitations on what can be included:
  - Lack of information precludes inclusion of water footprint and virtual water
- **Issue 3:** the size of the current document makes it difficult for managers to absorb and digest



# The CWA process - Opportunities

- For VN, a 2-stage approach to CWA preparation has been proposed to deal with the issues
- Stage 1, is a comprehensive situation analysis:
  - The outputs will be a status report and a summary document. These Stage 1 reports for VN are expected to be completed in April/May
- Stage 2 will involve consultations with GoV to formulate priorities for governance reform and an investment program to support this:
  - This will take time and resources for workshops, etc.  
Consultation with other IDPs will also take place in this stage



# Results from the Viet Nam CWA – Issues

## (i) Water Resources

- VN faces a difficult future in many river basins because of threats to future water security
- **No 1 issues :** International water dependency
  - The Red, Dong Nai and the Cuu Long Rivers together account for 75% of Viet Nam's surface water
  - However, almost 95% of Cuu Long water originates in the upper Mekong countries, nearly 40% of Red River water originates in China, and 17% of Dong Nai water comes from Cambodia
- **No 2 issue:** Viet Nam has only limited water resources to support its population and economic development, which is most apparent in the dry season



## Results from the Viet Nam CWA – Issues (i) Water Resources ...continued

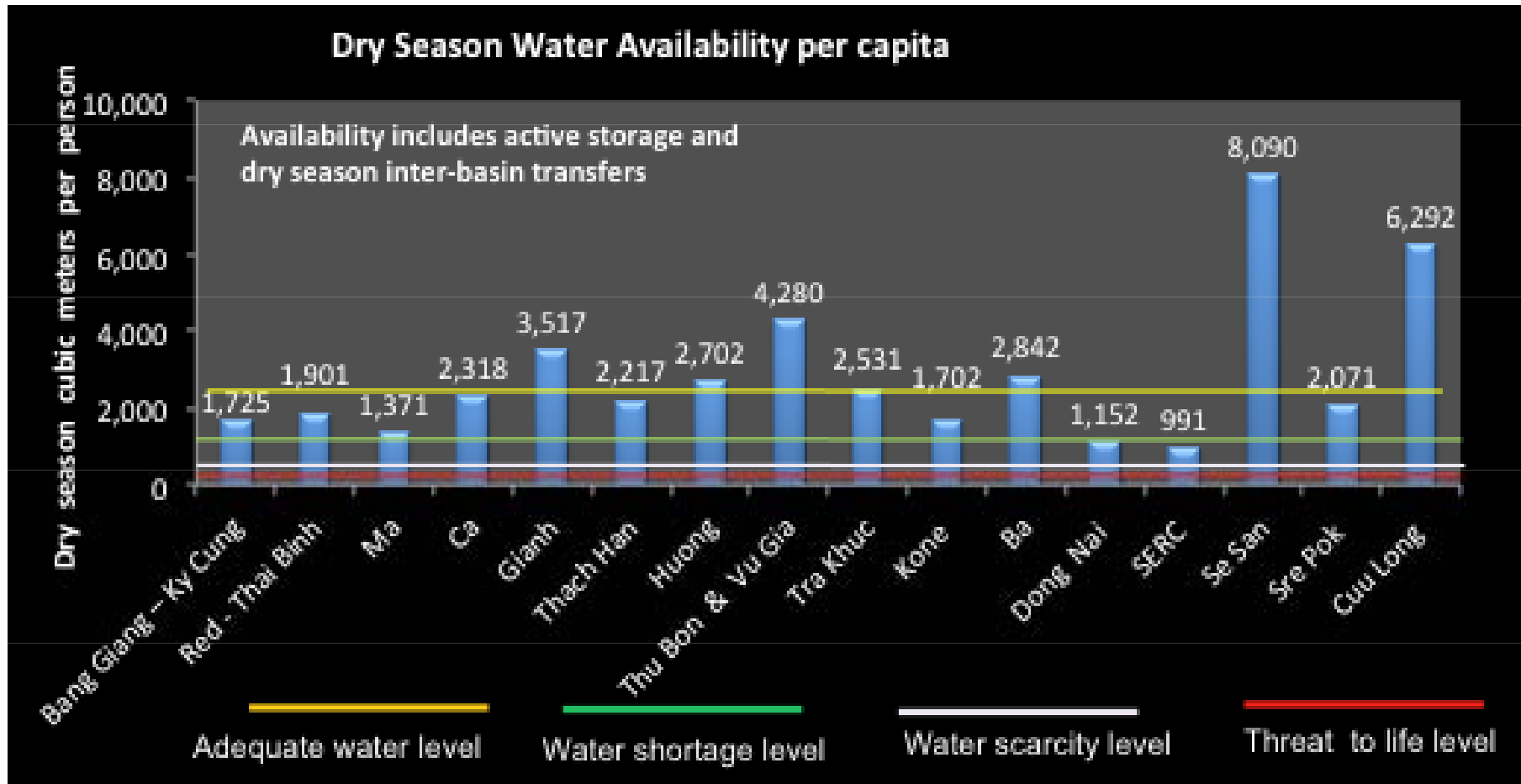
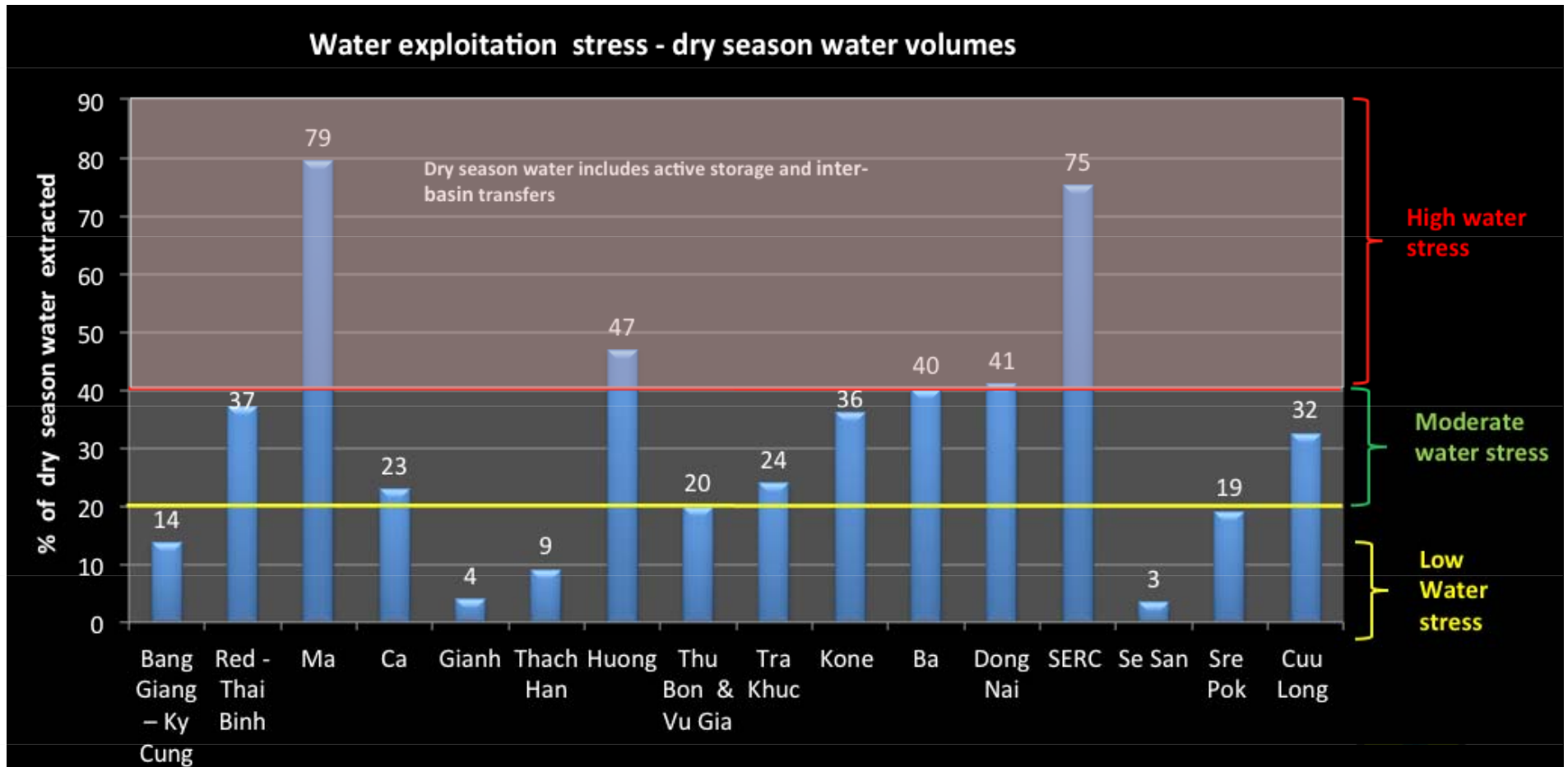


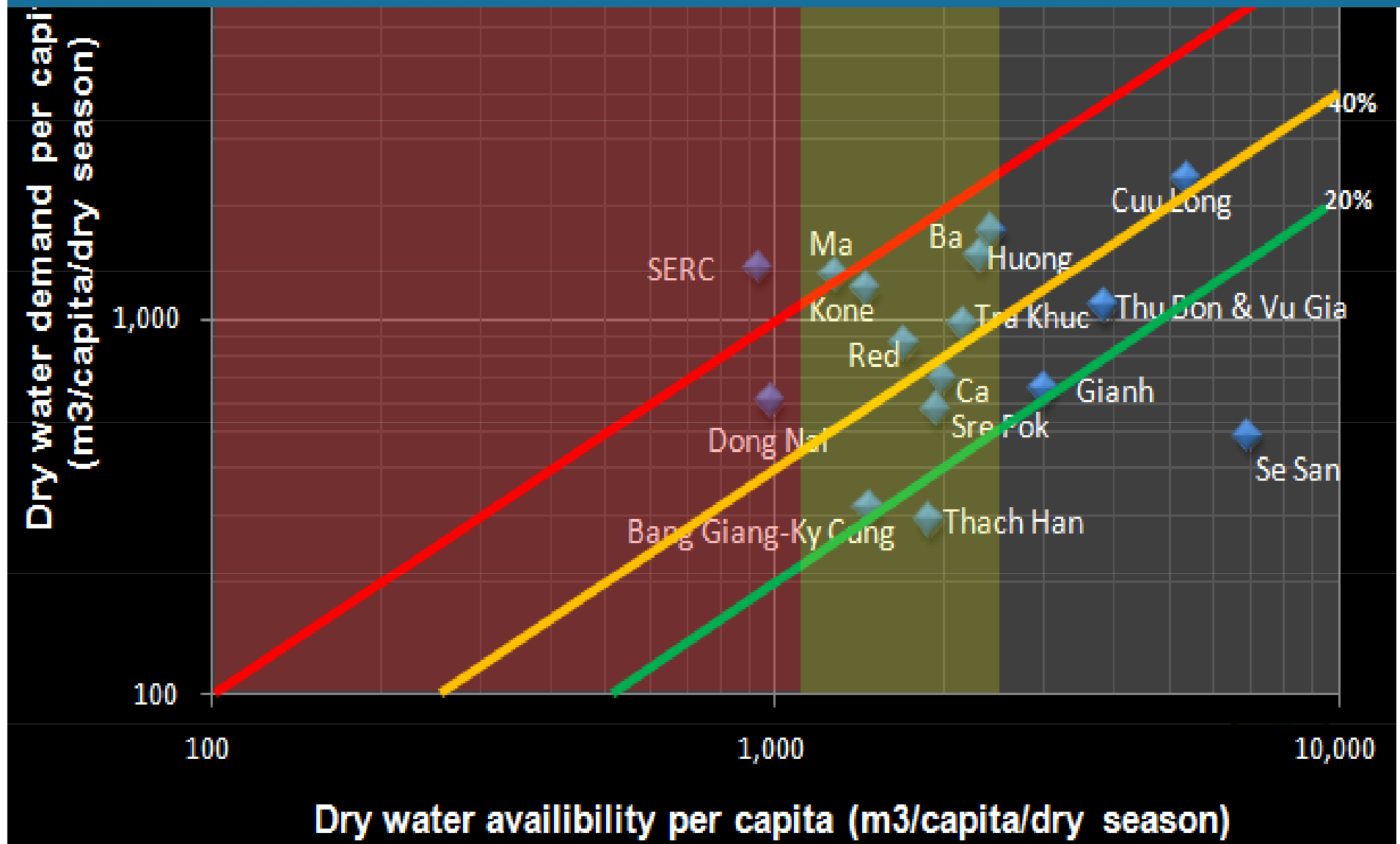
Figure 1: Per capita water availability in the dry season season water volumes and current devleonment

## Results from the Viet Nam CWA – Issues (i) Water Resources ...continued



*Figure 2: Water exploitation stress for the dry season*

## Results from the Viet Nam CWA – Issues (i) Water Resources ...continued



## Results from the Viet Nam CWA – Issues (i) Water Resources ...continued

### **Other water resources issues include:**

- Terrible pollution is significantly reducing the utility of water sources, adding to water security risks
- Serious lack of data and information – network designed for past era, poor records, duplication, very little data sharing
- Natural hazards: more than 70% of people exposed, loss of life and economic losses each year are severe
- Lack of water rights, licensing and water allocations/sharing
- Water and water services are currently well under-priced – irrigation water is not charged
- State water management capacity is extremely limited



## Results from the Viet Nam CWA – Issues (ii) economic sectors

- Agriculture: consumes between 70-90% of water and between 50-70% of employment, but only contributes between 25-45% of the GDP
  - Water volume is not measured, there are major inefficiencies
- Urban water: the urban population will grow to 60% (64Mill) based on Hanoi and HCMC
  - 68 companies average 23 supply hours a day, providing 100 lpcd. The average non-revenue water is 30%. The 2009 revenues recovered costs, tariffs are only adjusted every five years
  - Large disparity between Province towns and District towns
  - Of 4 million m<sup>3</sup>/day of urban wastewater, the total treatment capacity less than 380,000 m<sup>3</sup>/day



## Results from the Viet Nam CWA – Issues (ii) economic sectors ... continued

- Rural WS&S: over 36 million rural people do not have access to health-standard water; around 40 million rural people do not have access to health standard sanitation
- Industry: makes up around 41% of GDP for little water use. However pollution is the issue:
  - only 30% of wastewater is treated
  - Some of the worst polluters are SoEs, where reform is slow
  - Craft villages are a new threatening issue
- In 2010, hydropower provided 38% of the total power. HP capacity will double to 20,306 MW at 2020 with completion of all planned plants
  - There are growing conflicts over water in many rivers – increasing energy security is proving a real threat to water security



# Results from the Viet Nam CWA – Opportunities

**There are a number of opportunities in VN for ADB to build a governance reform program with GoV:**

- The new Law on Water Resources
- Preparation of the *National Action Plan for Enhancing the Efficiency and Effectiveness of Integrated Management, Protection and Use of Water Resources*
  - This has a water resource focus but will affect all economic sectors
- Building on the major recommendations and proposals in the WSR, which were grouped into 5 output areas shown in the Paper
- The National Water Resources Council chaired by a Deputy Prime Minister and including all relevant Ministries



# Conclusions

- The VN CWA has shown the usefulness of the concept, providing a comprehensive and detailed fact base on current and future water security
  - particular as it aligns with the water-food-energy nexus, and the role the various sectors play in this
- It allows a focus on the governance of the overall water sector - for water resources management in particular, and for sector development and use
- It provides a solid platform around which a governance reform program can be negotiated with Government

