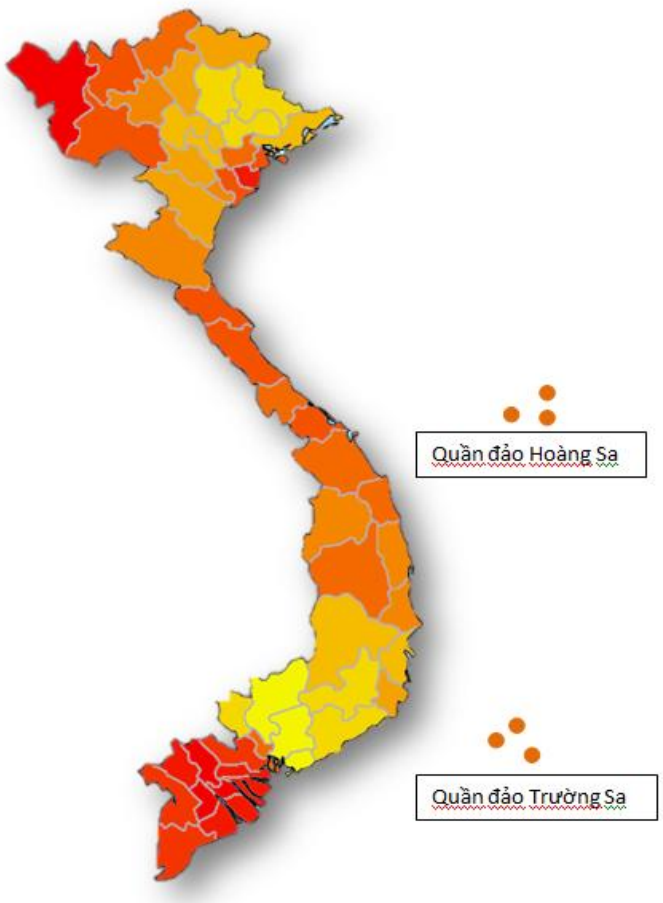
Urban Resilience in Vietnam

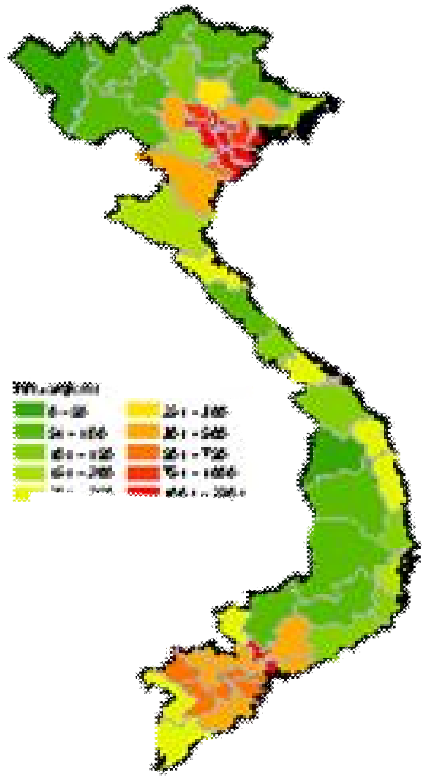
Dr. Dirk Pauschert

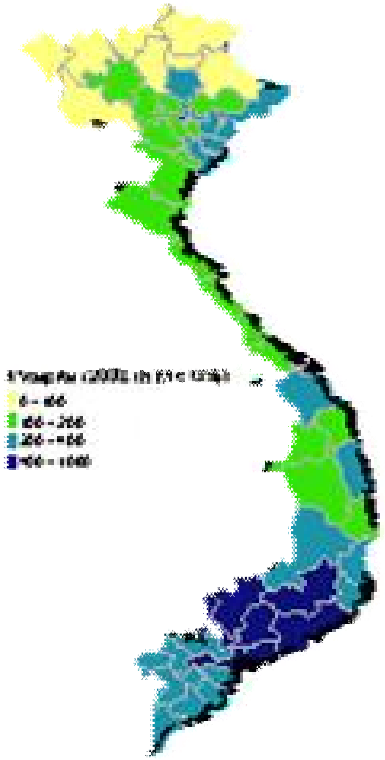
Vietnam is among the countries most vulnerable to global climate change

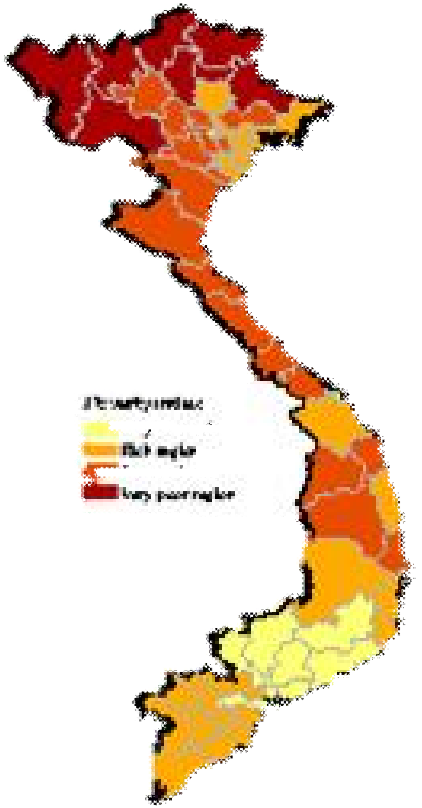


- Number and severity of natural disasters (storms, flood, draught) has significantly increased
- Vietnam ranked most severely impacted by climate change
  - Sea level rise
  - Floods, Storms
  - Intrusion of salt water
- Vietnam contributes to climate change: Vietnam's rate of emissions has currently outstripped that of its GDP growth.
- Vietnam increasingly urbanizing

The effects of climate change affect population and productive areas







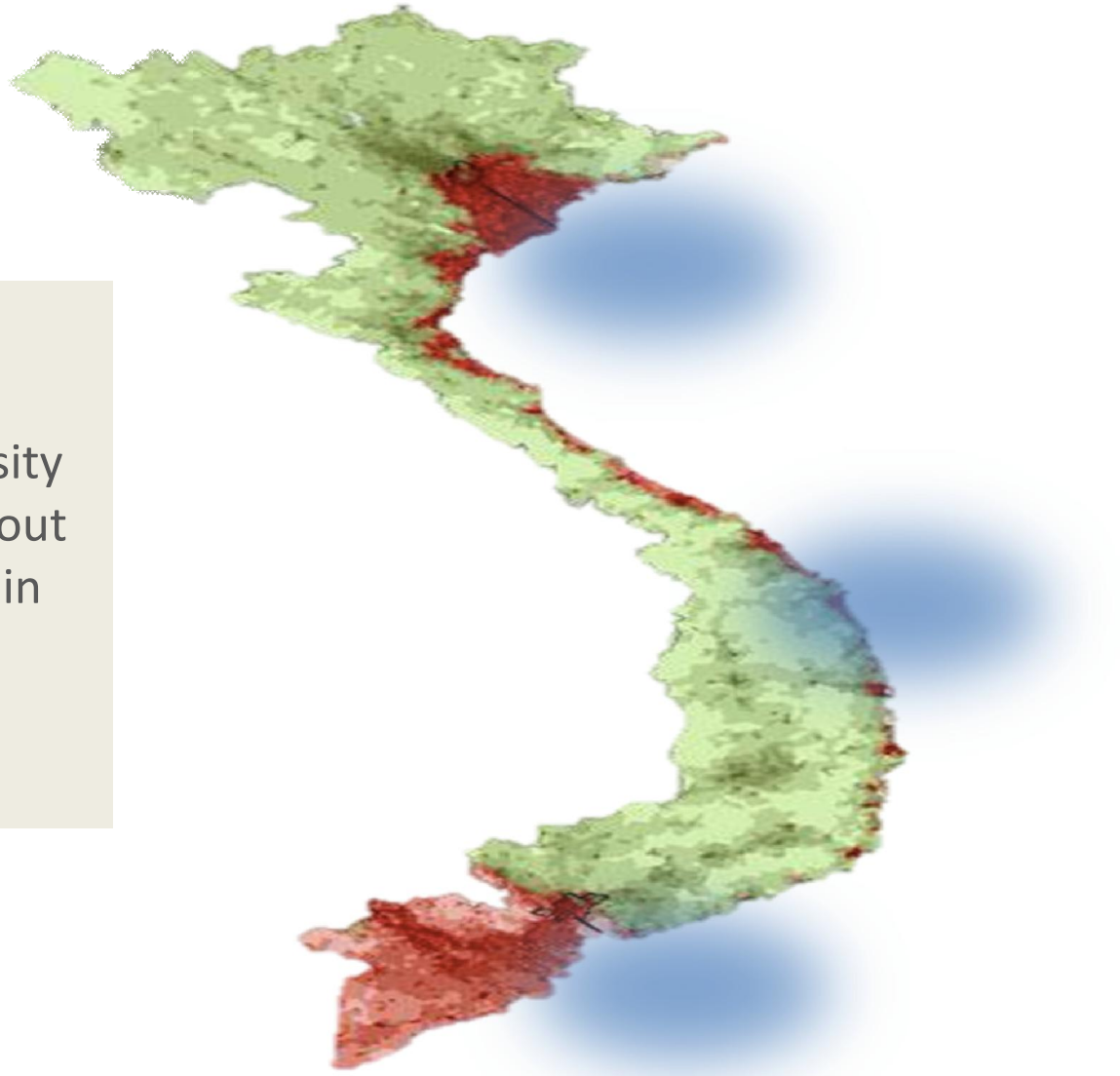
Population

GDP

Poverty

70% of the Vietnamese population are at risk of flooding disasters

Population density within and without 10m elevation in Vietnam



Resilience To Floods

Flood Resilience Program

We help to safe lives and help people to protect their homes and sources of income from floods in Vietnam

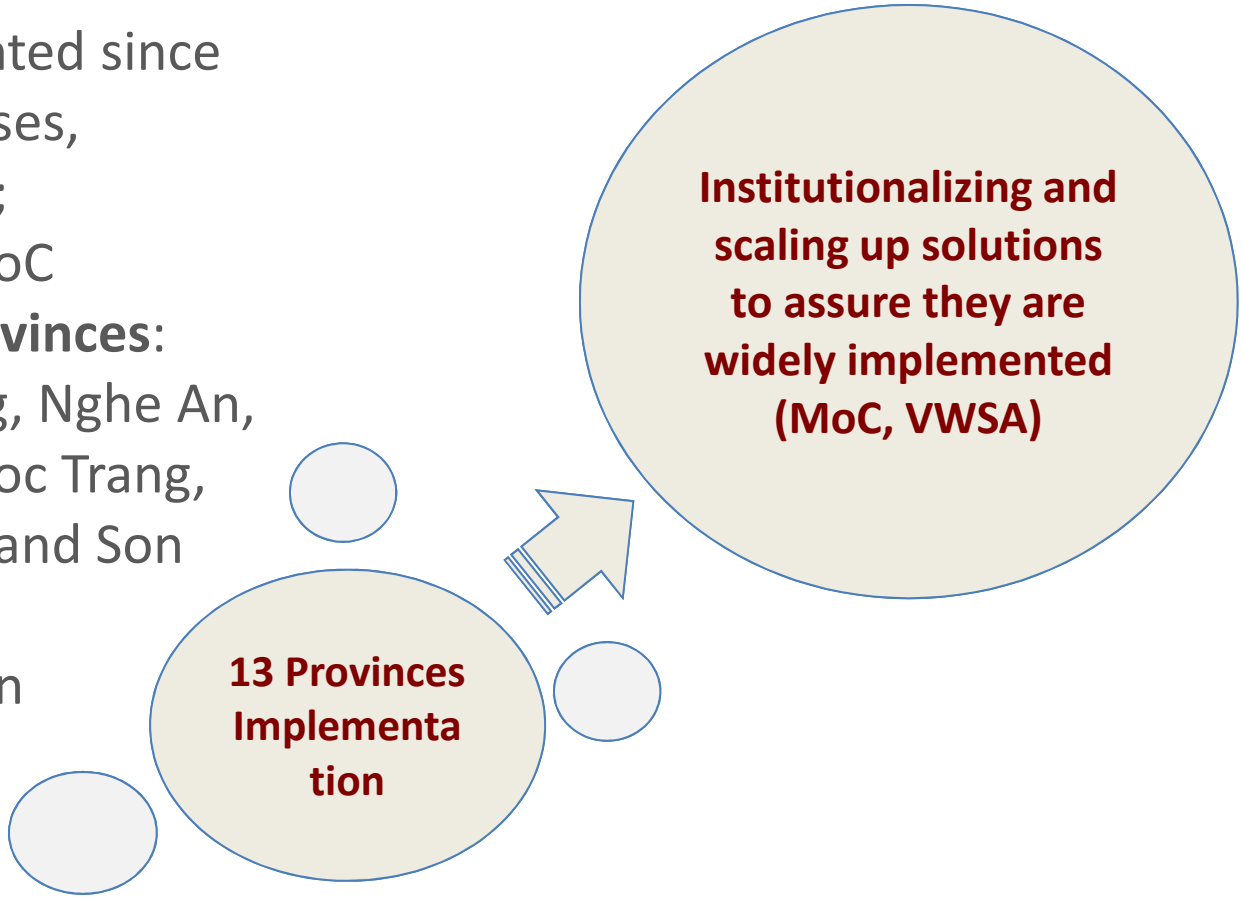
- **Duration**: 2012 – 2016 (possible SECO Ko-Financing until 2019)
- **Location**: 5 mid-sized coastal cities (Binh Dinh, Phu Yen, Khanh Hoa, Quang Ngai, Soc Trang) and national level PLUS Ca Mau, Rach Gia and Long Xuyen
- Main Partner: Ministry of Construction (MoC) & Provincial People's Committee
- **Components**: National and Provincial
- **Possible Cooperation with Private Sector:** Disaster Risk Insurance
- **Possible Cooperation with Vietnam/German Universities:** Modeling of Flood Risk

Environmental Resilience - Water Pollution

Waste Water Management Program

We help to protect water – as a source of life – from pollution from households and industries in Vietnam

- **Duration:** Implemented since 2005 through 4 phases, currently in phase 4;
- **Political partner**: MoC
- **13 participating provinces**: Bac Ninh, Hai Duong, Nghe An, Can Tho, Tra Vinh, Soc Trang, Hoa Binh, Lang Son and Son La; XXX and XXX
- VWSA as a partner in scaling up trainings



Publication: Building Healthy and Resilient Cities in Vietnam

GIZ - Building Healthy & Resilient Cities in Vietnam

The economic transformation of Viet Nam in recent decades has resulted in rapid urbanization, with towns and cities throughout the country growing at rates that are placing tremendous strains on service provision and on the environments in which they are found. The urbanization rate is estimated to be around 3% a year and more than one third of Vietnam's population, over 30 million people, now live in urban areas. However, urbanization will result in damage to human and ecological health if actions are not taken to strengthen and change the ways in which the waste products of new settlements and industrial areas are managed. The challenge is to balance the economic benefits with managing urbanization so that it does not damage the health of people and the environments on which cities depend. Cities have to be resilient to climate change and other unpredictable forces that will affect the provision of services and functioning of the economy.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Administration of Technical Infrastructure - Ministry of Construction (MoC) of Vietnam and 13 provincial governments jointly carry out two programmes on urban resilience: the Wastewater Management Programme and the Flood Proofing and Drainage for Medium Sized Coastal Cities in Vietnam for Adaptation to Climate Change project. The aim of the programmes is the improvement of capacities of national and local authorities as well as urban population to adapt to urban flooding in the course of climate change.

Flood Proofing and Drainage for Medium sized Coastal Cities in Vietnam for Adaptation to Climate Change

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