



# Second National Forum on Climate Change Cambodia

3-5 October 2011

Climate Change and Food Security: the Cambodian Context

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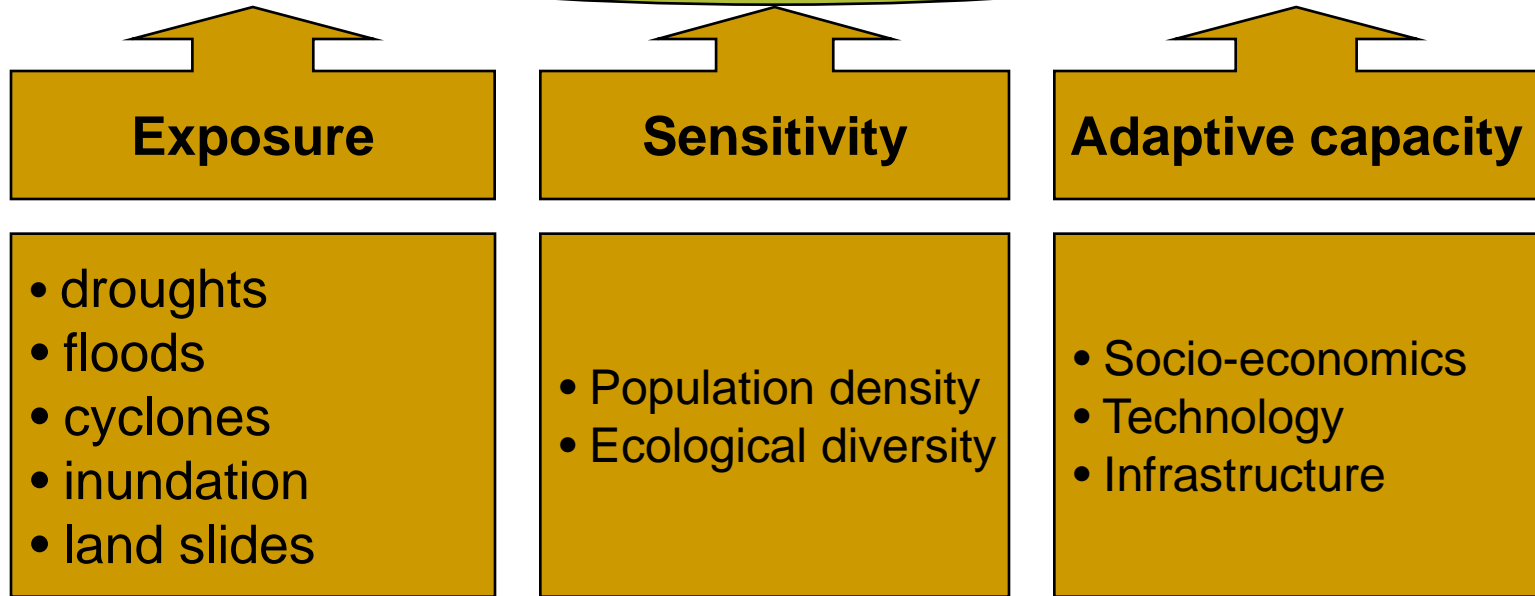
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# 1. Snapshot on Cambodia's Vulnerability to Climate Change in the South East Asian Context

*Source: International Development Research Centre, Economy and Environment Program for Southeast Asia (EEPSEA/IDRC)*

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# Vulnerability to Climate Change



Cambodia is **vulnerable to climate change** not because it is very much exposed to it but **because it is sensitive to CC and has limited adaptive capacities** (measured by socio-economic-, Infrastructure- and technology indicators).

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# *How is Cambodian Climate likely to Change?*

Climate Change may lead to **higher temperatures** and affect **rainfall pattern** in Cambodia:

- more frequent drought spells/ prolonged dry seasons
- delayed rainy seasons with intense rainfall and flash floods
- dry season river flow decreases, wet season flow increases

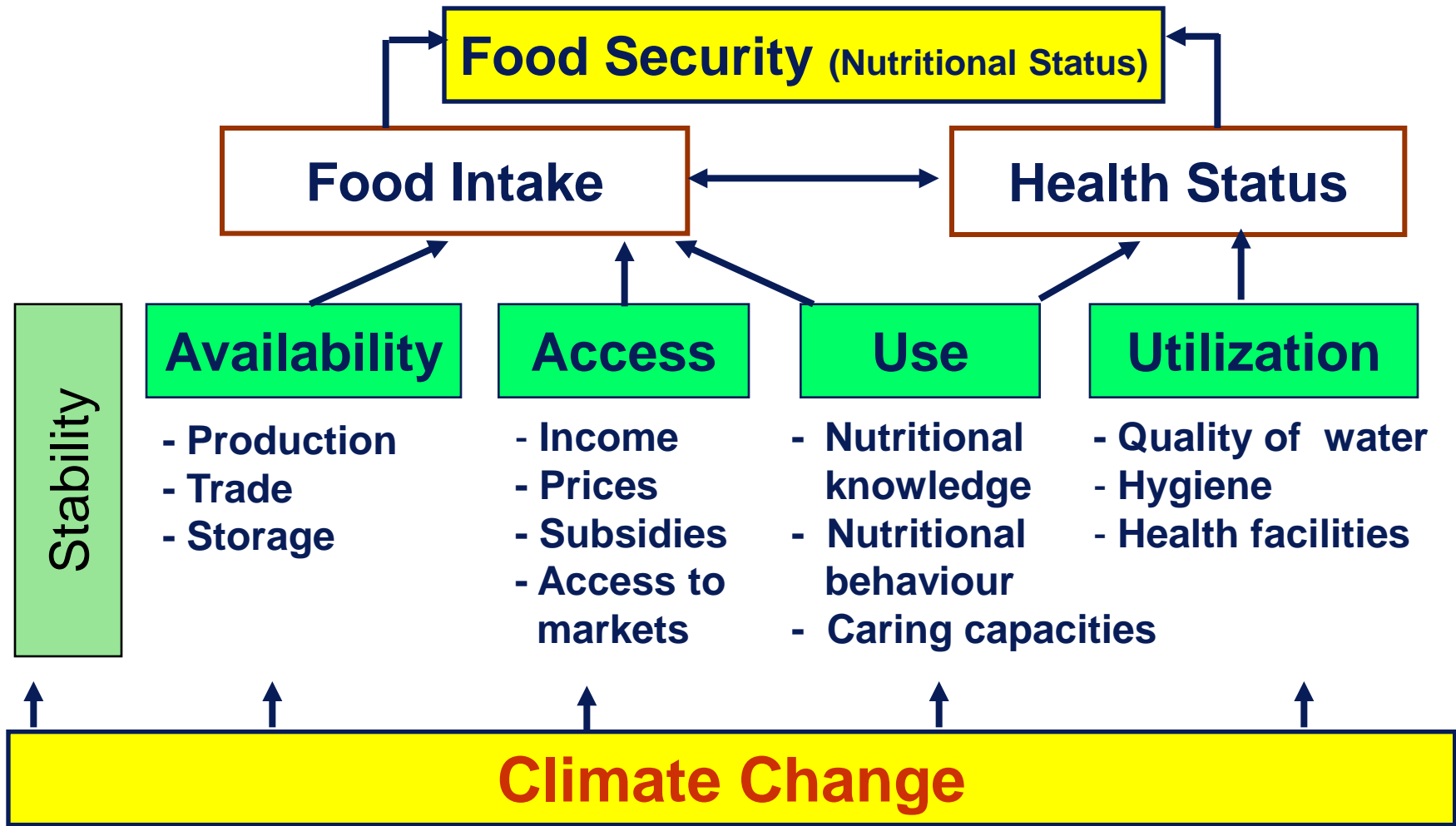
# *What makes Cambodia sensitive to climate change?*

- Cambodia's **Economy is little diversified** and depends heavily on a few sectors
- Most of **Cambodians are living in rural areas** and (to a certain extent) from low productive agriculture systems
- Cambodia's agriculture **depends heavily on rice** production (80% of total agric. production) – little diversification
- Most of **rice fields are rain fed** and depend on wet season rainfall
- **Common property resources** (food/income from forestry, fisheries) are important for poor people but affected by unsustainable use.

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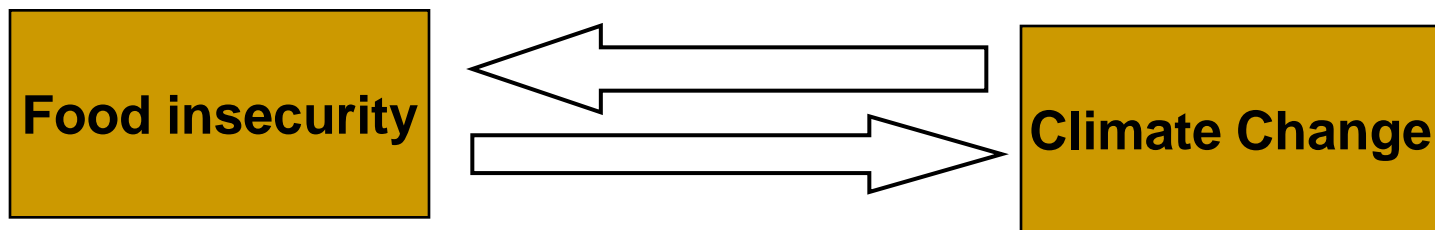
## **2. Impact of Climate Change on FSN**

# FSN depends on various factors (many of which influenced by climate change)



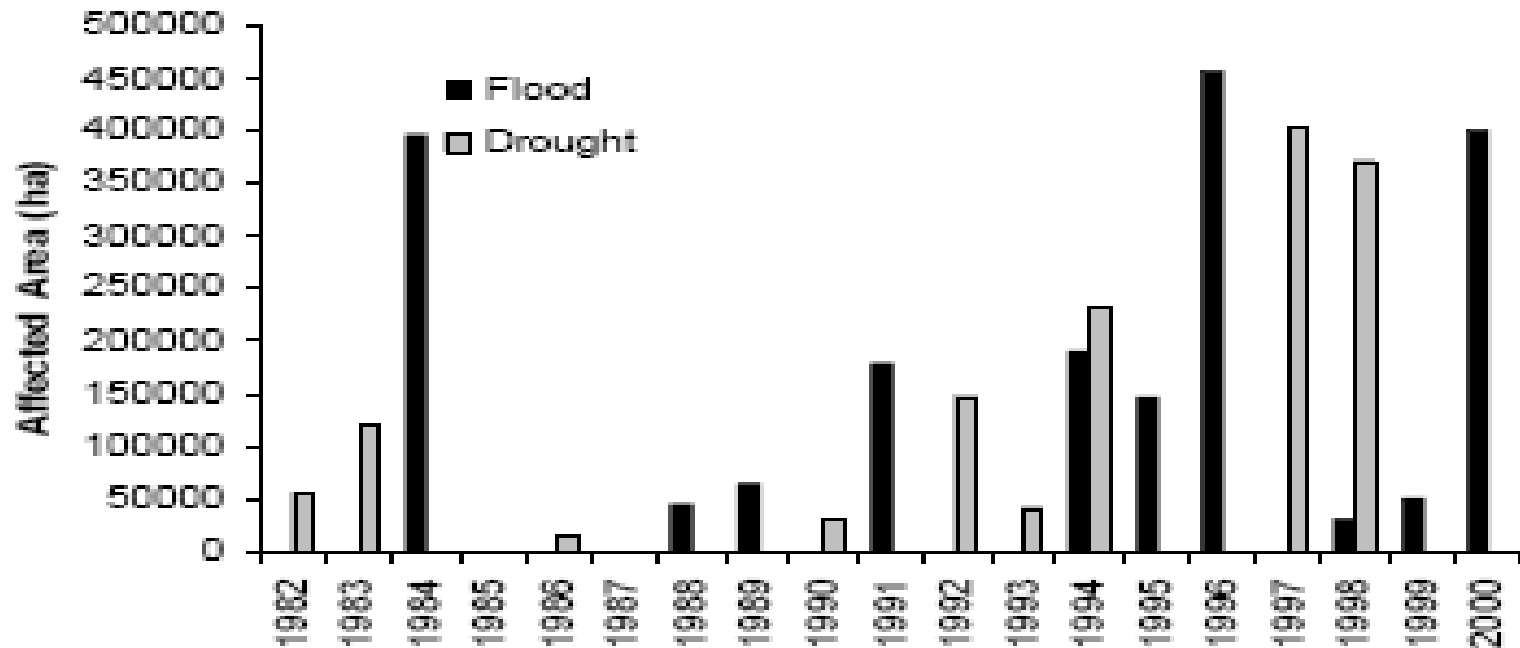


- FSN and climate change are both cross-cutting issues which need to be mainstreamed in overall development plans and sector strategies.
- Climate Change is a contributing factor to food insecurity and malnutrition in Cambodia. On the other side, high food insecurity and malnutrition make the country vulnerable to the effects of climate change.

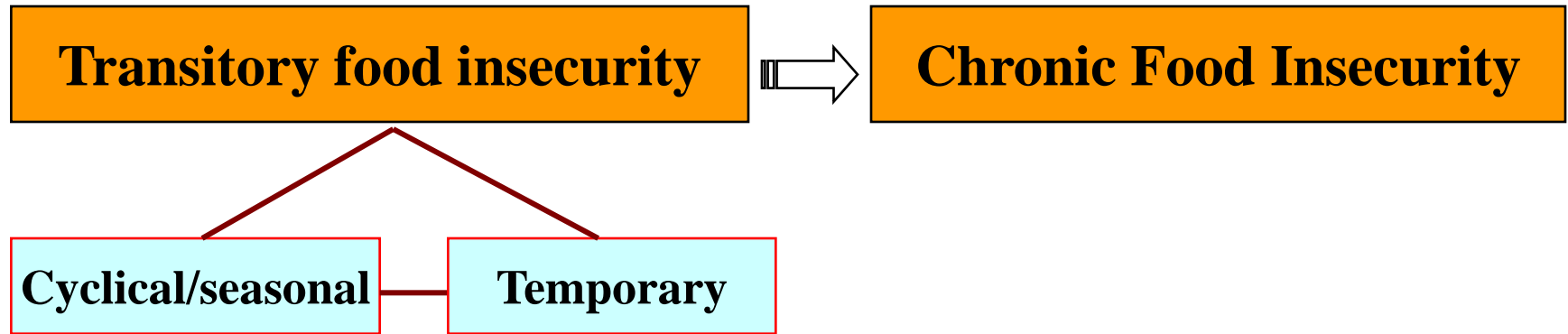


- *CARD has developed a national Strategic Framework for Food Security and Nutrition (SFFSN 2008-2012) in 2008.*
  - *Many of the recommended actions in this reference document focus on increasing resilience of poor people's livelihoods and therefore relevant to climate change adaptation.*
- *Review and update the framework and make it become a strategy for food security and nutrition.*

- Floods and droughts affected already in the past large rice cultivated areas:



- Frequency and intensity of droughts and floods seem to have increased and will specifically impact food insecure smallholders in Cambodia.
- Drought/flood-related crop failure lead to transitory food insecurity and often result in chronic food insecurity (Stability aspect of FSN).



- **Transitory food insecurity** is either cyclical/seasonal (e.g. rice gaps during “lean season”) or temporary (e.g. **droughts, floods**...leading to loss of production and income)
- Transitory food insecurity may lead to **chronic food insecurity**, where parts of the population (vulnerable groups) are permanently not in a position to ensure their food needs → Selling assets or borrowing to meet food needs

# Climate Change may:

- increase frequency of crop pests (+ new pest and diseases)  
→ ***lead to long-term decline in agricultural productivity***
- affect fish catches (already smaller fishes and fewer species) (fish provides 40-50% of protein intake → effects on nutrition status)
- cause underground water salinisation and seawater intrusion increase in coastal regions
- contribute to increase of water borne diseases (malaria, dengue fever) as well as diarrhoeal diseases → impacts nutrition status

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# 3. Adaptation strategies to reduce effects of climate change on food security

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- **Improve water management**
    - irrigation (only 20% of cultivated area irrigated)
    - water harvesting and storage systems (specifically benefiting food-insecure farmers)
  - **Improve access to seeds** (incl. drought/flood resistant varieties) for food-insecure farmers
  - **Diversifying farming systems** (staples and cash crops) and adjust systems to changed climatic conditions through viable crop and animal husbandry techniques
  - **Introduce effective land use planning**
  - **Improve crop storage** techniques, increase national/region food reserves and promote village based "grain banks"
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- **Promote sustainable** (community-based) **management of common property** resources (fisheries and forestry)
- **Strengthen disaster preparedness and mitigation** capacities (early warning, flood protection infrastructure)
- Improve access to **safe water and sanitation**;
- Strengthen **malaria and dengue fever** control efforts
- Diversify livelihoods – **create alternative (non-agricultural) income** opportunities in rural areas
- Intensify **research** on impacts of climate change on FSN and **disseminate information** on effective adaptation

*Climate change increases vulnerability of poor, food insecure households*

- **Provision of "social safety nets" (SSN)** is important to allow the poor to mitigate risks and “negative coping strategies” and to invest in human and economic capital
- ☞ *The Royal Government of Cambodia, through CARD, has developed and recently approved National Social Protection Strategy for the poor and vulnerable.*
  - **Public Works Program (PWP):** provide income opportunities to the poor and create productive infrastructure (which can have a direct link to climate change like irrigation, flood infrastructure, reforestation etc.)
  - **Cash transfer to the most vulnerable** to protect against distortion of human capital (child nutrition/education)
  - **Insurance for farmers against weather hazards/crop failure** may cushion the impact of droughts and floods



# THANK YOU !



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