

Insurance for Long-term Post-Disaster Recovery and Adaptation

SVRK Prabhakar
IGES, Japan

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Risk Insurance in Post-Disaster Recovery?

- Typical view of disaster recovery:
 - Infrastructure
 - Health
 - Education
 - Transportation
 - Livelihoods
 - Agriculture
 - Fisheries
 - Manufacturing
 - Social capital
 - Community building
- Insurance?
 - Though insurance is purchased before disaster, its actual role is in post disaster recovery.
 - Insurance can be effective when it is combined with reconstruction.
 - However, insurance has largely been missing from the portfolio of post-disaster recovery approaches.

What is limiting the potential of risk insurance in post-disaster recovery?

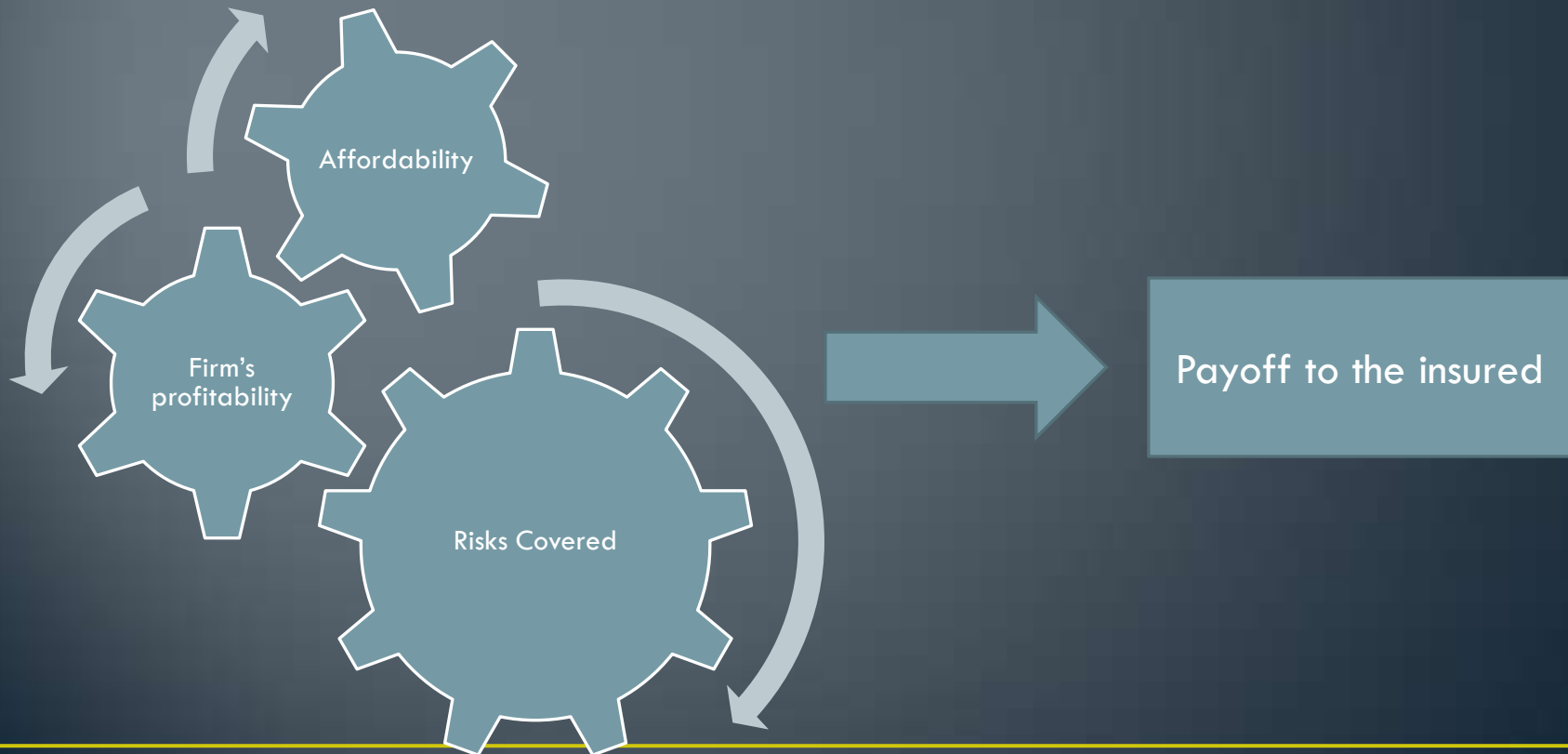
How can insurance be effective?

What is Limiting Risk Insurance Role in Long-term Recovery?

- Can promote emphasis on risk mitigation especially when insurance is made mandatory and there is proper insurance price signal given: **Insurance is largely subsidized in developing countries when present (especially in agriculture sector); In urban sector, insurance is either not mandatory or largely absent.**
- Covers the residual risks not covered by the other risk reduction mechanisms. **High basis risks could be a spoiler.**
- Stabilizes rural incomes: reduce the adverse effects on income fluctuation and socio-economic development: **Delayed payments, insufficient coverage of hazards.**
- Reduced burden on government resources for post-disaster relief and reconstruction: **Subsidization.**
- Provides opportunities for public-private partnerships.

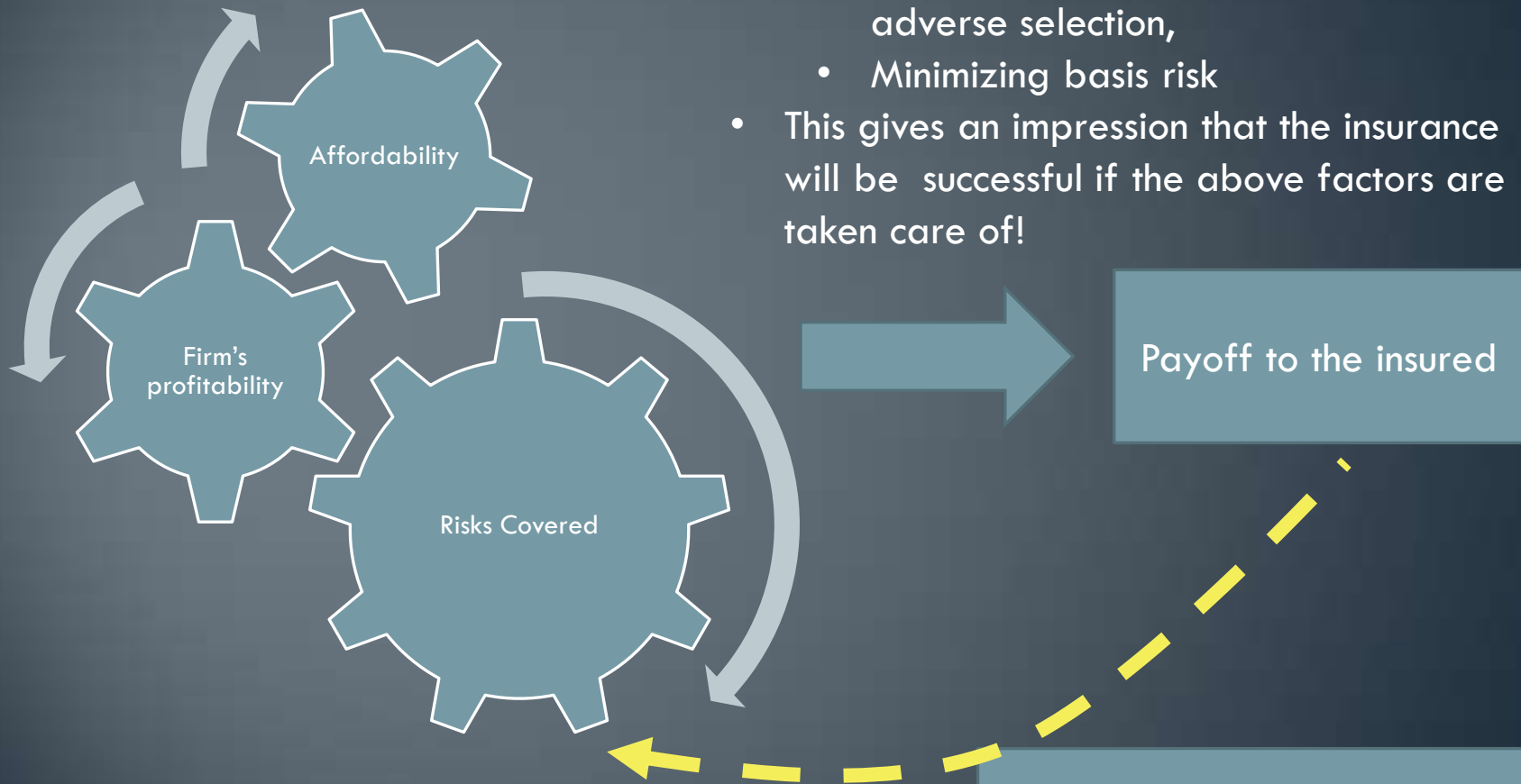
The Notion of Insurance Effectiveness vis-a-vis Recovery

- Traditional understanding of insurance effectiveness:
 - Has the insurance delivered the contractual obligations i.e. payoffs as agreed in the contract.



Is this sufficient?

- Most literature and experiences talks insurance effectiveness in terms of
 - How many people are insured (Economies of scale),
 - How to avoid moral hazard and adverse selection,
 - Minimizing basis risk
- This gives an impression that the insurance will be successful if the above factors are taken care of!



- How the payoffs are spent?
- Has there been long term reduction in risks?

E.g. Sugarcane Insurance in Japan

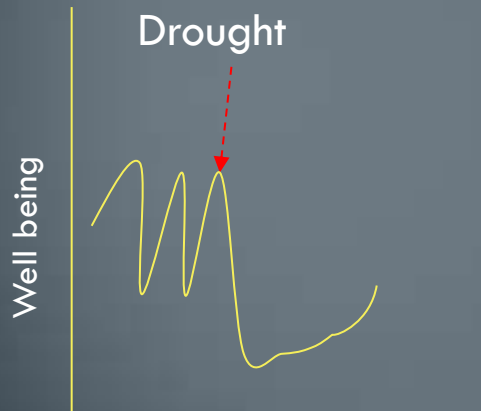
- **Farmer 1:** Okinawa mainland, has <100 acres
Premiums: $\text{¥}9,000 \times 7 \text{ years} = \text{¥}63,000$
Indemnities: $\text{¥}83,000$ (in 2012) = **NET BENEFIT!**
- **Farmer 2:** Okinawa mainland, has area of 338a
Premiums: $\text{¥}70,000 \times 10 \text{ years} = \text{¥}700,000$
Indemnities: $\text{¥}1,470,000$ (in 2012) = **NET BENEFIT!**
- **Farmer 3:** Irab island
Premiums for 24 years = $\text{¥}3,000,000$
Indemnities: $\text{¥}5,000,000$ (in 2012) = **NET BENEFIT!**



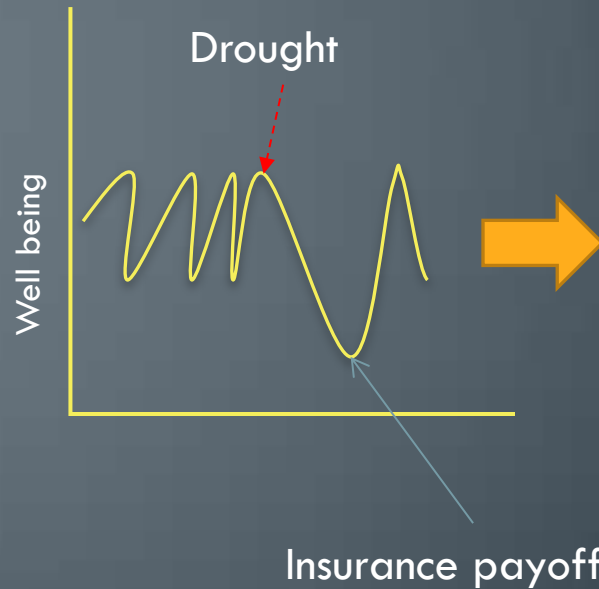
Evidence for farmers investing in better management practices?

Can Insurance Lead to Adaptation Situation?

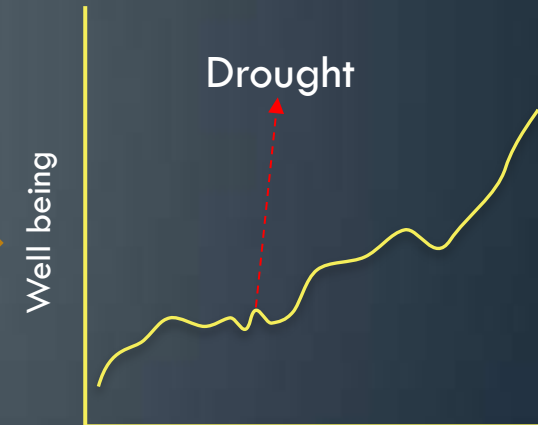
Vulnerable situation



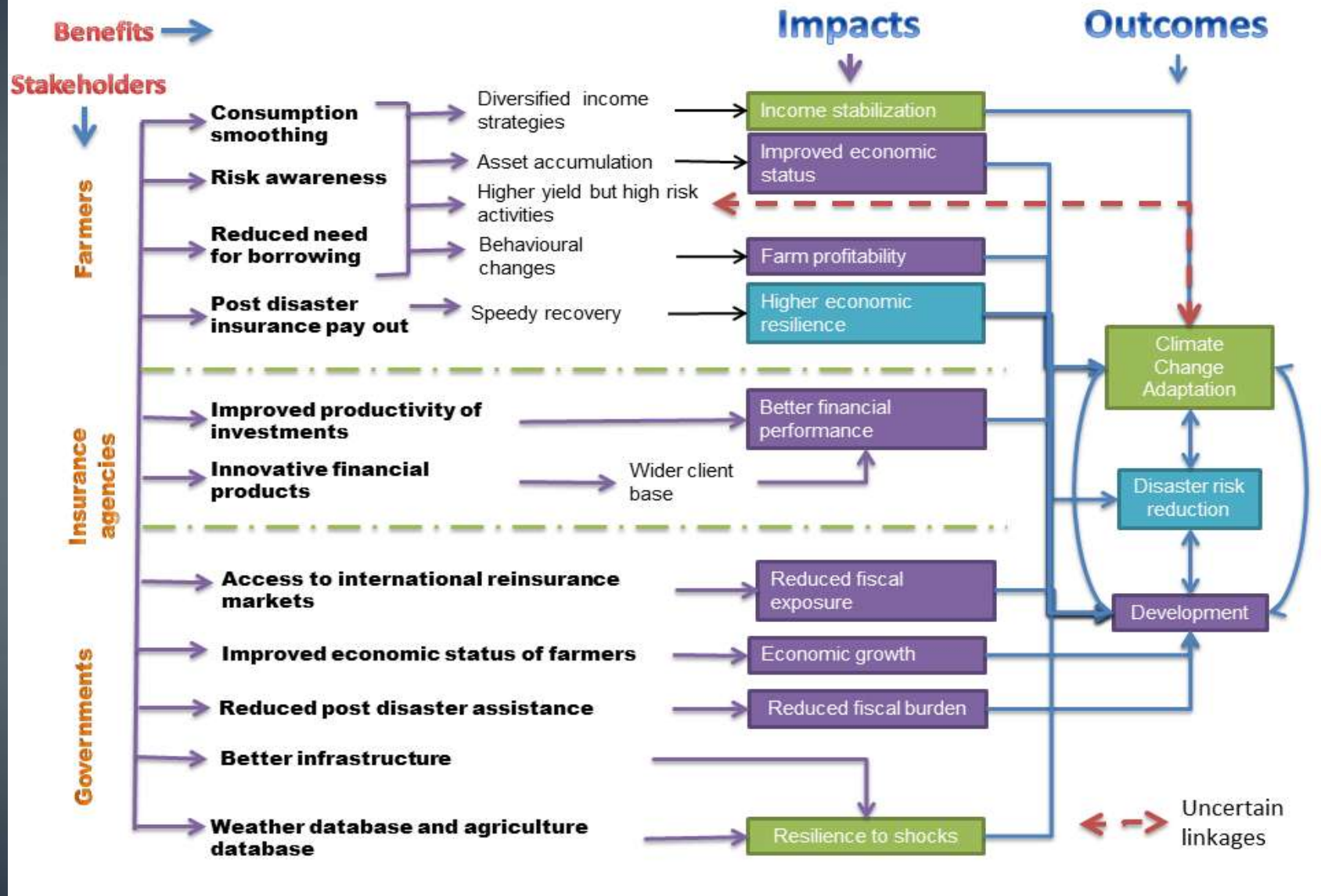
Resilient situation



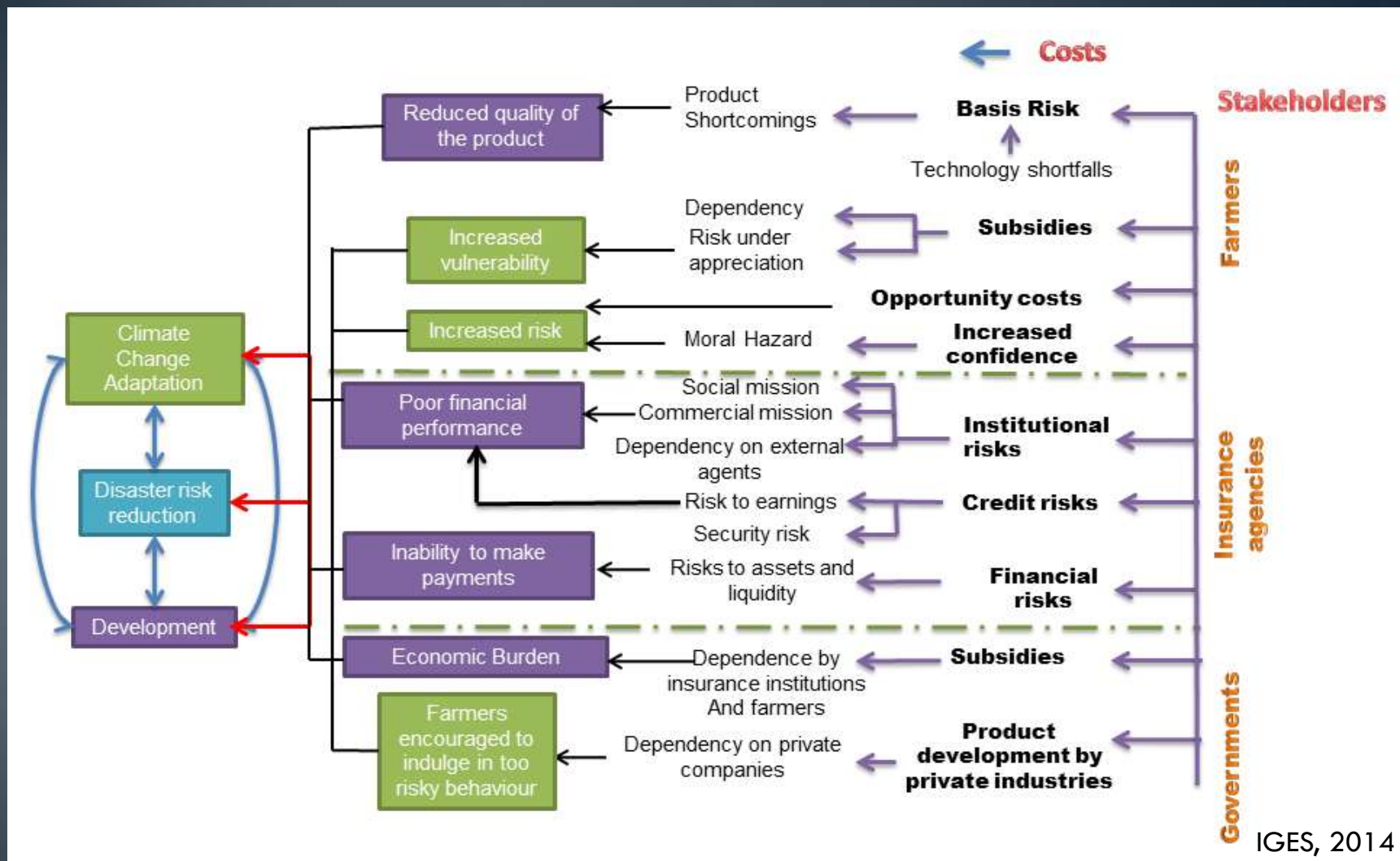
Adaptation situation



Conceptual framework for insurance benefits



Conceptual framework for insurance costs



The message: Insurance can have both costs and benefits and net benefit in terms of long-term recovery is not always assured at the overall system level depending on how the insurance is designed

How Insurance Can Lead to Long-term CCA-DRR Benefits?

- When it was combined with post-disaster reconstruction
 - Combining fire and earthquake insurance with reconstruction of houses
- Mandatory requirement
 - Japan, mandatory fire and earthquake insurance with right insurance price signal has led to higher emphasis on risk mitigation leading to long-term reduction in risks
- Right price signal
 - Avoiding subsidies (e.g. agriculture) and instead spending on risk mitigation options

- Appropriate insurance and contract design
 - Multi-peril and location specific insurance approaches including weather index insurance
 - **By reducing basis risks**
 - Mandatory combination of risk mitigation and risk spreading instruments
 - **Reducing basis risks, lessening disaster losses**
 - Making female members of household the beneficiary of insurance payoff
 - **Economic empowerment and share in risk management decisions**
 - Innovative solutions such as linking savings with insurance
 - **Effectively high liquidity situation of households that can be used for nutrition, health and education**

References

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Thank You!

prabhakar@iges.or.jp