



Resilience for Food and Nutrition Security

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A Barrage of Shocks



More frequent
More intense
Evolving and unexpected



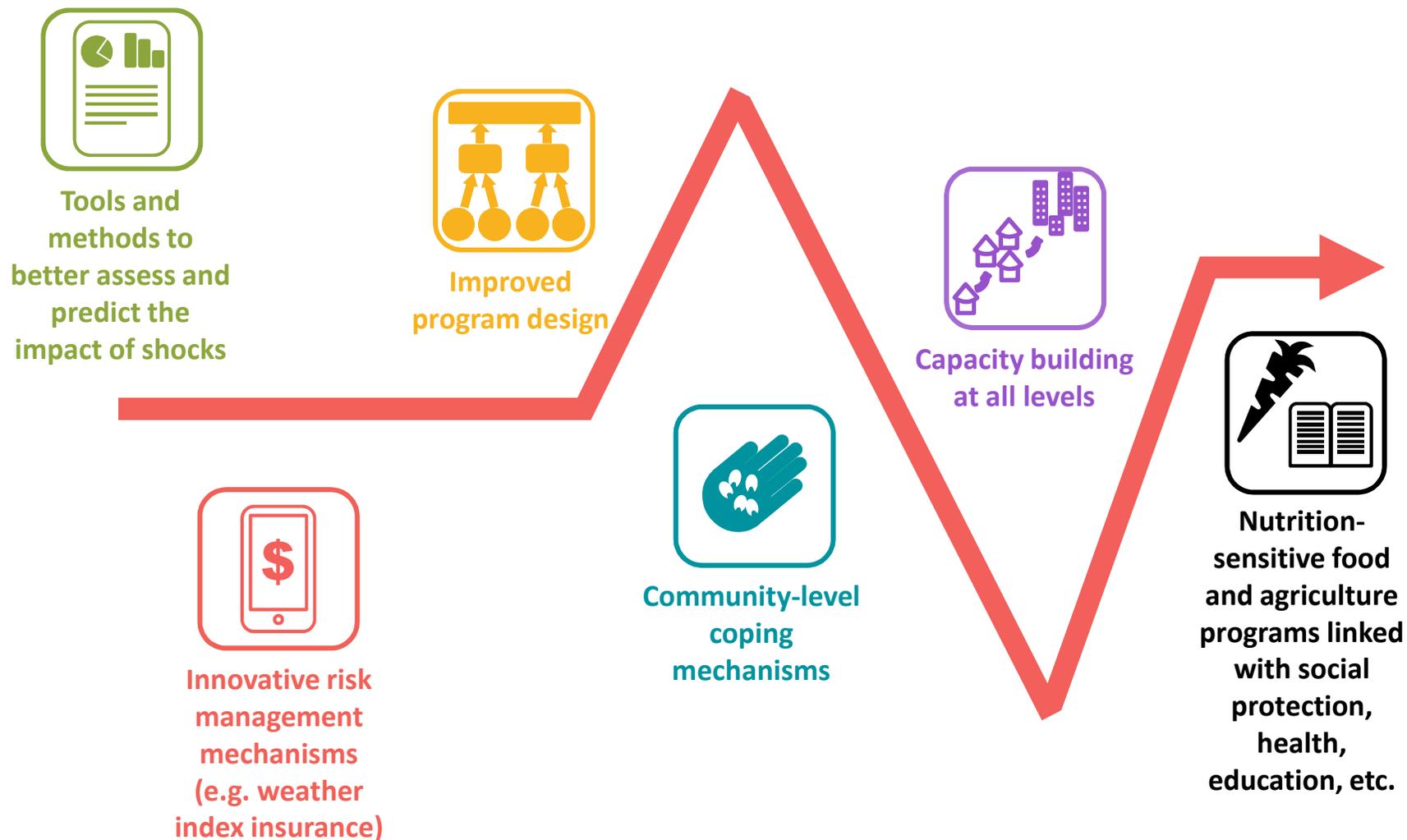
Understanding Resilience

Building resilience means helping people, communities, countries, and global institutions prevent, anticipate, prepare for, cope with, and recover from shocks and not only bounce back to where they were before the shocks occurred, but become even better-off.

IFPRI 2020 Consultation definition



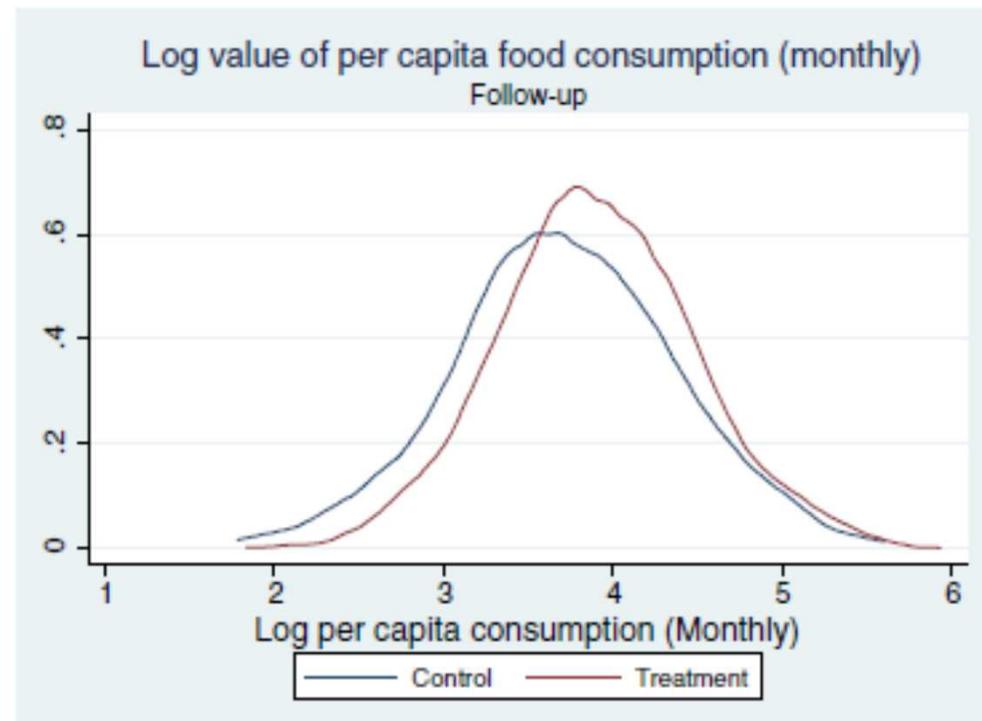
Investments to Build Resilience





Social Protection and Resilience

- How safety nets improve welfare for the poor and help households respond to shocks?
- Hidrobo, Hoddinott, Peterman, Margolies and Moreira “Cash, food or vouchers?” 2014, *JDE*
 - all three modalities increase food consumption (qty and value)
 - food transfers increase calories; vouchers improve dietary diversity
 - transfers reduce conflict in the household and intimate partner violence



Source: Dan Gilligan, 2015



Attention to Gender Improves Efforts to Increase Resilience to Climate Change

- In Senegal, men are more aware than women of climate change, its effects and adaptation strategies
- As a result, women are less likely to adopt practices and technologies needed to increase resilience
- In Kenya, providing women information about climate change closed the gender gap in agricultural technology adoption

	Nyando, Kenya			Wote, Kenya		
	Women (n=200)	Men (n=200)	Significant difference	Women (n=175)	Men (n=176)	Significant difference
Climate Smart Practices						
Agroforestry	34%	24%*		72%	93%*	
Terraces/bunds	45%	41%		95%	98%	
Water harvesting	38%	21%*		29%	31%	
Irrigation	21%	14%*		9%	10%	
Planting pits	48%	26%		6%	7%	
Crop residue/mulching	92%	67%*		75%	87%	
Improved HYVs	60%	30%*		92%	99%	

Source: Dan Gilligan, 2015



Resilience, Humanitarian Assistance and Conflict

- IFPRI has substantial ongoing research on how climate shocks and food insecurity contribute to civil conflict
- Breisinger et al. (2015) “How to build resilience to conflict” IFPRI Food Policy Report 28
- Maystadt and Ecker (2014) “Extreme weather and civil war: Does drought fuel conflict in Somalia” *Am. J. Agr. Econ.*
 - Follow Miguel, Satyanath & Sergenti, “Economic shocks and civil conflict” *Jl. Pol. Econ.*
 - Find that a one std. dev. increase in drought intensity and length raises likelihood of local conflict by 62%



Environmental Sustainability

1. Investing in sustainable intensification
2. Tackling unsustainable intensification, mainly in higher potential or irrigated areas
3. Addressing unsustainable “non-intensification” (or partial intensification), mainly in less-favored areas



Recommendations for Reform

- **Water and Irrigation Policy**
 - Phase out water subsidies
 - Secure water rights for users
 - Establish markets in tradable water rights
- **Input Policy**
 - Reduction and eventual removal of input price subsidies
 - Investment in agricultural research and development
- **Price and Trade Policy**
 - Remove trade and price distortions
 - Develop new resource-conserving technologies to reduce economic and ecological costs per unit of output produced



Resilient Food and Agriculture System

Resilience is all about ensuring a healthy, sustainable global food and agricultural system that can provide nutritious food for all without damaging the planet

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