



RESEARCH  
PROGRAM ON  
Livestock

*More meat, milk and eggs by and for the poor*

# And what should we do today?

Developing a research-for-development agenda for livestock

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Demand for livestock commodities in developing economies will be met—the question is *how*



Scenario #1

*Importing livestock products*



Scenario #2

*Importing livestock industrial production know-how*



Scenario #3

*Transforming smallholder livestock systems*

Photo credits: 1: The Nation;  
2: farmsanctuary.org; 3: ILRI

# Focus on smallholder livestock farmers and their value chains

- Not sentimentality or a belief in “small is beautiful”
- Based on the evidence and the dual objectives of
  - increasing animal source food supply to consumers
  - supporting rural development and livelihoods
- The evidence:
  - They produce the bulk of the livestock (and half of crop) products in developing countries so need to be part of increase supply strategy
  - They continue to be competitive so won't go away on their own
  - Does not detract from investing in larger commercial systems

# The continued importance of the smallholder sector

Region (definition of 'smallholder')	% production by smallholder livestock farms					
	Beef	Chicken meat	Sheep/goat meat	Milk	Pork	Eggs
<b>East Africa</b> (≤ 6 milking animals)				60-90		
<b>Bangladesh</b> (< 3ha land)	65	77	78	65		77
<b>India</b> (< 2ha land)	75	92	92	69		71
<b>Vietnam</b> (small scale)					80	
<b>Philippines</b> (backyard)		50			35	

# Three trajectories for livestock systems

## **Strong growth**

Intensifying and increasingly market oriented often transforming smallholder systems



## **Fragile growth**

Where remoteness, marginal land resources or agro climatic vulnerability restrict intensification



## **High growth with externalities**

Intensified livestock systems with diverse challenges including the environment and human health

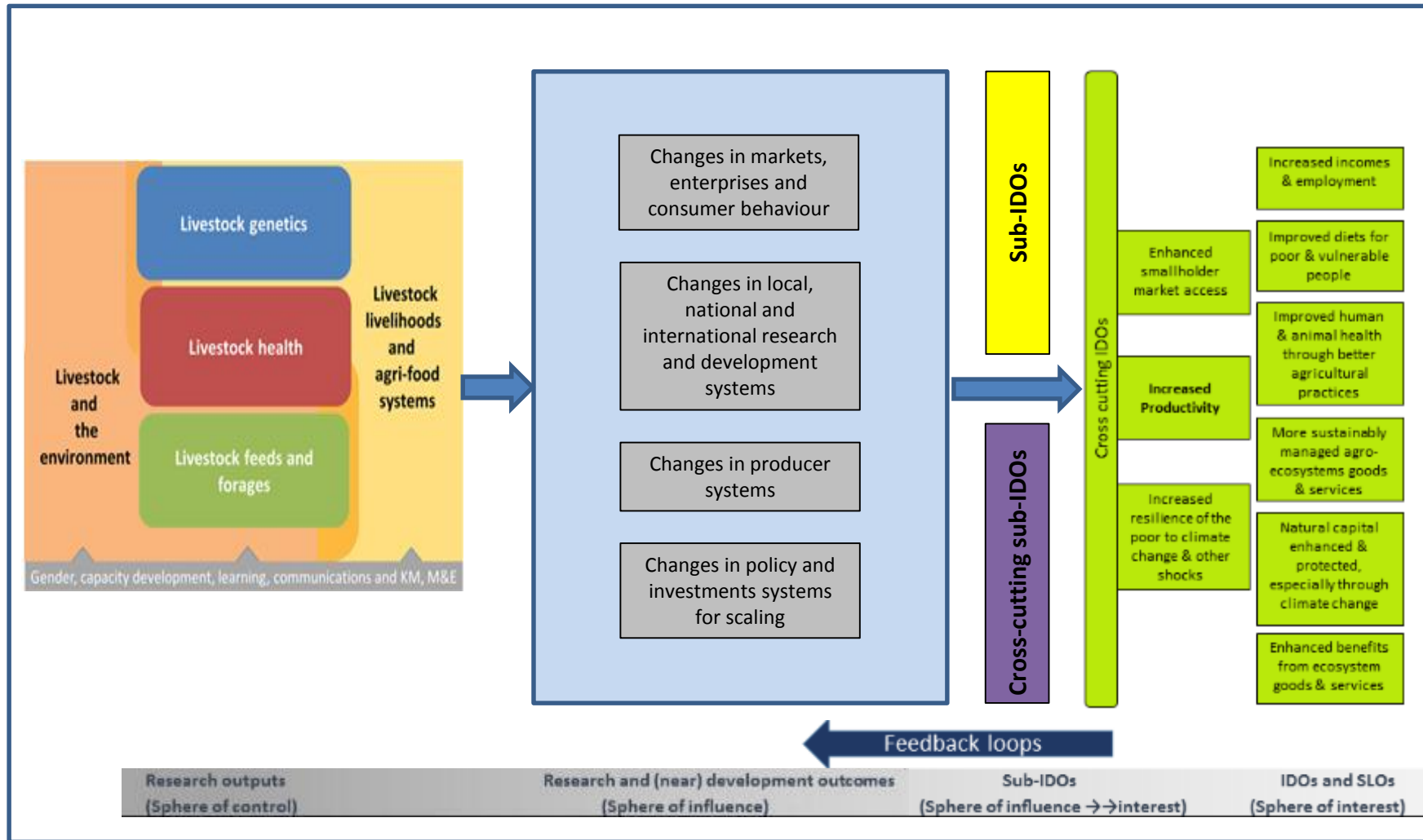




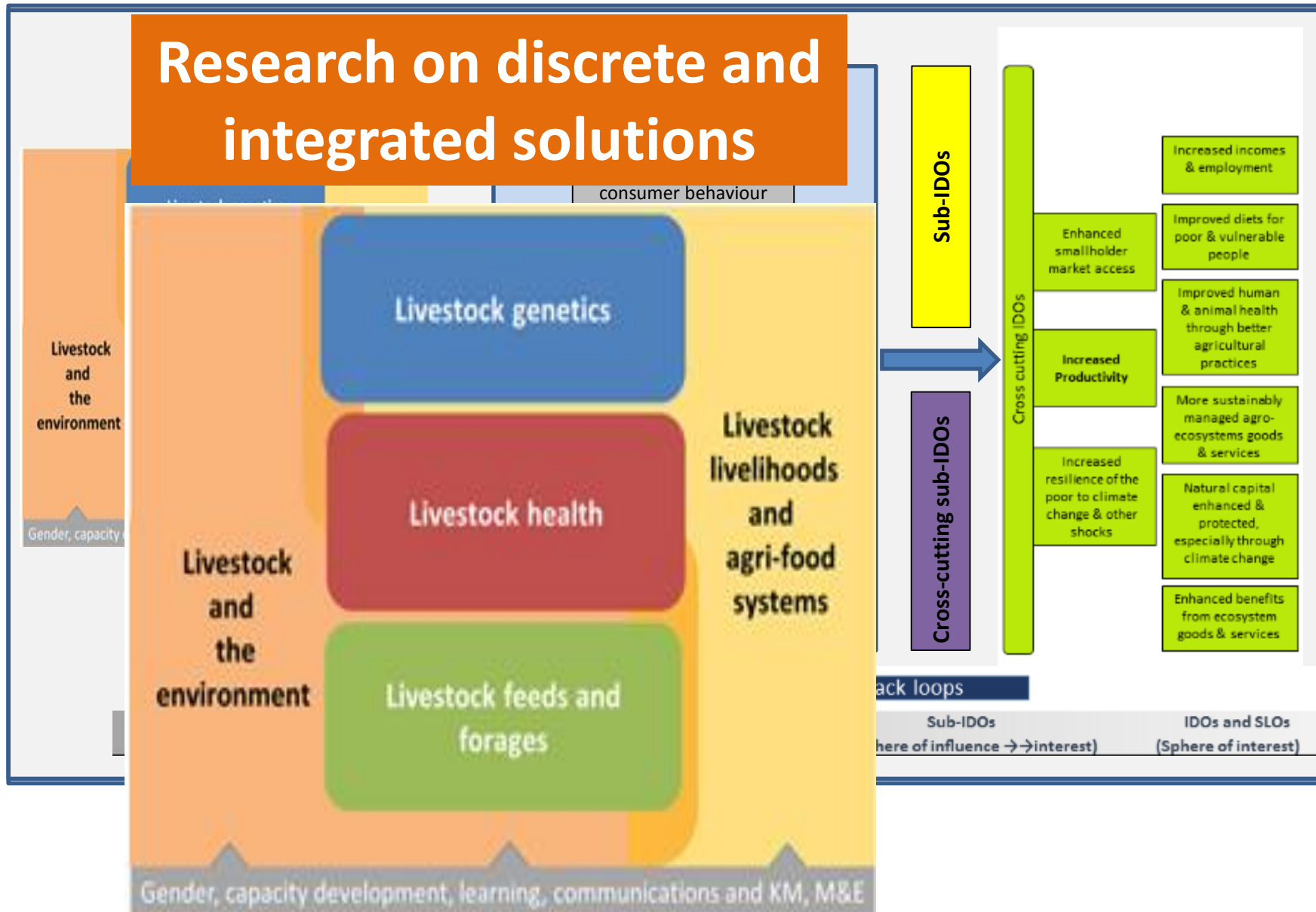
# Distinguishing opportunities

Trajectory	Sector	Issues	Opportunities
'Strong growth'	Ruminant meat and milk, esp. in SSA, India – Pork in some regions	<ul style="list-style-type: none"> <li>– Sustainable productivity</li> <li>– Market access and food safety</li> <li>– Zoonotic outbreaks</li> </ul>	Novel approaches spanning sustainable productivity, markets, institutional and policy issues, risk analyses
'Fragile growth'	Some smallholder and pastoral systems; little part in the production response	<ul style="list-style-type: none"> <li>– Multiple endemic diseases</li> <li>– Zoonoses</li> <li>– Source of disease</li> <li>– Movement controls</li> </ul>	Mostly public sector interventions, mitigating vulnerability, improving resilience
'High growth with externalities'	Mostly monogastric – China for all sectors	<ul style="list-style-type: none"> <li>– Environmental</li> <li>– Drug resistance</li> <li>– Climate impacts on new vector and pathogen dynamics</li> <li>– Disease scares</li> </ul>	Modalities of operation with private sector largely established. Managing environment and health risks and consumer demand

# A Theory of Change for livestock research



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**Enabling changes in the  
4 main pathways for  
livestock development  
requiring a range of  
partnerships with  
development actors and  
private sector**

Changes in local,  
national and  
international research  
and development  
systems

Changes in producer  
systems

Changes in markets,  
enterprises and  
consumer behaviour

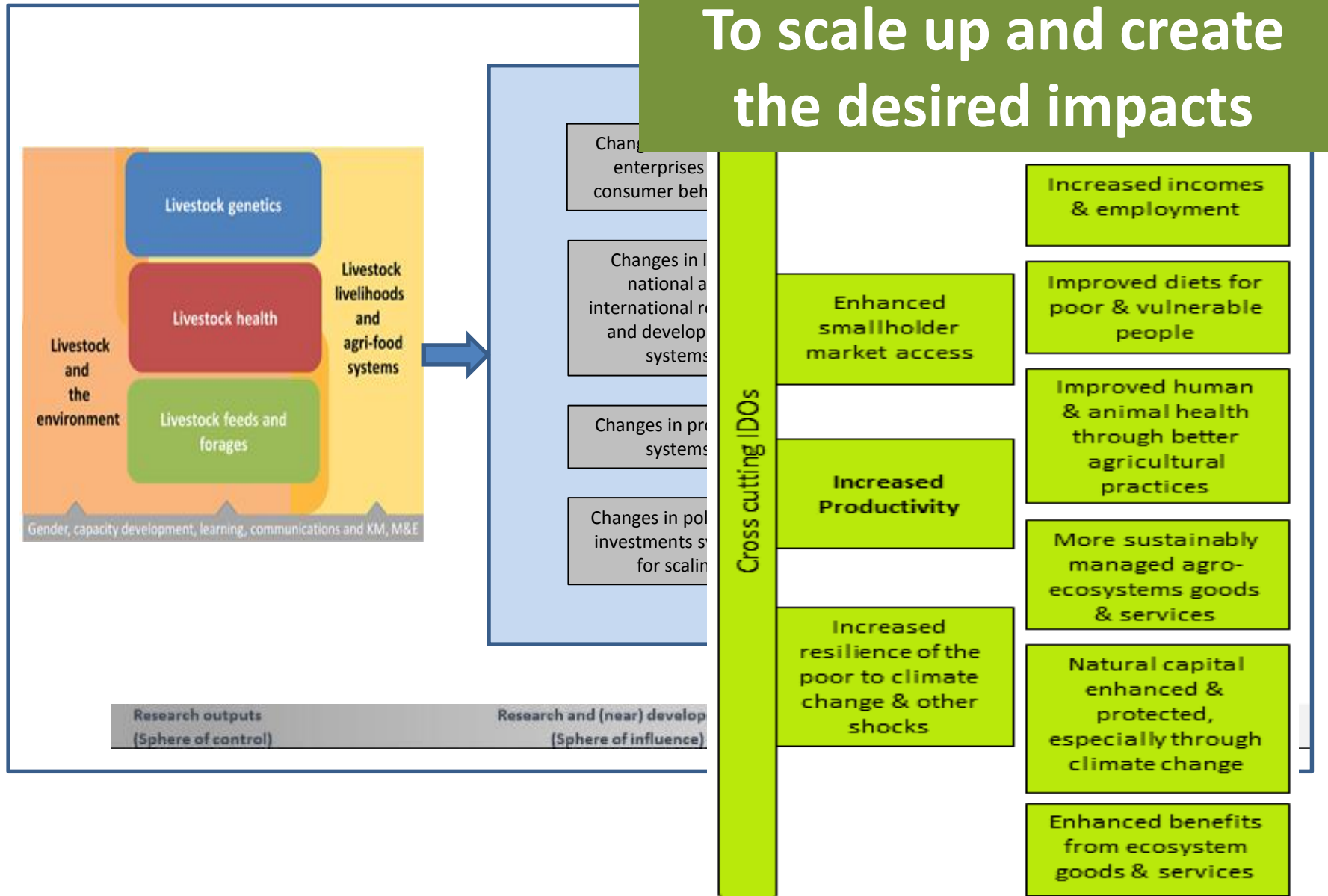
Changes in policy and  
investments systems for  
scaling

Research outputs  
(Sphere of control)

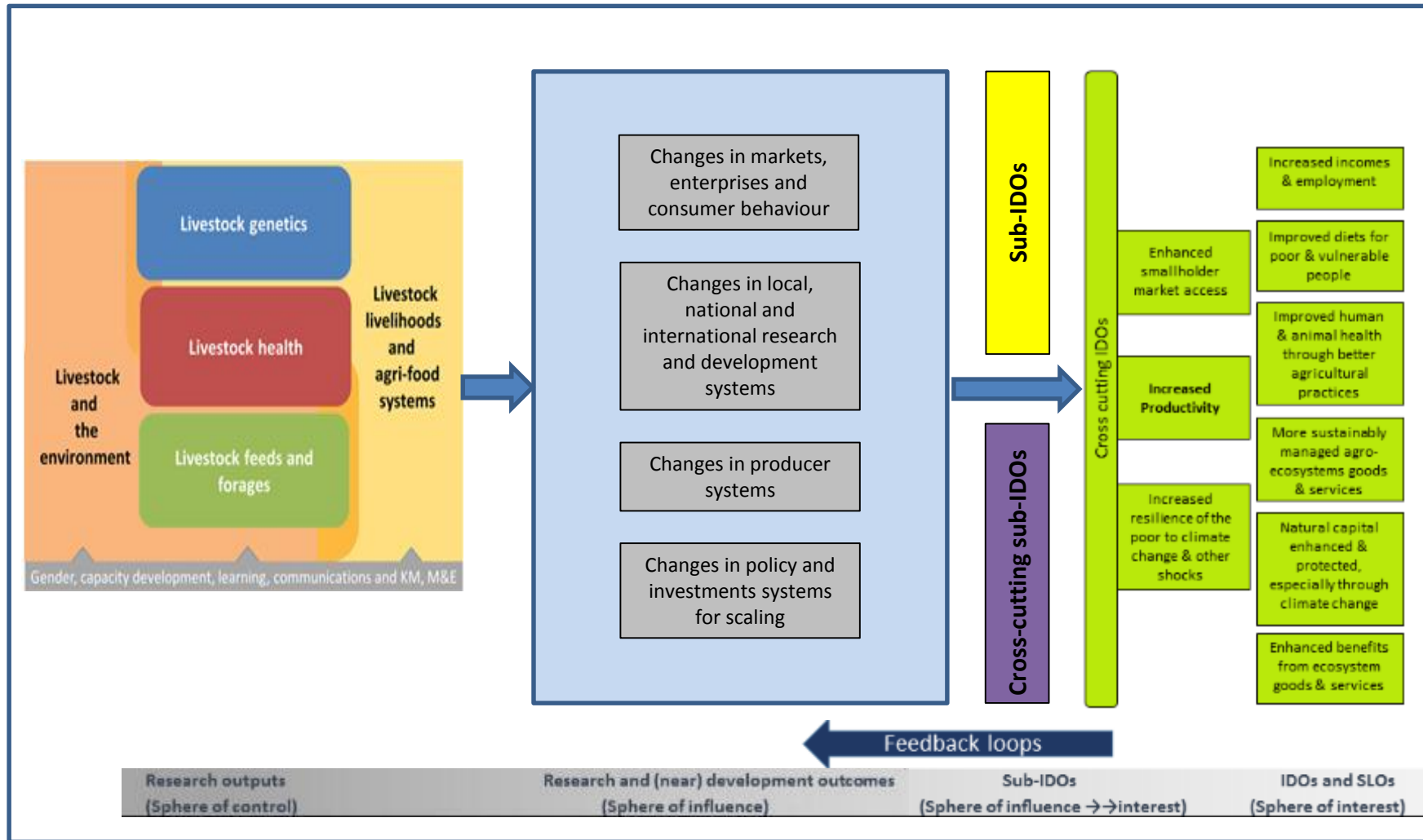
Research and (near) develop  
(Sphere of influence)

# A Theory of Change for livestock research

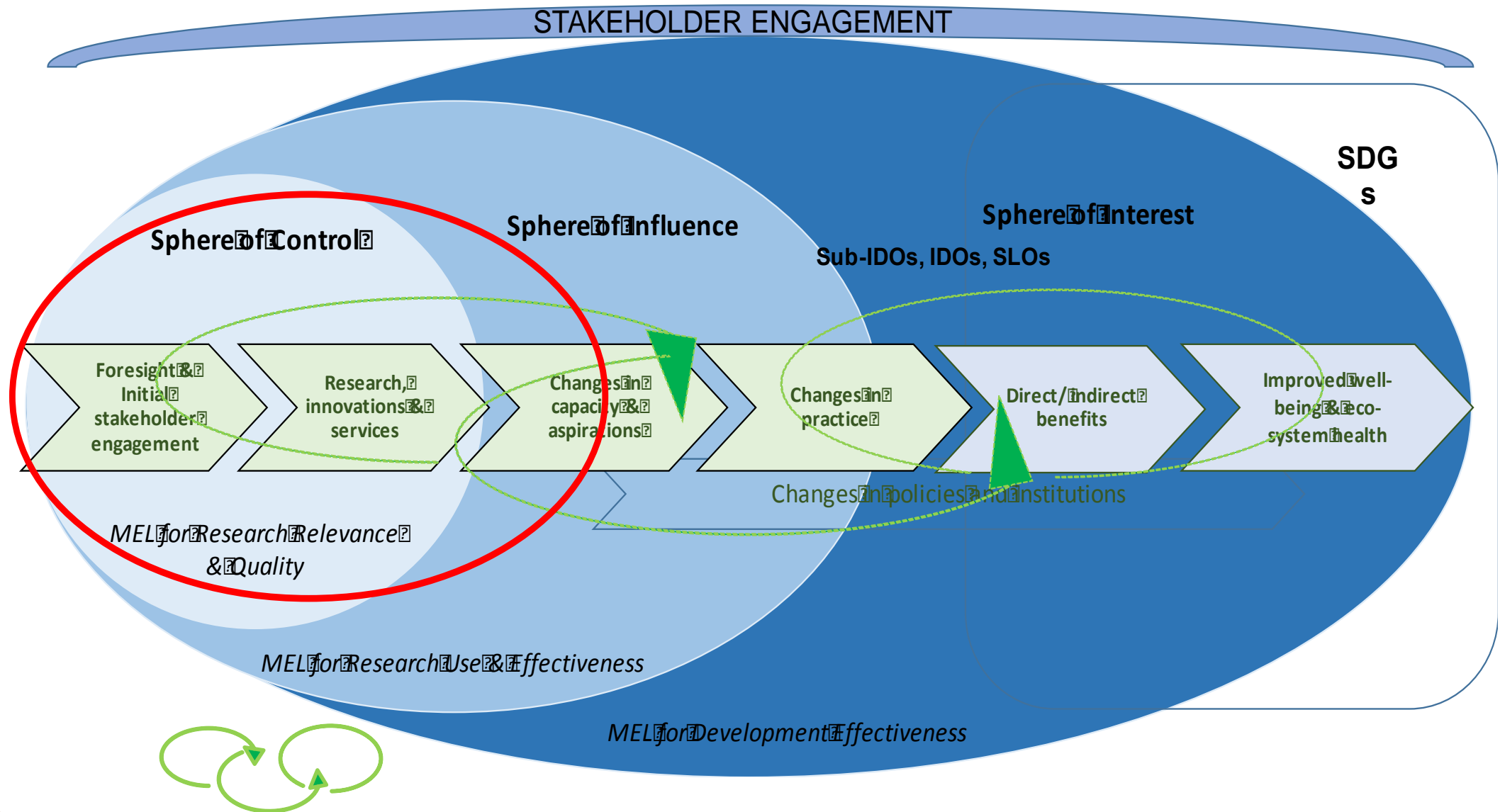
To scale up and create the desired impacts



# A Theory of Change for livestock research



# Doing research with the end in mind, requiring new partnerships



Rapid assessment and learning loops

Credit: Tonya Scheutz, Indicators Task Force

# Key points

For international agricultural research to contribute to the SDGs:

- Focus should be on supporting **sustainable intensification in smaller scale systems** and on **strengthening resilience** where the trajectory is fragile growth
- An **integrated research portfolio** needs to rely on technology drivers together with environmental and socio-economic factors
- Research must have a thoughtful Theory of Change that has the **end in mind** and understands the **new types of partnerships** needed to get to impact

# CGIAR Research Program on Livestock

[livestock.cgiar.org](http://livestock.cgiar.org)



The program thanks all donors and organizations which globally support its work through their contributions to the [CGIAR system](http://CGIAR.org)

The **CGIAR Research Program on Livestock** aims to increase the productivity and profitability of livestock agri-food systems in sustainable ways, making meat, milk and eggs more available and affordable across the developing world.



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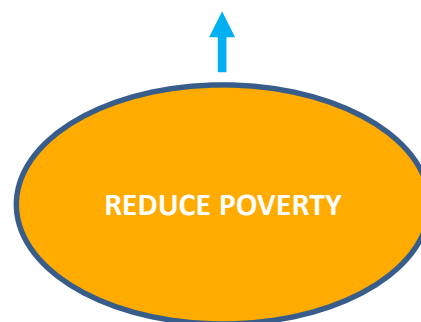
Trajectory	Sector	Opportunities for research to address development challenges
<p><b>‘Strong growth’</b> Intensifying and increasingly market oriented often transforming smallholder systems</p>	<p>Ruminant meat and milk, esp. in SSA, India – Pork in some regions. Priority value chains (livestock and fish CRP); some rangeland systems (systems CRPs)</p>	<p>Sustainable food systems that deliver key animal-source nutrients Facilitating a structural transition to fewer households raising more productive animals in more efficient, intensive and market-linked systems Market access and food safety; (Zoonotic outbreaks)</p>
<p><b>‘High growth with externalities’</b> Intensified livestock systems with challenges including the environment and public health</p>	<p>Mostly monogastric – China for all commodities. A4NH, CCAFS, WLE especially per-urban locations</p>	<p>Incentives, technologies, strategies and product and organizational innovations that mitigate the environmental and public health risks and facilitate participation of the poor in livestock markets and other business opportunities.</p>
<p><b>‘Fragile growth’</b> where remoteness, marginal land resources or agro climatic vulnerability restrict intensification</p>	<p>Some smallholder and pastoral systems; little part in the production response. Selected systems CRP locations</p>	<p>Enhance the essential roles of livestock in the resilience of people and communities to variability in weather, markets or resource demands Protection of assets (eg insurance) and conservation of natural resources. Opportunities such as payment for ecosystem services could become increasingly important</p>

# Strong growth in developing-country livestock sectors are opportunities

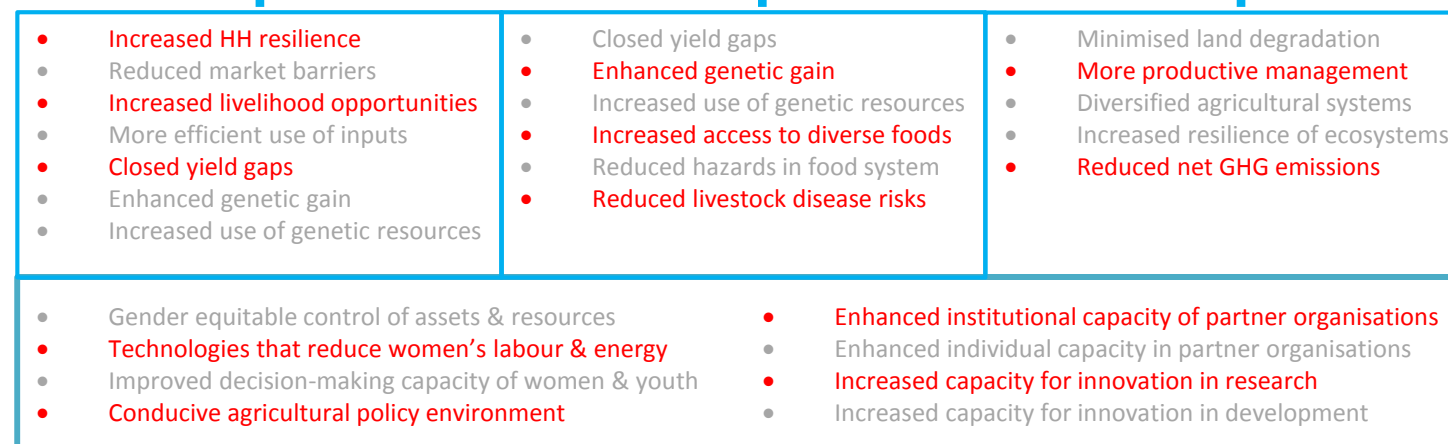
- Of the world's almost 1 billion smallholder livestock producers, it's expected that:
  - One-third will find alternate livelihoods
  - One-third may or may not remain part of the transformation of the livestock sector
  - One-third will succeed at market-oriented livestock livelihoods
- The on-going transitions in smallholder livestock systems that will take place in coming decades present opportunities to close yield gaps not only of commodity levels but also of environment, equity and health benefits



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CRP  
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# Product Line in the IP/ToC

