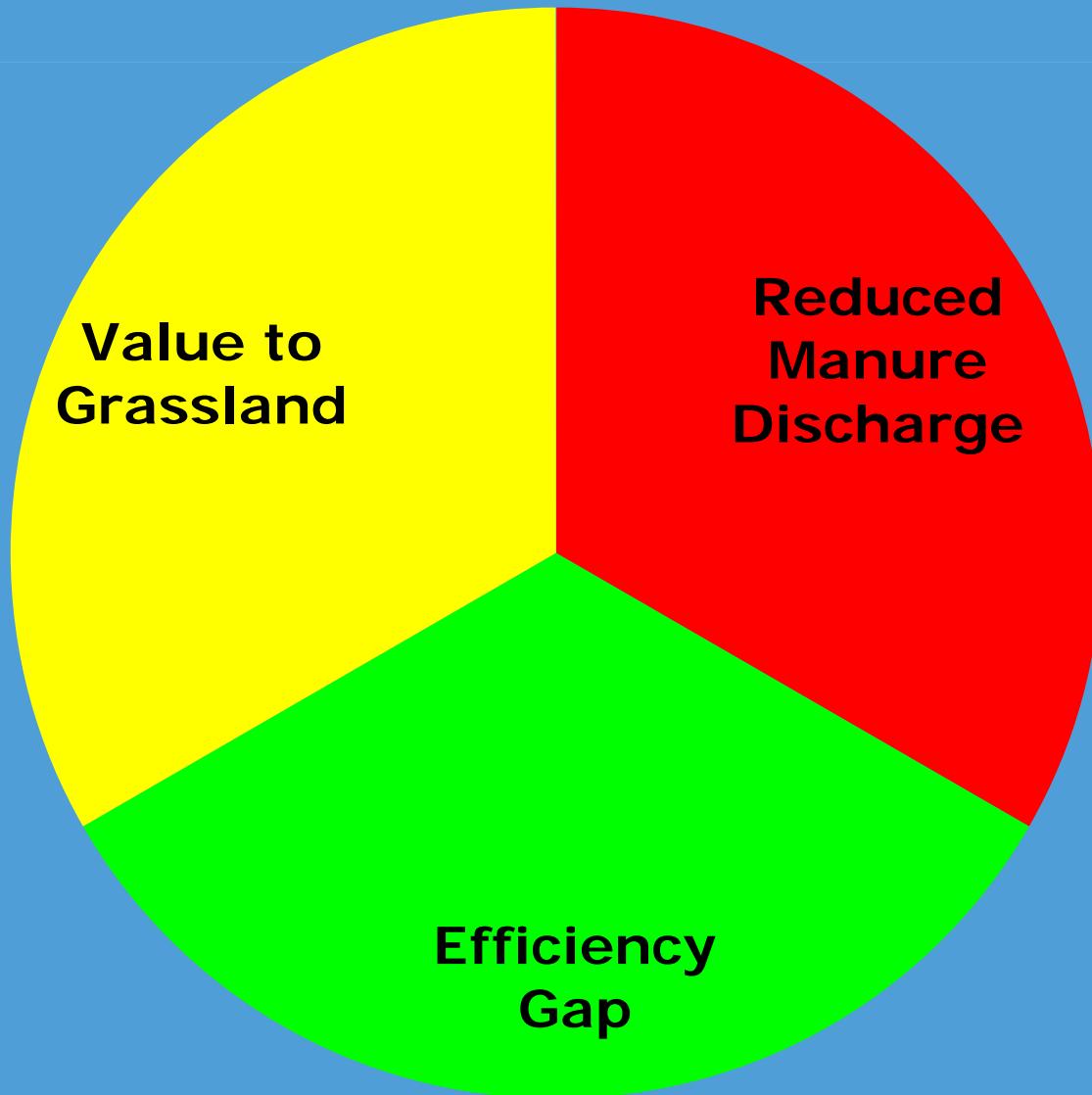


Manure Management Improvement Program (MMIP)

Livestock Dialogue, theme reduced manure discharge
September 4, 2012



Focus areas of the GAA



Focus on one area

**Value to
Grassland**

**Reduced
Manure
Discharge**

**Efficiency
Gap**

What is manure management?

Manure management pertains to all possible interventions along the chain;

- *starting with collection and storage and treatment;*
- *dealing with transport;*
- *ending with land application;*
- *their interacting effects on utilization;*
- *N, P, K, org matter, GHG, other emissions*

The working program: Manure Management Improvement Program (MMIP):

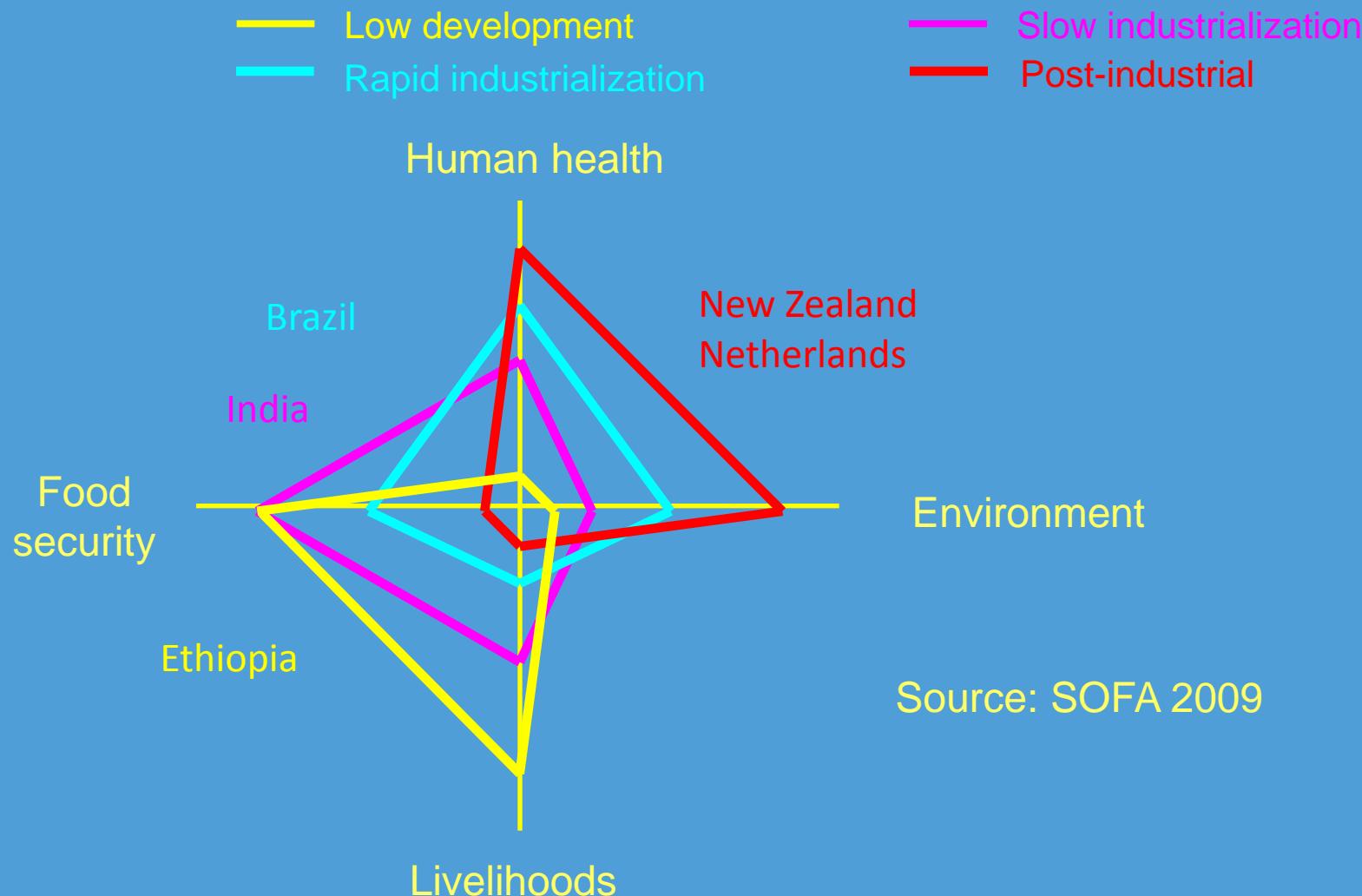
Strategic goal

- Improved manure management to:
 - improve food security and
 - reduce environmental impact

Operational goals

- Knowledge, inventory and dissemination
- Action plans /pilot projects development via public private cooperation
- Action plans /pilot projects execution via public private cooperation

A shared interest with different priorities



Knowledge: the manure kiosk (a service project)

- Inventory of
 - Manure management practices in the field (mapping in GIS)
 - Policies and institutional frameworks (literature, mapping)
 - Current projects and technology (literature)
- Brokering information
 - Link to Global Research Alliance
 - Match supply and demand
- Capacity building

Pilot projects

- Identify potential areas and stakeholders to define improvement projects
- Projects can phase stages or focus on stages (depending on the local situation)
 - Starting/Increasing awareness
 - Identifying solution options
 - Realizing solution options
- Stakeholder involvement is essential
 - In kind, personal involvement
 - In cash, supporting investments and labour

Stakeholders

- Private sector
 - Primary producers: Farmers
 - Suppliers: feed industry, trade
 - Processors: dairy and slaughter industries
 - Extension/service labs
 - Technical sector
- Public sector
- Civil Society
- Academia
- International Organizations

The proposed time schedule

	2013	2014	2015	2016				
	I	II	I	II	I	II	I	II
Kiosk	X	X	X	X	X	X	X	X
Identification	X	X	X					
<u>Execution</u>								
Pilot A		X	X	X	X	X		
Pilot B			X	X	X	X	X	
Pilot C				X	X	X	X	X
Pilot D					X	X	X	X

Projects costs and funding, so far

Who	What	For
Wageningen UR	300 k\$	Knowledge, mapping MM
Ministry Economic Affairs	180 k\$	Kiosk, identification, execution
FAO	In kind	Kiosk, mapping MM
...		Secretariat Livestock Dialogue

Projects costs, rough assessment

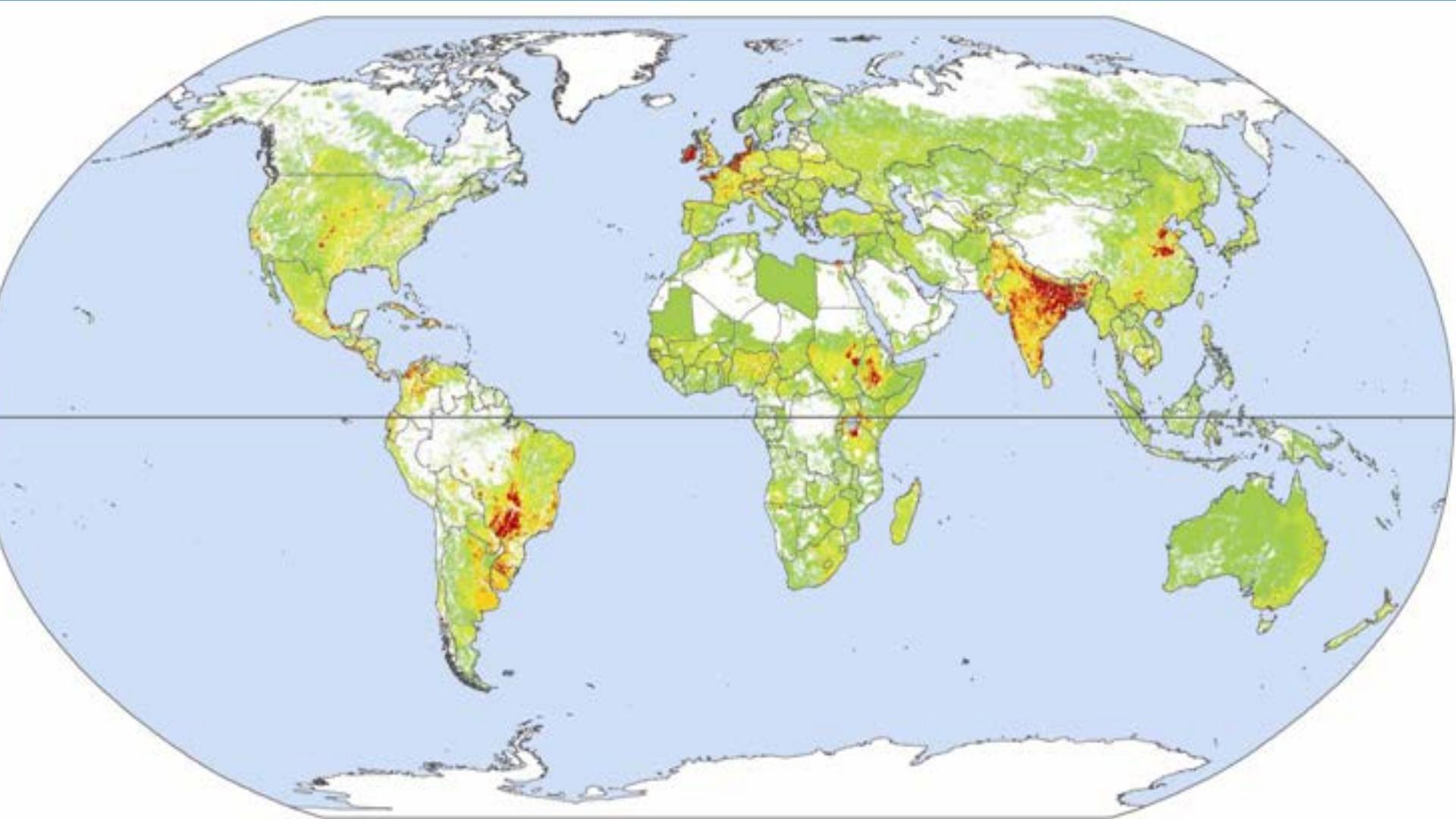
What	How much
Kiosk	.8 M\$
Identification/definition	.5 M\$
Execution	4 M\$

Mapping Manure Management (M3)

- Global information on manure management is scarce
- Good manure management has a high potential in improving productivity and reduce emissions

Goals:

Why is manure managed in the way it is and what are the constraints for improvement



Head per square km

■	< 5
■	5 - 20

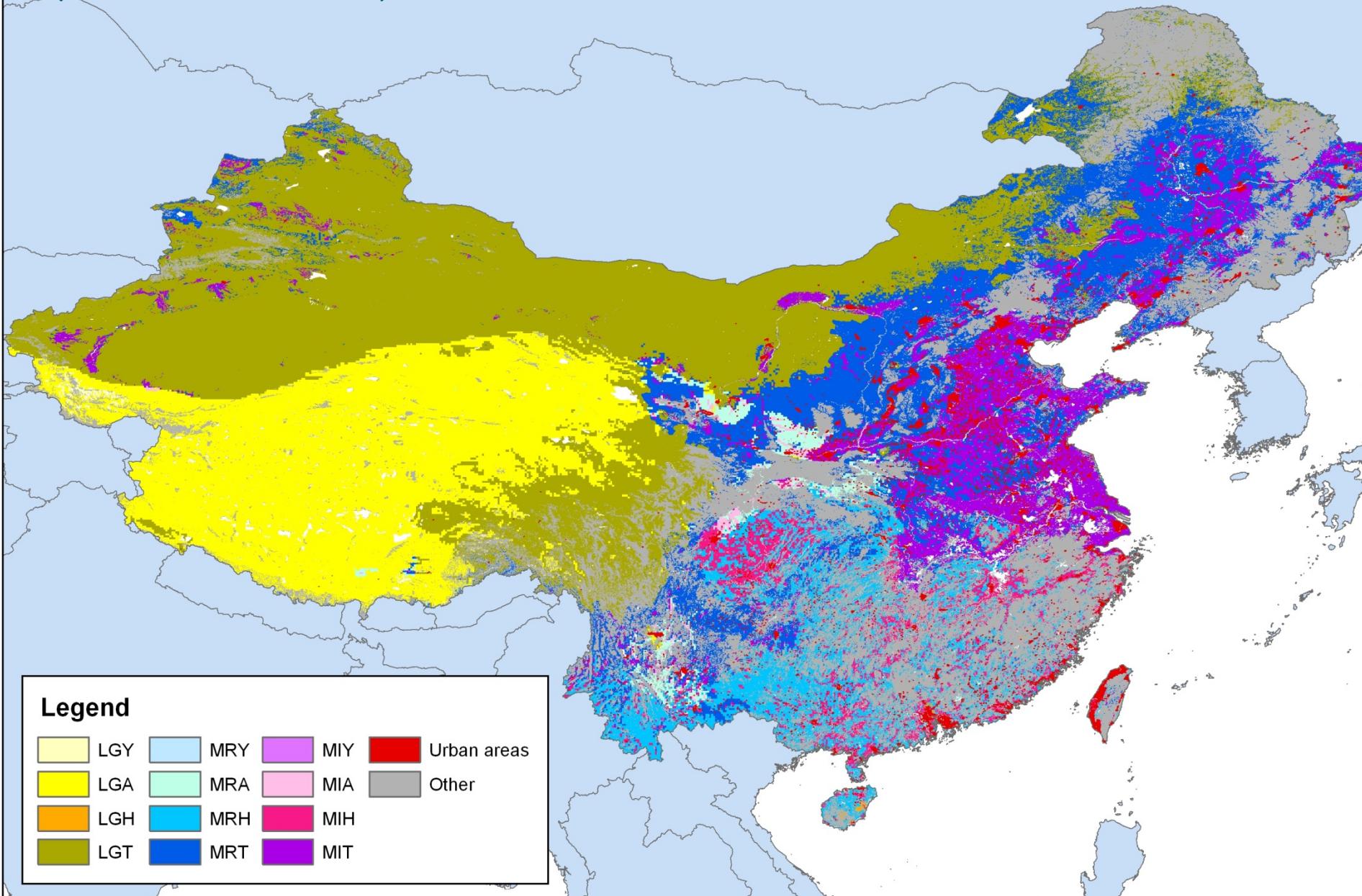
■	20 - 50
■	50 - 80

■	80 - 95
■	> 95

▲ National boundaries

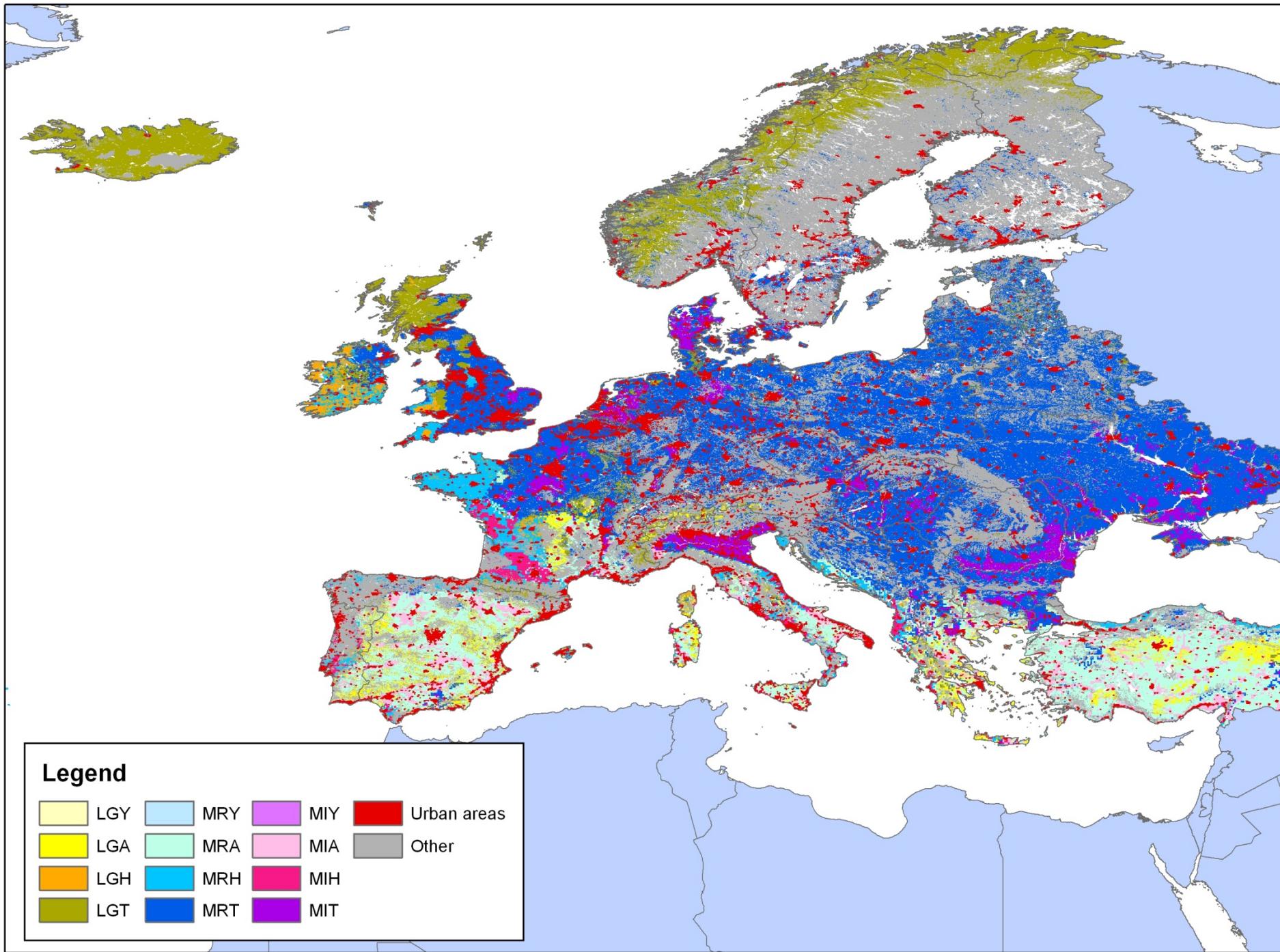
Livestock Production Systems

(Seré & Steinfeld, 1997)



Legend

LGY	MRY	MIY	Urban areas
LGA	MRA	MIA	Other
LGH	MRH	MIH	
LGT	MRT	MIT	



Current manure management maps (dairy)

Region	System	AEZ	MMsburned	MMslagoon	MMsliquid	MMssolid	MMsdrylot	MMspasture	MMsdaily
CSA	Grass	Arid	0	0	0	0	25	75	0
CSA	Grass	Humid	0	0	0	0	25	75	0
CSA	Grass	Hyper Arid	0	0	0	0	25	75	0
		Temperate/h ighlands							
CSA	Grass	Temperate/h ighlands	0	0	0	67	0	33	0
CSA	Mixed	Arid	0	0	0	0	50	50	0
CSA	Mixed	Humid	0	0	0	0	50	50	0
CSA	Mixed	Hyper Arid	0	0	0	0	50	50	0
		Temperate/h ighlands							
CSA	Mixed	Temperate/h ighlands	0	0	0	67	0	33	0



What do we want?

- Find partners to jointly collect information
 - Common methods in data collection
 - Validate methods
 - Develop proxies as help to extrapolate
 - Extend to global scale
- Regions:
 - South-East Asia
 - Africa
 - Europe
 - North America
- Travel budget available

Dung is just as money:
Accumulation causes
problems, well spread
it's a blessing

