

Social Consequences of the Changing Landscape for Mixed Livestock Production Systems

A. Costales, U. Pica-Ciamarra & J. Otte
Pro-Poor Livestock Policy Initiative

**International Conference on
'Livestock in a Changing Landscape'**
Bangkok, Thailand 28 November 2006



A Living from Livestock

Pro-Poor Livestock Policy Initiative



Outline

- The Changing landscape
- Mixed Crop-livestock Production Systems
- Stylized Development Paths & Case Studies
- Summary & conclusions



The Changing Landscape



A Living from Livestock

Pro-Poor Livestock Policy Initiative



Interlocking 'Drivers' of Change



A photograph of a handwritten menu on lined paper. The menu lists seven items, each with a price of 15000. The items are:

27.	SCRAMBLE	Eggs	15000
28.	HARD	Boiled Eggs	15000
29.	Fried	Noodle with Chicken	15000
30.	Fried	Noodle with Pork	15000
1.	Fried	Noodle with Beef	15000
2.	Fried	Noodle with Buffalaw	15000
3.	Fried	Noodle with Vegetables.	15000

- Growing & changing demand for meat & milk products in DCs
- New technologies in production and processing
- National and international market liberalization and integration



Opportunities and Threats

- Expanding markets – opportunities for livestock producers
- Demanding markets (product quality and food safety) – exclusion of some producers from market (and sector!)



Responses to the Changing Landscape

Initial conditions:

1. Agricultural / livestock sector in the economy
2. Resource endowments (land, labour, capital)
3. Economic-institutional framework

	Traditional Agriculture	Modernizing Agriculture	Globalizing Agriculture
Share of agriculture in GDP	High	Moderate	Low
Share of labour in agriculture	High	Moderate	Low
Market orientation	Subsistence	National / Domestic	International
Output mix	Food staples	Food staples + export crops	Highly differentiated
Scale economies	Not important	Not important	Important



Responses to the Changing Landscape

Production systems:

1. Extensive production systems
2. Mixed crop- livestock production systems
3. Intensive production systems



Responses to the Changing Landscape

Production systems:

1. Extensive production systems
2. **Mixed crop- livestock production systems**
3. Intensive production systems



Mixed Crop- Livestock Production Systems

Crop-Livestock Farms



A Living from Livestock

Pro-Poor Livestock Policy Initiative



Characteristics



- Predominantly small farms
- Livestock contribute to
 - income
 - food
 - draught
 - savings
 - insurance
 - social status
- (Informal) traders
- Processors / wholesalers / retailers



Predominance of Small Farms

Farm size class (ha)	No. of farms w/n class (mio)	Prop'n of farms w/n class (%)
<1	334.0	73.2
1-2	53.3	11.7
2-5	40.3	8.8
5-10	13.8	3.0
>10	14.8	3.3
Total	456.1	100

Remark: variations of 'average' farm size:

- SSA: 1.6 ha.
- Asia: 1.6 ha.
- ✦ China, Bangladesh: <1/2 ha
- LAC: 67 ha.

Source: Von Braun, 2005

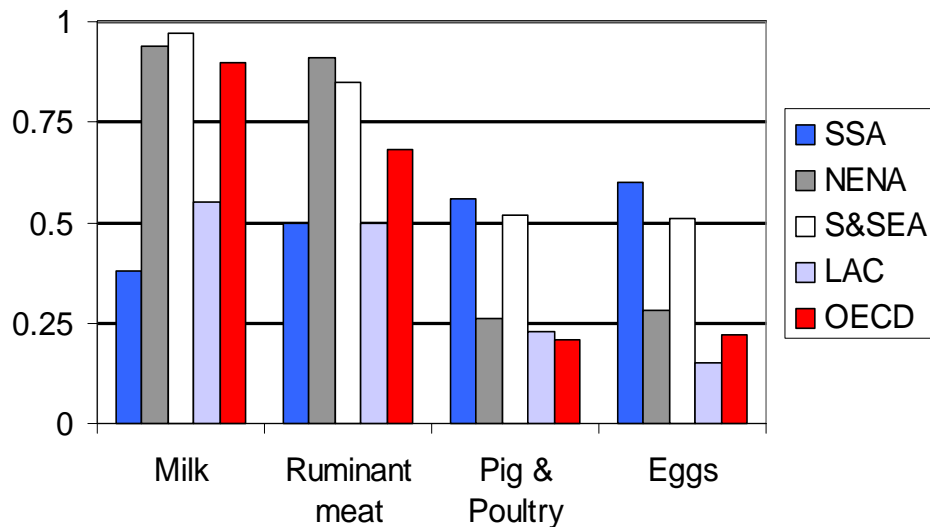


A Living from Livestock

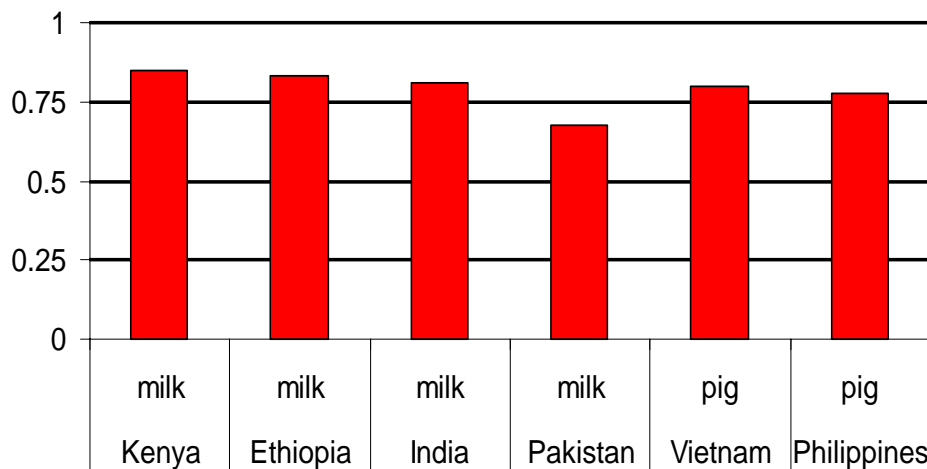
Pro-Poor Livestock Policy Initiative



Mixed Farms and Livestock Production



Mixed farms contribution to total livestock output (%) – world regions

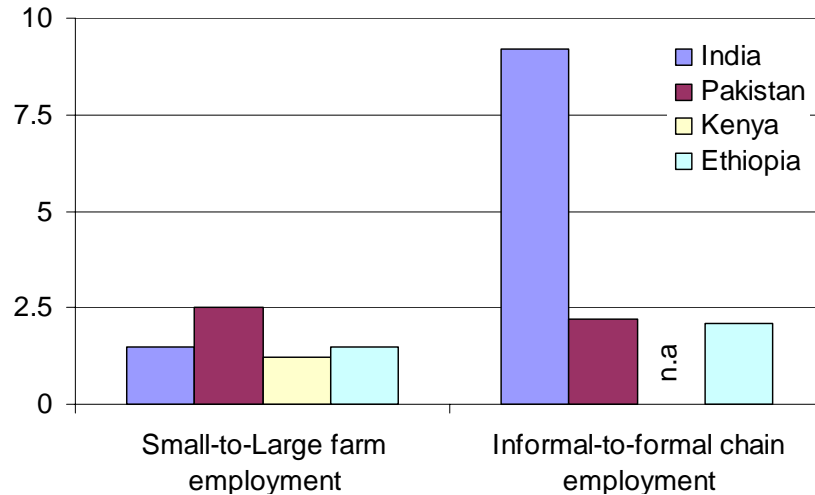


Small mixed farms contribution to total livestock output (%) – selected countries

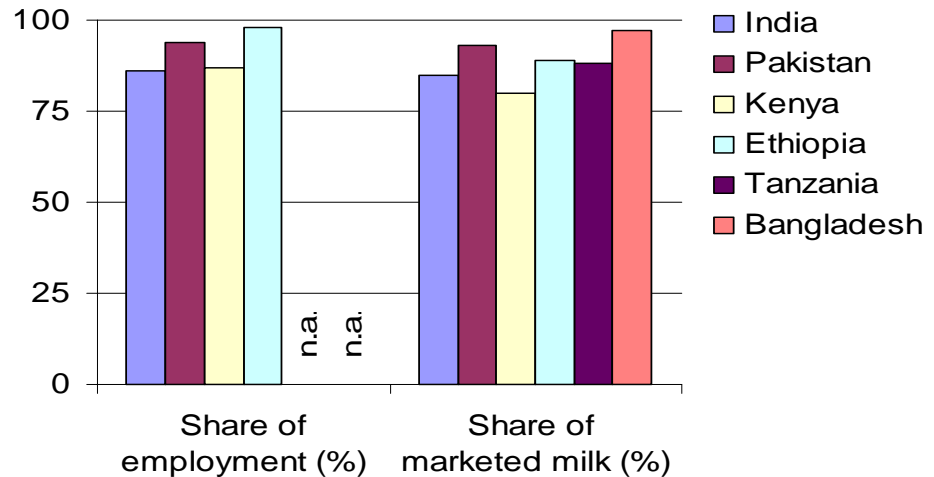


Employment & Market Share (Milk)

Employed persons /1000 litre of milk output - small (informal) / large (formal) ratio



Share (% out of total) of informal employment and marketed milk



Impact of the Changing Landscape on Mixed Systems

Three Stylized Pathways
of Livestock Sector Development



A Living from Livestock

Pro-Poor Livestock Policy Initiative



'Stylized' Development Pathways

1. Positive, equitable livestock development path
2. Livestock sector stagnation / involution
3. Positive but in-equitable development path

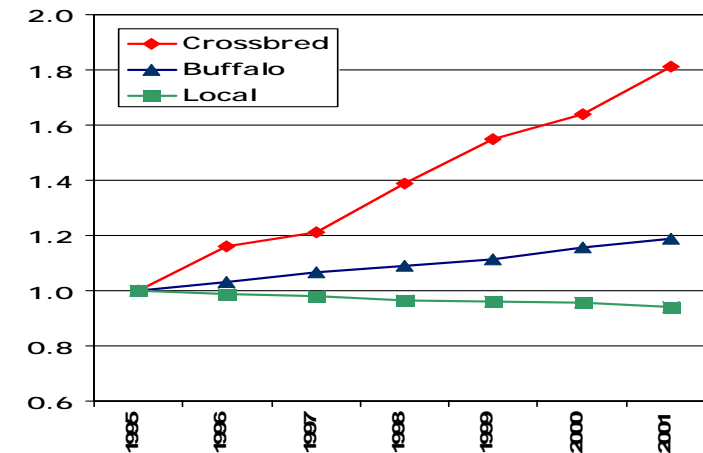
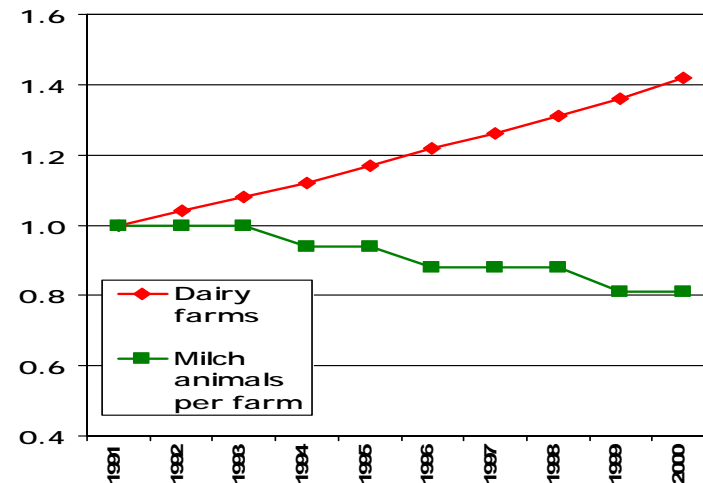


1. Positive & Equitable Path

- Growth leads to broad-based rural production and rural-to-urban processing and distribution systems
 - consumption linkages
 - production linkages

- Decentralized rural industrialization, exploiting rural labour and entrepreneurial skills

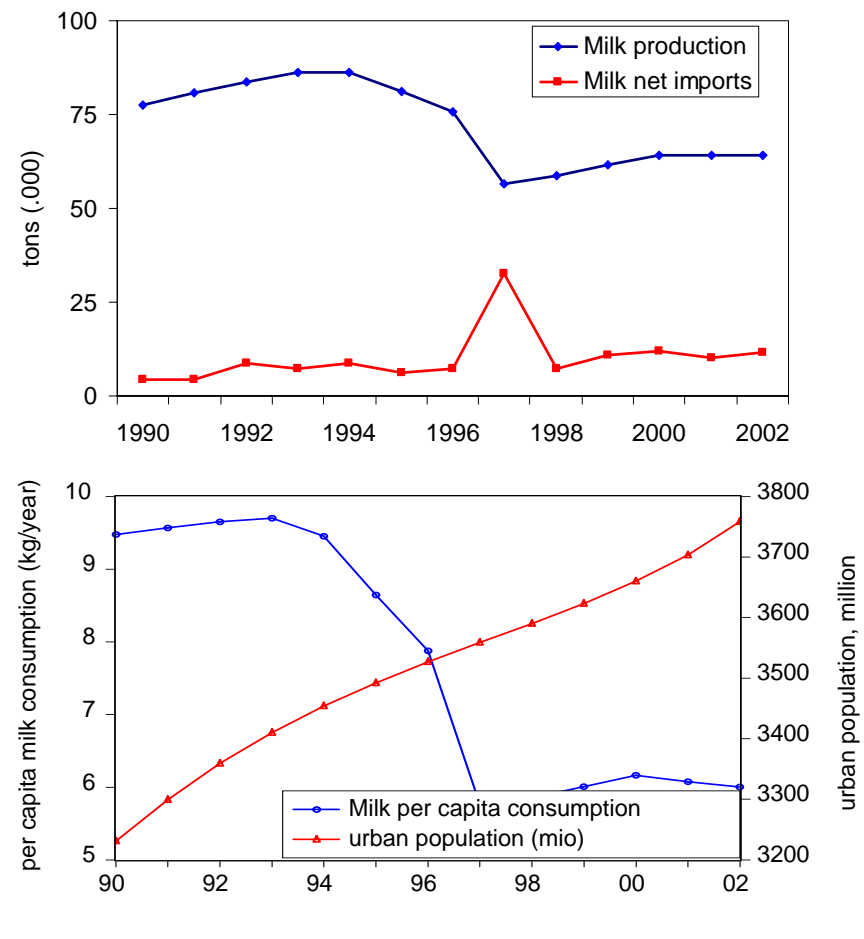
Case study: India dairy



2. Stagnation / Involution

- Rural production systems are disconnected from growing markets
 - weak / no production linkages
 - weak / no consumption linkages
- Anti-agriculture 'biased policies'
 - macroeconomic
 - sector policies
 - infrastructural

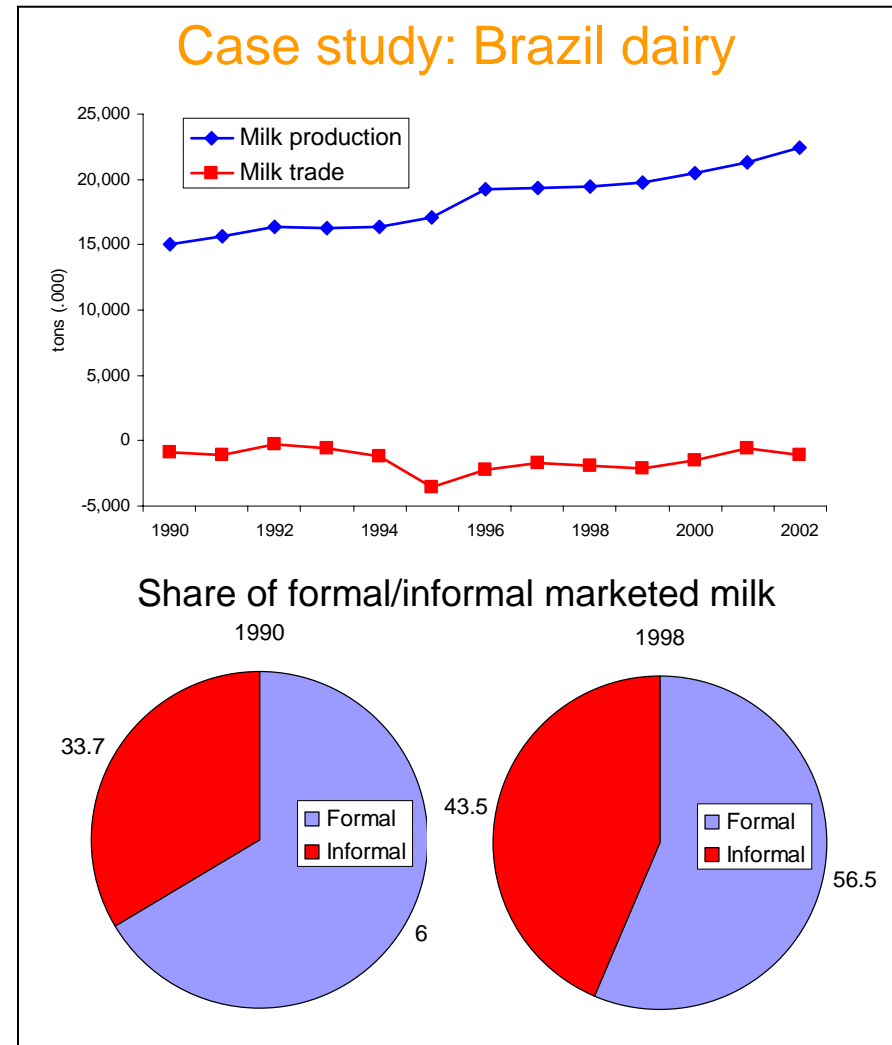
Case study: Zambia dairy



3. Positive but Inequitable Path

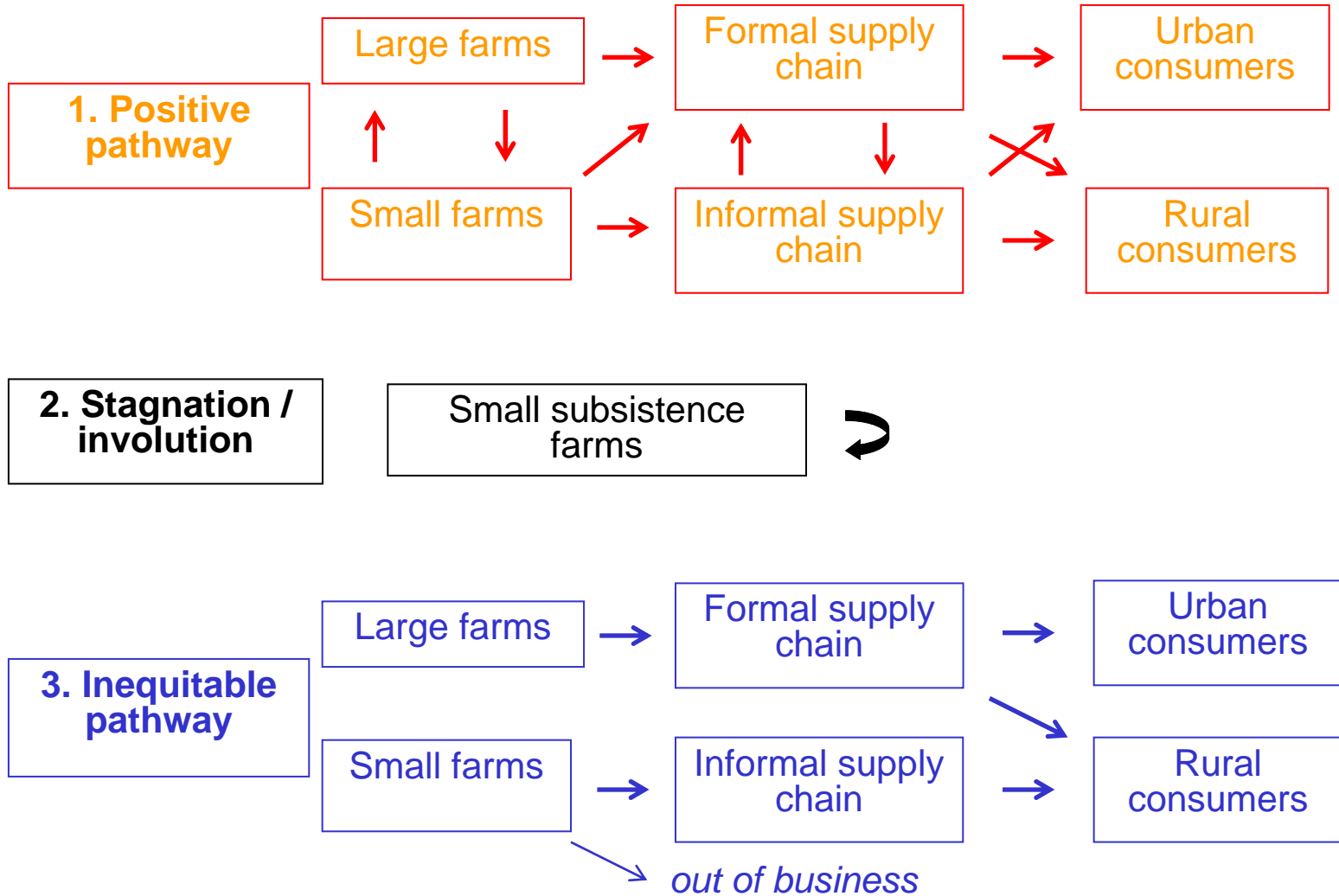
- Small modern sector benefiting from LCL
 - production linkages
 - concentration of production
 - food safety/quality

- Large traditional sector excluded from benefits of LCL
 - weak production linkages
 - consumption linkages
 - at the extreme, forced out of the sector



Summary

Drivers



Summary & Conclusions



A Living from Livestock

Pro-Poor Livestock Policy Initiative



Summary

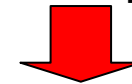
- (Small) Mixed farms are and will remain pervasive
- (Small) Mixed farms significantly contribute to livestock output & rural employment
- LCL different impacts on mixed farms possible:
 - positive, equitable development path
 - stagnation / involution
 - positive but inequitable development path



Conclusions



- Small mixed farms can be competitive
- Large & small farms / supply chains can co-exist
- Smallholder based (livestock) industrialization is possible



- Equity & growth are not mutually exclusive



- 'Equitable' livestock technical & **institutional** policies



References & Further Reading

Staal, S.J., A.N. Pratt, and M.Jabbar. (2006). *A Comparison of Dairy Policies and Development in South Asia and East Africa. Country Case Studies from South Asia and East Africa – Kenya, Ethiopia, Pakistan and India*. ILRI, Nairobi. PPLPI Working Paper (forthcoming), FAO, Rome.

Haggblade, S., P. Hazell and T. Reardon. (2005). [*The Rural Non-Farm Economy: Pathway Out of Poverty or Pathway In?*](#) IFPRI, ODI and Imperial College London. Proceedings from the Research Workshop on The Future of Small Farms, June 26-29, 2005, Withersdane Conference Centre, Wye, UK.

Nagayets, O. (2005). [*Small Farms: Current Status and Key Trends*](#). IFPRI, ODI and Imperial College London. Proceedings from the Research Workshop on The Future of Small Farms, June 26-29, 2005, Withersdane Conference Centre, Wye, UK.



For more information please visit the PPLPI website:

www.fao.org/ag/pplpi.html

www.fao.org/ag/againfo/projects/en/pplpi/publications.html



A Living from Livestock

Pro-Poor Livestock Policy Initiative





Thank you!



A Living from Livestock

Pro-Poor Livestock Policy Initiative

