

Livestock Breeding Industry and Public Policies: Impact on Smallholders and their Breeds

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**League for Pastoral Peoples and
Endogenous Livestock Development**



LEAGUE FOR
PASTORAL PEOPLES

League for Pastoral Peoples and Endogenous Livestock Development (LPP)

www.pastoralpeoples.org

NGO registered in Germany since 1992

- ✿ **Advocacy**
- ✿ **Networking**
- ✿ **Advice to pastoral development projects**
- ✿ **Member of LIFE Network**
- ✿ **Main topic: Livestock Keepers' Rights**



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Meat consumption per person

Industrialized countries

✳ 85 kg in 2005

Developing countries

✳ 24 kg meat in 1960ies => 31 kg in 2005

Similar growth to be expected,
after trade liberalization?

On the basis of industrial production,
after climate change?



The world's main meat and milk producers and exporters

- ✚ Asia has overtaken Europe in terms of milk production.
- ✚ Pork is the most consumed meat in the world, and China produces more than half of it.
- ✚ Brazil in 2004 has overtaken the USA as the world's main meat exporter.

FAO Global Food Outlook 2006



Industrial production systems

Globally,

- ✳ **one third of pigs**
 - ✳ **half of eggs**
 - ✳ **two thirds of milk**
 - ✳ **three quarters of broilers**
- are produced with industrial breeds**



Subsidies to pig production in Vietnam

**Fifteen potential types of subsidy for
imported breeds and their crosses,
totaling 31 USD per sow per year,
provide 19 – 70% of the gross margin**

ILRI 2006

=> Abolishing subsidies means public savings!



Health regulations for pig industry in Brazil

“Although pig smallholder pig producers were previously involved in the sector, they have been exiting rapidly, particularly in the southern part of Brazil that government policy has attempted to transform into disease-free-without-vaccination zones (OIE List A)”

FAO 2002

Chicken: Smallholders, contract growers, concentration

- ✦ **Brazil**: contract growing 2002 in units of 24.000 birds; cheap labour and feed => EXPORTS
- ✦ **Philippines**: contract growing; many gave up during "Broiler Crisis" 1999-2000 which was due to US chicken meat imports
- ✦ **Thailand**: contract growing; now farms below 50.000 birds give up

FAO/IFPRI 2002



Future of smallholders' local chicken?

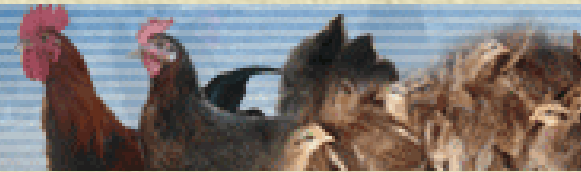
Philippines: 60% of the chicken population is native

No Avian Flu

Premium price, domestic consumption encouraged

Philippine Native Chicken (Darag)

Information Network



Thailand: 34% of the chicken population is native

Premium price, organic market developing

Export production predicted

Will smallholders benefit?

Avian flu regulations!

Concentration: Smallholders lose out



Bangkok Post , 9 May 2007

Pig: Smallholders – contract growers - concentration

**Brazil: Contract growing, fast concentration,
cheap labour and feed => EXPORT**

**Philippines: smallholder contract growing will
be hit by meat market liberalization 2009**

FAO/IFPRI 2002

**Thailand: Pig smallholders moved to contract
farming during 90ies, and many gave up
during 1998 economic crisis**

FAO 2004

Vietnam: Investors not smallholders *CIRAD 2006*

Animal health policy for export promotion

Save animals from diseases:

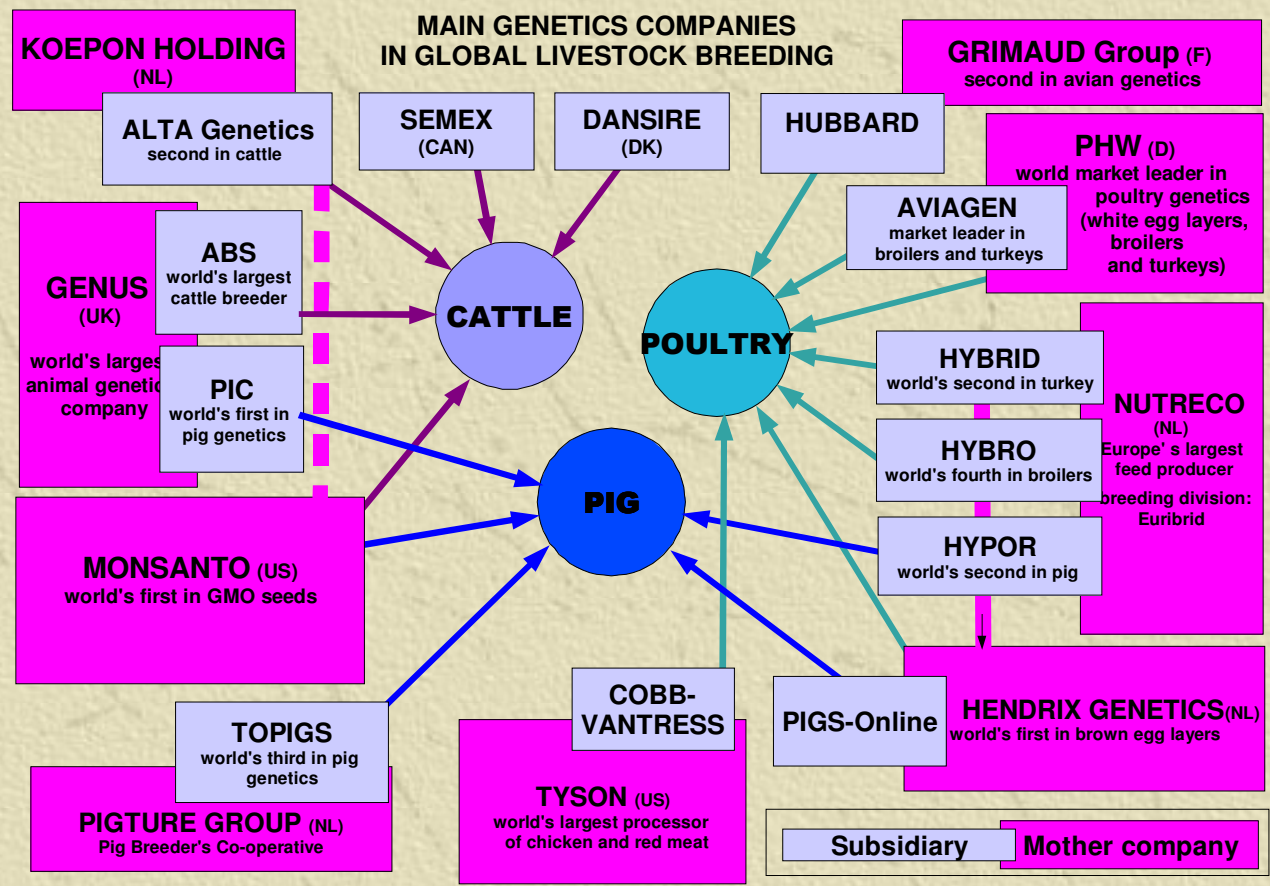
No vaccination - Kill healthy animals

**Maintain the disease-free-without-vaccination
("OIE List A") status, so that exports can
continue.**

*OIE (Office International des Epizooties) sets
international animal health regulations.*

*On List A are diseases that have to be eradicated, without
vaccination, to enable exports*





Livestock Genetics Companies

Concentration and proprietary strategies of an emerging power in the global food economy

Susanne Gura

Concentration in genetics industry

note: Erich Wesjohann Group, not Paul-Heinz Wesjohann Group (PHW)

Layer hens



Broilers



Turkey



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Concentration in genetics industry

PIC

PIC: World's largest pig breeder

+

ABS: World's largest cattle breeder

+

Sygen: World's largest shrimp breeder

=

Genus plc

The logo for Genus, featuring a red crescent moon above the word "Genus" in a blue, sans-serif font.

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Monsanto's exclusive livestock business

Cattle:

sorted semen Decisive™

evaluation data from US farms

Pig:

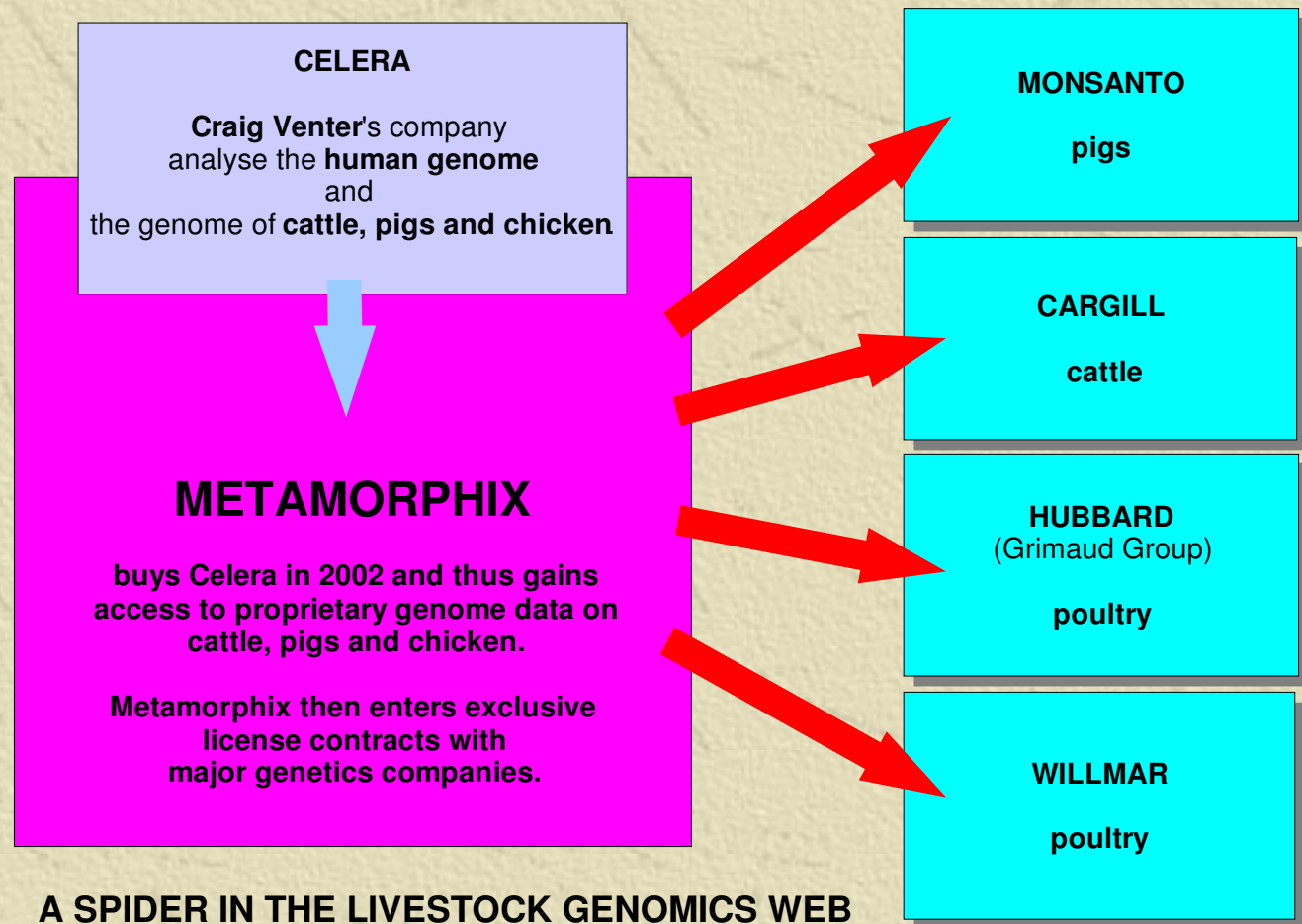
Closed herd system

Access to pig genome through Metamorphix

Patent applications in 160 countries



Concentration in livestock genetics industry



A SPIDER IN THE LIVESTOCK GENOMICS WEB

Narrow gene pool of industrial breeds : „Genetic monoculture“

- ✚ Effective population size corresponds to less than 100 animals**

Cattle: Holstein Friesian, Jersey, Brown Swiss

Pig: Pietrain, Duroc, Hampshire

Poultry: trade secrets!

„democratic cattle breeding decisions worse than dictator-like poultry breeding decisions“ ?



Managing/monitoring industry genetic resources

e.g. new German breeding law :

- ✦ Privatization of breeding
- ✦ Main public task: Monitoring genetic resources

Poultry exempted

**NO provisions with regard to information
and monitoring re industry's genetic
holdings**



Productivity USA 2005

Number of eggs per chicken/year: 300

Number of eggs per ton concentrate feed: 9000

Feed conversion ratio in broiler: 1,7

Liters milk per lactation: 10.000

van der Steen/Prall/Plastow 2005



Performance? Externalized cost

1. **Damage of epidemics**
2. **Public health (pollution/overconsumption)**
3. **Public research funding**
4. **Public subsidies**
5. **Public funding for breed conservation**
6. **Land used by concentrate feed production, e.g rainforest in South America**
7. **Waste of local feed**
8. **Displaced smallholders**



Performance of Vietnam smallholder poultry

- ✿ **70 eggs per hen**
- ✿ **35 eggs eaten by the family**
- ✿ **7 chicks reach selling age**
- ✿ **small cost, small workload, small risk**
- ✿ **no public cost**

Annual rate of return: 700 %
50 million USD per year
for 8 million families
5% of Gross Domestic Product

FAO 2006



Economic importance of African indigenous breeds

- ✦ In Southern Africa, the livestock sector contributes 38% of GDP – not even including subsistence economy, drought power and manure
- ✦ Sheep, goat, pig and poultry almost 100 % indigenous
- ✦ Cattle: 50-99% indigenous



Farm Animal Genetic Resources

Safeguarding National Assets for Food Security and Trade



Who are livestock keeping communities?



- ✦ **70% of the world's poor keep livestock**
- ✦ **640 million smallholder livestock keepers**
- ✦ **190 million pastoralists**

FAO

Progress is welcome



*Camel milk ice cream sold in Rajasthan, India
(Source: LPPS)*

Avian Flu control by smallholder adversity

“Against expectations, backyard flocks in Thailand show the lowest risk of detected infection with the virus, only one quarter that of layer and broiler flocks.”

FAO 2006

“Bird ‘flu follows trade, not migration routes.”

Birdlife International, March 2007

“The problem comes from backyard production, in Thailand and elsewhere”.

G. Butland Aviagen/EW-Gruppe & Global Poultry Strategies, July 2007



Public research funding

EU 7th Research Framework Programme

- ✳ 1,9 billion € over 7 years
- ✳ Livestock biotechnology a major topic
- ✳ Includes cost of patent applications

200 young scientists are being trained in EU

USA: 3 times as much

Conventional breeding is becoming rare!





Sustainable Farm Animal Breeding and Reproduction



A Vision for 2025



Conclusions (1):

1. **Livestock policies should prioritize the needs of smallholders, especially with regard to animal health regulations, and access to grazing land and water.**
2. **Community-based livestock keepers should participate in related policy decision making, and effective ways need to be found for this.**
3. **Subsidies for industrial livestock production should be eliminated.**
4. **Monitoring genetic resources should also cover industry genetic holdings**
5. **Governments should require industrial livestock production to pay for and internalize the costs of disease control measures.**

Conclusions (2):

6. **Industrial livestock production should be taxed in order to finance breed conservation.**
7. **Competition legislation must include agriculture. This is not the case e.g. in the EU.**
8. **Patents on livestock genes are expected to contribute to market domination and should be ruled out.**
9. **Contract farming needs to be monitored. Contract conditions where farmers are not free to choose their veterinarians or providers of inputs such as feed and breeding stock should be avoided.**
10. **When assessing potential export earnings from industrial livestock products, countries should also assess environmental and social risk.**

