



INSTITUTE FOR AGRICULTURE AND TRADE POLICY

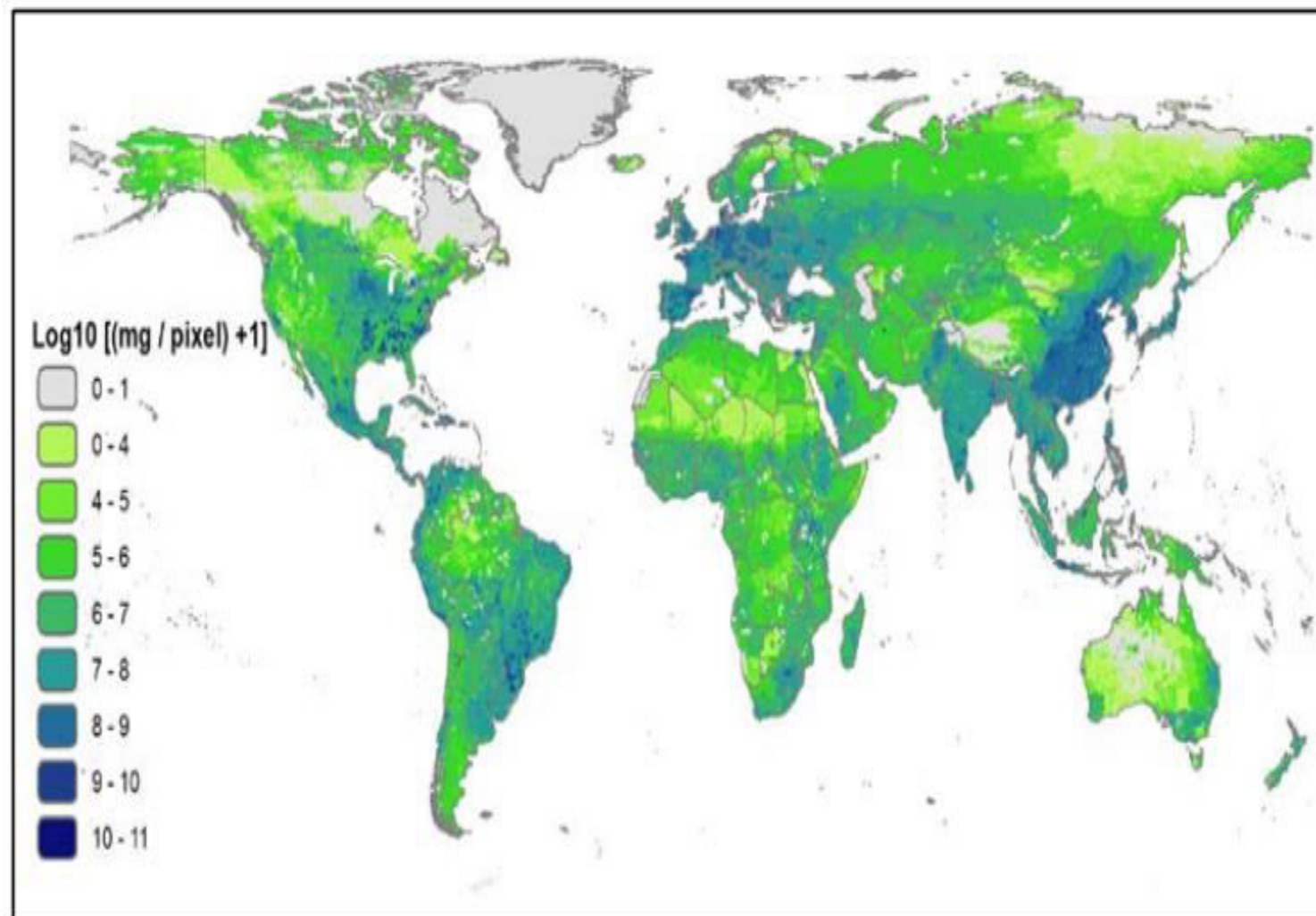
A Systems Approach in Addressing AMR: What animal ag model for the future?

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IATP Europe

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Global antimicrobial use in food animals (mg per 10km pixel)



Global Average Annual Consumption of Antimicrobials per Kg of animal produced

2010 Baseline:

45 mg·kg⁻¹ (cattle)

148 mg·kg⁻¹ (chicken)

172 mg·kg⁻¹ (pigs)

Projections for 2010-2030

- global consumption of antimicrobials will **increase by 67%:**
- from **63,151 tons** ($\pm 1,560$ tons)
- to **105,596 tons** ($\pm 3,605$ tons)

Middle-income countries (2010-2030)

Increase consumption of abx by 1/3:

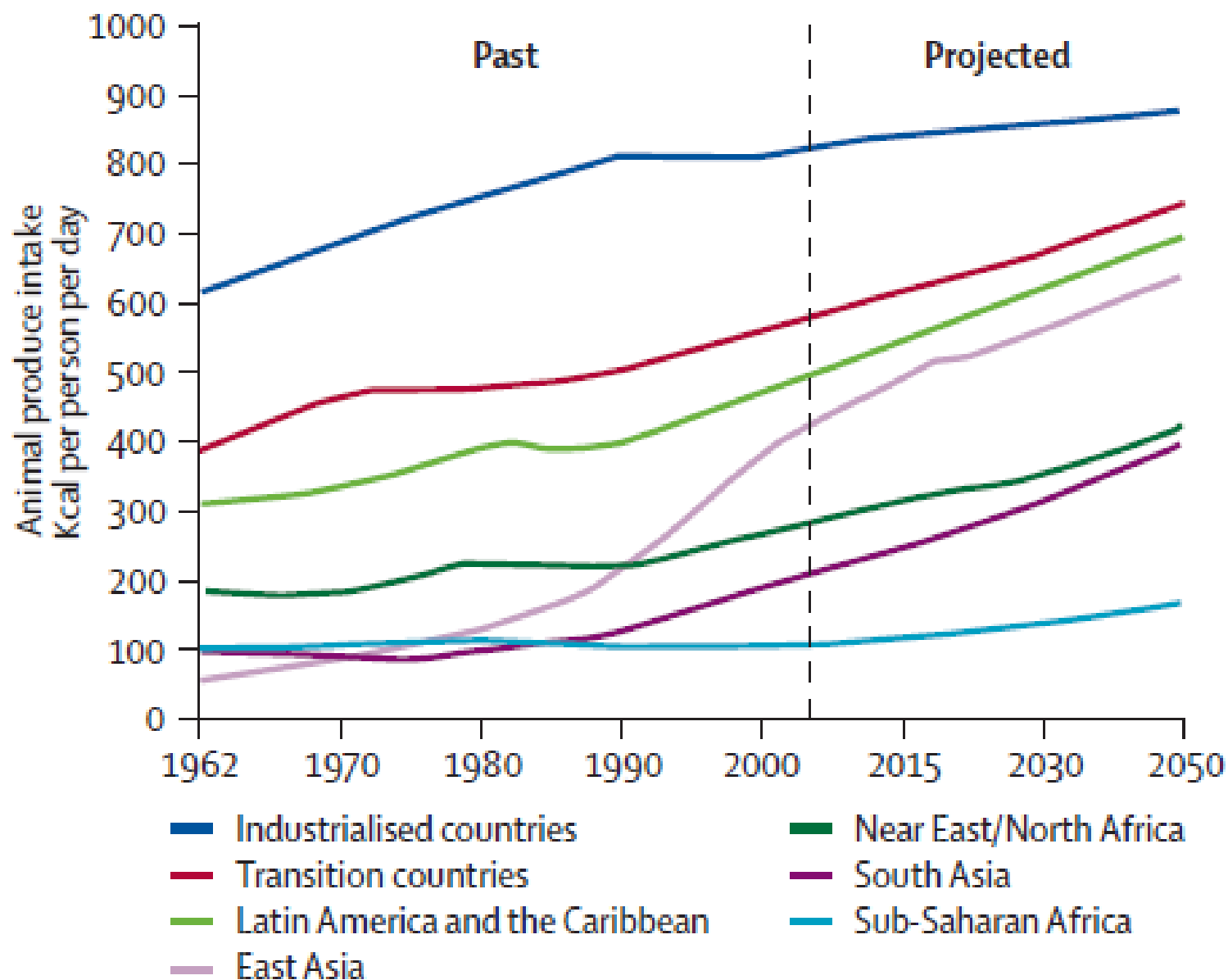
- shifting production practices in middle-income countries
- largescale intensive farming operations replace extensive farming systems
- routine sub-therapeutic use of antimicrobials in these systems

BRICS

- 99% increase in abx consumption
- seven times the projected population growth in this group of countries

2/3 increase in abx consumption
(2010-2030)

Due to the sheer numbers
of animals produced for food



Is this a question of Food Security, Equity or lack of Vision?

India's Poultry Meat Consumption

	2010	2011	2012	2013	2014
Per capita (kg)	1.9	2.0	2.1	2.2	2.2
Total in kilotons	2,645.9	2,889.6	3,062.1	3,154.7	3,246.8

<http://www.oecd.org/site/oecd-faoagriculturaloutlook/>

Estimates of Poultry Meat Production from Select States

Estimated Number of Animals Slaughtered (in 000)

	2007-08	2008-09	2009-10	2010-11
Andhra Pradesh	308,832	333,688	333,019	355,536
Maharashtra	226,639	223,881	263,984	251,188
Haryana	211,000	270,000	277,500	248,240
West Bengal	198,053	199,820	199,915	237,390
Tamil Nadu	192,438	201,604	243,056	229,713
Uttar Pradesh	107,611	122,202	132,326	175,200
Total	1,474,397	1,599,129	1,740,431	1,816,848

Source: State/UT Animal Husbandry Departments

Food Security: Evidence of Double Burden (obesity and malnutrition)

- India: 15.2% of Indian population undernourished yet rising incidence of obesity
- Chinese health guidelines: reduce meat consumption by 50%
- **International goal of meat consumption: 90g/person**

Consumption Trends

- Dietary Guidelines (U.S.): significant reduction in red meat and processed meat)
- A dramatic shift in the market towards abx free poultry and a push towards abx free meats
- Increasing awareness amongst consumers about routine use of abx in meat
- Dramatically increased awareness that this is a serious public health risk in last few years

Markets shifting in spite reg. lag



CHAIN REACTION



HOW TOP RESTAURANTS RATE ON
REDUCING USE OF ANTIBIOTICS
IN THEIR MEAT SUPPLY

A REPORT BY:



Top Chain Restaurant Antibiotics Policies & Sourcing Practices*

A							
B							
C							
F							
							
							

* Information in this graphic regarding companies' antibiotics policies and/or meat purchasing practices reflects "Reported Information" which comes from companies' responses to the survey, follow up emails, public statements made by the companies, and/or efforts by the report's authors to locate such policies online.

Implications of these trends

- Education and Awareness on nutrition (overconsumption of meat---red and processed meat)
- Education and Awareness of use of abx in meat and dairy production and public health risk
- Addressing the model

Political Economy of this rise in consumption

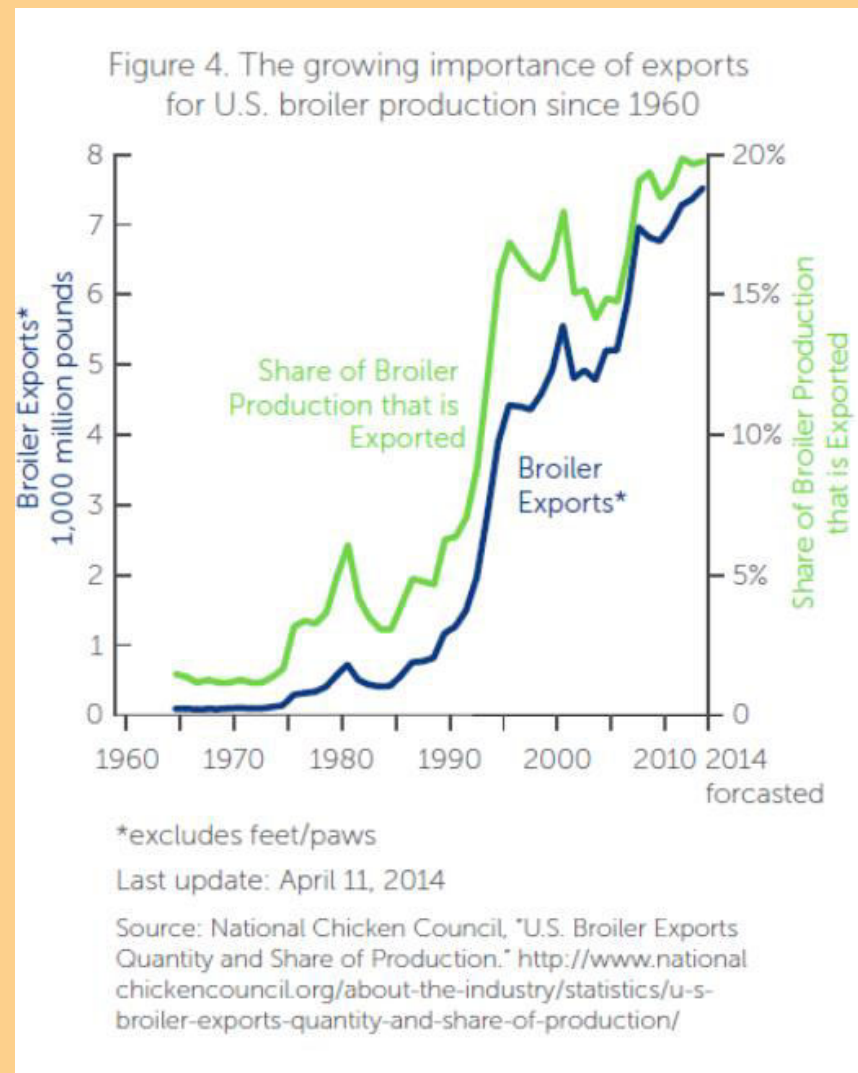


Figure 6. U.S. Dairy Exports 2008 to 2014



*Volume includes SMP, WMP, food preps, MPC, whey, cheese, butterfat and lactose

Source: U.S. Dairy Export Council, "U.S. Dairy Exports 2008-2014," <http://www.usdec.org/files/GDMO/USDEC-GDMO-201403.pdf>.

Lilliston, B. *Big Meat Swallows the Trans Pacific Partnership* (IATP 2014)

Extreme Power: The top ten process much more than the next ten combined

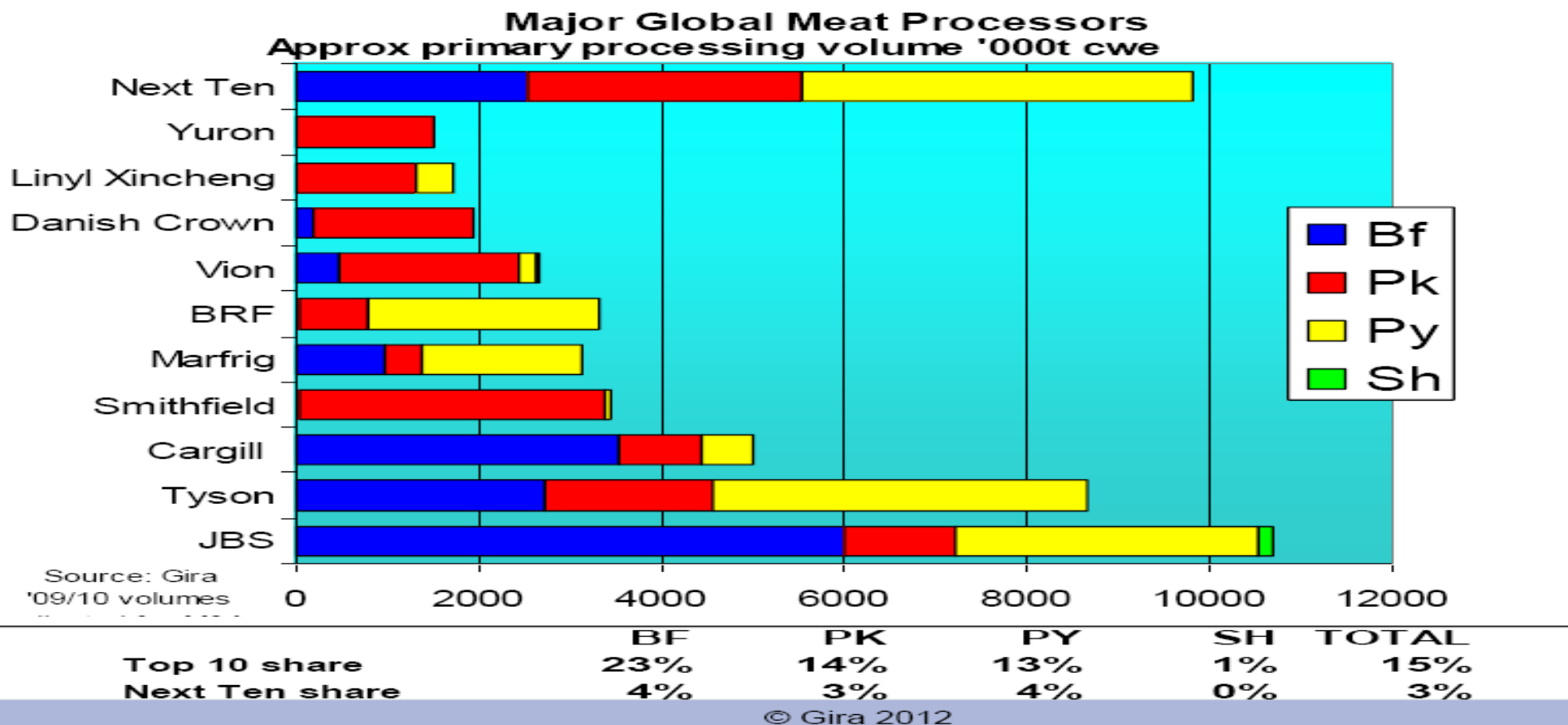
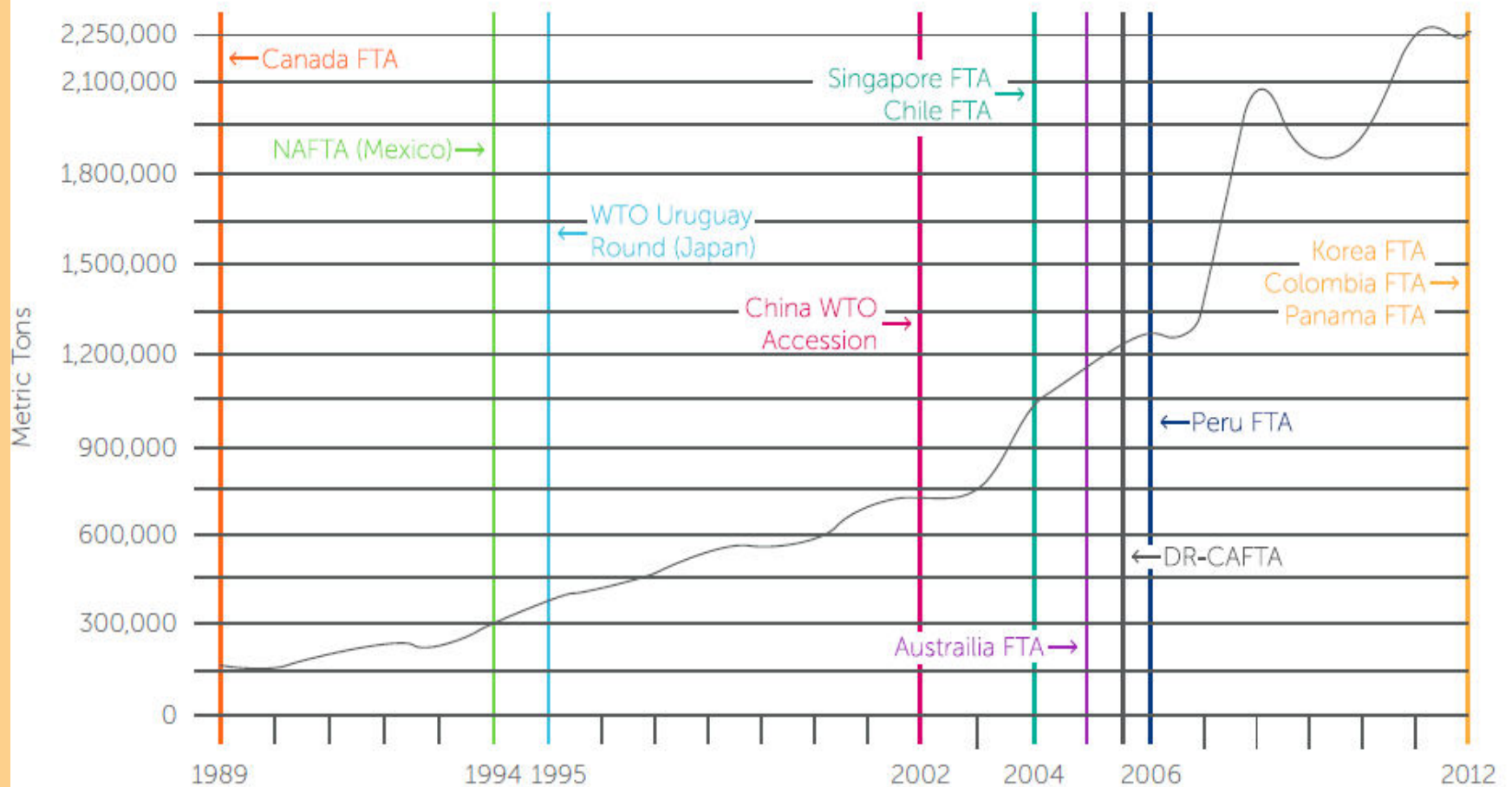


Figure 3. U.S. Pork Exports



Source: National Pork Producers Council, "U.S. Pork Exports."
<http://www.nppc.org/wp-content/uploads/US-Pork-Exports.jpg>

Free Trade Agreements

With the continuous proliferation of free trade agreements (FTAs) in the Asia and Pacific region, the ARIC FTA database tracks and provides a comprehensive listing of bilateral and plurilateral FTAs with at least one of ADB's 48 regional members as signatory. It covers all agreements at all stages of development, from those under study or consultation to those in force.

[FTA trends](#)[FTA by country/economy](#)[FTA by group](#)[All FTAs](#)[Comparative FTA toolkit](#)

Lists the 48 ADB-member countries/economies in Asia and the Pacific and the FTAs they are engaged into within or outside the region.

Full Screen View

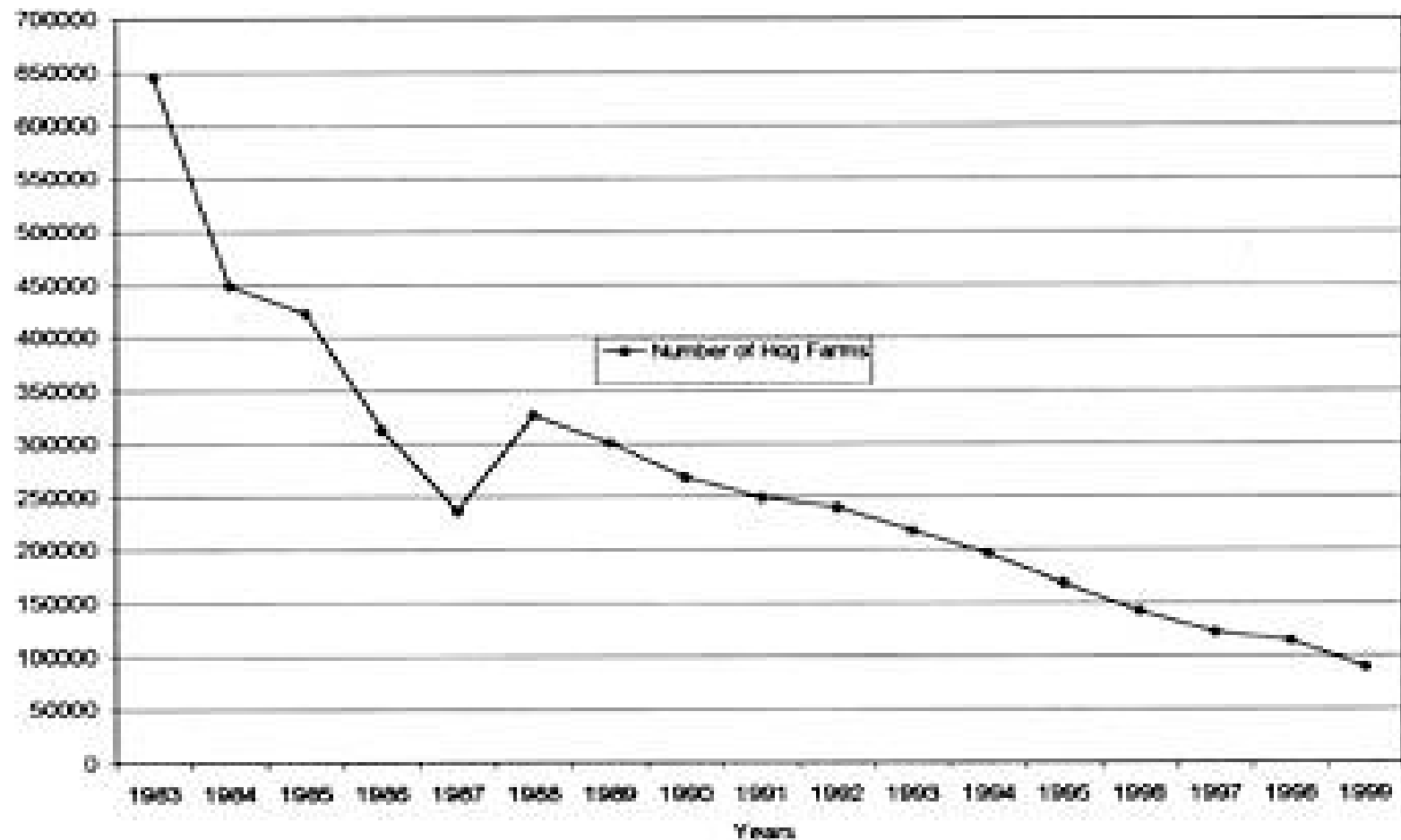
[Afghanistan](#) (2 FTAs)[Armenia](#) (10 FTAs)[Australia](#) (19 FTAs)[Azerbaijan](#) (10 FTAs)[Bangladesh](#) (6 FTAs)[Bhutan](#) (3 FTAs)[Brunei Darussalam](#) (11 FTAs)[Cambodia](#) (8 FTAs)[China, People's Republic of](#) (23 FTAs)[Cook Islands](#) (4 FTAs)[Fiji](#) (5 FTAs)[Georgia](#) (13 FTAs)[Hong Kong, China](#) (6 FTAs)[India](#) (28 FTAs)[Indonesia](#) (17 FTAs)[Japan](#) (24 FTAs)[Kazakhstan](#) (14 FTAs)[Kiribati](#) (4 FTAs)[Korea, Republic of](#) (25 FTAs)[Kyrgyz Republic](#) (10 FTAs)[Lao PDR](#) (10 FTAs)[Malaysia](#) (22 FTAs)[Maldives](#) (2 FTAs)[Marshall Islands](#) (5 FTAs)[Micronesia, Federated States of](#) (5 FTAs)[Mongolia](#) (1 FTA)[Myanmar](#) (10 FTAs)[Nauru](#) (4 FTAs)[Nepal](#) (3 FTAs)[New Zealand](#) (18 FTAs)[Pakistan](#) (18 FTAs)[Palau](#) (4 FTAs)[Papua New Guinea](#) (6 FTAs)[Philippines](#) (11 FTAs)[Samoa](#) (4 FTAs)[Singapore](#) (33 FTAs)[Solomon Islands](#) (5 FTAs)[Sri Lanka](#) (8 FTAs)[Taipei, China](#) (9 FTAs)[Tajikistan](#) (8 FTAs)[Thailand](#) (22 FTAs)[Timor-Leste](#) (0 FTAs)[Tonga](#) (4 FTAs)[Turkmenistan](#) (6 FTAs)[Tuvalu](#) (4 FTAs)[Uzbekistan](#) (10 FTAs)[Vanuatu](#) (5 FTAs)[Viet Nam](#) (16 FTAs)

Corporate Concentration in the U.S. Industrial Meat Sector

Table 13. Four-Firm Concentration in Livestock Slaughter by Type of Livestock, Selected Years, 1980-2010

Year	Steers & Heifers (%)	Sheep & Lambs (%)	Hogs (%)
1980	36	56	34
1995	81	72	46
2000	81	67	56
2001	80	66	57
2002	79	65	55
2003	80	65	64
2004	79	65	64
2005	80	70	64
2006	81	68	61
2007	80	70	65
2008	79	70	65
2009	81	70	63
2010	85	65	65

Rural Decline needs policies for revitalization and anti-trust



Number of U.S. Farms With Hogs 1983-1999. (IATP)

A Systems and Multisectoral Approach

???

Coherent Multi-Sectoral Policies

- Trade Policy
- Anti-trust and regulation of buyer power
- Agriculture Policy
- Rural Development Policy
- Health and Nutrition Policy

Trade and Investment Treaties Must Not

- Undermine countries' abilities to effectively regulate antibiotic use and antibiotic resistance

Multi-sectoral assessment needed

Assessment of Free Trade Agreements (by WHO and member states) on:

- inadequate regulations on the use, promotion and marketing of antibiotics
- curtailing antibiotic resistance and
- creation of further incentives to use antibiotics in food production

Assessment on the impacts of FTAs on:

- dispute settlement regimes such as investor-state
(ability for corporations to sue governments through arbitration panels)
- Their implications for enacting future regulations to curb antibiotic use and antibiotic resistance (if they curb expected profits of corporations)
- **India's Model Treaty should be scrutinized**

New “breed” of FTAs:

- Would be able to set global standards on abx use in food production (primacy of trade over other concerns)
- harmonization of food standards that favor trade rather than safety
- Instead agreements must appropriately reflect and prioritize public health and environmental concerns--subservient to facilitating greater trade.

Transatlantic Trade and Investment Partnership



TTIP or “TAFTA”

Key Impact

- Chilling Effect of New and Proposed Legislations and Rules,
- Undermine efforts to create desperately needed stronger rules on antibiotic use in the animal industry
- Use of scientific uncertainty to delay rule-making

Asks for WHO

- 1) Undertake a study that addresses the gaps
- 2) Assess existing global standard setting on abx use: CODEX, Joint FAO/WHO standards and FAO/OIE guidelines and provide recommendations on:
 - Ways to significantly improve CSO participation from South and North
 - Significantly strengthen standards in conjunction with financial assistance for developing countries to meet those standards.

Food and Agriculture Policy

- Investment in small producers, animal welfare, extension, risk management for small producers
- Healthy and happy animals do not require routine applications of antibiotics
- Agroecology
- Decentralized markets
- Fair Prices
- Good procurement Policies

Thank You!

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