Pas Reform
Hatchery Technologies
Home of Hatchery Innovation

Doing business in India

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- Doing business in India

Pas Reform
Hatchery Technologies

Pas Reform is a global company

- Incubators
- Hatchery automation systems
- Hatchery climate control

- Export to more than 100 countries worldwide

Pas Reform Hatchery Technologies

1919

Gerrit Pas develops incubation system

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1950

First machine exports

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1960

First single stage incubator launched

1984

Ownership Ten Cate Group

Pas Reform Hatchery Technologies

2003: Territories to develop for Pas Reform

- **Russia**
- **Brasil**
- **India**
- **China**
- **USA**

Pas Reform Hatchery Technologies

2004

Smart™ technologies launched

Pas Reform Hatchery Technologies

2005

Launch Pas Reform Russia

2007

Offices opened in Indonesia, India, Malaysia



Pas Reform Hatchery Technologies

2008

Pas Reform do Brasil opens

Pas Reform Hatchery Technologies

2013

Smart new logistics centre

Pas Reform Hatchery Technologies

2014

Merger with Natureform Hatchery Technologies

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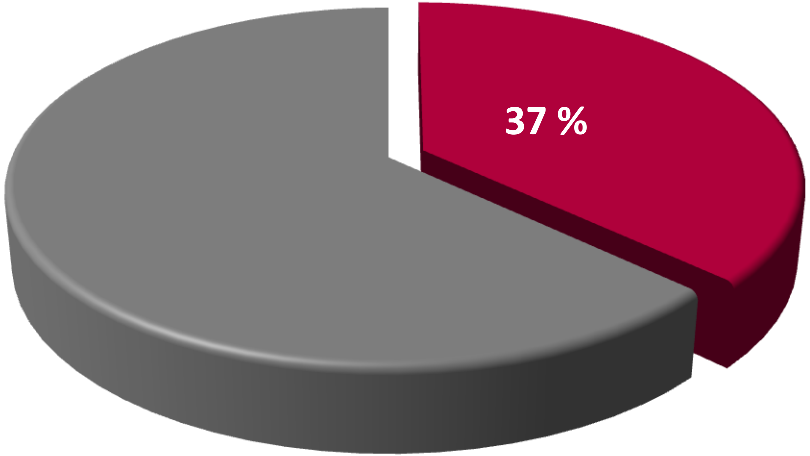
2014

37% of single stage worldwide



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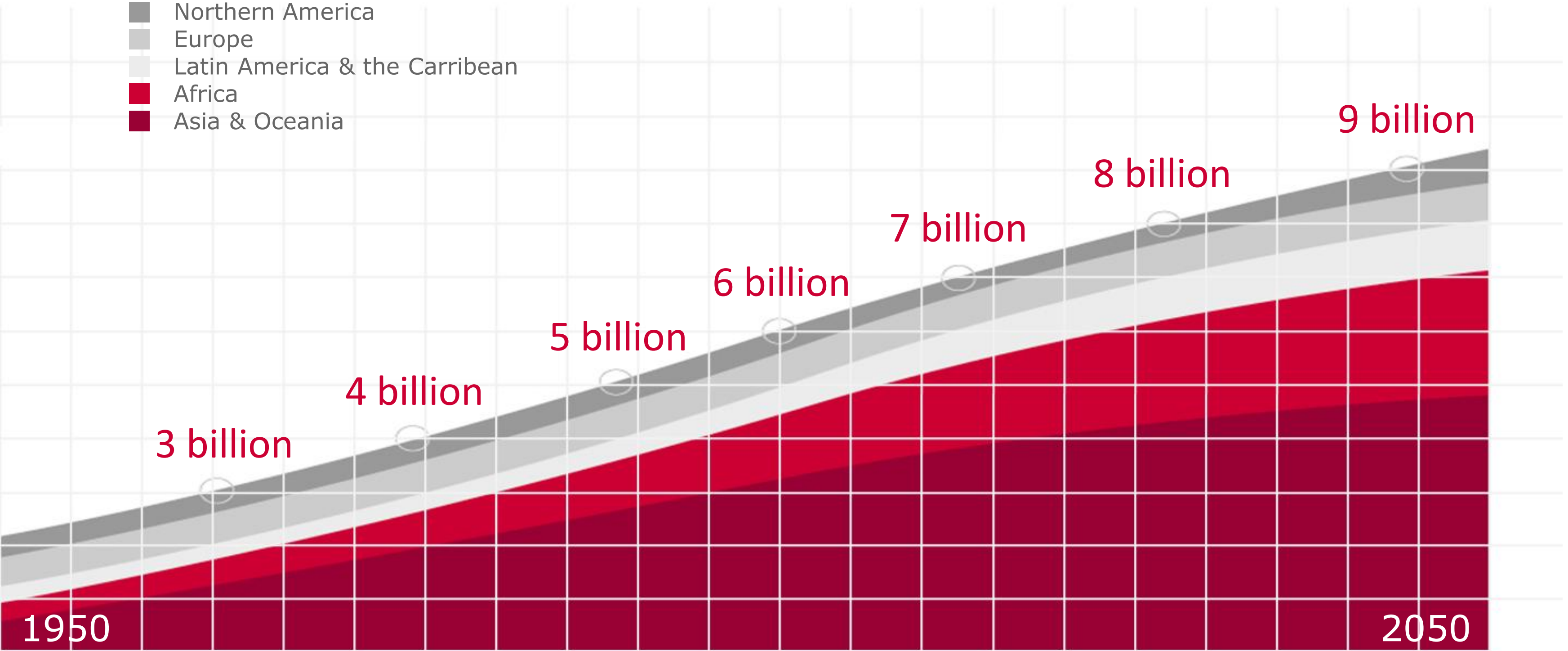
Market Trends World

Market Trends

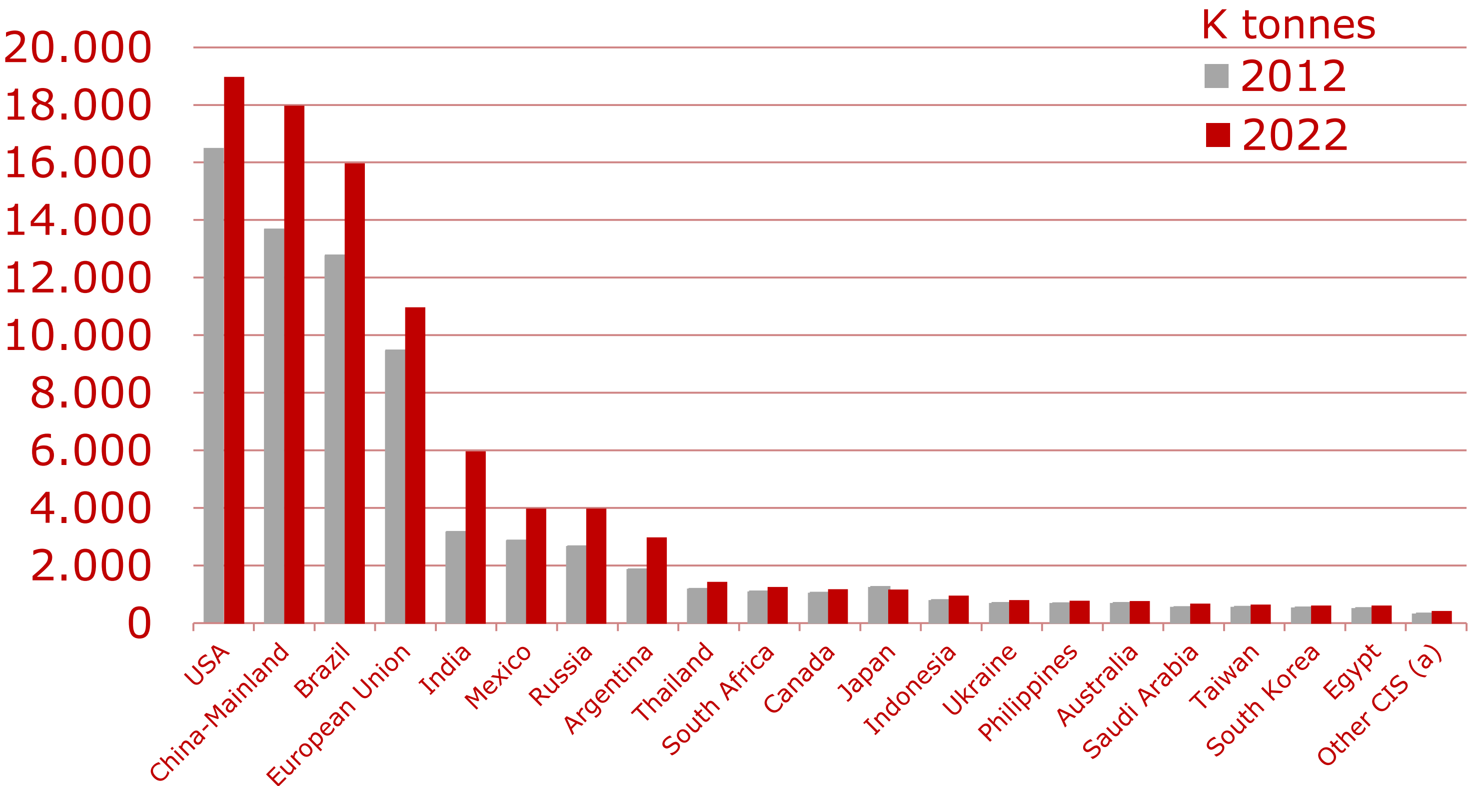
1950 – 2050

Regional distribution of population



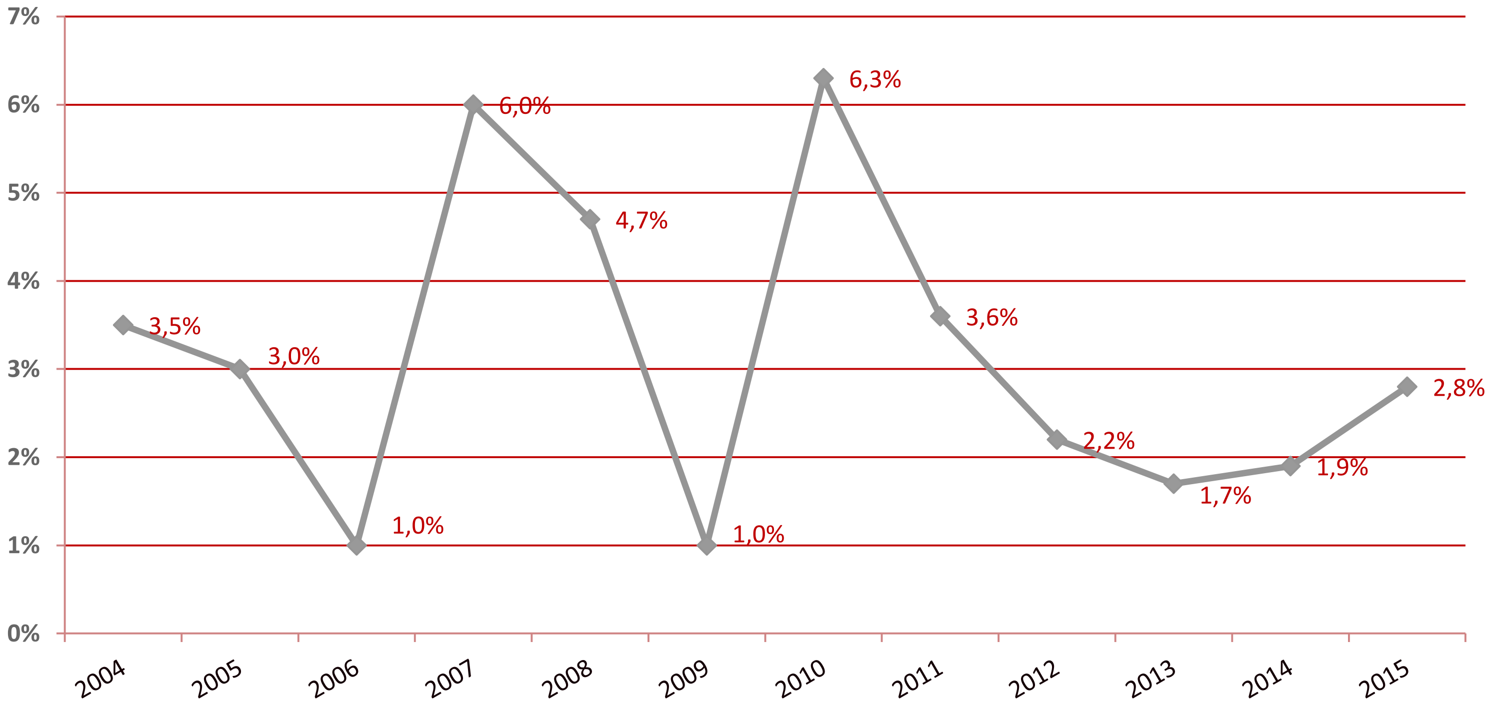
Market Trends

Forecast broiler meat production



Market Trends

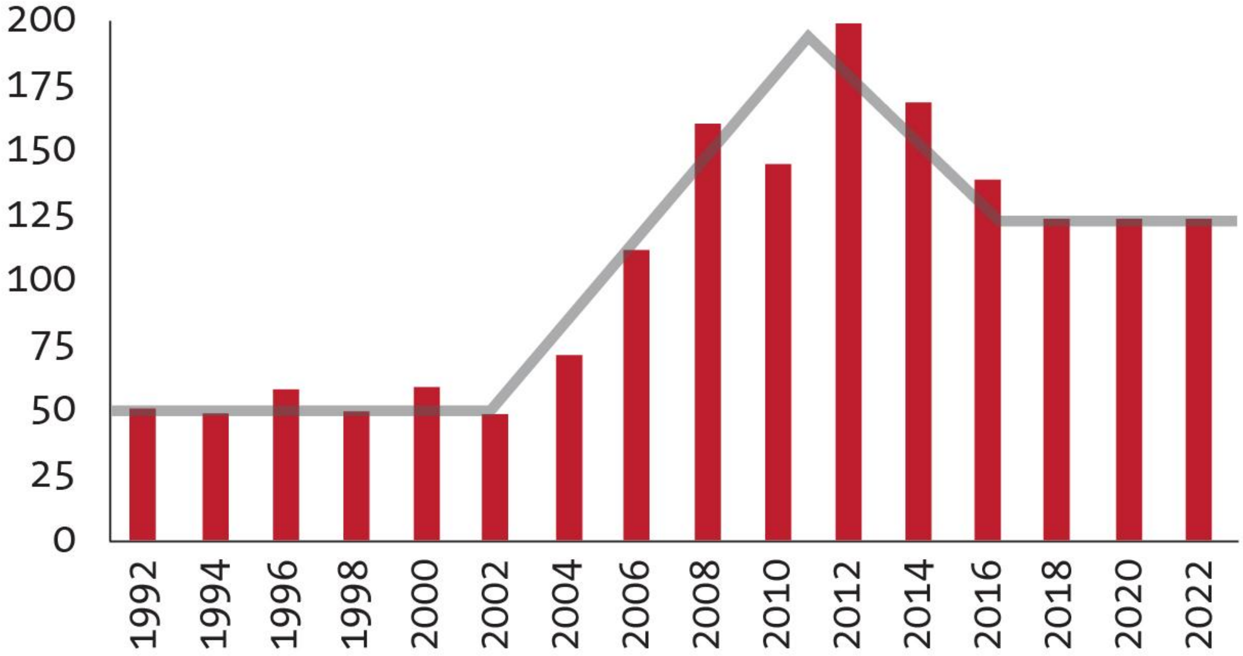
Dynamics: World chicken growth rate



Poultry Perspective: Dr. Paul Aho

Market Trends

Dynamics: commodity prices



Poultry perspective: Dr. Paul Aho

Market Trends India

Facts & figures Indian agribusiness

- Agricultural sector employs 55% of total workforce
- Varied agro-climatic zones (15)
- Nr 1 in irrigated land in the world
- Nr 1 producer of wheat (12% global production)
- Nr 1 producer of pulses (20% of global production)
- Nr 1 milk producer (15% of global production)
- Nr 1 producer and exporter of spices
- Nr 1 producer of mangoes
- Nr 1 producer of coconuts
- Nr 1 producer of bananas

Source : Ministry of Food Processing Industries

Facts & figures Indian agribusiness

- Nr 2 in arable land in the world
- Nr 2 producer of tea (28% of the global production)
- Nr 2 producer of rice (20% of global production)
- Nr 2 producer of fruits & vegetables
- Nr 2 producer of cotton
- Nr 2 producer of sugarcane (20% of the global production)
- Nr 3 producer of coarse grains (incl. maize, 3% of the global production)
- Nr 3 producer of edible oilseeds (7% of the global production)

•Nr 4 producer of eggs

•Nr 5 producer of broilers

Source : Ministry of Food Processing Industries

Poultry Industry history in India

- Artificial hatching of poultry eggs started around a USA aid program in 1960’s. Simple electromechanical multi-stage incubation
- During the setup of the broiler market a supercharged layer from Cobb was introduced with the following characteristics:
    - breeder with high livability
    - yielding large number of viable eggs (small)
    - eggs gave high livability commercial chick
- Development occurred under a monopoly which did not believe in integration, B.V. Rao from the VH group
    - Vencobb & BV300 Babcock

Poultry Industry history in India

- Most important was to have large number of viable eggs resulting in chicks with high livability
- Birds were slaughtered on roadside so nobody cared about dressing
  Merchant hatchers were small players and not interested in big investments in single stage hatcheries (low technology of multi-stage persisted in India far longer than it did in equivalent poultry economies).
- Cost difference between single stage and multi-stage hatchers led to virtually no investment in single stage systems.

Poultry Industry history in India

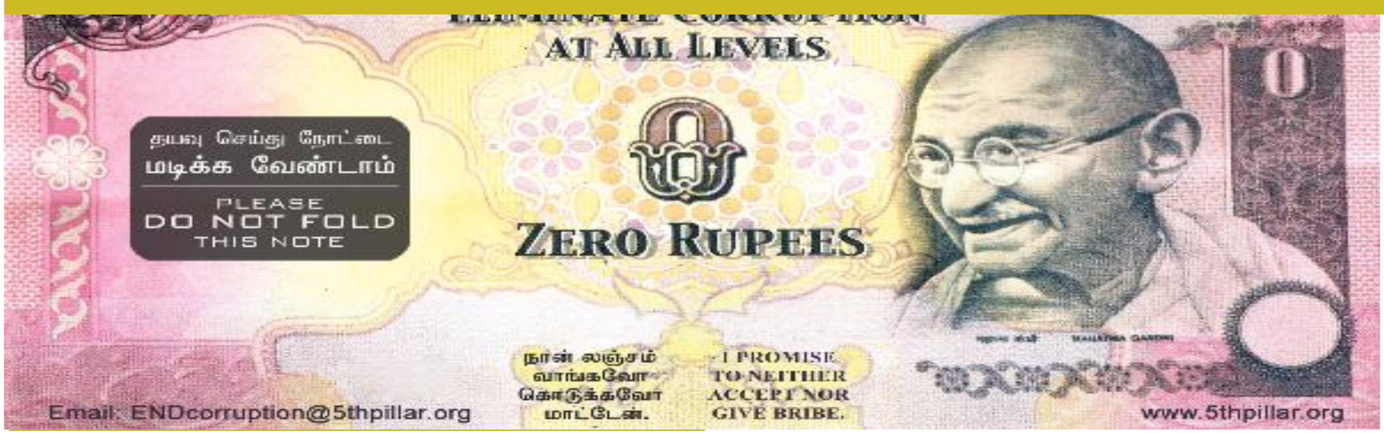
- Late nineties the ban on import of breeding stock was lifted. Now breeds with better dressing yield and higher FCR started appearing
- A broiler from the Cobb stable was crossbred with local acclimatized strain to get intermediate high dressing yield
- Since then integrations have grown and felt the need to update the hatcheries
- The break-up of the monopoly led to a product change and industry structure change.

And why India lags behind development compared to rest of BRIC?

- For the next 20 years a more than 10% growth rate in agriculture is necessary to remove poverty in India
- Now the Planning Commission is waking up to this reality and realize that rapid strides have to be made. Without the husbandry sector agriculture would have no ability to make this growth
- In the last decade the growth of the poultry (broiler) sector has been steadily above 10%.
- Growth rate because of private enterprise, no contribution of the government.

And why India lags behind slaughterhouse development compared to rest of BRIC?

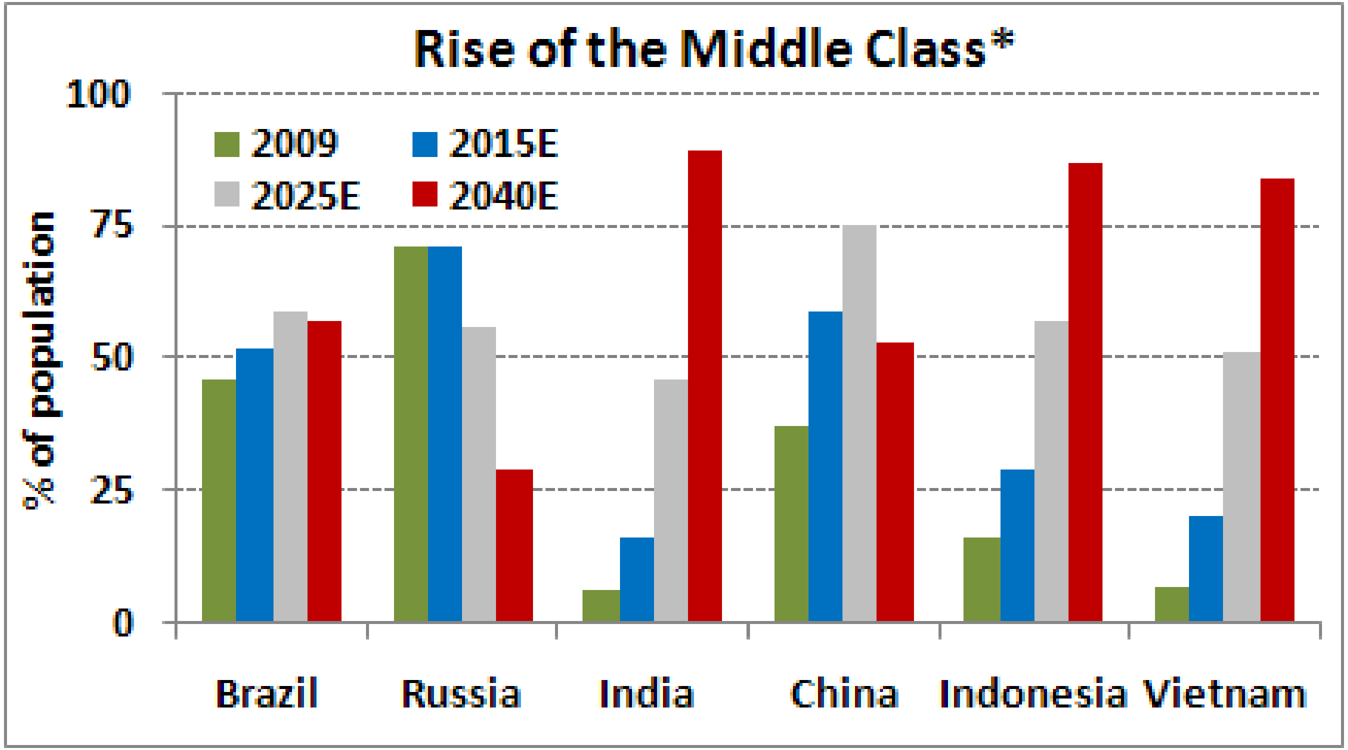
India is NOT a POOR country but a POORLY managed country



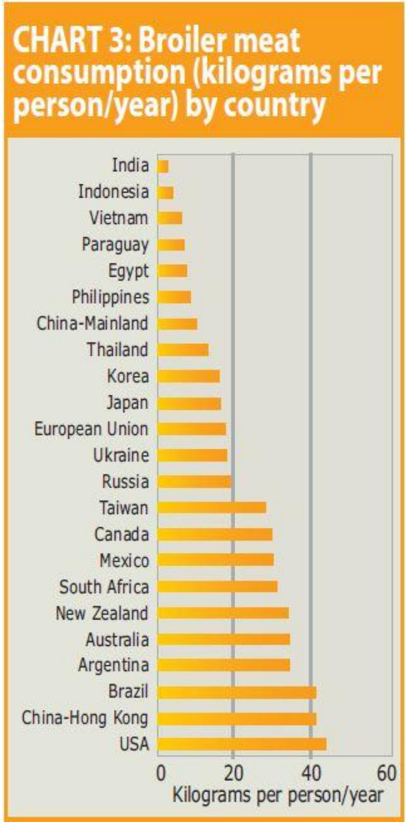
Congress + right wing parties

Indian infrastructure

Facts & figures Indian agribusiness

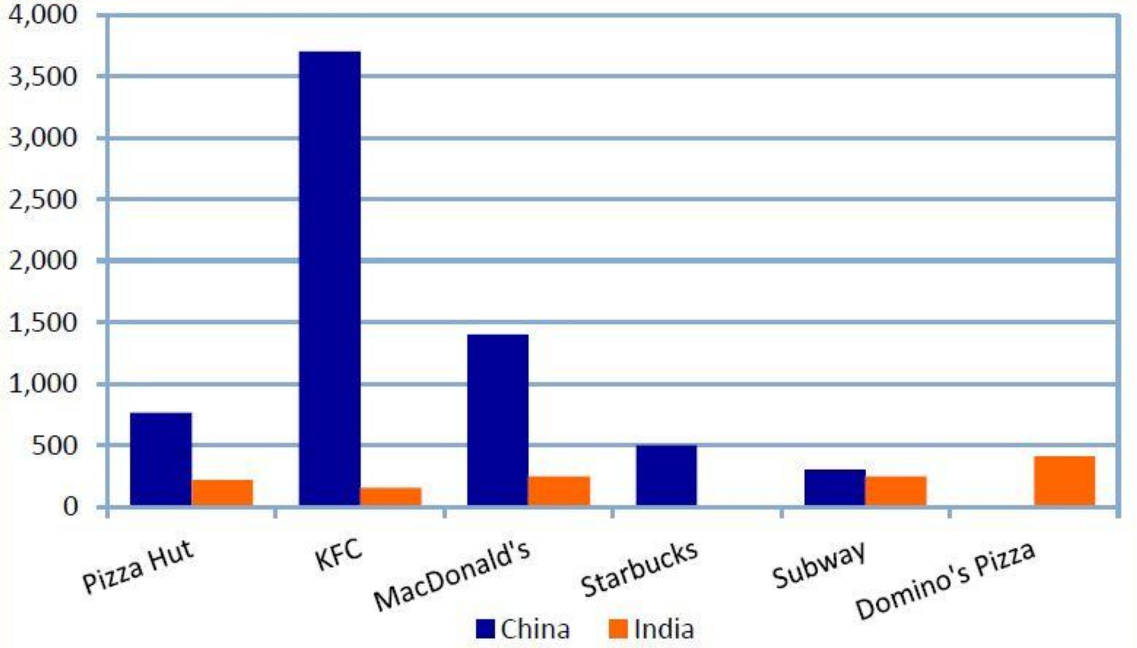


Facts & figures Indian agribusiness



Facts & figures Indian agribusiness

Figure 7: Number of outlets for selected OSR players in China vs. India, 2011/12

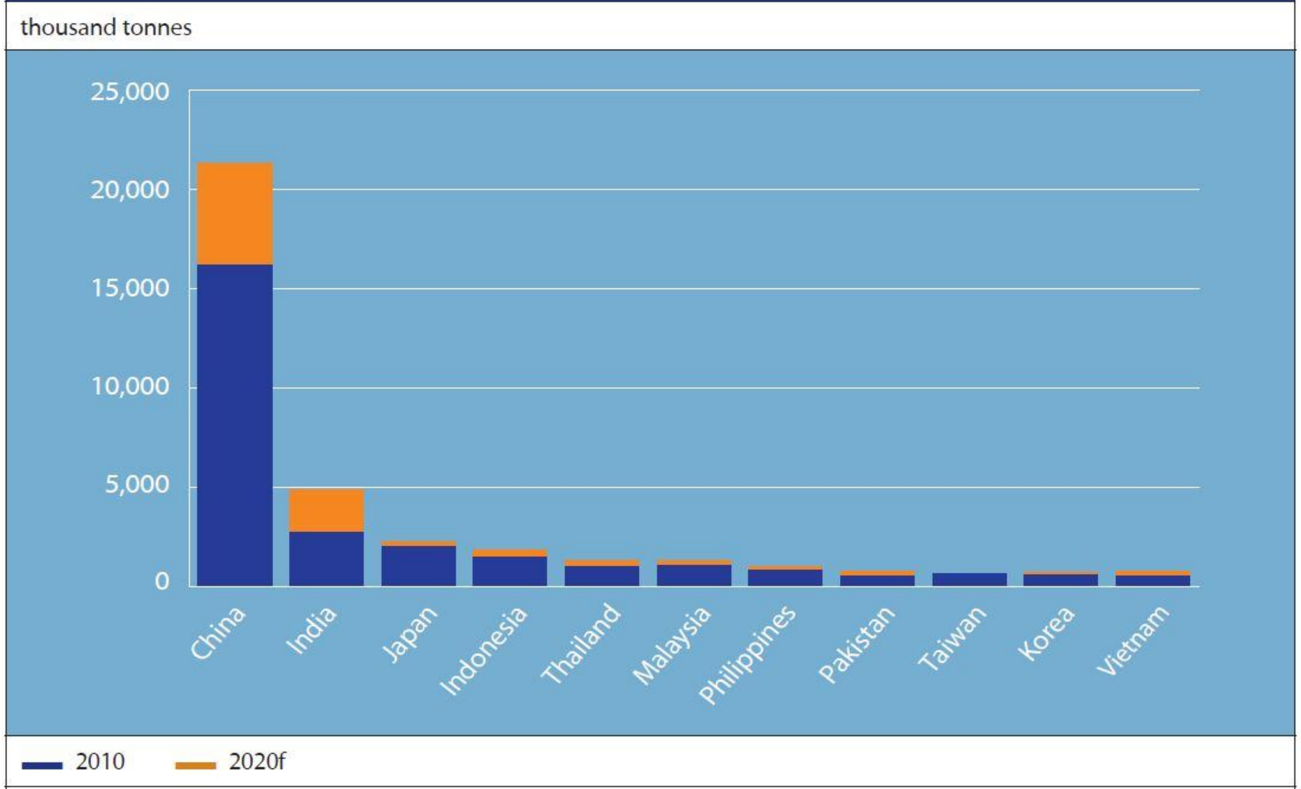


Note: above information is compiled based on publicly available source of information and recent media articles

Source: Rabobank, 2012

Facts & figures Indian agribusiness

Figure 4.3: Demand for poultry in Asia, 2010 vs. 2020f



Source: Rabobank, USDA, Food and Agriculture Organization of the United Nations,

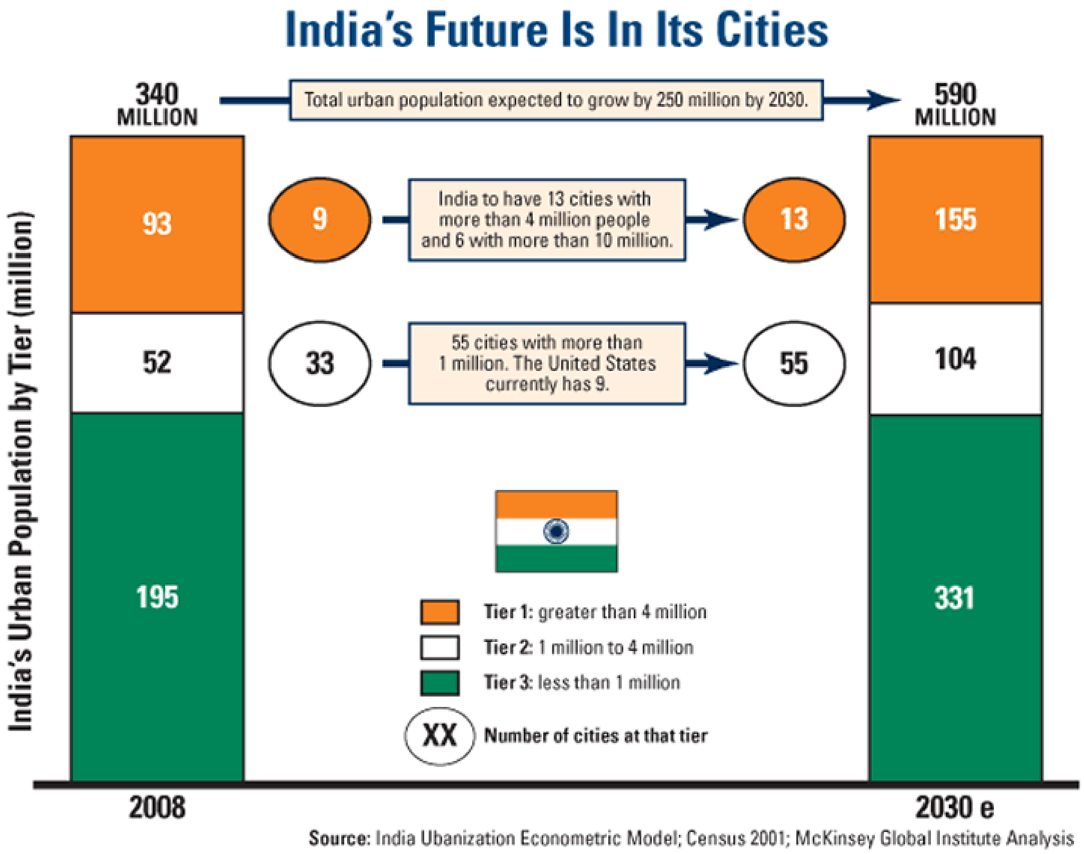
Facts & figures Indian agribusiness

Figure 5: Share of Asian wet markets for chicken meat

Country	Share of wet market (percent)
India	90-95
Malaysia	50-60
China	50-60
Indonesia	60-70
Philippines	70-80

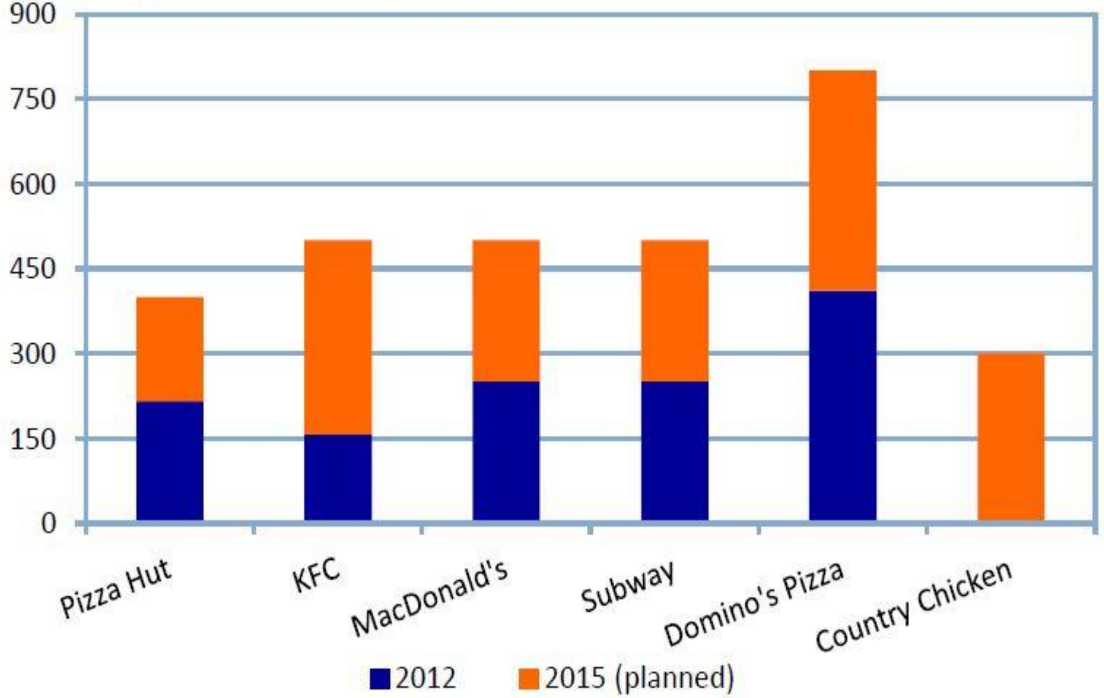
Source: Rabobank,

Population movements



Fast food projections

Figure 6: No. of existing outlets and planned outlets by some of the key QSR players in India, 2011



Note: above information is compiled based on publicly available information and recent media articles

Conclusions

- India is different, everything is (breeders, breeds, competitors)
- Veg – non-veg
- Love it or leave it
- Build your own set up, service is extremely important
- Concentration will continue in the next couple of years in India (we now already have few large groups: VH, IB poultry, Suguna, CP, Godrej, Shanti, Sneha, S&R hatcheries
- Most of these groups have young family members with international MBA's that take up leading management positions.
- But large groups have gone bankrupt over last decades as well (pioneer)
- India works via relative thruth, not absolute truth

Conclusions

- What lesson does the recent development in demand for hatchery equipment and processing equipment in India teach us about this market?
- This is only the beginning, but we will have good and bad years
- What should you do?
- Establish unquestioned leadership, with reputation for quality, service, integrity, reliability and wait
- The rest will have to come

Thank you for your attention

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Thank you!