



Securing the Food Systems
of Asian Mega-Deltas for
Climate and Livelihood
Resilience

Recent trends in animal source food production & consumption in Bangladesh and Myanmar, and their implications for nutrition

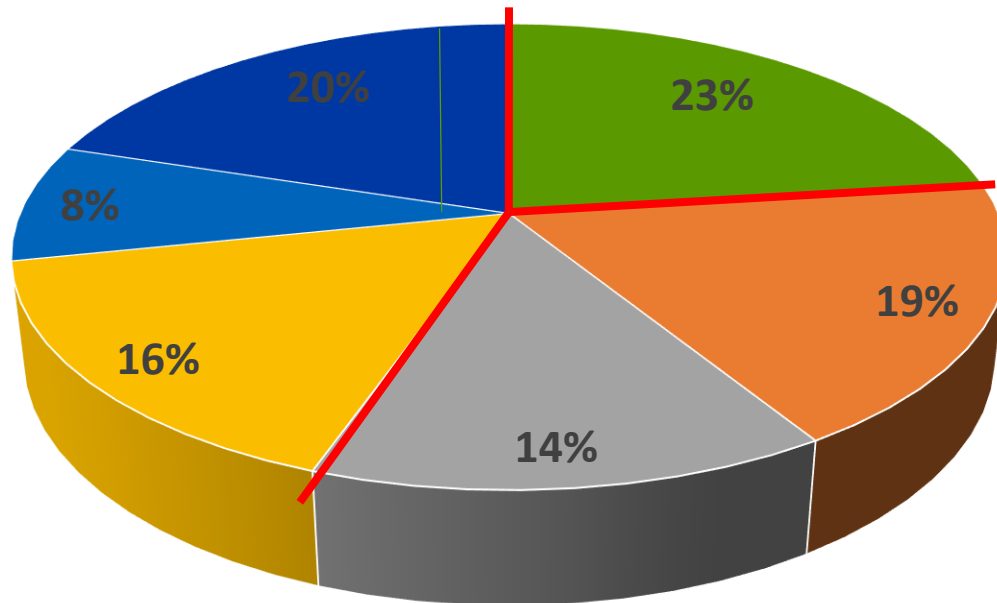
Ben Belton (WorldFish & Michigan State University)

Sami Farook (University of Manitoba)

Jessica Scott (University of Wollongong)

Affordability of Healthy Diets in South Asia – TAFSSA, December 15, 2022

Expenditure on animal source foods exceeds expenditure on staples

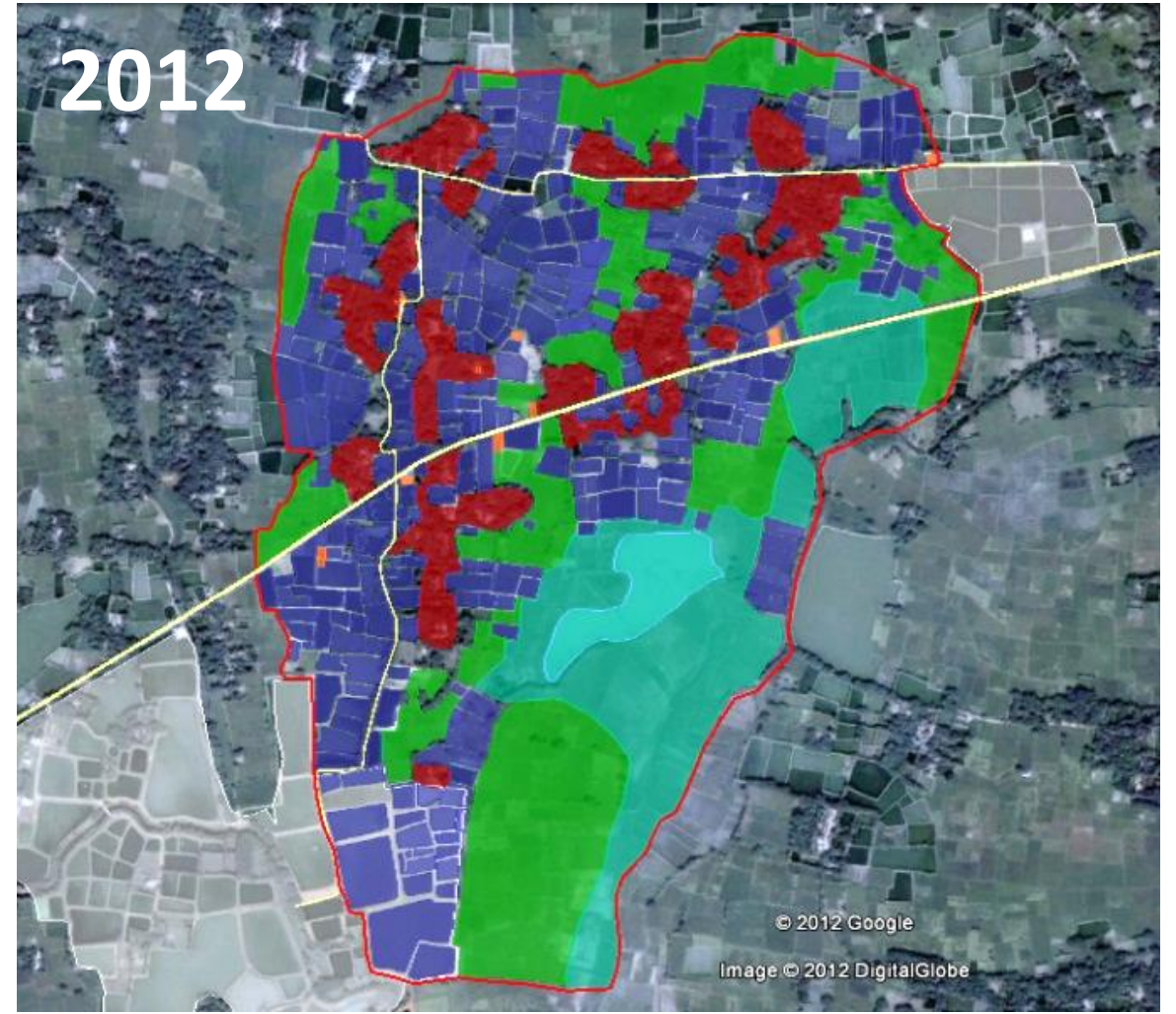
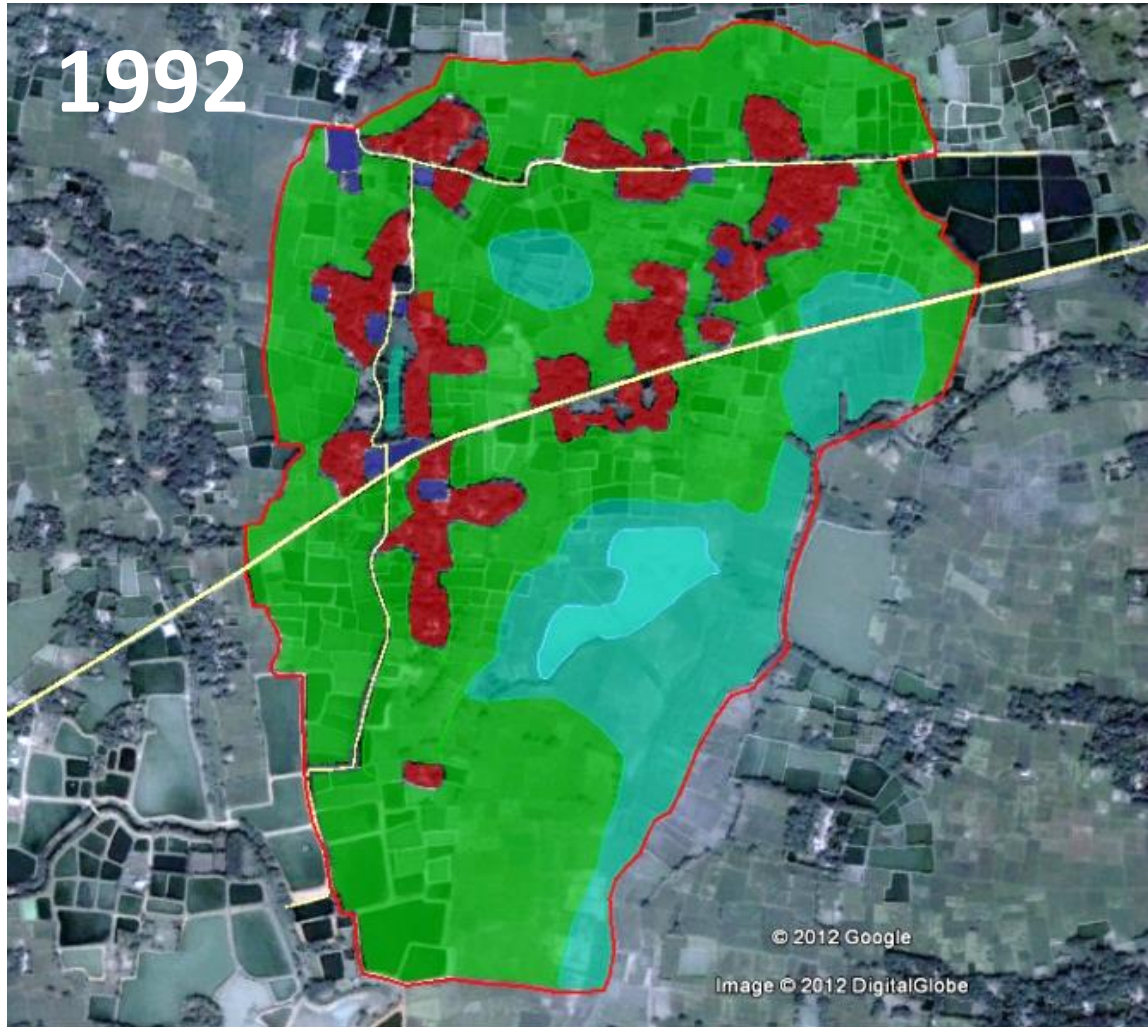


- Rice and other staples
- Meat, eggs & milk
- Fish
- Vegetables & fruits
- Food & beverages taken outside home
- Other foods & beverages

Share of Myanmar food expenditure by food group, 2010 (%) (Belton et al. 2015)

Increasing supply - Fishponds in Bangladesh

Fish farm expansion, Bangladesh (Belton et al, 2017)

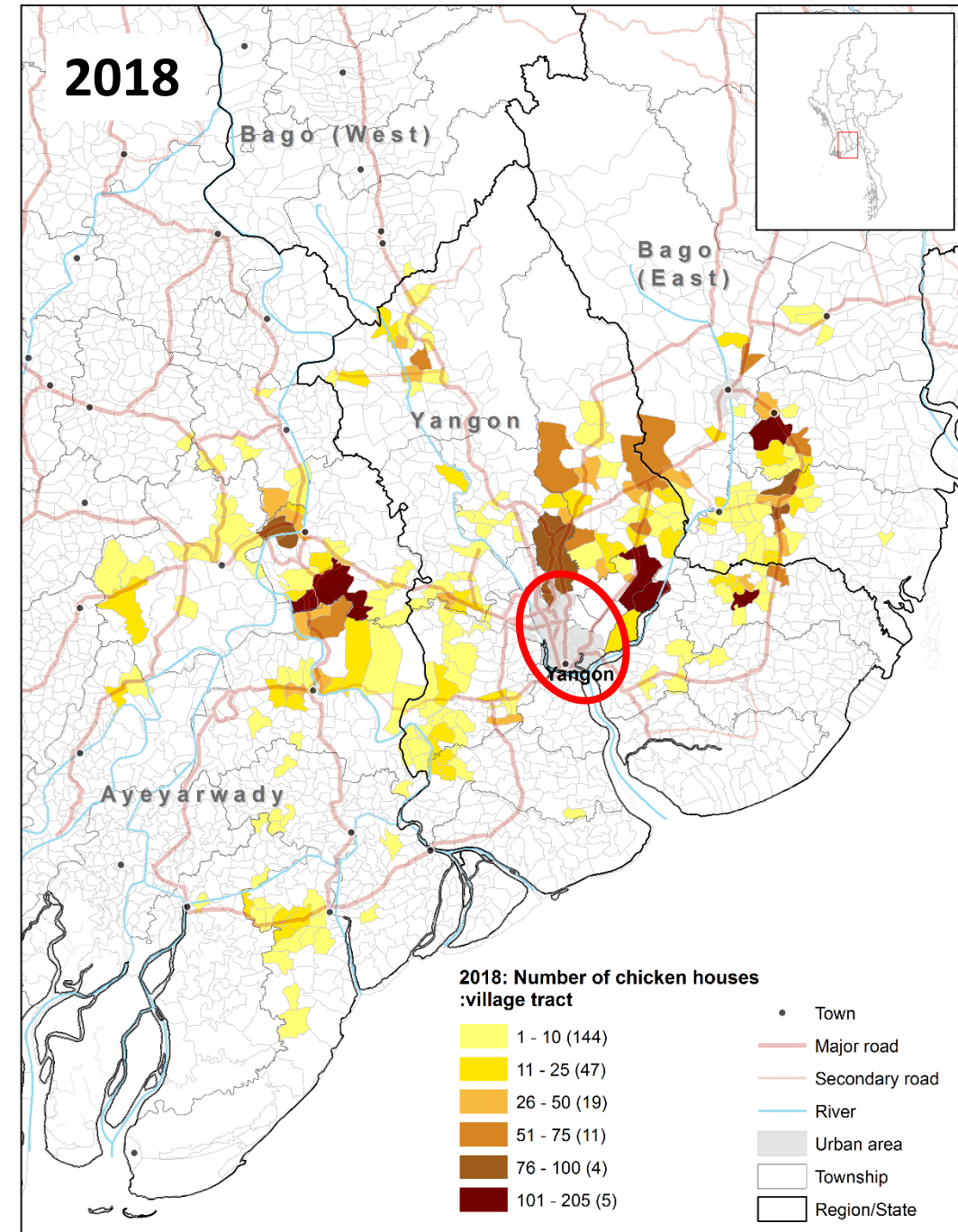
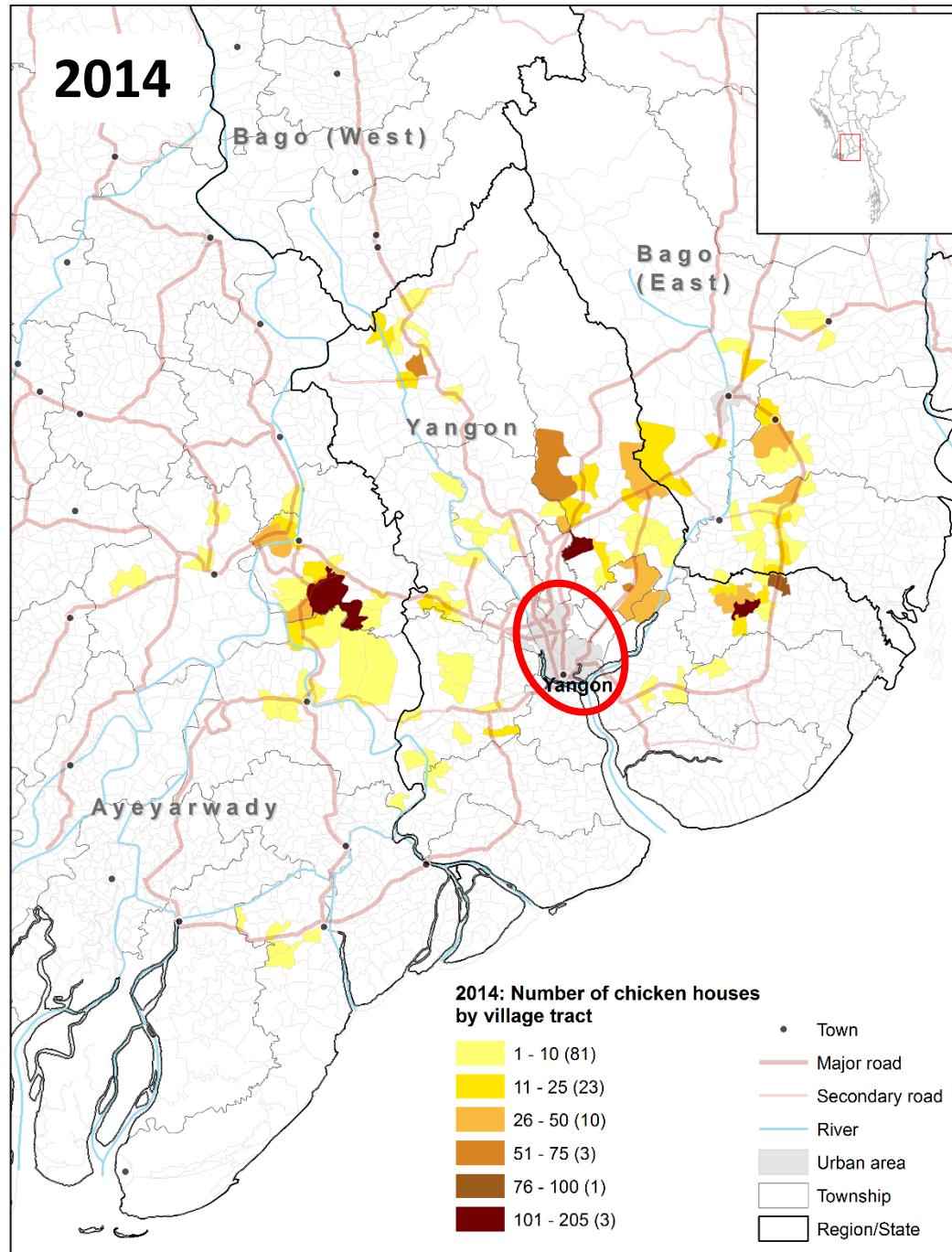


Increasing supply - Yangon poultry farms

2014: 1898 poultry houses; 121 village tracts

2018: 3868 poultry houses in 230 village tracts

(Belton et al, 2020)



Large share of supply coming from intensive, specialized, small and medium scale commercial farms



Commercialization, intensification, specialization

Production increasingly for sale, not subsistence

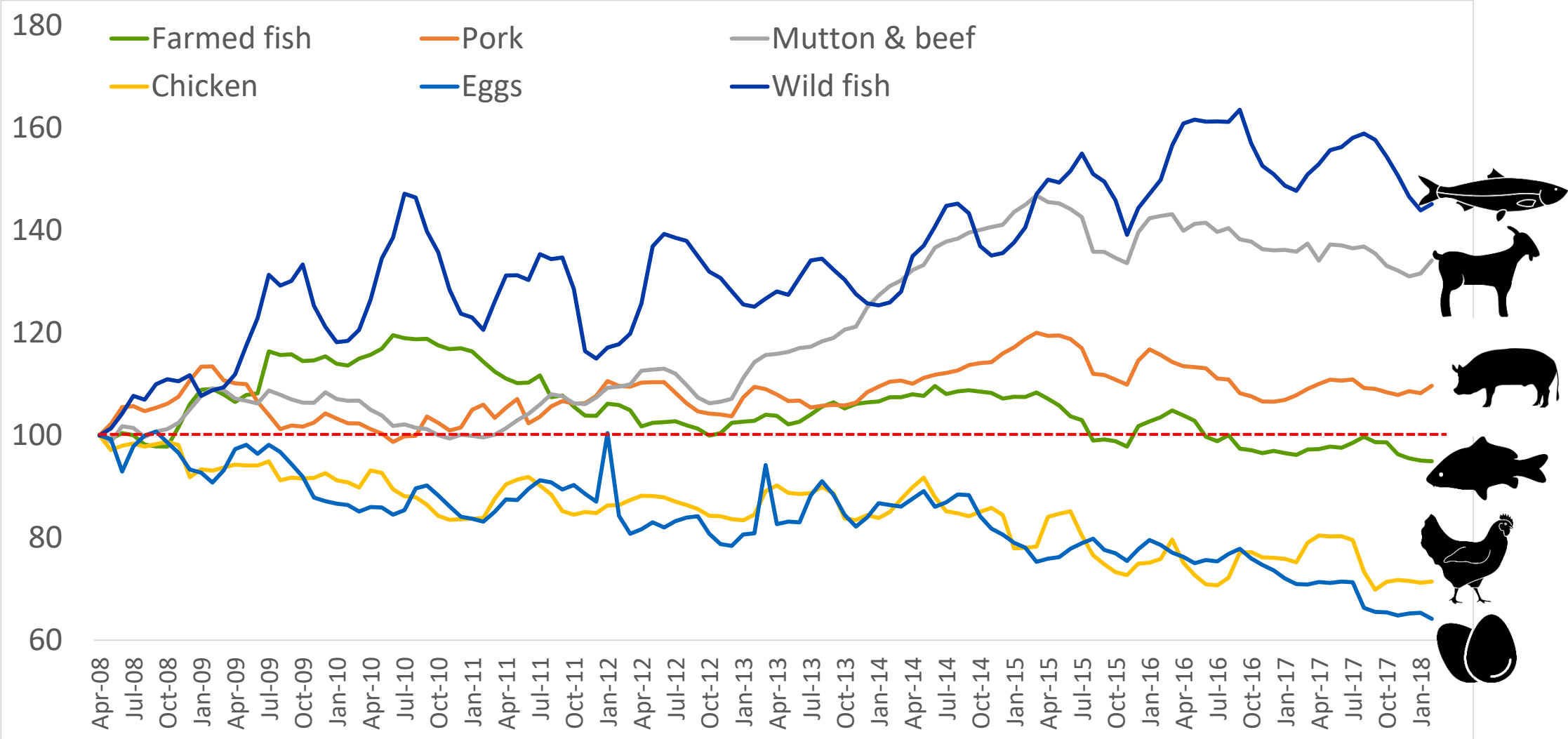
Technological change:

- Formulated feeds
- Larger fingerlings
- Deeper ponds
- Pumps, aeration
- Chemicals
- Higher yields

Corresponding transformations and innovation in value chains up- and down-stream of farms

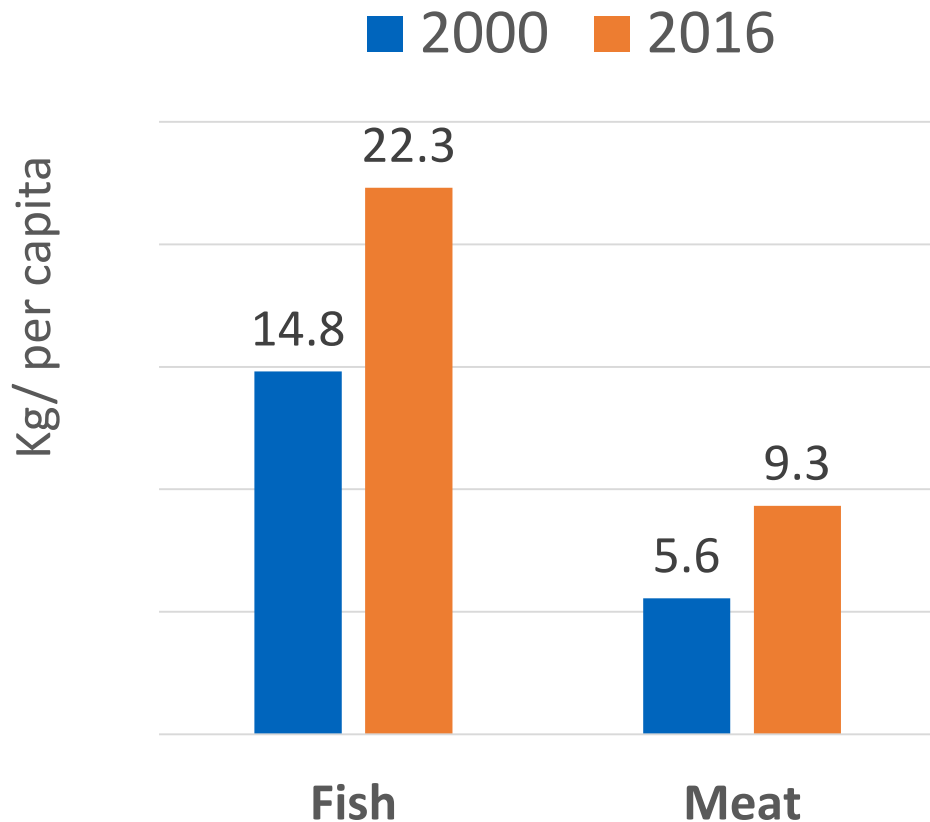


Increasing supply contributes to lower prices for farmed fish & poultry



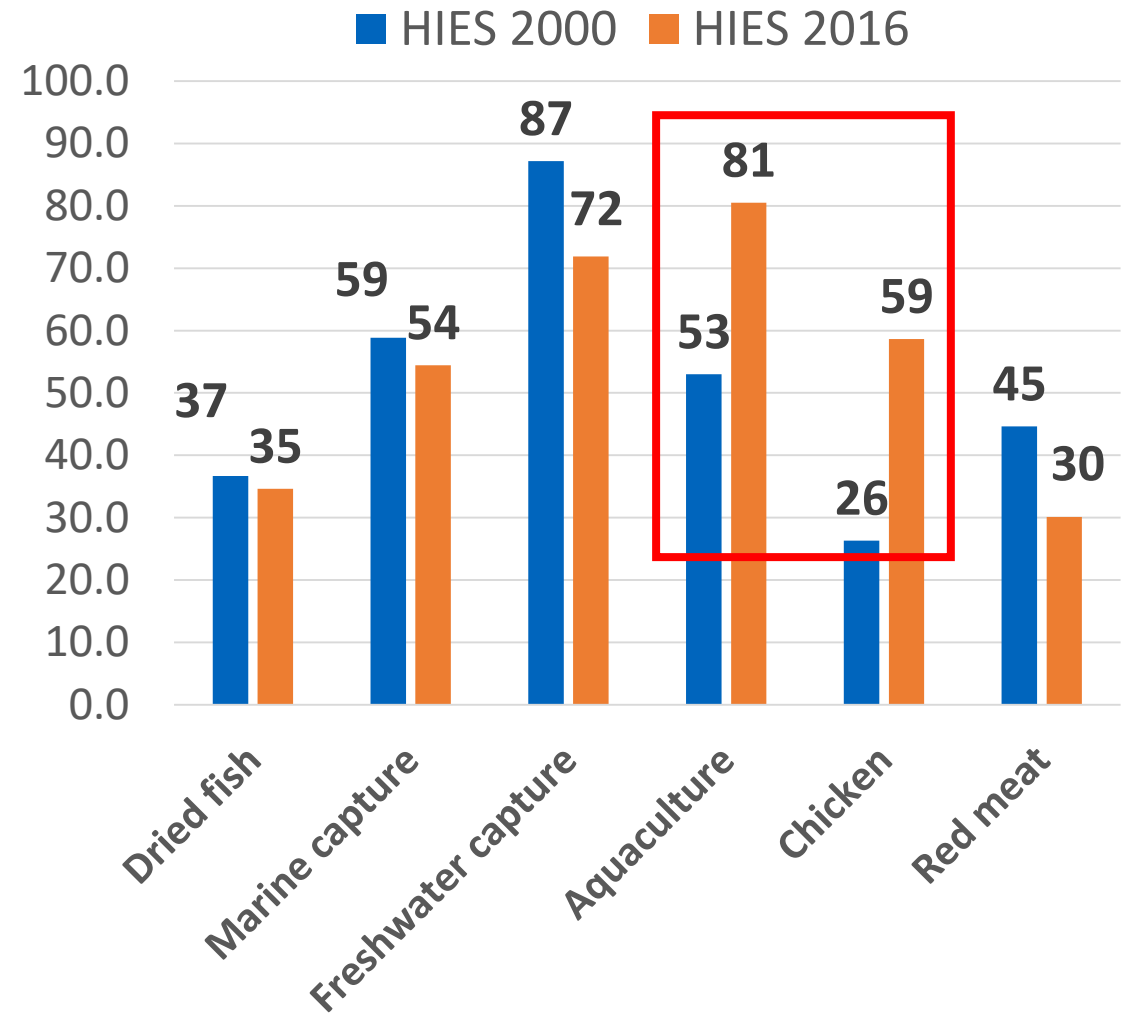
Price index of real prices of selected animal source foods in Myanmar, 2008-2018
 (derived from Central Statistical Office data, multiple years – Scott et al. Forthcoming)

Rapid growth of fish and meat consumption...



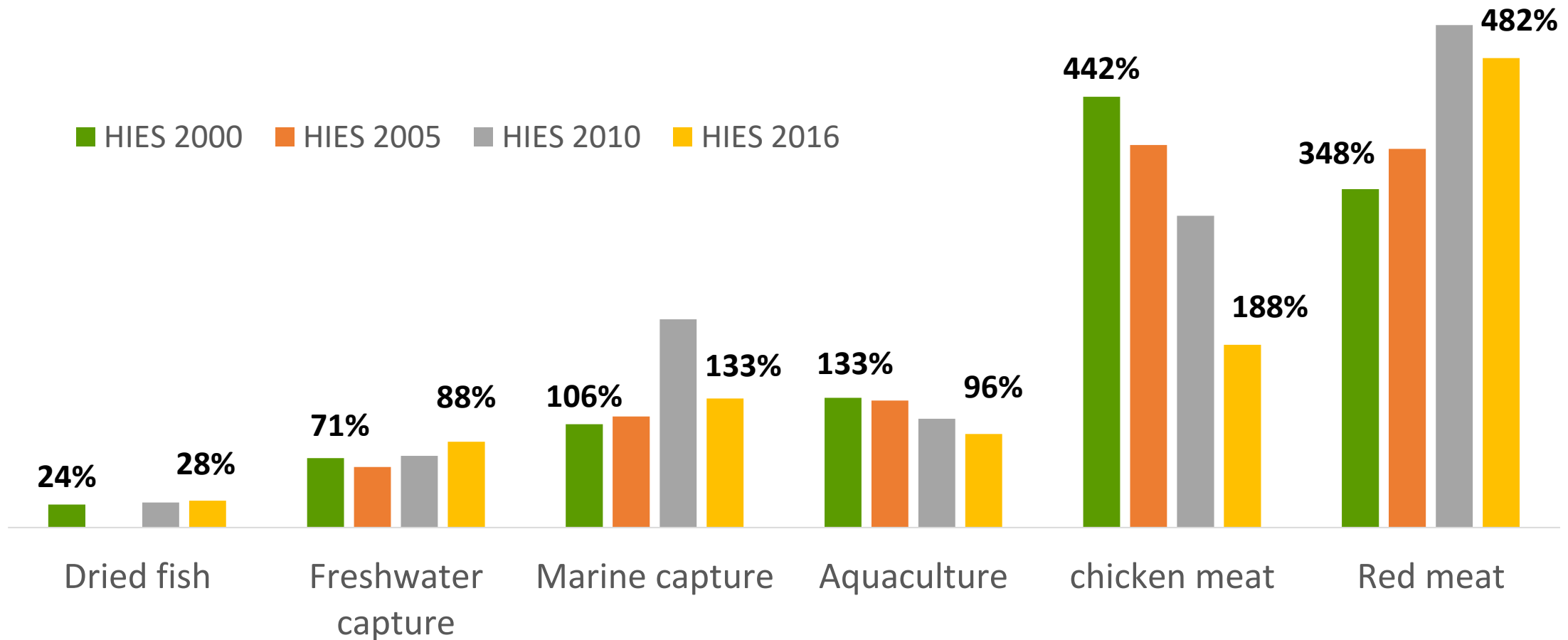
National average consumption (kg/capita) of meat and fish – Bangladesh 2000-2016 (Farook et al – Forthcoming)

Driven by aquaculture & poultry



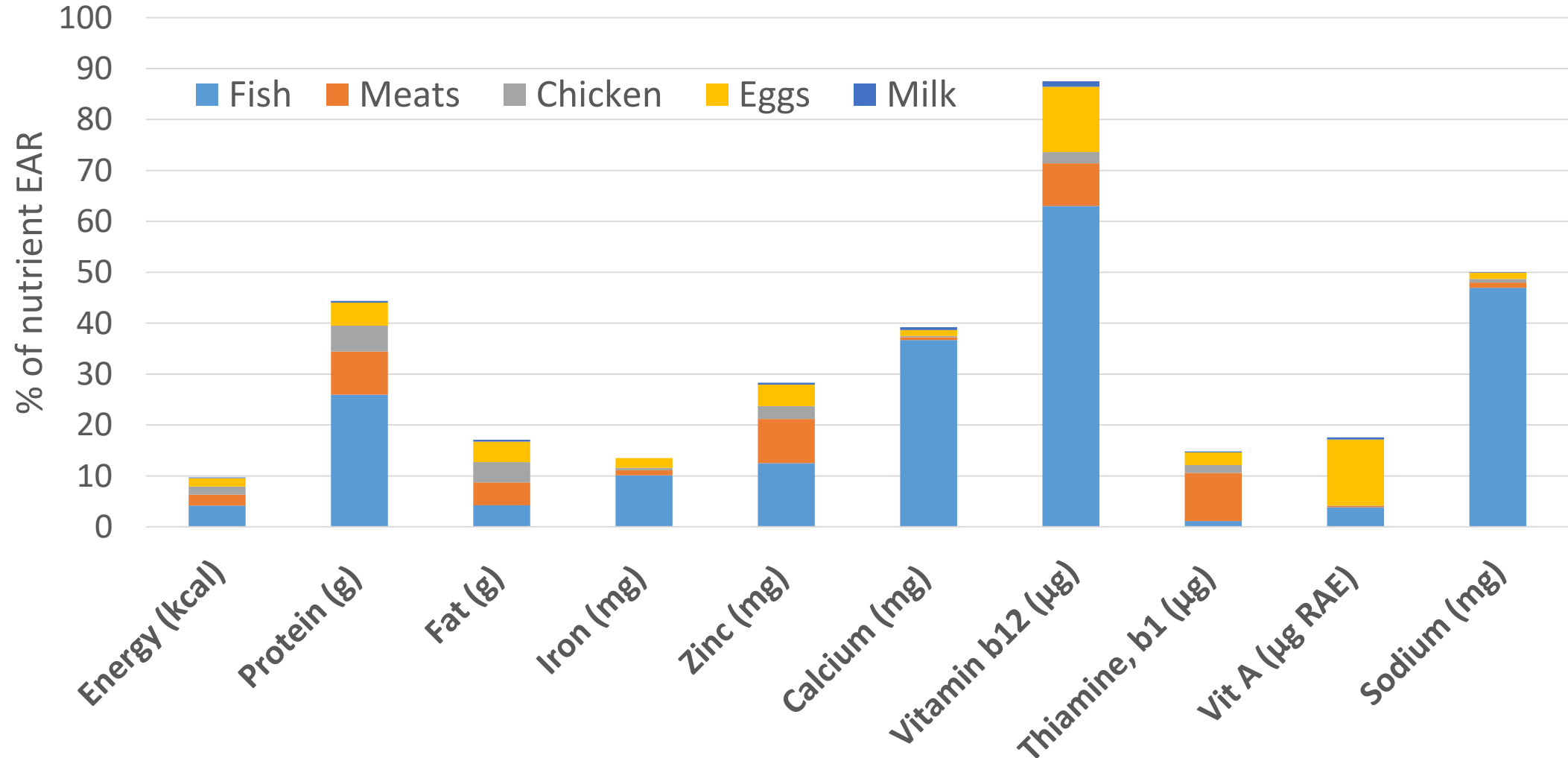
% of households reporting ASF consumption in past 14 days, by type, Bangladesh 2000-2016 (Farook et al – Forthcoming)

Rising inequality in consumption of red meat and capture fisheries fish, declining inequality in consumption of poultry and farmed fish



Gap in annual ASF consumption (kg/capita) between non-poor & poor individuals, Bangladesh, 2000-2016 (%)
(Farook et al, forthcoming)

Important contribution of ASF (particularly fish) to nutrient requirements, but high levels of dietary inadequacy likely



Contribution of ASF to Estimated Average Requirements (EAR) for an Adult Woman, Myanmar, 2015 (Scott et al, forthcoming)

Conclusions

- Massive growth in poultry and aquaculture in Bangladesh & Myanmar, much of it from specialized small/medium farms
- Big increases in poultry & egg consumption + rising or static fish (depending on rate of aquaculture growth)
- Declining supply & consumption of capture fish, static/declining red meat
- Highly unequal consumption of all Animal-source foods across income groups
- ASF (especially fish) make important contributions to nutrient intakes, but still high levels of nutrient inadequacy
- Shock of COVID-19/price spikes/coup likely driving short/medium run reductions in ASF consumption and worsening nutrient adequacy

Thank you!



Securing the Food Systems
of Asian Mega-Deltas for
Climate and Livelihood
Resilience