

Livestock in national food security and nutrition

Trends and projections for 8 developing countries

*Dolapo Enahoro, Mats Lannerstad and Catherine Pfeifer
International Livestock Research Institute (ILRI), Nairobi, Kenya*

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Motivation

- As incomes improve in lower and middle income countries, human diets observed to include higher consumption of livestock-derived foods (i.e., the “livestock revolution”)
- Much still unknown about the implications of such transformations for the world’s poorest populations

Scope

Assess the role of livestock production and products in developing countries undergoing rapid change:

- National food supply, present and future
- Nutrition
 - Energy
 - Macro nutrients
 - Micro nutrients
- National food self-sufficiency
- Livelihood and nutrition benefits for the poor

Study design

Components

FAO statistics

IMPACT modelling (ISPC Scenarios)

Nutrient conversion factors (USDA)

Household survey data (DHS)

Scenarios

→ 2010 – Baseline

→ 2050 – Low Growth

– Medium

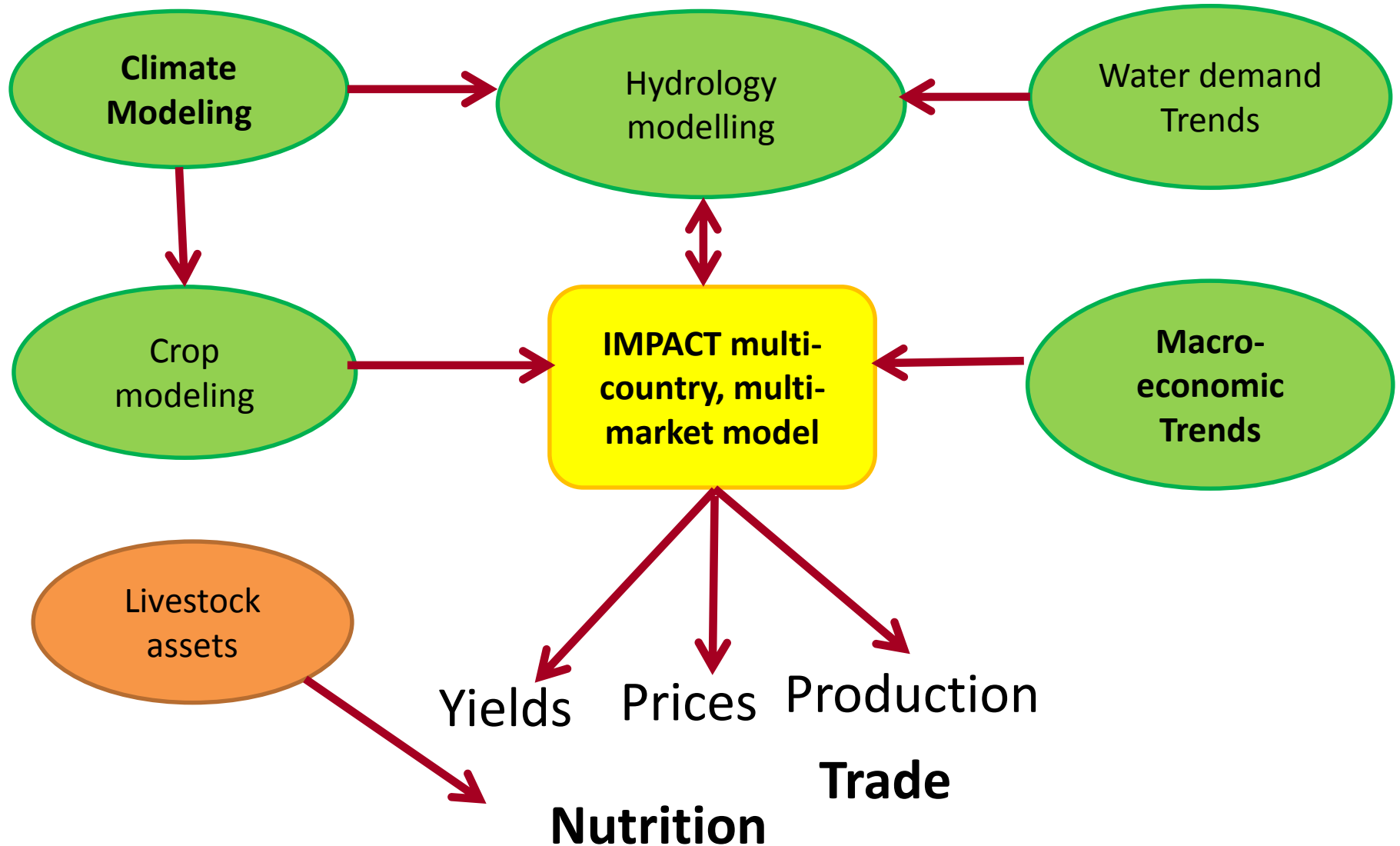
– High

– Climate

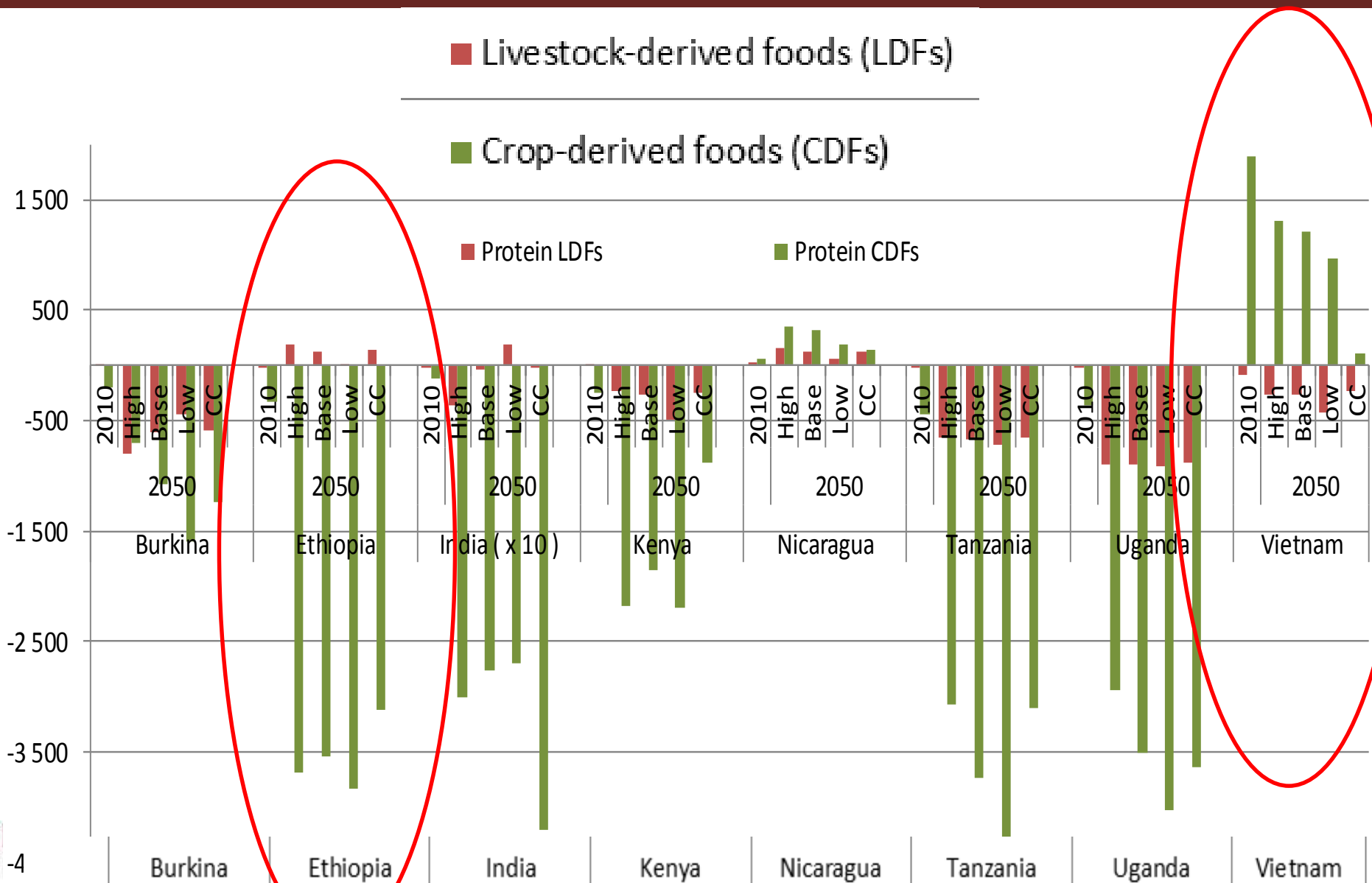
8 Target Countries - CGIAR Research Program on Livestock Agri-Food Systems



The IMPACT-Livestock System, Adapted



Protein national self-sufficiency 2010 and 4 scenarios 2050 (MTs)



Some useful results

Target countries facing major importation, for both livestock and crops, under all scenarios

Livestock's importance to grow in supply of macro- and micro nutrients (*but, not as much as expected*)

Livestock-rearing among poor

- (patterns) different from other households'
- (importance) increasing over time
- present opportunity to meet future demand

3 things we learnt ...

Useful livestock data to be found in surprising places

Considerable scope to link tools across disciplines and scales, enhancing relevance of impact modeling

Prepare for the evidence to challenge assumptions

better lives through livestock

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Patron: Professor Peter C Doherty AC, FAA, FRS

Animal scientist, Nobel Prize Laureate for Physiology or Medicine–1996

Box 30709, Nairobi 00100 Kenya
Phone +254 20 422 3000
Fax +254 20 422 3001
Email ilri-kenya@cgiar.org

ilri.org
better lives through livestock
ILRI is a CGIAR research centre

Box 5689, Addis Ababa, Ethiopia
Phone +251 11 617 2000
Fax +251 11 667 6923
Email ilri-ethiopia@cgiar.org

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