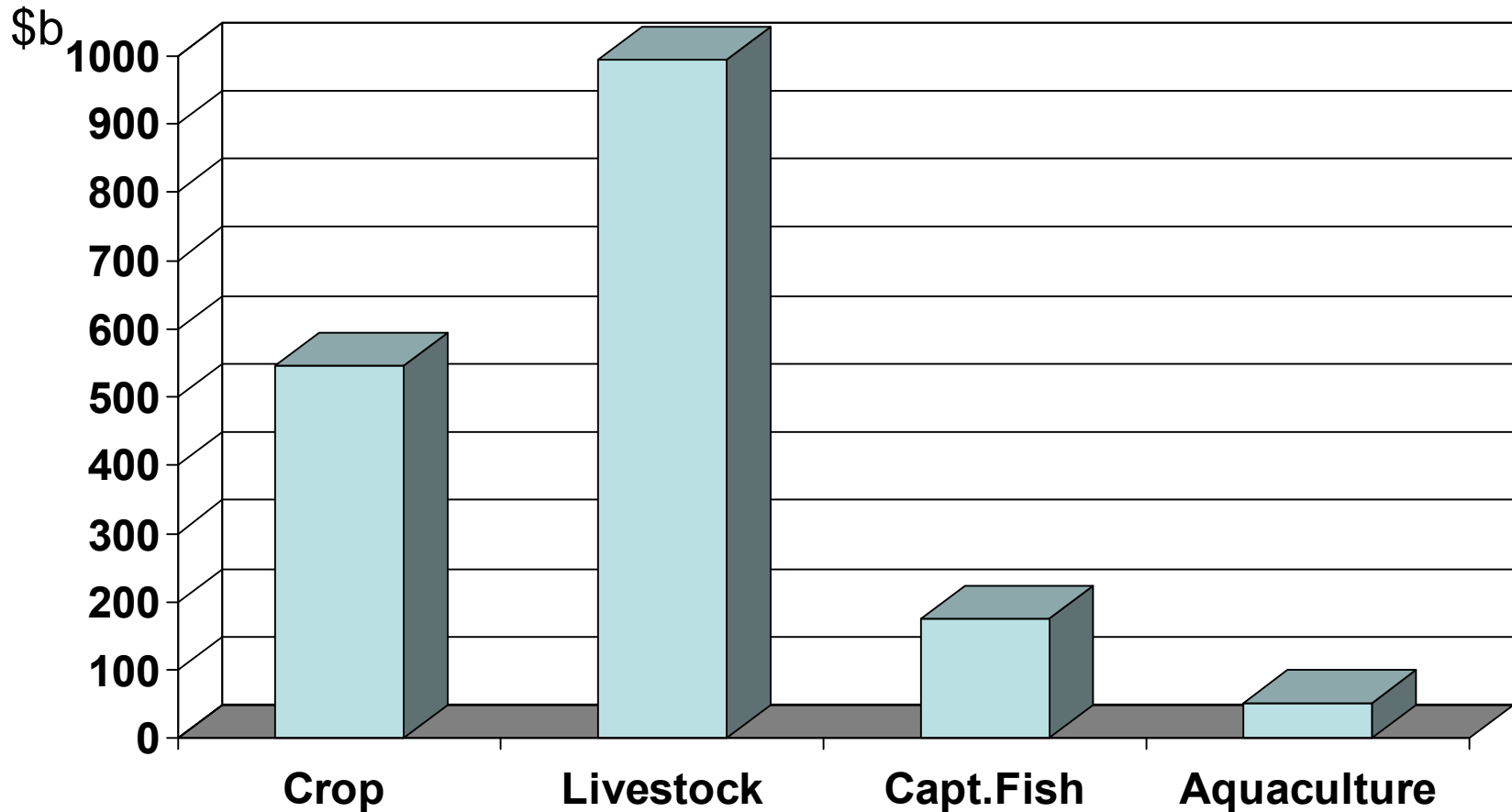


Changing the Food on the Plate: Implications for Rural Lenders

3rd African Microfinance Conference

Richard Roberts
GTZ Uganda

Relative importance of global livestock and aquacultural production - 2000



- Already the estimates just presented show the size of these areas of primary production.
- But.....
- There are trends which underpin further growth in the livestock and fish farming sectors – of interest also to FIs
- Let's look at some economic history, to examine demand

Maps



Demand elasticities

- **Europe:** Late 19th Century
- **North America:** Early 20th Century

Now.....

- **Asia:**

Up to an annual per capita income of \$3000 the elasticity of demand for food is 0.7

Table 1: Trends in annual per capita consumption of selected livestock food products (kg)

| Commodity | Developed Countries | Developing Countries |
|------------|-----------------------|----------------------|
| | % change 1973 to 1993 | |
| Milk | + 3.7 | + 38 |
| Eggs | 0 | + 150 |
| Beef/Pork | | |
| Sheep/Goat | + 16.4 | + 91 |
| Chicken | | |

Source: FAO

FI

- Having established the growing importance of these two areas of higher value food production, let us now look at some of the major risks, to a borrower and therefore to FIs

Mortality vs performance

- Major risk in livestock farming and aquaculture is mortality of the stock
- Performance may also be affected by lack attention to feeding management, disease control and protection against typical perils – e.g. those familiar to an insurer

Perils

- include :
 - Diseases/epidemics
 - Adverse weather
 - Pollution, poisoning, land subsidence
 - Machinery/electrical breakdown
 - Fire, lightning, explosion
 - Malicious damage, riot, strike

Weather

- Weather perils
 - Drought/lack of water from irrigation source
 - Excessive rain/flood
 - Frost/snow
 - Windstorm
 - Hail

Drought



Microfinance issues

- Risk analysis of livestock investments not well developed in most FIs – scope for sharing of information
- However, microfinance already active in financing both livestock and aquacultural investments, but neither is a “measured risk, mature product”

Some steps...

- Sensitize FI management and staff to the growing demand for higher value foods and the implications for investment flows
- Open up communication lines with sources of necessary expertise – this is usually available, but is often isolated from the financial sector

Insurance – an option?

- In some cases, yes, but these are limited

Livestock Risks – Option 1

- Mortality on an individual farm basis
 - This may be recorded on a per-animal basis (typical for larger animals), or.....
 - On a percentage of herd/flock basis (typical for poultry/small livestock)

(Both too expensive for most small operators)

Livestock Risks – Option 2

- Mysterious disappearance
 - Unexplained absence of livestock, through escape, rustling

(Requires firm rule of law)

Livestock Risks – Option 3

- Outbreak of a contagious disease with the potential for serious regional/national consequences

(Scope for scale economies in determining loss)

Traditional livestock cover - Mortality

- Common exclusions in the traditional policy were:
 - Consequential loss & legal liability
 - Government slaughter order
 - Cannibalism/ malnutrition
 - Overcrowding

New Directions for Livestock Cover

- Insurable **perils** now commonly include:
 - Epidemic disease
 - Fire
 - Poisoning, pollution
 - Accident

New Directions for Livestock Cover

Insured **events** include:

Ban on selling animals or animal products

Drop of production as a result of an insured peril

Loss of animals

India: Harvesting Carp



Aquacultural Risks - 1

- These mirror to some extent the categories of risk for livestock
- Like poultry enterprises, and like the trend with insurance for larger livestock losses at the farm level are measured as percentages and/or as lost revenue.
- Thus.....

Aquacultural Risks - 2

1. Diseases
2. Predation by birds, seals, sharks
3. Water quality
 - oxygen depletion
 - algal toxins



Aquacultural Risks - 3

Risks to structures (tanks, cages, sluices)

- Floods
- Electrical power outages
- Windstorm / storms & surges
- Collisions

Risk Management

- Risk management procedures begin with physical measures to reduce exposure to perils. Livestock and aquaculture
- Thus:
 - constant monitoring of health
 - suitable location
 - veterinary procedures
 - structural strength adequacy

Aquaculture Insurance is or has been Transacted in these Countries

(List may be incomplete)

Australia
Canada
Chile
China
Denmark
Finland
France
Germany
Greece

Netherlands
Honduras
Iceland
Ireland
Italy
Japan
Korea,S
Mexico

New Zealand
Norway
Portugal
Spain
Sweden
Turkey
U.K.
U.S.A.
Vietnam

Ref. Secretan (2003) & others

West Sumatra: Lake Mananjau Tilapia & Common Carp



Thank you.....