Technical Assistance in Food Safety as a Driver of Economic Development

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Food and water safety matter greatly to human health and welfare everywhere…

➢ Because its absence:
  (1) causes great economic, social and individual harm;
  (2) disrupts commerce and trade; and
  (3) weakens the competitive position of producers, industries and countries in which agriculture matters
International agencies and donors generally view food safety is part of a bigger standards hierarchy.
FWS concerns span both the plant and animal kingdoms…

- But the majority of infectious diseases derive from livestock species and are passed to humans via insect vectors or contact with wild animals.

Source: AVMA
The safety of food cannot be separated from the safety of water…

- More than 200 diseases are spread through food
- Diarrheal diseases alone kill an estimated 2.2 millions annually (at least 1.5 million are children)
- Most of these illnesses are attributed to contaminated food or water
- Between 6-18 months of age, children in developing countries have around 9 episodes of diarrhea
- Many authors reported that diarrhea accounts for 10-80% of growth faltering (although others contend that children grow at “catch-up rates” between episodes)

...so infrastructure investment matters

Source: WHO and Stoltzfus
“Situation that exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life”

Source: World Food Summit, 1996
FWS can affect any or all of the four pillars of food security, but especially affects 2 and 3

- Availability ➔ overall ability of the agricultural system to meet food demand
- Access ➔ by individuals to adequate resources to acquire appropriate foods for a nutritious, safe and varied diet
- Utilization ➔ hygiene, preparation, uptake
- Stability ➔ risks of availability, access and utilization
Feed the Future Goal: Sustainably Reduce Global Poverty and Hunger

Indicators: Prevalence of poverty & Prevalence of underweight children

First Level Objective:
Inclusive agriculture sector growth

Indicators:
- Agriculture sector GDP
- Per capita expenditures of rural households
- Empowerment of Women in Agriculture Index

First Level Objective:
Improved nutritional status (women & children)

Indicators:
- Prevalence of stunted children
- Prevalence of wasted children
- Prevalence of underweight women

Improved agriculture productivity
- Gross margins per unit of land or animal of selected product
- # of has of natural resources showing improved biophysical conditions

Expanding Markets & Trade
- Percent change of value of intra-regional trade in targeted agricultural commodities
- Value of incremental sales (farm-level)

Increasing investment in agriculture & nutrition-related activities
- % national budget invested in agriculture & nutrition
- Value of new private sector investment in agriculture sector or value chain
- # of local firms & CSOs engaged in food security operating sustainability

Increased employment opportunities in targeted value chains
- Number of jobs attributed to FTF programs

Increased resilience of vulnerable communities and households
- Prevalence of households with moderate to severe hunger

Improved access to diverse and quality foods
- Women’s Dietary Diversity
- Percent of Children 6-23 months that received a MAD

Improved nutrition-related behaviors
- Prevalence of exclusive breastfeeding under six months

Improved use of maternal and child health and nutrition services
- Prevalence of anemia among women and children

Programs and policies to support agriculture sector growth
- Availability

Programs and policies to increase access to markets and facilitate trade
- Access

Programs and policies to reduce inequities
- Stability

Programs and policies to support positive gains in nutrition
- Utilization
Under the Feed the Future Strategy, agriculture and nutrition will converge....

Past

Present
If compromised, FWS can adversely affect essential nutrition goals in development

- Poor and ultra-poor people
- Pregnant and lactating women
- Infants during the first 1,000 days of life
- Children under five
- Elderly persons
- Immuno-compromised individuals
Food safety’s impact on nutritional outcomes interacts with household hygiene.

First Level Objective: Improved nutritional status (women & children)
Indicators:
- Prevalence of stunted children
- Prevalence of wasted children
- Prevalence of underweight women

- Increased resilience of vulnerable communities and households
  Prevalence of households with moderate to severe hunger

- Improved access to diverse and quality foods

- Women’s Dietary Diversity
  Percent of Children 6-23 months that received a MAD

- Improved nutrition-related behaviors
  Prevalence of exclusive breastfeeding under six months

- Improved use of maternal and child health and nutrition services

- Prevalence of anemia among women and children

Foods safe from microbes and toxins
Household hygiene behaviors

Source: Stoltzfus, IFADC, June 2011
How the most vulnerable behave can greatly affect food safety

Source: Stoltzfus, IFADC, June 2011
High Prevalence of IUGR, Stunting and Severe Wasting in Children Under 5

- 13 million babies are born each year with intrauterine growth restriction
- 178 million children are stunted; 32% of all children
- 19 million children are severely wasted

Together with micronutrient deficiencies, responsible for 1/3 of child deaths globally
How can we improve nutrition?

The “Window of Opportunity” for Improving Nutrition is very small... pre-pregnancy until 18-24 months of age.

Data Source: Shrimpton et al (2001)
The effects of stunting last a lifetime

- 30% increase in risk of death from infectious disease
- 10% decrease in lifetime earnings
- 7 month delay in starting school
- 0.7 years loss of schooling
- Increased risk of NCD’s in later life

Source: Stoltzfus, IFADC, June 2011
…ideally, all three areas that affect food safety will come together in the future
Key messages on technical assistance in food safety

- Food/water safety is significantly under-represented and under-invested in food security policy and programming.
- There are myriad identifiable factors that explain the underinvestment, and many can be overcome.
- An integrated approach to food security is needed, which would include more explicit recognition of FWS.
- FWS presents a systemic challenge—which the regulatory bodies and international agencies can best address—yet there are specific risks such as aflatoxin that warrant significant investment by donors, analogous to what the development community has long accepted for certain communicable diseases.
- FWS presents many opportunities for partnerships of all kinds.
What is the rationale for the international development community to get more involved in food safety?

1. Food safety (and agricultural health) control systems in developing countries are often not up to best practice standards

2. This results in adverse impacts on human health and welfare, as well as economic and social progress, that interfere with higher level development objectives for food security and the MDGs generally

3. Growth in trade, coupled with the evolution of long standing hazards and appearance of new ones, are outstripping the risk mitigation capacity of developing country food control systems (and even those of many developed countries)

4. Regulators increasingly recognize that they cannot inspect their way to a safer food supply, need to get closer to source areas, and must collaborate with a whole host of international, public and private partners to make the world of food safer for consumers
What is rationale for the international development community to get more involved in food safety?

4. Although the private sector has made tremendous progress in upgrading proprietary supply chains, there are millions of suppliers and handlers who remain outside the commercial chains.

5. There is a great disparity between expectations, incentives, and performance between modern supply chains that aim for export markets and traditional supply chains that deliver to domestic and regional markets.

6. Upgrading requires developmental investment, and domestic especially funding is very scarce.

7. Host governments rarely approach this challenge pro-actively, have many other demands, and lack technical resources.

8. Development agencies get asked, and in fact can help.
What stands in the way of greater involvement?

- Sheer complexity and technical nature of the topic
- Relative lack of good burden data and difficulty in risk assessment as well as economic analysis of alternative mitigation strategies
- Dispersion of mandates across agencies, coupled with stovepiping and ineffective interagency processes
- Competition for scarce resources, coupled with tendency to favor bricks and mortar (e.g. analytical labs)
- Scarcity of appropriate models for intervention
- Limited awareness by the general public
- Lack of political will (until a food safety crisis occurs!)
Perspectives of international development community and the regulatory community are related yet distinct

- Both strive to improve the public welfare, but view it differently
- The regulators’ mandate to protect domestic consumers, which is not a top-of-mind concern for international aid agencies
- The mission of aid agencies is to pursue economic and social progress (especially for the underserved, doing no harm to the rest)
- Regulators are mainly concerned with mitigating risks (i.e. preventing negative outcomes), while aid agencies are mainly concerned with pursuing opportunities (i.e. fostering positive outcomes)
- Except for risk prevention and incident management, regulators tend to emphasize the food safety control system, while development agencies are more driven by themes
Lessons learned about best practices in capacity-building

- Capacity-building is needed at institutional, industry, enterprise and individual level

- Capacity building needs to address: (1) systemic challenges; (2) market access requirements; and (3) specific hazards/risks

- Systemic challenges are best addressed:
  - Technically by regulatory agencies and associated professionals or consultants
  - With major funding from the World Bank, regional development banks, and entities like IFAD, and
  - Co-funding from the host country’s public budget
Lessons learned about best practices in capacity-building (cont.)

- Private access regimes are best addressed:
  - Jointly by actors within the value streams of interest and associated supply chains,
  - Guided by commercial requirements that are set by industry via leading private standard-schemes such as GlobalGAP and benchmarking systems such as the Global Food Safety Initiative
  - Ideally with development agencies and NGOs helping to ensure compliance while fostering inclusivity and sustainability.
Lessons learned about best practices in capacity-building (cont.)

- Capacity building must include not just one-off interventions but rather continuous improvement in hard and soft infrastructure and people.

- There is unmet need and opportunity for coherent, consistent approaches to both technical assistance and training that would lower design and delivery costs.

- At the same time, an ongoing need for customization to match the circumstances of trading partners and specifics of major product categories and supply chains.

- Efforts must be sustainable over time in technical, financial, and especially political terms.
Lessons learned by international aid agencies about financing capacity-building for food safety

- Public sector technical expertise for public sector capacity building (e.g. FDA) is not yet backed by suitable sources of funding (e.g. The World Bank); and vice versa

- Overall progress in global food safety depends on close collaboration between the public and private sectors within host countries, within target markets, and between host and target country

- The private sector has waited too long to contribute significant funding outside their own supply chains in order to meet the more general challenge for the agri-food industry and the overall population
Lessons learned regarding developed vs developing country capacity building

- Efforts to date by industrialized countries to raise the food safety bar in/for their own markets have tended to create a two-tiered system with significant exclusionary effects on less capable countries and smaller suppliers.

- Future efforts need to explicitly provide a pathway for continuous improvement, as well as incentives, without diluting the desired level of standards.

- The global food safety community has not yet begun to address the challenge of low food safety within developing countries themselves.

- Lack of data and awareness both contribute to this.