



Health, nutrition and livelihoods

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Feedback between agriculture and health


Agriculture



Health

- Interdependent, interact on various levels (nutrition, food safety, occupation, environmental changes, poverty)
- Agriculture is dependent on human health (humans as source of labour)
- Human health is a product of agriculture to a significant degree (crops and animals give us food, nutrition, income)






Feedback between agriculture and health

Positive feedback

- Agricultural interventions can reduce vulnerability to disease
- Control/elimination of diseases can stimulate agricultural production and improve livelihoods
- Good nutrition can lengthen life expectancy and increase productivity of poor people under medical treatment regimes (ART)
- Income from agriculture is vital for accessing treatment for various disease problems
- Biosecure agriculture can reduce the burden of food-borne diseases





Feedback between agriculture and health

Negative feedback

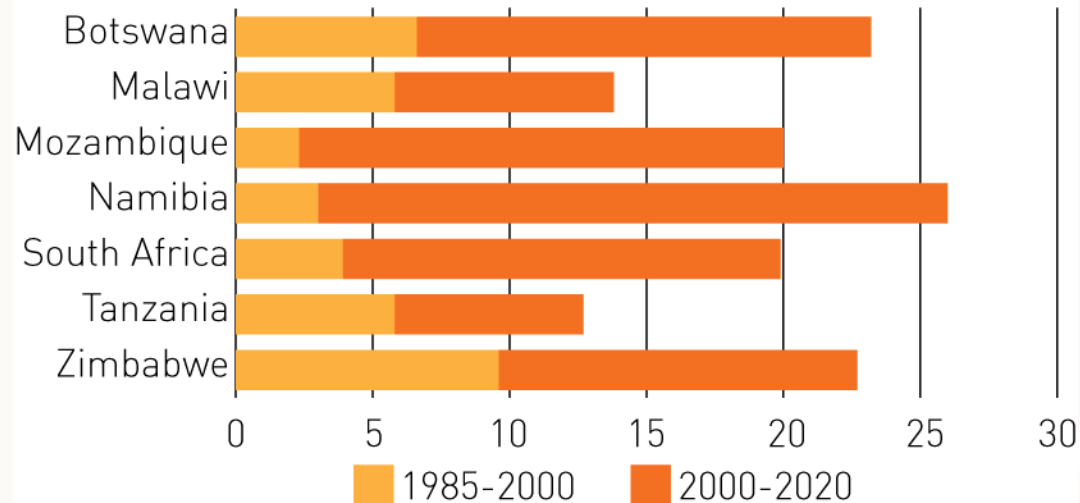
- Agricultural problems (low productivity, drought, pests, crop failures, post-harvest losses) can undermine nutrition, health and livelihoods
- Poverty and hunger resulting from agricultural problems can drive people to survival strategies (such as migration and dangerous sexual relationships) that increase the risk of infection with HIV
- HIV and other diseases can severely damage agricultural production, further threatening food security and nutrition of affected households and communities



Feedback between agriculture and health

- AIDS has killed around 7 million agricultural workers in Africa since 1985 and could kill 16 million more by 2020

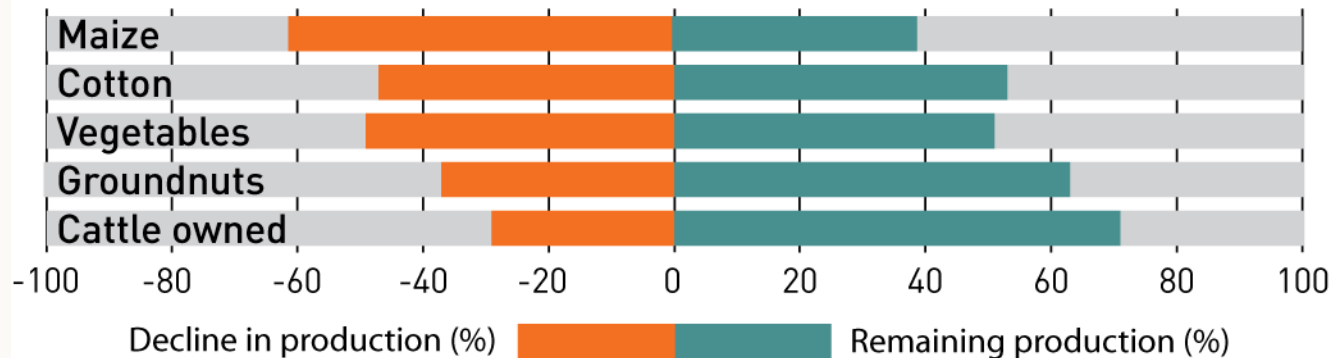
Projected losses of agricultural labor as a result of HIV/AIDS (%)



Feedback between agriculture and health

- In Ethiopia, HIV-affected households spent 50-66 percent less time on agriculture
- In Zimbabwe, maize production in communal agriculture fell by 60% in households that suffered an AIDS death

Reduction in production in farm household with an AIDS death, Zimbabwe

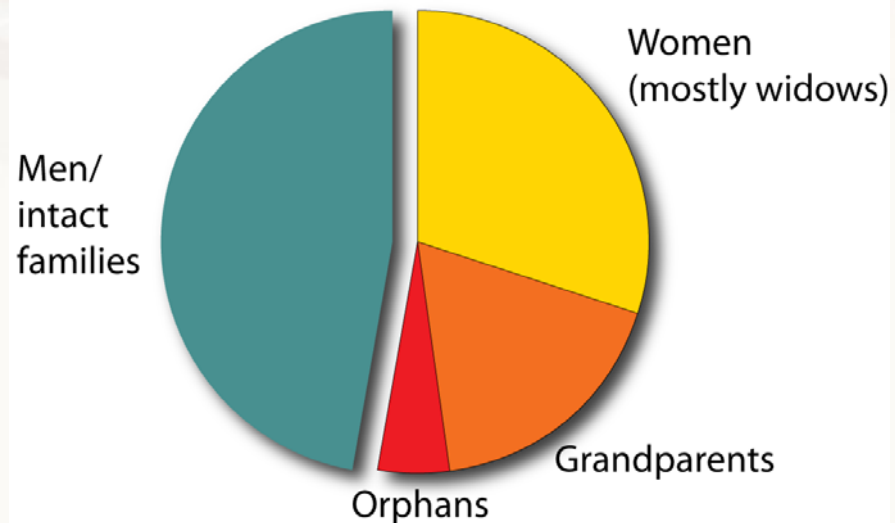


Source: Stover & Bollinger, 1999

Feedback between agriculture and health

- More than half of households in AIDS-affected areas in several African countries are headed by women, grandparents and orphans

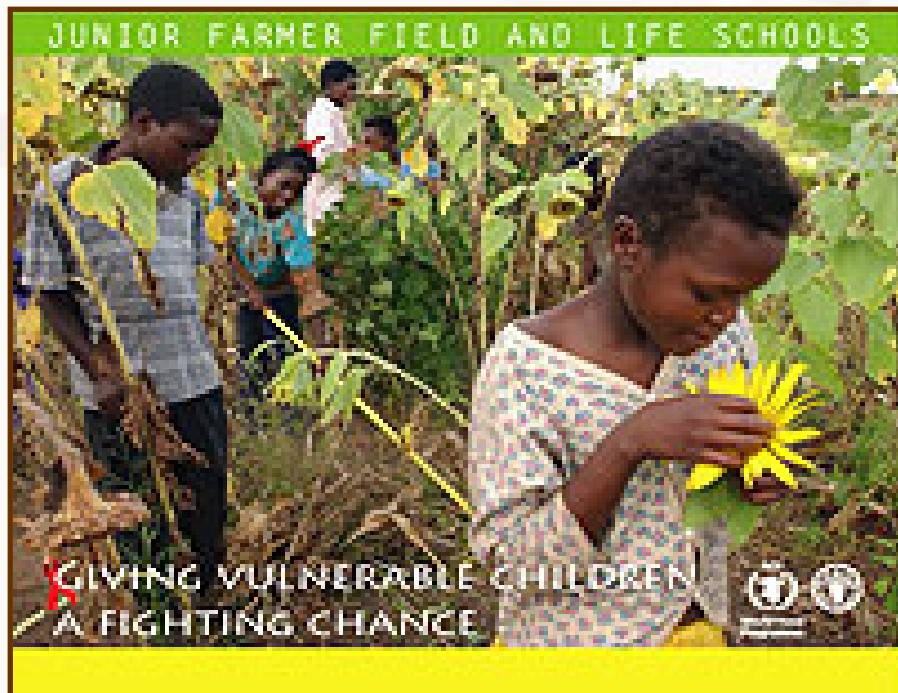
Heads of farm households in AIDS-affected areas



- There will be 18 million AIDS orphans in Africa by 2010
- Only 7 percent of orphans heading farm households in Kenya had adequate agricultural knowledge

FAO's Approach and Experience

Junior Farmer Field and Life Schools (JFFLS)



Building knowledge and skills is imperative for orphans and vulnerable children (OVCs) whose parents could not pass on necessary agricultural knowledge before dying of AIDS.





FAO's Approach and Experience

Junior Farmer Field and Life Schools (JFFLS)

- **Nutritional support**
- **One-year learning cycle**
 - From land preparation to harvesting
 - Courses in nutrition and medicinal plants
 - Life skills development
 - Theatre and discussion groups for sensitive issues
- **Strategic partnerships**
 - WFP: School feeding programme
 - UNICEF: Life skills and child protection
 - NGOs, CBOs and faith-based organizations: Knowledge, skills and support at local level





FAO's Approach and Experience

Junior Farmer Field and Life Schools (Mozambique)

- Target maternal or paternal orphans, 12-18 years old, with equal numbers of boys and girls
- WFP provides two nutritious meals per day
 - 150 grams of cereals
 - 50 grams of pulses
 - 10 milliliters of vitamin-A enriched vegetable oil
 - 3 grams of iodized salt
- **Fields contain**
 - Staples (millet and maize)
 - Vegetables (beans, carrots, greens, tomatoes and onions)
 - Long-term crops (cassava, pineapple and sweet potatoes)
 - Indigenous and medicinal plants
 - Trees





FAO's Approach and Experience

Junior Farmer Field and Life Schools (Mozambique)

- **Participatory agricultural training follows the seasonal cycle**
 - Field preparation
 - Sowing and transplanting
 - Weeding
 - Irrigation
 - Pest control
 - Harvesting
 - Storage and marketing
- **Life skills training covers psychosocial and sociological aspects**
 - Self-awareness
 - HIV/AIDS prevention
 - Assertiveness
 - Gender equality
 - Human rights





FAO's Approach and Experience

Junior Farmer Field and Life Schools (JFFLS)

Ripple effect of learning and application

JFFLS children teach innovative techniques applied in the field to other school children and community members.





FAO's Approach and Experience

Junior Farmer Field and Life Schools

- **Strengths and Impacts** (experience from Mozambique)
 - Youth discover good agricultural practices
 - Graduates gain access to microprojects through Farmer Field Schools (FFS)
 - Capacity of national and local institutions strengthened to address nutritional and food security needs of OVCs
 - Community ownership and benefits
 - Some nutritional needs of OVCs are addressed
 - School enrollment and attendance boosted





FAO's Approach and Experience

Junior Farmer Field and Life Schools: The Mozambican Story

- 3rd generation of JFFLSs already training new children
- Centre now self-funded and has developed income generating activities
- Children cultivate land, produce oil from sunflowers, and are involved in artisanal activities (stone





FAO's Approach and Experience

Nutrition Rehabilitation Units (NRU): Malawi

- NRUs admit children under 5 suffering from severe acute malnutrition, based on anthropometric indicators (MUACs, stunting) and clinical diagnosis
- Children receive therapeutic milks (F100), RUF
- Children discharged when achieve acceptable MUAC, weight-for-height, clinical clearance. Stays range from 7-40 days.
- Therapeutic foods are provided after





FAO's Approach and Experience

Nutrition Rehabilitation Units (NRU): Malawi

- NRUs are complemented by demonstration garden projects where parents of children are trained on horticulture and nutrition improvement techniques
- Outputs/Impacts
 - Parents leave with new knowledge and information on gardening and nutrition
 - People are given practical tools to put their education to work
 - Re-admission rates at NRUs (Likuni Hospital) have dropped significantly from 34% to 6%





FAO's Approach and Experience

Policy Dialogue and Advocacy

Continuous research on the interactions between health and agriculture and bringing it to the attention of stakeholders.

- Gender, property and inheritance rights
- Transboundary biosecurity threats





FAO's Approach and Experience

Policy Dialogue and Advocacy

Gender, Property and Inheritance Rights

HIV/AIDS worsens gender-based differences in access to land and productive resources (e.g. land stripping and grabbing).

- Analysis of gender and property rights
- Capacity building of grassroots organizations
- Information collection, analysis and dissemination



Conclusion

- There are clear linkages between human health, food security and agricultural production
- No single sector can address these complex problems in isolation
- Improvements in one sector would bring improvements in the others
- Therefore simultaneous investment in all three sectors maximizes efficiency and is cost-effective

