



IYCN USAID's Infant  
& Young Child  
Nutrition Project

# Maximizing Nutritional Benefits of Agricultural Interventions

Do good, but first of all do no harm

Tom Schaetzel  
Infant & Young Child Nutrition (IYCN) Project

Photo: Aurelio Ayala III

This presentation was produced through support provided to the Infant & Young Child Nutrition (IYCN) Project by the U.S. Agency for International Development, under the terms of Cooperative Agreement No. GPO-A-00-06-00008-00. The opinions herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

# The Infant & Young Child Nutrition Project

- USAID's flagship project on infant and young child nutrition.
- Aims to prevent malnutrition for mothers and children during the critical time from pregnancy until two years of age.
- Led by PATH in collaboration with CARE, The Manoff Group, and University Research Co., LLC.



Photo: PATH/Evelyn Hockstein

# Why IYCN Project and Agriculture?

- Agriculture interventions often neglect—and sometimes harm—the nutritionally vulnerable targeted by community-based nutrition.
- How do we ensure that agriculture and community-based nutrition are not working at cross purposes?
- USAID suggested to build capacity among our staff to advise on agriculture and nutrition.

# “Feed the Future”

- Goal: Sustainably reduce global hunger and poverty...
- Key objectives:
  - Accelerate inclusive agriculture sector growth.
  - Improve nutritional status—especially of women and children.



# How will “Feed the Future” Improve Nutritional Status?

- Community-based programs.
- Improve diet quality/diversity by strengthening agriculture and nutrition linkages.



Photo: PATH/Evelyn Hockstein

# “Feed the Future” and Nutrition

- Small-scale processing.
- Women’s access to income.
- Water and sanitation.
- Promotion of positive care and feeding practices.
- Community-based nutrition programs.



Photo: Aurelio Ayala III

## But mainly...

“...global effort focused directly on agricultural production...can increase the incomes of at least 40 million people....”

“...this extra income would allow a typical household of 5 people to purchase...an additional 100 kg of rice...together with fish, poultry, fruit and vegetables sufficient to add 150 calories per person per day....”

# Does Increased Agricultural Production Improve Nutrition?

- Misperception: as long as production rises consumption will sort itself out. (Pacey and Payne, 1985)
- New technology more accessible to those with more endowments. (Pacey and Payne, 1985)



# Does Increased Income Improve Nutrition?

- Not everything necessary for adequate nutrition can be bought.
  - Health
  - Education
  - Clean water
  - Gender equality
- “Income is a rather dubious indicator of the opportunity of being well nourished....” (Drèze and Sen, 1989)

# Problem

- “There are trade offs and complementarities between production/employment goals and meeting nutritional goals which should be taken into account...when making program decisions.”  
(USAID, 1982)
- How do we ensure that production/income interventions will not jeopardize the nutritionally vulnerable?

# Solution?

- Orient data collection to identify the nutritionally vulnerable.
- Protect nutritional considerations in the design of production/income projects.



Photo: WFP/Mario DiBari

# Orienting Data Collection to Focus on the Nutritionally Vulnerable

- The need is to identify more carefully *who* in the population is malnourished, and *why*. (Pacey and Payne, 1985)
- Relate to spatial, ecological, socioeconomic, and demographic characteristics of the population.
- Characterize food and fuel resources, weaning and feeding habits, food preparation and water supply—and seasonal changes in all of these.

# Protecting Nutritional Considerations

- Nutritional Impact Assessment
- Similar to other assessments:
  - Environmental impact assessment.
  - Gender impact assessment.



# Review of Experience

- What are the characteristics of agriculture interventions that:
  - Improve food security?
  - Improve nutrition?
- What are the characteristics of interventions that have negative effects?

# Negative Food Security Impact

- Increase un- or under-employment among population groups already un- or under-employed.
- Increase food prices when vulnerable households are net purchasers.
- Reduce food prices when vulnerable households are net sellers.
- Shift cultivation to cash crops when the shift decreases labor utilization.

# Negative Food Security Impact

- Positive impacts are more likely when interventions support or promote:
  - Agricultural tasks normally performed by women.
  - Small-scale processing.
  - Food disproportionately consumed by food insecure households.





# Positive Impacts on Nutrition

- More likely to occur if:
  - Vulnerable households regularly consume the food commodity being produced.
  - The intervention includes explicit nutrition counseling.
  - The intervention includes home gardens.
  - The project introduces micronutrient-rich crop varieties.

# Positive Impacts on Nutrition

- More likely if designed to benefit or protect more nutritionally vulnerable populations at project inception.



Photo: PATH

# Steps

Step 1	Define population groups at risk
Step 2	Describe nutrition situation
Step 3	Create implementation alternatives
Step 4	Estimate likely outcomes
Step 5	Modify as needed
Step 6	Assess and select alternatives
Step 7	Design mitigation plan
Step 8	Develop review plan

# Step 1: Define Population Groups Likely At-risk

- Functional groups likely to be at risk may include:
  - Small landowning households.
  - Households selling labor.
  - Female-headed households.
  - Socially-excluded households (ethnicity, caste, occupation).
  - Households with chronically ill head.

## Step 2: Describe Nutrition Situation for At-risk Population Groups

- Obtain consistent (and disaggregated) data on any of the following for children under 2 (or under 5) and for reproductive-age girls and women.
  - Caloric intake (nutrient intake if possible).
  - Dietary diversity.
  - Nutritional status (anthropometric).
  - Vitamin A and iron status (or intake).
- Identify groups with highest risk.



## Step 3: Create Implementation Alternatives

- Create at least two alternative implementation options for meeting the stated project objectives.



## Step 4: Estimate Likely Outcomes for Groups At-risk According to Alternatives

- For the proposed project approach, the alternative approaches, and a “do nothing” alternative, estimate the impacts for each of the vulnerable population groups.

## Step 4: Estimate Likely Outcomes (continued)

- Factors to consider when estimating impacts are those identified in the review of experience:
  - Do these groups consume promoted crops/commodities?
  - Are these groups net sellers or purchasers?
  - Are nutrition education efforts directed at these groups?
  - What will be the impact on women's time within these groups?





## Step 4: Estimate Likely Outcomes (continued)

Score each alternative:

1. Substantial positive impact
2. Moderate positive impact
3. Neutral impact
4. Moderate negative impact
5. Substantial negative impact

# Group Exercise

At-risk group	Children < 2 < 5 (circle one)		Girls/women 15-44 years	
	Indicator	Expected change	Indicator	Expected change
Female-headed households	Stunting	↔		
	Wasting	↓		
	Poor Food Consumption Pattern	↔		
Agriculture labor supplying households	Share of WAZ < -3	↓		
Overall impact score		2		



## Step 5: Modify as Needed

- Substantial negative impact: modify project design (or accept alternative) and repeat impact assessment.
- Moderate negative, neutral, or moderate/substantial positive impact: proceed to **Step 6**.



## Step 6: Assess Alternatives and Justify Selection

- Rank all approaches based on impact score.
- If the proposed approach ranks lower than any of the alternatives but will be pursued anyway, justify the decision for keeping it.
- Reasons for keeping?

## Step 7: Mitigation Plan

- If proposed approach was estimated to have neutral or negative impact, prepare a mitigation plan to be implemented if negative impacts occur.
  - Activities to minimize potential negative impacts.
  - Pre-determined modifications to be implemented if negative impact is observed.

## Step 7: Mitigation Plan (continued)

- Describe the process for reviewing nutritional impact over the course of the project, including:
  - Final impact evaluation.
  - On-going monitoring of nutritional effects.
  - Indicators for assessing nutritional impact.
  - Data collection plans (dates and/or milestones).



## Step 8: Review Plan

- Specify the review process for this impact assessment, including the groups and/or individuals to conduct the review.
- The purpose is to ensure a realistic assessment.

Thank you

