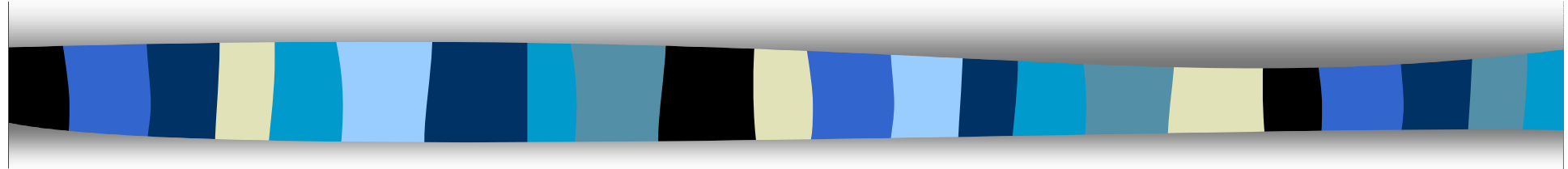


The Development and Commercialization of *Pashu Poshak*



Applying the PMF to a Livestock
Feed Supplement Project in India

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Purpose of Case Study

- Assess the ease, usefulness and validity of the PMF by applying it to an existing development project
- Identify and gain insight into best practices for BDS



Background

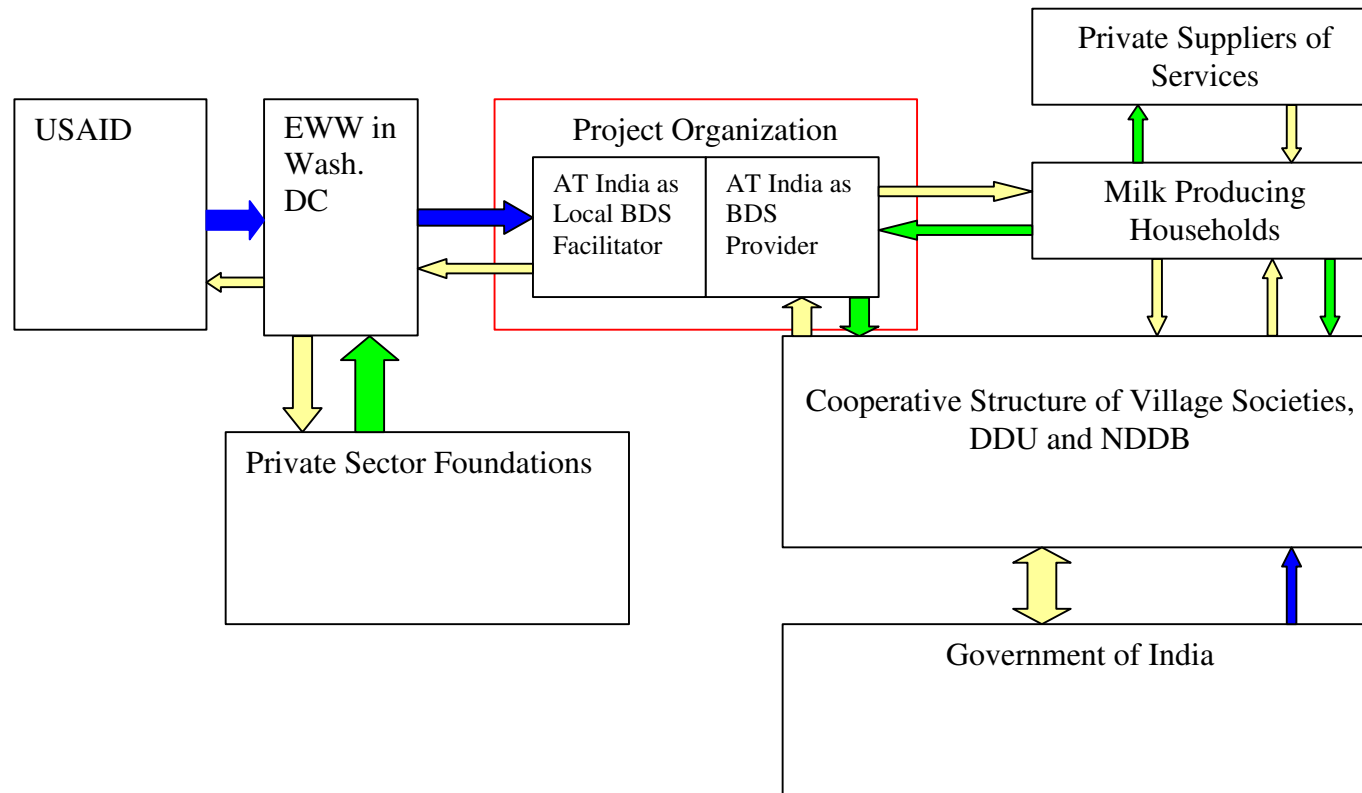
- India is largest milk producer in the world yet productivity per animal is low
- Poor animal nutrition is main reason
- Molasses Urea Product (MUP) has long been recommended as a feed supplement
- Need to develop MUP which is:
 - affordable
 - easy to use
 - non-toxic



The Project

- Enterprise Works establishes AT India
- Technology Development and Commercialization
- Product Development
 - hot, cold, hemispherical and mix
 - Branding: Pashu Poshak
- Marketing and Distribution
 - Links with Cooperatives
- Environmental Aspects
- Field Trials and Benefits

Project Diagram

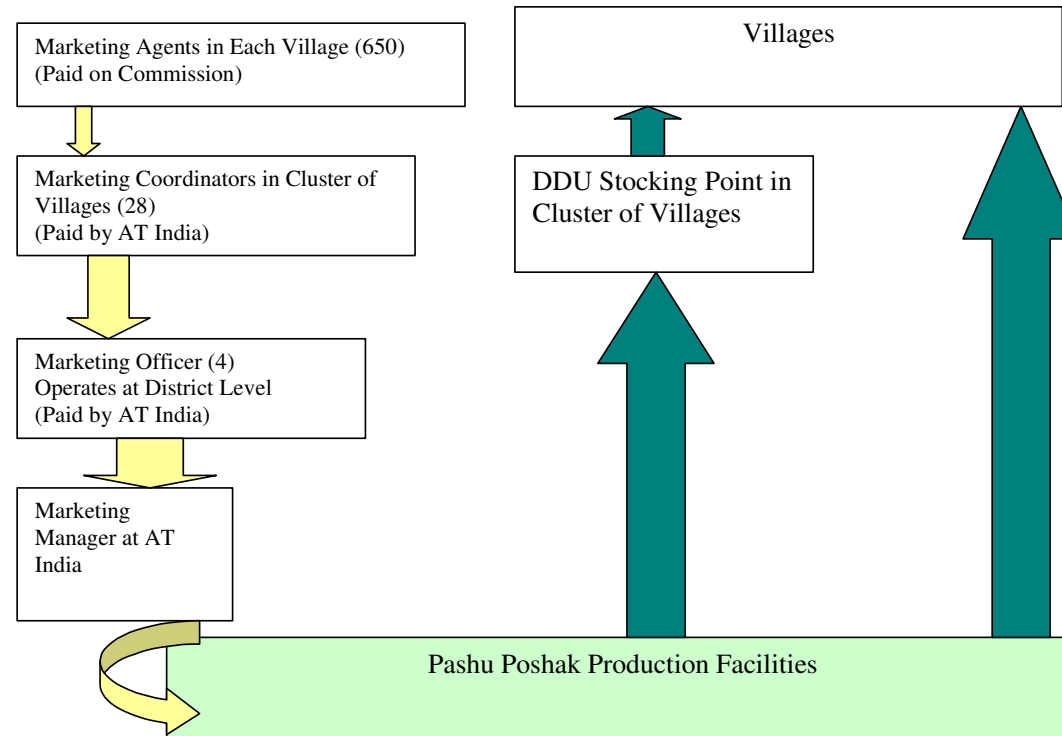




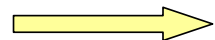
The Dairy Cooperatives

- Dominate dairy sector with 85% of milk production and sales
- Technology of milk powdering allows cooperatives to compete effectively against small private operators
- Use political connections to create barriers to entry for larger companies
- Well-organized service and distribution system.

AT India Marketing System



Stock Flows



Orders



Applying the PMF to a Project

- Overall BDS Market Development
- Sustainability and Cost Effectiveness of Suppliers
- Impact on Customers (Households)



Market Development Indicators

- *Pashu Poshak* competes with 6 to 10 animal feed supplement products
- 27% of households contacted have tried PP.
- 50% are repeat users
- 100% of customers are micro and rural
- Subsidy decline (falling 7.4 cents in 97-98 to 2.7 cents to 4.4 cents in 98-99)



Comments on Market Development Indicators

- Defining the BDS and enterprises
- Animal feed supplements
 - Does PP compete with feed?
 - How to define competition?
- Difficulty in determining all subsidies and market distortion
- Usefulness for project



Level of Supplier

- AT India both facilitator and provider
- No clear business strategy has yet emerged—options are several.
-but margin are higher for donor projects
- Cost recovery is 83%
- For every \$1 of revenue, \$1.57 spent



Comments on Supplier Indicators

- Costing Problems: What is included?
- What are the indicators of sustainability beyond just financial projections?
- Facilitators are really businesses too selling to a different market
- Cost effectiveness is at a different level of analysis than sustainability.



Level of Customer (Impact)

- Butter-fat gains and cost savings
- Village Survey
 - six fold return on investment
 - closer to threefold with proper usage.
- Estimated net gain per animal is about \$25 per annum
- For every \$1 spent return of \$2.87 up to a certain biological threshold



Comment on Benefit Indicators

- Focus groups useful for collecting data
- Repeat purchases and willingness to pay are good measures of satisfaction
- Higher value added is not necessarily an indicator of customer benefits
- No measure of productivity or return on investment for customers



Cost-Benefit Assessment

- Total Program Costs (\$733,206)
- Households Repeat Users (11055)
- Two animals per household (22110)
- Total Cost Savings (\$302,420)
- Total Income gains (\$265,322)
- Total Monetary Benefits (\$567,743)
- But closing the gap!



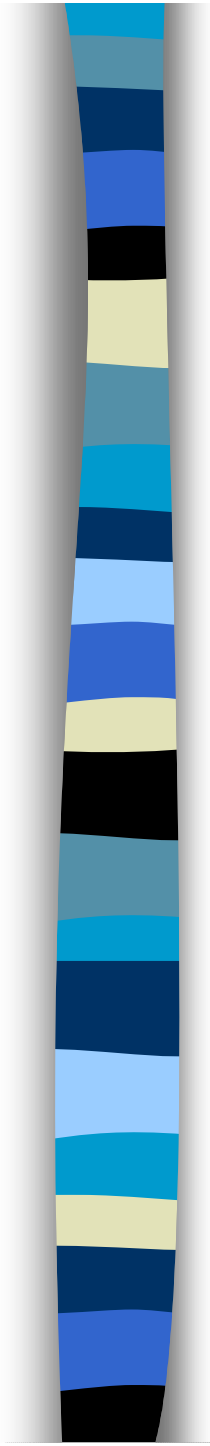
Cost Benefit Assessment

- How long should we count benefits?
 - technology development projects
 - diffusion of innovation
- What should be included in the costs?
 - a percentage of donor costs
 - facilitators
 - indirect benefits
 - dynamism and increased synergies



Lessons from Applying the PMF

- Some indicators overlap
- Time consuming and expensive
- Accuracy of data remains problematic
- Donor goals and facilitator goals not the same
- Should be geared to objectives—don't change rules in the middle of game

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- Market development model is too static.
 - Need indicators for increasing complexity and interaction to measure market development
 - Measures of information flows, incentives and niche creation
 - PMF should link with current work on vouchers and business networks



Suggestions for Simplification

■ Macro measures

- Create a more dynamic and differentiated market for BDS (complexity)
- Cost-effectiveness in relation to public policy objectives (donor costs included)

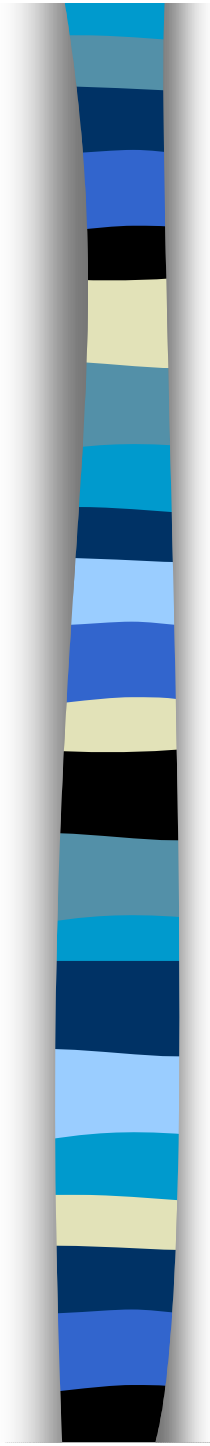
■ Micro measures

- Achieve supplier sustainability
- Increase customer benefits



Inferences for Better Practices

- Importance of innovation and learning
- More emphasis upon incentives and information flows, feedback loops and networks
- Transition from a other created to a self-created

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- Donors are part of the market, not external agents acting on others
 - Attention to the market realities of the “business of development not just business development services