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PARTNERSHIPS FOR INNOVATION AND KNOWLEDGE IN AGRICULTURE FINAL EVALUATION

ANNEXES

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FINAL EVALUATION

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DISCLAIMER

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ANNEX A: DESCRIPTIONS OF PIKA PROJECTS

Increasing Productivity and Market Links for High Value Agricultural Products

The University of Wisconsin-Madison (UW) implements the project with the primary aim of enhancing farmers' incomes by increasing the productivity of high value products – primarily vegetables and milk. To accomplish this UW provides the technical expertise to develop training materials through which the Rajiv Gandhi Charitable Trust (RGCT) disseminates best practices in milk and vegetable production to the approximately 233,594 members of 27,000 Women's Self Help Groups (WSHG) in Uttar Pradesh. The project also helps two partners – Tasty Bite, a private sector producer of prepared Indian foods for domestic and export markets and the non-profit Agricultural Consultancy Management Foundation – to improve the capacities of demonstration farms to develop and disseminate productivity-enhancing agricultural practices to farmers. Finally, the project provides the technical expertise and training necessary to help tractor manufacturer Mahindra & Mahindra establish soil testing laboratories in 140 “Sammridhi Centers” set up in tractor dealerships throughout the country. The soil testing laboratories form the backbone of a corporate initiative to provide a full range of productivity-enhancing services to farmers.

Indian Horticultural Development Alliance (IHDA)

The IHDA project, implemented by Michigan State University (MSU), aims to increase the incomes of small- and medium-scale producers and processors of selected horticultural products. To accomplish these objectives, the project first conducts value chain analyses of promising horticultural sectors to identify opportunities and constraints in market development. Through training, it then builds the capacities of selected producer groups and processors to meet market demands. When farmers can meet export market demands for food quality and safety, the project works with retail partners to link these farmers to high-value export markets. The project develops more direct (e.g., lower transaction cost) linkages to less demanding domestic markets for farmers who are unable to meet export market standards. In addition to working directly with producer groups and processors, the project also collaborates with standards organizations (e.g., GlobalGAP, Quality Council of India) to help define India-specific standards and contribute to developing accredited training programs for GAP certification. Finally, the project works with partners (TNAU and YES Bank) to establish horticultural knowledge centers to facilitate broad dissemination of horticultural production, processing, and marketing best practices.

Rural Business Hubs: Business Catalysts for Rural Competitiveness with Inclusiveness

Objectives of the project, implemented by IFPRI in partnership with MSU, are to increase productivity, incomes and market linkages for small and marginal male and female farmers through expanding the services of RBHs; to improve field research capacity of Indian research organizations and universities; and to influence policy formation through providing more reliable data to policy makers and other stakeholders. The project first studied farm households in the RBHs' catchment areas and compared level of services to these households by the hubs and by the traditional sector; presented the results of such studies to the collaborating RBH partners; and, based on study results, collectively designed business innovations to be piloted by the companies, with the objective of improving the cost and quality of RBH services to small farmers while helping to accelerate RBH growth. The project also assesses the impact of the innovations and measures the extent to which USAID funds are leveraged by alliance partners' investments; and keeps various stakeholders informed of study results and the impact of the innovations.

The implementing partners are Hariyali Kisan Bazar, ITC Ltd. Agribusiness Division, and Adhar Retailing Ltd. Only Hariyali and ITC are included in this evaluation, since Adhar was a late joiner. The research organizations involved in the studies are Jawaharlal Nehru Krishi Vishwa Vidhyalaya, Indira Gandhi Institute of Development Research (IGIDR), and the Govind Ballabh Pant Social Science Institute and Centre of Economic and Social Studies.

Improving Efficiencies in Commodity Value Chains Through Advanced Cropping Technologies, Uttar Pradesh

Goal of the PIKA Alliance is to increase household incomes of male and female smallholder farmers and farm laborers through public/private partnership-based interventions. Expected outcomes include strengthened linkages to major regional markets for female and male farmers; increased access to comprehensive financial services and financial risk mitigating measures for smallholder farmers and farm laborers; increased farmer access to advanced cropping technologies; and improved water resource management and soil conservation. Principle partners are ACDI/VOCA, acting in an advisory capacity for technical training, market linkage and enterprise development; Rice and Wheat Consortium, affiliated with the International Rice Research Institute (IRRI), introducing farmers to zero tillage, direct seeding, line planting, raised beds and laser land leveling; and Action for Food Production (AFPRO), responsible for developing community-based water conservation and management structures.

ANNEX B: EVALUATION QUESTIONS

At the outset of the evaluation, the evaluation team met with mission personnel to discuss evaluation objectives and refine a specific set of questions that would guide the evaluation. The evaluation questions cover the five key evaluation themes: impact, sustainability, relevance, effectiveness, and gender. The specific questions are:

Impact – What has been the impact of activities implemented under PIKA?

- To what extent did PIKA promote adoption of best practices among targeted beneficiaries and others?
- To what extent have PIKA activities increased productivity and incomes of targeted beneficiaries?

Sustainability – Based on results to date, how likely is it that PIKA results will be sustained after USAID funding ends?

- To what extent did PIKA activities catalyze private sector capacity building and adoption of innovative technologies and business practices, influence policy, and contribute to scaling up of project-supported activities?

Relevance – Are program activities relevant to the needs of targeted beneficiaries and applicable in the current environment?

- Are the original hypotheses on which the program was designed still valid and relevant to the needs of the region?
- Have PIKA partners maintained relevance by adapting to emerging opportunities to achieve program objectives?

Effectiveness – How effective has PIKA been in achieving its objectives?

- To what extent have PIKA partners achieved their individual objectives and contributed to broader PIKA objectives and sub-objectives?
- Is the PIKA model (i.e., public private partnerships, GDA) an effective mechanism for catalyzing innovative technologies and business practices to achieve program objectives?

Gender – To what extent have partners mainstreamed gender issues into PIKA activities?

ANNEX C: FIELD WORK DETAILS

This annex provides details of the evaluation teams' field work including (in Figure 1) a summary of field activities for each project, a list of all individuals interviewed (Figure 2), and a list of all groups interviewed (Figure 3).

FIGURE 1. SUMMARY OF FIELD WORK

Project	Field data collection activities
IHDA	<ul style="list-style-type: none"> • Interviewed MSU personnel (Deepa Thiagaragan, Les Borquin) • Interviewed representatives of 7 key partners – National Horticulture Board (NHB), Quality Council of India (CII), Jain Irrigation, YES Bank, Tamil Nadu Agricultural University (TNAU), Confederation of Indian Industry (CII), and FoodCert India: eFresh Portal • Visited facilities and interviewed about 40 farmers, traders, and processors from two clusters in Tamil Nadu – Mango in Krishnagiri District and Banana in Theni District. The project works with 14 clusters in Karnataka, Tamil Nadu, Andhra Pradesh, Maharashtra, and Kerala.
UW	<ul style="list-style-type: none"> • Interviewed UW personnel (John Peters, Laura Van Toll) • Interviewed representatives of three key partners – Mahindra & Mahindra (M&M), Tasty Bite, and the Rajiv Gandhi Charitable Trust (RGCT) • Interviewed 52 CRPs and 95 female farmers representing 19 WSHGs in Uttar Pradesh associated with RGCT. RGCT is supporting 27,000 WSHG in 14 districts in UP. • Interviewed 49 farmers supported by M&M Samriddhi Centers in Rajkot, Gujarat and Raipur, Chathisgarh. M&M has currently established 135 Samriddhi Centers in 17 states.
IFPRI	<ul style="list-style-type: none"> • Interviewed IFPRI personnel (Ashok Gulati, Tom Reardon, Bart Minten, Sunipa Das Gupta) • Interviewed representatives of two key partners – ITC Ltd. and HKB • Interviewed ITC field management in Madhya Pradesh • Visited ITC outlets and 59 farmers in 17 villages in Madhya Pradesh • Visited HKB outlets and 84 farmers in 11 villages in Uttar Pradesh
WV	<ul style="list-style-type: none"> • Interviewed World Vision personnel (Sadhan Pramanth) and others • Interviewed personnel from 3 key partners – ACDI/VOCA, RWC, and AFPRO • Interviewed 251 farmers in 15 villages in Uttar Pradesh • Inspected cropping technology demonstrations for laser field leveling, zero tillage, direct seeding, and raised bed cultivation • Visited 9 water conservation demonstrations

FIGURE 2. SCHEDULE OF INDIVIDUAL INTERVIEWS

Date	Name	Organization	Position/Title	Project Component
	John Peters	University of Wisconsin-Madison	Director, UW Soil Testing Labs	UW
13-Jan-11	Bijay Kumar	National Horticulture Board	Managing Director	MSU
13-Jan-11	N.C. Mistry	National Horticulture Board	Addl.M.D.	MSU
13-Jan-11	Dr.R.K. Sharma	National Horticulture Board	Sr. Deputy Director	MSU
13-Jan-11	Brajendra Singh	National Horticulture Board	Deputy Director	MSU
13-Jan-11	D.P. Singh	National Horticulture Board	Deputy Director	MSU
14-Jan-11	Dr. Girdhar J. Gyani	Quality Council of India	Secretary General	MSU
14-Jan-11	Dr. Hari Prakash	Quality Council of India	Joint Advisor	MSU
14-Jan-11	Ms.Vani Bhambri Arora	National Accreditation Board for Certification Bodies	Assistant Director	MSU
19-Jan-11	Gandhi Mathinathan	Mahindra & Mahindra	Dy. Gen. Manager	UW
19-Jan-11	Satish Sahu	Mahindra & Mahindra	Manager	UW
20-Jan-11	Ramesh Bhai	Murlidhar Tractor Agency, Rajkot	Owner	UW
20-Jan-11	Pankaj Bhai	Murlidhar Tractor Agency, Rajkot	Owner	UW
20-Jan-11	Gopal Bhatt	Murlidhar Tractor Agency, Rajkot	SalesManager	UW
20-Jan-11	Ms. Himani Pandey	Mahindra Samriddhi Centre, Rajkot	Territory Manager	UW
20-Jan-11	Ms. Bhagyashree Joshi	Mahindra Samriddhi Centre, Rajkot	Graduate Agriculture Trainee	UW
20-Jan-11	Rameshbhai Govardhanbhai Choubhatiya	Mahindra Samriddhi Centre, Rajkot	Award winning farmer	UW
20-Jan-11	Sarithaben Sabhaya	Mahindra Samriddhi Centre, Rajkot	Farmer	UW
20-Jan-11	Kuldeep Sharma	Mahindra & Mahindra	Asst. Territory Manager	UW
22-Jan-11	Ashok Agrawal	Arun Trade Combines, Raipur	Owner	UW
22-Jan-11	Amith Singh	Mahindra Samriddhi Centre, Raipur	Territory Manager	UW
22-Jan-11	Lokesh	Mahindra Samriddhi Centre, Raipur	Grad. Agri. Trainee	UW
22-Jan-11	Ravi Sudan Patel	Mahindra Samriddhi Centre, Raipur	Award winning farmer	UW
22-Jan-11	Akhda Thakur	Mahindra Samriddhi Centre, Raipur	Farmer	UW
24-Jan-11	Ankith Singhal	Tasty Bites Pvt Ltd	Manager Supply Chain	UW
24-Jan-11	Ravi Nigam	Tasty Bites Pvt Ltd	Promoter & M.D.	UW

Date	Name	Organization	Position/Title	Project Component
24-Jan-11	Vikas Tengre	Tasty Bites Pvt Ltd	Manager Demo. Farm	UW
26-Jan-11	K.S. Yadav	Rajiv Gandhi Charitable Trust	Programme Manager	UW
26-Jan-11	Amit Bhardwaj	Rajiv Gandhi Charitable Trust	Program Officer	UW
28-Jan-11	Sampath Kumar	Rajiv Gandhi Charitable Trust	C.E.O.	UW
26-Jan-11	P.K. Singh	Rajiv Gandhi Charitable Trust	Program Expert (Agri)	UW
26-Jan-11	Mahinder Yadav	Rajiv Gandhi Charitable Trust	Soil Technician	UW
31-Jan-11	Dr. Dilip Kulkarni	Jain Irrigation	President, Agri Food Division	MSU
31-Jan-11	Mr. Girish Aivalli	YES Bank	Executive Vice President & Country Head, Food and Agribusiness Strategic Advisory Research	MSU
31-Jan-11	Dr. Deepa Thiagarajan	Michigan State University	Co-investigator	MSU
31-Jan-11	Dr. Les Borquin	Michigan State University	Co-investigator	MSU
2-Feb-11	Dr. Bala Mohan	TNAU	Professor Horticulture	MSU
2-Feb-11	Dr.M. Chandrashekar	TNAU	Prof. Agri. Economics	MSU
2-Feb-11	Mr.Moinuddin	CII		MSU
2-Feb-11	H.M. Stahyamarthy	TEDO consultant/CII	Consultant	MSU
2-Feb-11	K.B. Jaya Gopi	TamilNadu Mango Growers Federation	Exec. Member	MSU
2-Feb-11	Citrareasu	Progressive Farmer- Member of Cluster Association	Progressive Farmer	MSU
2-Feb-11	Thiruvengadam	Progressive Farmer- Member of Cluster Association	Progressive Farmer	MSU
3-Feb-11	Srihari Kotela	eFresh Portal (P) Ltd.	Director	MSU
4-Feb-11	A.P. Karuppiah	Theni APK Vazhai Ulagum	Proprietor	MSU
4-Feb-11	Balamurugan	Progressive Farmer- Member of Cluster Association	Progressive Farmer	MSU
4-Feb-11	Kottaiswamy	Theni Banana Traders & Growers Association	President	MSU
4-Feb-11	Nathar Meeran	Theni Banana Traders & Growers Association	Vice President	MSU
4-Feb-11	Mohammed Farook	Farm Fresh Banana Int. Cold Storage Chain	Partner	MSU
4-Feb-11	Vanna Tamilan	Member Cluster Association	Prog. Farmer	MSU
4-Feb-11	Ms.Ravdeep Kaur	Michigan State University	Program Coordinator	MSU
4-Feb-11	K.B. Jaya Gopi	TamilNadu Mango Growers Federation	Exec. Member	MSU
13-Jan-11	Dr Ashok Gulati	IFPRI	Country Director - Asia	IFPRI

Date	Name	Organization	Position/Title	Project Component
13-Jan-11	Thomas Reardon	IFPRI	Professor - MSU, USA	IFPRI
13-Jan-11	Bart Minten	IFPRI	Sr. Research Fellow	IFPRI
13-Jan-11	Sunipa Dasgupta	IFPRI	Sr. research Analyst	IFPRI
13-Jan-11	D K Manavalan	AFPRO	Executive director	IFPRI
13-Jan-11	S C Jain	AFPRO	Prrogram coordinator	IFPRI
13-Jan-11	Pradip Kumar	AFPRO	Principle Specialist-NRM	IFPRI
13-Jan-11	Mathew	AFPRO	Manager-F & A	IFPRI
14-Jan-11	Arjun Uppal	DSCL-Hariyali Kisan Bazar (HKB)	Head-Agribusiness	IFPRI
17-Jan-11	S. Shiv Kumar	ITC-ABD	CEO, ITC-ABD	IFPRI
17-Jan-11	Nirmal Reddy	ITC-ABD	General Manager-Agri Services	IFPRI
17-Jan-11	Ruchir Tiwari	ITC-ABD	Head-Agri Input	IFPRI
19-Jan-11	Prashant Mishra	ITC-ABD	Branch Manager-Bhopal (MP)	IFPRI
19-Jan-11	Navneet Jalan	ITC-ABD	Chanel Manager	IFPRI
19-Jan-11	Rakesh Rawat	ITC-ABD	Agri Specialist	IFPRI
19-Jan-11	Pawan Thakur	ITC-ABD	Centrte In-Charge- Sehore Chaupal Sagar	IFPRI
19-Jan-11	Pramod Upadhyay	ITC-ABD	Area Manager	IFPRI
19-Jan-11	Suresh Mishra	ITC-ABD	Agri Sales Officer	IFPRI
19-Jan-11	Sawai Singh Verma	ITC-ABD	Sanchalak	IFPRI
21-Jan-11	Gulraj Ahmad	ITC-ABD	Hub In-charge -Vidisa Chaupal Sagar	IFPRI
21-Jan-11	Pankaj Thakur	ITC-ABD	Agri Sales Officer	IFPRI
21-Jan-11	Shaqueel Sheikh	ITC-ABD	Assistant Store In-charge	IFPRI
21-Jan-11	Prashant Gautam	ITC-ABD	Procurement Officer	IFPRI
21-Jan-11	Kuber Singh Yadav	ITC-ABD	Sanchalak - KSK, Kararia Chauraha	IFPRI
21-Jan-11	Vishnu Prasad	ITC-ABD	Sanchalak - KSK, Ichhawar	IFPRI
21-Jan-11	Arvind Mishra	ITC-ABD	Sanchalak - e-Chaupal, Khamkheda	IFPRI
24-Jan-11	Amit Kumar singh	ACDI-VOCA	Program Manager- PIKA	World Vision
24-Jan-11	Deo Datt	ACDI-VOCA	Ex- Project Manager, PIKA	World Vision
25-Jan-11	Arvind Bhatnagar	DSCL-Hariyali Kisan Bazar (HKB)	Manager-Agri Services	IFPRI
25-Jan-11	Rohan Kulkarni	DSCL-Hariyali Kisan Bazar (HKB)	Regional Manager	IFPRI
25-Jan-11	Dinesh Kr Srivastava	DSCL-Hariyali Kisan Bazar (HKB)	Area Manager	IFPRI
25-Jan-11	Rizwan Husain	DSCL-Hariyali Kisan Bazar (HKB)	Cluster Agronomist	IFPRI
26-Jan-11	Dr Vijay Kr Sharma	DSCL-Hariyali Kisan Bazar (HKB)	Sr. Manager - Milk Procurement	IFPRI

Date	Name	Organization	Position/Title	Project Component
26-Jan-11	J K Gangwar	DSCL-Hariyali Kisan Bazar (HKB)	Resident Agronomist- Pihani Kissan Bazar	IFPRI
26-Jan-11	Satendra	DSCL-Hariyali Kisan Bazar (HKB)	Output Agronomist - Pihani HKB, Hardoi	IFPRI
27-Jan-11	Abhay Singh	DSCL-Hariyali Kisan Bazar (HKB)	Regional Manager	IFPRI
27-Jan-11	Ari Daman Singh	DSCL-Hariyali Kisan Bazar (HKB)	Cluster Agronomist	IFPRI
27-Jan-11	Shashi Kant Mishra	DSCL-Hariyali Kisan Bazar (HKB)	Cluster Agronomist	IFPRI
27-Jan-11	Dr A K Jaion	DSCL-Hariyali Kisan Bazar (HKB)	Store In-charge - Raibareli HKB	IFPRI
27-Jan-11	Anup Kumar Tomar	DSCL-Hariyali Kisan Bazar (HKB)	Regional Executive-Agri services	IFPRI
27-Jan-11	Manoj Sharma	DSCL-Hariyali Kisan Bazar (HKB)	Area Manager - Raibareli	IFPRI
28-Jan-11	Ravindra Kumar	World Vision	Field Coodinator	World Vision
28-Jan-11	Bukky Das	World Vision	ADP Manager - Barabanki	World Vision
28-Jan-11	Manoj Bachchan	World Vision	MIS Manager	World Vision
28-Jan-11	Sieti Immanuel	AFPRO	Manager - AFPRO	World Vision
28-Jan-11	Ravindra Mishra	AFPRO	Hydrologist	World Vision
28-Jan-11	Vemula Kotaiah	World Vision	ADP Manager - Unnao	World Vision
28-Jan-11	Sanjay Franklin	World Vision	Field Coodinator	World Vision
31-Jan-11	Dr Mukesh Gautam	Govt. of UP	Director- Agriculture	
1-Feb-11	Sadhan Pramanik	World Vision	Progem Manager	World Vision
1-Feb-11	Raju James	World Vision	Finance Officer	World Vision
1-Feb-11	Mithun Micheal	World Vision	M&E	World Vision
1-Feb-11	Dr S K Sharma	RWC	IRRI Consultant	World Vision
1-Feb-11	Vipin Kumar	RWC	Research Associate	World Vision
1-Feb-11	Dr Kisan Murari	RWC	Research Associate	World Vision
2/2/2011	Amulya Prasad Naik	World Vision	Field Coordinator-Sitapur	World Vision
2/2/2011	Inva Kr. Jashua	World Vision	ADP Manager- Sitapur	World Vision
2/2/2011	Veer Pal Singh	World Vision	Community Development Coordinator	World Vision
2/3/2011	Charles Thomas	World Vision	Project Monitoring Officer	World Vision
2/3/2011	Ravi Kumar	AFPRO		World Vision

FIGURE 3. SCHEDULE OF GROUP INTERVIEWS

Date	Name	Title/position	Sex	Project component	State	City/Village
20-Jan-11	Arunaben Dhirajbhai Kasundra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Hansaben Jagdishbhai Kasundra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Rasilaben Hamjibhai Kasundra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Dayiben Chaganbhai	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Jayaben Avsarbhai	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Narmadaben Rachubhai	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Roshiben Ravjibhai	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Shanthaben Karsanbhai Mungra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Vijayaben Parsottambhai Mungra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Chandrikaben Maganbhai Mungra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Ramaben Naranbhai Ramoliya	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Akrutiben Navjibhai Ramoliya	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Kinjalben Dhirajbhai Kasundra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Hetalben Dineshbhai Kasundra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Jaygiriben Mahendrabhai	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Kripaliben Mahendrabhai	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Shantaben Laghabhai Khorba	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Kasturben Hamjibhai Bhesdadiya	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Payalben Rameshbhai	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Jayaben Maganbhai Kasundra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Samuben Bhavjibhai Kasundra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Varshaben Pravinbhai Garodhra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Jankunwarben A Jadeja	Farmer	Female	UW - M&M	Gujarat	Aliyabada
20-Jan-11	Jayaben Bhikabhai Garodhra	Farmer	Female	UW - M&M	Gujarat	Aliyabada
21-Jan-11	Ripu Sudan Patel	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Ramesh Kumar Sahu	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Khorbaram Devangan	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Jethuram Sahu	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Devanand Patel	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Seetal Kumar Sahu	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Kartik Ram	Farmer	Male	UW - M&M	Chathisgarh	Bhendri

Date	Name	Title/position	Sex	Project component	State	City/Village
21-Jan-11	Dhansyam Sahu	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Visalram Sahu	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Tapsingh	Farmer	Male	UW - M&M	Chathisgarh	Bhendri
21-Jan-11	Ms. Mantibai Sahu	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Ms.Ushabai Sahu	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Ms. Devnandini Sahu	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Ms. Hemlatha Sahu	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Miss. Yogeshwari Sahu	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Ms. Bharti Mesram	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Ms.Poornima Mesram	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Munnabai Mesram	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Rekha Sonvani	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Dineswari	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Asha Sahu	Farmer	Female	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Mr. Basanth K Sahu	Farmer	Male	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Visveswar Kashyap	Farmer	Male	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Padumlal Sahu	Farmer	Male	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Ram Misal Sahu	Farmer	Male	UW - M&M	Chathisgarh	Parsada
21-Jan-11	Sitaram Sahu	Farmer	Male	UW - M&M	Chathisgarh	Parsada
26-Jan-11	Shiv Bahadur Singh	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Jagatpur
26-Jan-11	Prabhavati	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jagatpur
26-Jan-11	Sahnaz Bano	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jagatpur
26-Jan-11	Sahina	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jagatpur
26-Jan-11	Shiv Kali	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jagatpur
26-Jan-11	Deepa	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jagatpur
26-Jan-11	Malati	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jagatpur
26-Jan-11	Sudha Singh	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Badhisarai
26-Jan-11	Suman Singh	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Badhisarai
26-Jan-11	Shiv Kumari	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Badhisarai
26-Jan-11	Shobha	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Badhisarai
26-Jan-11	Sweta Kumari	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Murtiya
26-Jan-11	Suman	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Murtiya

Date	Name	Title/position	Sex	Project component	State	City/Village
26-Jan-11	Saroj	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Murtiya
26-Jan-11	Indravati	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Murtiya
26-Jan-11	Arati Singh	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Saraini
26-Jan-11	Indravati Singh	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Saraini
26-Jan-11	Rama Singh	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Saraini
26-Jan-11	Shanti Devi	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Deeh
26-Jan-11	Suman	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Amawa
26-Jan-11	Raj Kumari	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Amawa
26-Jan-11	Nirmala	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Amawa
26-Jan-11	Ramavati	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Amawa
26-Jan-11	Dhanpati	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Deeh
26-Jan-11	Jagdish	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Rahi
26-Jan-11	Dhanpati	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Rahi
26-Jan-11	Vimala Devi	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Rahi
26-Jan-11	Gayatri	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Rahi
26-Jan-11	Ramdev	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Deeh
26-Jan-11	Sri Ram Yadav	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Deeh
26-Jan-11	Moorat	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Jamo
26-Jan-11	Geeta Devi	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jamo
26-Jan-11	Ranjana Sheel	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	P. Singh	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
26-Jan-11	Virendra Kumari	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Suneeta	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Sudhanshu	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Avasthi	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Pankaj Dubey	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Rajesh	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Manju Srivastava	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	K. S. Yadav	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Amit Bhardwaj	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
26-Jan-11	Pramod Singh	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
26-Jan-11	Ravi Yadav	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli

Date	Name	Title/position	Sex	Project component	State	City/Village
26-Jan-11	Alok	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
26-Jan-11	Ravi	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
26-Jan-11	Pappu Shukla	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
26-Jan-11	Sri Ram	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
26-Jan-11	Saroj	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Rekha	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Malti Devi	Community Resource Person	Female	UW - RGCT	Uttar Pradesh	Jais
26-Jan-11	Ajay Kumar	Community Volunteer	Male	UW - RGCT	Uttar Pradesh	Rai Bareli
27-Jan-11	Sudha Pandey	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Suman	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Kusum	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Neelam	Farmer	Female	UW - RGCT	Uttar Pradesh	Bagia Kailash
27-Jan-11	Maya	Farmer	Female	UW - RGCT	Uttar Pradesh	Bagia Kailash
27-Jan-11	Geeta	Farmer	Female	UW - RGCT	Uttar Pradesh	Bagia Kailash
27-Jan-11	Gayatri	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Shakuntala	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Jaykala	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Bhanumati	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Kushala	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Amravati	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Akhilesh	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Kaushalya	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Rajmati	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Churamani	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Prabha Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Shukl ka Purva
27-Jan-11	Surya Kala	Farmer	Female	UW - RGCT	Uttar Pradesh	Shukl ka Purva
27-Jan-11	Malti	Farmer	Female	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Om Prakash	Farmer	Male	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Dayanand Pandey	Farmer	Male	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Mahavir Yadav	Farmer	Male	UW - RGCT	Uttar Pradesh	Bagia Kailash
27-Jan-11	Vinod Mishra	Farmer	Male	UW - RGCT	Uttar Pradesh	Bhorka
27-Jan-11	Hari Prashad Shukla	Farmer	Male	UW - RGCT	Uttar Pradesh	Shukl ka Purva

Date	Name	Title/position	Sex	Project component	State	City/Village
27-Jan-11	Jiyalal Yadav	Farmer	Male	UW - RGCT	Uttar Pradesh	Pure Riswa
27-Jan-11	Tripurari Narayan	Farmer	Male	UW - RGCT	Uttar Pradesh	Pure Riswa
27-Jan-11	Prithvi Lal	Farmer	Male	UW - RGCT	Uttar Pradesh	Pure Riswa
27-Jan-11	Kiran Singh	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Kamla Singh	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Punam Singh	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Meera Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Amravati	Farmer	Female	UW - RGCT	Uttar Pradesh	Bahoripur
27-Jan-11	Lakshmi	Farmer	Female	UW - RGCT	Uttar Pradesh	Bahoripur
27-Jan-11	Anar Kali	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Sharmili	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Chandravati	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Ramadevi	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Aamiya	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Shanti Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Ramvati	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Shanti Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Kanti Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Karmaila	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Punam	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Asha	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Kusum Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Urmila	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Meera	Farmer	Female	UW - RGCT	Uttar Pradesh	Jhalhi
27-Jan-11	Dhanpati	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Lakshmi	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Saryu Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Shanti	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Shanti Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Vimala	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Ganga Devi	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur
27-Jan-11	Ramvata	Farmer	Female	UW - RGCT	Uttar Pradesh	Topari Baniapur

Date	Name	Title/position	Sex	Project component	State	City/Village
28-Jan-11	Shivpati	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Sellam Nisha	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Malati	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Ram sakhi	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Rajiya	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Dhanpat	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Sona	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Kewala	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Rajpati	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Shankara	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Ram Kumari	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Dhanpati	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Sunita	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Rajwati	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Sapna	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Rahisa	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Ramdev	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Kamlesh	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Ramkali	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Phulkali	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Meena	Farmer	Female	UW - RGCT	Uttar Pradesh	Halai ka Purwa
28-Jan-11	Kamlesh	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Madhuri	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Kalavati	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Nirmala	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Kusma	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Sunita	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Rajkumari	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Suman	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Vidyavati	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Dayavati	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Neelam	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama

Date	Name	Title/position	Sex	Project component	State	City/Village
28-Jan-11	Geeta	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Radha	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Gayavati	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Shama	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Rajrani	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Mithilesh	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Gangadevi	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
28-Jan-11	Seema	Farmer	Female	UW - RGCT	Uttar Pradesh	Dhandhama
4-Feb-11	K N Selvakumar	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	R P Singadurai	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	Paneerselvam Kalivilas	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	S.Prakasam	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	A.P.Nagaraj	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	Nather Meeran	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	Kottaisamy Kuchanur	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	K.N.Rathakrishnan	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	Sekar Kallipatti	Farmer	Male	MSU	Tamil Nadu	Theni
4-Feb-11	Mrs.S.Subbulakshmi,	Farmer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	Bharathi Rathakrishnan	Farmer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	A.P.Karuppiyah,	Farmer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	Mrs.Jeyanthi Karuppiyah	Farmer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	R. Namatha	Laborer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	M. Chitra	Laborer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	P. Sumathi	Laborer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	K. Bala	Laborer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	R. Sumathi	Laborer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	Durga	Laborer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	Mala	Laborer	Female	MSU	Tamil Nadu	Theni
4-Feb-11	Solaiamma	Laborer	Female	MSU	Tamil Nadu	Theni
19-Jan-11	Nathu Ram	Farmer	Male	IFPRI	Madhya Pradesh	Narsingh Kheda
19-Jan-11	Sunder Lal	Farmer	Male	IFPRI	Madhya Pradesh	Narsingh Kheda
19-Jan-11	Dev Karan	Farmer	Male	IFPRI	Madhya Pradesh	Narsingh Kheda

Date	Name	Title/position	Sex	Project component	State	City/Village
19-Jan-11	Bhulaki	Farmer	Male	IFPRI	Madhya Pradesh	Narsingh Kheda
19-Jan-11	Prem Singh	Farmer	Male	IFPRI	Madhya Pradesh	Narsingh Kheda
19-Jan-11	Ghisi Lal	Farmer	Male	IFPRI	Madhya Pradesh	Narsingh Kheda
20-Jan-11	S N Jalodia	Farmer/Sanchalak	Male	IFPRI	Madhya Pradesh	Mogra Ram
20-Jan-11	Prem Singh	Farmer	Male	IFPRI	Madhya Pradesh	Mogra Ram
20-Jan-11	Vishnu Prasad	Farmer	Male	IFPRI	Madhya Pradesh	Amal Ramjee Pure
20-Jan-11	Bharat Singh	Farmer	Male	IFPRI	Madhya Pradesh	Khamkheda
20-Jan-11	Durjan Singh	Farmer	Male	IFPRI	Madhya Pradesh	Khamkheda
20-Jan-11	Surender	Farmer	Male	IFPRI	Madhya Pradesh	Khamkheda
20-Jan-11	Bhola	Farmer	Male	IFPRI	Madhya Pradesh	Khamkheda
25-Jan-11	Sarvesh Trivedi	Farmer	Male	IFPRI	Uttar Pradesh	Ratanpur
25-Jan-11	Sunil Srivastava	Farmer	Male	IFPRI	Uttar Pradesh	Ratanpur
25-Jan-11	Ravindra Yadav	Farmer	Male	IFPRI	Uttar Pradesh	Ratanpur
25-Jan-11	Swarn Pal Saxena	Farmer	Male	IFPRI	Uttar Pradesh	Ratanpur
25-Jan-11	Anoop Saxena	Farmer	Male	IFPRI	Uttar Pradesh	Ratanpur
25-Jan-11	Rajendra Yadav	Farmer	Male	IFPRI	Uttar Pradesh	Ratanpur
25-Jan-11	Prabhakar Dube	Farmer	Male	IFPRI	Uttar Pradesh	Ratanpur
25-Jan-11	Sudhir Kr Singh	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Kovitraj Singh	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Bhupendra Singh	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Ashwini Sharma	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Munendra Pal Singh	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Girija Shankar Gupta	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Rajesh Gupta	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Ram Pratap Gupta	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Sukhlal Gupta	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Arvind Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
25-Jan-11	Pramod Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Mohaddinpur
26-Jan-11	Pradeep Pandey	Farmer/Facilitator	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Ram Barose	Farmer	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Shankar Jee	Farmer	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Lala Ram	Farmeer	Male	IFPRI	Uttar Pradesh	Mullapur

Date	Name	Title/position	Sex	Project component	State	City/Village
26-Jan-11	Jagdish Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Harihar Singh	Farmer	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Trigpal	Farmer	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Kamlesh Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Mitan	Farmer	Male	IFPRI	Uttar Pradesh	Mullapur
26-Jan-11	Arun Singh	Farmer	Male	IFPRI	Uttar Pradesh	Bilhari
26-Jan-11	Ganesh Pal Singh	Farmer	Male	IFPRI	Uttar Pradesh	Bilhari
26-Jan-11	Rajendra Singh	Farmer	Male	IFPRI	Uttar Pradesh	Bilhari
26-Jan-11	Raghuveer Singh	Farmer	Male	IFPRI	Uttar Pradesh	Bilhari
26-Jan-11	Vishnu Pal Singh	Farmer	Male	IFPRI	Uttar Pradesh	Bilhari
26-Jan-11	Suraj Baksh Singh	Farmer	Male	IFPRI	Uttar Pradesh	Bilhari
26-Jan-11	Vinod Pal Singh	Farmer	Male	IFPRI	Uttar Pradesh	Bilhari
27-Jan-11	Hari Ram Dixit	Farmer	Male	IFPRI	Uttar Pradesh	Jang Bahadur Ganj
27-Jan-11	Dinesh Kr Srivastava	Farmer	Male	IFPRI	Uttar Pradesh	Jang Bahadur Ganj
27-Jan-11	Neeraj Gupta	Farmer	Male	IFPRI	Uttar Pradesh	Jang Bahadur Ganj
27-Jan-11	Sripal Gupta	Farmer	Male	IFPRI	Uttar Pradesh	Jang Bahadur Ganj
27-Jan-11	Anil Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Ashok Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Virendra Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Ram Kewal	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Indra Bahadur	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Suresh Kumar	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Dev Narayan	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Purushottam	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
27-Jan-11	Vivek Singh	Farmer	Male	IFPRI	Uttar Pradesh	Gohama
28-Jan-11	Ashok Kumar Singh	Farmer/Village Volunteer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Badkau Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Geeta Ram	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Shiv Kr Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Siv Nath Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Guptar Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Mahesh Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao

Date	Name	Title/position	Sex	Project component	State	City/Village
28-Jan-11	Devender Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Hari Nam Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Ajeet Kumar	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Sarvesh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Ram Shankar	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Raja Ram	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Ram Sanehi Pal	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Surendra	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Ram Kisan Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Ramesh Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Suresh Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Chandra Bhan Singh	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Rajesh Kumar	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Chhote Lal	Farmer	Male	World Vision	Uttar Pradesh	Purwa Bajee Rao
28-Jan-11	Ramadhar	Farmer/Village Volunteer-AFPRO	Male	World Vision	Uttar Pradesh	Dugauna
29-Jan-11	Ambika Shukla	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Shabir Ali	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Suresh Chand	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Vijay Kumar	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Ram Lakhan	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Peer Gulam	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Mohd. Riaz	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Mohd. Firiuz	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Kundan Shukla	Farmerr	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Mohd. Shaban	Farmer	Male	World Vision	Uttar Pradesh	Attahra
29-Jan-11	Ram Prakash Yadav	Farmer	Male	World Vision	Uttar Pradesh	Budhikheda
29-Jan-11	Harinam Yadav	Farmer	Male	World Vision	Uttar Pradesh	Budhikheda
29-Jan-11	Jaideep Singh	Farmer	Male	World Vision	Uttar Pradesh	Sarosi
29-Jan-11	Jitendra Singh	Farmer	Male	World Vision	Uttar Pradesh	Sarosi
29-Jan-11	Sanjay Pande	Farmer	Male	World Vision	Uttar Pradesh	Sarosi
29-Jan-11	Neelam Pandey	Farmer	Female	World Vision	Uttar Pradesh	Sarosi

Date	Name	Title/position	Sex	Project component	State	City/Village
29-Jan-11	Poonam Yadav	Farmer	Female	World Vision	Uttar Pradesh	Sarosi
29-Jan-11	Asha Tiwari	Farmer	Female	World Vision	Uttar Pradesh	Sarosi
29-Jan-11	Vidya	Farmer	Female	World Vision	Uttar Pradesh	Sarosi
29-Jan-11	Sadhuri	Farmer	Female	World Vision	Uttar Pradesh	Sarosi
29-Jan-11	Kamal Singh	Farmer	Male	World Vision	Uttar Pradesh	Mohkikheda
29-Jan-11	Suresh Yadav	Farmer	Male	World Vision	Uttar Pradesh	Budhikheda
29-Jan-11	Sandeep Singh	Farmer	Male	World Vision	Uttar Pradesh	Patari
29-Jan-11	Ajai Kumar	Farmer	Male	World Vision	Uttar Pradesh	Babukheda
29-Jan-11	Shiv Nandan	Farmer	Male	World Vision	Uttar Pradesh	Babukheda
29-Jan-11	Bhola	Farmer	Male	World Vision	Uttar Pradesh	Babukheda
29-Jan-11	Mathura	Farmer	Male	World Vision	Uttar Pradesh	Rustampur
29-Jan-11	Nanke Yadav	Farmer	Male	World Vision	Uttar Pradesh	Rustampur
29-Jan-11	Chandra Pal	Farmer	Male	World Vision	Uttar Pradesh	Rustampur
29-Jan-11	Uma	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Rafiq	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Savitri	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Neema	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Mithilesh	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Sarla	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Kamal Kanti	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Santosh Kumari	Farmer	Female	World Vision	Uttar Pradesh	Chilaula
29-Jan-11	Ram Rani	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
29-Jan-11	Sangeeta Saini	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
29-Jan-11	Seema	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
29-Jan-11	Suresh Chandra	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
2-Feb-11	Ambika Prasad	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Bhanu Pratap	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Vinod Singh	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Pushpanjali	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Anjani	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Devki Nandan	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Ashutosh Kumar	Farmer	Male	World Vision	Uttar Pradesh	Gauriya

Date	Name	Title/position	Sex	Project component	State	City/Village
2-Feb-11	Bharat Saran	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Ram Dayal	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Sunder Lal	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Kamta Prasad	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Shiv Prakash	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Neeraj	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Dhirendra	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Sampat Kumar	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Ankit Kumar	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Virendra Kumar	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Bharat	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Parashuram	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Ashutosh Dixit	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Sampat Kumar	Farmer/AFPRO Volunteer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Malti	Farmer	Female	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Shivpati	Farmer	Female	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Longshree	Farmer	Female	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Ram Kali	Farmer	Female	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Malti Devi	Farmer	Female	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Sudhakar	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Anjani	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Ram Bhajan	Farmer	Male	World Vision	Uttar Pradesh	Gauriya
2-Feb-11	Kiran Devi	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Prerna	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Parvati	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Basanti	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Malti	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Usha Devi	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Kanti	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Susheela	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Rama	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur
2-Feb-11	Phool Kumari	Farmer	Female	World Vision	Uttar Pradesh	Mirzapur

Date	Name	Title/position	Sex	Project component	State	City/Village
2-Feb-11	Yati Shankar	Farmer/Volunteer	Male	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Kamla	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Ram Kumari	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Vineeta	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Kamla II	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Sunita	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Punam Devi	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Rinki Devi	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Munni Devi	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Ram Dulari	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Reshma	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Sarita Devi	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Asha Devi	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Ram Kumari	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Genda Devi	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Renu Devi	Farmer	Female	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Suresh Kumar	Farmer	Male	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Subhash	Farmer	Male	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Balak Ram	Farmer	Male	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Gokaran Prasad	Farmer	Male	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Jagdev Prasad	Farmer	Male	World Vision	Uttar Pradesh	Pakaria
2-Feb-11	Sri Ram	Farmer	Male	World Vision	Uttar Pradesh	Pakaria
3-Feb-11	Suresh Chand	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Satrohan Rawat	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Paras Nath	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Ram Kumari	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Dhyan Singh	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Pachu Yadav	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Maniram	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Pyare Lal	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Budhwa	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Hans Raj	Farmer	Male	World Vision	Uttar Pradesh	Khandsara

Date	Name	Title/position	Sex	Project component	State	City/Village
3-Feb-11	Parmanand	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Pappu	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Man Singh	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Ram Naresh	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Girish Chand	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Narendra Kumar	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Rajernder	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Radhe Lal	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Ram Saran	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Jag Jeevan	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Chandi Lal	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Ram Singh	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Ganga Ram Yadav	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Swami Dayal	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Jagat Pal	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Hausal	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Ram Gulam	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Surendra Kumar	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Rupendra Kumar	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Ram Sevak	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Suvaru Yadav	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Bhajan Lal	Farmer	Male	World Vision	Uttar Pradesh	Khandsara
3-Feb-11	Jaideep	Farmer/Volunteer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Jitendra Singh	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Dileep Singh	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Kamal Singh	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Balram Singh	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ranvijay Singh	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Lal Bahadur	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ram Asre	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ram Bilal	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ram Chandra	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda

Date	Name	Title/position	Sex	Project component	State	City/Village
3-Feb-11	Saijan	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Gyanendra	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Rahul	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Shyam Lal	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Sanjeevan	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Surendra	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ram Prasad	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Phool Chand	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ajai	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Govind	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Shiv Kumar	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Jhabboo	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Prem Kumar	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Rajesh	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ratnesh	Farmer	Male	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Chandra Kali	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Rani	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Laxmi	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Usha Devi	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Suneeta	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Kamla	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Bisuna	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Mamta	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Anjali	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Kisana	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Saroj	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Suneeta	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Reshma	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Krishnawati	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Jyoti	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Saroj	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Kaushalya	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda

Date	Name	Title/position	Sex	Project component	State	City/Village
3-Feb-11	Kamla	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Kushma	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Ramrani	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Reema	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Meera	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Babli	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Sarojinee	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Shanti	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Lakshmi Devi	Farmer	Female	World Vision	Uttar Pradesh	Raisingh Kheda
3-Feb-11	Pappu Saini	Farmer/Volunteer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Ram Prakash	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Beche Lal	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Prakash	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Ankit Sahu	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Madan Lal	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Jaganath Singh	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Sonu Nigam	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Daya Shankar	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Gyan Prakash	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Shiv Mangal	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Kamlesh Trivedi	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Shiv Bahadur	Farmer	Male	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Aruna Singh	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Ruchi Singh	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Sudha Yadav	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Renu Verma	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Nasreen	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Nidhi	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Nanhki	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Maharaja	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Pritee	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Urmila	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar

Date	Name	Title/position	Sex	Project component	State	City/Village
3-Feb-11	Sangeeta	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Shiv Kanti	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Santosh	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Shiv Devi	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Ram Rati	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Asha	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Rani	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Seema	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Radha	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Shanti	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Malti	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Ram Rani	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Savitree	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Kamla	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Indrana	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Jag Dai	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Shiya Dulari	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Deshpati	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Sarojini	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar
3-Feb-11	Prema	Farmer	Female	World Vision	Uttar Pradesh	Dosti Nagar

ANNEX D: DETAILED FINDINGS

Detailed Findings on Impact

University of Wisconsin-Madison (Mahindra & Mahindra)

M&M reports that its Samridhi Centers have collectively conducted about 21,000 soil tests. Adjusting for farmers who obtained multiple soil tests, the evaluation team arrived at a rough estimate of 16,800 individual farmers who have obtained soil tests from M&M soil labs¹. The evidence suggests that most farmers who obtained soil tests changed at least their fertilizer application practices as a result. Each of the nine farmers that the evaluation team interviewed who had obtained tests implemented the fertilizer application recommendations based on the tests. All 3,800 farmers on which M&M collects data (a subset of the 16,800 who obtain tests) followed the recommendations associated with the tests.

Apart from the soil tests, M&M does not document the number of farmers who adopt productivity-enhancing practices as a result of demonstrations, clinics, on farm visits by university scientists, online knowledge centers, and peer dissemination through M&M's hub and spoke model². Anecdotal evidence collected by the evaluation team does not support accurate estimates. Five lead farmers interviewed by the evaluation team reported advising between 15 and 125³ additional farmers (an average of 30 when discarding the outlier of 125). One of these farmers reported that about one-third of those he advised ultimately adopted improved practices. Therefore, the 3,800 lead farmers may have disseminated knowledge of improved practices to an additional 114,000 farmers, 38,000 of whom may have adopted some of the practices⁴.

All of the 9 farmers that the evaluation team interviewed who had tested their soils reported increased yields. M&M reports that 96% of the 3,800 farmers engaged in the productivity enhancement program registered a productivity increase of at least 10% with a minimum increase of 4%, a maximum of 52%, and an average of 15-18%.⁵ However, detailed analysis of data from a sample of cotton farmers suggests that – at least for cotton – increased prices drove much of the productivity increase while higher production costs (7.4% higher on average) largely offset increased yields (8% higher on average)^{6,7}.

University of Wisconsin-Madison (Tasty Bite)

Tasty Bite has not yet disseminated improved practices to farmers. Company officials and farm managers report that some farmers (mostly those who work on the farm) have observed the experiments and have

¹ Of nine interviewed farmers who had obtained tests, two (22%) had obtained two tests.

² The hub and spoke model utilizes lead farmers (usually a tractor owner with whom the M&M dealer has a relationship) to participate in capacity building training and visits and then disseminate information to other farmers.

³ Specifically, 125, 50, 15-20, 20-25, and 35.

⁴ Admittedly a very rough estimate.

⁵ The yield and productivity results are not conclusive because they do not control for external factors (e.g., weather) that may have affected yields. Current (2010) data on yields are not available as a control. However, the consistency of the reported results over two regions, different crops, and data collection methods (interviews and detailed quantitative data collection) strongly suggest that they are at least partially attributable to the intervention.

⁶ This partial analysis emphasizes the need for more carefully designed impact assessments. A more rigorous approach would control for changes in prices of inputs and outputs. It is possible that increased input prices (over which the project has no control) depressed productivity increases across the board and that adopting improved practices prevented a drop in productivity. The appropriate comparison is between post-intervention productivity and *what productivity would have been without the intervention*, and not between pre- and post-intervention productivity.

⁷ Results may be very different for other crops.

adopted them on their farms. However, Tasty Bite could provide no estimates of the number of farmers who may have adopted the practices. Tasty Bite has not yet formally disseminated results to farmers so there is no measurable impact on productivity or incomes of farmers.

University of Wisconsin-Madison (Rajiv Ghandi Charitable Trust)

RGCT records suggest that CRPs have trained over 90,000 members of Womens Self Help Groups (WSHGs) in improved vegetable and dairy production practices. The project does not document the percentage of these women who ultimately implement the practices. All of the women that the evaluation team interviewed were implementing at least some of the improved practices⁸ including providing 24 hour access to water, clean bedding, and green fodder. Many women (exact number not known) also reported selecting breeds of cattle more suited to milk production based on the training recommendations. Casual observation in two non-project villages found no households implementing the readily observable practices of providing 24 hour access to water or clean bedding material thus suggesting that adoption of productivity-enhancing practices is attributable to PIKA-supported activities.

Dairy training, coupled with access to credit facilitated by the RGCT, appears to have increased investment in milking animals. Of 18 women in one SHG, 12 had taken up dairy for the first time and 16 had increased their herd size since receiving training. All of those who talked of buying animals use the SHGs credit facility to do so. In another village, 6 of 22 women owned animals prior to training and 19 do now. All of the six women who owned animals prior to training had purchased additional animals.

Except when egogenous factors (e.g., death of an animal) intervened, the women who were implementing improved dairy practices reported increased production. For example, all of the 14 women in one SHG who had dairy animals reported increased milk production as a results of implementing improved practices. However, they were not able to provide reliable estimates of changes in milk production. Similar projects in Pakistan and India⁹, which did carefully track production, documented average production increases in excess of 50% among smallholder farmers who implemented similar practices.

Because not all of the women were selling milk regularly and milk production varied throughout the year, they were not able to provide reliable estimates of the impact of increased milk production on household incomes. Women in all four villages that the evaluation team visited were practicing composing techniques promoted by the RGCT. While many spoke of the increased quantity, variety, and quality (i.e., no pesticide residue) of vegetables they were able to grow for home consumption – and at lower cost – as a result of composing, only three spoke of selling large quantities of vegetables.

Michigan State University (IHDA)

The project is working intensively with 14 clusters representing 3,625 farmers in 5 states (Karnataka, Tamil Nadu, Andhra Pradesh, Maharashtra, and Kerala) producing mango, banana, pomegranate, and pineapple. TNAU works with each of the producer groups to train members in improved production practices. All of the 40 members of the mango and banana groups that the evaluation team met with reported employing improved practices. Evidence suggests that many more farmers could soon benefit from the improved practices. A project-supported banana processor (APK) is currently greatly expanding

⁸ The RGCT selected farmers who were actively engaged in the project for interviews so the evaluation team did not meet with many farmers who were not implementing the best practices.

⁹ The Pakistan Initiative for Strategic Development & Competitiveness (PISDAC) Closeout Report, August 31, 2006, USAID, Pakistan [<http://www.usaid.gov/pk/downloads/eg/PISDAC.pdf>] and Care International PPA Self-Assessment Review, 2009-2010 [http://www.careinternational.org.uk/attachments/1324_CARE-UK-2009-10-PPA-Self-assessment.PDF].

his capacity and will need to train 2,100 to 2,400 additional farmers in improved production practices in order to supply the new facility.

The project's economic impact assessment reports a total economic impact to project-assisted farmers of \$3 million. It estimates benefits based on quantity data from buyers, anecdotal information from farmers about incremental price differentials associated with new markets, and the farmers' assessment that they could not/were not accessing these markets without PIKA support. In the case of six groups documented in the third quarterly report of 2010, increased incomes resulted largely from reduced transactions costs (commissions and transportation). Members of a mango and a banana producer groups that the evaluation team interviewed confirmed the savings in transactions cost. Both groups also said that training in sorting, grading, and packaging for fresh markets had increased returns.

The project also has the potential to increase employment in processing industries. For example, the owner of the banana packing house reported that he currently employs 400 people – mostly women and that his new packing house will employ as many as 500-800 people initially.

IFPRI (ITC)

Since joining the PIKA project, ITC has conducted regular detailed farmer surveys comparing average soybean and wheat yields per individual village in crop year 2008-2009 with yields in crop year 2010-2011. ITC also compared yields on individual farms to which they have provided inputs and technical services, with yields on control farms with which they were not involved.

Survey results show that 24,624 farmers have adopted improved practices. Of this total, 22,161 farmers have gained increases in productivity and incomes. Each field demonstration by an ITC farmer service center on average triggers three adoptions of improved practices by farmers. ITC operates 38 choupal sagars in Madhya Pradesh. Each choupal sagar has about 54 service centers in its catchment area, accounting for adoption by 648 farmers, for a total of 624 farmers adopting improved practices. Some 90 percent of the soybean farmers who adopted the improved practices achieved average yield increases of 187 kg. per acre; all farmers with yield increases also earned increased incomes, since all of the surplus crops were sold. At the prevailing price of Rs. 22 per kg., total increase in income averaged Rs. 4,114 per acre.

The ITC management team reported that increased use of herbicides by ITC farmers has reduced labor requirements, lowered production cost, and increased productivity by ensuring timely weed control and better plant growth. ITC reported that wheat yields increased by 20% - from an average of 10 quintals/ha two to three years ago to an average of 12 quintals now.

A majority of the 59 farmers interviewed in 6 ITC villages interviewed by the evaluation team cited the 20% increase in yields. They the increase to greatly intensified application of herbicides and improved cultivation practices. They reported that soybean yields increased from 0.4-0.5 tons per ha. in 2006 to 0.8 tons in 2010 and wheat yields during the same period increased from 1.2-1.5 tons to 2.0-2.5 tons. According to these farmers, introduction of herbicide application to the soybean crop by ITC has helped alleviate labor shortages and ensured uniform and timely weed control, resulting in better plant growth and higher yield.

ITC management cites improved net profits to the farmers of approximately Rs. 700 to Rs. 800 per wagon load (5 MT) of product delivered directly to ITC procurement hubs and thus avoiding mandi commissions and malpractice. Some 13 of the 59 farmers interviewed confirmed the Rs. 700 to Rs. 800 figure. Most of the remaining interviewees were not regularly marketing their grain through ITC.

ITC is providing inputs and farmer technical services through a hub and spoke system based on assisting e-choupal sanchalaks to set up their own farmer service centers on a pilot basis (five per Choupal Sagar) to provide inputs and technical extension services.

IFPRI (HKB)

HKB conducts continuing field research to determine the impact of their inputs and services. They also keep detailed records of all of the core farmers with whom they are working. According to the field studies, 106,875 farmers adopted improved practices as a direct result of HKB agri services. Of those who adopted the practices, 96,187 achieved yield increases averaging 15 to 20%.

The Rural Business Hubs project implemented by IFPRI contributed to the dissemination and adoption of improved practices (increased herbicide use, adjustment of seed planting rate and plant densities, fertilization based on actual soil and needs, and improved access to essential inputs).

Each HKB works directly with 8-10 core villages with 10-12 core farmers each. Each core village serves as a model for an average of five neighboring villages. Each HKB thus directly or indirectly influences approximately 50 villages with a total of approximately 7,500 households to adopt improved practices. Some five percent of farmers in each village adopt these practices. Thus an average of 375 farmers in each HKB catchment area have thus far adopted improved practices; or, given the 285 HKB outlets in Uttar Pradesh, a total of 106,875 farmers have adopted improved practices during the first two years of PIKA. All of these experienced increased income through the sale of the surplus crops. While the primary source of increased incomes was higher yields, farmers also reported cost reductions of Rs. 500 to Rs. 700 per acre through labor savings as a result of increased use of herbicides.

Hariyali Kisan Bazaar, according to agri services division management, has reduced input costs to farmers by 5 to 10% by offering products of three quality levels, with lower but still acceptable quality products sold at entry prices; and by offering private label products. Many of the farmers interviewed at the Hariyali outlets and in the villages mentioned the benefits of the smaller packages and lower prices presented by Hariyali.

According to the Hariyali dairy division manager, the company's dairy collection and milk chilling and marketing program pays an average of Rp 19.50 per liter to farmers for their milk; this has forced local milk collectors to raise their average price to dairy farmers from the former Rs. 12.00 per liter to Rs. 17.00 per liter.

World Vision

According to World Vision project management, the beneficiaries they claimed in their reports included anyone who had any degree of interaction with the project; those who participated in trainings, attended mass village meetings, or were otherwise in contact with the project. For example, the wives of farmers who accompanied their husbands to training sessions but did not actually take part in the trainings were also counted as training beneficiaries. World Vision acknowledged that they do not know how many farmers have adopted improved practices as a result of the training. According to the findings of the evaluation team, very little of the training provided was actually put to use by the men and women farmers.

The RWC component of the project, however, persuaded 8,250 farmers to adopt improved practices and 7,425 of these increased their productivity and incomes according to field surveys conducted by RWC.

According to farmer interviews and observation by the evaluation team, the only project components that have produced a significant impact on yields are the RWC and AFPRO components. RWC has installed 279 demonstration plots on 637 acres, showcasing laser land leveling, zero tillage, direct seeding, and

sowing on raised beds. RWC records indicate that average wheat yields increased by 37% and paddy yields by 9%, but only on the RWC demonstration plots. Farmers who did not adopt improved practices told the evaluation team that their yields had remained stable during the past several years and in at least one case had decreased. Adoption of RWC practices resulted in an average cost reduction of Rs. 5,000 per acre due to reduced plowing, irrigation, seed, and fertilizer cost.

AFPRO installed 32 water recharging bodies (catchment ponds), two check dams, and a culvert/check dam as well as 30 observation wells to monitor water quality and water table depth; according to farmer interviewees, these interventions raised ground water levels and helped increased availability of water for irrigation for the affected farmer.

The soil testing kits provided by ACDI/VOCA as part of the project technical assistance were shown to have little or no impact. The volunteers were provided with hands-on training once but there was no subsequent follow-up nor were any attempts made by World Vision to monitor the use of the kits. The volunteers were issued the kits with the understanding that they would provide soil testing services for their village on a fee basis. In no instance that the evaluation team was able to discover did this happen. Not only were the kits in most instances never used, in many of the villages the farmers were unaware that one of their village farmers was in possession of a kit.

Detailed Findings on Sustainability

University of Wisconsin-Madison (Mahindra & Mahindra)

M&M dealers decide whether they will make the investment necessary to transform their dealerships to Samriddhi Centers. Both dealers that the evaluation team interviewed, along with the M&M Samriddhi manager, said that financial viability (i.e., that the relationships built with farmers through the Samriddhi Centers ultimately generated returns sufficient to cover costs) of the centers was necessary for sustainability. Neither of the two dealers could yet conclusively attribute additional business to the centers and neither center (both two years old) had yet attained financial sustainability. Both said, however, that the centers were increasing their visibility and relationships with farmers.

Leveraging reports from UW state that M&M has made a significant investment in the Samriddhi Center initiative – over \$2 million. This likely substantially understates the total investment since M&M has been engaged in the initiative since initiated the project in 2006, two years before PIKA. Dealers also have to invest substantial resources into transforming their dealerships into Samriddhi Centers (Rs. 220,000 in startup costs with Rs. 30,000-40,000 in annual operating costs according to one dealership).

M&M Samriddhi managers, both center owners/operators, trainees, M&M Territory Managers, and UW staff said that it would have been difficult for M&M to establish the soil testing laboratories or train the technicians or field staff without UW's contribution of technical expertise and training. UW staff also reported that, while M&M could perhaps have identified local expertise to develop the labs, it would likely have taken longer and produced less sophisticated labs and tests. In fact, UW's assessment of the labs that M&M had established prior to PIKA found them inadequate

Quality control procedures instituted and administered by UW have found that M&M's soil testing laboratories produce accurate results and relevant recommendations. However, M&M Samriddhi managers believe that M&M does not yet have the capacity to train additional soil technicians and needs continued technical (not financial) support to establish additional labs and train staff to operate the labs.

M&M plans to extend its reach to farmers by increasing the number of Samriddhi Centers and by increasing – through the hub and spoke model – the number of farmers engaged at each center. M&M Samriddhi managers said that they ultimately want to transform 400 dealerships to Samriddhi Centers.

The potential for scaling up through the hub and spoke dissemination model (i.e., engaging lead farmers who then disseminate information to other farmers) is substantial. Seven of the nine lead farmers that the evaluation team interviewed said they had trained or were advising others (between 10 and 125 each).

University of Wisconsin-Madison (Tasty Bite)

Tasty Bite managers said that their collaboration with UW would be a success if they were able to procure a larger share of their vegetables directly from contracted farmers. Since Tasty Bite has not yet begun to disseminate improved practices to farmers, the success of the strategy is not yet determined.

Tasty Bite personnel said that PIKA's most important contribution to its effort to develop best practices for their supplying farmers was the expertise to design and implement experiments. They reported that they could have found local researchers (i.e., at Pujab Agricultural University) but that they would not have been able to conduct the quality of research provided by the UW specialists who became involved in every detail of design and implementation. Tasty Bite managers said that they had already learned some improved practices from the experiments implemented by UW and that employees (e.g., the farm manager) were competent to disseminate these practices to farmers. UW personnel concurred with this assessment. However, both Tasty Bite and UW agreed that Tasty Bite does not yet have the capacity to replant the experiments for new crops. Tasty Bite is hoping for additional assistance from UW to replicate experiments for additional crops.

UW input also helped Tasty Bite design and implement improved water management practices. In one instance, UW helped Tasty Bite design a water retention strategy to address chronic water shortages during the growing season. In another, UW helped Tasty Bite diagnose problems with its process for recycling processing waste water for irrigation. The solution involved constructing a state-of-the-art water recycling system that recaptures 15,000 liters of water per day for irrigation use. Finally, improved cultivation practices introduced by UW (i.e., plastic mulch, drip irrigation) reduced water use on the Tasty Bite farm by 60-70%.

Tasty Bite has little financial stake in its work with UW. It made no direct financial or in-kind contribution to the work.

If Tasty Bite attains its objective of contracting with farmers for about 80% of its fresh vegetable requirements, then it would probably engage 130 – 140 farmers at its current capacity. If it continues to expand at the current 40% annual rate, then it could scale up to a larger number of farmers.

University of Wisconsin-Madison (Rajiv Gandhi Charitable Trust)

The RGCT began forming and supporting WSHGs in Uttar Pradesh (UP) in 2002-03 with the aim of improving livelihoods and health. It has invested substantial energy and resources into forming 27,000 Womens Self Help Groups (WSHGs) reaching 233,594 families in 14 districts of eastern UP. The RGCT has invested substantial resources in the PIKA project including \$185,333 in direct support of UW's work. UW staff, and others knowledgeable of NGOs in India, believed that the RGCT had the capability and commitment necessary to create sustainable self help groups.

The dairy and vegetable production activities, supported by initiatives to improve access to finance, form the core of the RGCT's livelihood improvement strategy for the WSHGs.

RGCT managers and staff said that UW's most important contribution to their effort to promote adoption of improved dairy and vegetable production practices to WSHGs was providing the specialized expertise to develop and administer training materials capable of effectively disseminating information to a largely illiterate audience. RGCT staff and the CRPs reported that the process of designing the materials and

intensively training the CRPs enhanced their capacities and that they could not have found the level of expertise and attention to detail provided by UW in local institutions.

The RGCT has scaled up its activities substantially since the inception of the PIKA project. In 2008 it anticipated working with about 8,500 SHGs and has now expanded to 27,000 SHGs.

Michigan State University (IHDA)

MSU's partners in IHDA said that its most important contributions to IHDA were its big picture viewpoint (NHB, QCI), the ability to coordinate the activities of the various partners to address constraints along the entire horticulture value chain (QCI, YES Bank), access to international expertise and technology (FoodCert, NHB), and its ability to work at the level of the producer groups (NHB, QCI, TNAU). None believed that they could have found the required level of expertise and motivation locally.

TNAU personnel reported that they had benefited substantially from capacity building during their long association with MSU in horticultural development in India. New/enhanced skills included value chain analysis, ability to work with farmers and processors to disseminate improved cultivation and post harvest practices, and supply chain management.

The owner/operator of APK Banana World (an IHDA market link) reported that he currently buys from 700 – 800 farmers to supply his 20 MT/day packhouse. APK is about to open an integrated cold-chain/ripening chamber/packing house for bananas with a capacity of 300 MT/day year-round and an expected annual production of 80,000 MT. To supply this plant, APK expects to buy directly from 2,100 – 2,400 additional farmers. Other clusters also demonstrate substantial potential for scaling up. ???, for instance, reported that the increased quality of mangos being produced by PIKA-supported clusters in the Krishnagiri area was already attracting processors to establish additional facilities in the region.

MSU is creating Horticulture Knowledge Centers and a Horticulture Knowledge Network to facilitate sharing of information. To the extent that these are utilized they will support sustainability of the training materials created, practices developed, and lessons learned.

The NHB reported that MSU played an important role in developing India GAP standards. The GoI recently approved the standards.

IFPRI (ITC)

According to ITC management, the continued provision of technical services by ITC to farmers through the Sanchalak network of farmer service centers will depend on the degree to which the program can be directly linked to increases in procurement volumes and Choupal Sagar sales. The Sanchalaks attempting to provide inputs and technical services to farmers are experiencing difficulties in obtaining business licenses and complying with the regulatory requirements governing the operations of their agri-service centers and are being pressured to pay off local officials. The sanchalaks need business licenses in order to sell inputs. Without the revenues generated by input sales, the provision of farmer extension services by the sanchalaks is not economically viable.

IFPRI (HKB)

Hariyali Kisan Bazaar management informed the evaluation team that they will continue their provision of agri services to farmers only if a direct link can be established between such services and substantial increases in sales at HKB outlets. The outlets experienced 25-30% annual growth in sales of agricultural products and 50% growth in sales of in non-agricultural products including FMCG and others in 2010 compared with 2009.

World Vision

According to observations by the evaluation team, the only component of the Pika Alliance that is likely to be sustainable is the program of technical cropping innovations introduced by the Rice and Wheat Consortium.

Detailed Findings on Relevance

University of Wisconsin-Madison (Mahindra & Mahindra)

None of the 49 farmers that the evaluation team interviewed reported receiving advice on seed selection, fertilizer or pesticide use, or cultivation practices custom tailored to their farm from any organization other than M&M. The nine who reported that government officials had taken soil tests from their farms said that they never received results. Those who purchased seed and other inputs from local input suppliers all said that the suppliers provided blanket (not customized) planting and application schedules that were not based on actual farm conditions (e.g., soil qualities, pest and disease incidence). Samriddhi Center managers and UW personnel confirmed these findings.

With only three exceptions, all of the farmers who obtained soil tests reported reducing their use of fertilizer and increasing yields. Of 3,800 farmers in the productivity enhancement program, 96% reported an increase in productivity as a result of adopting project-promoted improved practices.

University of Wisconsin-Madison (Rajiv Gandhi Charitable Trust)

UW's internal evaluation of the RGCT project documented several challenges and constraints women faced in implementing recommended dairy practices. These included limited development of the value chain in some areas (e.g., lack of access to coolers, use of milkmen and subsequent decline in milk quality, poor roads), some recommended inputs (e.g., teat dip) were not locally available, high cost of green fodder and limited land base to produce own fodder, some practices (i.e., having water available 24 hours/day) were too labor intensive. The evaluation team's interviews with 74 women from 19 SHGs suggested that these were not common constraints. The RGCT is pursuing a partnership with Mother Dairy to address milk marketing constraints.

Michigan State University (IHDA)

All of the 40 farmers and three processors/packers that the evaluation team spoke with enthusiastically endorsed the activities of the IHDA partnership. All of the IHDA partners that the evaluation team spoke with (i.e., NHB, QCI, CII, TNAU, YES Bank, FoodCert) reported that MSU's approach to addressing constraints across the entire horticulture value chain was relevant.

IHDA has had difficulty linking producer clusters to retail partners and has focused the strategy so far primarily on facilitating connections to processors.

Instead of tying its entire strategy to Global GAP, MSU supported a range of entry-level GAP standards including Jain GAP, Deepak GAP, and India GAP. Entry-level GAP standards are easier for small farmers to attain and serve as a platform for eventual Global GAP certification.

IFPRI (ITC)

Based on the results of IFPRI surveys, ITC has adapted its approach to increase relevance to small farmers. Examples include:

- Establishment of a hub and spoke system with 170 farmer service centers nationwide, of which 38 are located in Madhya Pradesh, the area that IFPRI surveyed.
- In response to rapid uptake in herbicide use, ITC has formed an alliance with BASF to market ITC private label herbicide at lower prices than similar material sold under the BASF brand. Herbicide sales have increased tenfold between 2009 and 2010.
- According to farmer interviews and observation by the evaluation team, ITC is finding it difficult to incorporate small and marginal farmers into their procurement program due to small production volumes and inability of farmers to pay for transport to the ITC procurement hubs. ITC is presently considering various solutions to this problem.
- Farmer groups interviewed by the evaluation team want ITC to procure other products, such as gram, and to initiate a milk procurement and marketing program. ITC is considering the feasibility of this suggestion.

IFPRI (HKB)

HKB also used IFPRI market research to design and adapt its approach to engaging small farmers. Examples include:

- HKB launched an animal health and nutrition program and a dairy collection and marketing program in 2009 and developed a private label line of feeds for dairy cattle in 2010. The company recently started delivering cattle feed on a regular basis to more distant villages on a pilot basis. If this service proves economically viable, they intend to add other inputs to this mobile delivery service in future.
- In 2009-10 HKB expanded its program of furnishing certified foundation seeds to 25 farmers for multiplication and buy back.
- HKB has linked with three-wheeler operators to provide transportation to HKB outlets for farmers who lack transport facilities and have linked with banks and other financial institutions, insurance companies, auto and motorbike manufacturers and distributors, petrol companies, and other in order to provide a the range of services relevant to its farmer customers.
- The HKB agri services division is cooperating with CISSA to provide laser land leveling services to farmers. The division currently provides a fee-based pesticide spraying service on a pilot basis. HKB is considering developing additional fee-based custom services to better serve their farmer clients.

World Vision

The evaluation team observed that several of the hypotheses that determined the original PIKA Alliance project were invalid. For example, the planned activities to support mango value chain improvement were not relevant because, while some mangoes were produced in the general area, there were very few mango growers in the districts selected for project emphasis and those that were present in these districts were large growers rather than the small scale farmers the project was supposed to address. .

According to evaluation team interviews with affected farmers and community groups, the activities carried out by AFPRO and the Rice and Wheat Consortium effectively addressed needs of the affected farmers for application of better soil and water management techniques.

ACDI/VOCA reports that they are currently training farmers to take advantage of the new National Warehouse Act, which would enable the farmers to store their grain for later sale at a higher price rather than selling it at harvest time. The effectiveness of this intervention is not yet proven.

ACDI/VOCA, in its advisory role, attempted to inject a number of innovative elements into the project. Some of these were successful, including the second attempt at introducing mobile connectivity for market and weather information and the training of farmers to take advantage of the new warehouse receipt system, but most were not, due to the lack of adequate response from the lead firm. ACDI/VOCA was limited to an advisory role and had no control over the lead firm’s adoption and implementation of their recommended initiatives. Examples include:

- A trading firm introduced by ACDI/VOCA offered to contract for a major tonnage of wheat from project farmers. World Vision agreed but was unable to organize the aggregation of the specified quantities for two years in a row. The trading firm walked away, disgusted.
- A second company introduced by ACDI/VOCA offered to assist 500 farmers to establish a producer company, and was willing to provide half the cost and contract to purchase the farmers’ entire crop. WV delayed its decision regarding the proposal for four months, and the opportunity was lost.
- ACDI/VOCA arranged a meeting between WV and HKB for the purpose of proposing a contract arrangement with project farmers for seed production. HKB and ACDI/VOCA met, but WV, with no notice, failed to attend the meeting.

Detailed Findings on Effectiveness

University of Wisconsin-Madison (Mahindra & Mahindra)

Table 1 summarizes effectiveness relative to the project’s performance management plan (PMP) indicators.

TABLE I. EFFECTIVENESS OF UW PROJECT RELATIVE TO PMP INDICATORS

Indicator	LOP Target	LOP Actual
Number of new M&M soil testing laboratories established.	140	135
Number of M&M soil technicians trained.	140	185
Number of M&M outreach specialists trained.	140	150
Number of RGCT WSHG crop and dairy CRPs trained	900	1,700 (reported by RGCT)
Improved milk yields among the cattle- or buffalo-owning members of the RGCT WSHGs	25%	Not documented
Improved vegetable yields among members of the RGCT WSHGs	No target	Not documented
New ACMF demonstration farm in Uttar Pradesh established	No	Yes
Existing ACMF demonstration farm in Tamil Nadu and in the Tasty Bite demonstration farm in Maharashtra improved	No	Yes
Innovative links between farmers and input suppliers (at the M&M outlets with soils laboratories) and output purchasers (at Tasty Bite) documented and disseminated	No	Yes

Both M&M Samridhhi Center operators that the evaluation team interviewed as well as farmers reported that M&M dealers rely on their existing network of tractor buyers to establish initial contacts with villages. Tractor owners are generally not small farmers. In fact, of the three lead farmers from which the evaluation team obtained data on land holdings, two were large farmers (55 and 69 acres) and one was a medium farmer (10 acres). At the next level (i.e., farmer groups from villages with a lead farmer) 45% of the 58 farmers from whom the evaluation team obtained landholding data were marginal or small farmers (less than 5 acres), 36% were medium farmers (between 5 and 25 acres), and 19% were large farmers (more than 25 acres). This distribution is skewed towards medium and large farmers relative to the national distribution of farms by size – 81% marginal and small, 17.3% medium, 1.0% large.¹⁰

M&M Samridhhi managers and Samridhhi Center owners all agreed that PIKA had addressed a critical gap in implementing the Samridhhi initiative – building M&M’s capacity to provide relevant, farm-specific information to farmers to enhance productivity.

UW helped M&M establish 135 soil testing laboratories and train 121 soil technicians and 121 outreach specialists. This falls somewhat short of the target of 140 soil testing laboratories. However, the pace at which laboratories are established is determined by the pace at which dealers agree to transform their dealerships and invest in soil testing laboratories and is thus out of UW's control.

University of Wisconsin-Madison (Tasty Bite)

Tasty Bite has not yet disseminated information on improved production practices to any significant number of farmers. UW personnel do not believe that PIKA activities were entirely consistent with Tasty Bite’s expectations or needs. PIKA activities with Tasty Bite did not contribute to an documented corporate program or initiative.

University of Wisconsin-Madison (Rajiv Gandhi Charitable Trust)

RGCT personnel said that UW engagement had helped them develop innovative training materials and build their capacity (through training of trainers) to disseminate the material effectively. Effective training materials, appropriately designed for the audience, were crucial to RGCT’s livelihoods improvement strategy.

All of the 149 women that the evaluation team interviewed were small farmers.

The RGCT formed 27,000 SHGs and trained 1,700 CRPs to disseminate information about improved dairy and vegetable production practices. This exceeds the initial targets of 8,500 SHGs and 900 trained CRPs. CRP training records indicate that they have trained 90,000 SHG members in improved dairy and vegetable production practices.

Michigan State University (IHDA)

Table 2 summarizes progress relative to indicators contained in the project’s PMP.

TABLE 2. EFFECTIVENESS OF IHDA PROJECT RELATIVE TO PMP INDICATORS

Indicator	LOP Target	LOP Actual
Number of trained trainers participating in IHDA train-the-trainer programs	150	62
Number of farmers and others completing training programs conducted		

¹⁰ Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, 2000/01 [http://dacnet.nic.in/eands/latest_2006.htm].

Indicator	LOP Target	LOP Actual
by IHDA trained trainers and partner organizations		
Men	13,500	14,067
Women	1,500	2,656
Number of SMEs participating & linked with producer groups	50	25
Number of farms and processing establishments that received food safety certifications based on third-party audits	500	n.r.
Number of Horticulture Knowledge Centers established	5	2
Horticulture Knowledge Network web portal interface developed and launched	1	Under development
Aggregate net returns to participating farmers from participating in project activities	No target	\$3 million
Number of participating farmer groups and SMEs directly engaged with retail buyers, large processors, or exporters.	No target	14

Project personnel reported that about 60-70% of beneficiaries were small farmers with between 15-20% each in the medium and large categories. The owner/operator of APK Banana World (a banana cluster member and market link) said that about 70% of the farmers from whom he purchases bananas are small farmers.

MSU exceeded its training targets for farmers with 16,723 farmers trained (2,656 women) relative to 15,000 planned (1,500 women). It has not yet met targets for training trainers (62 actual versus 150 planned) or linking SMEs to producer groups (25 actual versus 50 planned). It has established 2 Horticulture Knowledge Centers against a planned 5.

IFPRI (ITC & HKB)

Refer to the findings on ITC and HBK under Findings on Impact.

World Vision

Interviews with ACIDI/VOCA and the Rice and Wheat Consortium revealed that one of the overarching constraints to project effectiveness has been the lack of unified management. The four primary partners (World Vision, ACIDI/VOCA, the Rice and Wheat Consortium and Action for Food Production) have been operating separate sub-projects with very little unified central direction. They are housed in different locations, depriving the separate project elements of the synergies that could have been developed through closer association.

According to interviews with World Vision project management, project effectiveness has been affected by personnel problems. Field coordinators rarely remained in place for more than four months. The entire project staff, from the director to the field coordinators, had to be replaced in the latter half of 2010. One of the five field coordinator posts has been vacant for the past four or five months and the monitoring position has been vacant for approximately the same length of time. Rather than employing experienced agricultural professionals, the project field coordinators responsible for project results at ground level have been recent university graduates, primarily in engineering. Their lack of agricultural experience was an important reason for their reduced effectiveness as resource persons for volunteers and project beneficiaries.

High staff turnover: field coordinators remained on the job an average of four months, primarily due to the fact that they were forced to relocate to blocks with few amenities. One of the field coordinator

positions has remained unfilled for several months. The entire WV team has been replaced within the past six months. The M&E position is still vacant.

According to interviews with personnel from World Vision, no consideration was given during the planning process to the coordination of project implementation with cropping cycles, resulting in a disconnect between certain project activities and their application to improved production practices.

According to World Vision and ACDI/VOCA, the latter partner trained 300 village farmers as volunteer technical service providers. The project provided a stipend to the community to compensate for the volunteers' efforts, and the community in turn paid the volunteers. An interviewee estimates that only 50 of the volunteers are actively performing in the service role, however, and even these are limited in their effectiveness by the lack of professional agronomic support.

Numerous beneficiary trainings were conducted by the project; according to farmer group interviews by the evaluation team, however, few of the beneficiaries have applied any of the training.

According to ACDI/VOCA, although they introduced several market linkage opportunities World Vision, none of these were successful, primarily due to the lack of institutional capacity building for beneficiary groups and extended delays by World Vision in responding to the opportunities. Attempts were also made to introduce financial services to project beneficiaries, through tie-ups with several national banks; the banks were interested until they determined that the self help groups that would have been the beneficiaries were not eligible to take part due to lack of proper organization. According to evaluation team interviews and observation, a major reason for failure of project enterprise development efforts was the lack of access to any type of financial services. The original project proposal called for partnerships with ICICI and Oriental Bank of Commerce. When these partnerships failed to materialize due to the lack of readiness and qualifications of the project organized SHGs to enter into financing arrangements with these two banks, project management did not attempt to interest local banks or micro-finance institutions in working with project beneficiaries; although a number of women SHG members did open bank accounts in various local financial institutions.

According to ACDI/VOCA and World Vision, initial attempts to furnish farmers with market information through mobile connectivity failed due to lack of understanding by the beneficiaries of how to use the information. A tie-up with Reuters Market Services has been more successful, primarily because the project was responsible for paying the Rs. 90 monthly fee for the beneficiaries, who show little interest in picking up the fee at the end of the three month trial. The project is currently attempting to interest input suppliers in advertising their wares through the mobile service, in return for paying the farmer service fees.

ACDI/VOCA proposed to train farmer volunteers to carry out soil testing, on a fee basis, including distribution of more than 400 soil-testing kits to the volunteers. The recipients were expected to charge Rs. 50 for each soil test, with the receipts to be used to recharge the chemicals when they were used up. ACDI/VOCA conducted the initial training, but the kits remained in the WV district offices until a new WV management team had them distributed to the volunteers. However, no provisions were made for continuing technical back or follow-up training for the volunteers, or monitoring to determine if the kits were being used. The evaluation team interviewed a dozen of the volunteers who had received kits and found that none of them were being utilized. These are just a few of the instances where WV failed to take advantage of opportunities presented by one of their key partners.

According to interviews with project management, there was no effort made to facilitate the introduction of better quality production inputs to the beneficiaries. This could have been done through forging tie-ups with various input suppliers.

Detailed Findings on Gender

General

In its **Action Memorandum** the PIKA program acknowledges the important contribution of women to agriculture and supports initiatives that invest in women and strengthen their access to knowledge, technologies, and markets. The evaluation team found that though the project planning included gender aspects, it received little attention in the initial implementation process. Much of the observed progress on the gender front was due to local partners' initiatives, which occurred at a later phase of the program. The PIKA program as such, played a very small role in pursuing gender mainstreaming.

University of Wisconsin-Madison (RGCT)

In the RGCT project, the MTE team found that the focus was on women empowerment, and initially it tried to work exclusively with the women. However, when it was realized that the male counterparts need to be taken in confidence in order to work with the women, the project started working with both men and women. The gender bias in the field activities is apparent. Majority of the women, involved in dairy, take care of animals (fodder, water and cleaning etc.) while the men sell the milk and collect the payment. At the milk collection centre, only men are mentioned as members, and no women name was found in the record.

University of Wisconsin-Madison (M&M)

The project with Mahindra & Mahindra initially conducted exposure visits of only male farmers. However once the Vice Chancellor of one university suggested also involving women in such visits, they started focusing on both male and female farmers. In the field areas, it was observed that while the decision making power lies with the men, women follow those decisions. Marketing of produce is also done by men who have control over the income.

Michigan State University-IHDA

In its program objective and approach MSU mentions facilitating participation by women and disadvantaged groups, where it mentions collaborating with Indian NGOs to identify best practices in gender mainstreaming and implement strategies to ensure inclusion of these groups in the project¹¹. The evaluation team learned that women were normally not involved in the training as their male counterpart felt that they do not have sufficient time to participate in training programs due to their involvement in household chores. Men and women earn different wages for similar work. The facility to keep infants/small children at the work place is not available.

World Vision

In its program description, the World Vision (WV) mentioned conducting a gender assessment to identify contextualized opportunities and solutions for empowering female farmers and farm laborers¹². It also mentioned that the baseline study would include questions to establish gender sensitive baseline data. The evaluation team found that though the baseline study report highlighted gender aspects in marketing, wage distribution, and entrepreneurship skills, no further gender segregated information was provided to ascertain differences in the status of women and men. The quarterly progress reports provided gender segregated information.

¹¹ IHDA Program Description in Program Agreement MSU document, pp.15

¹² World Vision Program Description, pp.22 Cross Cutting Approaches

In the field area, World Vision focuses on organizing women in self-help groups. However their linking with financial institution was not targeted and they continue to lack basic skills to manage their groups.

IFPRI

IFPRI's expected outcomes¹³ include “increased income for women farmers and farm workers”. In the initial plan of evaluation monitoring, it mentions one of the indicators as “*the gender breakdown of change in productivity and real income linked to changes in services, again with same ‘before and after’ innovations*”. However, the evaluation team did not observe any such progress in the field area. The project focused mostly on male farmers, and female involvement was minimal.

¹³ IFPRI Program Description, pp.11

ANNEX E: INTERVIEW NOTES

The notes in this annex represent rough notes transcribed in the field. They are for purposes of documenting detail not included in the report. No undue effort has been made to edit the notes or to correct spelling, punctuation, or grammar.

Project: Michigan State University (IHDA)

Interviewee(s): Dr. Bala Mohan (TNAU), Dr.M. Chandrashekar (TNAU), Ms. Deepa Thiyagrajan (MSU), Ms. Ravdeep Kaur (PC, MSU), farmers

Date of Interview: February 2, 2011

Interviewer(s): Umesh Rao Adapa, Jitendra Kumar Sinha, Douglas Krieger

Venue: Attiganur Village & Pochampalli Village, Krishnagiri District

Purpose: Learn of IHDA activities with mango producer group

Reported by: Umesh Rao Adapa

Attiganur Village

- Mango orchard promoted by one cluster of 25 farmers
- Mango varieties: Bengaloor, Totapuri, Sindura, Alphonso, Mallika and Neelam
- Average yield: 6-7 tons/acre (1 ton =10 quintal)
- TNAU started working on supply chain from 2004, and in value chain from 2007.
- TNAU provided technical support in all stages of value chain development (soil testing, production process, harvesting, handling, grading, marketing, etc.)
- Conducted soil testing (including for micro-nutrients) of all the plots. Deficient in Zinc and Boron, Soil Ph normal. Soil testing fee Rs.15/- per sample
- Farmers were using lesser quantity of fertilizer than recommended dose
- Advised on canopy cover pruning. Need 30%-40% cover only at the top for the proper sunlight
- Application of Bordeaux paste to the trunk of mango trees as a prophylactic measure.
- Foliar spraying of hormone solutions for initiating better fruiting during lean years where necessary.
- Practice of recommended methods of fruit harvesting to prevent damage and to select the well matured fruit.

Pochampalli Village, Krishnanagar district

- Meetings with Farmers
- Tamil Nadu Mango Growing Farmers Federation formed by members from clusters (Mango Growing Farmers Association in different villages) six years ago (2005). Covers 18 districts in Tamil Nadu
- Under USAID - MSU project, 5 cluster associations were formed two years ago (2009).

- All recommended practices of mango cultural operations adopted
- Earlier farmers were involved in production. Marketing was done through middlemen/traders
- Subsequently, all the farmers got together and started federation under guidance from TNAU. The focus continued to be on production processes.
- With IHDA collaboration, started focusing on retail marketing. The farmers went for an exposure to Ratnagiri, Maharashtra to Mango farmers. Learned sorting, packaging and retail marketing from them;
- Now many retailers like Reliance fresh, Jain, Departmental stores (like Kannan Departmental Store) are buying from them at Farm Gate.
- Sorting, grading, packaging and marketing started from last two years
- Rate of rejection came down from 35% to less than 5%%
- Got better rates for the produce from Rs. 350/ quintal to Rs. 700/quintal
- Higher productivity, better price and drastic reduction in rejections has resulted in the mango growers realizing up to 300% increase in income.
- One farmer who is also in the police force was about to uproot all his mango trees as they had become less productive and he was exploited by the traders. He has now returned to mango production with recommended practices and has realized an increase in income from Rs.80000/- to Rs. 4 lakhs
- The members of the cluster are planning to come together and put up a pack house so that all the members benefit from it. It would assist the mango growers in the area to tap both the export and domestic retail markets.

The details of different clusters are as below:

Cluster Name	Members	Area (acres)	Pulp Sold (tons) last year	Sold for Table purpose (tons)
Best Cluster	25	300	500	36
Hi-tech	25	750	700	50
Modern Tech	25	1500	1500	100
GAP	23	500	500	2.5
Gandhi	30	150	150	35

- Women's Role
 - Watering, pruning, removing dry sticks
 - Mulching
 - Harvesting
- Men receive training; however transfer the knowledge to their women counterparts, who take care of farm

- Men felt that women are very busy in household chores; therefore do not get time to attend training
- In processing industry, out of 400 staff, 250 are women
- IHDA facilitated linkage between buyers and sellers
- Best Practices Promoted through IHDA
 - Soil and leaf analysis
 - Use of Micro-nutrients to cater to the soil deficiencies
 - Appropriate dose of fertilizer (1-2 kgs Nitrogen, 4-7 kgs of Phosphorus and 2 kgs of Potash)
 - 100-120 kgs of FYM per tree is also applied
 - Use of bio-pesticides-Neem Cake, IMEDA, Nuvon DD, Bavistin, Bordeaux mixture for integrated and eco friendly pest management.
 - IHDA promoted buyers-sellers meet. Farmers started learning about consumer's preference and tuned their farming accordingly. Also do sorting and grading before selling them to the buyers (wholesalers). Now, inspections are rarely done, the wholesalers have developed their confidence/trust on farmers.
- Earlier no care, less use of fertilizer
- Average yield increase from 2 tons per acre to 7 tons per acre (as reported by Mr. JayGopi, a farmer)
- Current input cost is Rs.20,000 per acre whereas as return is Rs.50,000 per acre
- Case Study of Mr. Vijay Singh
 - Promoting Agro-tourism in 22 acre farm
 - Mango orchard on hilly area. Constructed check-dams and contour bund to reduce run-off and control erosion
 - Use fly-ash brick and thatched roof in cottages
 - Rear farm animals, promotes aqua-culture
 - Constructed small swimming pool.
 - Many rich people visit and stay in cottages during the weekends
- Recommendations for future interventions
 - Farm mechanization – labor problem, difficult to find laborers in time
 - Exposure to other countries to learn and adapt farm mechanization as per local need and to meet requirements of the international markets.

FINDINGS

- All the members of the cluster associations have become aware and are adopting the recommended package of practices.
- The growers have realized that the customers' needs are to be met if they have to realize good price for their produce.
- Instead of stopping at increasing the productivity the growers' efforts have now encompassing the post harvest practices viz. sorting, grading, packing and linking themselves to the corporate retail chains.
- They are now directing their efforts to understand the requirements of Global Gap certification and the process to be followed to achieve those levels so that they can compete in the international market.
- The mango growers have now evolved from absentee landlords to active growers and have benefited in the elevation in their quality of life both economically and socially.
- The growers have developed a thirst for learning the processes of the growers in developed countries and want to join the main stream in the international market

Project: Michigan State University - IHDA
 Interviewee(s): Krishnagiri mango cluster
 Date of Interview: February 2, 2011
 Interviewer(s): Douglas Krieger, Umesh Rao Adapa, Jitendra Kumar Sinha
 Venue: Mango orchard in Krishnagiri
 Purpose: Learn about IHDA work with the cluster

The primary problem facing mango farmers in the area is low productivity. This is caused by poor postharvest handling, poor soils, poor cultivation techniques, and access to markets and prices.

TNAU has been working with the cluster for two years now to improve production practices and market linkages. The cluster is a member of the six-year-old Federation.

Cluster members report that adopting improved practices (e.g., pruning, planting, cultivation, harvesting, etc.) increased production by 20% and improved quality (i.e., increased the percentage of the crop that was grade A for the fresh market).

They reported that universities used to focus only on technology development and not on technology transfer. TNAU is now working (since 2004) in value chain and technology transfer with farmers. IHDA was critical to developing this mindset since 2007.

Prior to the Federation, high transactions costs kept returns very low. TNAU was involved with the Federation and focused on production. IHDA is more focused on marketing. Prior to IHDA, the Federation was selling mangoes as a commodity. Now it focuses on quality, GAP certification, and access to retail markets.

Cluster members say that they need to develop a pack house and brand. They are already practicing better postharvest handling methods by packing now in foam rather than straw and also using more rigid boxes. They have visited other clusters in the area to learn harvesting and packing technologies and practices. They have also observed other clusters who've established pulping units and want to do the same. Their goal is to establish a packing house to sort the mangoes for the fresh market and also build a pulping plant so they can process their own processing grade mangoes. To capture the export market they need a strong marketing board that provides linkages from grading, packing, irradiation, marketing, etc.

One farmer is not a cluster member but has benefited from improved practices. Farmers from other districts are also coming to observe, approximately 50 farmers so far.

Cluster members also reported that retailers are now starting to purchase from the farm gate. The examples they gave our Coca-Cola, Jain, Reliance.

The group we are interviewing represent five clusters with the following characteristics.

Name	Annual sales (MT)	Number of members	Total cultivated acres
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			(acres)
Best	36 fresh, 500 processing	25	300
Hi tech	50 fresh, 700 processing	25	750
Modern tech	100 fresh, 1,500 processing	25	308
GA	2.5 fresh, 500 processing	23	450
Ghandi	35 fresh, 150 processing	30	230

IHDA taught cluster members how to grade in sort for fresh markets.

Perspectives of processors

Two processors who buy from the cluster also attended the meeting. The processors and the cluster members obviously have a good working relationship. The processors reported that IHDA activity, by increasing revenue from mango production, has increased mango acreage under cultivation. IHDA has also taught growers better production methods and post harvest handling which has increased quality. They believed that the direct connection between TNAU and the farmers was critical to the quality improvement. The processor is now buying directly from the farmers and getting a better quality product that he was able to from the market. IHDA helped craft this link between the cluster and the producer.

The farmers and the processor reported that they now trusted each other entirely on issues of quality. Farmers recounted that in the past a buyer would discount the entire box of mangoes because he was sure that poor quality mangoes were on the bottom. The cluster now has a reputation for producing quality and practicing good post harvest management and buyers no longer sort through boxes of mangoes but instead trust the growers to deliver high-quality. The relationship is now one of mutual trust based on experience.

The processor reported a drop from 35% to 5% in the rejection rate as a result of IHDA training

Farmers say they're now starting to invest in increased productivity because of better markets/returns.

One farmer reported that he was ready to abandon mango cultivation after middlemen offered to pay him only Rs.80,000 for his crop. TNAU encouraged him to implement best practices, preserve his orchard, and market through the cluster. In the past year he received revenue of Rs.400,000 and is very happy with the result.

Increased productivity and better marketing has increased incomes and livelihoods of cluster members.

TNAU held a meeting with retailers to introduce producers to retail buyers. The meeting built appreciation among farmers of retailer needs. Farmers had to learn buyer specifications - no trouble learning and meeting the specifications.

Farmers said that they would agree on a price with the retailer before harvest. One farmer said that he will try to get a higher price out of the retailer if market prices go up but that he will sell at the agreed price regardless of whether he gets his asking price or not in order to protect the long-term relationship.

The cluster's expectations for the future.

- The labor shortage is increasing the need for laborsaving technology. Cluster members say they need access to more mechanization and new technologies from elsewhere. For example the cluster recently imported a sprayer from Italy there reduces the spray time from 12 days to three days and also reduced the quantity of chemicals needed.

- The cluster also needs a cluster level pack house to improve sorting and grading capacity for the fresh market.
- They would also like to visit other markets and horticulture shows so they can better understand market demands.
- The cluster also wants access to cold storage and other storage technologies to prolong the life of the harvested fruit and give them access to more markets

TNAU and MSU have been collaborating for seven or eight years and MSU viewed TNAU as an obvious partner in this work based on their past collaboration.

Project: University of Wisconsin-Madison (M&M)
Interviewee(s): Samriddhi Center staff and farmers in Raipur, Chittisgarh
Date of Interview: January 21, 2011
Interviewer(s): Douglas Krieger, Umesh Rao Adapa, Jitendra Kumar Sinha
Venue: M&M dealership, Bhendri Village, Parsada Village
Purpose: Learn of Samriddhi Center operations and engagement with farmers
Reported by: Umesh Rao Adapa

Visit to Samriddhi Center, Raipur

Dealer: Arun Trade Combines, Devagiri, Raipur

Name of the Dealer: Mr. Ashok Agrawal

Brief History: This establishment came into existence in 1963 as a service centre undertaking repairs and manufacture of agricultural minor implements in 1964. It was established by the father of the present dealer with a modest investment of Rs. 9000/-. It evolved into a dealership for tractors and manufacturing of other implements including trailers for the tractors, concrete mixers etc. The Proprietor assumed the dealership of Mahindra & Mahindra in 2000. This enterprise became their star dealer ship, standing First in the country with the maximum sale of tractors since 2005. Now the enterprise has become an innovative centre designing and Manufacturing implements like land levellers and graders, rotavators among many others.

Samriddhi Center established: 18th March 2008

125 farmers have been registered under the productivity increase contest, an initiative of Mahindra & Mahindra to build relationship with the farmers and build brand loyalty by providing services to achieve their objective of increasing productivity levels under the utilising the synergy of Engineering and Agronomy to make the products more compatible to the Indian farmers.

The Samriddhi centre has analysed a total of 505 soil samples after the setting up of the soil testing centre. The soil analysis and reporting is done free of cost to the farmer. In addition, the centre's staffs undertake periodic visits to the villages to meet the farmers and take current information on current techniques and modern practices of crop cultivation. It also arranges to take the farmers to the local agricultural universities for exposure visits and training programs.

The number of soil samples analysed year wise:

- 1st year 55
- 2nd year 140
- 3rd year 310 Totalling to 505 in 3 years

(Additional details available on the pen drive)

Discussion with Ravi Sudan Patel, a progressive farmer and recipient of Kisan Samman Award from Bhendri village in Raipur Tehsil and District

- Soil analysis helped him in managing fertiliser input appropriately
- Reduced the intake of urea by 50% leading to a saving of Rs. 500 per acre
- Significantly reduced the incidence of pests and diseases
- Increased the yield of paddy by 50%
- Benefited from increased income.
- Gets a lot of pleasure sharing this knowledge with other interested farmer
- Receives a lot of recognition with other farmers, the University Scientists etc

Discussion with progressive lady farmer Ms. Akhda Thakur of Saroni Village in Awanpur Mandal

She owns 10 acres of land of which 7 acres are under paddy, 2 acres under Pigeon pea and 1 acre under herb cultivation. Her learning:

- Soil testing has helped her give optimal dose of fertilisers.
- Reduced the intake and input cost of urea
- Noticed less pests and diseases
- Increased the yield of paddy from 18 bags (75 kilo each) to 50 bags i.e. an increase of 150%
- Has attended several exposure and training visits to the University of Agriculture
- Does manage the farm on her own as her husband is working with the police force
- Prepared to learn tractor driving if the centre provides her training.

Findings

- The dealership is a very large and has diversified into several attachments, other equipment and has the highest sale of tractors in the country.
- The Samridhi Centre has been set up on the initiative of M&M rather than any conviction/strategy of the dealer's own interest.
- He sees it as more of a relationship building measure.
- The soil testing and analysis is being done free of cost at present giving room for apprehension regarding its sustainability in the long run.

Visit to Bhendri Village

The ancestral village of the proprietors of the Tractor Dealership. Mr. Ashok Agrawal. Met with the farmers (list furnished to team leader).

The discussion provided the following information:

- Soil analysis results and recommendations have reduced the intake of urea as the source of chemical Nitrogen
- Analysis by the University has indicated Zinc deficiency and suitable inclusion in the soil nutrient showed less disease symptoms and better grain yield.
- Reduction in cost of fertiliser applied up to 50% leading to a saving of about Rs. 500 per acre.
- Reduction in the incidence of pests and diseases.
- Increased yields from 30 to 50%
- Has resulted in better income so much so that many have tractors of their own and 2 farmers have more than one.

- Samriddhi Centre's staff are visiting periodically on a regular basis and a recipient to the queries from the farmers

Findings

- All the 10 farmers in the group assembled have got their soils analysed at the Samriddhi Centre
- 2 farmers have gone one step ahead and have got their soils analysed for minor nutrients and have come to know that their soils are deficient in the minor element Zinc
- All the 10 farmers assembled at the meeting have realised reduction in the cost of inputs
- ^farmers have reported reduction in the incidence of pests and diseases after adopting the recommendations of the soil tests by the centre
- All the 10 farmers have realised increased yield and incomes ranging from 30 to 50%
- Their economic condition has improved significantly and excepting 2 all the farmers in the group have purchased tractors.
- One farmer Mr. Ravi Sudan Patel has purchased a Nano car from the increased income alone.

Visit to village Parsada

Assembly consisted of 11 lady farmers and 5 male farmers. Here the information got:

- The soil analysis results indicated depleted levels of Nitrogen
- They had to apply more of urea than they were doing before
- Have experienced increased yields and income
- This was noticed even by the landless women involved in share cropping.

The meeting was curtailed by the village fair which was to be attended by the womenfolk.

Findings

- The women farmers have stated that their input cost has gone up as they were using less than the recommended dose of fertilisers.
- 5 women farmers have stated they have realised increase in yields ranging from 15 to 30%
- The impression was that this group needed a little more involvement and infusion of the improved/recommended practices.

Project: University of Wisconsin-Madison (M&M)
Interviewee(s): Samriddhi Center staff and farmers
Date of Interview: January 19, 2011
Interviewer(s): Umesh Rao Adapa, Jitendra Kumar Sinha, Douglas Krieger
Venue: Jamnagar, Aliyabada Village, District Gujarath
Purpose: Learn of IHDA activities with mango producer group
Reported by: Umesh Rao Adapa

Samriddhi Center & Dealership

Name of the Dealer Agency: Murlidhar Tractor Agency

Established: 19th Jun 1999

Name of the Owner: Rameshbhai & Pankajbhai

Names of the Staff: Gopal Bhatt Territory Manager, Kuldip Sharma Asst Territory Manager, Manoj Agriculture Centre Manager, Ms. Bhagyashree Graduate Agri. Trainee

Samriddhi Centre: 1st Samriddhi Centre in 2008

- Initial investment Rs. 2.20 lakhs
- Recurring expenditure is Rs. 30000/-
- Owner was of the conviction that the initiative under Samriddhi Centre would help foster and help in building the relationship with the customers and in the long run would increase his business base by creating a one stop shop for all the farmers' needs.
- Increase repeat buying from the agency.
- None of the competitors have similar initiatives
- Soil Testing as the entry level activity as there was no testing facility at that time but there is one now
- The objective of the Centre was to bring an minimum increase in productivity by 10% of 350 targeted farmers.
- 100 soil samples each Kharif season and 125 very Rabi season
- Soil testing results helped in the reduction of fertiliser requirement by 5 to 10 kilos less
- Increased yield by 250 kilos per bigha (2.5 bigha =1 acre) to 600 to 700 kilo total yield per bigha
- Strategy adopted was to involve and connect the farmers to an NGO "ANARDE" lead by Kanthibhai Dudani
- Help the farmers from soil testing to Harvest
- Have organised exposure visits to Junagad Agricultural University for training in recommended cultivation practices
- Adopt new and suitable varieties, Tillage and cultural operations as per the package of practices
- Resulted in lesser seed off take reducing the costs

Notes on Discussion with the Lady Farmer:

Name: SarithabenSabhaya w/o Nithin Sabhaya

Village: Khijadiya a distance of 7 km from the Samriddhi Centre

Total area: 56 bighas

Crops grown: Cotton in 6 bighas, Wheat in 10 bighas and Mustard in 10 bighas

She has stated that her cost of inputs has been reduced by 10% and has realised an increased yield up to 30%

Notes from the discussion with Male farmer who secured the award for good production

Name: Rameshbhai Govardhan Choubhatiya

Village Mota Thavariya

He owns 70 bighas of land

First tractor was a HMT bought in 1969 the second one was from Mahindra & Mahindra in 1969. He receives SMS messages on the weather, market price and about timely cultural operations.

Crops grown: Cotton in 50 bighas, Groundnut/Peanut in 15 bighas and fodder and vegetables (brinjal/eggplant), chillies and figs.

He had got his soil tested in 2008 at a fee of Rs. 60/- Totally he has got his soil tested 5 times since then and has encouraged 35 farmers of his village and the neighbourhood to get their soils tested (spillover)

Findings:

1. Soil Testing has reduce the input cost by reducing the dosage of Urea by 10 to 15% as these farmers were using excess
2. Increased yields by 30%
3. Realised increased income
4. Receptive to adoption of innovative and modern technologies
5. They feel there is an increase in their social status among the farming community
6. Spill over through farmers emulating them. The nuber could not be arrived at excepting the 35 farmers encouraged b Rameshbhai the progressive farmer.
7. Soils are having a tendency towards alkalinity and salinity but are being treated with ameliorative viz. gypsum

Visit to Aliyabada Village

Discussion with focus group consisting of women and a few men farmers (list with team leader):

Notes:

- Reduction of fertiliser cost by Rs.100/- to Rs. 200/- per bigha
- Increase in yields ranging up to 30%
- Increased income

- Increased incomes have led to better schooling to their children both male and female.
- Higher receptivity to change in cultivation practices among both women and men farmers

Project: Universtiy of Wisconsin-Madison
Interviewee(s): Rajiv Ghandi Charitable Trust
Date of Interview: January 26, 2011
Interviewer(s): Douglas Krieger, Umesh Rao Adapa, Jitendra Kumar Sinha
Venue: RGCT Training Facility in Jais and HQ in Raebareli
Purpose: Learn about RGCT's interaction with IHDA project
Reported by: Douglas Krieger

Training center at Jais

RGCT started forming women's self-help groups in Uttar Pradesh in 2002. It initially started the self-help groups to provide women with access to finance and building their capacity to access government schemes, largely by informing them of the schemes that were there to help them.. Groups start by saving and lending amongst themselves and then transitioned to bank loans as they gain experience and a credit history. The savings also provides collateral for the bank.

A group of self-help groups make up a block level Association and a group of block level associations make up a cluster level Association. This organization provides the structure to support sustainability

RGCT also helps build the group's capacity by training in management, bookkeeping, intergroup lending, and bank lending. Once the self-help groups are established, RGC T trains members in health and livelihoods. Relevant livelihoods activities for women in this area include vegetables and dairy.

The RGCT training model first trains community resource persons (CRPs) as trainers who then train self-help group members. CRPs are particularly motivated community members with the capacity for and interest in training. CRPs are trained in health, vegetable production, or dairy production.

The RGCT initially intended to train 900 CRPs, 400 in vegetables and 400 and dairy, to serve about 8500 self-help groups. However, the RGC T is now supporting 27,000 self-help groups and has trained 1700 CRPs in vegetable production and dairy. According to RGCT training records, these CRPs have trained over 90,000 women in vegetable and dairy production.

The University of Wisconsin provided technical assistance to develop training materials appropriate to training largely illiterate women and then helped train CRPs to deliver the materials. The training materials consist of handheld flip charts containing mostly pictures. Trainers can hold the chart over one arm and flip through the pages during the training. The women also create songs with hand movements to help them remember the training. Every community we visited seemed to know these songs.

The University of Wisconsin also developed video training materials.

The RGCT approach local universities to help them develop training materials but it was not their area of interest. But the University of Wisconsin has now linked RGCT to Punjab University which is now helping him with training. The link to universities and government, facilitated by University of Wisconsin, is crucial to technology transfer and adaptive research.

Local universities were also not interested in organic farming techniques. But the University of Wisconsin did some training and farmer started to adopt.

University of Wisconsin personnel worked directly with farmers and CRPs and got their hamster in the field. Local universities are not willing to work this way. University of Wisconsin interventions were tailored specifically to the needs of farmers.

University of Wisconsin was crucial to developing the pictorial training materials.

University of Wisconsin increased the capacity of RGCT staff and trainers. For example they now have a more sophisticated understanding of the factors involved in animal selection (balancing milk quality, quantity, price) and in animal health treatments. They also have a greater understanding and appreciation of what it takes to develop good training materials and to effectively train trainers.

The dairy practices that the RGCT promotes include providing 24-hour access to water, animal hygiene, green fodder, proper bedding, animal health, and breed selection.

The rgct EC is also now beginning to engage male former clubs for training in agriculture it is important to engage men because they need to agree to any expenditure necessary to implement improved dairy production practices among the women.

CRPs

we also met with a large group, about 45, CRPs who are at the center for additional training. There were also seven men in the group who served as community volunteers. Community volunteers supervise and monitor training and follow-up with trainees to see if they're following practices.

We asked of the CRPs about the benefits of the self-help groups. The benefits they reported included:

- access to finance. They used to borrow from money lenders. Finances help them develop other income earning activities.
- The credit history they have developed through self saving and internal lending has given them access to formal bank loans.
- They have learned better dairy and animal husbandry practices which have increased their milk production by 40 to 50%.
- They develop songs to help transfer the knowledge.
- They see that their neighbors are observing what they are doing and picking up the practices as well.
- They also have access to better cattle insurance now which allows them to pay off the loan if an animal dies.

We also asked the CRPs what constraints women faced in following the practices. Some of those they reported (although we have no idea how frequently these occur) include:

- lack of space to provide water.
- Some women don't listen initially but they start picking up as soon as they observe others success.
- Limited space to keep animals confined or in a stall or house.

- Limited access to or high cost of green fodder.

The CRPs reported that some women are learning by observing with no training.

Training in vegetable production includes:

- training in making compost and organic production. Using compost reduces production costs because it reduces the use of chemicals and fertilizer. It also reduces the cost of pesticides because pests are not as prevalent.
- Water use efficiency.
- Cultivation practices which keep fruit and vegetables off the ground.

Following improved vegetable production practices increases quality and price. Some women are selling vegetables in the local market. We do not know how many.

The CRPs reported a 50% increase in income from vegetables and reduced loss due to pests as a result of adopting the improved production practices. Note: we have no idea from this interview how many women experience this income increase or how many women are selling vegetables.

Meeting at headquarters

this CEO of RGC T in Delhi new exchange program at the University of Wisconsin and approach the University of Wisconsin about collaborating on this project. Concurrently the University of Wisconsin was looking for opportunities to form partnerships for PIKA and initiated discussions with RGC T.

Dairy and vegetable production are the main sources of rural livelihoods for women and thus a key priority for RGCT.

There is no effective extension service in Uttar Pradesh.

The RGC T modeled the Gary and vegetable interventions in the training approach used on their health model that had proven a very effective way to scale up health related training.

The program started in 2002 working with self-help group formation to provide access to finance it then started widening its scope to health and livelihoods (dairy, agriculture) in 2007/08.

University of Wisconsin brought a unique approach (bringing experts to the field) that is generally not available in India.

Project: Universtiy of Wisconsin-Madison
Interviewee(s): Rajiv Ghandi Charitable Trust
Date of Interview: January 26, 2011
Interviewer(s): Douglas Krieger, Umesh Rao Adapa, Jitendra Kumar Sinha
Venue: RGCT Training Facility in Jais and HQ in Raebareli
Purpose: Learn about RGCT's interaction with IHDA project
Reported by: Umesh Rao Adapa

VISIT TO RAEBARELLI/JHAYS

The trust was established in the year 2002 but the association with the University of Wisconsin under PIKA program commenced in the year 2009 from the month of February. The Trust centre of development of women focuses on Health/Education/Animal Husbandry/Dairy and Agriculture to bring Below Poverty Line and under-privileged women out into the main stream and improve their economic self reliance.

Objective: to choose and train members of Self Help Groups to build a team of 900 Community Resource Persons it was later as on date 1700 have been trained. It is planned that each one of the CRPs created would train 10 other members of their SHGs.

The intervention of the UW was to train the trainers (TOT) who would disseminate this training to other members of SHGs in the same village/other villages in the neighbourhood to increase the strength of the pool of the CRPs/BRPs.

Personnel of the Development Centre the team interacted with:

Mr. K.S.Yadav, Program Manager

Dr. Amith Bharadwaj, Program Officer (Programme finance/Livelihood Enhancement)

Mr. P.K. Singh, Program Expert (Livelihood Enhancement)

Mr. Mahinder Yadav, Soil Testing

The strategy of the Development Centre was:

1st step:

- Social mobilisation through the formation of “Self Help Groups” (SHGs) at the outset as thrift groups.
- Train them in skills such as conducting periodic meetings along with the noting of proceedings
- Savings collection and maintenance of records (book keeping)
- Linking these SHGs to the public sector banks
- Train them in the operation of a savings account.

- The banks provided them first credit limit 10 times the amount of savings deposited in the account as a revolving fund which was termed as the Cash credit Limit (CCL). Upon timely return, the limit was further enhanced.
- Such CCLs were utilised by the members to meet any exigencies/social needs
- Maintaining a good repayment schedule to enable further leveraging of loans from the bank.
- Empowering the women towards economic freedom and bringing them into the main stream.

2nd step:

- Choose women from the SHGs to be trained as Community Resource Persons (CRPs)
- Train them in a) Social mobilisation, b) Health, c) Education, Animal Husbandry/ Dairy and d) Agriculture.
- These CRPs would in turn train at least 10 other women in their village/neighbouring villages.

3rd step:

- Form federation of these SHGs at the cluster level comprising of villages from the Gram Panchayath termed as the “Cluster Level Associations”
- Form a vertically upward federation of CLAs as Block Level Association (BLAs)

This development was capitalised by the Centre and members from such SHGs were selected for receiving training for a period of 10 days in the field of Animal hygiene/Optimal nutrition practices for the good practices in raising cattle for milk production.

A Focus Group meeting comprising of such trained CRPs of mainly the dairy SHGs was arranged at the Centre. In the course of the interaction the CRP representatives narrated the highlights of the training in animal husbandry that they had received.

The important steps were:

- Better fodder management and feeds
- Providing more water/a trough of water along with fodder
- Hygiene of the animals
- Providing a bedding and periodic change of the bedding
- Training them in the better practices of milking
- Characteristics to choose when acquiring new animals
- Diagnosing health problems and seeking timely veterinary care
- Insurance of animals
- Use of Over the Counter medicines for treating minor health problems
- Linking them to milk collection booths/consumers.

Audio visual aids such as flip chart presentations, pamphlets and handouts, books in the local language and videos were used to train the CRPs. The women have developed songs and doggerels to convey these messages to other women.

When asked whether they had any contact with personnel of the University of Wisconsin, they were highly appreciative of the role of Dr. John Peters, who had literally got into the actual process and showed them through method and process demonstration not minding the soiling of clothes and person. This had

impressed the members and motivated them to accept and adopt the practices. This feedback was received from the CRPs who were trained by Dr. Peters directly.

Background Information on soils:

- The entire patch of soils in the region were mild to heavily saline
- The government through its wing had taken up reclamation of these soils and over the last decade the soils have become productive
- Continuous ameliorative practices such as adding gypsum, growing green manure crops have been advocated.

Visit to Bhorkha Village on 27th Jan 2011 at 12 noon

The gathering consisted of 9 CRPs and other SHG leaders from Bhorkha and nearby villages and hamlets in the neighbourhood. Of the 9 CRPs 6 were from social mobilisation, 3 from agriculture and 2 from dairy. The dairy CRPs have undergone 2 trainings in Dairy, 1) The NDDDB conducted the training in 2007 with emphasis on milk collection, artificial insemination, fat analysis and determination of SLR. 2) The second training was conducted at Gowrigunj a village in the neighbourhood, under the auspices of The Rajiv Gandhi Mahila Vikas Pariyojana where the CRPs trained by Dr. Peters conducted the more holistic training using audio- visual aids, method demonstrations and group discussions in 2009. The interaction with this assembly of women provided the following information on their learning:

- They attribute their progress to the formation of SHGs
- Better economic situation and ability to support the family in matters of finance
- Ability to meet and solve financial crises in emergencies
- Enhanced respect and cooperation from their households and the village society
- Green fodder increased milk yields. Growing green fodder crops like Lucerne and Alfa alfa
- Increased milk yields ranging from 10% to 50%
- Increase the number of milk cattle
- Ability to choose quality animals
- Treat minor ailments and identify diseases that required veterinary care
- Better use of the dung in making compost for their agriculture in addition to meeting their need for fuel
- Reduction in the dependence on chemical fertilisers resulting in cost of inputs.
- Cultivation of kitchen gardens
- SRI method of paddy cultivation and SWI method for wheat
- Increased yields in both cereal and vegetable crops
- Sudha Pandey one of the CRPs has trained 50 other women in the improved practices of animal husbandry.
- Kausalya a CRP in the field of education was deputed for training at Bangalore on the new methods of imparting education. She and a committee of women have established a school for the village children adopting the new methods.

Some of the bottlenecks in adopting the recommendations in Toto:

- Dearth of space and finance for constructing water troughs
- Scarcity of water or the distance to the source of water

- SRI/SWI method of transplanting laborious and time consuming.

Findings

- 1) In addition to the members of the SHGs in the village, The CRP Ms. Sudha Pandey has trained 50 other women in the recommended practices of Animal Husbandry for increased milk yields.
- 2) 12 women in the assembled women have realised increased milk yields ranging from 20% to 50%
- 3) 5 women in the assembled group have realised increased yields ranging from 30 to 50% in vegetables by adopting green manure and compost application.
- 4) In cereal production of all the families of the women assembled at the Focus group meeting in number have obtained increased yields ranging from 100% to 300% by adopting SRI and SWI methods of paddy and wheat cultivation.
- 5) The women have expressed that the formation of SHGs has been the spring board to their development and the ability to access information.

Visit to Topari Dhaniyapur 27th Jan 2011 at 3:00 pm

The SHGs were formed in 2004. there are 3 SHGs in the village, one was established in 2004 the other 2 came into existence in 2007 after seeing the successful operation of the first SHG. Kiran the CRP on dairy has trained all the members of the SHGs. She said every training session takes 2 to 3 hours. She and the other SHG members corroborate that it has resulted in:

- Increased cattle population
- Adoption of most of the recommended practices
- Increase in milk production
- Milk is being transported to the milk collection centre of the Mother Dairy in the vicinity.
- 50-60 litres of milk is being flowing from the village to the milk collection booth
- Price realised for milk ranges from Rs.17.60 to 21.00

Impact noticed was increased animal population e.g. one Anarkali had one buffalo and now she has increased them to 7.

Spill over: Amaravathy a member of the SHG of this village has spread the knowledge of improved/recommended practices to her father residing in a nearby village and they have adopted them for the rearing of 10 buffaloes that he owns. The members are now planning to aggregate so that inputs could be accessed easily and get a better deal. Hurdles in insuring the animals could be overcome. Now all the members own milk cattle. The economic well being is reflected in sending their children to school without any gender discrimination.

Findings

- 1) All the members of the 3 SHGs numbering 43 have been trained in the recommended practices in animal husbandry by the CRP Ms. Kiran
- 2) From four households having milk animals now all the households of the members have acquired milk animals and a few have added new animals to the existing ones e.g. the case of Anarkali who had one buffalo at the outset but increased the number to 7.
- 3) The increase in the number of milk cattle has increased the total production of milk resulting in more income through sales.

- 4) The improved income has translated to all the households sending their children to school irrespective of the gender.

Visit to Halaika Purva on 27th Jan 2011 at 8:00 pm

Dhees Block; District: Rae Barelli

SHGs have leveraged their savings to access loans from the P.S. Banks the members have taken up goat rearing, vegetable cultivation (15 women are growing vegetable crops), poly house cultivation of Capsicum/Bitter gourd. The major vegetables are, Potato, Tomato, Capsicum, brinjal/egg plant, chillies, garlic and onions.

Their experience:

- Higher milk yields and increased income
- Higher income from sale of goats
- Better returns from vegetables because of green manure and compost incorporation, reduced input cost. Rs. 5000 from an investment of Rs.500.
- Increased area under vegetable cultivation.
- Accessing market information from the wholesale market in the neighbourhood.
- Plan their next crop based on the market price trends
- More respect at home and in the village

Visit to RGCT Rae Barelli on 28th Jan 2011 at 9:15 am

Experiences and learning of Mr. Sampath Kumar IAS the CEO of the trust:

- SHGs are the crucial vehicles of sustained development as they are the social institutions.
- SHGs were commenced as thrift groups but from 2007 the focus was on developing them as social institutions.
- 90% reduction in maternal mortality rate stemming from the efforts of the SHGs in the field of Health under their program, “Swasth Sakhi”
- The SHGs are bridging the gap from the formal health functionaries and the village women
- SHGs have overcome the social barriers like caste and other affiliations.
- Sustainable agriculture through green manure and compost use
- Adoption of recommended practices have increased milk yields

He felt that the extension mechanism of the knowledge to the farmer was either very poor or missing altogether.

Speaking on his perception of the role of UW in PIKA, he perceived it as one of the components of the program and as a provider of incremental transfer of knowledge to the beneficiary community. He felt that the UW brought about the change in the form of participatory sharing of knowledge through method/process demonstrations conducted by The UW carried more impact on the people trained.

Visit to Dhamdhama village

Number of CRPs: 5 dairy: 3 and one each for social mobilisation and agriculture.

Names: Suman, Rajkumari, Ramavathy, Sunitha and Nirmala. The learning from the assembly:

- 45-50 households in the village
- 4 SHGs one established in 2006 and the remaining 3 in 2009
- 10-12 members per SHG
- Special focus on poorer women groups
- All the women are members of one or the other SHG
- 6 families had cattle before the training now they have increased the number and those who did not have acquired livestock now.
- 11 families selling 50 litres milk every morning and evening to the towns and the restaurants in the vicinity.
- Increased area under vegetable cultivation
- Use of green manure and compost has led to healthier soil and crops.
- 2 families are into floriculture, cultivating rose garden
- Many units of compost found all over the village
- Many children both boys and girls are attending school for their education

Interview with Sunitha CRP and Suman another member, agriculture and vegetable and floriculture generated the following information:

- Compost making and use in agriculture has reduced the cost of inputs
- Increased retention of moisture regime in the soils
- Made the soils more sustainably fertile and productive
- Increased yield and returns e.g. Capsicum has generated an income of Rs.6000 from just 2000 sq. Ft. Of land
- Roses are fetching Rs. 5 per flower with a long stem and accrue to Rs. 50,000 income over a period of 6 months
- There is a good market demand for greens and vegetables which fetch a fairly good income.
- Fairly significant increase in incomes leading to better savings and asset generation.
- Increase in respect and recognition in the village and in the neighbourhood
- Self confidence to attend 2 or 3 day training programs involving overnight stay
- Husbands now drop them to the venue and pick them up after the training stints
- Better understanding between the women and their husbands.

Findings

- Recommended practices of animal husbandry adopted in all the 6 household cattle byres
- All of the six women have stated that the milk yield has increased by 10 to 50%
- Compost preparation by the modern aerobic method is practiced by all the 45 households
- The practice of applying green manure and compost has increased the yield in all the crops from 30to 50%
- 2 ladies are cultivating rose gardens in addition to vegetables and getting significantly high income from the sale of the produce.

Visit to Naikaanikapurva Didowli G.P. Maawa Block, District Rae Barelli on 28th Jan 2011 at 1:30 pm

This is a village in the area not covered under the program. The details are:

- Having 90 households
- 85-90 households have some livestock
- 50 households have milk cattle
- Milk is transported to the nearby town on cycles and motorcycles
- 50 to 60 litres of milk is sold everyday
- SHGs have not been formed
- Women not receptive even to the ladies in the team
- No recommended practices of animal husbandry noticed.
- Have the misconception that too much water if provided the cattle will catch cold.
- Have knowledge and are preparing vermi-compost
- Old method of compost pits still followed.
- Showed keen interest to learn modern methods of composting
- Fair cropping but plagued by blue bull grazing and destruction of crops
- As such they cannot cultivate commercially viable crops

Visit to Gokulpur Didowli G.P. Maawa Block, District Rae Bareilly

This village is not included in the project area.

Details:

- 26 households
- All have animals
- No knowledge of recommended practices of cattle rearing
- SHGs were formed but the convenors allegedly misappropriated the cash credit limit extended by the Bank
- All innocent members are shocked to receive notices from the bank for repayment of money not seen/utilised by them.
- The women appeared a little more receptive than in the previous village.

Findings in the villages covered under the project:

- 1) The program of SHG creation has helped the women to come out of their households and get exposure to the benefits of group dynamics and inculcates the habit of saving; keeping accounts rotate their revolving fund within the group to meet the members' exigencies. SHGs formation has brought about a sea change in the status of the women both in terms of knowledge and economic condition. This has led to a very high level of self confidence among the members who began actively participating in the management of the family and supporting their men folk. This resulted in greater freedom and enhanced cooperation from their male counter parts.
- 2) The adoption of the improved practices in animal husbandry has shown a significant rise in the milk production and enhanced returns.
- 3) Financial credibility and responsibility is much higher in the villages covered under the project than elsewhere.

- 4) Taking proactive measures towards sustainable increase and maintenance of fertility and productivity of soils viz. Green manure and compost application & crop rotation.
- 5) Managing to access information from the markets as to the trends in process of different vegetable commodities and planning their next crops seems to be helping them to avoid the pitfalls of glut and scarcity
- 6) Improved knowledge of SRI in Paddy and SWI in wheat has reached the practicing farmers
- 7) Reduction in the off take of fertilisers and pesticides as quoted by the beneficiaries.

Project: University of Wisconsin-Madison
Interviewee(s): Tasty Bite
Date of Interview: January 24, 2011
Interviewer(s): Douglas Krieger, Umesh Rao Adapa, Jitendra Kumar Sinha
Venue: Tasty Bite production facility and demonstration farm
Purpose: Learn about Tasty Bite's interaction with IHDA project
Reported by: Douglas Krieger

Tasty Bite produces prepared Indian foods for domestic and export markets. Its processing facility is near Pune India. It produces 20 to 30% of its vegetable needs from a 20 acre farm adjacent to the facility. It buys most of the rest of its needs from the market. It is difficult, however, to control price or ensure quality when buying from the market. In an attempt to control price and ensure consistency, Tasty Bite is exploring a contract farming model. However, contract farming law in India favors the producer (farmers can renege on contract but buyer cannot). So, Tasty Bite is exploring a model built on building relationships with farmers. One way to establish this relationship is to help farmers increase their productivity. To this end, Tasty Bite is conducting experiments on its demonstration farm to identify best practices that can disseminate to farmers.

Of the produce the Tasty Bite does not grow itself, it obtains about 80% from the market and 20% from farmers. It would like to reverse these numbers and obtain 80% from farmers and 20% from the market. To do so, it needs to encourage more farmers to enter into contracts or some relationship with Tasty Bite. It will rely on research and dissemination of best practices to help build this relationship.

The University of Wisconsin helped Tasty Bite design and implement experiments with spinach and tomato. The experiments demonstrated that improved practices such as planting, mulching, and drip irrigation can substantially increase productivity. Drip irrigation also reduced water use by 60% - from 35,000 L to 12,500 L per acre. The improved practices also reduced the cost of cultivation and thus increased farmer income. Heavy rains compromised the experiments however in Tasty Bite is not yet confident in the results to disseminate them to farmers.

The University of Wisconsin's technical expertise to design and implement the experiments and develop recommendations was crucial. The University of Wisconsin proposed improved planting practices, irrigation, and seed selection. The University of Wisconsin provided targeted and competent research relevant to Tasty Bite specific needs and requirements. University of Wisconsin researchers worked directly with Tasty Bite and with local farmers.

PIKA brought US knowledge of agriculture together with Indian practices in adaptive research. For example, Tasty Bite viewed land as an input to production without allowing for the demands of crop production soil protection (rotation, etc.). Tasty Bite had to learn the value of maintaining land and its productive ability while the University of Wisconsin also had to accommodate its research agenda to Tasty Bites needs.

University of Wisconsin also trained some Tasty Bite scientists in disseminating best practices to farmers but Tasty Bite does not have now have the capacity to do original research for new crops. It would like continued support from the University of Wisconsin to conduct research on new crops and redo the

research on tomato and spinach that was compromised by weather. So, the activity was sustainable for the current research in the sense that it produced results that Tasty Bite can disseminate farmers. But it is not sustainable in the sense that it did not build the capacity within Tasty Bite to replicate the research.

The experiments involved three treatments: 1) farmer practice, 2) practices advocated by Indian agricultural universities, and 3) University of Wisconsin practice.

Tasty Bite expects to demonstrate improved practices on the farm and invite local farmers to observe. It hopes that the demonstration will provide sufficient incentive for farmers to invest in improved technology. Tasty Bite has no immediate plans to help finance investments in technology but is just starting to roll out the procedure and is not yet sure if farmers need financing.

Tasty Bite does not plan to supply inputs under the contract (as most contract firms do) but it also does not require farmers to sell the Tasty Bite if market prices are higher than the contract price. It expects the relationship to be based on mutual benefit rather than a contract.

Tasty Bite explored obtaining the technical expertise for designing the experiments locally but determined that local universities did not have the capacity. Tasty Bites needs were to crop and seed specific while universities dealt mainly with general knowledge. Local universities provide generic information and will help Tasty Bite with specific research only if Tasty Bite can demonstrate and improve practice worth researching.

Tasty Bite tried contract farming with a small group of 15 or 20 farmers. However, adverse weather drove up prices and Tasty Bite released farmers from the contract so they could sell on the market at higher prices. Tasty Bite also had to pay those prices on the market and could have increased the price they paid to farmers. But giving farmers the choice maintains the relationship.

In its initial experiment with contract farming, Tasty Bite paid a premium for produce meeting its specific requirements (size, etc.) that the market does not reward. Tasty Bite also collects from the farmer who then avoids the spoilage that would occur if he had to transport market. Tasty Bite reports a fairly high rejection rate for quality when it buys on the market however it had almost no rejections for quality from its experiment with contract farming.

If Tasty Bite continues to grow as it has recently (40% annually) and it is able to buy 80% of its produce from farmers then he could engage as many as 130 to 140 farmers in supplying fresh vegetables.

The primary value of following best practices with contract farmers is to ensure standardization and to integrate farming practices into process and requirements (e.g., staggered production to ensure steady and predictable supply to the processing facility). University of Wisconsin engagement helped increase productivity and reduce production cost and therefore helps Tasty Bite develop a relationship with the farmers (although, to date, only eight or nine farmers have signed contracts as a result of demonstrated best practices).

The University of Wisconsin also helped Tasty Bite solve a wastewater recycling issue. Tasty Bite was using wastewater from the processing facility to irrigate the farmland. However, they noticed that they were not getting good production from lands irrigated with the recycled water. The University of Wisconsin determined that oils and other particles in the water were clogging the pores in the top layer of soil thus preventing nutrients and water from reaching the root zone. The University of Wisconsin helped Tasty Bite design a water reclamation system that removed these impurities and Tasty Bite has now constructed the system. Also, the farm is in a low rainfall area and the University of Wisconsin helped Tasty Bite design a water management plan to retain rainwater for agricultural use. Tasty Bite has not yet implemented the plan.

Tasty Bite's long association with the University of Wisconsin contributed to the participation in the partnership.

Success for Tasty Bite means that they are able to buy a larger share of the vegetables that they need from contracted farmers.

Project: University of Wisconsin-Madison (M&M)

Interviewee(s): Ankith Singhal, Supply Chain Manager; Ravi Nigam, Promoter & M.D.; Vikas Tengre, Manager Demo. Farm

Date of Interview: January 24, 2011

Interviewer(s): Jitendra Kumar Sinha, Umesh Rao Adapa, Douglas Krieger

Venue: Tasty Bite production facility and farm, Bhandgaon, District Pune

Purpose: Learn of UW activities with Tasty Bite

Reported by: Umesh Rao Adapa

VISIT TO TASTY EATABLES LIMITED

Village: Bhandgaon

Taluk: Daund District: Pune

Established: 1986

Mr. Ankith Singhal, Manager Supply Chain accompanied the team from the Hotel to the Plant. He informed the team about the products that were being processed at the plant:

Spinach, Madras Lentils, Paneer (Cottage Cheese) preparation, Varies of ready to heat and eat Rice preparations etc.

Mr. Vikas Tebgre the Manger of the Demonstration Farm joined in on the discussions and both spoke about the activities of the farm:

- Experiments to standardise the Package of Recommendations with a farmer method as control, One with the recommendations of the University of Agricultural Sciences, Pune and the third with the recommendations of The University of Wisconsin.
- There was a promising crop but the unprecedented spell of rains commencing late September 2010 which lasted unduly long ruined the crop not only on the Demonstration Farm but also in the farms of the farmers that were contracted to produce for the plant.
- Area plagued with severe water scarcity and low rainfall, moisture conservation and better water use management by adopting plastic mulching, use of drip irrigation reduce the water consumption by 60-70%. From the water requirement of 3.5 lakh litres the adoption of these measures reduced the water intake to 1.5 lakh litres.
- No water conservation measures have been taken up so far to address the problem of scarce rainfall. It is however planned for the future.
- The objective is to reach production levels of 20-25 tons of tomatoes per acre.
- 15-20 farmers were contracted to grow Tomatoes (Varieties: Vaishali & GST-1) with a contract in writing.
- When the rates in the open market were better than the price offered by Tasty Bites, farmers sold the project in the open market and the Company had no way of enforcing the contract.

- 20% of the requirement is being procured from the farmers' gate and 80% from the open market.
- Plans to increase the purchase from the farmers to 80% and 20% from the open market.
- Lack of suitable technology and the optimal Package of recommendations were the bottleneck.

When enquired about what they perceived as the critical contribution from the association with UW they stated:

- Importance of soil testing
- Improved techniques for the production of tomatoes, spinach and onions.

Dr. John Peters of UW and Dr. Ajmer Dhatt of Punjab Agri University attempted to evolve a comprehensive package of practices but by then the time ran out.

Asked about the hurdles faced by them in procurement of the produce in relation to their product quality they stated that varietal differences brought about discernable changes in the finished product occurred. They intend to tackle this problem by:

- Building stronger relationship with the contract farmers
- Stick to the variety and the established techniques of crop production
- Integrate all these into the process.

It was felt that the 2 year tenure of the association with the UW was too short and further association would have assisted in the achievements of their goals.

Mr. Ravi Nigam the Managing Director Tasty Bites, Mr. Raj Jhadav General Manager Operations and Mr. Arjun Guha General Manager Corporate Affairs joined the discussions and spoke about the broad strategies for integrating their objectives with those of their farmers in meeting their plant's requirement,

The visit ended after a tour of the plant accompanied by Mr. Shailendra Saxena, Production Manager and a visit to the Research Facility guided by Ms. Sahiba.

FINDINGS

- The period of association was too short to achieve the level of self reliance to arrive at the Package of recommendations for the selected crops.
- Enough data has not been generated to arrive at the Package of Practises to be shared with the farmers.
- Their strategy is to reach the farming community through "Lead Farmers" as they foresee their inability to address the infrastructure and manpower requirements for more intensive extension programs
- They are focusing on developing a package of recommendations so that the farmers will give them the produce of their choice and requirement not necessarily what the farmer would benefit from such adoption.

Project: Michigan State University - IHDA

Interviewee(s): Banana cluster farmers/traders in Theni, Tamil Nadu, India

Date of Interview: February 4, 2011

Interviewer(s): Douglas Krieger

Venue: Meeting in orchard and packing houses. Informal discussions while touring facilities.

Purpose: Learn about MSU work with banana cluster

Informal discussion in small banana orchard

Farmers typically plant banana from locally obtained root stock. They typically get one crop before disease reduces plant productivity to uneconomic levels. One of the improved practices that these farmers are implementing is to use tissue culture rootstock. Tissue culture rootstock is consistent quality and also free of disease at the time of planting. Farmers are typically able to get three crops before disease overtakes the plant and reduces productivity to the point that the plant has to be replaced. Many farmers are also installing drip irrigation which substantially reduces water use. Several farms we visited were actually using two lines of drip irrigation, one on each side of the row. This was more expensive than one line. But it saved labor of moving the line from one side of the row to the other every few days.

Tissue culture and drip irrigation are the most important innovations in terms of improving productivity. These practices have doubled production, increased fruit quality and price, and tripled the area under cultivation.

Packing house

This particular cluster was an appealing opportunity for Michigan State University and Tamil Nadu Agricultural University because the group (association) included farmers, traders, and processors. One of the processors, in partnership with six traders, and four farmers, also in the cluster, invested in a relatively small packing house - 20 metric tons per day. The packing house also has cooling chambers and a ripening chamber. The facility gave the farmers the potential to segment the market and harvest for different stages for different markets. For example, they could use the ripening chamber to ripen bananas to specific stages for specific markets. The packing house also has a grading and sorting facility where bananas are prepared carefully and packaged for high-quality fresh markets.

Prior to the packing house, farmers transported bananas to facility near Bangalore which took about one day. The long transport reduced quality and price. The new packing house is one-year-old now and buys bananas from 700 to 800 farmers cultivating about 1,000 acres. All of this land lies within three hours of the packing house which ensures a better quality of produce coming into the packing house. The operator reported that loss due to transportation had been reduced from 30% to 5% relative to previous markets. The proximity of the processing plant to the field also means that processing waste can be kept in the field which contributes to soil quality rather than being waste at a processing plant that is far from the fields.

The packing house now grades bananas for three specific markets, 1) large metro markets like Bangalore, 2) smaller metro markets like Madurai, and 3) small village markets. The plant is also exporting to the Middle East market through an exporter. The plant employs 400 people, mostly women.

The packing house owner and his partners are currently building a much larger facility – 300 metric tons per day, that is almost complete. When this plant is complete they expect to be exporting 80 to 100 tons per day to export markets. The new plant, which is also an integrated facility with cooling and ripening chambers, will have a capacity of approximately 300 metric tonnes per day year-round. The new packing house will require 2,100 – 2,400 farmers cultivating 2,000 to 3,000 acres to supply its needs. It will require about 3 ha per day to provide the 300 metric tons per day that the plant needs. The owner coordinates harvest and transport among all of the farmers that supply the plant to ensure a steady supply. He buys from members of 42 clusters, all members of one Association, with each cluster containing 50 to 100 members.

To ensure a quality product coming into his plant he disseminates productivity and quality enhancing information provided by TNAU and IHDA down to the farmers who supply the plant. He reports that the plant, with the help of TNAU and IHDA, is now following a much more scientific and organized approach to cultivation, harvesting, post harvest, and marketing. He also said that he is training farmers to be producing continuously, through staggered planting, to ensure a steady supply of bananas to the plant. He is also continuously assessing the capacity of clusters in the area for inclusion in his buying program and for training.

Jain irrigation has been a critical partner in the area for supplying tissue culture plant material, irrigation supplies, and technical assistance at the producer level.

The plant owner/operator reports that 500 to 600 of the 700 farmers he is currently buying from to supply the small plant are small farmers. He also said that small farmers have no problems implementing best practices. He reports that improved practices have increased mechanization and reduced labor, primarily that of women. Many of the women have now shifted to working in the packed house where the conditions are much better.

The packing house is not yet able to meet GlobalGAP standards but with support from, TNAU and IHDA it expects to obtain this capacity within about one year. The owner/operator knows of GAP standards and is very aware of the requirements. He has visited processing facilities around India but needs to visit overseas facilities to learn about global markets requirements and how to meet them.

Project: Michigan State University (IHDA)
Interviewee(s): Various farmers and processors
Date of Interview: February 4, 2011
Interviewer(s): Umesh Rao Adapa, Jitendra Kumar Sinha, Douglas Krieger
Venue: Madurapuri Village, Kutchanoor Village, Chinnamanur Village, Hanumanthana Patti, Theni District
Purpose: Learn of IHDA activities with banana producer group
Reported by: Umesh Rao Adapa

Madurapuri village

Farmers: Mr. Bala Murugan, Mr. Selvaraju, Mr. A.P. Karuppiyah

- 95% are farmers, 5% are both farmers and traders have formed the Theni District Banana Growers and Traders Association
- Earlier followed basin method of irrigation, now double drip system
- Also following micro-nutrient management
- Using tissue-culture planting materials. Earlier used local culms as planting material
- Tissue culture planting materials cost Rs.12 per plant, whereas local material was Rs.2 per plant.
- With local planting materials, cost of production was Rs.5000/- per acre. With tissue culture planting materials the cost has increased to Rs.20,000 per acre. However, the return from tissue culture plant materials is Rs.50,000-Rs.70,000 against return from local material as Rs.15,000-Rs.20,000 per acre
- Tissue culture crop can be rationed for at least 3 successive crops thereby the initial increase in cost is made up
- Using Grand-9, Cavendish variety of banana

Kutchanoor Village

Farmer: Mr. Kottaiswamy (B.Sc. MBA), President of Theni District Banana Growers and Traders Association and progressive banana Farmer

- 40 acres farm, initially used 20 acres for banana plantation, and then started in 40 acres (last 2-3 years);
- Uses two pipes on both sides of the banana plant for irrigation. Efficient water provision to plant with better growth. Also Power saving as it takes only two hours against four hours as earlier;
- Plant spacing 6feet x 6 feet
- Also use tissue-cultured planting material, able to take two subsequent suckers for banana plantation. The cultivation period is reduced to 27 months against 30-32 months earlier
- Purchases tissue culture plant materials from Jain Irrigation.

APK Pack House

Person met: Nathar Meeran, Vice President Theni District Banana Growers and Traders Association and a progressive banana farmer having 70 acres under banana.

- One year old
- Earlier farmers use to sell whole bunch of banana by truckload to distant places, mainly to SAFAL, established by NDDDB (National Dairy Development Board) at Bangalore. High rate of rejection up to 35%
- Transportation cost earlier was 30% of the price they used to receive;
- Due to the process at the pack house, the rejection rate is reduced to less than 5%
- It takes three hours to deliver to traders after washing, cleaning and grading
- Also started export to middle-east through an export agency
- Planning to increase the capacity to 80,000 tons
- There are 150 women and 200 men working in the pack house. Usual time of working is 9.00 a.m. to 6 p.m.
- The women work as daily wage laborers, get Rs.130 per day on weekly basis. There is overtime facility also;
- No holiday, if they take leave then no wage
- The young mothers leave their children at home with in-laws
- Women are mainly involved in washing, cleaning and grading, while men are involved in loading/unloading and transportation
- Skilled workers: men
- Un-skilled worker: women
- Women are involved in more delicate jobs whereas men are doing hard work (as told by AP Karuppiyah)
- Many of the women stay in nearby villages

Farm Fresh Banana integrated cold storage chain

Village: Chinnamanur

Person met: Mohammed Farook, Partner

- State of Art Integrated Cold Storage unit at the stage of completion
- Design and technology imported from the U.S. A.
- Totally 8 partners
- 8 ripening chambers for domestic markets through retail chain companies
- 8 cold storage for local/export market
- Capacity at present is for 120 tons per day capacity to increase gradually

Hanumanthana Patti

Person met: Vanna Tamilan

- Grape and banana
- Grape: Muscat Variety Table grapes(with musk flavor); Banana-Grand-9
- Grapes: Drip irrigation from top to get higher humidity, needed for good crop

- Double drip system
- Tissue culture plants for banana cultivation
- Take one healthy suckers each for the next two crops (ratoon crops)

Focus Group Discussion

- 19 people attended, 6 are women (32%).
- The women included family members of the male farmers and some workers from Pack House
- Role of Women (as told by Men)
- Men responsible for taking decisions
- Women responsible for execution of those decisions, manage the labor force
- Look after the entire house
- Men get training, train the women who implement them
- Role of women (as told by women)
 - Follow the instruction of men counterpart
 - Farm operation: weeding, drip irrigation, nutrient management, pruning, suckers removing
 - Hiring and managing labor force
 - Men purchase and send the planting materials to farm, women receive them and ensure their proper planting
 - Men undertake harvest banana by cutting bunches; women carry the harvested produce to the storage or pack house or to the transport.
 - Separating of hands from the bunches is done by men cutting with a nylon rope
 - Women trim the stalks using a knife.
- Change in Role of Women (as told by women)
 - Earlier used to do many manual job by standing in scorching heat, now sheds and pack houses are easier to work as compared to the earlier conditions.
 - Farm mechanization: Women are learning and using them at home/farm.

ANNEX G: GENDER MAINSTREAMING IN PIKA

The MTE team understands that the gender concept comprises the entire complex of interactions, roles, rights and statuses that surround being male versus being female in a given society or culture.

USAID issued its first Gender Plan of Action in 1996¹⁴, stating that “*through attention to gender issues, our development assistance programs will be more equitable, more effective and – ultimately – more sustainable*”. In March 2009, the US State Department¹⁵ publically endorsed the UN Statement on —Human Rights, Sexual Orientation, and Gender Identity, condemning human rights violations based on sexual orientation and gender identity. USAID has updated its Automated Directives Systems (ADS)¹⁶ gender programming requirements to reflect the Administration’s core commitment to gender equality and women’s empowerment.

In its **Action Memorandum**¹⁷ the PIKA program recognizes the important contribution of women to agriculture and support initiatives that invest in women and strengthen their access to knowledge, technologies and markets. The program seeks to increase understanding of gender issues in agriculture reform and to support initiatives that empower and benefit women farmers and farm laborers, and to provide them with opportunities to enhance their income.

Accordingly, all the four partners (WV, MSU, UW and IFPRI) incorporated gender aspects in their projects descriptions. While IFPRI and MSU included gender in its program objectives, WV and UW included it in outcome and performance level indicators in their proposals. ***The MTE team is of the view that the partners addressed the gender issues in the field implementation to varying degrees of proportion ranging from negligible to moderate level.*** The team found that though the project planning included a gender component; it received little attention in the implementation process at initial stage. However, later due to local partners’ initiatives, gender started getting attention. Much of the progress observed on the gender front is due to local partners’ initiatives. Aside from local partner initiatives, the program has played a small role in pursuing gender mainstreaming. Gender-based constraints, differential attitudes, perceptions and customary practices towards men and women are prevalent, and women’s access to resources and opportunities is limited.

The MTE team concludes that though there have been changes in women’s position, these are not significant. They largely continue to concentrate in unskilled and low-paying jobs. The GDI is high as there is wide inequality in basic capabilities. The training and capacity building across all four projects mainly focused on men, who in turn shared the learning with their women, so as women could implement

Measuring Gender Disparities

The Human Development Report 1995 evolved two indicators i.e. Gender Related Development Index (GDI) and Gender Empowerment Measure (GEM) to quantify gender disparities. The GDI focuses on the inequalities in basic capabilities: health, education and access to resources. The GEM seeks to measure the degree to which women and men command economic, professional and political power. Three indicators measure this: per capita income, share in professional, technical, managerial and administrative jobs and share in parliamentary seats.

¹⁴ USAID Gender Plan of Action, Statement by J. Brian Atwood, Administrator USAID; available at: <http://www.usaid.gov/policy/ads/200/gplana96.pdf>

¹⁵ Press Statement, Bureau of Public Affairs, U.S. Department of State, March 18, 2009, available at www.state.gov/r/pa/prs/ps/2009/03/120509.htm

¹⁶ ADS and Gender, available at http://www.usaid.gov/our_work/cross-cutting_programs/wid/ads_gender.html

¹⁷ PIKA Action Memorandum, pp.11

new practices/activities¹⁸. The GEM is also high due to inequality in commanding economic and technical/professional power. The women are restricted by socio-cultural norms and traditional gender biased practices, where men take decisions and women implement those decisions¹⁹.

Assessment of Progress on Gender Front at Project Level

World Vision

In its program description, World Vision (WV) puts special emphasis on women empowerment and gender mainstreaming. It mentions conducting a gender assessment to identify contextualized opportunities and solutions for empowering female farmers and farm laborers²⁰. It also mentions that the baseline study would include questions to establish gender sensitive baseline data. The project monitoring shall include data disaggregated by gender to track effects of the project and changes in standing of women over the life of the project.

The MTE team found that though the baseline study report highlighted gender aspects in marketing, wage distribution and entrepreneurship skills, no further gender segregated information was provided to ascertain women and men status as per the GDI and the GEM (please see box above). The quarterly progress reports provided gender segregated information.

In the field area, WV focuses on gender aspects through organizing women in self-help groups, however their link to financial institutions was not found, and they continue to lack basic skills to manage their groups. WV conducted gender orientation and training to project staff and stakeholders to increase awareness. However, the MTE team is of the impression that no further follow-up was made. The women's situation and position in the project area remains the same as before the project. The differential wage practice and poor access to market and enterprises still limits achievement of gender-based development.

Michigan State University

In its program objective and approach MSU mentions facilitating participation by women and disadvantaged groups, where it mentions collaboration with Indian NGOs (e.g., Dhan Foundation, BAIF) focusing on support for women and other disadvantaged groups to identify best practices and implement strategies to ensure inclusion of these groups in the project²¹. The Performance Monitoring Plan mentioned the target indicators as 10 trained women trainers, and 1,500 women producers, processors and workers will participate in capacity building activities²². The progress reports for different quarters do not reflect on the progress on this aspect. The MSU planned to execute a "*Banner Program on Mainstreaming Gender Concerns in Agriculture*" in the first week of February, 2009. However, the quarterly progress reports for 2009 did not mention whether or not this was implemented.

MSU informed the MTE team that though initial discussions were made in this regard concrete partnerships could not be developed. MSU is exploring other means of collaboration with MANAGE, Hyderabad to work on gender.

¹⁸ In WV project, training to women farmers on enterprise development were conducted, however no follow-up support to these women in pursuing their IGAs was noticed

¹⁹ Though, in UW project with RGCT, women are having social empowerment, but they still lack economic empowerment. The men, in general, control the money, even though the women pursue those economic activities.

²⁰ World Vision Program Description, pp.22 Cross Cutting Approaches

²¹ Program Description in Program Agreement MSU document, pp.15

²² Quarterly Report, 2010 Quarter 1, pp.22

The gender segregated information in progress reports is provided. During the first and second quarters of 2009, several exposure visits were conducted to production processing clusters in different states. However, the progress reports did not include a list of the farmers. It was later revealed that only male farmers went for these visits. The project has facilitated the establishment of different clusters of farmers; however, none of the clusters have women as members.

During the field assessment, it was revealed that the women did not have any decision-making authority in the farm business. While the men took all the decisions, the women's role was to implement those decisions.

When the MTE team enquired on non-participation of women in training or exposure visits, the men responded that they were busy in housework and cannot attend such training. They further added that they inform the women whatever they learn in the training, which the women followed in the farm.

The processing units (APK Pack House & Integrated Cold Chain) have employed women together with men as daily wage laborers. The women are involved in washing, cleaning and packing of bananas, whereas men are more involved in transportation and supervision. It was learned that many of the women have infants/small children. They leave them at home in the care of their siblings or other family members.

IFPRI (ITC & HKB)

In its Project proposal, IFPRI mentions one of its objectives²³ *“to promote the development and diffusion of RBHs by the private sector to increase incomes, linkages to markets, and productivity of small, poor farmers including women to address the rural service vacuum”*. Its expected outcomes²⁴ include *“increased income for women farmers and farm workers”*.

It also included monitoring on gender development in its PMP. In the initial plan of evaluation monitoring, it mentions one of the indicators as *“the gender breakdown of change in productivity and real income linked to changes in services, again with ‘before and after’ innovations”*.

However, the MTE team did not observe any such progress in the field area. The project focused mostly on male farmers, and the women had a very limited decision-making power. They were mostly involved in implementation, while male are more involved in decision making.

University of Wisconsin-Madison (M&M, Tasty Bite, and RGCT)

One of the project activities²⁵ in UW-RGCT (University of Wisconsin-Rajiv Gandhi Charitable Trust) focused on training village-level Community Resource Persons (CRPs) and block-level Resource Persons working with 450 women's self help groups in Uttar Pradesh. Though the program description mentions that the women farmers are the main beneficiaries of the proposed program, no specific gender integration strategy or activity is mentioned.

The project focused on women self-help groups, through which different activities were pursued. The MTE team observed that gender integration evolved over time rather than taken as a targeted intervention. The RGCT has been working with women SHGs since 2004 in the project area, and the initial focus was on women empowerment. However, during the process they realized that persuading their male partners is crucial to work with the women. Subsequently, they started a gender sensitization workshop with men.

²³ IFPRI Program Description, pp.2

²⁴ IFPRI Program Description, pp.11

²⁵ UW Program Description, pp.2

In its activities with Mahindra & Mahindra, UW worked with male farmers, and the gender aspect was not explicit. It started involving both men and women in capacity building at a later phase. The project staff informed that initially they conducted exposure visits of male farmers to Gujarat Agriculture University. During one such visit, the Vice Chancellor of the university suggested them to involve women also, after which they started focusing on both male and female farmers.

The decision making power still lies with the men, whereas women are involved in the field implementation and labor supervision. Marketing of produce is also done by men who manage the money.