

Vegetable Value Chain

promoted by



An unfinished story...

Uttar Pradesh, India

April 2013

Established: June 2008 with funding from the Ford Foundation until April 2013.

Vision: The establishment of a vibrant economic environment for all livelihoods activities undertaken by significant numbers of low income families.

Mission: Poverty reduction in rural and urban areas by enabling low income families to upgrade and maximise their returns from mass market livelihood activities.

Strategy: Based on the premise that those engaged in a livelihoods value chain are in the best position to undertake activities within it, the development, implementation and expansion of a market oriented approach to livelihoods promotion. The focus of the effort is on producers, traders and eco-system of a range of value chains, maximising returns to low income producers. The implementation team provides technical support and linkage services but does not take over any of the functions of the value chain from market participants.

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Structure

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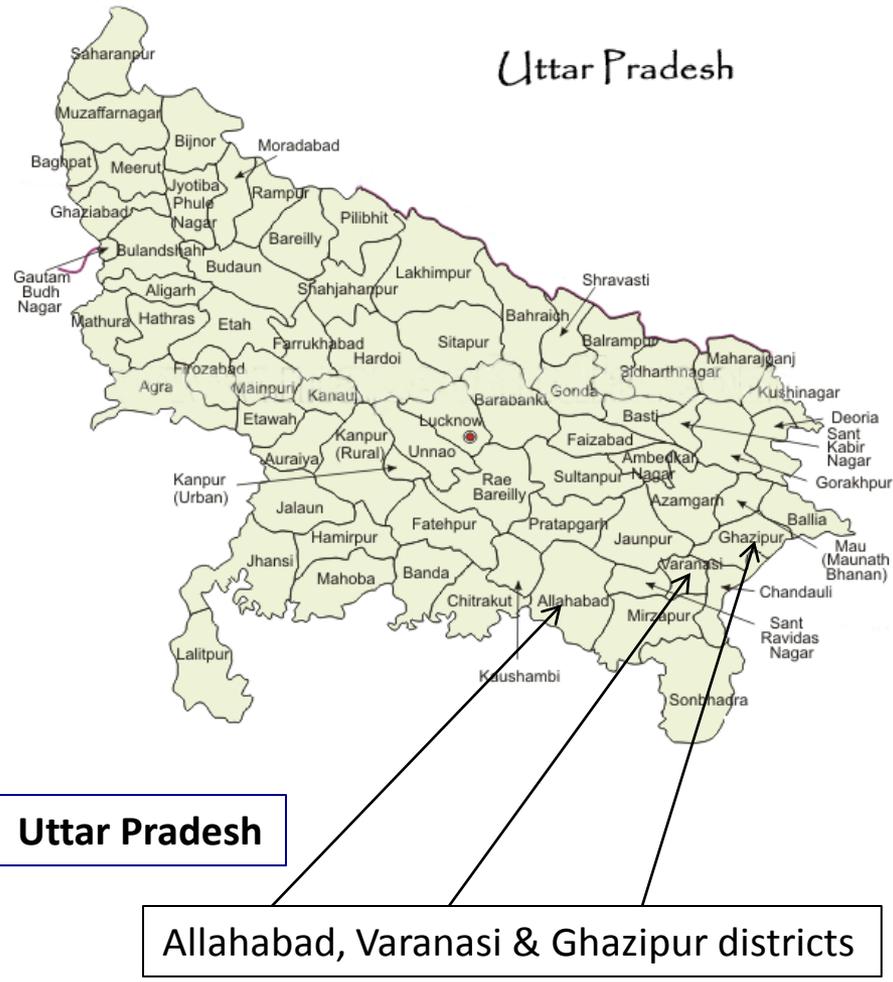
- ▶ Annexes
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Synopsis

- ▶ EDA Rural Systems Private Limited is a private social enterprise with its Head Office at Gurgaon and Livelihoods Division Office at Patna, Bihar. The Livelihoods Division has undertaken value chain promotion across northern India in some of the poorest states of the country – from Rajasthan to West Bengal – covering the leather, honey, sericulture, paddy processing and vegetable value chains.
- ▶ This report highlights the work and achievements of EDA in the vegetable value chain in three districts of eastern UP and **sets out the areas where that work needs to be strengthened in order to bring the gains achieved to a sustainable conclusion.**
- ▶ For this programme, EDA had funding from the Ford Foundation for 5 years and from the Rabobank Foundation for 3 years. The Ford Foundation provided 70% of the total funding of Rs2.73 crore (~\$500,000) available to EDA over the 5 years of the project until now.

Programme data		April 2013	
Focus: Low income, smallholder vegetable producers			
Programme: Training & technical assistance, infrastructure strengthening, marketing initiatives			
	<u>Number</u>		<u>Number</u>
Number of smallholder growers covered	11,500	<i>improvement in value</i>	
<i>productivity increase</i>	20%	<i>realisation</i>	5%
Growers adopting seed treatment	3,500	Growers selling in higher level	
using compost/vermi-compost	1,500	markets	1,100
<i>productivity increase</i>	20%	<i>increase in price realisation</i>	10-15%
<i>cost reduction</i>	15%	Engaged in direct retailing	135
Growers benefited from collective – input purchase, transport and marketing	5,000	<i>increase in price realisation</i>	30-50%
<i>reduction in overall cost to growers</i>	3-5%	Staff engaged in the project	11

Project location – 3 districts of Uttar Pradesh



Project location

Uttar Pradesh, literally “northern state”, is named to preserve its historical acronym of UP (called United Provinces in colonial times). Its population, in excess of 200 million, makes UP the largest state of India with 78% living in rural areas and a literacy rate of 70% (less than the national average of 74%).

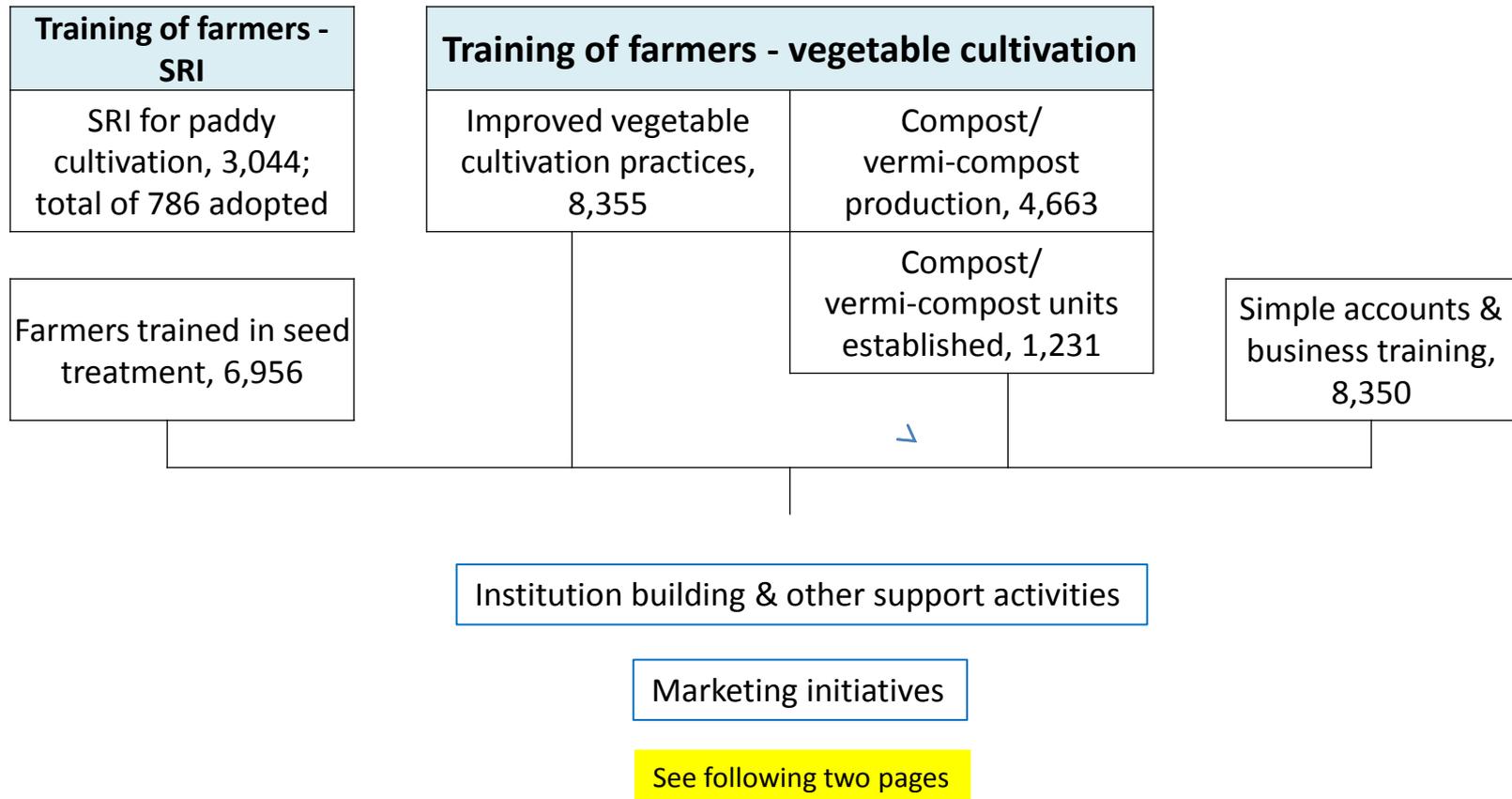
UP is amongst the least developed of the 28 states of India on all socio-economic indicators, with the second lowest per capita income, the third highest poverty rate and low adult literacy rates – for both men and women – see table.

The vegetable value chain project of EDA covers 3 of the 75 districts of the state, Allahabad, Ghazipur and Varanasi located in the south-east with a **rural** population of nearly **10 million** (in 2011) of whom **>50%** of households have incomes **below the national poverty line**.

Development indicators	India	UP
Per capita income \$	1,491	
Poverty rate (Rural households):		
% below national poverty line	21.3	27%
% below '\$1/day' at PPP	36.9	45%
Adult literacy - men	82%	77%
- women	65%	51%
Sex ratio	940	912

Programme snapshot

April 2013



Programme snapshot

April 2013

Continued from previous page

Input suppliers trained
to advise farmers, 234;
better access to inputs

Credit linkage

Loans facilitated
KCC and JLG, 447
Amount: ₹129 lakhs

Linkages forged

KVK,
Horticulture Deptt,
Agriculture Universities,
IIVR, ATMA and others

Institution building

661 village associations
of which, 231 in block associations

**Vegetable farmers
engaged in the project,
11,503**

of whom, women farmers 1,199

Leasehold/landless farmers, 411

5,070 growers in collective activities
Village associations'
savings amount: ₹73 lakhs
[185 have bank accounts]

Other activities

Rainwater harvesting
structures, 265

Disease control
Purchase of knapsack
sprayers, 408

**Growers deriving benefit
but not directly participating,
3,700**

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Marketing initiatives - vegetables		
Market/commission agents linked with vegetable growers through associations, 121	Growers assisted in selling vegetables in new mandies at block, tehsil or district level, 1,110	Retail outlets promoted for marketing vegetables, 51

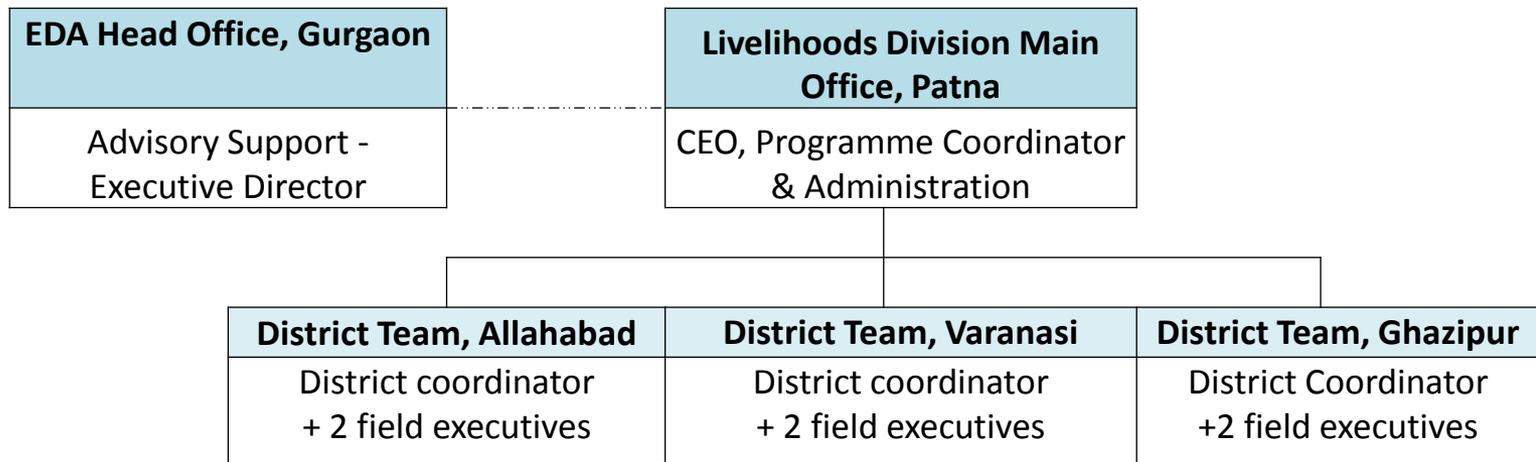


History and profile

- EDA Rural Systems Pvt Ltd (EDA) is a development consultancy and livelihoods promotion organisation based at Gurgaon (outside Delhi), India.
- EDA was established in 1983
- It has undertaken livelihoods research throughout India and been engaged in livelihood promotion activities across northern India from Rajasthan to West Bengal as well as in urban Gujarat, Hyderabad and Mumbai.
- EDA has also provided management support to livelihood promotion programmes all over India, in Nepal, Bangladesh and Myanmar.
- EDA's subsidiary, M-CRIL, is one of the world's leading microfinance rating agencies, having undertaken more than 1,600 ratings and assessments of over 1,200 MFIs in 32 countries of Asia, Africa and Europe
- EDA's work in the vegetable value chain in UP started with the support of The Ford Foundation in 2007-08. EDA selected the vegetable value chain for its intervention for three reasons
 - The agrarian economy of India and of UP (and Bihar) in particular incorporates substantial proportions of smallholder farmers (>80% of holdings are less than 1 ha.) who grow vegetables in small plots or kitchen gardens alongside their main foodgrain crops of rice and/or wheat; the potential for outreach is, therefore, very high
 - Vegetables are a mass consumption item where demand is not dependent on the vagaries of income cycles and international commodity prices
 - EDA and its field team have substantial exposure to agriculture particularly in eastern UP & Bihar

Governance & management

- EDA is a private limited company engaged in research and consultancy in the fields of microfinance and livelihoods promotion including impact studies, evaluations, social research, market research and training of professionals.
- EDA's value chain promotion work started in the sericulture sub-sector in West Bengal in 1997 and with the honey value chain in Bihar in 1998. For five years, from 2000-01 to 2005-06, EDA was also engaged in the leather footwear value chain in Rajasthan – in Jaipur district and Ajmer.
- Work with the honey value chain in Bihar continued until 2008 before starting work with the vegetable value chain for small producers in one district of Bihar as well as three districts of eastern U.P.
- Value chain promotion activities are undertaken by EDA's enterprise division led by its CEO, Ashok Kumar. He is supported by a Senior Executive and field teams in the clusters where the livelihood promotion activity is currently in progress.



The programme: Vegetable VC promotion in UP

Training	Major activities
Improved vegetable cultivation practices	<p>Training by local experts with experience at agricultural universities/KVK/ Horticulture Department and successful farmers to increase the productivity of vegetables and reduce the cost of cultivation. The main techniques covered by the training were</p> <ul style="list-style-type: none"> • Irrigation management of different types of vegetables • Increased use of organic inputs in vegetable cultivation • Pre-sowing treatment of seed to improve disease-resistance of crops and lengthen shelf-life of produce
Compost and vermi-compost production	<ul style="list-style-type: none"> • Methods of compost and vermi-compost production to reduce the use of chemical fertilisers and maintain the productivity of land • Training by external trainers/farmers initially and later by the project team
Simple book-keeping and business training	<ul style="list-style-type: none"> • Basic book-keeping and recording of cultivation expenses relative to production/productivity and price realisation – expenses vs revenue – in a simple format also used by farmers’ associations; training by project team • Training growers to develop entrepreneurial skills, cooperative management, conflict resolution and negotiation skills;
System of rice intensification (SRI)	<ul style="list-style-type: none"> • Training to cultivators to change transplanting practices in order to increase productivity and improve food security as a result. Training by cultivators who have already adopted SRI – gradually shifted to organic skill transfer within the project.

The programme: Vegetable VC promotion in UP...continued

Institution building	Major activities
Formation and capacity building of community institutions	<ul style="list-style-type: none"> • Mobilisation of vegetable cultivators to form village level associations and motivating/encouraging them to cooperate on input supply, facilitating training & collective marketing • Formation of block level associations to federate village associations for collective purchase of inputs, channelling government subsidy schemes and sharing of technical information • Encouragement of action by growers' associations to undertake collective marketing and address common business issues – especially purchase of knapsack sprayers, supply of inputs and forming groups (JLGs) to benefit from the credit schemes of commercial banks • Cooperation in the building of rainwater harvesting structures • Pooling of savings to enable mutual lending and to generate capital for the farmers' associations
Other linkages	
Linkages with technical institutions	<ul style="list-style-type: none"> • Associations encouraged and enabled to interact with local technical institutions specialised in agriculture/horticulture – KVKs, Indian Institute for Vegetable Research, agriculture universities, ATMA and others
Capacity building of input suppliers	<ul style="list-style-type: none"> • Input suppliers were encouraged and supported in systematically increasing their knowledge of good cultivation practices so that they could advise farmers on the better use of inputs such as seed, fertilisers, bio-pesticides and agricultural equipment.
Credit-linkage with commercial banks and MFIs	<ul style="list-style-type: none"> • Support of vegetable cultivators in obtaining Kisan Credit Cards (KCCs) from banks and group loans from both commercial banks as well as a local MFI.

The programme: Vegetable VC promotion in UP...continued

Market development	Major activities
<p>Market /commission agents linked with vegetable growers</p>	<ul style="list-style-type: none"> Vegetable growers were supported to sell their produce in higher level mandis. The project team linked the growers with commission agents in these higher level mandies where the price is better than in village mandies and the grower is able to appropriate the mark-up of local, village level, traders. Market agents buying through village associations and groups of farmers provides the advantage of aggregation and reduces transport cost for growers as well as agents; there is a gradual enhancement in bargaining power of growers as collective negotiation takes place with agents.
<p>Retail outlets promoted for marketing vegetables</p>	<ul style="list-style-type: none"> Encouraged direct retail of vegetables by growers in local market places by vending or establishing small shops either individually or in small partnerships . There was also an effort to link vegetable growers to a national chain of retail stores (Spencer's) but the effort was not successful to due to detailed conditionalities in purchase, irregular demand and delays in payment to growers.

The programme: Vegetable VC promotion in UP...continued

Additional support required

Further initiatives to strengthen farmers' selling power and ensure increased value realisation for growers ensuring the sustainability of the gains of the programme

- Establish grower-operated informal mandis just outside city limits and satellite mandis (without agents) within city limits to provide alternative direct marketing outlets for growers
- One (or more) satellite mandis in each of the two cities

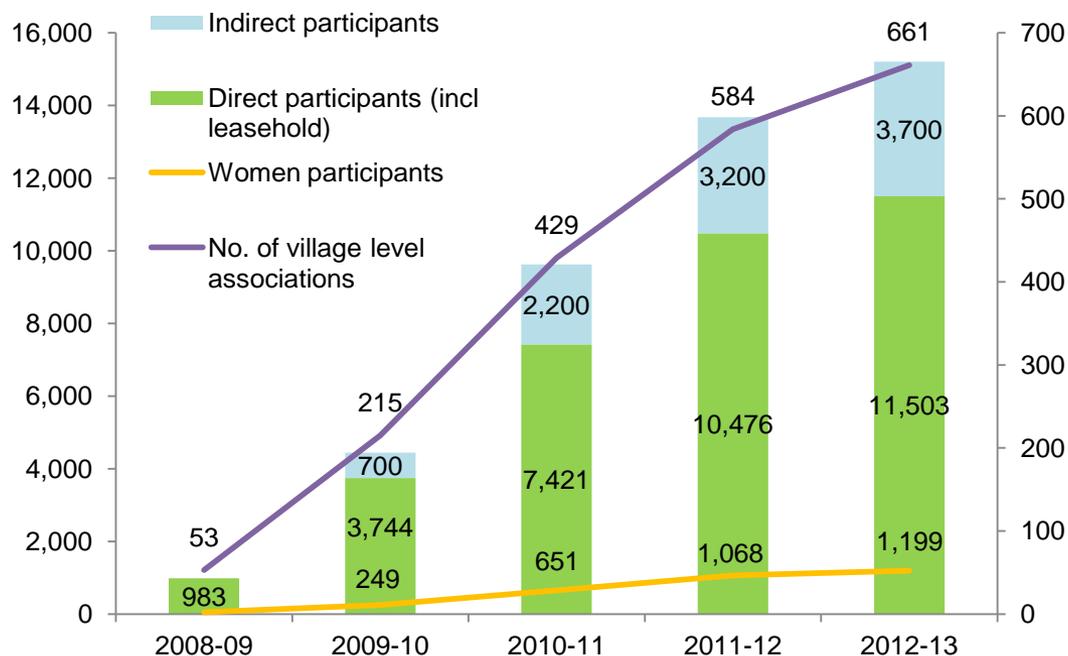
In the existing supply system, farmers sell to retailers of *mandis* through commission agents who charge both farmers and retailers. In the proposed system farmers will directly sell to retailers without the involvement of commission agents creating a win-win situation for both.

Additionally, in the farmer-established wholesale-retail *mandis*, a reasonable part of the produce will be sold in retail thus providing a larger share of the consumer price to the grower. The combined mix of wholesale and retail sale will enhance overall returns to farmers for their fresh vegetables.



Vegetable VC programme outputs

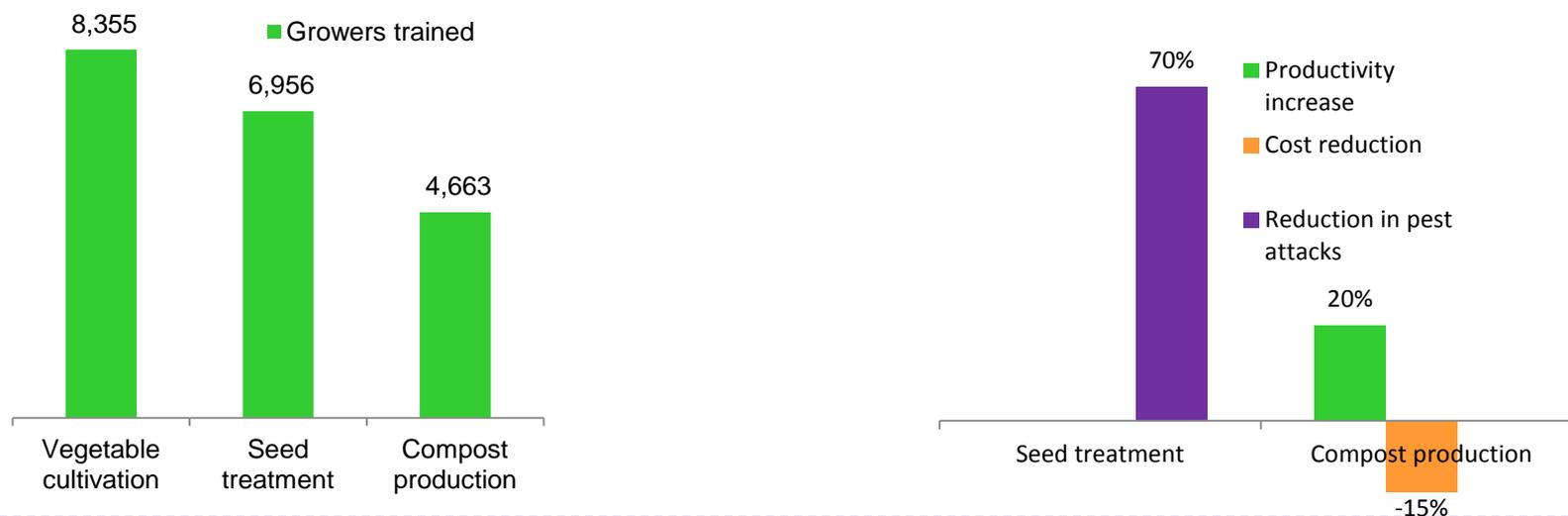
Total outreach	
Growers reached and associations formed	<p>Village associations formed: 661 in 539 villages</p> <p>Vegetable grower members: 11,503 ; an estimated 3,500-3,800 growers also derived benefit from growers directly participating in the programme.</p> <p>Women's groups: 83 with 1,199 members</p> <p>Landless/leasehold growers: 417</p>



* All benefits reported on the following pages – increase in productivity, cost reductions and other gains – are based on discussions with project and non-project farmers and enumerate the current status of the average farmer covered by the project relative to the average non-project farmer

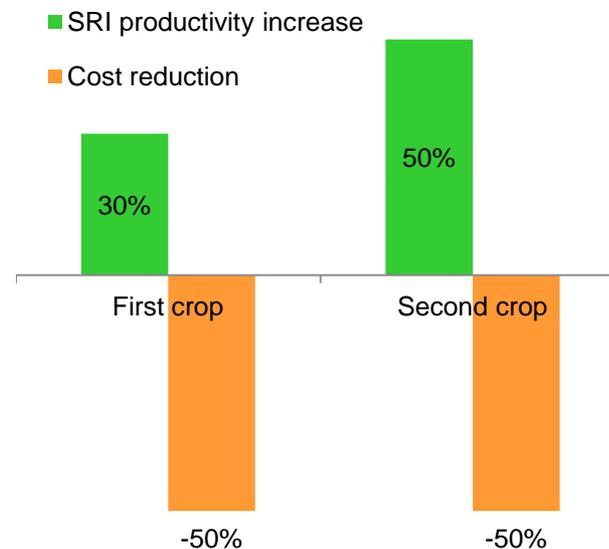
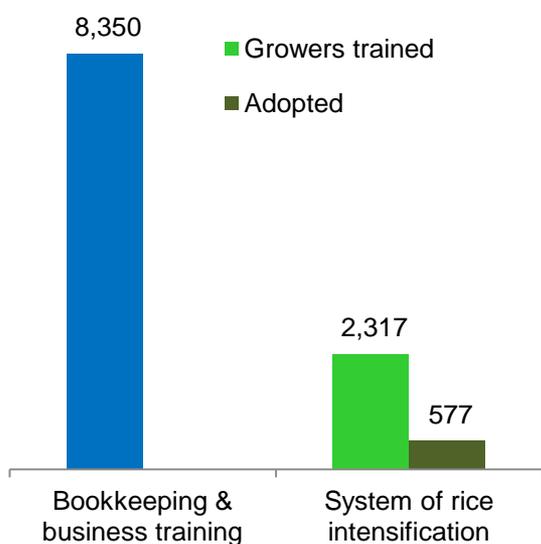
Vegetable VC programme outputs...continued

Training	Major activities
Improved vegetable cultivation practices	<p>Growers trained: 8,355 through 475 training programmes</p> <p>Seed treatment: 6,956 growers trained; pest attacks reduced by 70% for those growers who treated their seed before sowing</p> <p>Exposure visit of 15 farmers to Bejo Sheetal Seeds, Jalna – links resulted in 40 farmers starting local seed production facilitating local seed supply</p>
Compost and vermi-compost production	<p>Growers trained: 4,663 resulting in the establishment of 1,170 units</p> <p>Productivity increase: 20-30%, cost reduction: 15-25% through reduction in the use of inorganic fertilisers</p>



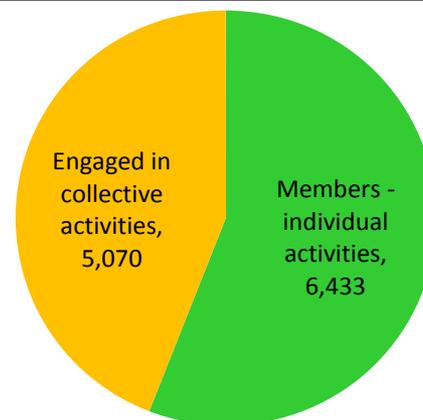
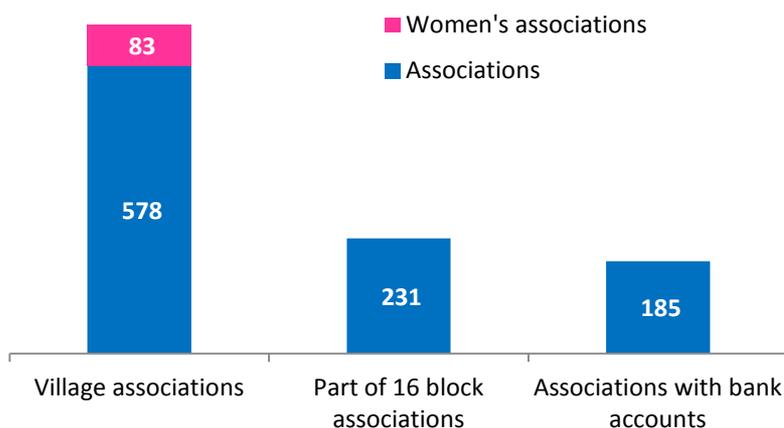
Vegetable VC programme outputs...continued

Training	Major activities
Simple book-keeping and business training	8,350 growers trained and better able to approach banks for obtaining credit support – as many as 75% of the total could use credit for improved cultivation; some of this is being met by bank finance and some by the saving corpus mobilised but much more is needed
System of rice intensification (SRI)	3,044 growers trained, 786 adopted SRI Productivity increase: 30% for first crop, 50% second crop Input costs reduced by more than 50%



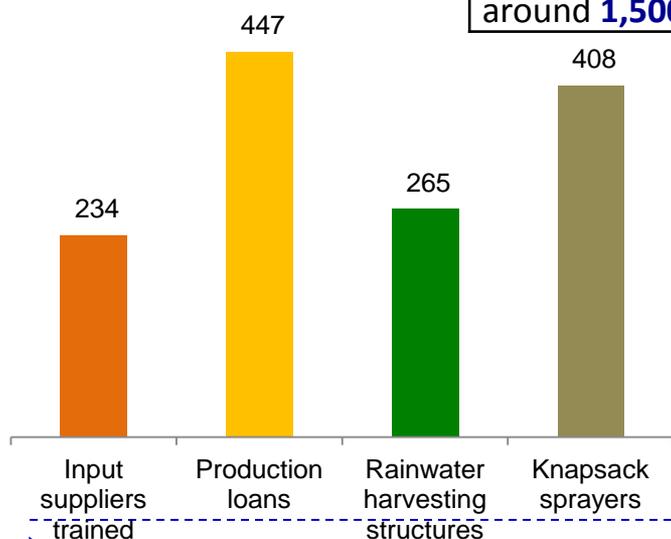
Vegetable VC programme outputs...continued

Institution building	Major activities
Formation and capacity building of community institutions	<p>661 village associations of which 83 women's associations 231 participate in 16 block associations</p> <p>185 village associations have bank accounts; ₹73 lakh member savings</p>
...resulting collective activities	<p>5,070 growers engaged so far in collective activities like purchase of inputs in bulk, transport of produce to markets and other collective activities like providing training facilities and forming JLGs for obtaining bank loans. Recently formed associations gradually becoming active – numbers engaged in collective activities will increase during the current year.</p> <p>Challenging to convince growers to participate in collective activities to begin with but bonding and rapport developed as a result of regular meetings and experience sharing, developing the confidence necessary for cooperation.</p>



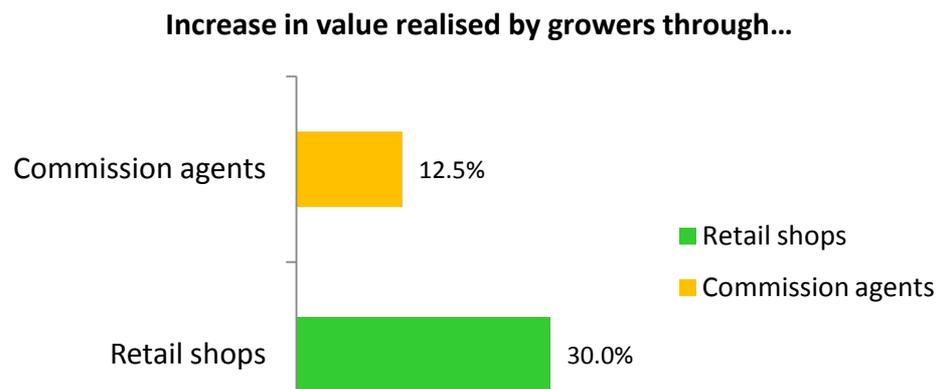
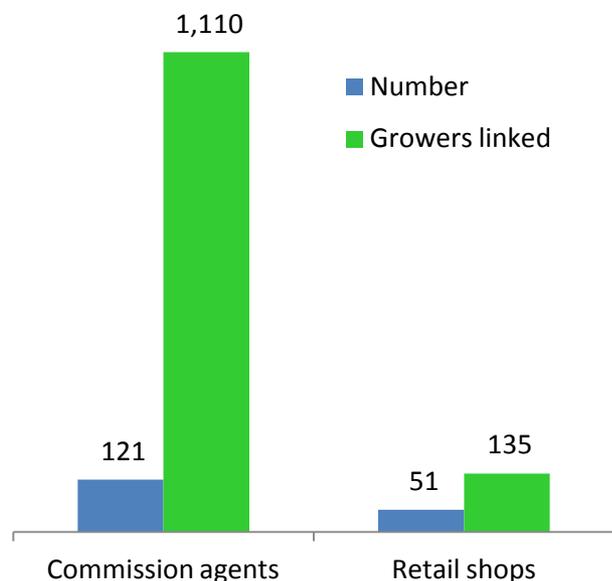
Vegetable VC programme outputs...continued

Other linkages/support`	Activities
Capacity building of input suppliers	234 input suppliers engaged in the process (with outreach to some 6,000 farmers)
Credit-linkage with commercial banks and MFIs	447 loans obtained from commercial banks – 316 Kisan Credit Cards (for farmers who had all the required papers to meet the requirements of banks) with Rs96.14 lakh credit + 131 joint liability group loans amounting to Rs32.60 lakh (for those who did not have land papers and usually had land on lease); 11 women received Rs1.3 lakh in loans from Cashpor MFI.
Other support	265 rainwater harvesting structures established on individual farms by the farmers with their own labour + purchase of 24 motors, purchase of 408 knapsack sprayers by vegetable growers; 3 pumping sets for improving irrigation infrastructure. Mini weather stations established in Allahabad & Varanasi districts; weather information to around 1,500 growers on a daily basis (by mobile phone)
	17 village level storage facilities (mainly for onion storage) established with assistance from the project ; 15 collective transport facilities promoted 2 tractors purchased with the support of a block association (with members contributing to the margin money) enabling the individual tractor owners to get a government subsidy of 20% of the cost of the tractors



Vegetable VC programme outputs...continued

Market development	Major activities
Market /commission agents linked with vegetable growers	121 commission agents linked to growers who get a 10-15% higher price as a result; 1,110 growers linked to these commission agents, sell at higher levels than before
Growers assisted in selling vegetables in higher level mandis	
Retail outlets promoted for marketing vegetables	51 new retail shops established; 135 vegetable growers benefit from these outlets selling their produce direct to consumers. This initiative has potential for substantial expansion. Price increase ~30-50% .



Strengths

- ⇒ Substantial numbers of small vegetable growers participating in the project
- ⇒ All functions within the value chain performed by traditional participants with intrinsic knowledge and understanding of value chain activities
- ⇒ Project implementation focuses on improving grower productivity, product quality, cost reduction & value maximisation for low income producers
- ⇒ Highly experienced team leader and team – excellent knowledge of project districts and successful track record in the honey and leather value chains
- ⇒ Obtained cooperation of significant numbers of local market actors/traders
- ⇒ Has the potential to consolidate long term gains for both direct and indirect participants in the project
- ⇒ Already has an excellent benefit-cost ratio, **21**

Issues

- ▶ Until recently, the project put more effort into productivity improvements and cost minimisation of vegetable cultivation by low income producers and **not so much on marketing**
- ▶ After just 5 years of implementation, the project is incomplete; it **needs additional funding for 2-3 more years** to bring its marketing initiatives to fruition
- ▶ Project funding has become the victim of the global slowdown/recession with possible funders suddenly losing interest due to their own fund constraints
- ▶ The long term funder, The Ford Foundation has shifted its interest to support of NRLM – a large government programme with uncertain long term prospects.

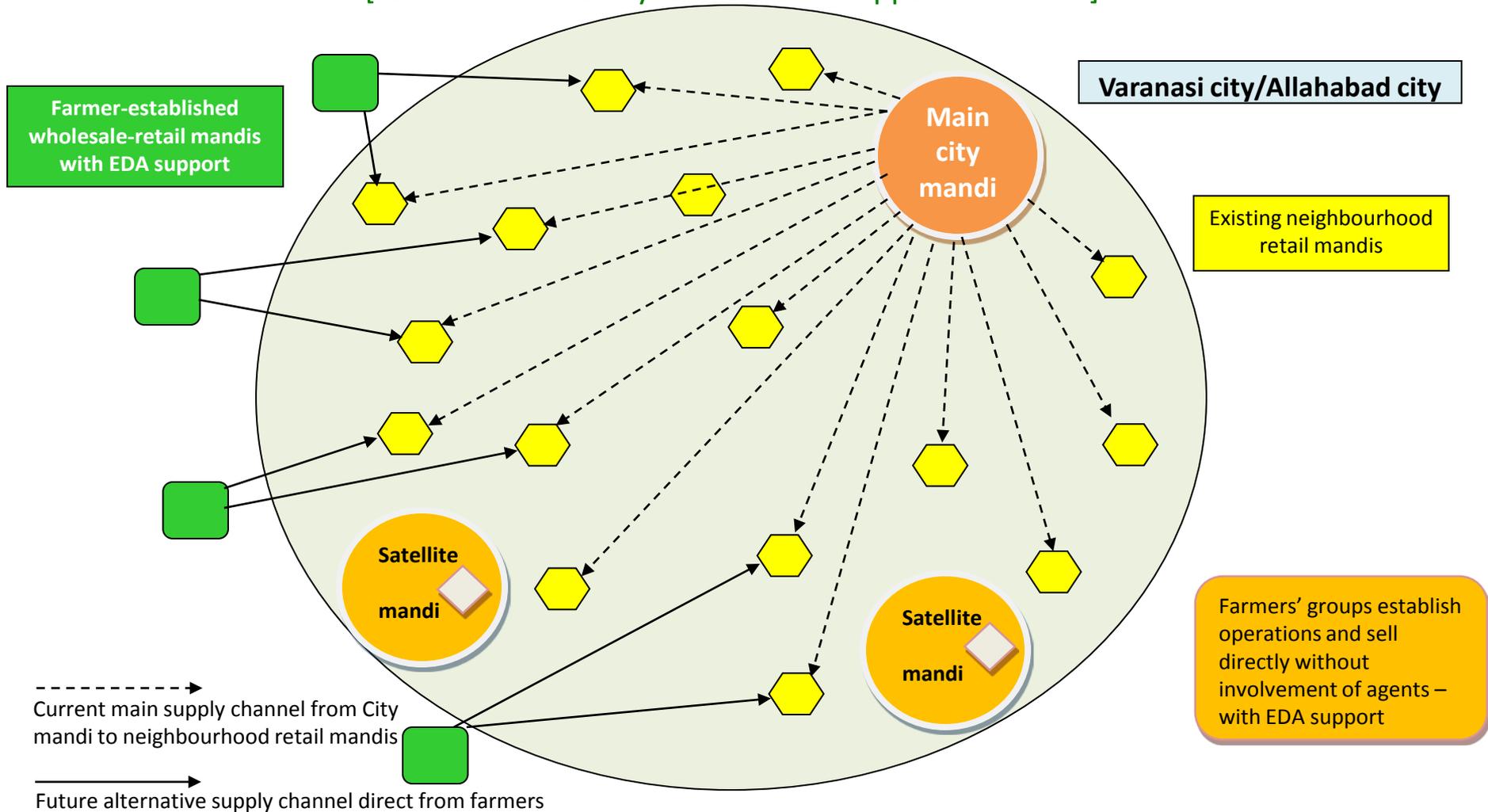
What remains to be done...

A concerted effort at direct wholesaling and even retailing by the small vegetable growers themselves – this entails...

Market development	Major activities
Further initiatives to reinforce farmers' selling power and ensure the sustainability of gains made from the programme	<p>8 informal mandis + 2 satellite mandis <u>to be established</u>. This will consolidate and enhance the benefits achieved from the market development work done so far. It will enable a substantially larger number of growers to benefit from more direct marketing to consumers than is taking place at present.</p> <p>With the above, the number of middlemen involved between farmers and final consumers will reduce thus benefitting the vegetable growers by increasing their share in the consumer price.</p> <p style="text-align: center;">See figure in following slide</p>

Proposed farmers' wholesale-cum-retail mandis

[to be established by farmers with support from EDA]



Abbreviations

AC	Area Coordinator
CEO	Chief Executive Officer
EDA	EDA Rural Systems Private Limited
SRI	System of Rice Intensification
UP	Uttar Pradesh – state in northern India
VC	Value chain

