

Project Development Exercise

Case description

The state of Indraprastha has a population of three million with rural areas accounting for two and a half million. This state receives 400 – 800 mm of rainfall annually. The state can be divided into two regions, Indra & Prastha.

Region Indra has 700-800 mm of rainfall. The average village size is 600 households. This accounts for 40% of the total population and 35% of the rural population. Smallholders account for 80% of the rural families. The average rural family size is six. Village sizes are on an average 300 households. There are three agricultural seasons, monsoon (June to October), winter (November to February) and summer (March to May). All the rainfall is received in the monsoon season. The water sources are dug wells which can range from a depth of 10 feet to 60 feet. It is not possible to dig below 60 feet. Only 30% of the population has access to dug wells. Water is not sold by farmers as there is very little water. Most farmers have access to about 200-300 litres of water per day through community wells and drinking water sources. Farmers normally have enough water in their wells to irrigate an area of one acre in the winter and half an acre in the summer.

The crops grown are as follows:

	MONSOON	WINTER	SUMMER
FOODGRAIN	MINOR MILLET	-	-
PULSES	RED GRAM	-	-
FRUITS	MANGO, COCONUT, JACKFRUIT		
VEGETABLES	-	CUCUMBER, BITTER GOURD, EGG PLANT,	EGG PLANT

Fruits and vegetables are sold within the village or, rural markets called as haats (which operate on a weekly basis – and is present for a group of 8 villages) or in five regulated markets. Agents present in all these markets then sell the products (fruits and vegetables) in larger cities. Foodgrains are procured by the Government. Farmers purchase seeds, fertiliser and pesticide from agri-input dealers. Farmers also have access to Nursery providers who provide saplings. Agri-input dealers and Nursery providers are located in rural markets.

Plastic manufacturing facilities are available in this region as there are commercial establishments which produce plastic pipes only for the Government telephone department to lay telephone cables. The machines existing with them can be used to produce KB drip.

You have no prior experience of working in this area and have no partners, though there are a lot of NGOs working in the field of health, education. Awareness of drip irrigation is negligible.

Region Prastha has 400 - 700 mm of rainfall. The average village size is 200 households. This accounts for 60% of the total population and 65% of the rural population. Smallholders account for 60% of the rural families. The average rural family size is nine. Village sizes are on an average 200 households. There are three agricultural seasons, monsoon (June to October), winter (November to February) and summer (March to May). All the rainfall is received in the monsoon season. The water sources are dug wells which can range from a depth of 10 feet to 60 feet. It is not possible to dig below 60 feet. 40% of the population

has access to dug wells. Water is not sold by farmers as there is very little water. Most farmers have access to a little water through community wells and drinking water sources. Farmers normally have enough water in their wells to irrigate an area of half acre in the winter and quarter acre in the summer.

The crops grown are as follows:

	MONSOON	WINTER	SUMMER
FOODGRAIN	MINOR MILLET, SORGHUM	-	-
PULSES	RED GRAM, GREEN GRAM	-	-
FRUITS	PAPAYA, POMEGRANTE, SWEET LIME, ORANGE,		
VEGETABLES	-	BITTER GOURD, EGG PLANT, TOMATO, OKRA,	EGG PLANT, BITTER GOURD, OKRA,

Fruits and vegetables are sold within the village or, rural markets called as haats (which operate on a weekly basis – and is present for a group of 8 villages). There are no regulated markets. Agents present in all these markets then sell the products (fruits and vegetables) in larger cities in this region as well as in Region Indra. Foodgrains are procured by the Government. Farmers purchase seeds, fertiliser and pesticide from agri-input dealers. Farmers also have access to Nursery providers who provide saplings. There are no nursery providers in this region. Agri-input dealers are located in rural markets.

Plastic manufacturing facilities are not available in this region.

You have no prior experience of working in this area and have no partners, though there are a lot of NGOs working in the field of health, education, and sustainable agriculture. Awareness of drip irrigation is non-existent.

Task

You are the Project Coordinator and have an educational background in marketing and ten years experience in managing rural development projects. You have received 100,000 dollars per year for two years, starting June 2003 to May 2005. You are supposed to launch the KB Drip for smallholders in the state of Indraprashtha with this money. You cannot spend any money on capital expenses. You have to develop an operational plan for two years which include the following:

- How many staff would you recruit and why?
- Which region/s would you work in and why?
- What crops would you promote KB drip in?
- Would you introduce new crops and why?
- What are the activities that you will undertake in a sequential manner?
- What supply chain will you develop and how many?
- Which other service providers will you work with and how many?
- What will they cost?
- How many drip irrigation systems do you think can be sold by your intervention?
- What is the ROI for the donor?

The following staff costs are normal for this state:

Project Coordinator	1200\$ per month
Drip irrigation engineers	500\$ per month
Drip irrigation engineers with experience	750\$ per month
Marketing specialist	750\$ per month
Marketing specialist with experience	900\$ per month
Sales representatives	200\$ per month
Sales representatives with experience	350\$ per month
Agronomist	500\$ per month
Accountant	300\$ per month
Office Assistant	100\$ per month

The following travel costs are normal for this state:

All figures are for one day	Local travel	Intra-regional travel	Inter-regional travel
Project Coordinator	25\$	50\$	150\$
Drip irrigation / Marketing specialist / Agronomist	20\$	40\$	100\$
Sales representatives	20\$	40\$	75\$
Accountant / Office Assistant	10\$	40\$	75\$

The following promotional costs are normal for the state:

	Unit cost
Leaflets / pamphlets	0.05
Banners	3
Streamers	2
Hoarding	160
Permanent demonstration unit (Demonstration Plots)	50
Market demonstration	20
Dealer signages	20
Wall paintings (per 100 sq. ft.)	25
Short Campaigns (per day)	60
Cinema Slides (per month)	20
Newspaper advertisement	200
Radio advertisement	50
TV advertisement	400

Agriculture mela	200
Farmer exposure visit to drip plots ***	100
Farmer exposure visit to nursery provider ***	250
Farmer exposure visit to agri-input suppliers ***	50
Farmer meeting ***	5
Training of manufacturers	200
Exposure of trade to drip plots ****	200
Exposure of trade to nursery providers ****	500
Training of dealers	25
Training of NGOs	25
T-Shirts	2
Statewide Supply Chain meeting	2000
Regional Supply Chain meeting	1000
Calendar	0.5
Diary	2
Greeting cards	0.1
Producing a video film **	25000
Video van shows (per show)*	20

*This can be done only on completion of the video film

**This takes six months to complete.

*** You can cover 20 farmers in one exposure visit

**** You can take three supply chain members on one exposure visit

Example of Output

Proposed action plan for Indra region of Indraprastha for promotion of KB drip

Group members

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1. See annex for recruitment of staff.
Considering limited financial resources it was decided that a marketing specialist with experience would play the role of a project coordinator
2. After analyzing data from both regions it is observed that the region of Indra is more feasible for promotion of KB drip systems due to the following reasons:
 - Greater market: Small holder families in Indra region is 10% greater than Prastha region
 - Greater access to drinking water and irrigation (200 – 300 liters/day/family) as compared to lesser water of Prastha region.
 - Considering our limited financial resources (\$200000 for two years) we have decided to execute the project only in Indra Region.
3. Cropping pattern

Perennial	Winter	Summer
Coconut	Bitter gourd	Egg plant
Jackfruit	Egg plant	Tomato
	Tomato	Okra

4. Tomatoes and okra are to be introduced because of water availability
5. See annex for detail of activities
6. One supply chain will be developed:



7. One NGO and one agri-input dealer
8. None
9. A total 116667 families are small holders in this region and it is expected that 50000 families will be benefited by KB drips after completion of project.

ROI of Donor			
	Qty	Unit	Total \$
KB	50000	80	4000000
Grant			200000
ROI	1:		20