

PROJECT PROPOSAL ON

“Income Generation for Asha Deepa School for the Blind through
Integrated Dairy Farm”

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Asha-wide-USA

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**Income Generation for Asha Deepa School for the Blind
through Integrated Dairy Farm**

Background:

Asha Deepa School for the Blind (ADSFB) is a residential school for the visually challenged children established in the year 2003. The school was started with 4 blind children in three room rented house. Today there are more than 40 children in the school with all basic amenities. The children in the school are provided with food, clothing & health care. Apart from education, they also learn vocational skills such as computer training, chalk & candle Making, Musical training and other life skills so as to enable the visually challenged to become self sustainable after school.

The Need

Since from inception, Asha Deepa has not received a single penny from either state govt or central govt for its activities. The concern people in the school are trying very hard to get govt funds from last two years but still it is in the vein. The main and major source of funds for Asha Deepa so far is from Asha for Education, few other institutions and individuals. There is a great need to have regular and non-stop cash flow to meet the school expenses through internal income generation activities. Therefore, we propose to establish a Dairy Farm unit with 30 cows initially with the seed funding from Asha for Education, Bank and NABARD. The name of the Dairy Farm shall be "Asha Dairy Farm"

The Project

Ever since mankind became agrarian, the cow has been a symbol of peace and abundance the world over. From time immemorial she has been worshiped in India as the great giver. Even today, rural India counts on the five products she provides: milk, curd (for yogurt), ghee and butter, urine and dung.

The rationale behind taking up this project is to create a permanent income source for Asha Deepa School for the Blind that benefits more than 50 children in the current year and helps further expansion of the school activities. Through dairy farm, Asha Deepa produces Milk as main product and Cow Dung & Cow Urine as by-products. The income generated through sale of milk and other by products of dairy farming is used to support Asha Deepa's operational expenses.

Milk-The main product of Dairy Farm

Although India's dairy sector has performed well in meeting the demand of milk in the country, the milk demand is now increasing at a much faster rate than production. National Dairy Development Board believes that India's milk production should increase to 5 million tonnes per annum.

1. Gunny bags are empty bags come along with cow feed.

The demand of milk is estimated to be around 180 million tonnes by 2021-22. "If India wants to meet its burgeoning demand of milk, the domestic production, which grows 2.5 million tonnes annually as of now, has to be increased by 5 million tonnes per annum. Therefore, there is a huge demand for milk and milk related products. Thus, marketing of milk would not be a problem.

The project 'Asha Dairy Farm' on an average will produce 300-350 liters of milk per day. The direct sale of this milk to local market would generate Rs. 8000 to 10000 a day which totals to Rs. 2.5 to 2.9 lakh per month. Along with Milk, sale of gunny¹ bag also generate some residual income. The detailed income & expenditure is given in budget.

Cow dung, by-product of Dairy Farm

Use of cow dung can be an interesting and beneficial side to dairy farming. Cow dung produces natural methane gas (Bio Gas) which can be used for cooking through an inexpensive unit those stores and captures the gas. We will install biogas generating & packing plant to produce methane gas & serve the rural households. 5-10kg gas cylinders are filled and distributed to rural households at affordable cost. After the dung passes out of the gas unit, it is turned into high quality organic fertilizer. It is mixed with food waste and composted further, using worms to make "vermicompost". This vermicompost / cow manure / dried grass compost mixture will be absolutely sufficient to fertilize various crops. This will be packed in 25 kg bags and sold to the farmers locally. Therefore, sale of packaged methane gas (Gobargas) and Vermicompost shall fetch at least 10-20% income to the main income.

Cow Urine, by-product of Dairy Farm

Cow urine is another beneficial by-product of the dairy farm. It is high in Nitrogen for fertilizer, and it is also a natural insecticide, which is being used with great success here in India. It is given in many Ancient manuscripts that cow's urine or a go-mutra should be taken for preventing diseases and hence to remain healthy. Various ancient medicinal treatment practices, cow urine are used as a therapeutic agent.

It was found that "cow urine distillate fraction" enhanced the potency of taxol (pactitaxel) against MCF-7 a human breast cancer cell line in in-vitro assays(US patent No. 6410059). (Central Institute of Medicinal and Aromatic Plants, 2002). Many research institutions are concerned with carrying out the examinations related to medicinal and chemical properties of panchgavya. The sale of processed cow urine adds between 5-10% towards total income of the project.

1. Average dung production per day per cow 10 kg.

2. Average urine production from one cow 5 liter per day

The proposed project is hereby formulated to generate sufficient income by utilizing natural resource from cow rearing.

Rearing Cow/Dairying	Resource	Outcome
	Milk	Direct income by selling raw milk/protection from malnutrition
		Making various milk products and further selling in near by market
	Dung	Biogas generation for green energy
		<ul style="list-style-type: none"> • Cooking food
		<ul style="list-style-type: none"> • Lighting and electricity
	Urine	cow urine distillate fraction for making various medicines and bio-pesticides
	Biogas Digested dung	Enriched manure- organic farming, Growing quality crops and medicinal plants

Project Objectives:

Main Objective

- ❖ To establish a permanent income sources through an Integrated Dairy Farm for Asha Deepa School for the Blind that supports/contributes it's day to day operating expenses.
- ❖ To become self sustainable within two years thereby creating an opportunity for the visually challenged.
- ❖ To reduce dependency on external source of funds for school activities.

Sub Objectives

- ❖ Generation of biogas for cooking, lighting and electricity generation to provide green energy to the rural households.
- ❖ Promoting organic farming using digested slurry and producing other organic manures and cow urine based pesticides.

Project implementation:

Construction of Cow Shed

The project will be implemented at a permanent site of Asha Deepa in a nearby village in Bidar district. Half acre land would be purchased to construct the cowshed to accommodate 100 cows (It helps in expansion of the project in the next three to four years). 4-5 Acre land will be leased out to produce green fodder to feed 30-50 cows along with other nutritional feed.



Management & Risk Involved:

To maximize the milk production, close supervision is necessary. Feeding, watering, cleaning and sanitation, observation of diseases and disorders, collection of products for market and arranging an efficient system of sales of milk, vermicompost and cow urine must be well coordinated. Mr. Sanju Kumar founding member of Asha Deepa is a graduate in agricultural sciences. He also underwent a short term Dairy Farm management course. He will coordinate the project. The risk factor here is cow diseases, though diseases in Indian breed of cows are very less. However, cows are to be insured by some agencies to reduce the incorporated risk.

Marketing & building Network

The milk sold in the local market/city. Efforts will be made to sell the milk under 'Asha' brand. As the unit grows to 50-100 cows, the milk processing unit will be installed so that other products such as curd, ghee, butter milk, ice cream will be manufactured under the same brand.

The by-products such as vermicompost manufactured out of cow slurry will be packed under 'Asha' brand and sold it to the farmers at affordable cost. The methane gas would be distributed among rural households and a proper consumer network will be build. The cow urine will be sold to pharmaceutical companies which are into ayurvedic medicine.

The Budget:

(One time grant for Sustenance Activities of Asha Deepa)

The detailed budget break up including income & expenditure is given in annexure-1.

The 'Asha Dairy Farm' unit will be established initially with 30 cows with a total investment of Rs. 36.33 lakh. Out of 36.33 lakh, 20% (7.26 lakh) would be Asha Deepa's contribution, 25% (9.08 lakh) is NABARD's² subsidy contribution and 55% (10.98 lakh) will be borrowed from Bank as a term loan³ to be repaid in five years. Therefore, Asha Deepa's contribution of Rs. 7.26 lakh is being requested from Asha for Education.

Abridge Budget

Item Head	Unit	No. of Units	Unit cost	Total
A. Capital Cost				
Cost of animals		30	30000	900000
Construction of cow shed	sq. ft.	2400	400	960000
Construction of young stock sheds	sq. ft.	1200	250	300000
Construction of stores/misc rooms	sq. ft.	300	200	60000
Cost of milking equipment	1 set		300000	300000
Cost of liquid milk storage equipment	1 set		75000	75000
Cost of fodder cutting equipment	1 set		60000	60000
Cost of standby power supply	1 set		45000	45000
Cost of misc. equipment	1 set	30	500	15000
Initial fodder cultivation cost	acres	4	4500	18000
Misc. expenses		30	500	15000
Total-A				2,748,000
B. Recurring cost				
Feeding during lactation period				624,240
Feeding during dry period				64,800
Veterinary aid				30,000
Cost of electricity & water				30,000
Insurance				36,000
Laboure wages				100,000
Total-B				885040
Total A+B				3,633,040

Out of Rs. 36, 33,040, 7.26 is requested from Asha for Education

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2. NABARD gives up to 25% subsidy for Dairy Farm activities on total project cost. The subsidy is usually released after one year of the project commencement.
 3. A term loan is available for Dairy Farm activities under priority sector at 11% interest to be repaid in 5-8 years.

Income, Expenditure & Bank repayment

Year	Gross Income	Expenses	Gross Surplus	Bank Loan Repayment	Net Income
I	1,806,768	885,040	921,728	643,032	278,696
II	2,258,784	1,105,900	1,152,884	643,032	509,852
III	2,258,784	1,105,900	1,152,884	643,032	509,852
IV	2,258,784	1,105,900	1,152,884	643,032	509,852
V	2,258,784	1,105,900	1,152,884	643,032	509,852

- ☞ ***The bank loan repayment period is five years. Hence, 6.43 lakh (principle & interest) to be paid every year for five years.***
- ☞ ***In the first year, the net surplus is slightly low because of start cost and other onetime recurring costs.***
- ☞ ***From second year, the milk production is stabilized and thus uniform income is being generated.***
- ☞ ***This income calculation is excluding sale of dung/vermicompost, biogas methane and cow urine.***
- ☞ ***The sale of come dung, methane gas & cow urine may generate additional income of Rs.15000-25000 per month.***
- ☞ ***Better management of dairy farm leads to minize the expense thus increase in the net surplus.***

Asha Deepa's current budget is Rs. 7.67 lakh. There will be short of Rs.2.5 lakh from main income but income from sale of cow dung/vermicompost, cow urine and methane gas will bridge this gap. Further, by end of first year, we will get subsidy fund from NABARD⁴ which we shall use to repay the loan or expand the dairy unit. Thus helps to increase the milk production.

4. NABARD-National Bank for Agriculture & Rural Development.

5. <http://www.nabard.org/pdf/Eng%20Circular%20No.%20186.pdf>

Sustainability

The project reaches break even in the second quarter. Therefore, the project will be sustainable within one year with the onetime funding from Asha for Education. However, it depends on milk price, production level, and cost of production. Asha Deepa is better equipped to handle these uncertainties during the project phase.

Monitoring and Evaluation systems

Regular review of progress made against stated objectives of the project and making mid-course adjustments go a long way in achieving the envisaged goals. It is proposed to have a strong multi-level review and correction system to keep the project on track. A separate accounting system will be introduced to monitor the cash inflow & outflow of the project at the farm itself. A person from Asha Deepa shall be designated for this purpose. However, quarterly cash flow statement of the project shall be sent to funding agency to have a better monitoring.

The Project Implementing Agency (PIA)

Asha Deepa School for the Blind is an unit of Jeevan Prakash Education Society (JPES) and is a not for profit organization registered under the Karnataka Societies Registration Act. JPES is working with visually challenged from last 6 years. It is also registered under 80G of IT Act and Foreign Contribution Regulation Act, Ministry of Home Affairs, Govt of India.

The information given above holds good for the proposed project and implementing organization. Any extra information if found missing and needed by the funding agency will be provided immediately. The organization is open-minded and flexible in its approach and relationship with all its partners in development work.

Annexure –I-Budget

A	Overview	
	Name of the Project Holder	Asha Deepa School for the Blind
	Address	Village in Bidar
	Unit size	30
	Project Cost (Rs.)	3,633,040
B	Techno-Economic Parameters	
	Cost of each Murrah Cow (Rs.)	30,000
	Average daily milk yield of each cow (lit)	10
	Sale price of milk (Rs./lit)	25
	Irrigated land required for fodder production (acres)	6
	Cost of construction of cow sheds (Rs/sq.ft.)	400
	Cost of construction of young stock sheds (Rs/sq.ft.)	250
	Cost of construction of store rooms (Rs/sq.ft.)	200
	Cost of production/purchase of green fodder (Rs/kg)	0.2
	Cost of production/purchase of dry fodder (Rs/kg)	2
	Cost of concentrate feed (Rs/kg)	13
	Cost of veterinary aid per animal per year (Rs.)	1000
	Cost of electricity and water per animal per year (Rs.)	1000
	Rate of livestock insurance premium (%)	4
	Annual wages of each farm labourer (Rs.)	25,000
	Sale price of empty livestock feed gunny bags (Rs.)	8
	Expenditure on rearing of calves will be offset by the income realized from their sale.	
	Heifers will be retained on the farm as replacement stock.	
	Farmyard manure shall be used for fertilizing the fodder plots.	

C	Lactation Chart													
	(cowes are purchased in 2 batches at an interval of 5-6 months)													
					Year 1		Year 2		Year 3		Year 4		Year 5	
	No. of animals				in milk	dry	in milk	dry	in milk	dry	in milk	dry	in milk	dry
	First Batch	15			4500	1800	4500	1800	4500	1800	4500	1800	4500	1800
	Second Batch	15			2700	0	4500	1800	4500	1800	4500	1800	4500	1800
				Total (days)	7200	1800	9000	3600	9000	3600	9000	3600	9000	3600
D	Feed and Fodder		Daily Requirement		Year 1		Year 2		Year 3		Year 4		Year 5	
		Rate/kg	in milk	dry	in milk	dry	in milk	dry	in milk	dry	in milk	dry	in milk	dry
	Green fodder	0.2	31	27.5	44,640	9,900	55,800	19,800	55,800	19,800	55,800	19,800	55,800	19,800
	Dry fodder	2	4.5	5.5	64,800	19,800	81,000	39,600	81,000	39,600	81,000	39,600	81,000	39,600
	Concentrates	13	5.5	1.5	514,800	35,100	643,500	70,200	643,500	70,200	643,500	70,200	643,500	70,200
				Total (Rs)	624,240	64,800	780,300	129,600	780,300	129,600	780,300	129,600	780,300	129,600
E	Investment Cost													
		Specifications	Phy. units		Unit cost		Total							
	Cost of animals		30		30000		900000							
	Construction of cow shed	sq. ft.	2400		400		960000							
	Construction of young stock sheds	sq. ft.	1200		250		300000							
	Construction of stores/misc rooms	sq. ft.	300		200		60000							
	Cost of milking equipment	1 set			300000		300000							
	Cost of liquid milk storage equipment	1 set			75000		75000							
	Cost of fodder cutting equipment	1 set			60000		60000							
	Cost of standby power supply	1 set			45000		45000							
	Cost of misc. equipment	1 set	30		500		15000							
	Initial fodder cultivation cost	acres	6		3000		18000							

	Misc. expenses		30	500	15000
				Total	2,748,000

F	Cash Flow Analysis	Years					
		I	II	III	IV	V	
1	Costs						
a)	Capital cost	2,748,000					
b)	Recurring cost						
	Feeding during lactation period	624,240	780,300	780,300	780,300	780,300	
	Feeding during dry period	64,800	129,600	129,600	129,600	129,600	
	Veterinary aid	30,000	30,000	30,000	30,000	30,000	
	Cost of electricity & water	30,000	30,000	30,000	30,000	30,000	
	Insurance	36,000	36,000	36,000	36,000	36,000	
	Labour wages	100,000	100,000	100,000	100,000	100,000	
	Total	3,633,040	1,105,900	1,105,900	1,105,900	1,105,900	
2	Benefits						
	Sale of milk	1,800,000	2,250,000	2,250,000	2,250,000	2,250,000	
	Sale of gunny bags	6,768	8,784	8,784	8,784	8,784	
	Depreciated value of buildings	0	0	0	0	990,000	
	Depreciated value of equipments	0	0	0	0	247,500	
	Closing stock value	0	0	0	0	450,000	
	Total	1,806,768	2,258,784	2,258,784	2,258,784	3,946,284	
3	DF @ 10%	0.91	0.83	0.75	0.68	0.62	
4	Discounted Costs @ 10%	3,302,764	913,967	830,879	755,345	686,677	6,489,631
5	Discounted Benefits @ 10%	1,642,516	1,866,764	1,697,058	1,542,780	2,450,332	9,199,450
6	NPW @ 10%	2,709,819					
7	BCR @ 10%	1.42					
8	DF @ 50%	0.67	0.44	0.3	0.2	0.13	

9	Net Benefits	-1,826,272	1,152,884	1,152,884	1,152,884	2,840,384	
10	Discounted Net Benefits @ 50%	-1,217,515	512,393	341,595	227,730	374,042	238,246
11	IRR	> 50%					
G	Repayment Schedule						
		Year	Income	Expenses	Gross Surplus	Equated Annual Installment	Net Surplus
		I	1,806,768	885,040	921,728	643,032	278,696
		II	2,258,784	1,105,900	1,152,884	643,032	509,852
		III	2,258,784	1,105,900	1,152,884	643,032	509,852
		IV	2,258,784	1,105,900	1,152,884	643,032	509,852
		V	2,258,784	1,105,900	1,152,884	643,032	509,852
	Capital Recovery Factor	0.26					