



MODEL DPR

SETTING UP OF DRONE PEST SPRAY UNIT

(WITHOUT CAPITAL SUBSIDY)

Under Agriculture Infrastructure Fund scheme

Submitted to



Department of Agriculture,
Cooperation & Farmers Welfare

Submitted by



Knowledge Partner
NABARD Consultancy Services
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CREDIT CITATION

Preparation of this document has been possible with broad-based support and co-operation from various stakeholders. NABARD Consultancy Services hereby, sincerely and gratefully acknowledges the support and valuable co-operation extended by them.

Our sincere thanks are also due to all others who directly or indirectly helped NABCONS in preparation of this document.

DPR Template for projects under Agriculture Infrastructure Fund¹

1. Details of the Applicant

SN	Particulars	Details
i.	Name of the Applicant	
ii.	Constitution Legal Status of Applicant : (i.e. Govt. organization, NGO, Co-operative society, Company, partnership firm, proprietorship firm, Individual, FPO, Self Help Group, etc.)	To be filled by the applicant
iii.	Registration No. of Applicant/CIN	
iv.	GST No. of Applicant	
v.	Date of Establishment/ Incorporation	
vi.	Address of the registered office	
vii.	PAN No. of Applicant	
viii.	Address of the proposed site	
ix.	District	
x.	State	
xi.	Pin Code	
xii.	Whether lead promoter belong to SC/ ST/ Woman/Minority	

*Details of associates/ allied firms, if any may also be provided.

2. Contact details of the Applicant/Promoter(s)/Partner(s)/Directors(s)/ Members including addresses, telephone, mobile, fax, e-mail, website, PAN etc.

SN	Name of Applicant/ Promoter(s)/ Partner(s)/ Director(s)/ Members	Address	Telephone No.	Mobile No.	E-mail Id	Any other details
1			To be filled by the applicant			
2						

¹ This template is prepared keeping in mind the essential information required by the lending institutions to process the loan application. Different formats of table/description can be used for preparation of the DPR but all the required information in template should be included in the DPR.

3. Details of the Promoter(s)/Partner(s)/Directors(s)/ Members

S N	Name of Promoter(s)/ Partner(s)/ Director(s)/ Members	Aadhaar No.	PAN No.	Academic and technical Qualification	Net Worth	DIN No.	Credit Rating	Date of Share holding	Partner profit sharing ratio
1			To be filled by the applicant						
2									

4. Relative experience of the Applicant/Promoter(s)/Partner(s)/Directors(s)/ Members

S N	Name of lead Applicant/Promoter(s)/Partner(s)/ Members of Applicant Entity	Detail of Experience	Details of Turnover (year-wise)	Supporting Document attached, if any (Yes/No)
1		To be filled by the applicant		
2				

5. Details of Existing Banking and Credit facilities of the Applicant/ Promoter(s)/ Partner(s)/ Directors(s)

S N	Types of Facility	Name of Bank and Branch	Limits	Outstanding as on dd/mm/yyyy	Securities	Rate of interest	Repayment terms	Purpose
1	Cash Credit							
2	Term Loan			To be filled by the applicant				
3	Others							

*Information pertaining to credit rating (internal /external) may also be shared along with the aforementioned information

Details of GST Returns submitted, if any or status of registration

6. Project Details

- a. Objective of the proposed project: DRONE SERVICE PROVIDER (Pest Spray)
- b. Category of proposed infrastructure as per the Scheme:

SN	Component	Mark Tick (✓)
1	Supply chain	
2	Warehouses	
3	Silos	
4	Pack Houses	
5	Assaying Unit	
6	Sorting & Grading unit	
7	Cold Chain	
8	Logistics facilities	
9	Primary Processing Centres	
10	Ripening Chambers	
11	Organic input production	
12	Bio stimulant production unit	
13	Infrastructure for Smart and precision agriculture	
14	Projects identified for providing supply chain infrastructure for clusters of crops including export clusters.	
15	Projects promoted by Central/State/Local Governments or their agencies under PPP for building community farming assets or post-harvest management projects.	
16	Any other (Smart and precision agriculture)	✓

- c. Type of Operating Model (Rental, PPP, captive, Lease, Franchise etc.) and details

To be filled by the applicant, some sample details are added

7. Land Details:

SN	Particulars	Details
1	Land Area	Rented
2	Status of Legal title & Possession	
3	if leased, Period of lease	
4	Coordinates of location	
5	Details of CLU	
6	Connectivity to roads I. State Highway (in Km.) II. National Highway (in Km.)	XX Km from YY road
7	Availability of Water	Borewell and water pipe line
8	Availability of Power	State electricity board

8. Proposed facilities:

I. Details of proposed facility

S N	Type of facilities proposed to be created	No. of Units	Total Capacity [MT, Ltrs, MT/Hr.]	No. of Days of operation
1	Warehouse			
2	Silos			
3	Pack-house			
4	CA Store			
5	Cold store			
6	Frozen store			
7	Pre-cooling Chambers			
8	Assaying, Sorting, Grading, Waxing, Weighing, Packing facility [Modify as per actual]			
9	Ripening Chambers			
10	IQF			
11	Blast Freezing			
12	Refrigerated Vehicles/ Reefer vans			
13	Mobile Pre-coolers			
14	Insulated/ non-insulated distribution vehicle			

S N	Type of facilities proposed to be created	No. of Units	Total Capacity [MT, Ltrs, MT/Hr.	No. of Days of operation
15	Irradiation Facility			
16	Organic input production			
17	Bio Stimulant production units			
18	Others (Smart and precision agriculture – Spraying drone)	1 Unit	8228 acres per annum	120 days

II. Details of technologies to be used/ alternative technologies

III. Flow chart of activity process

In the present era, there are too many developments in precision agriculture for increasing the crop productivity. Especially, in the developing countries like India, over 70% of the rural people depends upon the agriculture fields. The agriculture fields faces dramatic losses due to the diseases. These diseases came from the pests and insets, which reduces the productivity of the crops. Pesticides and fertilizers are used to kill the insects and pests in order to enhance the crop quality. Developed countries have already started use of Unmanned aerial vehicle (UAV), in their precision agriculture. It is very fast and it could reduce the work load of a farmer. In general, UAVs are equipped with the cameras and sensors for crop monitoring and sprayers for pesticide spraying.

Agricultural drones can be used to spray fertilizers or pesticides uniformly across the field. Also, the aerial mapping feature will give the farmers a bird eye view of their fields and help them quickly identify presence of pests, crop damages and soil conditions. Agricultural drones can flight without a human pilot and controlled by the radio channel. The flight controller is the main board in the UAV is embedded with the most advanced firmware and responsible for the actual flight. Generally, the sprinkling system is attached to the lower region off the UAV which as a nozzle beneath the pesticide tank to sprinkle the pesticide towards downstream. The sprinkling system as two modules one is sprinkling system itself and second one is Controller.

Agricultural drones in precision agriculture is still in its early stage and maybe a scope for further development in both the technology and the agriculture applications.

The benefits of drones in agriculture

- Helps improve productivity.
- Helps reduce pollution.
- Lowers the pesticides/insecticides use as it sprays only on the affected crop.
- Adapts to changing climate.
- Insures uniformity of spray.
- Saves time and money.



9. Proposed Project Financials

a. Estimated Project cost details

S. No.	Particulars	Amount (Rs. In Lakhs)
1	Civil Works	0.00
2	Plant & Machineries	18.79
3	Miscellaneous Fixed Assets	0.00
4	Working Capital Margin Money	2.00
5	Preliminary & Preoperative Expenses	0.50
	Project Cost	21.29

b. Plant and Machineries

A list of plant and machinery required for a drone spray service provider are as under:

S.No	Name of Machinery	Qty. in Nos	Price in Rs.
1	Complete drone	1	10,00,000
2	Charging Hubs	2	60,000
3	Extra Propellers	4	16,000
4	Extra Nozzles	4	3,200
5	Vehicle cost	1	800,000
6	DG Set - 2kw	-	-
7	Pilot License	-	-
Total Machineries (Rs. In Lakhs)		18.79	
Total Cost of Plant and Machineries (Rs. In Lakhs)		18.79	

c. Means of finance

S. No.	Source of Finance	Amount (Rs. In Lakhs)	%
1	*Promoter's Equity (10.00%)	2.48	10.00
2	Term Loan from Bank	17.16	80.61
4	Working Capital Margin Money	2.00	9.39
	Total	21.29	100

*The source of the owned funds and also the capacity of the promoter to support the project in the event of cost escalations due to time overruns should also be mentioned

c. Basic Revenue Projections (₹ in lakh)

SN	Item	Year 1	Year 2	Year 3	Year 4	Year 5
1	Turnover	22.22	26.48	28.51	30.55	32.59
2	Cost of Operations	11.36	11.64	11.96	12.30	12.68
3	Gross Profit	10.86	14.83	16.56	18.25	19.90
4	Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA)	10.86	14.83	16.56	18.25	19.90
5	Profit before taxation	6.342	11.379	13.613	15.763	17.833
6	Profit after taxation	4.290	7.966	9.529	11.034	12.483

*CMA data to be provided along with projected balance sheet, profit & loss statements, covering entire period of repayment.

d. Financial Parameters

SN	Particulars	Details (Ratio/%)	Ref Page No. in DPR*
1	Internal Rate of Return (IRR) [(a) With and (b) without grant/ subsidy]	63.32%	-
2	Avg. Debt Service Coverage Ratio (DSCR)	3.24	-
3	Break Even Point (BEP)	29.03%	-
4	Debt-Equity Ratio (TTL/TNW)	1.47	-
5	Fixed Assets Coverage Ratio	0.55	-

e. Credit Facilities proposed

I. Fund Based

a) Term Loan **17.163 lacs**

b) Working Capital **2 lacs**
(Attach Assessment of working capital, if proposed)

II. Non Fund Based

f. Collateral Security proposed to be offered and its approximate value for the applicable cases. (To be furnished only in case of loans above Rs.2 crore)

g. Repayment Schedule (Including moratorium period) - 84 Months (3 months of Moratorium included)

h. Details of Statutory/other approvals/registrations (status)
Completed

10. **Availability of Raw Materials in the Catchment Area - provide details such as Adequate Volume, Wider Mix of Raw Materials, Days of Operation in a Year along with supporting data. Based on this information feasibility/viability of the project should be justified.**

N/A

11. Details of the catchment area of the project

S.N	Location of the Catchment (Primary/Secondary)	Name Village/Dist/ APMC	Commodities to be sourced	Quantities to be sourced [MT] (per annum)
1				
2				

*DPR should comprised of detailed chapter on proposed catchment (production and supply statistics).

12. Details of existing demand of the product and marketing arrangements (including e-trading), possibility of for leasing with FCI/CWC/SWC/e-commerce players / retailers for assured cash flows if any.

13. Employment Generation projections

- a. Direct Employment: (Skilled and Semi-skilled): 3
- b. Contractual Employment with no. of days:
- c. Indirect Employment (specify): ...

Particulars	Nos.	Monthly Salary (Rs.)
Pilot	1	20,000
Co-Pilot	1	20,000
Driver	1	8,000
Total salary (Rs. In Lakh Per year)		2.88 lakhs

- Direct Employment: (Skilled and Semi-skilled) -3
- Contractual Employment with no. of days: 1 (300 days)
- Indirect Employment (specify): 5

14. Details of renewable/ alternate energy sources including solar energy, if any, proposed to be used for operating the project including inter alia, details of power generation.

15. Details of pollution issues (if any) and adoption of modern technology for reducing the carbon footprints and increasing operational efficiency:-

SN	Name of technology/item	Basic cost (Excluding taxes etc.)	How the technology will help in reducing carbon footprint and/or increase in operational efficiency
1			
2			



16. List of Manufacturers/ Suppliers of P&M (enclose quotations)

I certify that the information / contents as above furnished by me / us are true to the best of my / our knowledge and belief and nothing material has been concealed. In case, any information furnished in the application is found false, my / our application may be rejected out at any stage by the Bank and not eligible under Agriculture Infrastructure Fund scheme.

To be filled by the applicant

Date: _____

Signature of the Applicant

Place: _____

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Basic Inputs for Drone service provider

Drone fixed cost information

Number of Complete drones	1
Cost of complete Drone	1,000,000
Number of Charging Hubs	2
Cost of Charging Hubs	30,000
Number of Extra Propeller	4
Cost of Extra propellers	4,000
Number of Extra Nozzle	4
Cost of Extra Nozzle	800
Number of Vehicles	1
Cost of Vehicles	800000
Number of DG Sets	0
Cost of DG Sets	0

Manpower related information

Pilot Salary per month	20,000
Number of pilots	1
Pilot Licence cost (cost per licence)	-
Number of pilot Licence	1
Tenure of pilot licence (in years)	10
Co-Pilot Salary	20000
Number of Co-Pilot	1
Driver Salary per month	8000
Number of Drivers	1
Number of extra battery (set of 2 is considered as 1)	6
Extra battery cost	34,000
Service centre rent with electricity	0
Fuel cost per litre	100.00
Mileage (kms/ltr)	40
Number of kilometers travelled (Annually)	25,000
Drone insurance cost for 1 year	41000
Drone maintenance expense per drone per annum	200,000
Car maintenance expense per annum	120,000
Working capital requirement (Rs)	200,000
Revenue for spray per customer (per acre)	450

Percentage increase in revenue per annum	10%
Fixed charge for office per annum- Rent	120,000
Time to spray per acre (minutes)	7
Working hours in a day	8
Working days in a year	120
Preliminary expense (expense for incorporating company or organization)	50,000
Miscellaneous charges	100,000
Extra Battery cycle	200
1 Cycle charge can work till (minutes)	30
Total operating minutes in life (100% capacity)	6000
Total operating minutes a year (100% capacity)	1920
Acres/ day	25
Spray in 1 full charge (20 Minutes) - 75% Operational efficiency	2
Battery Cost per day	2,125

DPR without subsidy

Annexure 1 - Estimated cost of the project

Estimated cost of project		
Sr. No.	Particulars	Grand Total (in lakhs)
1	Land and site development	
(a)	Land (Lease in name of company)	-
	Total	-
2	Site Development	-
(a)	Total	-
3	Civil Work	
(a)	Civil Work	-
	Total	-
4	Plant and Machinery (indegenuous)	
(a)	Plant and Machinery	18.79
	Total	18.79
5	Miscellanoeous Fixed Assets	
(a)	Cost	-
6	Working Capital Margin	2.00
7	Preliminary Expenses	-
(a)	Security Deposit	-
	Total	
8	Pre-Operative Expense (for 6 months upto the date of commencement of commercial production)	
(a)	Establishment and Travelling and Other Expenses	
(b)	Legal and Misc Expense	0.50
	Total	0.50
	Total Cost of Project	21.29

Annexure 2 - Means of Finance

Sr. No.	Item	Grand Total (in lakhs)
1	Promoter's equity	2.13
2	Eligible Assistance	-
3	Term Loan	17.16
4	CC Limit	2.00
	Total	21.29

Annexure 3 - Complete Estimate of Civil and Plant and Machinery

1. Plant and machinery	Units	Unit cost	Amt
1 Complete drone	1	1,000,000	1,000,000
2 Charging Hubs	2	30,000	60,000
3 Extra Propellers	4	4,000	16,000
4 Extra Nozzles	4	800	3,200
5 Vehicle cost	1	800,000	800,000
6 DG Set - 2kw	-	-	-
7 Pilot Licence	-	-	-
Total Plant and Machinery			1,879,200
Total fixed Assets			1,879,200

Annexure 4 - Estimated Cost of Production

Sr. No	Description	Year ending March 31st								
		1	2	3	4	5	6	7	8	9
	Operational Capacity (%)	60%	65%	70%	75%	80%	85%	90%	95%	100%
	No of Working months	12	12	12	12	12	12	12	12	12
	<i>Direct Expenses</i>									
1	Pilot Licence cost amortization	-	-	-	-	-	-	-	-	-
2	Insurance cost	41,000	43,050	45,203	47,463	49,836	52,328	54,944	57,691	60,576
3	Maintenance cost	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000	320,000
4	Battery Life depreciation	204,000	224,400	246,840	271,524	298,676	328,544	361,398	397,538	437,292
	Sub Total	565,000	587,450	612,043	638,987	668,512	700,872	736,342	775,229	817,868
	<i>Administrative salaries and wages and other expenses</i>									
1	-Pilot salaries	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
2	-Co pilot salaries	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
3	-Driver salaries	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000
	Transportation charges	62,500	68,750	75,625	83,188	91,506	100,657	110,723	121,795	133,974
	Fixed charge for office	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
	Miscellaneous Charges	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
	Total	570,500	576,750	583,625	591,188	599,506	608,657	618,723	629,795	641,974
	Cost of Sales	1,135,500	1,164,200	1,195,668	1,230,174	1,268,018	1,309,528	1,355,065	1,405,024	1,459,842
	Expected sales revenue	2,221,714	2,647,543	2,851,200	3,054,857	3,258,514	3,462,171	3,665,829	3,869,486	4,073,143
	Gross Profit	1,086,214	1,483,343	1,655,533	1,824,683	1,990,496	2,152,643	2,310,764	2,464,461	2,613,301
	<i>Financial expense</i>									
	Interest on Term Loan	100,116	85,814	70,558	55,302	40,047	24,791	9,535	-	-
	Interest on WC Loan	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
	Total Financial expense	120,116	105,814	90,558	75,302	60,047	44,791	29,535	20,000	20,000
	Operating profits (PBT)	966,098	1,377,529	1,564,974	1,749,381	1,930,449	2,107,852	2,281,229	2,444,461	2,593,301
	Preliminary Expense	50,000	-	-	-	-	-	-	-	-
	Depreciation	281,880.00	239,598.00	203,658	173,110	147,143	125,072	106,311	90,364	76,810
	Net Profit before Tax	634,218	1,137,931	1,361,316	1,576,271	1,783,306	1,982,781	2,174,918	2,354,097	2,516,491
	Income Tax/ savings on tax	205,265	341,379	408,395	472,881	534,992	594,834	652,475	706,229	754,947
	Profits after Tax	428,953	796,552	952,921	1,103,390	1,248,314	1,387,946	1,522,442	1,647,868	1,761,544
	Distribution of profits (80%)	343,162	637,241	762,337	882,712	998,651	1,110,357	1,217,954	1,318,294	1,409,235
	Profit transfer to balance sheet	85,791	159,310	190,584	220,678	249,663	277,589	304,488	329,574	352,309

1. Number of Acres covered annually for spraying purposes

8228.571429

Annexure 5- Projected balance sheet

Projected Baalance sheet

Sr. No	Description	Year ending March 31st								
		I	II	III	IV	V	VI	VII	VIII	IX
A	Asset									
1	Fixed Capital expenditure									
	Gross Block	1,879,200	1,597,320.00	1,357,722.00	1,154,063.70	980,954.15	833,811.02	708,739.37	602,428.46	512,064.19
	Less- Depreciation	281,880	239,598.00	203,658.30	173,109.56	147,143.12	125,071.65	106,310.91	90,364.27	76,809.63
	net Block	1,597,320	1,357,722.00	1,154,063.70	980,954.15	833,811.02	708,739.37	602,428.46	512,064.19	435,254.57
	Pilot Licence	-	-	-	-	-	-	-	-	-
2	Sundry debtors	185,143	220,629	237,600	254,571	271,543	288,514	305,486	322,457	339,429
3	Cash/ bank balance	295,163	404,322	527,330	649,882	775,453	906,879	1,046,443	1,449,409	1,861,556
	Total assets	2,077,626	1,982,673	1,918,993	1,885,407	1,880,807	1,904,132	1,954,357	2,283,931	2,636,239
B	Liabilities									
1	Capital	212,920	298,711	458,021	648,605	869,283	1,118,946	1,396,535	1,701,024	2,030,597
	Add- Profit	85,791	159,310	190,584	220,678	249,663	277,589	304,488	329,574	352,309
	Less- Drawings	-	-	-	-	-	-	-	-	-
	Closing capital	298,711	458,021	648,605	869,283	1,118,946	1,396,535	1,701,024	2,030,597	2,382,906
2	term Loan	1,525,582	1,271,319	1,017,055	762,791	508,527	254,264	-	-	-
3	Working capital	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
4	Creditors	53,333	53,333	53,333	53,333	53,333	53,333	53,333	53,333	53,333
	Total liabilities	2,077,626	1,982,673	1,918,993	1,885,407	1,880,807	1,904,132	1,954,357	2,283,931	2,636,239
	Current Ratio									
	Current Assets	480,306	624,951	764,930	904,453	1,046,996	1,195,393	1,351,929	1,771,866	2,200,985
	Current Liabilities	253,333	253,333	253,333	253,333	253,333	253,333	253,333	253,333	253,333
	Ratio	1.895945009	2.466910599	3.01945865	3.570210517	4.132877449	4.718656006	5.336560088	6.994209616	8.688097991
	Average				4.535880658					
	Debt Equity ratio									
	Debt	1,725,582	1,471,319	1,217,055	962,791	708,527	454,264	200,000	200,000	200,000
	Equity	298,711	458,021	648,605	869,283	1,118,946	1,396,535	1,701,024	2,030,597	2,382,906
	Ratio	5.776770971	3.212339727	1.876418886	1.107569199	0.633209707	0.325279096	0.117576258	0.098493187	0.083931131
	Average				1.470176462					
	Fixed asset coverage ratio									
	Fixed assets	1,597,320	1,357,722	1,154,064	980,954	833,811	708,739	602,428	512,064	435,255
	Debt	1,725,582	1,471,319	1,217,055	962,791	708,527	454,264	200,000	200,000	200,000
	Ratio	0.925670176	0.922792708	0.948242993	1.018864979	1.17682254	-	-	-	-
	Average				0.554710377					
	Debt service coverage ratio									
	Interest on loan (TL + WC)	120,116	105,814	90,558	75,302	60,047	44,791	29,535	20,000	20,000
	Instalment of loan	390,698	454,264	454,264	454,264	454,264	454,264	454,264	200,000	200,000
	Total	510,814	560,078	544,822	529,566	514,310	499,054	483,799	220,000	220,000
	Net operating income	1,086,214	1,483,343	1,655,533	1,824,683	1,990,496	2,152,643	2,310,764	2,464,461	2,613,301
	Ratio	2.126437508	2.648459039	3.038667418	3.445619269	3.87022411	4.313443395	-	-	-
	Average				3.240475123					

1. assumed that 60 days of purchases are average creditors maintained

2. assumed that 30 days of sales are average debtors maintained by the business

Annexure 9 - Computation of Depreciation

Computation of Depreciation

Sr. No.	Particulars	Building and civil work	Plant and Machinery	Misc Fixed Asset	Amount in lakhs
i.	Cost	-	1,879,200	-	18.79
ii.	Pre operatives	-	-	-	0.00
iii.	Contingencies	-	-	-	0.00
	Total				18.79

	Rates of Depreciation	10%	15%	10%	Total depreciation for the year
Year 1		-	281,880.00	-	281,880.00
Year 2		-	239,598.00	-	239,598.00
Year 3		-	203,658.30	-	203,658.30
Year 4		-	173,109.56	-	173,109.56
Year 5		-	147,143.12	-	147,143.12
Year 6		-	125,071.65	-	125,071.65
Year 7		-	106,310.91	-	106,310.91
Year 8		-	90,364.27	-	90,364.27
Year 9		-	76,809.63	-	76,809.63

Annexure 10 - Calculation of Income tax

Calculation of Income Tax

Particulars	Year ending March 31st								
	I	II	III	IV	V	VI	VII	VIII	IX
Net profit before tax	966,098	1,377,529	1,564,974	1,749,381	1,930,449	2,107,852	2,281,229	2,444,461	2,593,301
Add- dep on SLM	-	-	-	-	-	-	-	-	-
Sub total	966,098	1,377,529	1,564,974	1,749,381	1,930,449	2,107,852	2,281,229	2,444,461	2,593,301
Less- Dep on WDV	281,880	239,598	203,658	173,110	147,143	125,072	106,311	90,364	76,810
Sub total	684,218	1,137,931	1,361,316	1,576,271	1,783,306	1,982,781	2,174,918	2,354,097	2,516,491
Less - Deductions	-	-	-	-	-	-	-	-	-
Taxable profits	684,218	1,137,931	1,361,316	1,576,271	1,783,306	1,982,781	2,174,918	2,354,097	2,516,491
Income tax @30%	205,265	341,379	408,395	472,881	534,992	594,834	652,475	706,229	754,947

Annexure 11- Break even analysis (At maximum capacity utilization)

Break even capacity at maximum capacity utilization

Sales		3,173,878
Variable cost		
- Running and maintenance cost	320,000	
- Interest on Working capital	20,000	
- Transportation charges	62,500	
- Extra battery cost	204,000	
- Miscellaneous expense	100,000	
Contribution		2,467,378
Less: Fixed costs		
Wages and salaries		288,000
Insurance		41,000
Depreciation		281,880
Fixed charges for office		240,000
Interest on TL		100,116
Fixed cost		950,996

Particulars	Spray services
Sales price per acre spray	450
Maintenance charges	23.33
Interest on working capital	1.46
Miscellaneous expense	12.15
Extra battery cost	14.88
Contribution per unit	398.18
Fixed Cost	950,996
BEP in acres	2388.35
BEP in percentage	29.03%

Break-even point is the condition when an entity generate sufficient revenue that it can meet its fixed expense after deducting any variable expense, i.e., the point where contribution is equal to the fixed expense.

For the first year of operation the break-even capacity comes at 29.03% capacity, it is because of the fact that in the Initial year the fixed expense of consultancy for project is taken in to consideration for calculation of BEP. considering our operational capacity in year 1 to be 75% which is more than the BEP, hence we can conclude that the project is sound enough to cover its fixed expense.

Annexure 13 - Repayment schedule

Repayment schedule

Amount of Loan (in lakhs)	17.163
Rate of interest	6.00%
Moratorium period	3 months

Year	Quarter	Balance outstanding	Principal instalment	Interest
1	1	17.16	0	0.25744
	2	17.16	0.635659259	0.25744
	3	16.52714074	0.635659259	0.24791
	4	15.89148148	0.635659259	0.23837
2	1	15.25582222	0.635659259	0.22884
	2	14.62016296	0.635659259	0.2193
	3	13.9845037	0.635659259	0.20977
	4	13.34884444	0.635659259	0.20023
3	1	12.71318519	0.635659259	0.1907
	2	12.07752593	0.635659259	0.18116
	3	11.44186667	0.635659259	0.17163
	4	10.80620741	0.635659259	0.16209
4	1	10.17054815	0.635659259	0.15256
	2	9.534888889	0.635659259	0.14302
	3	8.89922963	0.635659259	0.13349
	4	8.26357037	0.635659259	0.12395
5	1	7.627911111	0.635659259	0.11442
	2	6.992251852	0.635659259	0.10488
	3	6.356592593	0.635659259	0.09535
	4	5.720933333	0.635659259	0.08581
6	1	5.085274074	0.635659259	0.07628
	2	4.449614815	0.635659259	0.06674
	3	3.813955556	0.635659259	0.05721
	4	3.178296296	0.635659259	0.04767
7	1	2.542637037	0.635659259	0.03814
	2	1.906977778	0.635659259	0.0286
	3	1.271318519	0.635659259	0.01907
	4	0.635659259	0.64	0.00953

Annexure 14 - Cash flow statement

Particulars	0	I	II	III	IV	V	VI	VII	VIII	IX
opening balance	200,000	200,000	295,163	404,322	527,330	649,882	775,453	906,879	1,046,443	1,449,409
Add: Capital	212,920	-	-	-	-	-	-	-	-	-
Add: Loan disbursement	1,716,280	-	-	-	-	-	-	-	-	-
Less: Purchase of asset	1,879,200	-	-	-	-	-	-	-	-	-
Less: Purchase of pilot licence	-	-	-	-	-	-	-	-	-	-
Add: Sales realizations	-	2,036,571	2,426,914	2,613,600	2,800,286	2,986,971	3,173,657	3,360,343	3,547,029	3,733,714
Less: Payment made to creditors of previos year	-	-	53,333	53,333	53,333	53,333	53,333	53,333	53,333	53,333
Add: Receipts from debtors of previos year	-	-	185,143	220,629	237,600	254,571	271,543	288,514	305,486	322,457
Less: Insurance cost	-	41,000	43,050	45,203	47,463	49,836	52,328	54,944	57,691	60,576
Less: Maintenance cost	-	266,667	266,667	266,667	266,667	266,667	266,667	266,667	266,667	266,667
Less: Extra battery cost	-	204,000	224,400	246,840	271,524	298,676	328,544	361,398	397,538	437,292
Less: Salaries payments	-	288,000	288,000	288,000	288,000	288,000	288,000	288,000	288,000	288,000
Less: Miscellaneous charges	-	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Less: Payment of transportation charges	-	62,500	68,750	75,625	83,188	91,506	100,657	110,723	121,795	133,974
Less: Fixed office charges	-	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Less: Pre incorporation expense	50,000	-	-	-	-	-	-	-	-	-
Less: Interest payments	-	120,116	105,814	90,558	75,302	60,047	44,791	29,535	20,000	20,000
	200,000	1,034,288	1,637,206	1,952,325	2,259,739	2,563,360	2,866,334	3,171,136	3,473,933	4,025,739
Less: Income tax	-	205,265	341,379	408,395	472,881	534,992	594,834	652,475	706,229	754,947
	-	829,023	1,295,827	1,543,930	1,786,857	2,028,368	2,271,499	2,518,661	2,767,704	3,270,791
Less: Distrubutions made from profits	-	343,162	637,241	762,337	882,712	998,651	1,110,357	1,217,954	1,318,294	1,409,235
	-	485,861	658,586	781,593	904,146	1,029,716	1,161,142	1,300,707	1,449,409	1,861,556
Less: Principal repayment of loan	-	190,698	254,264	254,264	254,264	254,264	254,264	254,264	-	-
Closing cash balance	200,000	295,163	404,322	527,330	649,882	775,453	906,879	1,046,443	1,449,409	1,861,556

S. no. **Assumptions**

- 1 It is assumed that drone company is providing the services for hiring of drone. The pesticide cost is to be borne by hirer separately
- 2 It is assumed that 80% of the profit earned during the year is distributed amongst the stakeholders



(Wholly – owned subsidiary of NABARD)

- i. More than 200 Full-time Consultants**
- ii. Backed by 400 domain specialists**
- iii. Executed over 2500 assignments across India and in African and Asian Continents**
- iv. Core Competencies**
 - a. Preparation/Appraisals of DPRs**
 - b. Techno-feasibility study**
 - c. Baseline Surveys**
 - d. Project Management Consultancy**
 - e. Climate Issues and Green Funds**
 - f. Monitoring and Evaluation**
 - g. Impact Assessment Studies**
 - h. Third Party Monitoring of Infrastructural Projects**
 - i. Skills for Livelihood**
 - j. Capacity Building**
 - k. Accreditation of Rural Godowns**
 - l. Climate Change Issues**
 - m. CSR Facilitation**
 - n. IT in Rural Banks**

Pro - Services Rendered by NABCONS

No.	Name of Services	Description
1	Project Management Consultancy (PMC)	Entails provision of end-to-end solution, including assistance in statutory approvals, bid process management, issuing and evaluating tender documents and supervision over infrastructure projects like Mega Food Park, Rural Godowns, Cold Storage, etc. funded by Govt. or private entities.
2	Preparation of Detailed Project Report / Conduct / Techno-economic Feasibility	For various activities under agriculture, horticulture, forestry, fisheries, irrigation, animal husbandry, food processing activities, agri-infrastructure, climate issues, etc.
3	Third Party Monitoring (TPM) of Infrastructure Projects	TPM of various Govt.-funded infra projects to assess the level of compliance followed in execution. This also covers socio-economic impact evaluation.
4	Monitoring and Evaluation (M&E)	M & E is undertaken for various developmental schemes of Govt. of India and State Govts in the areas of agriculture, animal husbandry and all other socio-development sectors.
5	Training and Capacity Building	Training is imparted on forward markets, agriculture market infrastructure, rural godown, agri-financing, treasury and investment management for banks, etc.
6	Studies / Baseline Surveys	Baseline surveys are taken up for measuring impact of community investment made by public and private sector Companies. Studies are conduct on women, children, disadvantaged groups / regions, etc.
7	Livelihood Mapping	Livelihood mapping and analysis is done for identification of potential activities to be taken up by SHGs
8	International Visitors' Programme / International Exposure Visits	Entails organizing study tours / exposure for the visiting foreign delegates to their areas of interest such as watershed, micro-finance, fin-inclusion, cooperatives, projects appraisal, agro-processing, post-harvest technologies, farmers' clubs, etc.
9	Consultancy on Banking and Finance	Designing and execution of priority sector strategies, advisory services on Treasury and Investment Management for Banks, preparation of IT Policy, etc.
10	Transaction advisory	Transaction Advisory for setting up of Agri-mall, Silos & Cold Storages
11	Skills for Livelihood	Skilling of rural BPL youth and placement in the formal sector, monitoring skill initiatives of MORD, Govt. of India, facilitating access to credit for trainees, etc.
12	Accreditation of Godowns	Engaged by WDRA as Accreditation Agency for accrediting rural godowns.