

**PROJECT PROFILE**

**PRODUCT: COVID VIRUS PROTECTIVE MASK ( SIMPLE TRIPLE LAYER)**

**PROJECT COST :** Rs. 1,88,610 /-

**MONTH AND YEAR**

**OF PREPARATION: APRIL – 2020**

**PREPARED BY:**

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## **INTRODUCTION:**

Corona viruses are a large family of viruses that cause illness ranging from the common cold to more severe diseases like acute respiratory syndrome. They are named for having the shape of a crown surrounding the virus particle. A novel corona virus is a newly identified corona virus strain not previously recognized. In 2019, a new corona virus strain named COVID-19 originating in Wuhan, China, began causing severe and potentially fatal pneumonia and respiratory illness throughout the world. The 2019 Wuhan corona virus is related to the corona viruses that caused the epidemics severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). Corona virus originally spread from animals to humans and then from person to person. Around one lakh people are affected and more than four thousand people have died in India in India by this deadly virus. It had killed more than 2 lakh people throughout the world.

. Wearing a mask prevents a high percentage of entering of the virus into our respiratory system. Different types of mask like EN 149 (European standard), FFP2 and FFP3 /N95 (American standard) are recommended worldwide for prevention of COVID-19. Of course these face masks do not guarantee 100% protection for the wearer, they still considerably reduce the likelihood of infection. Even a simple triple layer mask consisting of two layer cotton fabric and one layer micro porous polythene sheet is also protecting us from the infection of COVID-19 virus to a great deal.

In this project, there exist provision of manufacturing triple layer mask consisting of one layer micro porous polythene sheet and one layer cotton cloth and one layer polyester cloth. All the layers are sewed with thick cotton lining and interlocked by using machine. The entire mask is reusable after washing and both the end either cotton lining or elastic tape is tied to fix it using the ear or rounding the head.

**MARKET POTENTIAL:**

Early in the epidemic, scientists had learned the following facts about the new virus' transmission:

- Corona virus spreads via respiratory droplets from an infected person.
- You may be at risk when you are within 6 feet from the infected person.
- Airborne respiratory droplets when the infected person coughs or sneezes can land on other people's mouth or nose and cause the virus to spread.
- It may be possible to get infected by touching a surface or object that has the virus and then touching one's own mouth or nose.
- Viruses may stay infectious on surfaces like door handles, etc., up to 9 days at room temperature.
- Researchers think people are most contagious when they have the most severe symptoms.
- People can be infectious before they start to show symptoms.

Common public is advised to use triple layer mask to safe guard themselves from different types of cold flue virus in public places like market, roads, schools, colleges etc. The outer micro porous polythene layer does not allow the microbes, dust particles, water vapour particles contaminated with thin layer COVID virus.

It is of low cost and can be manufactured by any tailor or self help group members having common practice of running sewing machine. Now a days it is advised to every human being to wear three layer protective mask while coming outside the home regularly. The population of our country has crossed 130 crore and the habit of wearing mask has started after the recent epidemic of COVID-19. So there exists very good market potential of three layer mask both with re usable and

not reusable property. Mask prepared from simple one layer cotton cloth folded at the middle to develop three layer is thrown after use once in a occasion. The market opportunity already exists which is felt in recent lock down period.

### **BASIS AND PRESUMPTION:**

1. The production is based on single shift basis of 8 hours per day and 25 no. of working days in a month.
2. The unit proposes to prepare three layer mask of size in the range: length 14 cm to 18 cm, breadth: 8cm to 12 cm. Taking the largest size in to account and using the cloth of width 85 cm, 3meter cloth will produce around 35 no of mask of three layer each.
3. Around one meter stretchable cotton liner / elastic tape will use to make it frame shape.
4. Micro porous polythene sheet of width 85 cm is taken as Rs.60/- per meter and normal cotton cloth of same width is taken Rs.40/- per meter.
5. Normal hand sewing machine can produce 24 nos. of mask per hour provided the stretchable cotton liners are sewed to form tape in a high speed machine.
6. Depreciation on machineries, furnitures have been taken @ 10%, 20% per annum respectively.
7. Out of total capital investment, 25% will be contributed as margin money by the entrepreneur.
8. Cost in respect of machinery and equipments, raw materials and selling prices of the finished products, etc. are those generally obtained at the time of preparation of project profile and may vary depending on various factors.

### **IMPLEMENTATION SCHEDULE:**

1.	Preparation of project profile	1 Week
2.	Arrangement of finance	1 months
3.	Procurement of machinery and equipment	1 week
4.	Appointment of man power	1 week
5.	Arrangement of raw materials	1 month
6.	Trial and commercial production	<u>1 week</u>
		3 Months

Some activities shown above can be undertaken simultaneously in order to minimize the period of completion of the project.

**TECHNICAL ASPECTS:****Process of manufacture:**

In three layer protective mask which is washable and reusable consist of inner polyester cloth, middle cotton cloth layer and outer most micro porous polythene sheet. After cutting all the three layer at a time by automatic cutting machine, the individual set is sewed using stretchable cotton liner/elastic tape. Before that the stretchable cotton liner/elastic tape should be folded and sewed to a width of 8mm by using high speed sewing machine. After finishing the product in one dozen is packed in a thin polythene wrapper.

**Quality specification:**

No specific standard is available for three layer protective mask . However, specification for N95 mask, FFP2, FFFP3 are available in American standard.

**Pollution control requirements:**

There is no pollution in production of manufacturing of triple layer mask. However, the waste of the raw materials should store in a dry place and should be disposed to recyclable units.

**Energy conservation:**

Energy conservation of this type of unit is much on the lower side, since low powered motors are used in the production activity. The staff of the unit should be made aware of the need to conserve energy by switching off the energy sources when not required.

**Motive Power:2 Kw**

<b>FINANCIAL ASPECTS</b>				
Fixed Capital:				
<b>A.</b>	<b>Land &amp; Building: .</b>	Sq. ft.		
1	Land & Shed on rent	500		Rs. 2,000.00
<b>B.</b>	<b>MACHINERY &amp; EQUIPMENT:</b>	Nos./set	Rate / price	Total Amount
1	High Sewing machine	1	Rs. 22,000.00	Rs. 22,000.00
2	Paddle operated sewing machine	4	Rs. 5,000.00	Rs. 20,000.00
3	Hand tools with iron press	L.S		Rs. 3,000.00
			S.TOTAL	Rs. 45,000.00
4	GST 18%			Rs. 8,100.00
5	Office furniture like chair, table, fan, almirah etc			<u>Rs. 20,000.00</u>
			G.TOTAL	Rs. 73,100.00
<b>C.</b>	<b><u>PRE-OPERATIVE EXPENSES</u></b>			
1	Preparation of project profile			Rs. 300.00
2	Travelling & transport expenses			Rs. 2,000.00
3	GST expenses			Rs. 6,000.00
4	Packing material preparation			Rs. 2,000.00
			S. Total	Rs. 10,300.00
	TOTAL FIXED CAPITAL INVESTMENT			Rs. 83,400.00
<b>D.</b>	<b>WORKING CAPITAL(P.M.) : To prepare 15,000 Nos.mask / month</b>			
<b>i)</b>	<b>RAW MATERIAL:</b>			
	<u>Particulars</u>	<u>Qty. in Mtr..</u>	<u>Rate/Mtr.</u>	<u>Total Amount in Rs.</u>
1	Micro porous polythene sheet	142	Rs. 60.00	Rs. 8,520.00
2	Cotton cloth	142	Rs.40.00	Rs. 5,680.00
3	Polyester cloth	142	Rs.30.00	Rs. 4,260.00
4	Stretchable cotton liner	1500	Rs.10.00	Rs.15,000.00
5	Sewing thread, packaging materials etc.	L.S.		Rs. 2,000.00
			TOTAL	Rs.35,460.00
<b>ii</b>	<b>SALARY &amp; WAGES</b>			
	<u>Personnel</u>	<u>No. of Persons</u>	<u>Salary/month</u>	<u>Total Amount</u>
1	Manager (Self)	1	Rs.12,000.00	Rs.12,000.00
2	Cutting master	1	Rs.10,000.00	Rs.10,000.00
3	Tailor	4	Rs. 7,000.00	Rs.28,000.00

4	Unskilled workers	2	Rs. 6,000.00	Rs.12,000.00
		TOTAL		Rs.62,000.00
<b>iii</b>	<b>UTILITY</b>	<u>unit</u>	<u>price/unit</u>	<u>Total amount</u>
1	Electricity	250	Rs. 7.00	Rs. 1,750.00
<b>iv</b>	<b>OTHER OVER HEAD EXPENSES:</b>			
1	Telephone expenses			Rs. 500.00
2	travelling & transport expenses			Rs. 1,500.00
3	Office stationery			Rs. 500.00
4	Rent			Rs. 2,000.00
5	Repair & maintenance			Rs. 1,000.00
6	Consumable store			Rs. 500.00
				Rs. 6,000.00
	<b>TOTAL RECURRING CAPITAL EXPENSES</b>			Rs. 1,05,210.00
<b>E.</b>	<b>TOTAL CAPITAL INVESTMENT</b>			
1	Fixed Capital			Rs. 83,400.00
2	Working Capital for 1 month			Rs. 1,05,210.00
			G. Total	Rs. 1,88,610.00
<b>F.</b>	<b>MEANS OF FINANCE:</b>			
1	Promoter's contribution 5%			Rs. 9,430.50
2	Bank loan 95%			Rs. 1,79,179.50
3	Subsidy 35%			Rs. 66,013.50
<b>G.</b>	<b>Cost of Production (P.A.)</b>			
1	Total recurring expenses			Rs. 12,62,520.00
2	Depreciation on machinery & equipment@10%			Rs. 4,500.00
3	Depreciation on furniture@20%			Rs. 4,000.00
4	Rate of interest on bank loan@12%			Rs. 21,501.54
			Total	Rs. 12,92,521.54
<b>H</b>	<b>TURNOVER PER ANNUM</b>			
	Particulars	Qty. in Pcs.	Price /Pc	Total amount
1	Sale of triple layer mask	1,80,000	Rs. 9.00	Rs. 16,20,000.00
<b>I</b>	<b>GROSS PROFIT(Before tax):</b>			
	Turnover - Cost of Production			Rs. 3,27,478.46

J	GROSS PROFIT RATIO: in %			20.21%
K	RATE OF RETURN ON CAPITAL INVESTMENT: (in %)			17.36%
L	BREAK-EVEN-POINT(B.E.P.):			
	Fixed Cost:			
1	Depreciation on machineries & equipments@10%			Rs. 4,500.00
2	Depreciation on furniture@20%			Rs. 4,000.00
3	Rate of interest on bank loan@12%			Rs. 21,501.54
4	40% of salary & wages			Rs. 2,97,600.00
5	40 % of other over head expenses excluding rent			Rs. 19,200.00
6	Rent			Rs. 24,000.00
				Rs. 3,70,801.54
	B.E.P.= (in %)			53.10%



**NAMES AND ADDRESSES OF SUPPLIERS:**

1. **SINGANIA ENTERPRISERS**, Bajrakbati Road, Cuttack-753001
2. **SHIVJI & CO.** College Square, Cuttack-753003 Ph:0671-2547840.
3. **M/s. Geeta Agencies**, Haripur road, Dolamundai, Cuttack-1, Ph:0671-248912.
4. **M/s.Indian Sewing Machinery Co. Ltd.**, Bajrakabati Road, Cuttack. Tel. 624721.
5. **M/s.British Agencies**, Dolmundai, Cuttack-1. Tel. 430877.

**Raw materials:**

The raw materials are available in local market at different places.