



DETAILED PROJECT REPORT

FOR

SEAL Group of Companies Ltd.

INDEX

S.N.	PARTICULARS
1	Introduction to SEAL Group of Companies
2	Brief Profile of Management
3	Project Brief
4	Processing Flow Chart
5	Products
6	Project Cost Estimate
7	Project Schedule
8	Sales & Marketing
9	Note on Agro Chemicals Industry & Opportunity for Seal Group
10	Government Policies & Key Factors @ Tanzania:

1. Introduction to SEAL Group of Companies

Company Identity : SEAL Group of Companies.

Industry Type : Agro Chemical Manufacturing (Formulation)

Registered Office : Region Dar Es Salaam, District Temeke, Ward Kurasini, Postal code 15109, Street Biashara street, Road Biashara, Plot Number 1288,Block Number- House Number 10

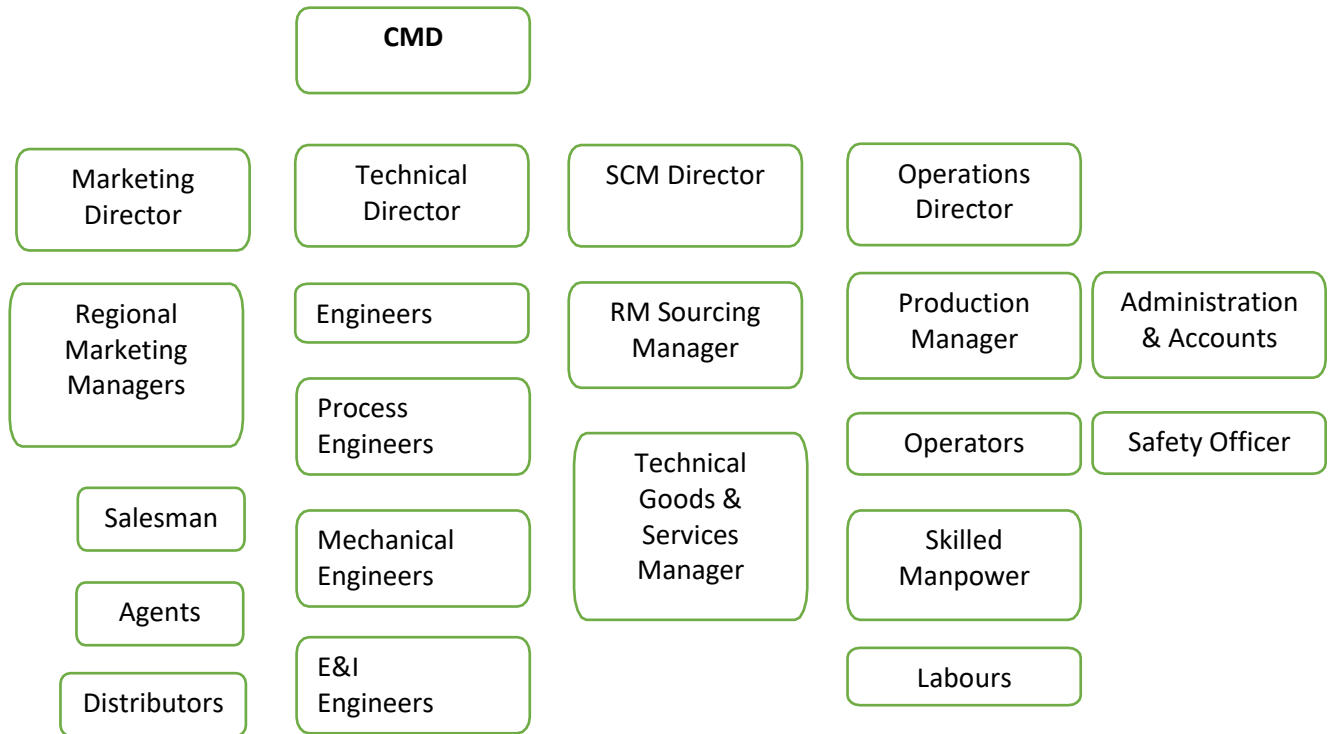
Processing Unit : Agro Chemicals Unit

The company has currently planned to manufacture the Agro chemicals & products in Tanzania for local market. These Agro Chemicals includes Insecticide, Pesticides, Fungicides, Weedicides, and Herbicides etc.

The proposed state-of-the-art processing formulation plant will have an installed capacity of 10,000 Bottle per month which can be expanded up to 20,000 Bottles per month.

The company has zeroed on a location at Dar Es Salaam. The total project includes fixed asset investment of more than **1 million USD** and working Capital Requirement of **0.3 million USD**.

2. Brief Profile of Management Team



Mr. Jitendra Patel (CMD)

- Mechanical Engineer & Boiler Operation Engineer by qualification
- More than 32 Years of Industrial Experience with
- Expertise in Boiler, Equipment Fabrication & Allied Technical Services
- A group leader for sustainable & innovative business

Mr. Ram Sisodia (Director)

- A Science & Economics graduate by Qualification
- Director at **Manyara Sugar Co. Ltd, Arusha, Tanzania.**
- Director at **Flying Cargo Transport Company Limited, Dar E Salam, Tanzania.**
- Young & energetic businessman with strong local presence at Tanzania!

Mr. Dinesh Kumar Mistry (Director)

- Chemical Engineer, PGDOM by Qualification by qualification
- A certified Energy Auditor, Project Professional & Chartered Engineer
- More than 20 Years of Industrial Experience in setting up chemical & pharma plants
- Expertise in Project Design, Execution & Allied Technical Services
- A Passionate & Mature Result Oriented group leader

Mr. Ajit Kumar Zala (Director)

- Chemical Engineer by Qualification
- More than 20 Years of Industrial Experience in setting up Marine & chemical plants
- Expertise in Project Design, Execution & Allied Technical Services
- Aggressive leader for the projects & executions

Mr. Vipul Kumar Chaudhari (Director)

- Mechanical Engineer by qualification
- More than 13 Years of Industrial Experience
- Expertise in sourcing of Technical Goods & Services
- Young & energetic Professional striving for GROWTH!

Mr. Darshil Patel (Director)

- Mechanical Engineer by Qualification
- Co Ordinator for the Projects & Sourcing
- Fresh Graduate with Zeal & Zest to strive for Learning & Growth!

3. Project Brief

The proposed project is to be located at out skirt of Dar E Salam, Kamaka Industrial Park, Tanzania.

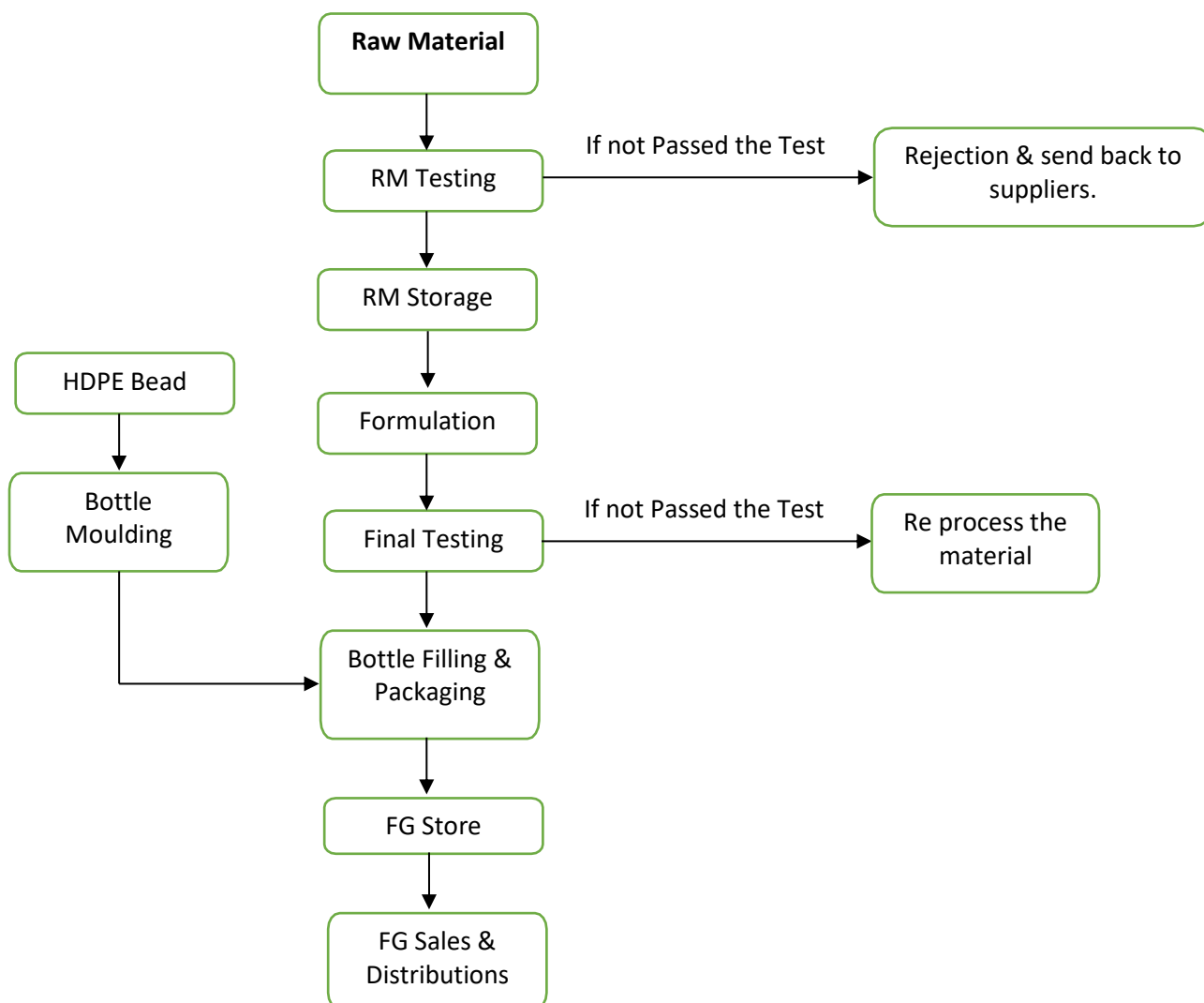
The Plant is situated at an ideal location with all necessary infrastructure facilities to start a manufacturing plant. The nearby town is DAR, with good road connectivity all around. The company has booked a sprawling land of over 10,000 M2 to build a production plant along with other facilities.

This plant would make the pesticides locally to bridge the supply & demand gap in different regions of Tanzania. In future, this plant would go global with distribution network expanded to SADC (Southern African Development Community)

The Plant's features:

- The plant's capacity is planned at 200,000 Bottles per Year, installed with technologically advanced and state-of-the-art machinery. This will be expanded along with market expansion.
- The factory will house a modern; state of the art laboratory to test the raw materials and finished products; with modern equipment's.
- The plant also proposes to obtain ISO & allied Quality Assurance Certifications after commencement of its operations.
- The company plans to house the team of highly skilled process engineers and management specialists, who are the best in the industry and from highly reputable institutions.
- **Special & unique Feature:**
 - *The company would have a mobile distribution van to cater the needs of interior villages to improve the reach of our products & facilitate the local farmers.*
 - *Our Agro chemist would reach out to the local farmers for better understanding of the pesticide's application. This would definitely improvise the yields & productivities at the farmer levels.*

4. Processing Flowchart:



5. Products:

Below are the products planned for this project along with their technical name & applications:

	Products	Trade Name	Trade Name	Usage / Application	Crop
A	Herbicides				
1	Glyphosate Liq. 480	GLYSEAL	Glyphosate 48% SL	It is used to kill weeds , especially annual broadleaf weeds and grasses that compete with crops.	Cotton and Plantation crops.
2	Paraquate 20% gl	PARASEAL	Paraquate Dichloride 20% SL	It is used effectively to controls broadleaved weeds & grasses.	Grapes, potato, cotton, wheat, tea, aquatic

					weeds, rice, rubber
3	2,4 D Amine	2-4 D SEAL	2,4 D Amine Salt 58% SL	It is more effective for controlling hard-to-kill weeds such as Bindweed, Thistle, Smartweed, Wild garlic, Curly dock, Tansy ragwort, and Wild onions.	Wheat, Maize, Sugarcane & Sorghum
B	Fungicide				
4	Mancozeb – 63% w/w WP+Carbendazim – 12% w/w	MANCOSEAL	Mancozeb – 63% w/w WP+Carbendazim – 12% w/w	Carbendazim 12% + Mencozeb 63% WP (Wettable Powder) is a very effective, protective and curative fungicide. It successfully controls Leaf Spot and Rust disease of Groundnut and Blast disease of paddy crop.	Grapes, Mango, Potato, Tea, Paddy, Chili, Groundnut
	Pesticides				
5	Imidacloprid 17.8% SL	IMIDASEAL	Imidacloprid 17.8% SL	It is a systemic insecticides of Neonicotinide group which control the sucking insects and termites very effectively. It is an antagonist by binding to postsynaptic nicotinic receptors in the insect central nervous system.	Cotton and all vegetable & pulses crop
	Insecticides				
6	Lamda Cyhalothrin 50 gpl	LAMDACYLOSEAL	Lamda Cyhalothrin 50 gpl EC	It is a synthetic pyrethroid insecticide used worldwide in agriculture, home pest control,	Applied to all crops

				protection of foodstuff and disease vector control.	
7	Thiamethoxam 12% + Emamectin Benzoate 3%	EMATHIOSEAL	Thiamethoxam 12% + Emamectin Benzoate 3% EC	It is a systemic insecticide having quick systematic and contact activity and is recommended for its use to control stem borer, gall midge, leaf folder, brown planthopper (BPH), tea mosquito bug, and tea semi looper bug sucking pests like aphids jassids and thrips etc. Emathio can be used at any stage of crops.	Applied to Mango, Potato, cotton, wheat, tea, cumin, tomato, Rice & Rice Nursery, Citrus, Brinjal, Okra, Mustard
8	Profenofos 500 gpl + Cypermethrin 50 gpl	PROFONOSEAL	Profenofos 500 gpl + Cypermethrin 50 gpl EC	Use to control sucking pests as well as Bollworm, very good control of Thrips, Bollworm, Alphid, Jassid, Mealybug etc. in agriculture crop like Cotton, Chillies, Tur, etc.	Cotton, All Vegetables & Pulses crops
	Fertilizer				
9	Booster	GROWSEAL	N 20%,P 20%,K 18%	It is based plant growth promoter for foliar application to improve crop yield.	Applied to all crops
	Booster Sticker	STICKSEAL			
10	Organic Fertilizer	ORGOSEAL			Applied to all crops

6. Project Cost Estimate

As this project is bifurcated in to 2 phases from an implementation point of view, there is capital expenditure is also divided accordingly:

Phase – 1 CAPEX is as below:

Phase-1	Project Cost Estimation					Prep. by	VC		
						Rev. by	DM		
					Date	03.08.2023			
					Rev.	1			
ITEM	ITEM DETAILS	MOC	CAP.	Qty	Est. Cost / Unit, in Lacs	Total Cost in Lacs	Remarks		
Equipments									
A	Product Registration			10	4.51	45.1			
B	Liquid Formulation								
	Moulding Machine	800 BPH		1	5	5			
	IBC Unloading Pump	AODD Pump	PP	1"	2	0.25	0.5		
	Mixing Vessel	Agitated Vessel-200RPM	SS 304	1.5 KL	2	2	4		
	Filling Line Assembly	Single head, volumetric set with libelling and capping m/c	SS 316	500 BPH	2	15	30		
	Weighing balances	Platform Weighing scale 1.2Mtr X 1.2Mtr	SS 304	1200 Kg	1	0.35	0.35		
	Weighing balances	Platform Weighing scale 300mm x 300mm	SS 304	5 Kg	1	0.05	0.05		
C	Accessories					-			
	Fume Scrubber		PP/FRP	500 CFM	0	0	-	For Future	
D	Material handling Equipments								
	Hand Pallet Truck			2 T	2	0.2	0.4		
	IBC Unloading Machine	MS Powder Coated		1500 Kg	1	0.5	0.5		
E	Utilities								
	Raw Water Tank		HDPE	3 KL	1	0.25	0.25		
	Raw Water Pump		CS	1 KLPH, 10 MLC	1	0.25	0.25		
	Air Compressor-1		CS	50 CFM	1	1.5	1.5	For Filling Line	
	Equipment Total					42.8			
F	Warehouse								
	Warehouse Rent Adv			2	1	2			
	Furniture with AC			1	3	3			
	Total					5			
Installation & Erection									
G	Mechanical								
	Structure - Supply	1 Ton Structure		1		0.7			
	Structure, Piping, Equipment - Installation	With Painting		1		0.3			
	Equipment Installation			1		1			

	P-V-F Supply				1		0.5		
	Total						2.5		
H	E&I								
	Supply						1		
	Installation						0.1		
	Total						1.1		
I	Visit				1		6		
Total Project Cost								102.5	
Contingency@5%								5.13	
-								107.63	Lacs INR
-								0.13	MUSD

Project Cost Estimate for Phase-2 Implementation:

Phase-2		Project Cost Estimation				Prep. by	SP	
						Rev. by	DM	
						Date	03.08.2023	
						Rev.	1	
ITEM	ITEM DETAILS	MOC	CAPACITY	Qty	Expected Cost / Unit, in Lacs	Total Cost in Lacs	Remarks	
Equipments								
1	Solid Formulation							
B	Granulation					-		
	Dough Kneader	Sigma / Dough Kneader	SS 316	100 L	1	4	4	
	Extruder	For Making the Noodles	SS 316	250 Kg/hr	1	8	8	
	FBD	For Drying the Noodles	SS 316	100 Kg/hr	1	10	10	
	Vibro Siever		SS 316	36"	1	1	1	
2	Liquid Formulation					-		
A	FS/SC/SE/ZC/EW/ZE					-		
	Pre Mixing Vessel -2	With 200 RPM Agitator & High Speed Side Shear Mixer, Limpet SS 304	SS 316	3 KL	1	7	7	High Shear - 1400 RPM
	Post Mixing Vessel	With 200 RPM Agitator Limpet SS 304	SS 316	5 KL	1	6	6	
	Bead Mill		SS 316	50 L	1	8	8	
	Feed Pump		SS 316	500 LPH	1	0.5	1	
	Holding Tank		SS 316	200 L	1	0.25	0	Non Agitated
	Circulation Pump		SS 316	1.5 M3/hr	1	0.25	0	
	Holding Vessels- Agitated		SS 316	5 KL	1	6	6	

	High Shear Mixer for Pre Mixing		SS 316	10 KLPH, 30 MLC	1	5	5	
B	EC/SL Formulation						-	
	Agitated Vessel	Non Jacketed	SS 316	5 KL	5	5	25	100 RPM
	Holding Vessels	Non Jacketed & Non Agitated	SS 316	5 KL	5	4	20	
	Solvent Day Tank		SS 316	5 KL	2	3	6	
	SPF with Pump	Sparkler Filter with Pump	SS 316	18"	5	6	30	
	Material Transfer Pump		SS 316	10 M3/Hr, 25 MLC	5	0.25	1	
	Solvent Transfer Pumps		SS 316	5 M3/Hr, 15 MLC	2	0.25	1	
	Weighing balances				10	0.15	2	
	Filling Line Assembly				5	25	125	Complete Line from Turn Table to Box Strapping
C	Accessories						-	
	Fume Scrubber		PP/FRP	500 CFM	1	0	-	For Future
	Cage Hoist		CS	2 T SWL	2	0	-	For Future
D	Material handling Equipments						-	
	Hand Pallet Truck			2 T	2	0.2	0	
	Stacker			2 T	2	5	10	Battery Operated
	Fork Lift			2 T	2	0	-	Future
	Racking System			100 T	25	15	375	
E	Utilities						-	
	Water Chiller		CS	20 TR	1	6	6	Air Cooled
	Hot Water System		CS	2 KL	1	0	-	Electrically Heated for Drum Melting
	DM Water/RO Plant	With Tanks	PP/HDP E	10 KLPD	1	1.5	2	
	Raw Water Tank		HDPE	10 KL	1	0.5	1	
	Raw Water Pump		CS	10 KLPH, 30 MLC	1	0.25	0	
	Air Compressor-1		CS	100 CFM	1	5	5	For Filling Line
	Equipment Total						664	
F	Lab Instruments						-	
	HPLC				1	10	10	Auto Sampler

	GC				1	8	8	Auto Sampler
	Oven / Humidity Chambers				1	3	3	
	Glassware				1	5	5	
	Microscope				1	5	5	
	Karl Fischer Titrator				1	2	2	
	Weigh Balances				1	2.00	2	
	Stirrer				1	0.5	1	
	High Shear Mixer				1	2	2	
	Misc. Lab Instrument				1	10	10	
	lab Furniture				1	15	15	
	Total						63	
Installation & Erection								
A	Civil works							
	PEB	30 M X 21 M					76	
	Civil Building	30 M X 21 M						Future
B	Mechanical							
	Structure - Supply				10		6.50	
	Structure - Installation	With Painting			10		1.50	
	Equipment Installation						16.60	
	P-V-F Supply						9.96	
	P-V-F Installation						1.00	
	Total						35.55	
C	E&I							
	Supply						66.39	
	Installation						6.64	
	Total						73.03	
Deisgn & Consultancy								
	Engineering Design Fees						40.00	
Land Cost								
	Plot				1000 0	1394	139.40	
Total Project Cost							1,050	
<u>Contingency@10%</u>							105	
-							1,155	
-							1,409	MUSD

7. Project Schedule:

Phase wise Implementation Schedule				2023		2024				2025			
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Land Development	Primary Objective	Manufacturing Objectives										
Phase-1	500 M2 Warehouse near DAR	Develop the Warehouse with Formulation facility	Product seeding to market & develop the application.										
Phase-2	10,000 M2 plot at Industrial Plot	Develop the plot for full fledged formulation facility for long term basis	Increase the production & sales volumes										

Project Execution Schedule for Phase-1:

The company will start the procuring process of plant & machinery from the month of Aug 23. Based on that working, the company will draw the working capital limit from the bank. Simultaneously, the company will also try to complete the other areas required for the project completion like, Liasoning, Supply Chain, Engineering & marketing of the products.

Detailed Project schedule for phase-1 is attached herewith.

Agro Project Execution Bar Chart		Date	02-08-2023						
		Rev.	0						
S.N.	Activity	Roles & Resp	Months	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24
			Wks	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
A Liosoining and Registration									
1	Final Product Selection	Whole Group							
2	Create Website/Broschure/Visiting Card/Email id/letter head	Dinesh & Vipul							
3	Design Pack Size/Logo/Labels/Sticker/Contain/Manual for Product	Dinesh & Darshil							
4	TIC Report submission	Dinesh							
5	TIC Registration	Darshil & Jitendra							
6	Finlized Scope for Resercher	Ram							
7	MOU with Resercher	Ram							
8	Clarification for Successive Investment Beyond 3yrs & Different Sector	Darshil							
9	Qty for Sample	Whole Group							
10	Source Samples for Registration in TPRI	Darshil & Vipul							
11	Shipment of Sample to Private resercher	Darshil							
12	PO for Resercher as per final scope & MOU	Darshil							
13	Payment release for Product Registration with Resercher for Dossier Prep.	Jitendra							
16	Dossier Prepration by Resercher	Ram							
14	Payment release for Product Registration with TPRI-Govn Regi Fees	Jitendra							
15	Form fillup With product registration	Ram							
17	TPRI Product Registration	Ram							
18	List Of Document/Certification required for this Warehouse site	Ram							
19	Get these licenses for the warehouse								
B Supply Chain Management									
1	Identify Suppliers for Toll Manufacturing & get their quotes	Dinesh & Vipul							
2	Finalize the quote & release PO for final delivery & shipment	Dinesh & Vipul							
3	Identify Expert for Pesticides Industries - Application	Dinesh							
4	Identify for the following items to be exported to DAR	Jitendra & Vipul							
	Corrugated Boxes	Jitendra & Vipul							
	BOPP Tape	Jitendra & Vipul							
	Strap Sealing	Jitendra & Vipul							
	Bottle Caps	Jitendra & Vipul							
	HDPE beads for Moulding Machine	Jitendra & Vipul							
5	Finalize the quote & issue PO for final delivery & shipment	Jitendra & Vipul							
6	Receipt of Raw Material at site	Ram							
6	Dispose of Used IBC/Drum and Other Material	Ram with Solomon							
C Finance Management									
1	Select a Bank for Seal Business Account	Ram							
2	Open Bank Account	Ram							
3	Generate & Collect Individual Bank Statements for TIC Reg.	Jitendra							
4	Get & Transfer individual share of investment to TZ bank Account	Jitendra with all							
D Project Execution									
1	Prepare detailed Budget for Agro Project	Dinesh							
2	Identification of Warehouse location and size	Ram							
3	Verification of these Site by Solomon	Ram							
4	Cosult Solomon for IBC/Drum Wash water disposal	Ram							
5	Finalise Agreement for warehouse Lease	Ram							
6	Prepare Detailed Capex Report	Dinesh							
7	Prepare Detailed Opex Report	Dinesh							
8	Detailed Engineering	Dinesh							
9	Procurement as per Plan	Vipul							
10	Shipment from India to DAR for site	Jitendra							
11	Installation at Ware House	Vipul							
12	Commissioinig/Trail	Vipul							
E Opereations									
1	Recruitment as per plan	Jitendra with Ram							

8. Sales and Marketing:

The company plans to have both domestic and export market for its products for SADC.

Domestic:

The company would market their products under different strategies:

- **Direct Sales & marketing:**

The company would be setting up teams to promote the products for direct marketing. This team would be comprising an Agro Chemist, which would address the locals & farmers for the demonstrations by visuals & applications.

- **Media marketing:**

Social Media, Print Media & advertising would be used for the marketing tools to promote these products.

- **Tie ups & Government Contracts:**

The company would also try to get the local tie up with government bodies & other institutional bodies for long term contracts. These long term contracts are anticipated being this company a local manufacturing. Therefore, Vocal for Local should be worked out with respect to response, pricing & better reach for the end users.

International:

- With SADC, Tanzania has become a gate way to this East Africa region. There by, promoting these products in the nearby countries, it would give the company an edge.

9. Note on the Agro Chemical Industries & Opportunity for Seal Group

- For Tanzania, 26% is the contribution of Agriculture in the GDP, which give agro products an edge to venture into business. There is abundant arable land available in different parts of the country, where agriculture can be promoted to increase this contribution of GDP to boost the country's growth.
- There are no manufacturer of these Agro Chemicals in Tanzania. Therefore, there is a good opportunity for this company to grow in this African contingent.
- There are many importers & distributors currently, which are operating in this area to bridge the supply & demand. Therefore, local manufacturing would definitely help the company to grow its business quickly & steadily.
- Some information on the import figures are: 200 Million USD for this industries.
- There is good development in the arable land
- The company would definitely perform CSR for the nearby region for the welfare of the population.
- The company would introduce the newer & latest technologies for better & effective products in future which would in turn increase the farming productivity & yields at local level.
- Along with these Agro products, the company will also deal in the allied & accessories to be used in the farming services.

10. Government Policies & Key Factors @ Tanzania:

- Since many years, Government of Tanzania via TIC, has started to promote the investment at local level to boost the economy and to generate the employment through these capital investments. Our investments are routed through TIC, which embarks on the mutual benefits for the company & the locals.
- TIC registration would certainly bring many tangible & intangible benefits to the company in the preoperative & post operative stage of the project.
- With TIC interventions, a lot of investments are getting on the floor, where by our group company would also diversify to cater these up coming investment to foster the local growth.