

GASA SOECHU
MAIDEN PROJECT OF DRIVING DZONGKHAG DEVELOPMENT
CENTER (DDDC)
AN INITIATIVE IN PURSUIT OF SELF RELIANCE



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GASA

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1. ABBREVIATIONS USED

RGoB.....	Royal Government of Bhutan
DDG.....	Dzongkhag Development Grant
GGG.....	Good to Great Gasa
RNR.....	Renewable Natural Resource
BAFRA.....	Bhutan Agriculture and Food Regulatory Authority
BHU.....	Basic Health Unit
Kwh.....	Kilowatt hour
GNH.....	Gross National Happiness
3Ds.....	Driving Dzongkhag Development
BDBL.....	Bhutan Development Bank Limited

2. EXECUTIVE SUMMARY

Gasa Dzongkhag with the motto, “Good to Great Gasa” basically expresses the ultimate goal to make Gasa a Great Dzongkhag.

With this inspiration and motto, we have tried a different approach to sustainable development which is fast tracked and holistic. So the first step to this approach is 3D (Driving Dzongkhag Development) centres which focus on traditional and contemporary industries and promotion and preservation of culture as their key mandates. This would involve production of goods along with creation of jobs.

To start with, the centre at the Dzongkhag level is established and started its operation. The centre is located below Gasa BHU I. This centre is the first driving engine of the Dzongkhag Development. The centre is managed by a core team from Dzongkhag which later will be manned by Gasap citizen. One of the maiden projects under this vision is the “Water packaging and bottling” known by the name “Gasa Soechu”, to replace the bottled water needs of the Dzongkhag and also to export to other dzongkhags.

Water packaging plant is initially set up by Dzongkhag with the funding from Dzongkhag development Fund, but in the later stage the ownership will be handed to the Gasap. This is the project that will involve the whole community. The people will be made to invest in the project.

The water is made available in glass bottle by the product name Gasa Soechu with the Gasa vision logo and the tag line “sacred spring water from organic Country”.

Blessed with pristine environment and abundant water source, this project is bound to succeed.

The average water consumption for Gasa is 3000L-3500L in a month during the summer season (summer) and about 1500L-2000L a month during winter. Therefore, the production of the product depends on the demand of the product. The actual producing capacity of the plant is 2000L per hour where 50% (1000L) is used for the cleaning of the bottles and the remaining 1000L is used for the packaging.

The machine for the filling and capping is semi-automatic. Therefore the total production in a day is about 360-400L in a day. The production may increase or decrease depending on the demand of the market.

Gasa Dzongkhag’s aim for initiating this development centre is for the attainment of revenue generation, employment generation and import reduction. Though the revenue generation from this centre is not very high as of now, but the revenue generation is likely to increase in the long run. As aimed by this project, the project is able to employ three working staffs from Gasa, thus giving the employment opportunity for Gasap. And in terms of import substitution, though the water consumption is not large but the revenue lost in terms of water import is quite substantial.

Though Gasa Soechu is not able to reduce water import by 100% but it is able to meet 67% of local water consumption.

Since Gasa is a small dzongkhag with small market, Gasa Soechu is not able to make huge profit because it is more expensive as compared to other mineral water. Therefore to alleviate the profit the project is seriously planning to diversify into PET bottle along with glass bottle.

3. INTRODUCTION

At the 9th Convocation ceremony of the Royal University of Bhutan in 2013, His Majesty reminded the graduates that it is not a question of whether we have the capability to achieve success. The question is, *“will we make the choice to stand up and take responsibility? Will we choose to make a difference?”* Gasa choose to answer these questions affirmatively. *“Yes, we will stand up and take responsibility and we want to make a difference in our Nation Building.”* In spirit of pursuing this sacred commitment to the Royal call, we in Gasa adopted the motto of *“Good to Great Gasa”*. This is also enthused by His Majesty’s vision of making our country ‘Great’. And the basic premise is that the Nation will become ‘Great’ only when all Dzongkhags have become ‘Great’.

With this inspiration and motto of Good to Great Gasa, we have tried a different approach to sustainable development which is fast tracked and holistic. So the first step to this approach is 3D (Driving Dzongkhag Development) centres which focus on traditional and contemporary industries and promotion and preservation of culture as their key mandates. This involves production of goods along with creation of jobs. These 3D centres will be manned by citizens of Gasa. However, depending upon need from time to time, external experts will be brought in to help the centre.

There will be five such centres, one each for the four Gewogs and the fifth one at the Dzongkhag level. Driving Dzongkhag Development is one of the strategies to bring development in the Dzongkhag. To start with, only the centre at the Dzongkhag level is established and started its operation. The centre is located below Gasa BHU I.

This centre is the first driving engine of the Dzongkhag Development. The centre is managed by a core team from Dzongkhag which later will be manned by Gasap citizen. The centre has production units (water packaging/bottling plant) as its highlight to replace the bottled water needs of the Dzongkhag and also to export to other dzongkhags.

Water packaging plant is initially set up by Dzongkhag with the funding from Dzongkhag development Fund, but in the later stage the ownership will be handed to the Gasap. This is the project that will involve the whole community. The people will be made to invest in the project.

The water is made available in glass bottle by the product name Gasa Soechu with the Gasa vision logo and the tag line “sacred spring water from organic Country”.

To give a positive direction to the concept of Natural Spring Water, a Detailed Feasibility Study in selected site was conducted. And of course, exploitation of this natural resource is completely in accord with the enlightened policies of Good to Great Gasa for green, clean and environment friendly development that results in import substitution, employment generation and revenue generation through production.

Blessed with pristine environment and abundant water source, this project is bound to succeed.

Rational

Though the total volume of imported bottled water consumed in Dzongkhag is not very huge, but in terms of revenue lost to the import of the same is quite substantial in the context of the overall import of goods by the Dzongkhag. Therefore, bottled water produced by this plant will replace this imported bottled water, thereby enjoying import substitution, employment generation and also revenue generation through production.

4. PROJECT COMPONENT

4.1. Identification and Development of Water Source

The spring water which is being used by the village of Choglay and Jasithangkha is identified as the source of water. In Jasithangkha, we have the offices of Gewog, RNR, BAFRA and Veterinary hospital.

The overflow of water tank used by the community is stored in a tank which is drawn to the production site with the pipe outlet. Technical team is confident that this source has enough water for this plant.

4.2 Site Selection for the Production Centre

The site for setting up a mineral water based project is to be selected as close as possible to the source of the water, however if it is not possible to build a plant near the source of the water, it is permitted to pipe the water.

A semi commercial water treatment and bottling plant is established right below the BHU I of Gasa. This place has enough space and it already has some infrastructure because this place was used as tourist transit camp and it remained idle for few years, so this place is used in this project. Some new structures are also built.

5. RESOURCES

The main inputs for the success of the project are;

5.1. Technical Aspects

5.1.1. Processing and Bottling

Raw water to be processed is collected in 20,000L reservoir tank. The water is then passed through passed through series of micro filters.

Packing is done in glass bottles of 1 litre capacity through manual rinsing, filling, and capping machine fitted with an Ozone generator. After completion of all the filtration and filling process, the product is labeled with our brand (logo of Good to Great Gasa).

The flow chart showing the process of mineral water is shown in Figure 1 in the Annexure II

5.1.2. Method of Packaging and Mode of Transportation

The place or origin of water, packaging and brand perception attached with water purity, will play major roles in creating the demand from consumers.

Bottled water is sold in a variety of packages, pouches and glasses, and Gasa mineral water is made available in 1000ml bottles.

Method of packaging adopted is based upon safety of the products, their hygiene and their undamaged delivery to the end user. For this purpose it is planned to use glass bottles for less health issues.

The bottle packaging design is kept so as to withstand the rough handling and jerks during transportation over rough terrain. To ensure greater protection in transit, crates have been selected for packaging 12 bottles.

5.2. Power

The total load is estimated at 5kw. The project does not require a high-tension supply, but we have plan in place for the provision if in case there is power shut down.

Sufficient electrical power is available at a short lead distance in the area.

5.3.Lab Equipment and Consumables

The main consumables are laboratory machine consumables such as water filter elements, workmen's clothing including safety boots, gloves and miscellaneous cleaning and office supplies. These requirements is sourced from equipment suppliers and existing local channels.

5.4. Human Resource Requirement

A total strength of four heads is envisaged at the full operation of the plant staffing requirements is met by Gasap, and some of the skilled staffs may also be recruited as per the need. Suitable training and skill development programs will be scheduled for the entire workforce.

The detailed summary of the total human resource involved in the project is shown in the Table 1 of the Annexure I.

5.5. Water (Significance of the Water Source)

This spring water located at 2900 masl is believed to be designated as Drupchu by Drupthop Therkhungpa in 12th century. Drupthop Therkhungpa is the founder of the site on which Gasa Tashithongmoen Dzong stands today. Later this water is said to be used as drinking water (soechu) for Zhabdrung Rimpoche in 16th century. This spring water is also used as offering water to Ap Gomo- the protecting deity of Gasa.

6. ENVIRONMENTAL CONSIDERATIONS

Maintaining and sustaining the environment is of paramount importance and this project meets all the requirements for a non-polluting and sustainable industry. It does not create any adverse sociological impacts, but generates employment and provides an opportunity for the economic development of the area.

This project has no polluting processes and there is no adverse impact on the environment. And to assure that the project has no impact on environment, we have obtained Environmental Clearance from the National Environment Commission.

7. MARKET ANALYSIS

7.1. Market Scenario – Bhutan

The local demand for bottled spring water is partly served by the existing companies. About 90 percent of the product is marketed in Bhutan itself, while the rest is marketed to India and Bangladesh and finds a good response, because it is the only water available to these markets in the form of natural water.

The spread of its market outside Bhutan is mostly confined to the border areas in India and Bangladesh. In the short term, the mineral water from Bhutan has to compete with packaged drinking water in neighboring countries like India, which has a volume market. The price has to be very competitive and almost at parity or little higher than the local brands for positioning.

The consumers who taste this Natural Mineral Water will become habituated with its good taste and will start recognizing and demanding the brand.

There is huge market in five star hotels, airlines, upper class stores and the modern retail chains, which are coming in India. The positioning of this water will be in between the locally produced Mineral water and the imported brands. Thus, this bottled water will be positioned above the other imported mineral water brands.

7.2. Market Scenario- Gasa

Though the total volume of imported bottled water consumption in Dzongkhag is not very huge, but in terms of revenue lost to the import of the same is quite substantial in the context of the overall import of goods by the Dzongkhag. Therefore, bottled water produced by this plant will replace this imported bottled water, thereby enjoying import substitution, employment generation and revenue generation through production.

Market in Gasa includes shops in Gasa, Damji, Tshachhu, Tashithang and all the offices located in this region. According to the shopkeepers in the region, the total volume of water consumption depends on the total people visiting the Tshachu and Gasa Soechu is to replace all other packaged mineral water.

8. PROMOTION AND MARKETING

Once the bottled water is available, we will discourage the import of other bottled water to our Dzongkhag. Gradually we will explore and find markets outside the Dzongkhag. For this good market promotion program is put in place.

8.1. Branding and Labeling

Branding is a powerful tool for positioning the product. We focus on creativity in terms of packaging and labeling to stay afloat in the market. Every communication a customer receives, add up to the mental picture of the brand and can influence the price they are willing to pay for the products. One creative approach especially for the small and medium companies is labeling the bottled water for specific occasions to meet the demands of the consumers.

Gasa Soechu uses the Good to Great Gasa Logo. The logo has eight eternal knots arranged in two clusters of four each as its logo. The front four knots represents the four Gewogs of the Dzongkhag. They are different yet connected. The four at the back represents the four pillars of GNH. Put together, the eight intertwined knots signify the 8 fold paths which form the rock foundation of Gasa's dzongkhag's vision of Good to Great.

8.2. Eco Friendly Approach

Another trend in bottled water production is adoption of ecofriendly approach towards production and packaging. This ecofriendly approach is likely to persuade environmentally conscious consumers to buy the products.

We have opted for glass bottle instead of pet bottle so that our approach becomes eco friendly. Once the product is sold we will buy back the bottle and reuse it thereby reducing the waste generation.

8.3. Advertisement

Promotion is one of the key elements of the marketing. And developing a promotional strategy focusing on advertising is a pull tactics of consumers. The impacts of media on human have

become so intense; therefore advertisement through social media can ensure the customers are aware of our brand.

8.4. Customer Service

Making the products available at all times and also making it accessible is very important for the promotion of the market. Our product is available at all time and yes the accessibility to road is a plus point for us for the marketing of the product.

Another tactic is making the product price affordable for the consumers. The price of our product will be determined by the current existing market price of the bottled water. The price will be fixed that it is a win- win situation for both the consumers and distributor.

9. COST PRESENTATION

The total project cost estimate for the proposed project works out to Nu. Seven million. This includes the capital cost for the project as well as the margin for working capital requirement.

The project cost has been arrived at on the basis of the requirement of fixed and variable assets to meet the prescribed production requirements.

The detail on the cost/ cost breakdown of the project is shown in the Table 2 in the Annexure I. The cost was funded with the Dzongkhag Development Grant.

10. CURRENT AND FUTURE PROSPECTIVE OF THE PROJECT

Since there is no competition in Gasa at present, the current outlook is very good.

The local demand for bottled spring water is served by importing from the existing company.

As such, the present prospective is good. The future prospective of the project hinges around the continued availability of the natural mineral water from the spring source. With that assured, there is no constraint on the demand for it, since the worldwide demand for natural mineral water is increasing exponentially.

The strategy for marketing Gasa Soelchu is to first service the market within Dzongkhag for natural mineral water, which is presently being met by default. In view of the increasing inflow of high spending tourists who discriminate between packaged bottled water and mineral water, the future of this project is assured.

10.1. Production Capacity

The production of the product depends on the demand of the product. The producing capacity is 2000L per hour where we use 50% (1000L) for the cleaning of the bottles and the remaining 1000L is used for the packaging.

The machine for the filling and capping is semi-automatic. Therefore the total production in a day is about 360-400L in a day. The production may increase or decrease depending on the demand of the market.

10.2. Current Perspective of the Project

Of the total consumption, the water exported is very negligible and the consumption within Gasa is also not very high. However in terms of import substitution, though Gasa Soechu is not able to reduce water import by 100% but it is able to meet 67% of local water consumption.

Since Gasa is a small dzongkhag with small market, Gasa Soechu is not able to make profit because it is more expensive as compared to other mineral water. Therefore to alleviate the profit the project is seriously planning to diversify into PET bottle along with glass bottle.

And the detail study about the consumption is expressed in graphs which is shown in the Figure 2 of annexure 2.

The detailed account statement is attached below.

11. PRICING

To avoid disturbance in the existing market price, we have decided to price our Product at Nu. 20 /L for the domestic market (sale and consumption in Gasa) and to export it to other Dzongkhag we have fixed the price at Nu. 45/L. With this current price, we are not able to make any profit so we have decided to increase the price to Nu. 25/L for the market in Gasa and Nu. 30/L in Tshachhu. However the price for the products to be sent outside domestic market will remain the same, i.e. Nu.45/L.

12. PUBLIC OWNERSHIP THROUGH SHAREHOLDERS

In pursuance to the principles of GGG, the community has to be involved strongly, as ultimately all these projects will be governed and managed by the locals as Community Owned Company (CoC). The main reason for this is to ensure full ownership by the locals for its sustainability and success. All households of Gasa Dzongkhag will be distributed equally the Royal Government's equity of Nu. 7 million converted to 70,000 shares @ face value of Nu. 100/share. Another Nu. 7 million will be raised through sale of 70,000 shares to citizen of Gasa.

This project would be a good business opportunity benefiting the entire society with job creation, revenue generation and import substitution. The project being huge, of course the project will be initiated by Dzongkhag through Dzongkhag Development Grant but later it will hand over to the citizens of Gasa. Therefore the company door will be opened for all/ general public and also for the civil servants residing in Gasa, to invest as per their willingness and capabilities. The project will offer shares as per the Companies Act of the Kingdom of Bhutan 2016 and anyone above 18 years of age are eligible for it.

Though the project is initiated by Dzongkhag, the ultimate owner will be Gasap and they will be made to invest in the project. The return of the investment will not be immediate but we are optimistic that the project will generate good profit as it is the only kind of project in Dzongkhag.

And if in case the project fails we guarantee to refund the investment made by the investors and the machinery the project owns will remain as the assurance for this investment.

13. COMMITTEE MEMBERS OF THE PROJECT

The project has a group of individuals working to achieve the project objective.

Chairman- He heads the project and looks after the overall management of the project. An Executive Committee of the Commission is responsible for making recommendations about the general direction of the Commission's work. The chairman acts as the executive organ of the project and makes decisions for the project. He directs the overall functioning of the project.

Core committee Members- The members should set a defined protocol that is to be followed during the operation of the project. Project committee members include a team that reviews the processes and internal methods. A company members review the policies and procedures.

The core members cover all the aspects of the project management such as the characteristics of the project, quality in the project management and strategic processes and all the phases of the project management cycle.

Thus the modus operandi of Project Management team can be encompassed in a strategic plan or checklist which will detail the objectives and the steps to check and fulfill it. All standards and procedures should be assessed for efficiency and thoroughness. The committee members should develop good working relationship with the team, to be in a position to communicate and convince management on the successful functioning of the project.

Project Manager- The Project Manager is responsible for delivering the project, with authority and responsibility from the Project Board to run the project on a day-to-day basis.

The project manager is responsible for designing and applying appropriate project management standards. He/she is also responsible for planning and monitoring the overall project. The manager will also monitor the overall progress and use of resources, initiating corrective action where necessary and identify and obtain support and advice required for the management, planning and control of the project. The project manager will manage the project administration.

Plant Operator- Controls treatment plant machines and equipment to purify and clarify water for industrial use. Operates and controls electric motors, pumps, and valves to regulate flow of raw water into treating plant. Monitors and adjusts controls to regulate flow rates, loss of head pressure and water elevation, and distribution of water. Clean tanks and filter beds, using

backwashing will also be looked after by the operator. Apart from the control of the machine, he/ she will also be involved in manual labeling and packaging of the water.

GSP- All the labeling and packaging, loading and other manual works are to be carried out by these workers. He will work as the caretaker and he must be prepared to undertake such work as may be assigned by the Council from time to time. Such work can be outside the normal duties and areas of operation. He/ she will undertake other duties as assigned to them by their Supervisor.

Until transfer of the centre/company to the shareholders, the following are the members of the committee.

- i.Dzongda
- ii.A representative from public (Khatoed Mangmi)
- iii. Representative of Business community
- iv.Dzongkhag FO
- v. Dzongkhag Engineer
- vi. Dzongkhag Livestock Officer
- vii. Dzongkhag Agriculture Officer
- viii. Project Manager/staff

14. DRIVING DZONGKHAG DEVELOPMENT CENTRE FUND

Driving Dzongkhag Development Fund is established. This fund will drive the DDDC in the long run, including the budget for development programme of the Dzongkhag.

The fund/ revenue generated from the Development Centre are accounted to this account. Currently, the expenses for the centre is made from DDG, but later on the revenue generated from this centre will be used for other development activities in this centre.

Source and Operation of fund

The fund is raised through various Good to Great Gasa production and marketing activities. Apart from these activities we will generate income through selling of shares.

The fund account is maintained with Bhutan Development Bank (BDBL).

The fund is managed by a committee comprising of the following members.

- i.Dzongda
- ii.DT chair
- iii.Better Business Chair
- iv.Dzongkhag FO
- v. Certified Share holder- three selected members

The Dzongda and DT chair will be the signatories to the usage of fund, viz: disbursement, cheque signing, deposit etc.

Collection and deposit record book (Committee should be presented after every collection by the appointed collection coordinator along with collection figures, collection receipt and deposit slip).

Expenditure book (All expenses should be duly recorded and filed by one of the appointed person. All expenditure shall be approved by the committee. However the Dzongda shall approve emergency expenses which will be submitted to the committee for endorsement.

Auditing (Committee may appoint amongst themselves to periodically audit the collection and expenditure

ANNEXURE I

Table 1.Human Resource of the Project

No. of workers	Designation	Remarks
1	Project Manager	S1
1	Plant Operator/ Lab Technician	O4
2	Support staffs	ESP

Table 2.Cost Breakdown

Particulars	Specification	Estimates budget (in Nu)
Site development at water source, testing of water, setting up water transmission line to the plant	Construction of tank at the source	10000
	Cost of the pipe	71,621
Cost incurred for the UF Plant	Construction of UF Plant	3,082,281.00
	Cost of the bottles and transportation	600000
	Bottle Cap and sealing	185000
	Labeling	90000
	Cost of Crates and transportation	450000
Staff salary*	Four working staffs	367,672 (193,170)

*of the four working a staff, the salary of one of the staffs is made from Good to Great Gasa Fund (this Good to Great Gasa Fund is generated by Dzongkhag through various activities).And the 50% of salary for the remaining three staffs is shared by MOLHR

ANNEXURE II

Figure 1.Flow Chart Showing the Process

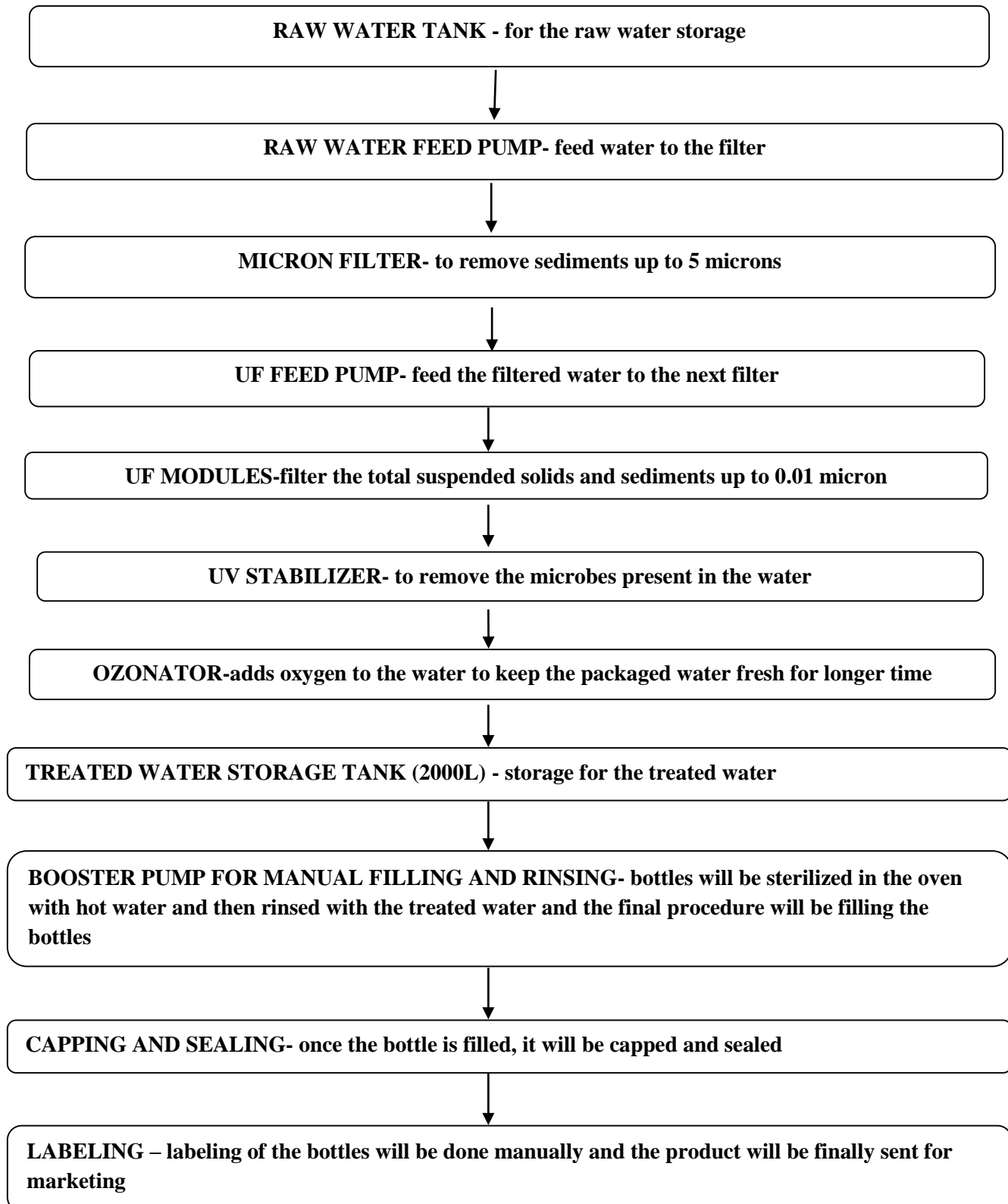


Figure 2. Total Water Consumption in Gasa

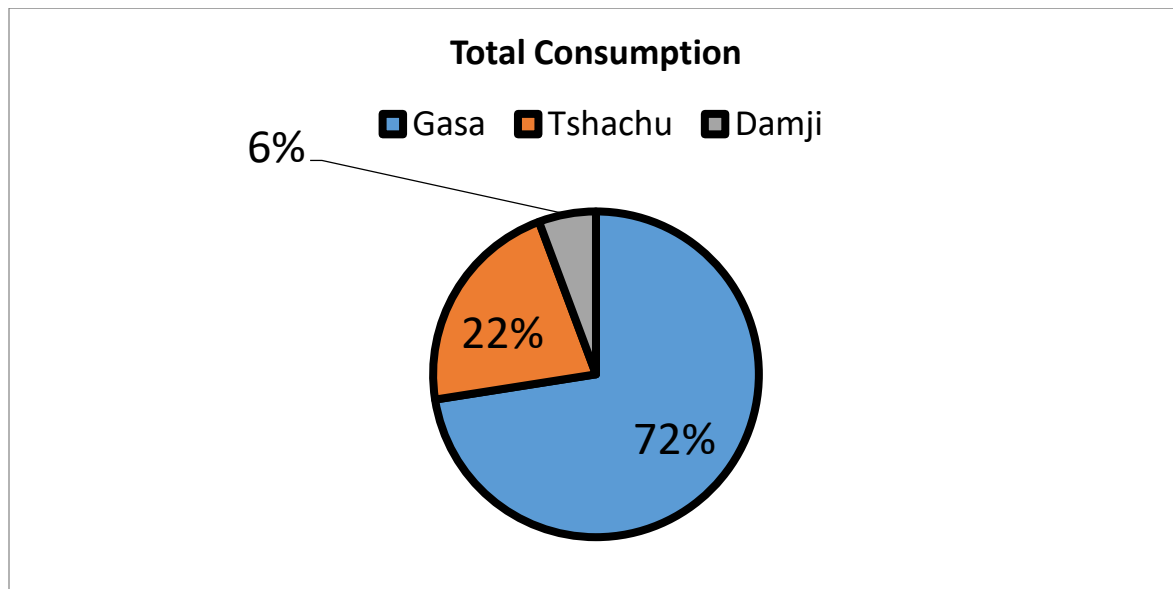
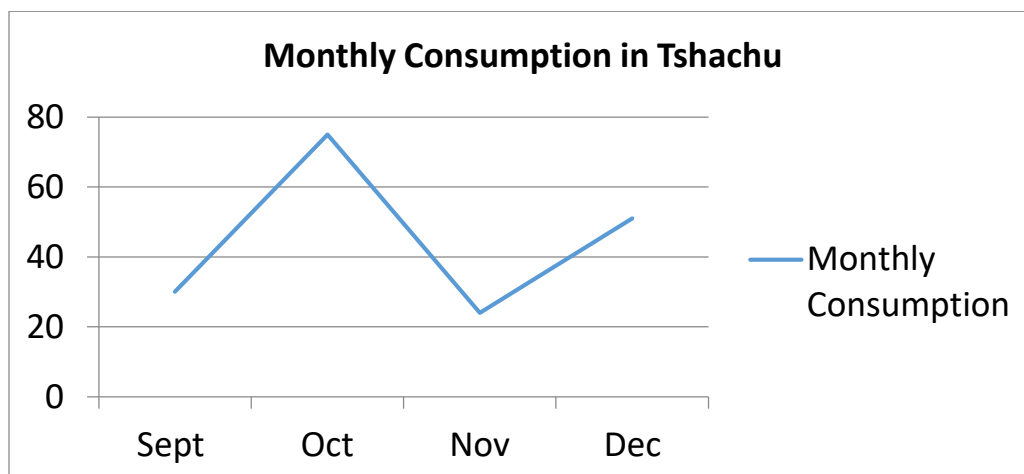
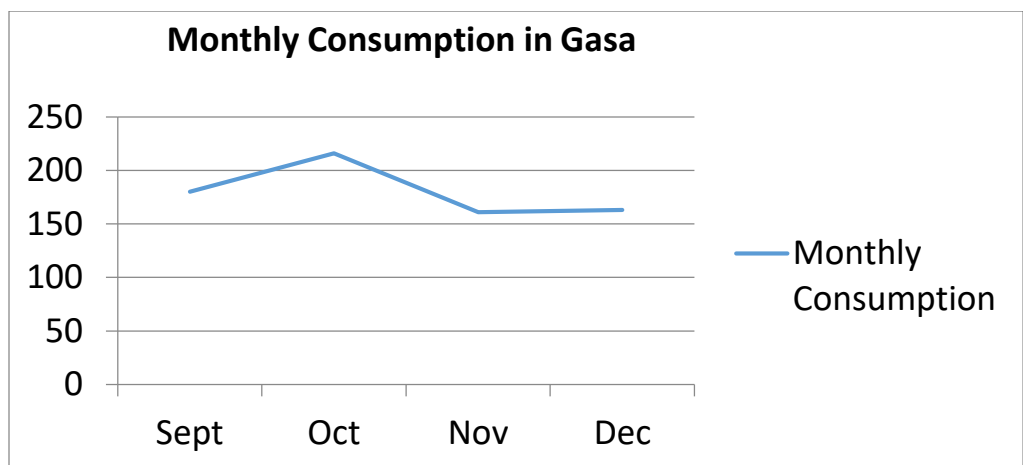


Figure 3. Monthly Consumption in Gasa



ANNEXURE III

FLOW CHART

