



Mekelle Investment Day

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ADDIS PHARMACEUTICAL FACTORY PLC





Outline

- Introduction to APF
 - Mission/ Vision
 - Annual Sales Revenue/ 10 Years
 - Production Capacity
 - Product list
 - Market segment
 - Situation Analysis
 - Future Strategic Investment Opportunities in Mekelle
- 



Introduction

- **Addis Pharmaceutical Factory PLC (APF) is the largest and high-tech pharmaceutical plant in Ethiopia.**
- **The plant is located in northern part of Ethiopia, in the town of Adigrat, Tigray Region - 898km from the capital and at an altitude of 2280 meters.**
- **The project was launched in 1992 with total cost amounting to USD 20 m. Company started its operations in 1997 with major shareholding of EFFORT, an organization engaged in development of the Country.**
- **In 2009, the company acquired a second plant located at Akaki/ Kality sub city, Addis Ababa which is dedicated for the manufacturing of LVPs**

Introduction...

Therapeutic categories of its product basket include;

- Antibiotics
- Gastro-intestinal drugs
- Central Nervous system drugs
- Cardiovascular drugs
- Anti diabetic
- Antihistamines
- Anthelmintics
- Analgesics
- Antiprotozoals,
- Respiratory drugs



Introduction ...

- The company has more than nine production lines and fully equipped laboratories as well as utilities capable of producing tablets, capsules, syrups/suspensions, dry powders for reconstitution, injectable vials, liquid injectable ampoules, creams and ointments



Introduction ...

- The company's manufacturing processes are designed, directed, regularly monitored and controlled in line with cGMP recommendations, its Quality Manual and directions of local Regulatory Authority.
- The company has managed to get a GMP certification from the local regulatory authority; Food, medicines and healthcare administration and control authority of Ethiopia, through a Certificate of Competence for Drug Manufacturing Plant.





Mission/Vision

Mission

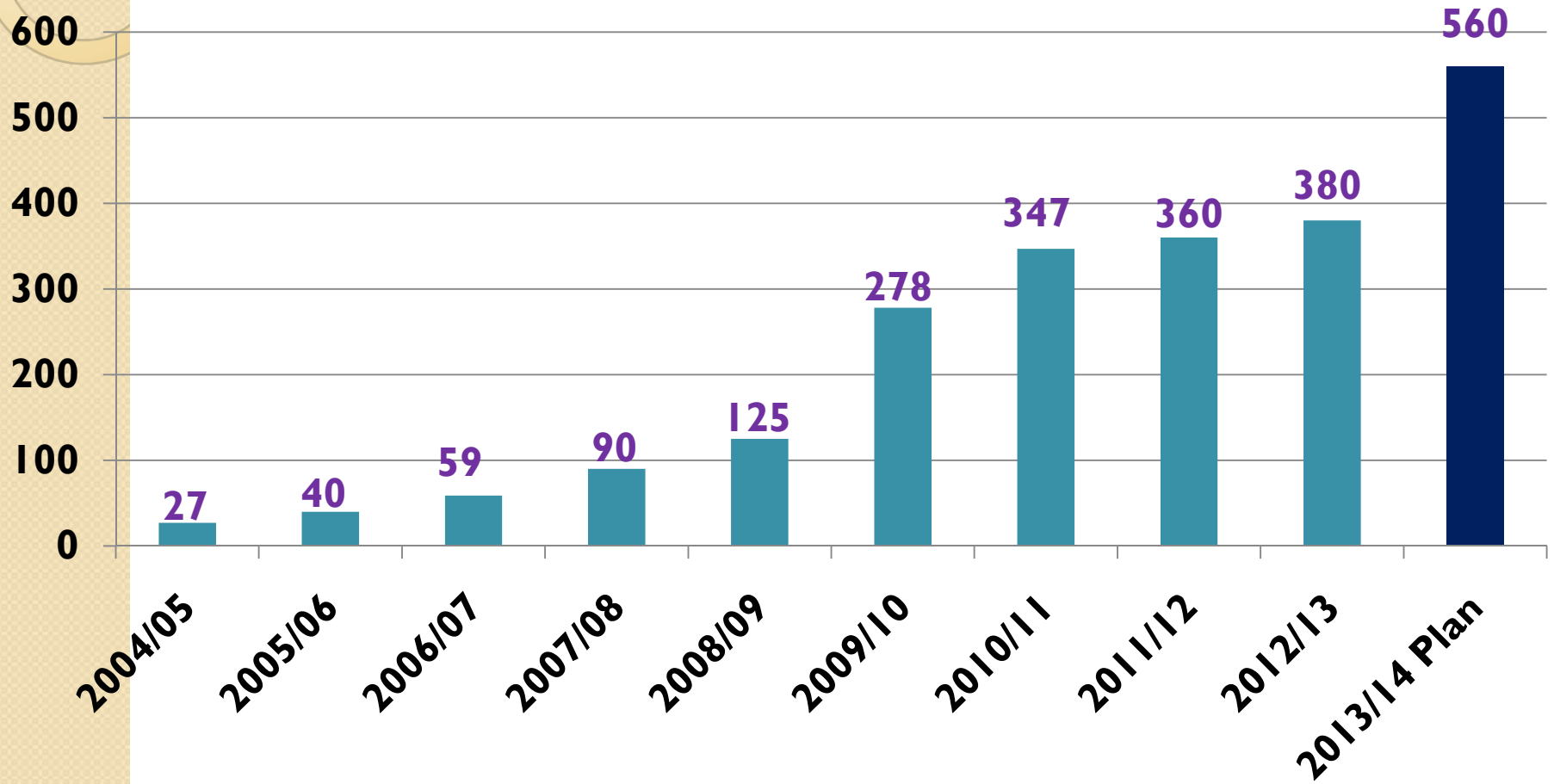
- We aim to satisfy our customers' needs by providing quality & effective medicine at affordable price

Vision

- By 2020, we aspire to be a prosperous, knowledge based company with a well-built brand portfolio of 200 demanded & quality products, and a strong presence in East African market.

Sales Growth /for the last 10 years

Annual Sales Revenue in 000,000 ET Birr



Production Capacity

S/N	Production line	Annual Capacity in 000,000 pcs
1	Tablets	1620
2	Capsules	850
3	Syrup/Suspensions	9
4	Vials	3.2
5	Ampoules	3.5
6	LVPs	4.2
7	Ointments	3.6

APF PRODUCTS LIST as of October 2013

20 Product range in 1997

Current status

- Commercial=114 products
- Under revision=0 Products
- Under development=07 Products
- Details of product range

<http://www.apf-ethio.com/>

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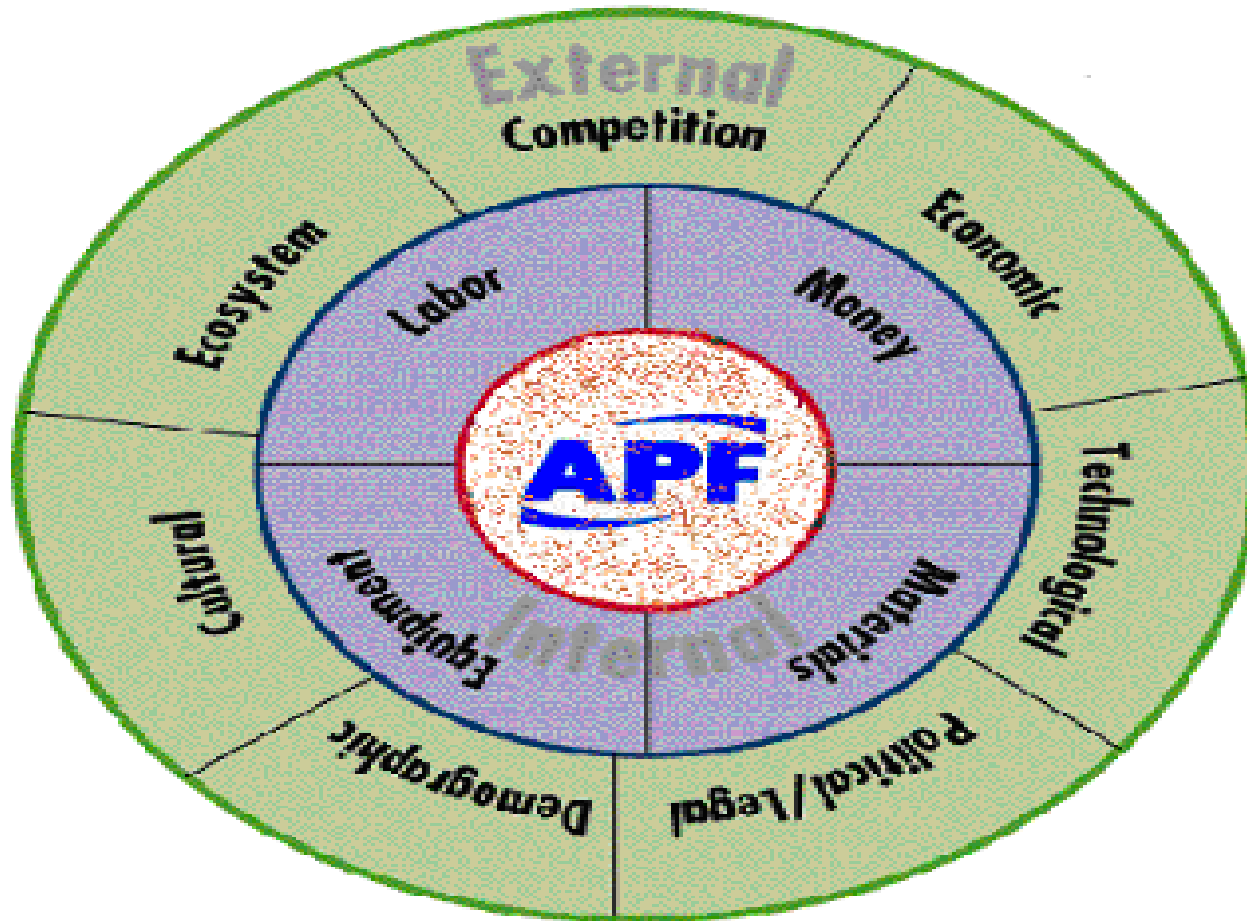




Market Segment

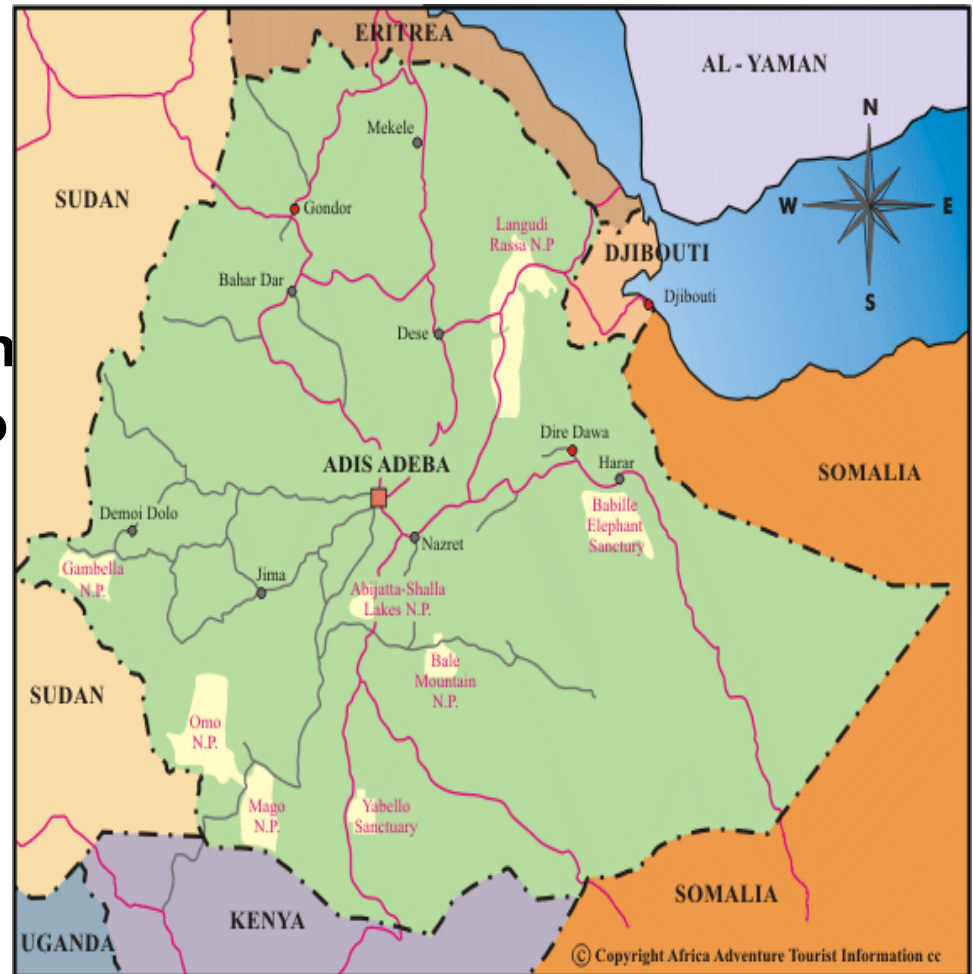
- **Ethiopian current Pharmaceutical demand is estimated to be about 1 bln USD**
- **Share of Local Manufacturer is estimated to be less than 15%**
- **Institution- 70%**
- **Private- 30%**
- **Export –NA**
- **278 product types listed essential product list of Ethiopia**
- **Only about 20% in type are manufactured locally**

Situation Analysis



Geography

- 10th largest in Africa- 1,104,300 square km
- Great Geographical diversity ranging from peaks 4550 m down to a depression of 110m below sea level

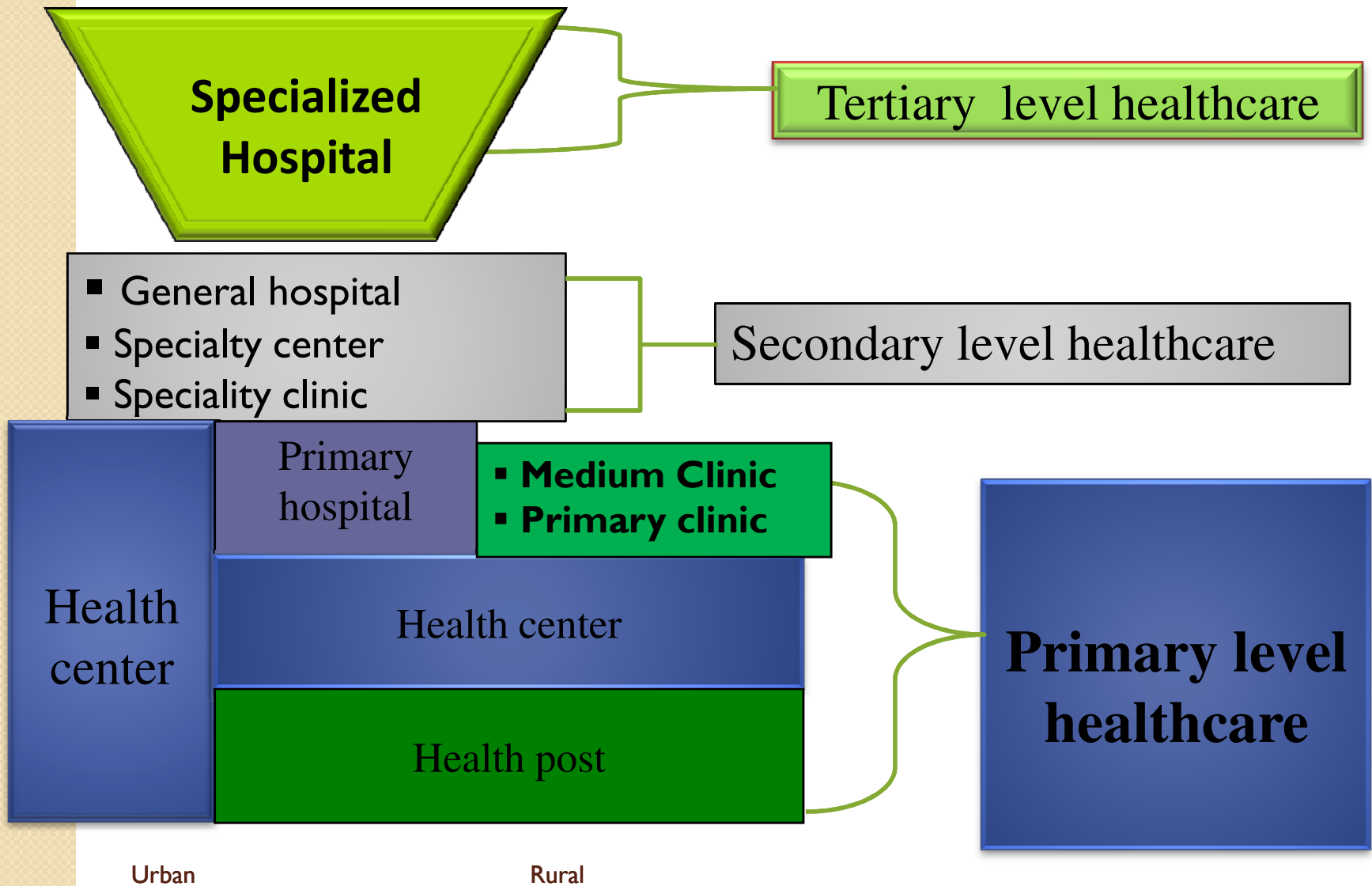


Demography and Health Profile

Total population(000)	82,950	Regional Average	Global Average
Population in urban area(%)	17	38	50
Gross national income per capita (ppp,\$)	1,110	2,448	10,869
Total expenditure on Health per capita(\$,2011)	52		
Total Expenditure on Health as % of GDP(2011)	4.7		
Life Expectancy	54	54	68
Under five mortality rate(per 1,000 live births)	106	119	57
Adult mortality rate (probability per 1,000)	412	383	176
Maternal mortality ration(per 100,000 live births)	350	480	210
Prevalence of TB (per 100,000 population)	394	332	178

Source:WHO country data base

Ethiopian health system organization/ tier system



Political /Economical environment

- **Remarkable change in the political and social landscape of the country since 2001**
- **Ethiopia pursues policies based on core principles of mutual respect, mutual benefit, reciprocal trust and common interest in the regions**
- **As a result of this ,government managed bi lateral and multilateral economic and political relationships with Djibouti , Kenya , both sudans and Somalia**
- **Robust broad based economic growth**
- **Government support for local production...**



Political /Economical environment...

-New initiative to introduce a health insurance scheme

-Cost of Labor, lowest labour cost in the globe

**-Cost of energy, 0.5778 birr /KWH, Kenya \$ 25 cents ,
India \$ 7 cents ,China \$ 8 cents**

-Infrastructure

Gov't massive infrastructure development plan including
mega transport corridor and mega project power plants
,railway , roads and chemical industries



Socio-cultural considerations

A) Demography

Estimate shows that total population exceed 100 M after 10 years

B) Psychographics or life style

Accustom to consume raw meat, spicy and oily foods

C) Social status

D) Health Status/Major health problems



Technology

- **latest technologies and systems for different functional areas such as supply chain, manufacturing process, storage and distribution**
- **full automation, closed systems with minimum or no human intervention as well as an inbuilt control system**



Legal

- **Transparent legal system depends on codified laws including : Civil , penal , civil procedure , penal procedure , commercial and maritime codes**
- **laws, rules and legal systems emanating from the mother constitution.**
- **Pharmaceutical manufacturing firm has **strong legal and ethical obligation****



Future Strategic investment Opportunity at Mekelle

- **On basis of appropriate & detailed feasibility studies the following new investment areas can be considered besides to Human Drug manufacturing**

A) Finished Product Pharmaceutical Manufacturing including ARV and Anti TB /RBEC

B) Medical supply Manufacturing

C) Packaging Material /Chemical /API/Additives Manufacturing



Future Strategic investment Opportunity at Mekelle ...

I-New Cephalosporin's manufacturing plant

- **There is no local manufacturer for such type of antibiotic dosage forms to date; the demand is being satisfied only by importation**
- **This generation of antibiotics was discovered after the penicillin compounds to treat diseases caused by microbial strains which developed resistance to penicillins.**



Future Strategic investment Opportunity at Mekelle ...

2-Cytotoxic products formulation plant

- **Keeping in view the improving diagnostic & treatment centers of **cancer** in the country as well as export market, the domestic manufacturing of such high value medicines is also one area of focus.**



Future Strategic investment Opportunity at Mekelle ...

3-Biotech Laboratories

- **These laboratories are important to produce various drugs from animal origin to protect & treat diseases. Examples of such drugs include **Insulin, Interferon & several vaccines.****



Future Strategic investment Opportunity at Mekelle ...

4-Veterinary Drugs

- **There is only one oral veterinary drugs manufacturer in Ethiopia & yet there is high demand.**



Future Strategic investment Opportunity at Mekelle ...

5-Gelatin Manufacturing Factory

- **Food or pharma grade gelatin can be produced from the **skin, hides & bones** of the animals by utilizing the byproducts or wastes of slaughter houses. The pharma grade gelatin is the raw material for **Empty Hard Gelatin Capsules****



Future Strategic investment Area at Mekelle ...

6-Starch & its derivatives Manufacturing Factory

- **Pharma grade starch is important & largely consumed non active ingredient in dosage form formulation plants like APF. The input material for the starch is usually **maize crop**. In addition the starch factory can be designed to produce **different grades of starch in its modified forms** for diverse applications including for **food, textile & printing industry****
- **The starch can further be processed to produce **dextrose** (an ingredient in IV solution plant) & **fructose** by hydrolysis**



Future Strategic investment Area at Mekelle ...

7-Artemether Isolation Plant

- **The plant *Artemesia Annua* is cultivated in some regions of our country for its anti-malarial value. One of the ingredients in Artemin tablets of APF is artemether which can be extracted from this plant.**
- **Establishing an isolation laboratory is required to get the API in its powder form meeting international quality standards. API can also be exported to multinational brand manufacturers.**



Future Strategic investment Area at Mekelle ...

8-Medical Supplies Industry

- This includes the production of various **dressings, sutures & plasters**.
- The production of **disposable latex gloves** is also an important area as there is huge daily consumption in health institutions & pharma factories. Apart from import substitution, the significance of this industry is evident in prevention of health hazards, treatment delays or production down time merely due to shortages of imported stocks medical supplies



Future Strategic investment Area at Mekelle ...

9-Sesame Oil extraction Plant(BP, USP standard)

- **As the sesame production is abundant in Ethiopia, there is good scope to produce the BP or USP grade oil which can be exported for use in preparation of **oily Intramuscular injections****



Future Strategic investment Area at Mekelle ...

10-Glass factory, Pharma & Clinical grades

- Taking into account of the **wide availability of silicates** in the country especially in Tigray, & the diversity of glass wares including syrup bottles, ampoules ,vials, beakers, test tubes etc that can be supplied to the pharma , clinical & chemical laboratories, this is one area of investment focus & development.

Future Strategic investment Area at Mekelle ...

II-API manufacturing plants

- **Setting up of APIs manufacturing plants is new experience in Ethiopia & it needs thorough & well thought studies.**
- **The benefits are obvious however it requires flourishing of various related domestic chemical industries to avoid the vicious circle of being dependant for inputs from abroad.**
- **Example ,oral grade Betalactamic compounds like Ampicillin Trihydrate & Amoxicillin Trihydrate synthesis is from the parent molecule 6-APA(6-Aminopenicillanic Acid).**



Future Strategic investment Area at Mekelle ...

12-ENT preparation plants

- **Ear , Eye , Nose and Throat preparation/drops , ointment , lozenges ...**
- **High demand**
- **No local manufacturer**



Future Strategic investment Area at Mekele ...

13-Nutritional supplements

- **Like value added infant formula/milk**
- **High demand**
- **For malnutrition ,under weight**



Thank you!!!