



**Central Department of Feasibility Studies
and Investment Costs Estimation**

General Department of Economic Feasibility Studies

Summary of a Preliminary Feasibility Study on Manufacturing Plastic Pipes



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INVEST IN EGYPT

GAFI Translation Department

Summary of a Preliminary Feasibility Study on Manufacturing Plastic Pipes

Plastic Industries Sector*

Project General Description

- This feasibility study aims to forecast the financial indicators, economic benefits, and social impact of establishing and operating a plastic pipes plant, in line with the investment opportunities outlined in Egypt's investment map.
- The plastic Industries sector is one of Egypt's most vital industries, playing a key role in driving economic growth. Egypt leads Africa in terms of polymer market size and is among the continent's top producers, accounting for roughly 20% of Africa's total output. Egyptian investments in plastic raw materials estimated at \$7.2 billion, with over 7500 registered factories.
- Plastic industry is considered a strategic industry, as it plays a complementary role across most other sectors and has consistently contributed to Egypt's economic growth. According to 2023 data from the Chemicals and Fertilizer Export Council, the sector currently employs around 542 thousand workers.
- Egypt's strong petrochemicals sector has been instrumental in boosting plastic production by supplying key raw materials such as polyethylene (PE), polypropylene (PP), and PVC. Achieving self-sufficiency in these materials has reduced reliance on imports—previously covering over 50% of domestic demand.
- Investing in a plastic pipe plant presents a promising investment opportunity due to the rising demand and diverse applications across multiple industries. The plastic pipes market is experiencing steady growth, driven by:
 - Expanding infrastructure projects
 - Increased demand for modern plumbing solutions
 - Large-scale national development initiatives
- The project will help reduce import dependency while increasing local market supply.

* The data mentioned in this study are preliminary, estimated, and indicative material retrieved from the competent authorities for the purposes of promoting the investment opportunities available at GAFI. Accordingly, they may not be used before banks, the judiciary, or any other government entity or any third party.

The Project Products

Drainage Pipes

- 1-inch pipe – 4mm thickness
- 1.5-inch pipe – 4mm thickness
- 2-inch pipe – 4mm thickness

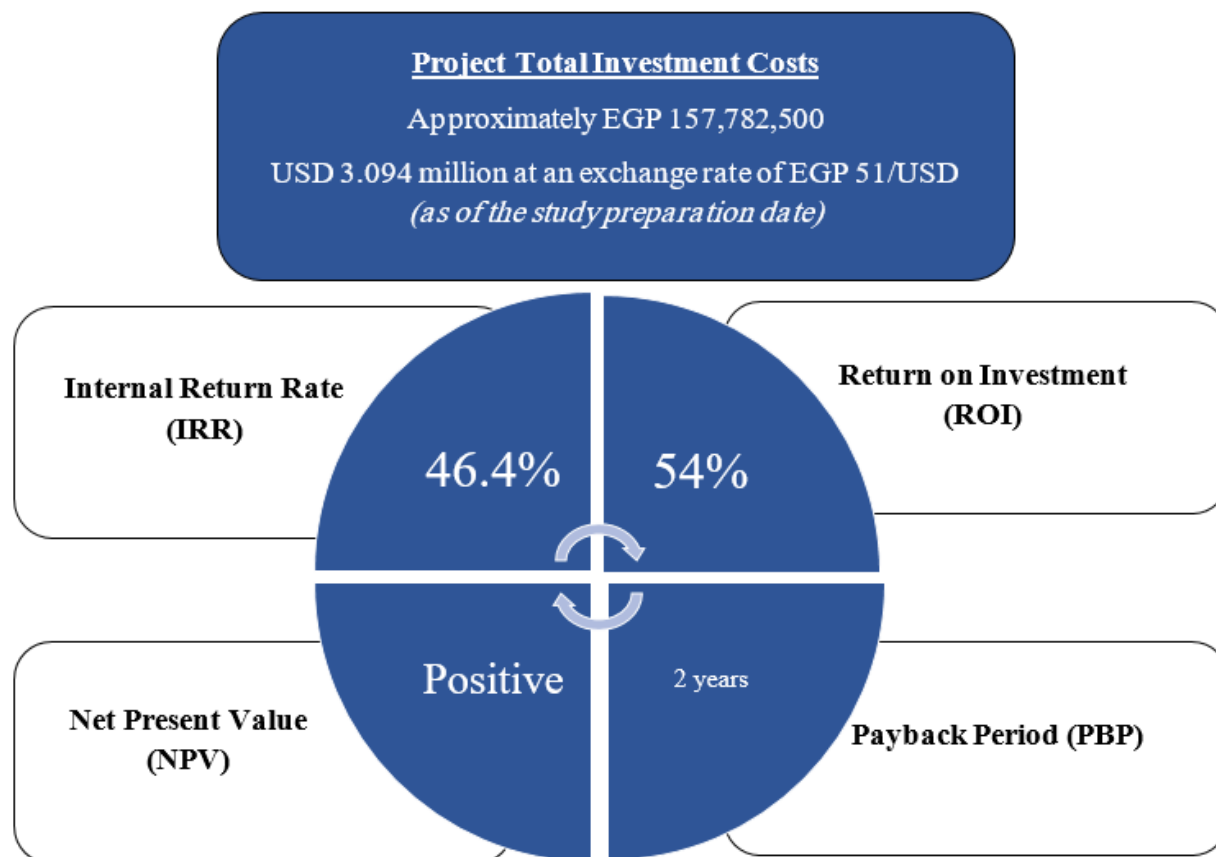
Water Supply Pipes

- ¾-inch pipe – 25mm thickness
- 1-inch pipe – 32mm thickness

The Investment Opportunity and the Location of the Project

- **Project Location:** According to the data from the relevant authorities and data available on the investment map, the project can be established in the New Valley Governorate, on a surface area ranging from 1000 m² to 4075 m² by way of sale. Alternatively, the project may also be set up in any other industrial zone meeting the necessary operational requirements.

Project Key Financial Indicators



The Outcomes of the Legal Feasibility Study

- In accordance with the provisions of Investment Law, plastic industry is one of the activities subject to aforementioned Law. Moreover, the State pays attention and grants

incentives to such activity. Companies incorporated for such purpose may be incorporated in accordance with the provisions of Investment Law, Companies Law, or Commercial Law, at the owners' discretion.

- The project can be incorporated as a sole proprietorship, partnerships, a limited liability, or a joint stock company.
- There are some legal limitations that must be taken into consideration to obtain the activity license from the concerned bodies, which are as follows:
 - The Governorate having jurisdiction over the land and its affiliated local units, or the City Hall
 - Civil defense and fire requirements
- The Industrial Development Authority (IDA) introduced Law No. 15 of 2017, which established the "Licensing by Notification" system for industrial activities that pose minimal risk to health, safety, the environment, or public security. This system is designed to be simple and efficient, with the executive regulations setting out streamlined procedures for obtaining a license to operate an industrial facility. These procedures include:
 - Submitting an application to IDA to obtain a license to commence industrial activity.
 - Providing a recent extract from the commercial register.
 - Submitting proof of payment of the required licensing fees, along with a certified copy of the Industrial Activities Practices Guidelines.
 - Presenting proof of land or property tenure —whether a deed of ownership, lease agreement, or usufruct contract.
- In 2017, IDA published a comprehensive guide outlining the requirements for licensing industrial facilities, which can be accessed via the following link:
http://ida.gov.eg/cs/groups/public/documents/document/cnnf/yxbw/~edisp/revers_app_pdf.
- For companies intending to export, they must either obtain an Import/Export Card clearly stating the type and description of the products involved; or work through an intermediary company that handles all export procedures and customs clearance on behalf of the project.

The Outcomes of the Environmental Feasibility Study

- The project is classified as a Category (B) project, as set out under No. (30) in projects environmental classification list issued under Item (7) of Article (14–bis.) of Law 105/2015 (dated October 19, 2015) Amending Environment Law 4/1994 and its amended Executive Regulations, and in accordance with the Minister of Environment Decree 16/2016.
- Projects are subject to occupational health and safety regulations based on their potential impact on human health. Facilities must be designed and constructed to minimize health hazards and environmental risks. Key requirements include:

- Buildings must be constructed to prevent the entry of pests, insects, birds, smoke, dust, and microbes;
- Walls and ceilings should be made from heat-insulating materials, coated with non-toxic, light-colored paints that resist fungal growth, are washable, and easy to clean;
- The design must incorporate rodent-proofing systems;
- Adequate ventilation systems are essential to prevent excessive heat, steam buildup, dust accumulation, and odors, ensuring safe disposal of polluted air; and
- Throughout all production stages, products, raw materials, and items must be handled using sealed containers made of non-harmful materials that are easy to clean and disinfect to maintain product safety and hygiene.

The Outcomes of the Social Feasibility Study

- Investment projects represent one of the cornerstones of national economic development, serving as a key driver in achieving economic, social, and developmental goals. Ultimately, these projects contribute to improving the overall well-being and quality of life for society.
- The project plays a significant role in creating new job opportunities, both directly—through employment within the project itself—and indirectly, via its supply and distribution chains. It is expected to generate around 43 direct jobs, in addition to numerous indirect employment opportunities.
- The project aligns with the national import substitution program, promoting local manufacturing, reducing reliance on imports, saving foreign currency, and localizing industry—all of which bring tangible benefits to the national economy.
- It also contributes to the socioeconomic development of the surrounding community through the indirect services it requires. This includes complementary industries and support services related to its operations, which further boost the creation of indirect employment.

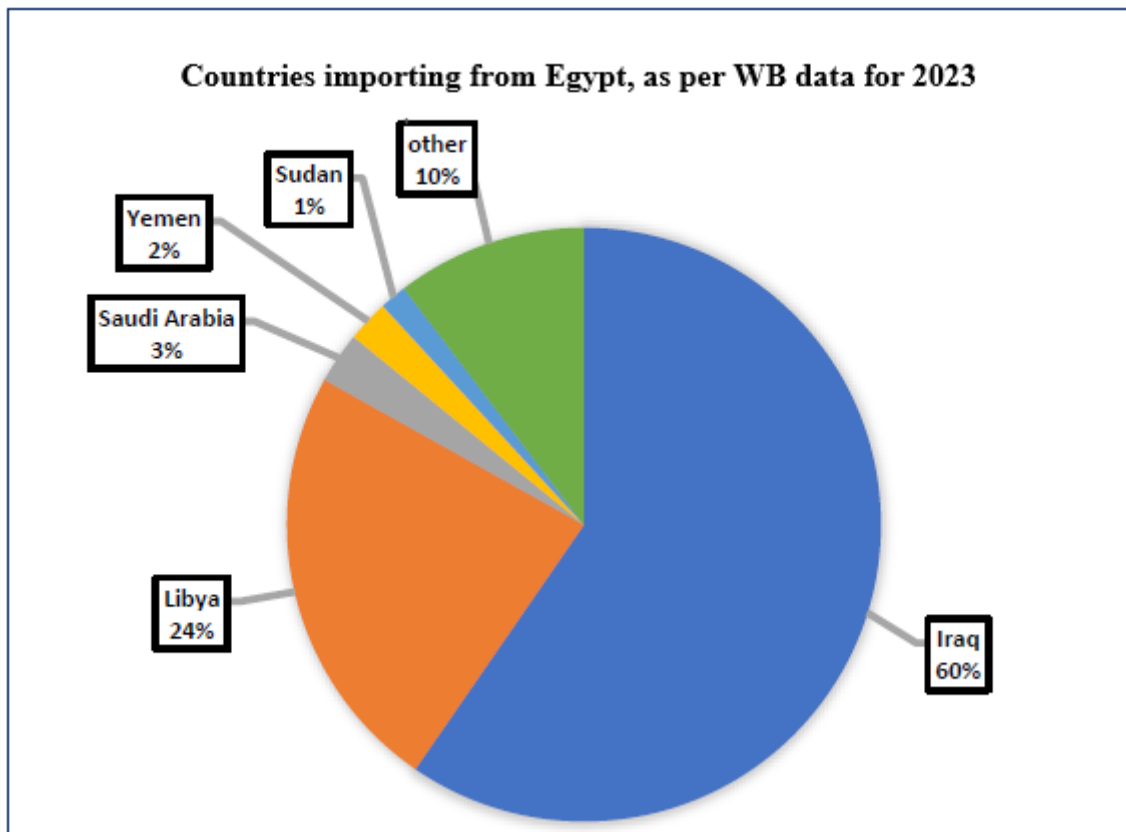
The Outcomes of the Marketing Feasibility Study, Growth Drivers, and Competitiveness

- Egypt offers a wide array of competitive advantages that significantly enhance its capacity to boost local investments and attract more foreign direct investment. The Egyptian economy is characterized by promising investment opportunities, supported by the implementation of major national infrastructure projects aimed at expanding and modernizing the road network, upgrading seaports and maritime transport, constructing new international airports, and developing tourism centers, mining complexes, and renewable energy hubs. These efforts are further reinforced by the availability of raw materials and natural resources, which support the establishment of projects across a variety of priority sectors.
- Egypt's strategic geographic location positions it as a key global trade hub. It provides optimal access to international markets and plays a vital role in global logistics routes, particularly with the Suez Canal, one of the world's most important maritime corridors.

- The country also boasts robust logistical infrastructure, which facilitates both domestic trade and export activities, including 27 international and domestic airports, 18 commercial ports, and an internal road network spanning 165,5 thousand km.
- One of the growth drivers and competitiveness of the project is Egypt’s signing of a number of international trade agreements, including:
 - Greater Arab Free Trade Agreement (GAFTA).
 - Common Market for Eastern and Southern Africa (COMESA).
 - Agadir Free Trade Agreement
 - Egypt- EU Association Agreement
 - European Free Trade Association (EFTA)
 - Qualified Industrial Zones (QIZ)
 - The Southern Common Market (Mercosur)

1. Supply Volume

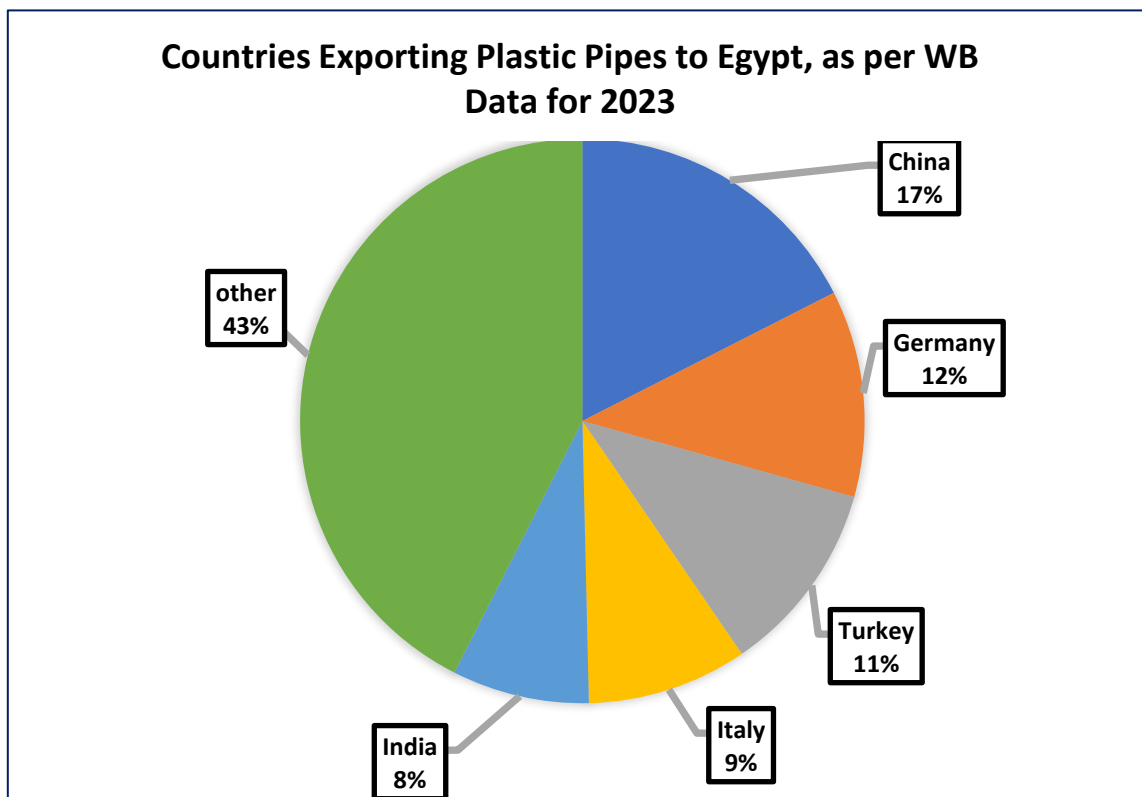
- According to World Bank data for 2023, Egypt ranked 33rd out of 216 countries worldwide in plastic pipe exports. Egypt's total exports of plastic pipes amounted to approximately \$161 million, out of a global total of \$32.724 billion, giving Egypt a global market share of around 0.491%.
- In 2023, Egypt exported plastic pipes to 98 countries. The top five destination markets accounted for a combined total of \$144 million in exports, illustrated in the below chart:



- Egypt’s plastic pipe exports were distributed among several key markets: (Iraq: \$96 million), (Libya: \$38 million), (Saudi Arabia: \$4 million), (Yemen: \$4 million), (Sudan: \$2 million), and (Other countries: \$17 million).

2. Demand Volume

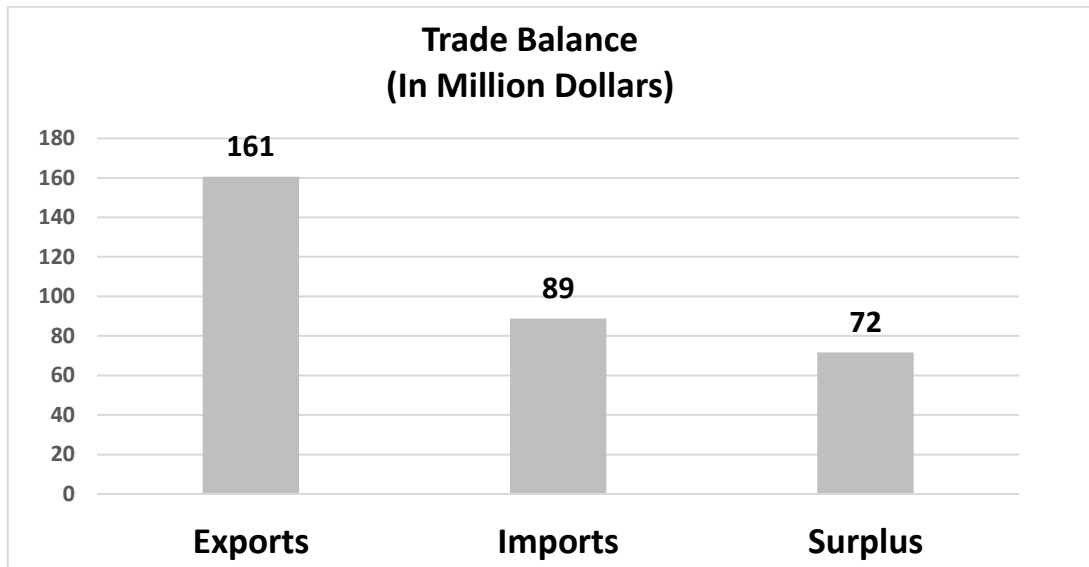
- According to World Bank data for 2023, Egypt ranked 62nd out of 225 countries worldwide in terms of plastic pipe imports, with total imports valued at approximately \$89 million. This represents 0.27% of the global plastic pipe import market, which amounted to \$32.724 million.
- In 2023, Egypt imported plastic pipes from 73 countries, with the top five countries accounting for \$51 million of total imports. This can be illustrated in the following chart:



- The import volume by country was as follows: (China: \$16 million), (Germany: \$11 million), (Turkey: \$10 million), (Italy: \$8 million), (India: \$7 million), and (Other countries: \$38 million).

3. Trade Balance

- The data presented above indicates a trade surplus in plastic pipes in 2023.
- In 2023, Egypt's exports of plastic pipes amounted to approximately \$161 million, while imports totaled around \$89 million. This can be illustrated in the following chart:



- Accordingly, Egypt achieved a trade surplus of approximately \$72 million in plastic pipe products.

4. Local Market

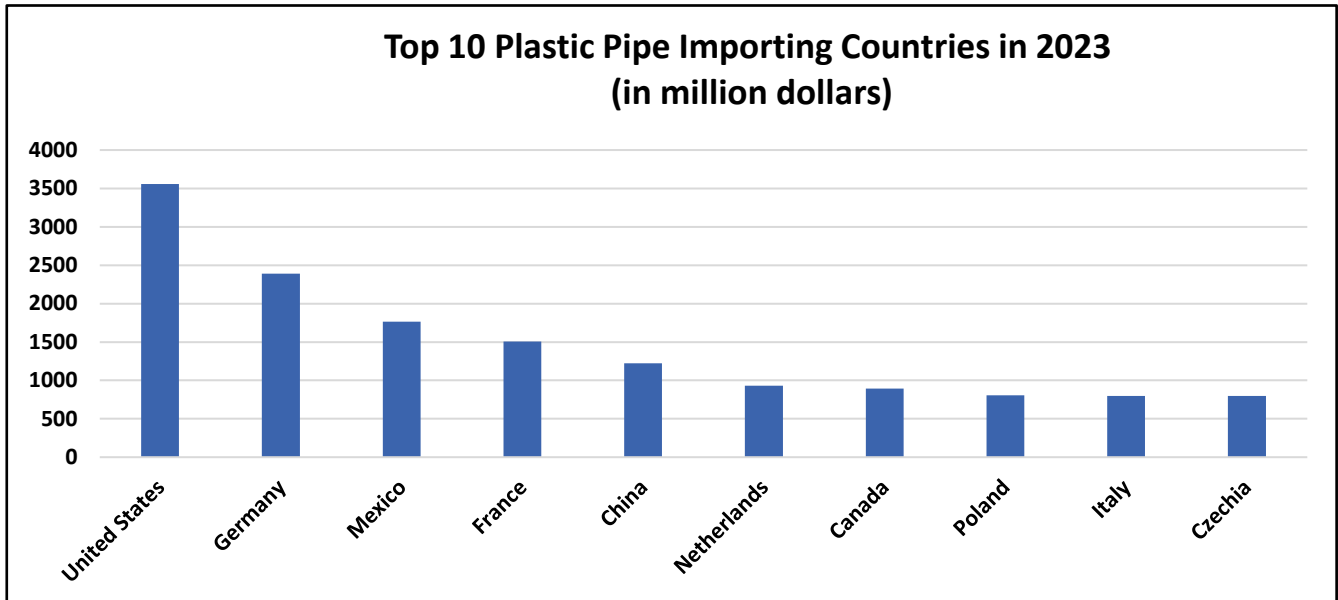
- The pipe manufacturing industry, in all its forms, is among the few sectors that have successfully achieved self-sufficiency in the local market, effectively meeting demand across various applications.
- The industry’s success extended beyond serving the local market. A significant production boom and the entry of new companies into the sector paved the way for expansion into export markets across the Arab region, Africa, and Europe. The industry has reached a level where it competes with leading international manufacturers in terms of both quality and price.

5. Global Market:

- The global plastic pipes market was valued at approximately \$56.55 billion in 2023, and it is expected to grow at a compound annual growth rate (CAGR) of 6.8% from 2024 to 2030.
- In 2023, the United States represented the largest market for plastic pipes in North America. The market’s growth is primarily driven by the boom in shale gas exploration and production, as well as the increasing use of plastic pipes in oil and gas extraction, transportation, and distribution.
- Water scarcity and the need for efficient water management are major concerns in the U.S., where plastic pipes play a vital role in water distribution, irrigation, and drainage systems. The growing focus on infrastructure renewal and development, as seen in expansion initiatives such as mergers and acquisitions, is expected to fuel construction activities across the country—consequently boosting market growth.
- One of the key challenges facing the market is the volatility in raw material prices used in manufacturing plastic pipes, driven by fluctuations in supply and demand.

6. Potential Export Markets:

- There is strong potential to expand into additional foreign markets, provided that production adheres to specific standards and specifications that meet the needs of the target countries, while offering competitive pricing. The project can also aim to fulfill the demand of the world's top importing countries of plastic pipes. According to World Bank data for 2023, the value of imports by these leading countries (in million dollars) is as follows:



- By focusing on high-quality manufacturing that meets international specifications, the project can contribute to increasing export volumes to the world's top importing countries.