

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED

BUSINESS PLAN

FOR

SHIPBUILDING AND MAINTENANCE

1.0. **Executive Summary.**

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED is the company dealing with building of marine fishing, building of ships and floating structure also activating of ship design and repairing ships and it is registered as a private company incorporated in the United Republic of Tanzania with Certificate of incorporation No. 183055879 issued on 10th March 2025. The proposed business plan for intending to establish a project for construction of cargo ship from what its start and until the end of construction, the company plan to take a tender from government to build the cargo ship for carryings variety of commodities from different types of countries.

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED Board of Directors have experiences of ship building, which will help to reduce the problems in importations

The principal objective of the company is to establish itself as a significant player in the building of marine fishing, building of ships and floating structure.

1.2 **Mission Statement**

The company mission is to establish a world – class drive through ship building and maintenance business that will make available a wide variety of ships at affordable prices to the local and international markets

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED 's will make its best effort to create a unique products place which satisfy

customers' needs. RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED 's will invest its profits to increase the employee satisfaction while providing stable return to its shareholders.

1.3 Core Values

Provision of services with integrity and creativity while treating each customer as king.

1.4 Integrity

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED act in a right and ethical way in all manners, ensuring fairness with honor and grace.

1.5 Quality

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED give our best efforts with endless passion & challenge spirit to become the world best in every way, we protect the interests of our clients and the short communication lines between our clients and our management assure an effective approach.

1.6 Team Management

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED believe in the inherent worth of all people and the philosophy that together, everyone achieves more

1.7 Reliability

You can trust your marine vessel to our care as we are fully committed and dedicated to our clients.

1.8 Basis of the Business Plan

A study was conducted prior to as the basis for preparation of this plan, the study was based on the following objectives and approach:

- To analyze the relevant market and other factors impacting upon the supply and demand of local ship building and related products
- To examine the physical and operational characteristics of the existing market in order to determine the positioning of the proposed company's business in the market place.

1.9 Study Approach

- Participatory: Semi- structured interview and discussion were held with the Company's Directors, stakeholders in shipping industry and related businesses
- Physical visits to the company's main business premises
- A brief market survey on hand craft locally and internationally.
- Conduction of profitability/viability test of the investment, using the appropriate financial projections for the initial period of five years proposed for the business operations.

1.10 Keys to Success

The keys to success will be:

- Built up systems in production, quality control and operations and developed a proven and successful range of high-quality of ship building industry.
- Successfully established sales channels across the world.

- Employee experts to ensure the best ship building.
- Marketing strategies aimed to build a solid base of loyal customers, as well as maximizing the sales of high margin products.

1.7 **Project Sustainability**

The project sponsors having studied market conditions and the infrastructure in Tanzania are convinced that the project will be able to operate undisturbed.

2.0 **Over view of ship building industry**

The shipbuilding industry has ties to many other industries, such as marine engineering, offshore industries and defense. Shipbuilding is concerned with the production of large, mainly ocean-going vessels for either merchant or military purposes.

The industry is supported by product and service providers for the maintenance, conversion and eventual decommissioning of the vessels.

Today's major shipbuilding companies are mostly in the Far East, and include the China State Shipbuilding Corporation, China Shipbuilding Industry Corporation, Daewoo Shipbuilding and Marine Engineering, Hyundai Heavy Industries, Samsung Heavy Industries and Imabari Shipbuilding, who main global suppliers of bulk carrier vessels, large container ships, tankers, and Ro-ro ships.

Shipbuilding is a cyclical and capital-intensive industry where fleet expansion can have dramatic effects on a shipping line. Shipping lines can generally be divided into cruise lines (carrying passengers) and freight lines (carrying cargo). Of the various types of ships, tankers make up the largest segment with regards to tonnage. In 2019, the industry built around 15,000 tankers, with a combined gross tonnage of 13 million. This compares with cruise ships, which, during the same time, saw just 773,000 tonnes of ships built.

Shipbuilding is used provide large ships to serve both merchant and military maritime needs. This includes the building of container and cargo ships, passenger ships and naval vessels.

Shipbuilders, also known as shipwrights, have been part of human history for thousands of years, with evidence of ships hulls dating back to Ancient Egypt in 3100 BC and Egyptian pottery as old as 4000 BC showing designs for early boats.

Modern shipbuilding usually takes place in a shipyard and can be completed by joining pre-assembled parts of a vessel together on-site.

Different nations have been famous for their shipbuilding over the centuries, but modern industrial shipbuilding has suffered in those nations with high labour costs where government subsidies have been removed.

A decline has occurred in shipbuilding over the past 50 years across Europe, but it still remains a dynamic center for commercial shipbuilding, with around 150 large shipyards employing around 120,000 people in the EU. Europe maintains around 6% of the market share in terms of tonnage, with the industry remaining important in a number of countries, contributing to regional industrial infrastructures as well as national defense and security interests. Shipbuilding across Europe primarily focusses on the building of complex vessels including cruise ships, ferries, luxury yachts and naval vessels.

In the United States, the Jones Act was introduced, placing restrictions on the ships that can be used to move domestic cargo. This has offered some protection for merchant shipbuilding in the U.S., although contract prices remain high, especially when compared to the competition in Japan, China and South Korea.

China, Japan and South Korea were the major shipbuilding nations in 2019, with China, for example, completing 22.3 million gross tonnes of ships that year. These nations remain the leading countries for today's global shipbuilding output.

2.1 Key Industry Developments

July 2023 – Hyundai Mipo Dockyard announced plans to develop an advanced Hybrid Electric Propulsion System with next-generation positioning for a commercial service operation vessel (CSOV) with the Korea Register of Shipping (KR).

June 2023 – A major contract with Acta Marine for the construction of two further CSOVs, Construction Service Vessels, recently concluded between Tersan, one of the main shipyards in the shipping sector. This new contract brings Tersan Shipyards' order book up to four sister projects of Acta Marine, following the two CSOVs currently under construction.

June 2023 - Udupi Cochin Shipyard Limited (UCSL), the Indian government-run shipbuilder bagged an international order to design and construct six new-generation 3800 DWT cargo vessels for a Norwegian firm, Wilson Shipowning AS. A contract of USD 72 million has been concluded with the possibility of buying eight more ships. The first vessel is to be delivered in December 2024; the rest are due for completion by March 2026.

April 2023 – Chinese shipyard China Merchants Heavy Industry-Jiangsu awarded a first contract to French LNG containment specialist GTT to design four new LNGCs (Liquified Natural Gas Carriers) on behalf of European ship-owners.

March 2023 – South Korean Shipyard Samsung Heavy Industries (SHI) awarded a contract to French LNG containment specialist GTT to design the new FLNG (Floating Liquified Natural Gas) on behalf of an Asian company.

January 2022 – French shipping company TOWT (TransOceanic Wind Transport) signed a shipbuilding contract for its custom-designed, new sailing cargo ship. It is expected to be put into service in the summer of 2023 by the Piriou Marine Shipyard, which is based in France

2.2 Shipbuilding

Key takeaway

Shipbuilding involves the building of large sea-going vessels, usually of steel although other materials can also be used, including wood and composites. Shipbuilding differs from boatbuilding, which is the construction of smaller vessels (generally up to 50 metres in length) using many similar materials.

The global shipbuilding industry is currently dominated by manufacture in the Far East, with the growth of Chinese and South Korean shipbuilding now outpacing the West. The UK shipbuilding industry involves a small number of shipyards that build specialist vessels, including ships for the Royal Navy, as well as smaller shipyards that build smaller craft including tugs, ferries and vessels for coast guards, as well as fishing and survey/research vessels.

Ship and boat building both also involve manufacture of related marine equipment including sails, engines, electronics and other fittings.

3.0 Market Analysis

Marine Vessel Market Size, Share, & Industry Analysis, By Ship Type (Container Ships, Passenger Ships, Bulk Carriers, Tankers, Offshore Ships, Specialty Vessel, General Cargo Ship, and Others), By Dead Weight (100 GT to 499 GT, 500 GT to 24,999 GT, 25,000 GT to 59,999 GT, and Above 60,000 GT), By System (Propulsion System, Control System, Electrical system, Outer Structure, Power Generator System, Deck Machinery, and Others

3.1 Key Market Insights

The global marine vessel market size was valued at USD 152.38 billion in 2023. The market is projected to grow from USD 160.56 billion in 2024 to USD 247.96 billion by 2032, exhibiting a CAGR of 5.6% during the forecast period. Asia Pacific dominated the marine vessel market with a market share of 52.46% in 2023.

3.2 Marine Vessel Market Trends

Modern Digital Transformation and Technologies that are Used in Shipbuilding to Enable Market Growth

The use of modern technologies is being actively applied in the shipbuilding sector, which is developing at a rapid pace. Digital transformation is at the forefront of competition and globalization. This trend requires the shipbuilding industry to find a road map that will enable it to adapt to the digital age. The increasing use of modern technologies in shipbuilding is escalating the market growth. Technologies, such as 3D printing, engines powered by LNG, cybersecurity, digital platforms, fuel optimization systems, smart ship solutions, laser cladding machines, Internet of Things, new material, robotics, virtual and augmented reality, and others are propelling the demand for shipbuilders.

For instance, in July 2022, French LNG containment specialist GTT signed a contract for its smart shipping solution GTT Digital to equip more than thirty vessels of an LNG shipment company within two years. The contract

provides for deploying sensors, automatic data collection systems, and "intelligent software" to monitor and optimize ship energy consumption and environmental performance.

3.3 Marine Vessel Market Growth Factors

International Maritime Trade has Continued to Grow to Propel the Market Growth

The backbone of globalization and industrialization is sea transport, which promotes supply chains facilitating trade across borders. The increasing focus of major suppliers in various markets relying on sea routes for transport is driving the market. Higher focus from raw material suppliers and commodity market suppliers to transport cargo through marine shipments is estimated to drive market growth as it reduces fairly low carbon emissions compared to road freight transportation. Due to increased demand for large volumes of products, particularly crude oil, steel, ore, and finished goods, such as motor vehicles, predominantly from developing countries, shipping has experienced strong growth over the last decade. The trans-shipment of goods by sea or other waterways and their transit through the world's seaports account for about the largest trade volume.

The rise in trade volume is increasing the demand for ships. Further, as per the UNCTAD report, 11,055 million tons of goods were transported in 2019 and 10,631 million tons in 2020. Moreover, the demand for tankers, cargo ships, commercial bulk carriers, and special purpose vessels will

increase due to an upward trend in international seaborne trade or maritime transportation, reinforcing the shipbuilding sector's outlook.

Numerous trade agreements have been concluded as regards the transportation of goods by both developed and developing countries. Suppliers have, therefore, shifted the choice of waterways as a more efficient mode of transport. This increased tendency has led to better and more efficient container carriers with different sizes and capacities being developed by the cargo vessel operators, thus driving the marine vessel market growth. Furthermore, FTAs made reductions in customs duties and taxes possible. The post-pandemic recovery resulted in a rapid acceleration in freight and cargo transportation movement in all sectors, leading to higher demand for marine vessels. Thus, an increase in cargo movements through seaways also witnessed a significant change, resulting in market growth.

In addition, as exporters and importers do not owe taxes to the government, there has been a growth in trade activities. Countries in trade blocs are relaxing their bans, making doing business easier. The increased demand for better containers is thus a consequence of the boom in trade agreements, which also supports shipbuilding market growth globally. For instance, in September 2022, India actively participated in regional and multilateral trade negotiations to diversify and improve its export market while ensuring access to natural resources, intermediates, and capital goods that will support national production.

3.4 Restraining Factors

High Development, Manufacturing, and Maintenance Costs of Marine Vessels Hamper Market Growth

The high development cost of building a marine vessel is a prime factor that hampers the marine vessel market growth. Vessels and surface combatants include highly expensive sensors, electrical, power generation, communication, and other management systems. Rapidly changing technology in the sensor systems is accountable for replacing the conventional system. Therefore, the high cost of building naval warships is restraining the market growth. Further, the costs for maintenance and repair of ships are about 10% but could rise to as much as 25% to 30% of the total cost of operations in older vessels.

The age of the vessel has often been associated with these costs. Still, it is also caused by unforeseen repairs, inadequate spare parts, and a lack of qualified technicians. Preparing and implementing a maintenance plan when the ship starts to operate and during its design phase can mitigate these problems.

3.5 Marine Vessel Market Segmentation Analysis

The global market is segmented into ship type, dead weight, system, and solution.

- **By Ship Type Analysis**

Container Ships Segment to Gain Momentum Due to High Demand for Global Trade During Forecast Period

Based on the ship type, the market is segmented into container ships, passenger ships, bulk carriers, tankers, offshore ships, specialty vessel, general cargo ship, and others. In other segments, we have considered the ferry boat, cruise ship, LNG & LPG carrier, and various tankers.

The container ships segment held the largest market share in 2023 and is estimated to be the fastest-growing segment during 2024-2032. The growth is due to its increasing applications for carrying loads in large amounts, and it can carry up to 24,000 GT. The increasing demand for container ships globally will fuel segmental growth during the forecast period. For instance, in April 2023, China State Shipbuilding Company (CSSC) and French container ship operator CMA CGM signed a deal for sixteen container ships of USD 3.06 billion, breaking the record as China's most expensive vessel purchase in history. The agreement calls for 12 dual-fuel methanol container ships with 4 LCF LNG containers and 15,000 20-foot equivalent units capable of holding 23,000 Twenty-foot Equivalent Units. (TEUs). The increasing demand for freight and cargo sea transportation is one of the major factors contributing to the segment growth.

Moreover, the bulk carriers' segment is the second fastest-growing segment. The increasing demand for bulk carriers for transporting large amounts of goods, such as cereals, coals, grains, ore, cement, and so on, catalyzes segmental growth. Further, bulk carriers have a large carrying capacity of up to 300,000 tons, and increasing technological aspects in bulk carriers are increasing demand. For instance, in June 2023, Kansai

Electric Power Co (KEPCO) signed a contract with Japanese shipping giant Mitsui O.S.K. Lines (MOL) to manufacture a dual-filled bulk carrier that is capable of burning either conventional marine fuel oil or liquid natural gas LNG. It's going to be built at Oshima Shipbuilding Co.

- **By Dead Weight Analysis**

25,000 GT to 59,999 GT Segment Set to Grow due to the Rising Demand for the Transportation of Goods

Based on the dead weight, the market is segmented into 100 GT to 499 GT, 500 GT to 24,999 GT, 25,000 GT to 59,999 GT, and above 60,000 GT.

The 25,000 GT to 59,999 GT segment is estimated to be the fastest-growing segment from 2024-2032. We have considered container ships, chemical tankers, and so on in this segment. The growing demand for these ships globally is fueling segmental growth. For instance, according to a report by UNCTAD 2022, the oil tanker fleet increased by 29% to 30% in 2022.

Further, the above 60,000 GT segment accounted for the largest market share in 2023. Under the 60,000 Gt weight, we have considered bulk carriers, container ships, liquefied gas carriers, and other ships. Furthermore, according to the UNCTAD 2022 report, the general cargo share in total carrying capacity increased by 4% to 5% in the heavy dead weight category.

- **By System Analysis**

Increasing Technological Trends and Advancement in Different Systems are Propelling Segmental Market Growth

Based on the system, the market is divided into a propulsion system, control system, electrical system, outer structure, power generator system, deck machinery, and others.

The propulsion system segment accounted for the largest market share in 2023 and is likely to be the fastest-growing segment from 2024 to 2032. Decarbonization and environmental regulations, such as the Carbon Intensity Indicator (CII), will continue to drive fleet renewal by various vessel owners. The increasing research and development of propulsion systems is propelling the market growth. For instance, in December 2022, a joint venture, SAL Heavy Lift, and Netherlands-based Jumbo Shipping awarded a contract to Wartsila for four methanol hybrid propulsion systems. The methanol hybrid propulsion system is being built at the Wuhu Shipyard in China.

Furthermore, the deck machinery segment is the second-fastest growing segment. The increasing utilization of deck machinery for different applications of ships is driving the demand for segmental growth. For instance, in November 2022, Pelagic Wind Services awarded a contract to Kongsberg Maritime to design and equipment for new CSOVs. The equipment package comprises deck machinery, a hybrid propulsion system, a power electrical system, and others.

- **By Solution Analysis**

Increasing Indigenous Manufacturing of Ships by Emerging Countries is Driving Market Growth

On the basis of the solution, the market is segmented into line fit and retro fit.

The line fit segment accounted for the largest marine vessel market share in 2023 and is expected to be the fastest-growing segment from 2024 to 2032. Increasing focus on indigenous production of ships by emerging countries is expected to boost segment growth in the coming years. For instance, in April 2023, France and China signed the world's biggest shipbuilding contract. French shipping company CMA CGM and China State Shipbuilding Corp. (CSSC) struck an agreement to build 21 container ships. The total value of the contract was USD 3.06 billion. The retro fit segment is growing side by side to line fit as major.

- **Regional Insights**

countries focus on the modernization and upgradation of their marine fleet with next-generation technologies. Moreover, IMO's 2023 regulation to reduce GHG emission target is to reduce emissions from the international shipping industry by nearly 40% by 2030 & 70% by 2050 compared to the 2008 levels of GHG emission. The new regulation affects ships' efficiency and carbon emissions effective from January 2023. The new regulation transforms international shipping and creates a new wave of uncertainty. The regulation affects both commercial as well as non-commercial marine vessels.

- **Based on regions, the market is classified into Europe, North America, Asia Pacific, and the Rest of the World.**

The market in the Asia Pacific accounted for the largest marine vessel market share in 2023. It is likely the fastest-growing region during the forecast period due to China, Japan, and South Korea's increased marine fleet. In addition, according to the UNCTAD Report 2021, China, Japan, and the Republic of Korea accounted for 94% of the shipbuilding market. For instance, in March 2023, Cummins announced a new hybrid-compatible B4.5 propulsion and auxiliary engine for Asia Pacific marine markets. Available as a stand-alone engine with a control system, as a generator set, or as a hybrid-ready package, the light but power-dense B4.5 is designed for both recreational and commercial marine applications.

Europe is expected to be the second fastest-growing region during the forecast period. Growing investments from private firms to build marine ships in the region are projected to boost the marine vessel demand owing to trends in roll-out carriers. The presence of key marine vessel producers and the second-largest fleet in the region has propelled the global market growth. For instance, in November 2022, a Greek ship-owner contracted Hanwha Ocean (former Daewoo Shipbuilding & Marine Engineering) to build the LNG carriers for Maran Gas. The total contract was worth USD 466 million. Hanwha will build construction of two 174,000 cubic meter class LNG carriers equipped with a high-pressure dual-fuel propulsion engine (ME-GI). Marine vessels will be built at the Okpo Shipyard and are expected to be delivered in 2026.

North America is expected to grow at a significant CAGR during the forecast period. The increased federal funding for procuring marine ships by the U.S. government and growing demand for next-generation and advanced technological ships for maritime transportation are expected to drive the market's growth. For instance, in September 2022, BCI Marine will supply its marine engines to Canada's OXE Marine high-performance diesel outboard engines distributor. The engines are designed for commercial users who need a low-maintenance, long-range engine that provides excellent performance and is extremely durable.

Latin America significantly ensures a wide distribution of goods through supply chains, including those considered essential, such as food and medical supplies. Thus, the market is expected to grow significantly in the region due to the adoption of hybrid propulsion in the marine shipping industry. In November 2020, Wartsila and CBO to partner in Latin America's first hybrid vessel upgrade project. Both companies agreed to convert a vessel to operate with hybrid propulsion. The vessels are to be fitted with a battery pack for hybrid propulsion, improving the vessel's energy consumption and reducing its carbon footprint.

Middle East & Africa has projected a steady growth owing to the increasing transportation of goods globally. For instance, in May 2023, AD Ports Group announced to buy five bulk carriers from Saif Power tec, the company in Bangladesh, for the movement of general cargo and dry bulk cargo between the UAE's Fujairah Port and Bangladesh. The acquisitions of

vessels will expand the operations of the group's shipping division under its Maritime Cluster and help it meet its global expansion targets.

3.6 Key Industry Players

Top Market Players Concentrate on Mergers & Acquisitions for Business Expansion

The market is fragmented as many companies are engaged in producing marine vessels. To design and develop marine ships, Original Equipment Manufacturers (OEMs) launched innovative technologies, including robotic systems, 3D printing, and integrated electric propulsion.

General Dynamics Corporation, Thales Group, Hyundai Heavy Industries Co. Ltd., Mitsubishi Heavy Industries Co. Ltd (South Korea), and BAE Systems were some of the top marine vessel manufacturers in 2022. In the first quarter of 2021, Hyundai Heavy Industries Co. Ltd. acquired the Daewoo Shipbuilding & Marine Engineering Co. (DSME). In 2019, China State Shipbuilding Corporation (CSSC) completed a merger with China Shipbuilding Industry Company (CSIC) to form a new shipbuilding company.

3.7 List of Top Marine Vessel Companies

- BAE Systems (U.K.)
- Mazagon Dock Shipbuilders Limited (India)
- Garden Reach Shipbuilders and Engineers (GRSE) (India)
- Hyundai Heavy Indus

- tries Co. Ltd (HHI) (South Korea)
- Hyundai Mipo Dockyard (South Korea)
- General Dynamics Corp NASSCO (U.S.)
- Larsen & Toubro Ltd. (India)
- Navantia (Spain)
- ThyssenKrupp Marine Systems (Germany)
- Damen Shipyards Group (Netherlands)

3.8 **Competitive Edge**

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED will position itself as unique Ship Builder and Maintenance where a customers get value for money and will differentiate RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED from incumbent competitors no stiff completion is expected within 5 years.

3.8 **Sales Strategy**

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED management will handle the sales transactions. To speed up the customer service, one employee will be servicing clients--while one employee will be preparing the customer's order and taking care of the sales transaction. All sales data logged on the computerized point-of-sale terminal will be later analyzed for marketing purposes.

In order to build up its client base, RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED will use banners and fliers, utilize customer

referrals and cross-promotions with other businesses in the community. At the same time, customer retention programs will be used to make sure the customers are coming back and spending more RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED products and services

3.9 Products Offering

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED will ensure that we do all that is permitted by law in The Republic of Tanzania to achieve our business goal and ambition.

The average price of ship 3.5k GRT, 92.6 meter-long, 17-meter wide, and 20-meter-high vessel has a capacity of 1,200 passengers, 400 tons of cargo, 20 small vehicles, and 3 trucks will cost of US\$43 million.

Production capacity is one unit for 4 years

Product and service offerings are listed below;

3.9.1 Container ships

It is the most common mode of sea freight transport. As the name suggests, these vessels are designed to carry standard 20', 40' and 45' containers. They can accommodate most dry-load transport. Their capacity ranges from 85 TEUs (twenty equivalent units) to 15,000+ TEUs. The biggest container vessel is the Emma Maersk. Gantry cranes are used to load and unload the boxes.

3.9.2 General cargo ships

They mostly carry packaged goods but do not have space for containers. They use their own built-in cranes for loading and unloading operations once at ports.

3.9.3 Tankers

They are designed for the transport of a large number of liquid cargoes like petroleum products (oil, gas), chemicals, wine, juice, etc. in bulk. They are further subdivided into different types based on the cargo carried.

Oil tankers: for carrying raw oil and its by-products. These ships can hold up to two million barrels;

Liquefied gas tankers: for LPG (liquid petroleum gas), LNG (housing liquid natural gas) or liquefied chemical gases;

Chemical and product tankers: for chemicals and different liquid products. These ships have several tanks to avoid mixing different substances.

Other types of tankers for juice, wine, etc.

3.9.4 Dry bulk carriers

They are structured specifically to transport solid non-packaged loose dry cargo in bulk quantities. Such carriers are then used for bagged cargo (cement, wheat, sugar...), palletized cargo (paints, chemicals...), but also for minerals (coal, iron ore...), food grains, timber ... and other similar products. They are equipped with spoon-shaped cranes that allow loading and unloading and their decks have specific areas dedicated to this activity.

3.9.5 multi-purpose vessels

They can carry a combination of all kinds of goods (general cargo, liquid), thanks to separate containers and storage systems. They are mainly used along the routes that require self-geared ships and have no shore-handling facilities available.

3.9.6 Reefer ships

They are designed for the carriage of frozen/temperature-controlled cargoes mainly in refrigerated containers. Food and perishable goods (fruits, vegetables, meat, fish...) are transported on board such vessels where they are kept at a very low temperature in order to ensure their good condition during the voyage.

3.9.7 Roll-on/roll-off vessels

Ro-Ro is an acronym for Roll-on/roll-off. Using ramps and platforms, these ships are made for the carriage of wheeled cargo, from private cars to industrial vehicles or lorries, including buses, trucks, construction equipment, excavators, etc. The vehicles can directly roll on and off the vessel, whether driven or by wheeled handling equipment with wheels, depending on the fact that they are self-propelled or not.

3.9.8 Ferry Ships

Ferry ships are those vessels which are used to transit voyagers on short-natured water travel routes. Ferry ships can be dual in nature that is, either they can be vessels are only used for the purposes of transporting passengers or they can be ships that can also carry the vehicular load along with the intake of voyagers.

These ships go for their voyage on a regular schedule and have fixed fares.

Ferries are also referred to as water taxis or water buses. These are the ships which sail on the same route with many intermittent stops. These ships serve the same purpose as the public transport on road or rail do. So, ferries are the smaller ships used for smaller distance voyages or rather as public transport.

The transportation cost through ferries is much lowered as compared to bridges and tunnels. In some regions, ferries provide long distance services, Mediterranean Sea ferry service is the best example of long route ferry service. Ferry ships that are used for transporting not only passengers but also the vehicular loads, and loading and unloading to the ship is carried out through Roll-off/ Roll on systems is termed as Ro-Ro ferries.

3.9.9 Cruise Ships

Large vessels equipped with all luxury and necessary amenities, used for transportation and destination vacations are referred to as Cruise Ships or generally cruises. These vessels are opted for long distance travel and bring the opportunity of international trade to the country.

The cruise ship offers a vacation full of fun and amusement. It provides a new and totally different vacation spot with a new experience for the vacationers. Being totally different from the usual vacation, a cruise offers swimming, jogging.

Cruise ships are the most famous type of merchant's vessels which are used for transiting of passengers from one country to another for recreational trips.

These ships are also used for recreational activities, a media of social gathering and for country tourism due to availability of in-house guides and experts facility. Only design and amenities are not the thing, safety should be a major concern. Cruise vacations and cruise transportation are more favoured than other modes due to less cost and safer, calm, pleasant and pollution free environment.

3.9.10 Special Cruise Ships

Cruise ships built for visiting specific regions of the world are termed as special cruise ships. For e.g. cruise ships visiting Polar Regions (Arctic and Antarctic) are called polar cruise ships. They are specially designed and built to face the tough environment of such extreme climatic regions.

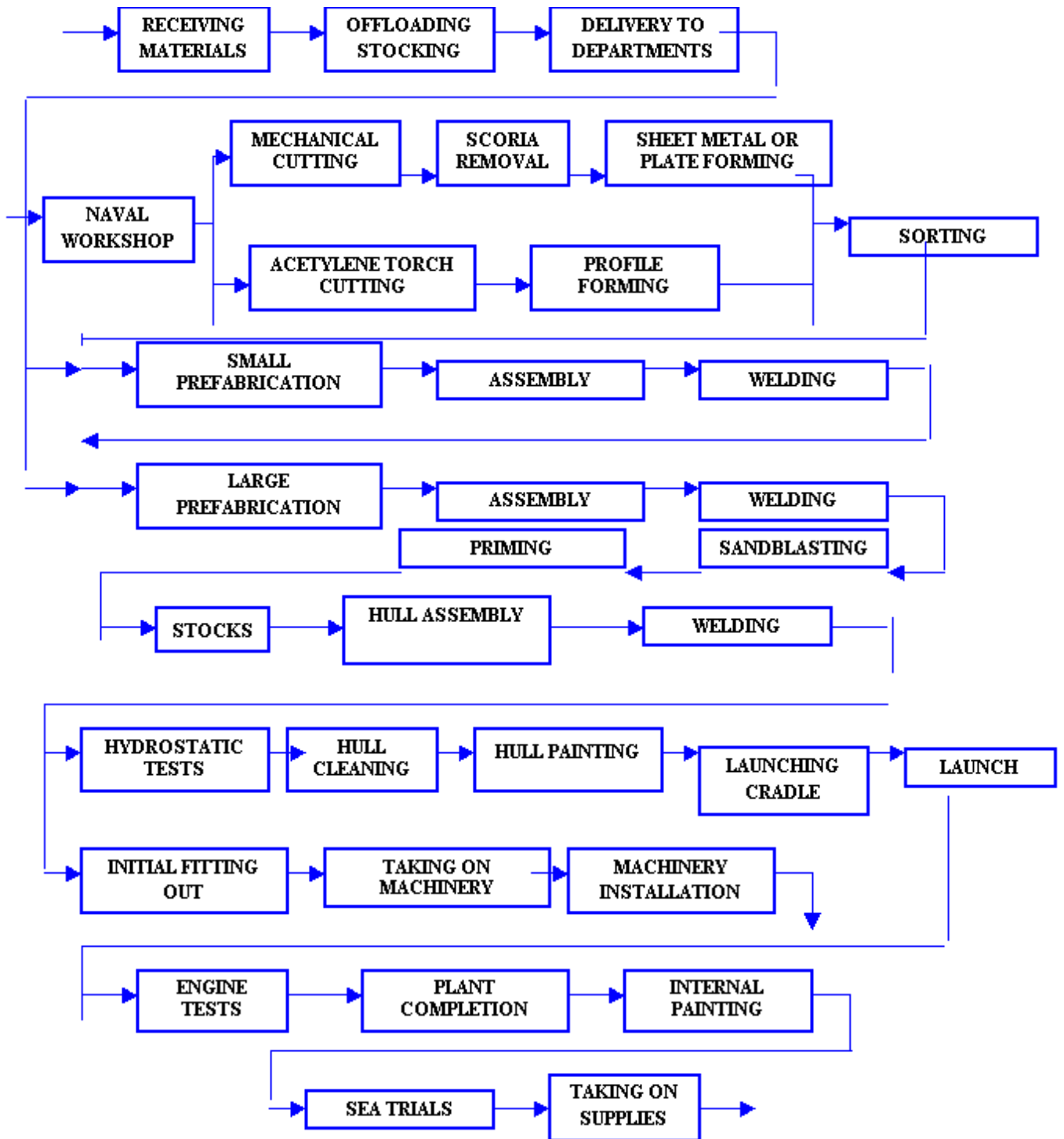
Passenger ships, both of the ferry ships and the cruise ships variances, have become extremely popular in contemporary times. Providing a sense of novelty amongst the likes of road, rail and aerial travelling options, passenger's vessels help people to re-associate themselves with the marvel that only oceanic vistas can offer.

4.0 Manufacturing Process

The manufacturing process for steel or aluminium vessels is similar and therefore one description is given for both processes. The greatest differences are those inherent in the difference in vessel size: aluminium vessels have a much smaller volume than steel vessels. The sheet metal used is therefore thinner and can be cut, bent and soldered more easily than that used in the construction of large steel ships.

Apart from requiring great skill in metal-working techniques, the construction of a ship also calls for professionalism and knowledge of numerous technical sectors, such as erection of scaffolding for constructing the hull and plating, electrical wiring, raising and moving operations, sandblasting, cleaning and painting and all the details of fitting-out.

a summary of the manufacturing cycle



4.1 Materials

The variety of manufactured products which go to make up a fitted-out vessel is enormous and entails a wide range of different materials; these include semi-worked products such as metal sheeting and sections, finished products such as engines and items for fitting-out which vary according to the type of ship, be it a petrol or dangerous substance carrier, a passenger ship or a cruise ship.

The following in particular are required: joinery and insulation materials, products for sandblasting, cleaning and painting, gas and electrodes for soldering and welding and oils for tool machines.

On arrival material is offloaded from the relevant means of transport (transport is by sea or land depending on the size of the material), checked and then stored in a warehouse.

4.2 Movement of materials

Movements depend on how the shipyard is laid out.

Materials are divided between the various departments on the basis of the work cycle. In the first place the sheet metal and sections are delivered to the naval workshop and then the rest of the material is delivered to the relevant departments. Large shipyards have a general warehouse which houses materials of general use.

Sheet metal and other bulky goods are moved using:

- Gantry cranes on rails,
- Cranes on wheels,
- Fork lift trucks,

- Wheeled trucks.

4.3 Naval workshop

The naval workshop can be considered the starting point in the manufacturing cycle. Here the sheet metal and sections that will be used in constructing the hull, the plating, and internal and external structures are laid out, cut and formed.

Cutting operations are always preceded by tracings, and are carried out in different ways depending on the material used, the size of the steel plate and the shape that is to be cut. Mechanical cutting is carried out by machine tools and is followed by cleaning of the sheet metal to remove any off-cuts. Oxygen cutting, whether using oxy-propane, oxy-acetylene or plasma is carried out by specialized operatives either with the help of a pantograph or by hand using a simple etcher. Each type of cut requires particular machinery and tools along with appropriate systems for moving the piece (small cranes, hoists etc.) towards the machine.

After each cutting operation the work area must be cleaned of off-cuts and waste. Prefabrication of non-heavy rough pieces is begun in the naval workshop and sheet metal and sections are put together here.

Finishing operations carried out in the naval workshop include the molding of semi-worked products which are then delivered to the various departments. These pieces may be used for new assembly of both small and large pre-fabrications as well as directly on the stocks.

4.4 Mechanical workshop

The mechanical workshop features in many manufacturing cycles as it produces all the elements for installing machinery on board, such as supports, joints, anti-vibration couplings, pipe work, valves and pumps.

Numerous operations are carried out here, such as cutting, molding, welding, and cleaning and sandblasting of the metal parts which form part of the machinery on board.

The mechanical workshop also carries out maintenance work of on-site machinery, lifting mechanisms and operating machinery.

In large shipyards the mechanical workshop has specified departments for working pipes and for welding easily-transportable pieces.

4.5 Pre-fabrication

Small pre-fabrication involves the assembly, where necessary by welding, of sheet metal and pipe work to form small-sized pieces such as walkways etc. The welding is either done electrically or using gas in inert atmospheres.

The main aim of large-scale pre-fabrication, which can be done both in parallel or in series with small pre-fabrication, is the construction of semi-worked items which make up elements in the base structure and plating. When assembled with the appropriate walls of insulation and sound-proofing this type of pre-fabrication can produce almost complete "blocks" which are then used to construct the ship.

Interiors are made of wood which comes from the ship-yard carpenters and from other materials which are previously worked in the appropriate department. The materials used must retain their characteristics in a marine environment.

Different blocks of the ship are then constructed contemporaneously in different "islands", thus providing for better work organization and most importantly reducing the overall construction time.

Work from the ground is carried out using safety platforms, parapets, scaffolding, elevator platforms and cranes, all of which are essential for working at high level on the blocks. As work progresses it becomes necessary to work in restricted spaces, particularly when carrying out interior work on small cabins carved out of the block.

4.6 Sandblasting and painting

After assembly, which is once more accomplished by welding, the parts are then sanded, using jets of sand directed at the metal surfaces. This simultaneously cleans and primes. The cleaned surface is then covered with a protective paint, or primer, which preserves it against the oxidising effect of damp air and other aggressive agents. These operations are carried out in a different place to that where the item was constructed, and it is therefore necessary to move the blocks on trolleys or cranes to the sheds which are specially equipped for such operations.

4.7 Construction on the stocks

The completed blocks are then assembled on the stocks with the help of a bridge crane. The stocks may consist either of two large slipways or by a dock with an opening towards the sea. The various blocks are fixed together and then welded, thus creating the vessel.

In addition to assembly, during this phase many of the other operations which render the vessel operative are carried out.

During the phase of on the stock's construction all the internal and external finishing operations are carried out on the hull in order to guarantee that the vessel will float and to complete the parts that will be under water following the launch.

Tests are carried out on the hydraulics, the electrical wiring system, and, under pressure, on the pipe-work and tanks, particularly for those ships which are to be used for the transport of pressurized liquids.

4.8 Cleaning and painting

The final operations prior to launch are those of cleaning and painting of the hull. It should be pointed out that all the construction operations described above, such as welding during the assembly of the blocks and cleaning and painting, involve the use of platforms and scaffolding for the workers and hoists for the machine tools used.

4.9 Launch

Launching operations depend on the type of stocks used. In practice, when the vessel is mounted on a slip-way the stops are removed and the ship is

left to slide into the sea. When the vessel has been assembled in dry-dock, the dock is filled with water.

4.10 Fitting-out

Operations of loading and installing machinery and fitting-out can be carried out both on solid ground (on the stocks) and after launching. In general, it is better to carry out these operations on solid ground, particularly for work which must be done in limited space or where communication hatches leading to adjacent areas are restricted. These works include finishing operations and all other auxiliary services carried out with the aim of making the ship fit for navigation. Some of the most important of these are the services for dealing with situations of flood or fire, those intended for the crew or passengers (bunks, kitchens etc.), navigational services, such as command and route-finding equipment, and services connected to the distribution of electricity produced by the auxiliary generator which runs on engine or turbines.

During fitting-out plant and machinery are completed and tested. The cabins are painted and the last finishing operations are finalized.

4.9 Sea trials and delivery

The last phases of the "manufacturing cycle" are sea trials, which are essential for testing the propulsion system, operability, and control equipment and safety systems for navigation, both for crew and passengers. In general, a preliminary trial is carried out prior to the official one.

Before delivery the on-board equipment is loaded.

To summaries the description of the production of a ship it is possible to sub-divide the activity into two major processes; actual construction of the vessel and its fitting-out. Operations begin with construction but as work proceeds the two activities are carried out together. The greatest difference between these two operations is in the place in which they are carried out; construction operations are often done in open areas, with the help of cranes and high-level platforms. Only rarely is it necessary to work in closed places such as cabins inside the vessel, which are narrow, badly lit and with few exits. All the fitting-out operations however are carried out inside the ship in restricted spaces

5.0 Legal Status and Company Back Ground

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED bears the certificate of registration No.183055879 issued on 10th March 2025 issued by BRELA.

Shareholder of RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED have spent the last 15 years setting up socially oriented businesses in China

The shareholders of are four shareholders, namely: -

Name	% of share	Nationality
RONGCHENG XINYANG SHIP INDUSTRY CO., LIMITED	10	Chinese
MWINYI HASSAN SHAABAN	10	Tanzania
XU YUAN	40	Chinese
LUO XIANBING	40	Chinese

All the directors of the company are therefore well versed people in the business operations, having been engaged in the business for a period ranging between 10 to 15 years, Equiped with the wide experience in the business as explained above, the direcors of the company are optimistic of successful implementation of the proposed project.

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED, they have extensive business contacts in Tanzania and outside Tanzania that will leverage to help new venture succeed.

However, because of the investors' other commitments they will not be involved into the daily management decisions at RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED. A professional manager will be hired who will oversee all the company operations and other employees full-time employed, total of 80 people to be employed

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED team possess the necessary skills, knowledge, and experiences to provide high-quality services, for uncompetible low cost. We are committed to delivering consistent, reliable services that meet and exceed expectations. RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED take responsibility for our actions and are accountable for the services we provide. RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED is aware of and comply with relevant laws and regulations, ensuring that our services are legal and ethical.

5.1 Location.

The new project is located at **Ferry, Kigamboni Area, Kigamboni District, Dar es Salaam Region.**

6.0 Project Investment Cost

The estimated capital investment cost of the project for 8 years is estimated to cost US\$ **26,880,000.**

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED COST STRUCTURE

Land and Buildings	4,000,000.00
Machinery & Equipment	20,000,000.00
Motor Vehicles	200,000.00
Furniture & Fixtures	500,000.00
Pre exp	80,000.00
Others	100,000.00
Working Capital	2,000,000.00
TOTAL	26,880,000.00

6.1 Financing pattern

The project will be financed by equity US\$21.880,000 and cash generated from operations will be re invested and loan from China US\$5,000,000

6.2 Considerations and Assumptions:

The corporate tax charged is 30% of the profits. Capital investment allowance is 50%. The capital assets are exempted from custom duty and Value Added Tax. The straight-line method to depreciate the project's capital items has been applied.

It is assumed that raw materials will be Imported. Revenues have been conservatively estimated based on experience of the promoters and trends in the industry.

6.3 **Projected Profit and Loss Statement**

The Income and Expenditure Statement shows the projected income for the 8th year period. Accumulated after tax profits grow from. **US\$ (7,000,000)** in first year to **US\$ 20,765,000** in the year 8th; **for the detail refer appendix (IV)**

6.4 **Projected Cash Flows**

This is shown in the financial statements. The project accumulated cash flow grows in year 1 US\$ **(5,600,000)** up to US\$ **20,200,000** in 8th year; **for the detail refer appendix (V).**

6.5 **Projected Balance Sheet**

This is shown in the financial statements. The equity grows from **US\$ 24,700,000** in year 1 up to **US\$ 45,465,000** in the 8th year; for the detail refer appendix (VI)

7.0 **Economic Aspects**

Implementation of this project will have the following social and economic values

- The project will create employment for **80** people in the beginning and it will increase gradually as the business grow.

- It will create more business opportunities to local suppliers which will also have a trickledown effect in the environmental issues.
- It will generate substantial revenue to the government in the form of corporate tax, value added tax and pay as you earn.
- The project will have transfer of knowledge and skills to shipbuilding industry.

80 IMPLEMENTATIONS

Project implementation is expected to be relatively very short once project has been approved and space lease, and license and approval obtained, the general implementation schedule is below:

IMPLEMENTATION

S/N	ACTIVITY	PERIOD
1	Processing TIC Certificate of Incentive	March 2025
2	Placing order of machines	May-July 2025
3	Fixing machines	July –August 2025
4	Recruitment	August –September 2025
5	In house training	September- December 2025
4	Testing production	December – February 2026
6	Commercial operations	March 2026

10.0 Conclusion & Recommendations

The project is technically feasible, financially viable, and economically sound, provided the sponsors will manage it efficiently.

It is recommended that the project be approved by Tanzania Investment Centre and be granted the TIC Certificate of Incentives with its associated

privileges and benefits as provided for under the Tanzania Investment Act, 2022.

Appendix (I)

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED COST STRUCTURE US\$

Land and Buildings	4,000,000.00
Machinery & Equipment	20,000,000.00
Motor Vehicles	200,000.00
Furniture & Fixtures	500,000.00
Pre exp	80,000.00
Others	100,000.00
Working Capital	2,000,000.00
TOTAL	26,880,000.00

Appendix (II)

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED SUMMARY OF REVENUE "US\$"

	1	2	3	4	5	6	7	8
Revenue	-	-	-	43,000,000	-	-	-	43,000,000
Cost of raw materials	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000

Appendix (III)

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED FIXED ASSETS US\$

NAME OF ASSETS	1	2	3	4	5	6	7	
Land And Buildings	4,000,000	3,920,000	3,840,000	3,760,000	3,680,000	3,600,000	3,520,000	3,440,000
Machinery, Tools & Equipment	20,000,000	19,000,000	18,000,000	17,000,000	16,000,000	15,000,000	14,000,000	13,000,000
Motor Vehicles	200,000	180,000	160,000	140,000	120,000	100,000	80,000	60,000
Furniture & Fixtures	500,000	450,000	400,000	350,000	300,000	250,000	200,000	150,000
Total	24,700,000	23,550,000	22,400,000	21,250,000	20,100,000	18,950,000	17,800,000	16,650,000
DEPRECIATION	1	2	3	4	5	6	7	
Land and buildings	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000
Machinery tools & Equipment	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Motor Vehicles	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Furniture & Fixtures	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
ANNUAL DEPRECIATION	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000

Appendix (IV)

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED PROJECTED INCOME & EXPENDITURE STATEMENT (US\$)

	1	2	3	4	5	6	7	8
Revenue	-	-	-	43,000,000	-	-	-	43,000,000
Cost of raw materials	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000	8,600,000
Profit before Depreciation & Interest	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000
Interest	250,000	171,429	142,857	114,286	85,714	57,143	28,572	-
Depreciation	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000
Net Profit before Tax	(10,000,000)	(9,921,429)	(9,892,857)	33,135,714	(9,835,714)	(9,807,143)	(9,778,572)	33,250,000
Tax (30%)	(3,000,000)	(2,976,429)	(2,967,857)	9,940,714	(2,950,714)	(2,942,143)	(2,933,572)	9,975,000
Profit After Tax	(7,000,000)	(6,945,000)	(6,925,000)	23,195,000	(6,885,000)	(6,865,000)	(6,845,000)	23,275,000
Accumulated Profit	(7,000,000)	(9,976,429)	(12,944,286)	10,250,714	3,365,714	423,572	(2,510,000)	20,765,000

Appendix (V)

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED PROJECTED CASH FLOW US\$

	-	1	2	3	4	5	6	7	8
SOURCES:									
Profit before interest and depreciation	-	-8,600,000	-8,600,000	-8,600,000	34,400,000	-8,600,000	-8,600,000	-8,600,000	34,400,000
Loan	5,000,000								
Total Sources	5,000,000	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000
Applications:									
Capital expenditure	24,700,000	-	-	-	-	-			
working Capital & Others	2,180,000								
Cash	-	(5,600,000)	(5,623,571)	(5,632,143)	24,459,286	(5,649,286)	(5,657,857)	(5,666,428)	24,425,000
Tax	-	-3,000,000	-2,976,429	-2,967,857	9,940,714	-2,950,714	-2,942,143	-2,933,572	9,975,000
Sub total	26,880,000	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000
Total applications	26,880,000	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000	(8,600,000)	(8,600,000)	(8,600,000)	34,400,000
Accumulated cash		(5,600,000)	(14,200,000)	(22,800,000)	11,600,000	3,000,000	(5,600,000)	(14,200,000)	20,200,000
Necessary working capital	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000

Appendix (VI)

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED PROJECTED BALANCE SHEET US \$

Fixed Assets	-	1	2	3	4	5	6	7	8
Opening balance	-	24,700,000	23,550,000	22,400,000	21,250,000	20,100,000	18,950,000	17,800,000	16,650,000
Total Long-term Assets	-	24,700,000	23,550,000	22,400,000	21,250,000	20,100,000	18,950,000	17,800,000	16,650,000
Less depreciation	-	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000	1,150,000
Closing balance	-	23,550,000	22,400,000	21,250,000	20,100,000	18,950,000	17,800,000	16,650,000	15,500,000
Working capital	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000	2,180,000
Accumulated cash	-	-5,600,000	-14,200,000	-22,800,000	11,600,000	3,000,000	-5,600,000	-14,200,000	20,200,000
Total assets	2,180,000								
Financed by									
Loan	5,000,000	4,285,715	3,571,430	2,857,145	2,142,860	1,428,575	714,290	5	-
Equity	24,700,000	24,700,000	24,700,000	24,700,000	24,700,000	24,700,000	24,700,000	24,700,000	24,700,000
Accumulated Profit	-	-7,000,000	-9,976,429	-12,944,286	10,250,714	3,365,714	423,572	-2,510,000	20,765,000
Total equity	24,700,000	17,700,000	14,723,571	11,755,714	34,950,714	28,065,714	25,123,572	22,190,000	45,465,000
Total equity and debts	24,700,000	17,700,000	14,723,571	11,755,714	34,950,714	28,065,714	25,123,572	22,190,000	45,465,000

RONGCHENG XINYANG SHIP INDUSTRY (TZ) CO., LIMITED PROJECTED LONG TERM LOAN REPAYMENT

Year	principle	Loan Interest (5%)	Total Amount Paid	Loan Balance
0				5,000,000
1	-7,000,000	250,000	-6,750,000	12,000,000
2	-6,945,000	480,000	-6,465,000	18,945,000
3	-6,925,000	757,800	-6,167,200	25,870,000
4	23,195,000	1,034,800	24,229,800	2,675,000
5	-6,885,000	107,000	-6,778,000	9,560,000
6	-6,865,000	382,400	-6,482,600	16,425,000
7	-6,845,000	657,000	-6,188,000	23,270,000

