

Cluster Profile

Marine Fisheries Cluster, Gwadar



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1. Description of Cluster

1.1 Introduction

Gwadar, situated on the southwestern coast of the Balochistan province in Pakistan. Positioned along the Arabian Sea, facing Oman, the city has a population exceeding 90,000 as per the 2017 census. From 1783 to 1958, Gwadar was under the ownership of Oman. It is approximately 120 km (75 mi) southwest of Turbat, with the sister port city of Chabahar in Iran's Sistan and Baluchestan provinces located about 170 km (110 mi) to the west of Gwadar. Balochistan, the largest province in Pakistan, boasts a lengthy coastline of about 750 km along the Arabian Sea. The fishing industry is vital to the local economy, supporting the livelihoods of many people. In the fiscal year 2022, Balochistan recorded a total catch of 127,279.95 metric tons of marine shellfish and fin fish.

Fishing is a major source of income for rural communities living along Balochistan's extensive coastline. The fisheries sector creates employment opportunities for thousands of people, both directly and indirectly through related industries. Approximately 70 percent of the coastal local population in Balochistan depends on the fisheries sector for their livelihoods, making a substantial contribution to the national economy. The Balochistan coast, aside from being a natural wonder, is also an economic hub, renowned for its thriving seafood industry, featuring a diverse range of seafood like fish, prawns, lobsters, crabs, and oysters.

However, the fisheries cluster of Gwadar faces challenges such as insufficient infrastructure, limited investment, overfishing, and illegal fishing practices. Despite these hurdles, there is substantial potential for growth in this cluster

1.2 History and Background

Gwadar District, situated in the Balochistan province of Pakistan, derives its name from the combination of "Gwat" and "Dar," meaning the door of air. Gwadar was notified as a separate district on 1 July 1977. The City of Gwadar is the district headquarters of Gwadar District.

Gwadar is a picturesque port city on Pakistan's western seaboard Makran coast. It is an important city of Balochistan province and is located about 635 km via the Makran Coastal Highway or 475 km (257 nautical miles) via sea, west of Karachi, the main seaport of Pakistan. Historically, Gwadar had a deep-rooted connection with the sea and its resources. Fishing has been a traditional livelihood for local communities, providing sustenance and economic opportunities. Fishermen in Gwadar practiced artisanal and small-scale fishing methods, using skills passed down through generations. The history of Gwadar's seafood industry includes the use of traditional fishing techniques, such as small wooden boats, nets, and other simple tools. Local communities relied on a variety of marine resources, including different fish species, crustaceans, and mollusks.

1.3 Marine Fisheries Cluster of Gwadar

In the coastal areas of Gwadar District, the bountiful waters yield an impressive array of seafood, showcasing the richness of the marine ecosystem. The local fishing industry captures a diverse selection of delectable treasures from the sea. Along the shores of Gwadar, one can find an abundance of flat fish, sardines, clupeiformes, wolf herring, Spanish mackerel, small mackerel, tuna, sea catfish, eels, barracuda fish, marlin, mullet, threadfin, large grouper, small grouper, cobia, scad, Indian mackerel, queen fish, trevally, dolphin fish, grunter fish, large croaker, small croaker, emperor, king soldier bream, prompt, hairtail, shark, ray, guitar fish, shrimp, kiddi, crab, ivory shell, lobster, cuttlefish, jellyfish, and ladyfinger fish. This diverse and flavorful selection represents not only the culinary richness of Gwadar but also the vital connection between the local community and the thriving marine resources along the captivating coastline of Gwadar District.

2. Analysis of Marine Fisheries Cluster, Gwadar

2.1 Fishing Landing Sites in Gwadar District

There are total of six fishing stations or landing sites in the Gwadar district. The list of these significant landing sites includes Gwadar, Pasni, Surbander, Pishukan, Jiwani, and Ormara. Each of these locations has its unique characteristics and contributes to the rich tapestry of marine life along the Balochistan coastline. These fishing stations not only

support the local economy but also represent key points of engagement for the communities involved in the marine fisheries sector.

2.2 Fishermen Population in Gwadar District

Recent statistics offer a glimpse into the lively community of fishermen along the captivating Gwadar District coast, showcasing their active participation in maritime activities. At different stations, the breakdown of fishermen, whether working full-time, part-time, or occasionally, highlights the diversity and energy of these coastal communities. Take Pasni, a gem by the sea, where the numbers reveal 12,754 full-time fishermen, 2,043 part-time fishermen, and 734 occasional fishermen, adding up to a total of 15,531 individuals contributing to local fishing efforts.

Moving to the bustling port city of Gwadar, the figures paint a picture of a strong maritime community, boasting 13,030 full-time fishermen, 11,400 part-time fishermen, and 105 occasional fishermen, totaling an impressive 24,535. Surbander, another key station along the coast, accommodates 3,700 full-time fishermen, 2,195 part-time fishermen, and 455 occasional fishermen, forming a united community of 6,350 individuals actively involved in fishing.

Heading further south, Pishukan displays a committed fishing population, featuring 4,028 full-time, 2,324 part-time, and 600 occasional fishermen, totaling 6,952. Jiwani, with its coastal allure, hosts 7,250 full-time fishermen, 680 part-time fishermen, and 310 occasional fishermen, reaching a total of 8,240. Lastly, Ormara, a coastal hub, houses 7,789 full-time, 2,222 part-time, and 459 occasional fishermen, creating a vibrant community of 10,470 individuals contributing to the thriving maritime activities along the enchanting coastline of Gwadar District.¹

2.3 Registered Fishing Vessels in Gwadar District

In the coastal regions of Gwadar District, local fishermen employ a range of boats tailored to suit their diverse fishing activities. The data below outlines the types of boats utilized

¹ Statistics of 2022, Department of Fisheries, Government of Balochistan

at different stations, each fitted with either inboard or outboard engines. Additionally, certain stations deploy lifeboats and temporary boats for specific purposes. Let's delve into the breakdown of these maritime resources at key stations along the Gwadar District coastline:

2.3.1 Gwadar

In the port city of Gwadar, the fishing fleet consists of 495 boats equipped with inboard engines and 1624 boats powered by outboard engines. Interestingly, there are no lifeboats with inboard engines or temporary registered boats reported. The total number of boats in this coastal hub sums up to 2119, reflecting the predominant use of outboard engines for fishing activities and suggesting a robust and efficient fleet tailored to the specific needs of the Gwadar fishing community.

2.3.2 Pasni:

Along the coastal station of Pasni, the local fishermen navigate a fleet of 586 boats propelled by inboard engines and 1567 boats powered by outboard engines. Notably, there are no reported lifeboats with inboard engines or temporary registered boats. The collective number of boats at Pasni stands at 2153, showcasing a reliance on outboard engines for the majority of fishing activities.

2.3.3 Surbander:

In the coastal locales of Surbander, the fishermen operate 259 boats propelled by inboard engines and 641 boats with outboard engines. Interestingly, there are no reported lifeboats with inboard engines or temporary registered boats at this station. The collective number of boats at Surbander tallies up to 900, providing insight into the predominant use of outboard engines for fishing activities in this particular coastal community.

2.3.4 Pishukan:

Pishukan, the fishermen operate 328 boats propelled by inboard engines and 541 boats with outboard engines. Similar to Surbander, there are no lifeboats with inboard engines or temporary registered boats reported. The total number of boats in Pishukan reaches

869, reflecting a reliance on outboard engines as the preferred choice for the local fishing activities.

2.3.5 Jiwani:

In Jiwani, the fishermen fleet consists of 140 boats with inboard engines and 200 boats with outboard engines. Notably, there are no reported lifeboats with inboard engines, but the station utilizes 1300 temporary registered boats for specific purposes. The total number of boats at Jiwani stands at 1640.

2.3.6 Ormara:

In Ormara, the local fishermen possess 223 boats with inboard engines and 1475 boats with outboard engines. Similar to Surbander and Pishukan, there are no lifeboats with inboard engines or temporary registered boats reported at this station. The total number of boats in Ormara amounts to 1698.

These figures provide valuable insights into the diverse array of boats utilized by fishermen in different locales, emphasizing the varied maritime practices along the captivating Gwadar District coastline. ²

3. Global Trade

According to trade map, in FY2021, Pakistan engaged in global trade of fish and aquatic products. The country imported USD 9,011,000 of these products, primarily from Viet Nam, which accounted for USD 8,223,000. A total of 40 companies in Pakistan were involved in importing, categorized into types such as canned seafood, fish and seafood, fresh or frozen packaged fish, meat and fish markets, and packaged frozen goods.

Conversely, Pakistan exported USD 399,389,000 worth of fish and aquatic products globally in FY2021. Major export destinations included China (USD 161,216,000) and Thailand (USD 90,043,000). The export sector involved 93 companies in Pakistan,

² Statistics of 2022, Department of Fisheries, Government of Balochistan

categorized into canned seafood, finfish, fish and seafood, fresh or frozen packaged fish, meat and fish markets, and packaged frozen goods.

4. SWOT Analysis of Marine Fisheries Cluster, Gwadar

A SWOT analysis of the marine fisheries cluster in Gwadar provides an insightful overview of its strengths, weaknesses, opportunities, and threats:

4.1 Strengths

- Gwadar's coastal waters boast a diverse range of seafood, including fish, prawns, lobsters, and crabs, contributing to the cluster's strength in providing a variety of marine products.
- The geographical location of Gwadar as a deep-sea port enhances accessibility for fishing vessels, facilitating efficient transportation and distribution of seafood products.
- The marine fisheries cluster significantly contributes to the local and national economy by providing livelihoods for coastal communities and generating revenue through exports.
- Due to long history of fishing practices, there is adequate availability of skilled fishermen.
- Positioned at the core of the China-Pakistan Economic Corridor (CPEC), Gwadar holds significant potential for exporting seafood products to the global market.

4.2 Weaknesses:

- The sector faces challenges related to inadequate infrastructure, hindering the efficiency of the fishing and processing activities.
- Limited access to modern fishing technologies and practices has impeded the sector's ability to optimize its operations and enhance productivity.
- The sector lacks effective checks and balances.
- Clear policies and planning are absent.
- There is a deficiency in fisheries management.

4.3 Opportunities:

- The ongoing development of Gwadar as a key port city, coupled with the China-Pakistan Economic Corridor (CPEC), presents opportunities for the marine fisheries cluster to expand and thrive.
- Increasing global demand of seafood products.
- Investing in modern fishing technologies and practices can enhance efficiency, improve yields, and ensure sustainable practices.
- With a focus on quality control and adherence to international standards, there is significant potential to expand seafood exports to international markets, contributing to economic growth.
- The opportunity to gain a first-mover advantage by establishing a modern seafood processing facility in Balochistan.

4.4 Threats:

- The excessive fishing activities conducted by trawlers are causing depletion of oceanic resources.
- Environmental changes, including climate change, can affect the abundance and distribution of marine species, posing a threat to the sustainability of the fisheries cluster.
- The illegal smuggling of diesel is causing harm to seafood habitats and disrupting the eco-system.
- There is insufficient awareness regarding the significance of sea habitats for maintaining a sustainable environment.

5. Major Issues and Problems

5.1 Infrastructure Issues

For decades, the seafood cluster of Gwadar has grappled with persistent infrastructure challenges, enduring neglect despite its substantial contributions to both the local and national economies. Key infrastructural issues include a lack of

processing facilities for value addition, insufficient cold storage capacity, ineffective cold transportation, and reliance on aging wooden boats.

5.2 Unauthorized fishing trawlers and unregulated fishing vessels

The illegal and uncontrolled fishing trawlers are using destructive fishing practices and destroying marine ecosystem in Gwadar district. Such as;

- Bycatch; refers to the unintended capture of non-target species result in the unnecessary death of these organisms, which impact their populations and the overall health of the ecosystem.
- Habitat Destruction; trawling involves dragging a net along the seafloor, which impact and destroy benthic habitats, such as coral reefs, seagrass beds, and rocky outcrops. These habitats provide important ecosystem services, such as food and shelter for a variety of marine organisms.
- Overfishing; there is no check and balance on fish catch by trawlers and due to that they are involved in overfishing that is leading to declines in fish populations, and in some cases, the collapse of entire fish stocks.
- Loss of Income; trawlers are catching large quantities of fish, this is leading to a decrease in the market value of fish, and decrease in the population of fishes, which has a huge impact the income of local fishermen.
- Smuggling diesel; these trawlers also smuggle diesel to the Karachi that is also contributing in the destruction of livelihood of local fishermen.

5.3 Unlawful Diesel or Fuel Smuggling (Environmental Pollution)

The seepage of diesel/fuel from vessels engaged in smuggling activities from Iran is negatively impacting the sea's population and species production. Diesel or oil leaks lead to water contamination, rendering it toxic for fish and other marine organisms. Consequently, the smuggling activities contribute to a decline in the fish population. This contamination has substantial economic repercussions for the fishing communities along the coastal belt, as their livelihoods depend on these resources.

5.4 Utilization of Plastic Nets (Small Mesh)/Gujja Nets

There is a lack of oversight in the utilization of fishing nets in Gwadar. Numerous fishermen employ nets with small holes, leading to overfishing and the entrapment of small fish crucial for the marine food web, as numerous species depend on them. These fishing nets also contribute to increased fish mortality. Additionally, the use of such nets contributes to ghost fishing, wherein lost or abandoned nets persistently trap and harm fish and other marine life due to their non-decomposable nature.

5.5 Absence of Protections for the Marine Ecosystem

The absence of a robust marine ecosystem has significant adverse effects on coral reefs and mangrove forests, crucial underwater ecosystems. Overfishing has led to a decline in the fish population, disrupting the food chain and upsetting the balance of the ecosystem. Pollution from smuggled diesel from Iran further contributes to the degradation of the sea environment. Preserving marine ecosystems and the environment is pivotal for the survival of coral reefs and mangroves. These ecosystems offer a diverse array of food sources for fish, provide shelter for their protection, serve as vital breeding and nursery grounds for numerous fish species, and maintain the overall health and resilience of the marine ecosystem.

6. Investment Opportunities in the Cluster

6.1 Fish Processing Facility

With the imminent opening of Gwadar Port for cargo traffic, the demand for exported fisheries products is expected to soar. Bridging this gap through investments in establishing fish processing plants meeting international standards near Gwadar, Jiwani, and Pasni stations promises substantial returns. where fish, post-catch, can be preserved and packaged for export to both local and international markets. This initiative not only ensures the freshness of fish but also creates employment opportunities for the local population.

6.2 Fiber Glass Boat Manufacturing Unit

The potential of establishing fiber glass boat making unit at Gwadar and adjacent areas. Currently, most local fishermen in Balochistan utilize heavy wooden boats that consume excessive fuel and have rough-surfaced floors, fostering bacterial growth and compromising fish quality. The establishment of a fiberglass manufacturing unit in Gwadar will provide fishermen with lighter, fuel-efficient boats that are easier to clean vessels.

6.3 Flake Ice Factories

The use of flake ice is crucial to maintain the freshness of the catch, replacing the previous practice of applying salt, which altered the taste of fish. This would supply local fishermen with fresh and high-quality flake ice, preserving the freshness and hygiene of their catch during transportation to the market.

6.4 Boat Repairing Workshop

The year 2022 recorded 10,881 registered fishing vessels with the Balochistan Fisheries Department. There has consistently been a need for boat repairing workshops at major fishing stations. While the Fisheries Department is currently constructing one near Gwadar, establishing additional boat repairing workshops at key locations will attract year-round business.

6.5 Tin/Can Manufacturing Unit

Maintaining the freshness of fish for export and local consumption necessitates hygienic packaging. Establishing tin/can manufacturing units in Gwadar would fill this gap, creating an opportunity for profitable ventures while offering employment to the local populace.