



SMALL SCALE FISHERIES AND MIGRATION IN GANJAM IN ODISHA

Study Conducted By: VIEWS

Supported by: GLOBAL GREENGRANTS FUND



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Acknowledgement

Climate change-induced migration has become an increasingly important issue for researchers and policymakers due to its far-reaching and complex implications for human lives and livelihoods. This study aims to contribute to this growing body of research by exploring the factors, incidences, and impacts of migration among fishermen communities living in 12 coastal villages of the Ganjam district in Odisha.

Fishermen in the coastal areas of Odisha face a range of environmental and social challenges that have led to significant changes in their traditional livelihoods. Climate change has had a significant impact on the fishing industry and the communities that depend on it. As a result, many fishermen have been forced to migrate in search of alternative livelihoods. This study seeks to understand the specific factors that are driving migration in these communities, as well as the economic impact of this phenomenon.

The research was made possible through the support and assistance of various organizations and individuals. The Global Greengrants Fund (GGF), a charitable foundation based in the United States, supported the study. The fishermen community and villagers of the 12 coastal villages were also crucial to the study, as they provided vital information about their experiences and perspectives on migration.

In addition to shedding light on the factors and impacts of migration in these communities, this study also highlights the urgent need for policymakers to develop effective strategies to address the challenges faced by the fishing communities of Odisha. The findings of this study can be used to inform the development of policies and programs that support the livelihoods of fishing communities and enable them to adapt to the changing environmental and social conditions.

Overall, this study provides valuable insights into the experiences of fishing communities in the face of climate change-induced migration. It highlights the importance of understanding the specific factors that are driving migration in these communities and the complex impacts that it has on human lives and livelihoods.

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Executive Summary

In the context socio economic development of the state; marine fisheries sector occupies an important place, and it contributes to economic development of the state of the Odisha. It is the source of livelihood for a large section of the economically backward population of the state and country. The broad objective of the study is to understand small scale fishers and migration in the context of climate change in Ganjam district of Odisha. The area of the study is Ganjam district of Odisha.

The field work was undertaken in the selected 12 villages of the Ganjam district of Odisha, India. From the study conducted the Team VIEWS found out certain key findings from the study. They are as follows: -

- The reduction in fish catch and fishing areas is a major cause for the decline in income.
- Fishermen generally rely on money lenders for funding their fishing operations as it is an easy way to get money without the procedural hurdles that exist in the formal system.
- The traditional fishermen and crew members with no or very little asset is most susceptible to food insecurity, due to decreased fish catch and high interest rate on borrowed money for fishing operations.
- The lack of adequate employment in other sectors during the lean season is plaguing the marine fisheries sector.
- Migrant fishers are often unable to access government schemes, making their existing vulnerabilities worse.
- Migrant fishers often struggle with inadequate access to modern fishing tools and equipment, which can undermine their livelihoods and exacerbate existing vulnerabilities.
- The fishermen community adaptive capacity gets restricted due to reasons such as lack of financial knowledge, not understanding or trusting the formal banking channels and falling prey in the hands of indigenous moneylender for funding fishing operation at an exorbitant high interest rate.

The way forward for the migrant small scale fishing community are as follows: -

- Government with support of local NGOs should made efforts to reduce the distress conditions of migrant fishermen by facilitating the registration of migrants.
- Training and capacity building on alternative livelihood to reduce dependence on fish during lean season would help in strengthening the adaptive capacity of fishing communities.
- Need for centralized data base for migrants which will allow smooth facilitation and access to schemes and social security measures.
- Start-up should be promoted among educated youth in fishery sector to create employability and reduce dependency.
- Migration protection policy should formulate by the government to protect the interests and rights of migrant fishermen as well to address the exploitation and ill treatment by the middlemen and boat owners.

For betterment of small scall fishing communities there is a need for participatory, inclusive and multistakeholder approach for addressing the issues plaguing the sector.



1.0 Introduction & Context

In India, marine capture fisheries have crucial roles in supplying food, ensuring food security. A million people directly work in the industry, producing three million tonnes annually (E. Vivekanandan, CMFRI). By exporting fish and fisheries products, the value of the fish harvest at production level is roughly US \$ 1.8 billion. Since the coastal waters are largely open access, there is fierce competition among the stakeholders with different interests to share the scarce resources, which has led to overfishing and a decline in the stocks of several species. Climate change is expected to make things worse and have a negative impact on fish populations. Fisheries will be significantly impacted by climate change, with significant ramifications for the food and livelihood security of a nation.

Odisha's economy has been one of the fastest growing economies in India. Odisha's GDP increased at a rate of 7.5% annually between 2012 and 2019, which was higher than the national average. Nevertheless, during the past few years, several variables, including COVID-19 and climate change, have slowed its expansion. As a coastal state, Odisha is susceptible to deadly cyclones, floods, and other natural calamities. Odisha's marginalized

or poor people are mainly dependent on agriculture and fisheries sector and hence natural disasters can significantly affect the sector productivity.

Natural calamities and a lack of economic opportunities at the village and panchayat level have made Odisha a major source of migratory workers for both India and other countries. (source). It is currently one of India's most severely hit regions by climate change, which is forcing an increasing number of people to migrate both temporarily and permanently. Based on the latest IPCC AR 6 report, As warming continues, migration from regions of “high exposure and low adaptive capacity” will occur. Odisha is highly exposed to climate change and something concrete needs to be taken up to protect the livelihood of the poor and marginalized.

This refusal to recognize climate change as an essential human security matter is also a sign that India and many other countries are not yet willing to consider how much climate plays a role in forcing cross-border migration and displacement today. Throughout India, 3,856,000 people relocated due to disasters in 2020, compared to 3,900 due to conflict. The most populated, powerful countries in the world must recognize the protection, and potential human security risks of climate change. Because of the lack of concern for the issue there is consistent insufficient protection for the migrant workers of Odisha. They are often left out to dry by a lack of support in their home state which forces them to migrate in search of work or just survival in the face of a climate disaster. Once they leave their homes, however, they receive even less protection as they search for new opportunities.

.Recognizing that migration is not always voluntary is long overdue in a world without an international legal framework for migrants, including a legal definition of the term "migrant." Thus studies in this direction can help in addressing some of the key issues of climate induced migration and associated challenges.





1.1 Rationale of the study

In the context socio economic development of the state; marine fisheries sector occupies an important place, and it contributes to economic development of the state of the Odisha. It is the source of livelihood for a large section of the economically backward population of the state and country. It not only provides income and employment but also helps in the growth of some ancillary activities. But off late, the sector is also not spared by the changing dynamics of climate change. Climate change will affect fisheries and aquaculture through a host of variables such as changes in sea surface temperatures, circulation patterns, acidification the frequency and severity of extreme events, and sea-level rise and associated ecological Circular, 2014). Besides, the species and ecosystems marine fisheries-based livelihood groups that rely on fish will be affected with uncertain impacts on fishery catch potential.

It is observed from the previous studies conducted by VIEWS and other organizations in coastal regions of Odisha and particularly in Ganjam district of Odisha; that the fish catch has reduced considerably which has led to decreased income of different livelihood groups dependent on marine fisheries sector. This has led to distressed migration among many traditional fishermen communities to different states of India. But, on field interactions with fisher's communities reveal that though they migrate to different states in search of better livelihood but often they struggle to get a decent livelihood and working condition. Generally, they are subjected to harsh working hours coupled with poor living conditions.



It is in this context a study was required to understand their migration nuances, networks and skills for a safe and secured migration.

1.2 Objective of the study

The broad objective of the study is to understand small scale fishers and migration in the context of climate change in Ganjam district of Odisha.

The objectives of the study are as follows:

- To understand the migration issues of small-scale fishers in the context of climate change and associated challenges.
- To map the skills of youth of marine fishing communities for safe, responsible and informed migration
- Suggest measures to protect lives and livelihood of marine fishing communities

1.3 Structure of study

The structure of the study is divided into four sections: Initially to start with the Chapter I provide us with a context and the background; where it broadly highlights the context of the state of Odisha and explains the rationale for undertaking the study. In the chapter II- a broad literature review has been undertaken to understand how marine fisheries sector and climate migration are related. In the subsequent chapters, the broad findings and recommendation of the study is presented in a detailed manner.





1.4 Methodology & Scope of the Study

The area of the study is Ganjam district of Odisha. The field work was undertaken in the selected 12 villages of the Ganjam district of Odisha, India. The area chosen for the study was based upon specific criteria related to socioeconomic and bio-physical vulnerability to climate change. The structured questionnaire was prepared and administered to 10 migrants respondents from each village.

Structured Household Questionnaire Survey: A semi-structured household questionnaire was prepared and piloted in the field to know the gaps in questions, response received with respect to different sections of questionnaire. A total 120 questionnaire was administered to the migrants' households in the fishing communities.

Focus Group Discussions (FGDs): A series of 12 focus group discussions were conducted on the selected villages by using Participatory Rural Appraisal(PRA) techniques.



Key Informant Interview (KIIs): The Key Informant Interview was conducted with selected village functionaries who generally represent the village at different governance levels. The KIIs helped to provide detailed understanding of some of the critical issues affecting migrants’ fishers and their household at large.

1.5 About the Organization

About the funding organization: Global Green grants Fund catalyze the grassroots level solutions by putting resources directly in the hands of the best stewards of the environment that is people. The action areas for Global Green Grant Fund are Climate Justice, Healthy Ecosystems and Communities and Local Livelihoods. GGGF help the activists take on the world’s most pressing environmental and social justice challenges. GGGF believes



solutions to environmental harm and social injustice come from people whose lives are most impacted.

About the Implementing Organization: VIEWS (Voluntary Integration for Education and Welfare of Society) is a growing grass roots organization working towards Sustainable Livelihoods, Quality Education, Health, Climate Change and Disaster Management among Tribal, Dalits, PWD and Coastal Fishing Communities in Odisha. VIEWS hold the Special Consultative Status with UN’s Economic and Social Council (ECOSOC) and are a member of the Masterpieces Global Peace Movement since 2019. |

2. Review of key literature

2.1 Climate induced migration in India and Odisha

Migration is a global phenomenon. It is often viewed as the creation of space for greater division of labour and occupational shift of population. Migration generally takes place due to lack of adequate income in the source areas, discrimination, conflict, aspiration of better income and living conditions in the destination areas and most importantly increase in natural disasters due to changing climate dynamics.(Aid-et-Action,2022). The extreme weather events are a significant factor which has led in increase in migration in coastal areas in India as well as Odisha. (www.downtoearth.org.in). These events, coupled with a lack of social protection measures forced people to migrate in Odisha.



When a rapid-onset events such as cyclones or flash floods strikes it cause severe damage to crop, property and other assets of the poor and vulnerable sections of the society. So, under such conditions the people or sometimes the household need to migrate to seek for better opportunities outside the state. The impact of climate change led to increase in inequalities as the poor has least adaptive capacity, dependent on more sensitive sectors and hence their exposure seems to be high.

From the regional level studies it is observed that inadequate fish catch is one of the prominent reasons for migrating to different states in India from Odisha. Migration is perceived as “social adaptation to the complex environment. The push factors are more dominating than the pull factors. The socio-economic profile of migrants households are very poor and access to





physical and financial capital (such as boats, fishing nets and credit) is a challenge for many fishing households (Aid-et-Action, 2022).

3. Study Findings

3.1 Demographic profile

The team VIEWS surveyed in 12 marine fishing villages of Ganjam district of Odisha. The household survey indicates that the average family size is five member per household. The family fishing communities belongs to two sub caste i. e. Jalari and Vadabalija. They are mainly Telgu speaking communities, generally known as Nolia in the state of Odisha. The “Nolias” come under Other Backward Caste (OBC). They fishing communities depend upon the Bay of Bengal for their livelihood. Out of the total, 44% male and 39% female were surveyed in the migration prone villages.

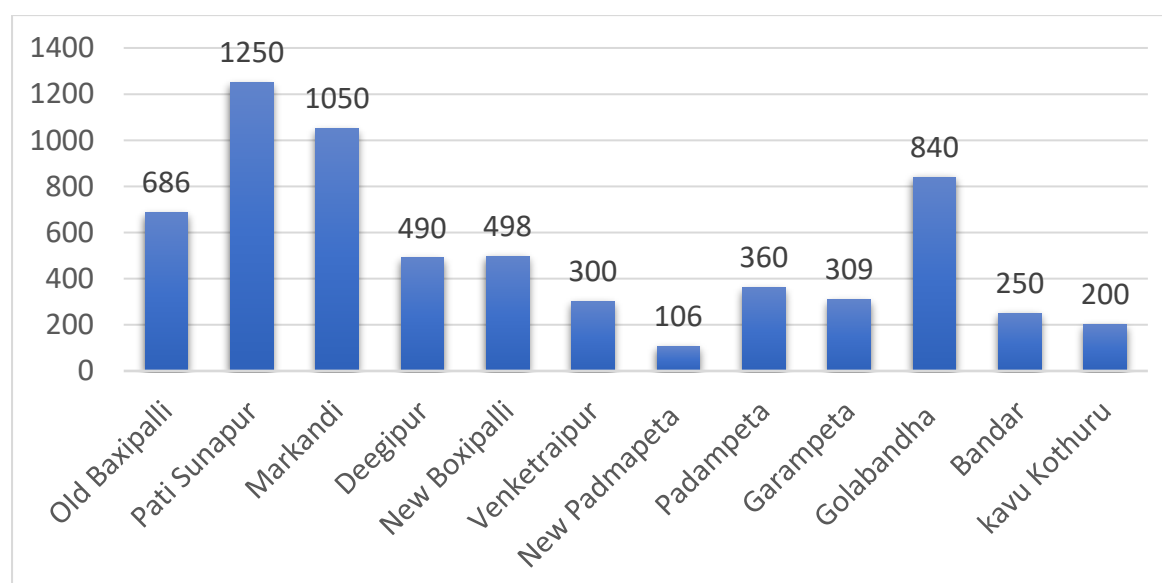
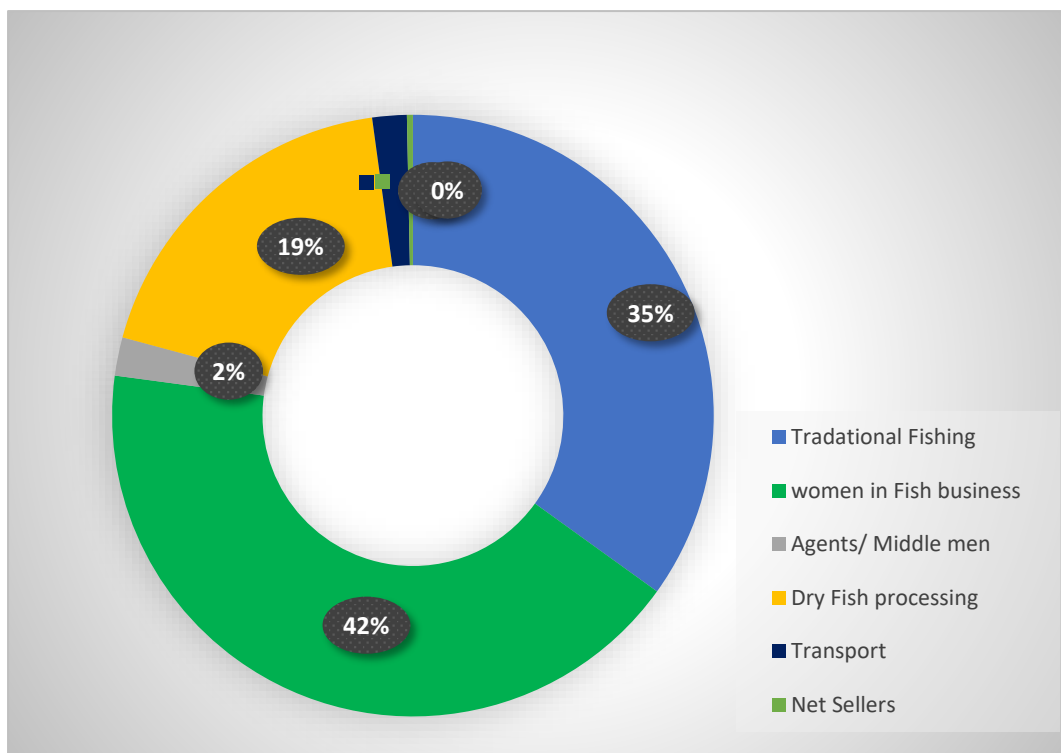


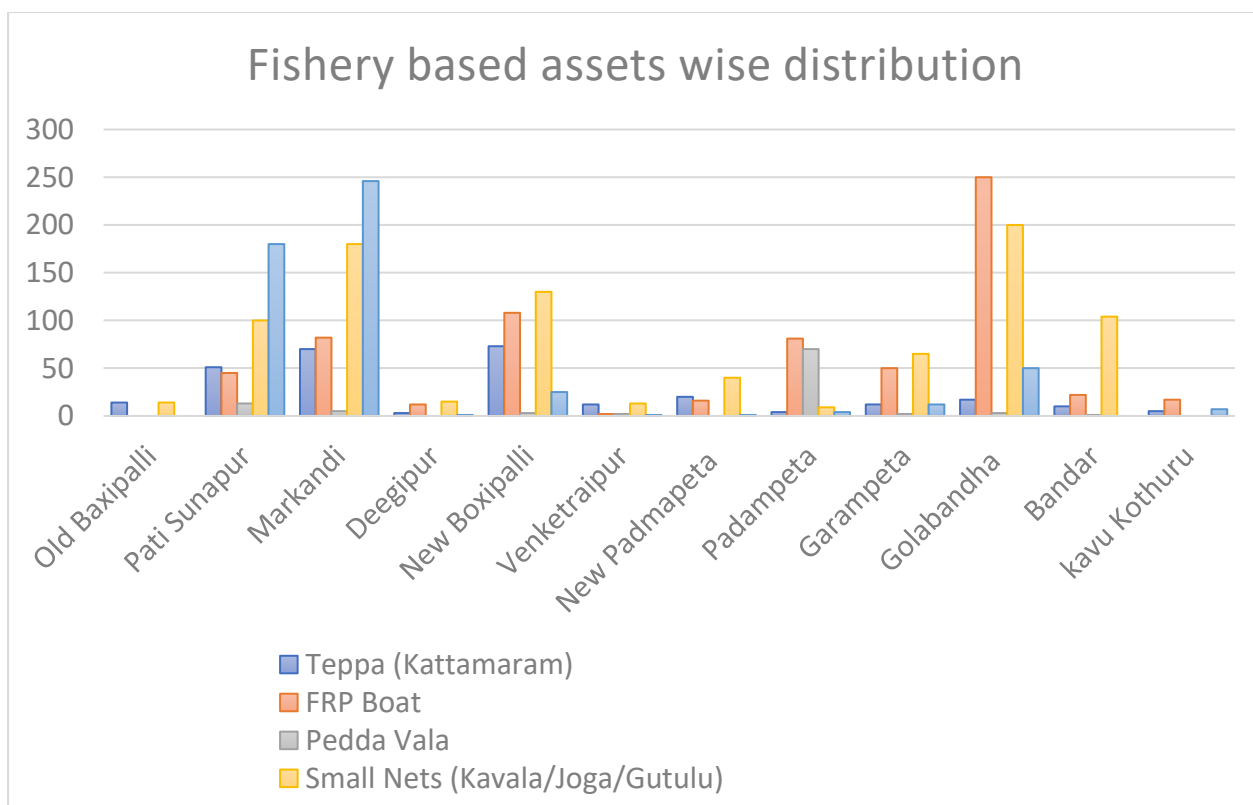
Figure 1 Demographic profile of coastal fishing villages

3.2 Engagement of fishery activities

The fishing sector provides livelihood to various groups such as women, traditional fishers, transporters, agents/middlemen, net sellers dry fish processors. 42% are women engaged in fish business, 35% are traditional fishers, 19% are dry fish processors and remaining 4% are engaged as net menders and ancillary workers.



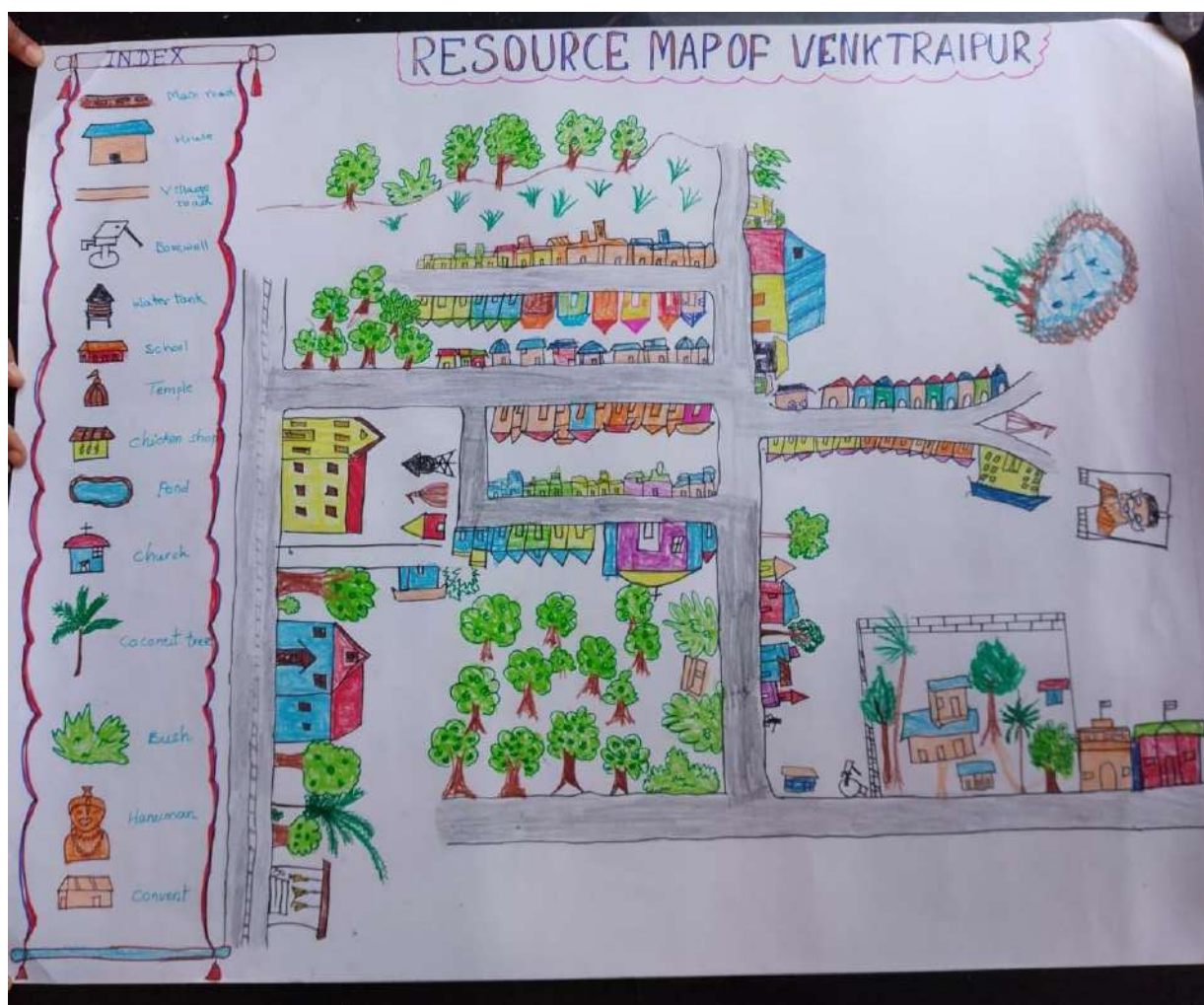
3.3 Asset wise distribution





The traditional fishermen are dependent upon traditional boats(teppa) for their fish catch. The teppa is generally meant for fishing within two to three kilometres in the sea, it is not meant for deep sea fishing. So, it restricts the capacity of traditional fishermen to catch substantial fish. Thus, it leads to reduced income and opportunities in marine fishing, and paves the way for distressed migration. The FRP boats and ring nets needs huge investment approximately 12 to 15 lakhs which is beyond reach of small-scale fishing communities in Ganjam district of Odisha.

The resource map was drawn to understand and analyse the natural and physical resources available in the survey villages. The survey village was a sea side village located near Bay of Bengal. This village has witnessed many cyclones in the past and has faced severe devastation from cyclones in terms of loss of asset, property and other belongings. During the drawing of the resource map, the fishing community was of the view that there is a natural degradation of resources in the village and it is attributed to changing climate dynamics. The sand dune vegetation and other coastal forests has been affected by climate induced extreme weather events.



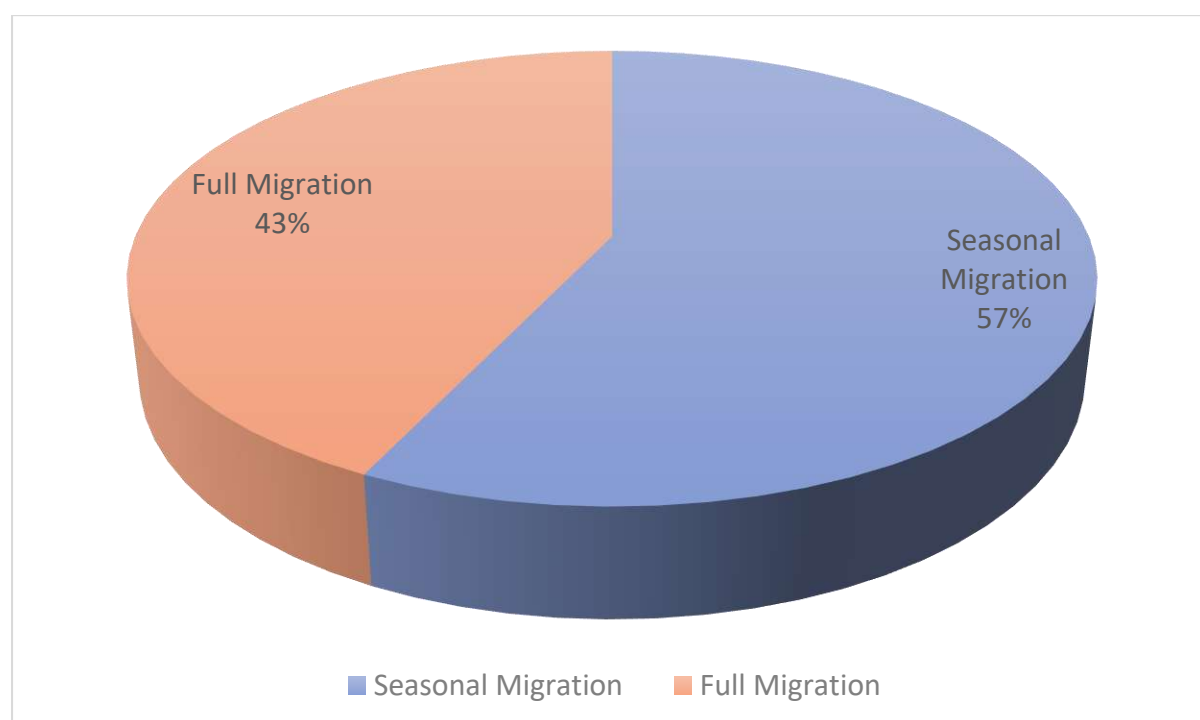
Venkat Raipur is a small, coastal village situated in the Rangeilunda block of the Ganjam district. Home to over 300 households, the village's primary occupation is fishing, with agriculture being the secondary occupation. However, the younger, educated generation is gradually losing interest in this traditional occupation and migrating to cities like Hyderabad, Bangalore, and Vishakhapatnam in search of better job prospects. These educated youth are seeking daily wage work as they lack specialized skills required for the organized sector.

The decline of the fishing industry in Venkat Raipur can be attributed to two primary reasons. Firstly, the fish stock has been depleted over the years, making it difficult for fishermen to earn a decent livelihood. Secondly, the absence of Fiber Reinforced Plastic (FRP) boats in the village has hampered deep-sea fishing. This has further contributed to the villagers' migration to other cities, where they work as laborers in low-paying jobs. The lack of skilled professionals and job opportunities has posed a significant challenge for the village's economic growth.

3.4 Migration portfolio

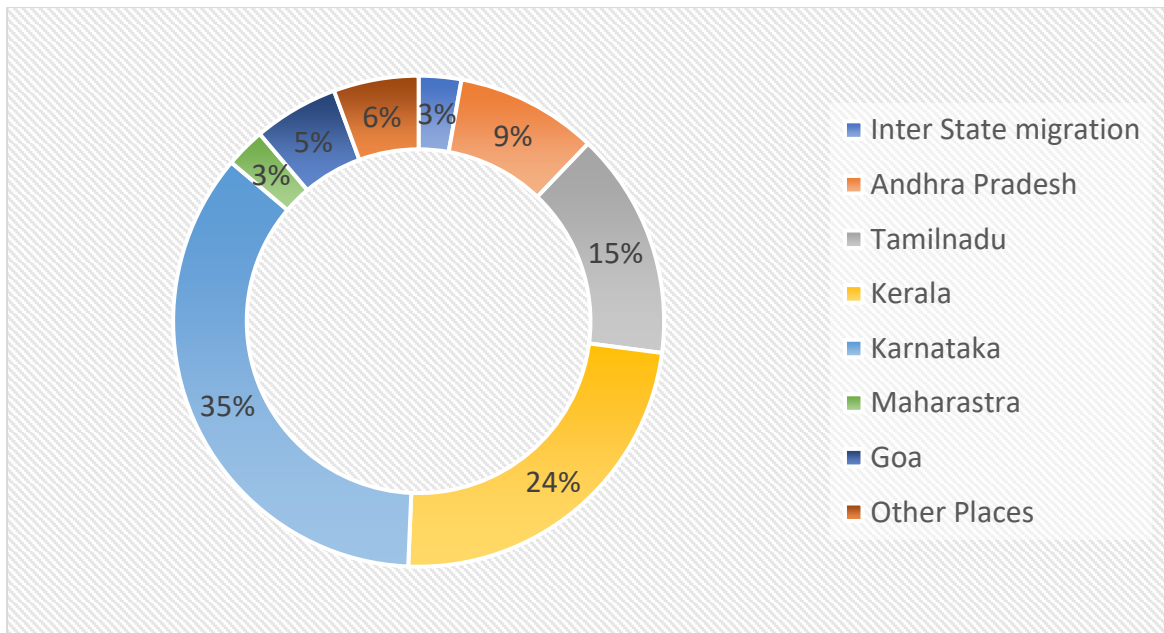
In the survey villages, the team found that 57% of the young traditional fishermen are migrating to different parts of coastal states in India to work as crew members. Generally, the young fishermen migrating to Kerala, Tamil Nādu, Karnataka, and Goa in search of better livelihood prospects. Around 43% of the households are migrating permanently with their families to work as construction and daily labourers.

On interaction with few of such migrants in the survey village, we found out that the permanent migration is often not successful due to difficult living conditions, language barriers, problem in access to social protection schemes, health care and education of children.

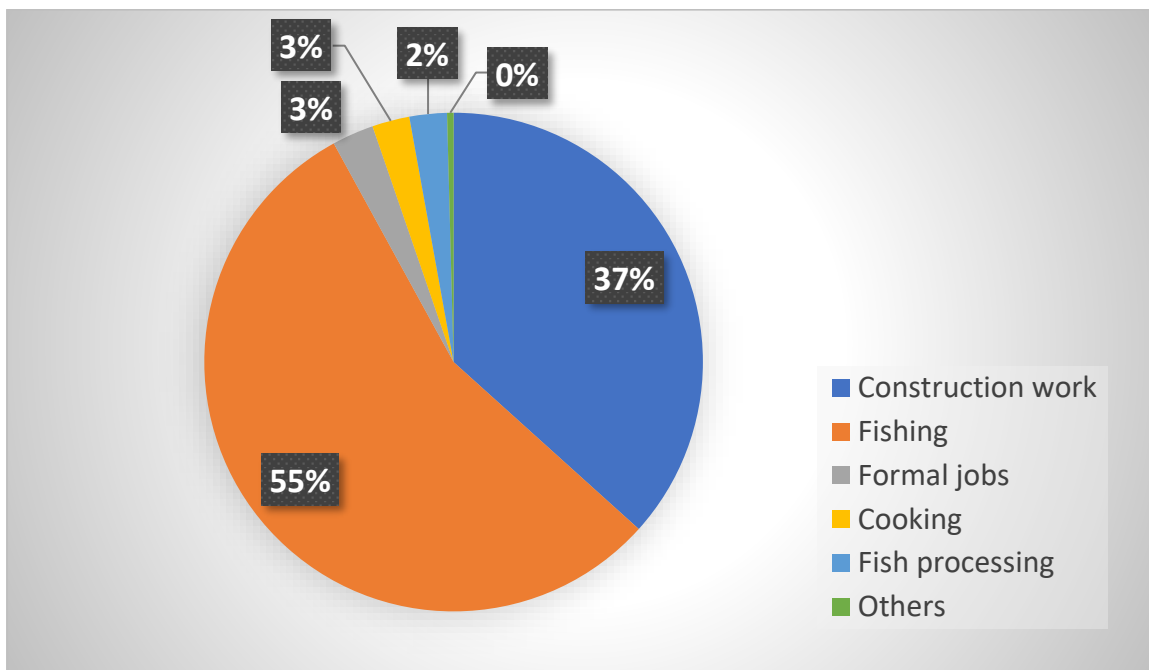


3.5 Destination sources

The migrants from state of Odisha is migrating to Karnataka (35%), Kerala(24%),Tamil Nādu(15%),Andhra-Pradesh(9%),interstate migration(5%), Goa(5%)Maharashtra(3%).



3.6 Engagement of Migrants in different activities



3.7 Cause and Effect Analysis

Factors

1. Decline of fish and fishing area: The reduction in fish catch and fishing areas is a major cause for the decline in income. According to reports, some villages have experienced a decrease in high-value fish catches over the past 5 to 6 years. This is partly due to government regulations and laws that have resulted in a decrease in available fishing



grounds. Additionally, the number of fishing days has decreased due to extreme weather events, such as deep depressions, and other climate-related factors.

2. **Indebtedness:** Fishermen generally rely on money lenders for funding their fishing operations as it is an easy way to get money without the procedural hurdles that exist in the formal system. However, these lenders charge exorbitant interest rates of up to 36% to 45% per year, which significantly reduces the income of the fishermen. As a result, they become trapped in a cycle of indebtedness that perpetuates their reliance on credit.
3. **Food insecurity:** The traditional fishermen and crew members with no or very little asset is most susceptible to food insecurity, due to decreased fish catch and high interest rate on borrowed money for fishing operations. From our field visit it was observed that around 66% of traditional fishing households are food insecure. The food insecurity is generally observed during the lean season (i.e. fishing ban and during the cyclone season). The insecurity lasts for 3 to 4 months.
4. **Lack of adequate employment:** The lack of adequate employment in other sectors during the lean season is plaguing the marine fisheries sector.
5. **Lack of adequate access to Government schemes:** Migrant fishers are often unable to access government schemes, making their existing vulnerabilities worse. Many migrant fishers are not registered in the places they move to, so they are not eligible for the same benefits as permanent residents. This makes it difficult for them to get government assistance, such as equipment subsidies or disaster insurance, even when they are eligible. Additionally, migrant fishers are often more marginalized than local



communities and may experience discrimination or harassment from other fishers, employers, or authorities. This combination of factors can make it challenging for migrant fishers to earn a livelihood, highlighting the importance of government assistance programs.

6. Inadequate modern fishing tools and equipment: Migrant fishers often struggle with inadequate access to modern fishing tools and equipment, which can undermine their livelihoods and exacerbate existing vulnerabilities. They have to work with older, less efficient gear or are forced to rely on hand-held tools or traditional methods that are no longer competitive in the modern fishing industry. This can lower their catch rates, reduce their profits, and expose them to greater economic risks and environmental uncertainties.
7. Non-functional fishing cooperative societies: Non-functional fishing cooperative societies can have a significant impact on migrant fishers, as these societies are meant to provide services and support to fishers in the community. When these cooperatives are not functioning effectively, migrant fishers may miss out on important benefits and resources, such as access to credit, training, and market information. This can make it more difficult for migrant fishers to compete with established fishers in the area, and can further exacerbate their economic vulnerability.
8. Lack of alternative and remunerative livelihood options: Migrant fishers often lack alternative and remunerative livelihood options, which can make them heavily



dependent on fishing for their income. This can exacerbate their vulnerability to environmental and economic shocks, as well as perpetuate cycles of indebtedness and poverty. In some cases, migrant fishers may lack the skills or resources to pursue other types of work, while in others they may face discrimination or barriers to entry in other sectors.

9. Change of climate and natural disasters: Migrant fishers are highly vulnerable to the impacts of climate change and natural disasters. Changes in ocean temperature, sea level rise, and extreme weather events can affect the distribution and abundance of fish, making it difficult for migrant fishers to maintain their livelihoods. Natural disasters such as hurricanes, typhoons, and tsunamis can also damage fishing infrastructure, boats, and gear, and disrupt supply chains, making it even more challenging for migrant fishers to earn a living.
10. Inadequate training and capacity building on alternative livelihoods and enterprise building: Inadequate training and capacity building on alternative livelihoods and enterprise building leaves migrant fishers with limited options and skills to earn a living. Many migrant fishers do not have the opportunity to develop new skills or access education and training programs that could help them diversify their income sources. As a result, they may remain overly reliant on fishing and face difficulties in adapting to changing market conditions, fishing regulations, or environmental pressures.

Key Findings

- The definition of migrants is not clear which leads to an identity crisis coupled with lack of awareness of their rights and entitlements creates barrier to access government schemes
- Due to a lack of technical skills and local communication, the youth are not receiving fair wages. They are also unaware of schemes related to Pradhan Mantri Jan Dhan Yojana(PMJDY), Rashtriya Swasthya Bima Yojana/Biju Swasthya Bima Yojana(BSBY), Construction Board Welfare schemes, and other social security schemes.
- The migrants in the fishing sector are not aware of labor laws. Many work more than 12 to 18 hours a day without sufficient leisure or rest time, which takes a toll on their physical and mental health.
- Migrants are often unaware of minimum wage requirements, and may face displacement, lack of proper medical facilities, unsafe working conditions, and inadequate water and sanitation on board fishing boats. These issues lead to difficult living conditions.
- There is no register of migrant fishers maintained at GP, block, and state level. Lack of proper records of migrants, place of employment and employers' details causes various problems in emergency situation, especially during natural disaster time.
- The fish stocks have drastically reduced over the last 20 years due to climate change and other factors. As a result, fish catches are no longer sufficient to meet the expenses of the family. Therefore, many fishers have had to migrate to other places for the income and expenditure gap.
- Changing coastal land-use patterns, particularly seasonal changes, mostly affect the migration drive among marine fishing communities in coastal fishing villages.
- The youth from fishing communities lack skills other than fishing. That is why they are engaged as daily wage labor and migrate to work in Kerala, Andhra Pradesh, Maharashtra, Gujarat, Andaman, and Karnataka.

- Migration drastically increased after the Odisha Super Cyclone in coastal fishing villages. Every year, cyclones destroy the livelihoods and assets of fishing communities, forcing them to migrate to cities for their daily livelihoods.
- The fishermen community adaptive capacity get restricted due to reasons such as lack of financial knowledge, not understanding or trusting the formal banking channels and falling prey in the hands of indigenous moneylender for funding fishing operation at an exorbitant high interest rate.
- Another interesting finding in the context of fishing community is spending heavily on marriage and social functions without thinking about the financial implications. The fishing community members borrow heavily from moneylenders to fund the marriage/social functions at high interest rate. Later on, they find it very difficult to repay, so they sell assets and migrate to far off places to earn money.
- Changing coastal land-use patterns, particularly seasonal changes, mostly affect the migration drive among marine fishing communities in coastal fishing villages.



Recommendations

- Government with support of local NGOs should made efforts to reduce the distress conditions of migrant fishermen by facilitating the registration of migrants at GP level as well as District level in Ganjam. It is in this context, Government and local NGOs should establish migration facilitation cell at the source point and implementation of the interstate Workman Act 1979.



- The Odisha Climate Change Action Plan and the Integrated Coastal Zone Management Authority should specially prepare a blueprint for long term and sustainable policy framework to ensure coastal livelihoods of marine fishing communities inclusively.
- The Government should take steps to build the capacity of CBOs, WSHGs, Cooperatives and Civil Society Organisations on safe migration and welfare schemes to reduce the gap between communities and government.
- Training and capacity building on alternative livelihood to reduce dependence on fish during lean season would help in strengthening the adaptive capacity of fishing communities. Market aligned skills building is the need of the hour which will help in sustainable and successful migration.

- The Government should develop a mechanism to generate migration data including seasonal and circular migration, which will help to develop pro poor migrant policies at the state and central level. Labour recruiting contractors involved in migration should be strictly regulated and monitored.

- Awareness generation on safe migration and responsible migration channels should be undertaken.

- A policy framework should be prepared to enhance skills set for returned migrants with seed capital support to establish micro enterprise development.

- The village-level fishery cooperative society should be strengthened and channelise the welfare programmes through fishery cooperative societies.

- There is a dire need for centralized data base for migrants which will allow smooth facilitation and access to schemes and social security measures.

- Labour helpline should be established to connect migrant workers an employer to explore employment as well as address the labour issues.

- Start-up should be promoted among educated youth in fishery sector to create employability and reduce dependency.

- Migration protection policy should formulate by the government to protect the interests and rights of migrant fishermen as well to address the exploitation and ill treatment by the middlemen and boat owners.

- Migrants should be covered in national food security act to ensure food security and protection of invisible migrants.

- The government should facilitate identification, integration, education and health care of children of migrant workers.

- The data base should be created at community level by Anganwadi workers and Gram Panchayat Raj institutions including the household data on migration.



- The migrant workers should access public health care under universal coverage of health programmes



- The Government and NGOs plans for skill training for the youths and migrants. After the training, they have to connect skilled migrant communities to diversified livelihood opportunities, access finance, and promote enterprise development for income generation and self-employment by using local resources. The central and state government should frame policy to eliminate policies which negatively discriminating against the migrant workers in terms of fisheries subsidies, social security schemes and other welfare schemes.

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