

**SOCIO-CULTURAL DETERMINANTS OF GERIATRIC WORKFORCE: A CASE STUDY IN THE MANGROVE ISLANDS OF INDIA****<sup>1</sup>Joydhis Majumdar, <sup>2,\*</sup>Dr. Jayita Roy Ghosal and <sup>3</sup>Dr. Sandeep Poddar**<sup>1</sup>Bangabasi Evening College, India<sup>2</sup>Narasingha Dutt College, India<sup>3</sup>Research and Innovation, Lincoln University College, India**Received 18<sup>th</sup> January 2023; Accepted 20<sup>th</sup> February 2023; Published online 14<sup>th</sup> March 2023**

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**Abstract**

The Sundarbans region of the Ganges delta is famous for its Mangrove forests. But the people living within, as aboriginals and migrants from civilizations, needed to adapt to the forest's life and its resources. Many complicated occupations requiring skills acquired through years of experience are needed there. Agricultural lives were also adaptive because of changes and help from many organizations. But natural disasters and many other conditions forced younger generations to either move out or adjust to a new lifestyle with a new mode of income. They were unable to take care of, and life risks associated with forest foragers' occupations, and people in old age needed to work again in retirement. The focus of this study was mainly on what differences happened and the main reasons for this situation.

**Keywords:** Socio-Cultural, Mangrove Islands,

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**INTRODUCTION**

The people of Sundarbans are a population multicastr and multi-religious community with various secondary occupations. Though Sundarbans is a mangrove forest area of the Ganges Delta, its inhabitants have had a few unique professions and professional hazards for a long time like Honey foragers – Mouli or Fisherman – Jele (Arabinda N. Chowdhury *et al.*, 2014). They have to go inside the dense forest for this, which makes them vulnerable to many dangers like an attack by the Royal Bengal tiger, indigenous snake bite, crocodile attack, etc. Despite professional changes like many other Indian village communities (Due to the effect of Globalization and Economic spread), a part of this community follows the tradition. This profession and its hazards are more like a young adult to middle age problem because that age is fit to do it. Considering this, this community can represent a population where geriatric individuals will be the last part. This brings the concept of migratory and immigration factors' influence over Sundarbans areas. Due to less technological advancement and fewer global perspective-related opportunities, the young population of Sundarbans like to change their educational privileges and job options elsewhere. This reduces the population counts severely and disrupts the expected population structure tilting it towards an older population increase. A sedentary lifestyle incorporating Agriculture and day laborers in the tourism business is also a few reasons for many. But immigrants from other areas like the Bangladesh Sundarbans region (due to contemporary religious and political uproar with the effect of previous immigrations) and middle-aged laborers pouring in from different parts of India to participate in Sundarbans tourism increases the number of aged individuals count. Demographic representations of a part of the population show that individuals beyond the age of sixty are increasing.

Observing the rise of caste and religious context in minority groups and labor workers from other regions portrays communal intermixtures progressing towards a sedentary lifestyle supported by modern-day medicine and medical facilities. Dense forest ventures are reduced, so common problems like venomous snake bite treatments can be done quickly inside villages and medical hubs installed by governments. For these reasons, the morbidity rates shift towards the reason of death as senescence rather than accidental (wild animal attack or jungle accidents) deaths. By traditional norms, females are more like fish collectors from river bank regions using small implements, so they're prone to higher crocodile attacks. The focus of this very study will be more inclined toward why and how the population of old age increases in Sundarbans. Despite all these reasons, the Sundarbans region is the most affected region of West Bengal due to cyclonic activity. Many Severe cyclones and supercyclones affected this coastal delta region for many years but increased in intensity over the past few years. But the people of Sundarbans and the old part of the population sustained. Many reasons can be considered hypothetical and pragmatic, like a more organized shelter system for more durable households and many aids from many NGOs and Governmental organizations (Enamul Haque *et al.*, 2022). Changes in dietary patterns and the availability of various elements in modern lifestyle can be considered a factor. Previous studies conducted in these regions during the last decades showed that population growth was reduced due to natural reasons like salinity in the water, scarce and complex modes of transportation and communication, brutal cooperation with wildlife, etc. But many of these factors remain unchanged. Preliminary observations show that the availability of filtered and clean water with the concept of proper sanitation was not only introduced but also adopted by them. Because of an area with rivers and many human-made water bodies, waterborne diseases and harmful fauna can be observed, which affect their life but adaptability against them is very high in the contemporary period. Their mode and

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pattern of agriculture were very much limited in the past due to soil type and excessive salt presence. Primarily that was their reason to start a forager life. But recently, due to the easy transportation of soil and other elements from the mainland delta region, the agricultural lifestyle thrived too. And because of this agricultural settlement type, their lifestyle also changed to support the least life-risk incorporated occupations. They try to avoid jungle foraging these days. Biosphere preservations and wildlife sanctuaries for endangered species like Royal Bengal Tiger put Sundarbans on the map of Indian and West Bengal tourism, which also helped cohabitants to adapt to complex and global tourists. The tourism business requires immense manpower, from daily household works to boat drivers to guides which brings a new array of jobs for aged populations where physical strength and fitness are less needed than experience and communication (Sakib Mahmud *et al.*, 2022). They also adapt to marketing and trading principles to support the need for tourism which puts them at the center of communication with the least requirements of physical skills. Boat and river-based tourism require experienced boatmen and labor who can navigate through the channels of the Sundarbans delta. This creates job profiles that require skills passed from one aged expert to a newbie coming into this job. Most people practice fishery on a small scale or big scale with a diesel engine boat that can go up to the bay of Bengal and further. This experience helped the initial support for tourism, where tourists like to go into river channels to see wild animals living in sanctuaries. For the people of Sundarbans, this is no thrill, but the experience approximation helped them to understand that this can be a source of income (Hossain Mahmood *et al.*, 2021). But nowadays, younger generations leave their ancestral profession and lands because of developed communications and eligibility for other secured jobs in city areas through education. But the older geriatric generations can't leave and must adopt this new line of professions. So they must work again in profiles like helpers for boatmen, tourist guides, hotel cleaners, snacks vendors, and small-scale businesses. These mainly fit with no labor requirements nor very good reflexes, but the risks with few of these jobs remain the same. Being a boatman's assistant or even providing training for boat steer puts them at risk of water drowning accidents, waterborne diseases susceptibility, and cold or hot weather acclimatization failure due to age. It was found that older generations are more susceptible to tiger, snake, and crocodile attacks due to their reduced reflexes and physical strengths. Even it was quite an observation that a major part of this population never crossed the age boundary of fifty due to risky lifestyles. Geomorphologic alterations as anthropogenic factors (like Concrete roads, bridges, permanent ferry ghats, and covered river banks to partial prevention of river bank erosion due to tidal waves) also introduced and reduced chances of accidental death. Overall, our observations showed that the birth of healthy and thriving young is as previous. Still, migrations due to better lifestyles and reductions of risk factors slowly make the Sundarbans region more habitable for older individuals, significantly altering the demographic distribution and population curve.

## OBJECTIVE

The main objective of this study is to understand the factors and variables (Biological, Environmental, and Social-cultural) affecting the number of geriatric individuals inside the whole population working despite age and physical boundaries. Requirements for basic livelihood become more necessary yet

very hard to procure in old age. Understanding the change which alters the demographic profile with the survival of traditions is in question here. In the future people of Sundarbans can become a population of geriatric people trying hard to survive or just be abandoned by some migrant business owners who can use the resources at their disposal. This is the orientation of study where research mainly focuses on the return of older people, their profiles, and survival in this comparatively crucial condition.

## METHODOLOGY

After the 1987 UNESCO declaration of the Sundarbans area as a world heritage site, tiger reserve and zone distributions happened effectively. Human populations can be seen in the buffer core areas near the tiger reserve forest. In Pakhralaya of Sundarbans, West-Bengal. Mangrove forest provides unique ecological conditions with their unique resources and lifestyles, which can be older traditions following and new changes happening due to globalization. This data is both quantitative and qualitative, which requires both methods and approaches. A total of 348 individuals were studied in 2017 from Paschimpara and Purbapara villages. And again, in 2019, another study was conducted on 215 individuals from the same Purbapara village and Paschimpara village. For the collection of demographic data standard schedule (Bello, 2012) and a census survey was conducted, and for personal case-oriented experience studies, structured and semi-structured interview techniques (Markham, 2014) were used (Sperschnider and Bagger, 2010). In 2017, the male literacy rate was 42.21%, and the female literacy rate was 30.87% in Paschimpara village, but in 2019 it slightly increased. The male literacy rate is 50.65%, and the female literacy rate is 35.50% in Paschimpara. However, the count of graduates is significantly lower than in other categories. Most of these people practice agriculture as a primary economy, but as a secondary economy, honey collection, fishing, and forest foraging are very common. To collect data, structured, semi-structured, and case study methods are used. In some cases, audio recordings and transcriptions were also used.

## DISCUSSION

This study was conducted in two segments, one in 2017 and another in 2019. The main objective of these two segmental periodical studies is to observe the alterations. The professions of mangrove forests always have high mortality risk and many health-related occupational hazards. Like the "Mouli" or honey collectors are prone to waterborne infections, tiger attacks, crocodile attacks, and snake bites. Even their job is problematic because of honey bees. These people use conventional methods like hogla leaves and natural bug repellents. Age is a critical factor in all cases. Because without learning about the forest and environment, no jungle foraging can be done easily. Learning skills from elders is common practice, but the main problem is learning from them while at work. This makes the job problematic. Governments' alteration and development of Sundarbans mangrove area make it easier to depend on other professions like agriculture, office work, and tourist guidance. Tourism of Sundarbans also affects the lives of older generations. Several jobs are associated with tourism, like caretakers, laborers, hotel janitors, etc. Many of these jobs neither require skills nor require any age parameters. So business owners in this area also provide new job prospects

for aged people. Markets also developed because of tourism which leads to multidirectional changes in communities like new shops for toys and handicrafts. Landowners are family members belonging to original inhabitants or people who migrated from other regions with capitals. In both cases, they either rent their lands for hotel business or develop their own business. Most of these hotel owners tried to put up local and tourist attractions shops in front of their hotels or near their hotel grounds (Abdus Salam *et al.*, 2011). This phenomenon brings forth many primary and side occupations, but most of these are services regarding personal care for tourists. This can become very intimidating and support class differences. After persuading a lifelong job experience, many aged people needed to adapt to this economically changed lifestyle. This harms their mental condition but physical exhaustion and labor requirement drops.

**Table 1. Population Distribution based upon occupation with male-female differentiation (2017)**

Type of occupation	Male (%)	Female (%)	Total (%)
Fishing and Foragers	48(78.6%)	13(21.7%)	61(17.5%)
Agriculture	118(58.2%)	85(41.8%)	203(58.3%)
Office work	18(75%)	6(25%)	24(6.9%)
Others	37(61.6%)	23(38.4%)	60(17.3%)
Total	221(63.5%)	127(36.5%)	348

Table 1 shows that 17.5% of the total population depends on an economy like honey collection, fishing leaves collector, woodsman, and jungle foraging. However, most of the population depends on agriculture (58.3%). It is also perceivable that other categories, which include jobs like hotel janitors, laborers, shopkeepers, boatmen, boat assistants, and many more, represent 17.3% as a whole and 38.4% for females. This percentage of workers as a female in other sections is higher significantly than in different categories like fishing and agriculture. This represents relaxation in less labor providing jobs and supporting the tourism and hotel industries. After interviewing them, many said that natural disasters affected them severely, but the resources of mangrove forests are still lucrative for global and local markets. They need to follow this occupation despite all these hazards. Older generations tend to follow the traditional work because their younger generations or children either left them for better prospects or died for many reasons. There are other professions like kitchen garden and animal husbandry, but none are stable or supportive enough because of natural disasters.

**Table 2. Population Distribution based upon occupation with male-female differentiation (2019)**

Type of occupation	Male (%)	Female (%)	Total (%)
Fishing and Foragers	54 (93.1%)	4 (6.9%)	58 (26.9%)
Agriculture	92 (85.9%)	15 (14.1%)	107 (49.8%)
Office work	10 (83.3%)	2 (16.4%)	12 (5.6%)
Others	37 (97.3%)	1 (2.7%)	38 (17.7%)
Total	193 (89.7%)	22 (10.3%)	215

This table shows that 26.9% of the total population depends on an economy like honey collection, fishing, leaves collector, woodsman, and jungle foraging, which is significantly higher than data from 2017. Though a significant part of the population (49.8%) depends on agriculture, no farmers were reduced during these two years. Office work profiles remain almost the same with little changes because of profile alterations in village lifestyle to hotel business office work and office work in city areas. But the impact of education supports the role of office work because the literacy rate was

considerably higher. Due to less sample size, the percentage in other job sections reduces, but it is observable that the choice for fewer laborer jobs remains high. The main reason can be considered as the destruction of agricultural lands. Many farmers practice jungle foraging for seasonal occupation profiles or traditional practices with ritualistic perspectives. Returning to an age-old profession is not only problematic for them but also tiring beyond comparison. In some cases, they needed to do the job like older Mouli teaching the younger generations the technique, but nowadays, they need to do it for their income and survival (Arabinda N. Chowdhury *et al.*, 2014). We can also observe that despite population differentiation, the count of traditional and forest-based occupations showed a hike during data of 2019. This is mainly because the number of office workers increased, and agricultural lands were destroyed (Soudamini Das, 2022). After two years of segmented periodical study and observations, it can be stated that the area of Sundarbans has gone through many natural disasters and social changes, which bring forth the problem of old workers being at work again. This phenomenon possibly alters the structure of social hierarchy and traditional occupations' survival due to the need for old age and the negligence of the current generation to be part of the heritage. The tourism business and its intensity in Sundarbans areas enhanced economic and financial situations and considerably changed job profiles. As previously described, many of the older generations moved to older jobs like traditional honey collection and jungle foraging but also became considerate of jobs like hotel services. This sometimes makes them do something that may not fit well into their profile of younger life, and neither provides proper respect. They need to do that to survive in cultural, biological, and ecological hostile situations. This condition of society in mangroves offers many areas for further studies.

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