

PERSPECTIVE OF RURAL PEOPLE IN WESTERN GHATS FOR SELF
SUSTAINING: CASE STUDY IN AREAS ADJOINING KUDREMUKH NATIONAL
PARK

by

PRASHANTH MUTHYALA MANOHAR. PGDBA, M.Sc.,

DISSERTATION

Presented to the Swiss School of Business and Management Geneva

In Partial Fulfillment

Of the Requirements

For the Degree

DOCTOR OF BUSINESS ADMINISTRATION

SWISS SCHOOL OF BUSINESS AND MANAGEMENT GENEVA

August 2023

PERSPECTIVE OF RURAL PEOPLE IN WESTERN GHATS FOR SELF
SUSTAINING: CASE STUDY IN AREAS ADJOINING KUDREMUKH NATIONAL
PARK

by

PRASHANTH MUTHYALA MANOHAR

APPROVED BY

Ibrahim Menkeh, DBA

<Chair's Name, Degree>, Chair

<Milica Popović Stijačić, Phd>, Committee Member

Anna Provodnikova

<Member's Name, Degree>, Committee Member

RECEIVED/APPROVED BY:

<Associate Dean's Name, Degree>, Associate Dean

Dedication

I would also like to dedicate this work to the people in and around the Western Ghats, who depend on this unique ecosystem for their livelihoods and well-being. I hope that this dissertation will contribute to the conservation and sustainable management of the Western Ghats and help the communities and biodiversity that call this region home.

Acknowledgements

Dear Dr. Anna,

I am immensely grateful for your guidance, mentorship, and support throughout my journey of completing this thesis. Your insightful feedback, constructive criticism, and words of encouragement have helped me immensely in developing my ideas and improving my writing. I cannot thank you enough for your dedication and commitment towards my academic pursuits.

To my dear wife Mala,

I cannot express in words how much your unwavering love, patience, and support means to me. Your constant encouragement, understanding, and belief in my abilities have been the driving force behind my success. Thank you for always being there for me, through the difficulties of this journey. I dedicate this achievement to you, as much as to myself.

To my loving son Mayank,

Your presence in my life has brought so much joy and motivation to me. Seeing your determination and hard work in your own studies has inspired me to pursue my academic goals. Thank you for your patience and understanding when I had to spend long hours studying and writing. I am grateful for your love, support, and encouragement, and I dedicate this thesis to you with pride.

Once again, I thank you all for being an important part of my life and helping me complete this thesis.

ABSTRACT

PERSPECTIVE OF RURAL PEOPLE IN WESTERN GHATS FOR SELF
SUSTAINING: CASE STUDY IN AREAS ADJOINING KUDREMUKH NATIONAL
PARK

Prashanth Manohar Muthyala

2023

Dissertation Chair: <Chair's Name>

Co-Chair: <If applicable. Co-Chair's Name>

1. BACKGROUND

The Western Ghats, a biodiversity hotspot in India, is home to many Indigenous communities who have traditionally relied on self-sustenance practices for their livelihoods. However, with increasing pressure on resources due to population growth and development, these practices are being threatened. This study aims to understand the impact of self-sustenance practices on the livelihoods of communities in the Western Ghats.

The study collected data on various self-sustenance practices such as agriculture, forestry, and non-timber forest products, and analyzed the data using descriptive statistics and regression analysis. The results showed that self-sustenance practices have a positive impact on the livelihoods of communities in the Western Ghats, with agriculture and forestry being the most important contributors. However, the study also found that these practices are being threatened by factors such as land conversion and degradation. Success of an opportunity itself is finding the right suitable opportunity. Communities in the rural background walk the path of choosing the right opportunity with time evaluated and experience-based process. The study concludes that promoting and protecting self-sustenance practices is crucial for the livelihoods of communities in the Western Ghats and for the conservation of the region's biodiversity. The Western Ghats, a UNESCO World Heritage site, is one of the most biodiverse regions in India, home to a wide variety of flora and fauna (Lakhanpal, 2019). The region is also home to many Indigenous communities who have traditionally relied on self-sustenance practices such as agriculture, forestry, and non-

timber forest products (NTFPs) for their livelihoods. However, with increasing pressure on resources due to population growth and development, these practices are being threatened.

1.1 Method

The study collected data on self-sustenance practices from a sample of communities in the Western Ghats using a combination of surveys and interviews. The data was analyzed using descriptive statistics and regression analysis, adopting Constructivist Grounded Theory (CGT) a research methodology that combines the principles of constructivism and grounded theory. Constructivism is a philosophical stance that posits that knowledge is constructed through human interaction with the world and that individuals actively construct their own understanding of reality. Grounded theory, on the other hand, is a research methodology that emphasizes the discovery of theory through the analysis of data. CGT is a qualitative research approach that focuses on the discovery of new theory through the analysis of data collected from participants. It emphasizes the importance of the researcher's own perspective and the active construction of meaning by the researcher and participants (Charmaz, 2017).

In CGT, data collection and analysis are done simultaneously, with the researcher continuously comparing new data with existing data and theories, allowing for the emergence of new concepts and themes. The goal is to generate a theory that is grounded in the data and that reflects the perspectives of the participants. CGT is often used in fields such as sociology, psychology, and education, where the focus is on understanding human behavior and experiences. It is particularly useful for studying complex social phenomena,

as it allows for the discovery of new theories and concepts that reflect the perspectives of the participants.

1.2 Introduction

The results showed that self-sustenance practices have a positive impact on the livelihoods of communities in the Western Ghats, with agriculture and forestry being the most important contributors. However, the study also found that these practices are being threatened by factors such as land conversion and degradation.

1.3 Discussion and Conclusion

The study concludes that promoting and protecting self-sustenance practices is crucial for the livelihoods of communities in the Western Ghats and for the conservation of the region's biodiversity. This could include measures such as community-based resource management, sustainable land use planning, and policies to support traditional livelihoods.

KEYWORDS

Self-sustenance practices

Livelihoods

Communities

Western Ghats

Statistical analysis

Biodiversity

Indigenous communities

Agriculture

Forestry

Non-timber forest products (NTFPs)

Land conversion

Degradation

Community-based resource management

Sustainable land use planning

Policies

Traditional livelihoods

TABLE OF CONTENTS

List of Tables	xii
List of Figures.....	xiii
CHAPTER I: INTRODUCTION	1
1.1 Introduction.....	1
1.2 Research Problem	3
1.3 Purpose of Research.....	5
1.4 Significance of the Study	9
1.5 Research Purpose and Questions	12
CHAPTER II: REVIEW OF LITERATURE.....	13
2.1 Theoretical Framework.....	13
2.2 Theory of Reasoned Action	16
2.3 Summary	21
CHAPTER III: METHODOLOGY.....	22
3.1 Overview of the Research Problem	23
3.2 Operationalization of Theoretical Constructs	24
3.3 Research Purpose and Questions	29
3.4 Research Design.....	30
3.5 Population and Sample	32
3.6 Participant Selection	35
3.7 Instrumentation	36
3.8 Data Collection Procedures.....	39
3.9 Data Analysis	41
3.10 Research Design Limitations	48
3.11 Conclusion	50
CHAPTER IV: RESULTS.....	51
4.1 Demographic Information.....	53
4.2 Age Distribution.....	54
4.3 Gender	54
4.4 Education Backgrounds	55
4.5 Occupation	57
4.6 Duration of Practicing Self-Sustenance	57

4.7 Research Question one.....	61
4.8 Research Question two	70
4.9 Summary of Findings.....	79
4.10 Conclusion	81
CHAPTER V: DISCUSSION	83
5.1 Discussion of Results	83
5.2 Discussion of Research Question one.....	84
5.3 Discussion of Research Question two.....	92
CHAPTER VI: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS	104
6.1 Summary.....	104
6.2 Implications.....	105
6.3 Recommendations for Future Research	107
6.4 Conclusion	108
APPENDIX A SURVEY COVER LETTER.....	111
APPENDIX B INFORMED CONSENT.....	114
APPENDIX C INTERVIEW QUESTIONS.....	117
REFERENCES.....	119
APPENDIX D: INTERVIEW QUESTIONS CHECK LIST	133

LIST OF TABLES

Table 1: Sample details of participants	47
Table 2: Sample details of participants	47

LIST OF FIGURES

Figure 1: Determinants of Participation in India’s MNREGA Scheme.....	7
Figure 2: Determinants of Participation in India’s MNREGA Scheme.....	7
Figure 3: The theories of reasoned action and planned behavior.....	9
Figure 4: Sample population of participants.....	29
Figure 5: Self Sustenance adopted profession	29
Figure 6: Age distribution of participants.....	50
Figure 7: Gender of the participants	51
Figure 8: Educational Background Of Participants	51
Figure 9: Self-sustenance Profession	52
Figure 10: Duration of practicing self-sustenance	53
Figure 11: Important are the self-sustenance activities of livelihood	54
Figure 12: Linking the themes, correlations, and literature discussions	76
Figure 13: Different self-sustenance practices.....	83
Figure 14: Factors that impact the sustainability of self-sustenance.....	83
Figure 15: Change in climate felt or see	83
Figure 16: Self-sustenance practices contribute to the conservation	85
Figure 17: Changes in availability of resources for self-sustenance.....	85
Figure 18: Self-sustenance practices to support the livelihoods.....	90

CHAPTER I: INTRODUCTION

1.1 Introduction

Self-sustenance in communities in the Western Ghats region of India refers to the ability of these communities to meet their own needs for food, water, energy, and other necessities without relying on external sources. This is typically achieved through a combination of traditional knowledge, sustainable agricultural practices, and resource management. In the Western Ghats, communities often rely on a mix of crops, including rice, millet, and various vegetables and fruits, which are grown using various traditional farming methods and other traditional techniques that are well-suited to the hilly terrain. They also engage in rainwater harvesting, using traditional systems and check dams to conserve and store water for use during dry seasons. Another important aspect of self-sustenance in Western Ghats communities is the use of renewable energy sources, such as solar and wind power, to meet their energy needs. This helps to reduce dependence on fossil fuels and mitigate the environmental impact of energy production (Panwar et al., 2011).

Additionally, many communities in the Western Ghats have also embraced ecotourism, which allows them to generate income while preserving and promoting their natural and cultural heritage. Overall, self-sustenance in Western Ghats communities is a multifaceted and dynamic process that combines traditional knowledge, sustainable practices, and resource management to meet the needs of the community while preserving and protecting the environment. This section will provide a high-level overview of the subject under study within the present knowledge base. The significance of the research

will be emphasized as the subject's history and essential elements are supplied. This part will also include a description of the research's motivation and anticipated results as well as an explanation for its necessity and significance. The problem statement will then be presented, and research question suggestions will follow. This section will then discuss how the research will fill a gap in the body of knowledge (Gadgil, 2014). Recommendations caused controversy since they might drive out several tribes that lived in the Kudremukh National Park as well as several other tribes along the Western Ghats. Furthermore, traditional dwellers and Scheduled Tribe populations were not given much attention in which may have hampered their ability to survive should recommendations be put into place (Kasturirangan et al., 2013). These populations depend on paddy cultivation for subsistence and the somewhat more lucrative spice trade (Martin, 1999).

The British colonial and Indian government's forestry policies, as well as the adoption of a modernizing development paradigm and rising economic stagnation, are all contributing to the livelihood issue. Nationalization of forests in one area corresponded with the shift from "forests as local settings" to "forests as commercialized national resources," which forced the locals to find alternative means of income (Guha, 1983). The tribe began to leave when the evacuation began, and the Karnataka State Department relocated them outside the National Park. The population began adjusting to the changing surroundings, and in the current situation, people have begun abandoning their practice of farming because they believe the costs are excessive and the profits are not as high as they had hoped. Instead, they are adjusting to alternative sources of income. Most of this people has assimilated into society and has decided against seeking employment in favor of

starting their own businesses in order to support themselves. Here is a tribe that is sourcing its own resources to survive in the modern civilization that demands employment and puts pressure on the government to meet its wants (Jatav and Nair, 2022).

Every strategy used by a community has its own specific context, set of problems to overcome, and intended result. As a result, the community's use of different ways is subject to a variety of limitations that prevent it from achieving its goals. These limitations invariably have a big influence on the community's ability to sustain itself and have a decent life. Effective challenge management through overall hands-on experience planning and short-term look-ahead scheduling is essential for a successful conclusion (Magis, 2010).

A look-ahead schedule offers a full analysis of obstacles and a detailed plan indicating tasks to be done within a comparatively available window, whereas hands-on experience planning offers an overall execution strategy. This study project will give a general overview of the informal practices being used to avoid relying on outside resources and to create an infrastructure that can accommodate people with a variety of interests and skills so they can adopt the best practices to assure their own sustenance and a respectable way of life (Cox et al., 2010). This study will assist some of these rural and semi-urban populations in surviving there rather than being forced to move to larger cities in quest of the necessities for a respectable living.

1.2 Research Problem

The research problem in self-sustenance in communities of the Western Ghats region of India can be multifaceted and complex, but some common issues that researchers

may focus on include, Climate change the Western Ghats region is experiencing changes in precipitation patterns, increasing the risk of droughts, floods and landslides (Vadigi, 2016). Research can be done to understand how these changes are affecting the ability of communities to sustain themselves, and how they can adapt to these changes.

Deforestation and land degradation a high rate of deforestation and land degradation which is affecting the ability of communities to sustain themselves. Research can be done to understand the causes and consequences of these changes and to identify ways to mitigate them. The Western Ghats is one of the most biodiverse regions in the world, and the loss of biodiversity is affecting the ability of communities to sustain themselves. Research can be done to understand how changes in biodiversity are affecting the services provided by ecosystems, such as pollination, pest control and water regulation, and how this is affecting the ability of communities to sustain themselves (Garcia et al., 2005).

Also poverty, migration, lack of education and healthcare, and other socioeconomic factors can also play a significant role in determining the ability of communities to sustain themselves. Research can be done to understand the underlying causes of these factors and to identify strategies to mitigate their impacts. With the change in lifestyle, traditional practices of self-sustenance are changing and weakening, research can be done to understand how these changes are affecting the ability of communities to sustain themselves, and how they can adapt to these changes (Bawa and Menon, 1997). Overall, research on self-sustenance in communities of the Western Ghats is an interdisciplinary field that draws on multiple disciplines such as ecology, anthropology, economics, and

political science to understand the complex factors that affect the ability of communities to sustain themselves in the context of rapidly changing environmental, social and economic conditions.

1.3 Purpose of Research

The purpose of this study is to understand the impact of self-sustenance practices on the livelihoods of communities in the Western Ghats. The Western Ghats is a biodiversity hotspot in India, home to many indigenous communities who have traditionally relied on self-sustenance practices for their livelihoods. However, with increasing pressure on resources due to population growth and development, these practices are being threatened. The study aims to investigate the role of self-sustenance practices in the livelihoods of these communities, and the factors that may be impacting their sustainability.

The scope of the current study on perspective of rural people in western ghats is limited to the issues and problems faced by the in habitants and there is a gap due to limitation of study specific to smaller population on their adapted sustenance. The study done by Israr et al. (2014) is one of the few research done though not specific to the region selected, is in broader region, hence the primary research method for this study is interviewing sample group, consisting of male and female and age range from 18 to 75 years to understand the perception of progressive generation as well (Jervis and Drake, 2014). Based on this understanding, a classification method will be developed to categorize various influencing factors for the purpose of identification of motivation and how the tribe zero in on what needs to be focused on for self-sustaining.

On preliminary observation that I have frequented in the areas surrounding Kudremukh National Park and Kudremukh National Park for the last 2 years in this region I have not observed one single instance of anyone resorting to alms. A study revealed that diversification strategies are commonly a combination of agriculture and non-agriculture activities, including remittances and governments' financial supports (Nayak et al., 2000). The wage labours, both farm labour and non-farm labour, constitute the major part of the income of the lower social castes, low educated, landless, marginal and small farming households and economically poor. The households with better social and economic advantages have also been found striving for diversification in order to accumulate wealth to mitigate against the future natural and economic risks. This study highlights the positive aspects of the diversification strategies for rural households for raising their income (Nayak et al., 2000).

The contribution of total income from farm sources was decreased by 10.03% after the diversification of income. Agriculture to non-agriculture ratio decrease to 0.4408 after the diversification of income. Average income from the farm sources decreased while from non-farm sources increased (Israr et al., 2014). Considering the fact that the cost of employing labourers is expensive and will require to get people from neighboring villages or cities or state the local community pools in fellow community members in such a way that they form a group to harvest and do the needful agricultural and cultivation activities. These groups work in turns in each member's land to help them to complete the harvesting. At the same time, there are several days where there would be idle time where in the local community has diversified themselves into various business starting such as running

transport services that connect this village to the other towns and cities to provide access to essentials other than grains that is produced here, petty shops that cater to the requirement of the village habitants , informal arrangement to procure essentials such as fuel and also operating Homestays that provide shelter to travelers and tourist who visit this region of Western Ghats to explore and study in guidance from the Forest Department that regulates the movement of people (Scheyvens, 1999).

The whole process will require to interview a cross section of people in various age group to understand what has happened in the last 20 years , current situation and what does the current generation opine of the informal system which has been put in place. How does the newer generation perceive to take forward the system in place or do they have thoughts in place to improve the methods adopted or are they going to discard the whole system and diversify completely into another array altogether.

Any form of organized platform to put together the informal process exiting will benefit a larger population to adapt the perspective of inhabitants in this region. Mahatma Gandhi National Rural Employment Guarantee Act is one of the largest scheme to support the Rural people, the table below indicates the number of people registered versus the actual registered in area specific to the region of this study which is Chikmagalur and Dakshina Kannada District, signifies that people in this region have an alternate to Government scheme dependence hence very insignificant numbers registered (Jatav and Nair, 2022).

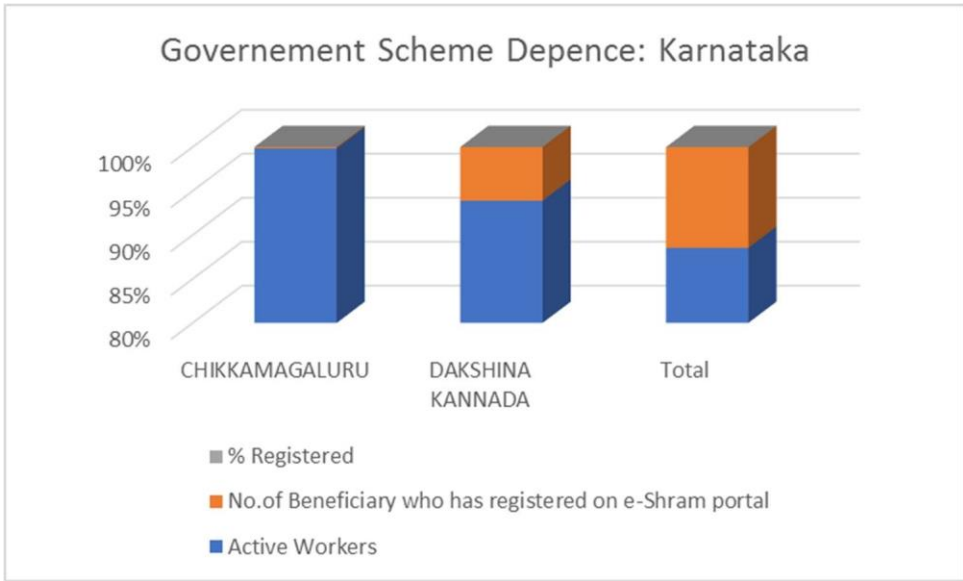


Figure 1. Determinants of Participation in India’s MNREGA Scheme

Source: Jatav, M. and Nair, J. (2022). *Journal of Asian and African Studies*, (1), p.9.

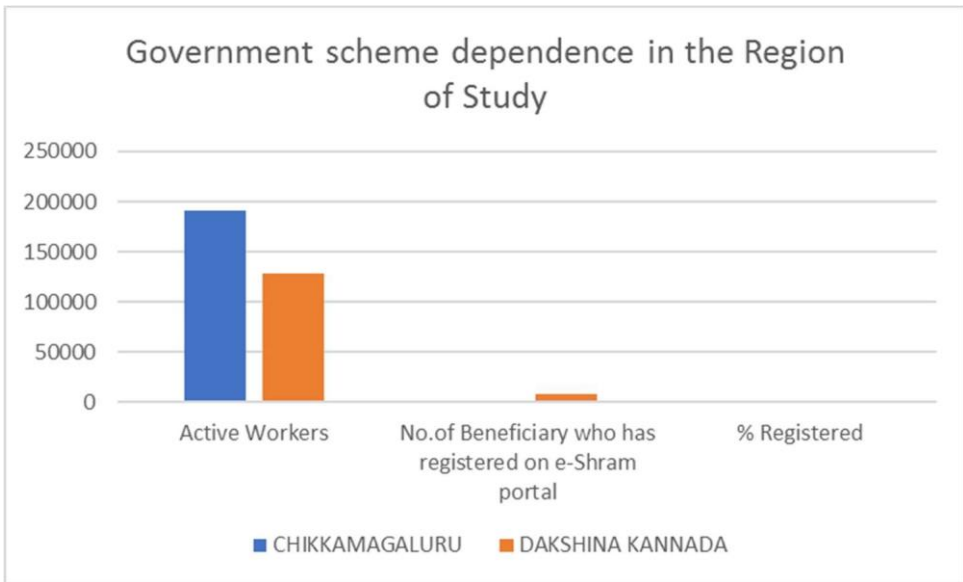


Figure 2. Determinants of Participation in India’s MNREGA Scheme

Source: Jatav, M. and Nair, J. (2022). *Journal of Asian and African Studies*, (1), p.9.

1.4 Significance of the Study

Self-sustenance practices are deeply rooted in the culture, tradition and lifestyle of the communities living in the Western Ghats and are a vital source of food, income, and cultural identity for them. In addition to these economic benefits, self-sustenance practices also contribute to the cultural and social well-being of communities in the Western Ghats. They are deeply rooted in the culture and tradition of these communities and serve as a source of cultural identity (Bawa et al., 2007).

However, it is important to mention that the sustainability of these practices is under threat due to factors such as land conversion, degradation and lack of policies to support traditional livelihoods. In the research, it is important to evaluate the potential impact of these threats and work towards finding solutions to protect these practices (Bawa, 2007). These self-sustenance practices, that are based on traditional knowledge and practices, tend to be more in sync with the natural environment, promoting biodiversity conservation.

It is important to notice that conservation efforts should be integrated with development policies and plans, to ensure that traditional livelihoods and biodiversity conservation can coexist. It is important to note that the approach to promoting and protecting self-sustenance practices should be tailored to the specific context and needs of the communities in the Western Ghats (Bawa and Menon, 1997). A combination of these strategies and a participatory approach can help in finding sustainable solutions that support the livelihoods of communities and biodiversity conservation. Different self-sustenance practices used by communities in the Western Ghats for their livelihoods has

many communities in the Western Ghats rely on small-scale, subsistence agriculture for their livelihoods. They grow a variety of crops such as rice, millets, and vegetables, using traditional methods and without the use of chemical fertilizers or pesticides (Kumar, 2010).

Communities in the Western Ghats also rely on forestry for their livelihoods. This includes collection of non-timber forest products (NTFPs) such as honey, medicinal plants, and bamboo, as well as sustainable timber harvesting. Many communities in the Western Ghats keep livestock such as cattle, goats, and sheep, which provide them with milk, meat, and manure for use in agriculture. Some communities in the Western Ghats rely on fishing as a source of livelihood, particularly those living near rivers and other water bodies. They use traditional fishing methods such as hooks and lines and rely on fish for both consumption and income. Some communities in the Western Ghats make handicrafts such as baskets, mats, and pottery, which they sell for income. Some communities in the Western Ghats are also involved in eco-tourism, acting as guides and providing accommodation and other services for tourists visiting the region. Eco-tourism provides income for communities and helps to promote conservation of the region's biodiversity by raising awareness and generating funds for conservation efforts (Gyawali et al., 2022).

Local communities in the management of natural resources, giving them a stake in their conservation and ensuring that their livelihoods are protected. Planning for the use of land and natural resources in a way that balances the needs of communities and conservation. This can include zoning areas for conservation and areas for development and setting aside areas for traditional livelihoods. Traditional livelihoods, such as providing

financial assistance and technical support for small-scale farmers, artisans, and other traditional practitioners (Rai, 1979). Agriculture, forestry, and other self-sustenance practices can help to ensure that these practices are viable in the long term, and that they promote conservation.

Providing education and awareness to the local communities and stakeholders on the importance of biodiversity conservation, and the role of traditional livelihoods in conservation, can raise awareness and promote conservation. Collaboration among government agencies, local communities, NGOs and other stakeholders can help to promote and protect self-sustenance practices and conserve the region's biodiversity (Karabhari and Ishwarappagol, 2015).

1.5 Research Purpose and Questions

With this research, the study aims to provide a deeper understanding of the role of self-sustenance practices in the livelihoods of communities in the Western Ghats, and the factors that may be impacting their sustainability. This understanding can help policymakers and local communities develop strategies to promote and protect these practices and ensure the livelihoods of communities in the Western Ghats and the conservation of the region's biodiversity.

1. What are the different self-sustenance practices used by communities in the Western Ghats for their livelihoods?
2. What is the impact of self-sustenance practices on the livelihoods of communities in the Western Ghats?

3. What are the factors that are impacting the sustainability of self-sustenance practices in the Western Ghats?
4. How do self-sustenance practices contribute to the conservation of biodiversity in the Western Ghats?
5. How can self-sustenance practices be promoted and protected in order to support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity?

CHAPTER II: REVIEW OF LITERATURE

2.1 Theoretical Framework

A biodiversity hotspot, the Western Ghats, or Sahyadri mountain range, was found by researchers in the western region of India. Both names refer to the same mountain range. The people who make their homes in these towns follow a distinctive way of life that is inextricably intertwined with the natural resources of the region. Adopting a theoretical framework that is founded on the principles of self-sustenance is needed to make certain that these communities will be around for the near future (Sowole et al, 2018).

The ability of a community to fulfil its essential requirements without drawing upon resources from outside the community is referred to as self-sufficiency. This includes the ability to produce food, earn revenue, and manage the management of natural resources in a way that is sustainable. Self-sufficiency is attainable in the setting of the Western Ghats using traditional agricultural practices, the establishment of sustainable livelihoods, and the conservation of biodiversity. Practicing traditional forms of agriculture is one of the most important aspects of Western Ghats residents' ability to support themselves. These methods, which have been refined by the local populations over the course of several centuries, are ideally suited to the one-of-a-kind climate and soil characteristics of the region. The use of terrace farming, crop rotation, and the co-existence of several crop types and animals are some of the practices that fall under this category.

The communities that live in the Western Ghats have the potential to strengthen their food security and improve their lives if they promote the use of these traditional techniques. The cultivation of sustainable ways of making a living is an added critical part of self-sufficiency in the Western Ghats. This can be conducted through encouraging the production of non-timber forest products, ecotourism, and several other activities that make use of the natural resources that are present in the region. The communities found in the Western Ghats have the potential to lessen their reliance on conventional methods of agriculture and relieve some of the stress placed on the region's natural resources if other sources of income are made available to them (Nyanga, 2012).

The preservation of the region's rich biological diversity is a crucial part of self-sufficiency in the Western Ghats. The area is home to a diverse collection of flora and wildlife, the majority of which can be discovered nowhere else on the planet (Urso et al., 2016). The people who live in the Western Ghats may ensure that they will always have access to a diverse selection of resources in the future if they work to preserve the biodiversity that exists there. This can be conducted through the preservation of essential habitats, the encouragement of environmentally responsible harvesting methods, and the creation of ways of making a living that are dependent on conservation. Any industry on a large scale does influence the livelihood strategies of local population (Scoones, 2015).

This dynamism in the livelihood system has resulted in net monetary economic gain for the local population. Further, proximity of village to the site of established large-scale industry plays a key role in figuring out these net monetary economic gains due the

industrial activity (Basvarajaiah M, 2018). When the industry that has been supporting livelihood of all who are employed, when the operations come to grinding halt, the educated and the ones who relocated to Kudremukh for purpose of employment return back to their home town, what gets impacted is the livelihood of the local population that from ages were in the surrounding locality and largely depended on functioning of the industry according to (Hegde et al., 2016).

Arguably before the setup of the industry the livelihood was not so supportive, however 25 years of progressive source of income has also played a pivotal role in bettering the quality of life and exposure to progressive modern amenities. Kudremukh iron ore came into existence in 1976 according to Hussain, (2003) with it came development overnight to an area that was lesser known, and the quick access to activities and assets that decide the standard of development attracted substantial number of people to move to this place. Kudremukh was declared a National Park in 1987, despite mining continuing in Kudremukh in Karnataka, until a Supreme Court order put a stop to it (Sridhar, 2010).

Although there has been no earth-moving activity at the mine site since 2005, it could take decades for these devastated hill slopes to regain some measure of native green cover, the revenue areas inside the park continued as revenue land mentions that people living there hence have legal rights to the land they have settled on. Before the environmental activist began their efforts to bring in Ecological balance, several local populations that occupied the Kudremukh national Park, the primary occupation of these local population used to be paddy, pepper, areca, and coffee cultivation (Garcia et al., 2010).

Most of the lands used for the purpose of agriculture was encroached land of the forest and the local population continued to conduct agriculture in these encroached lands. In 2005, the state government passed an order for voluntary relocation from Kudremukh and took upon itself the task of entirely funding the resettlement. As the evacuation started the tribe started to move out and were placed by the Karnataka State outside the National Park (Nagaraja et al., 2011).

While the older generation continues to fight for title deeds and promised amenities, the young generation started adapting to the new environment and in current scenario have started gradually moving out of their practice of cultivation as many perceive cost of cultivation to be high and returns lower than their investment and adapting to the other source of income. Most of this population have merged into mainstream society and do not look forward to being employed but set up their own business for self-sustenance. In the modern society that expects to be employed and pressurize the Governments to meet their needs, here are various communities that have evolved to finding ways to source to sustain by setting up on their own (Mahrer, 1969).

2.2 Theory of Reasoned Action

The theory of reasoning in self-sustenance in communities of the Western Ghats can be based on the idea that these communities have developed a deep understanding of their natural environment through generations of living in close connection with it, and that these understanding forms the basis of their ability to sustain themselves (Rai, 1979). One theoretical framework that has been used to understand self-sustenance in Western Ghats communities is the concept of “Indigenous knowledge system” framework emphasizes the

importance of traditional knowledge and practices in shaping the ability of communities to sustain themselves (Ramachandra et al., 2018). It also highlights the importance of community-based resource management, which is based on the idea that local communities have a personal stake in protecting and managing the resources that they depend on.

Another theoretical framework that has been used to understand self-sustenance in Western Ghats communities is the concept of "resilience". This framework emphasizes the ability of communities to adapt to changing environmental and social conditions, and to keep their livelihoods and well-being in the face of adversity. Additionally, the concept of "sustainability" is also used as a theoretical framework for understanding self-sustenance in Western Ghats communities. It emphasizes the importance of meeting the needs of the present without compromising the ability of future generations to meet their own needs (Veerabhadru, 2013).

The theories of reasoning in self-sustenance in communities of the Western Ghats are based on the idea that these communities have a deep understanding of their natural environment, and that this understanding forms the basis of their ability to sustain themselves. These theories also emphasize the importance of traditional knowledge, community-based resource management, resilience, and sustainability as key factors in shaping the ability of communities to sustain themselves in the Western Ghats region (Shivaprakash et al., 2018).

The theory of reasoning in self-sustenance in communities of the Western Ghats region of India is a complex and multifaceted subject, but it typically draws on several other theories and concepts.

2.2.1 Resilience theory

This theory focuses on the ability of systems, such as communities, to adapt and recover from disturbances and changes, and to keep their functions and services. Resilience theory helps to explain how communities in the Western Ghats can sustain themselves in the face of environmental and social changes (Polites et al., 2012).

2.2.2 Ecological and cultural sustainability theory

This theory focuses on the relationship between human societies and the natural environment, and how sustainable use of resources can be achieved (Kumar et al., 1995). This theory can help to explain how the traditional practices of self-sustenance in Western Ghats communities are grounded in a deep understanding of the local ecology and culture (Lobell et al., 2003).

2.2.3 Social-ecological systems theory

This theory focuses on the interactions between human societies and the natural environment, and how these interactions affect the ability of communities to sustain themselves. This theory can help to explain how changes in the social and ecological systems of the Western Ghats are affecting the ability of communities to sustain themselves, and how they can adapt to these changes (Suresh, 2021).

2.2.4 Political ecology

This theory focuses on the political and economic factors that shape the relationship between human societies and the natural environment. This theory can help to explain how policies and institutions are affecting the ability of communities to sustain themselves in the Western Ghats region (Neumann, 2008)

2.2.5 Community-based natural resource management

This theory focuses on the role of local communities in managing and conserving natural resources. This theory can help to explain how Western Ghats communities have developed traditional systems of self-sustenance that are based on community-based natural resource management (Sohaana and Rahman, 2021).

2.3 Summary

The diversification of the livelihood is not limited to the traditional source of livelihood alone but with constant upgrading and keeping in line with the current trends and viability of the income is also being done (Shoaib and Mujtaba, 2016). Most importantly the natives always have community meetings and discussions and weigh importance to the advantages of being a part of the larger community also plays a significant role. With this adaptation they are not depending on individual judgement alone but also imbibing inputs from the community and elders. A theoretical framework for self-sufficiency in the communities of the Western Ghats must be built on the concepts of sustainable lifestyles, indigenous agricultural techniques, and the conservation of biodiversity. To assure their continued existence and prosperity in the face of shifting environmental and economic

situations, the communities that are in the Western Ghats can protect themselves by adopting this framework (Pattiyagedara and Fernando, 2020).

Overall, in communities of the Western Ghats draws on concepts from different disciplines, including ecology, anthropology, economics, and political science, to understand the complex factors that affect the ability of communities to sustain themselves in the context of rapidly changing environmental, social and economic conditions.

The theory of reasoning in self-sustenance in communities of the Western Ghats region of India is based on the idea that sustainable development mentions a holistic and participatory process that involves the active engagement and empowerment of local communities (Vodouhê et al., 2010).

Self-sustenance in Western Ghats communities is best achieved through a community-based approach that recognizes the unique needs, abilities, and aspirations of each community. This approach involves engaging with communities and building on their traditional knowledge, skills, and resources to develop sustainable solutions that meet their needs. It also requires active participation and engagement from all stakeholders, including community members, government officials, and researchers. This means that decision-making processes should be participatory and inclusive and should involve all stakeholders in the planning and implementation of sustainable development initiatives, which integrates a comprehensive approach that addresses the interrelated social, economic, and environmental dimensions of sustainability (Frederick et al., 2016).

The sustainable development initiatives should be designed to address the multiple and interconnected challenges facing communities, such as poverty, food insecurity, energy insecurity, and environmental degradation, adapting and resilient to changing environmental, social and economic conditions. This means that sustainable development initiatives should be flexible and adaptable and should be designed to help communities to cope with and adapt to changes in the future. Self-sustenance in Western Ghats communities requires a long-term perspective that recognizes the importance of preserving and protecting the natural and cultural heritage of the region for future generations.

The sustainable development initiatives should be designed with a view to the long-term and should aim to ensure the sustainability of communities and the environment over the long-term. Overall, self-sustenance in communities of the Western Ghats is based on the idea that sustainable development is a holistic and participatory process that involves the active engagement and empowerment of local communities. It is an integrated, adaptive, and resilient approach that focuses on community-based, participatory planning and decision-making, which is aimed at addressing the multiple and interconnected challenges facing communities in the Western Ghats (Adam et al., 2018).

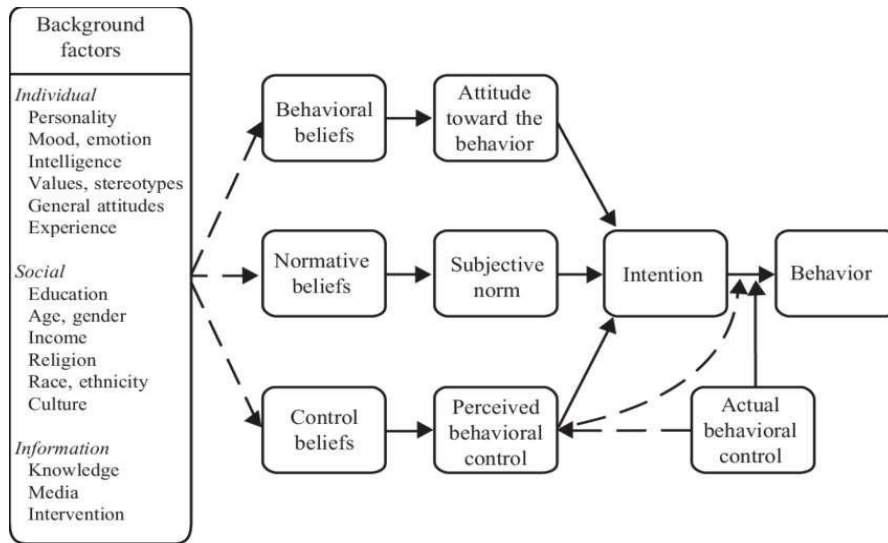


Figure 3. The Reasoned Action Model

Source: Fishbein, M. and Ajzen, I. (2015). *Predicting and changing Behavior the Reasoned Action Approach*.p.22.

Chapter III: METHODOLOGY

3.1 Overview of the research problem

The Western Ghats region of India is a unique and ecologically diverse area that is home to a large number of rural communities. These communities have traditionally relied on a combination of agriculture, forestry, and other natural resource-based livelihoods to meet their needs for food, water, and energy (Sukhwani et al., 2020). However, in recent years, the region has been facing a number of challenges that threaten the ability of these communities to sustain themselves. One of the main challenges facing communities in the Western Ghats is climate change. The region is experiencing changes in precipitation patterns, increasing the risk of droughts, floods, and landslides. These changes are affecting the ability of communities to grow crops, access water, and generate income, which in turn is leading to increasing food insecurity and poverty. Another major challenge facing communities in the Western Ghats is deforestation and land degradation (McCall and Minang, 2005).

The region is facing a high rate of deforestation, which is affecting the ability of communities to access the resources they need to sustain themselves. Deforestation is also contributing to the loss of biodiversity, which is affecting the services provided by ecosystems, such as pollination, pest control, and water regulation (Henderson and Waterstone, 2009). In addition to these environmental challenges, communities in the Western Ghats are also facing a number of socio-economic challenges. Poverty, migration, lack of education and healthcare, and other socio-economic factors can also play a

significant role in determining the ability of communities to sustain themselves (Vadigi, 2016). These factors can make it difficult for communities to access the resources and services they need to meet their basic needs and can lead to a vicious cycle of poverty and resource depletion.

Given these challenges, it is clear that research on self-sustenance in communities of the Western Ghats is of critical importance. Research can help to understand the causes and consequences of these challenges and to identify strategies to mitigate their impacts. It can also help to identify and promote best practices and innovative solutions that can help communities to adapt to changing environmental, social, and economic conditions (Vadigi, 2016). Research on self-sustenance in communities of the Western Ghats is a multifaceted and complex field that draws on multiple disciplines such as ecology, anthropology, economics, and political science to understand the complex factors that affect the ability of communities to sustain themselves in the context of rapidly changing environmental, social, and economic conditions. By addressing these challenges and promoting sustainable development, research can help to ensure the long-term well-being of communities in the Western Ghats and the preservation of this unique and ecologically diverse region for future generations (Fernando, 2020).

3.2 Operationalization of Theoretical Constructs

Operationalization of theoretical constructs, the process of defining and measuring a concept or variable in a way that is specific and measurable in the context of a research study. This process involves taking a theoretical construct, such as self-sustenance in communities of the Western Ghats and finding specific indicators or measures that can be

used to operationalize the construct in a research study. Operationalize the construct of self-sustenance in communities of the Western Ghats is to define it as the ability of a community to meet its own needs for food, water, energy, and other necessities without relying on external sources (Rakodi and Lloyd, 2002). To operationalize this construct, the goal is to use a combination of quantitative and qualitative measures like surveys and interviews to assess the degree to which community members are able to access and utilize resources such as land, water, and forests to meet their needs, surveys and interviews are commonly used research methods for assessing the degree to which community members are able to access and utilize resources such as land, water, and forests to meet their needs (Koy et al., 2016) .

These methods allow us to gather information from many individuals and to gain a comprehensive understanding of the experiences and perspectives of community members. When using surveys to assess resource access and use, typically design a questionnaire that includes a series of questions related to the specific resources of interest (Malterud et al., 2016). It supports finding the types of land and water resources that community members have access to, as well as how these resources are being used (Schilling, 2013). It supplies an opportunity to understand the barriers that community members face in accessing and using resources, such as lack of access to credit or limited knowledge of sustainable resource management practices.

Interviews, on the other hand, supply a more in-depth understanding of the experiences and perspectives of a smaller number of individuals. Interviews can be conducted in person or over the phone, and typically involve a series of open-ended

questions that allow participants to share their experiences and perspectives in their own words (Morse et al., 2002).

When assessing resource access and utilization in the Western Ghats it may help to focus on specific resources such as water and land and ask questions to understand the traditional practices that the community has been following, the challenges they are facing in preserving these resources and the innovative solutions they have produced (DiCiccio-Bloom and Crabtree, 2006). It may be ideal to ask questions about the government policies and regulations related to these resources and how they are affecting the community.

Both surveys and interviews have their advantages and disadvantages and choose the method that best suits the goals of their study and the resources available to them. Surveys are generally more efficient and cost-effective, but they may not provide the same level of detail and nuance as interviews. Interviews, on the other hand, are more time-consuming and expensive, but they can supply a more in-depth understanding of the experiences and perspectives of community members (Johnson et al., 2017).

Surveys and interviews are powerful research methods that can be used to assess the degree to which community members are able to access and use resources such as land, water, and forests to meet their needs. By gathering information from many individuals, to gain a comprehensive understanding of the experiences and perspectives of community members, which can help to find the barriers and opportunities that communities face in accessing and using resources (Castleberry and Nolen, 2018).

Measurement of crop yields and food security to assess the ability of communities to produce enough food to meet their needs, need of the community can be categorized into three main categories basic needs, material needs, and psychological needs. Basic needs refer to the necessities needed for survival, such as food, water, shelter, and clothing. In the context of the Western Ghats, self-sustenance can help meet these basic needs through the promotion of traditional agricultural practices and the development of sustainable livelihoods. By relying on local resources and traditional knowledge, the communities in the Western Ghats can ensure that they have access to the necessities of life. Material needs refer to the goods and services that enhance a person's standard of living, including consumer goods, education, and healthcare (Freeman, 1979). In the Western Ghats, the development of sustainable livelihoods, such as agriculture, eco-tourism and the production of non-timber forest products, can help meet these material needs by providing alternative sources of income. Psychological needs refer to the non-material aspects of well-being, such as a sense of belonging, self-esteem, and personal fulfillment.

In the Western Ghats, the preservation of traditional cultures and the promotion of sustainable livelihoods that are based on local knowledge and resources can help meet these psychological needs by supplying a sense of connection to the community and the environment. Meeting the needs of a community is essential for its survival and well-being. In the context of the Western Ghats, self-sustenance can play a key role in meeting the basic needs, material needs, and psychological needs of the communities living in the region. Measurement of crop yields and food security are important indicators of a community's ability to produce enough food to meet its needs (Garcia et al., 2010).

These measures supply information about the quantity and quality of food that is being produced by a community, as well as the extent to which community members have access to adequate and nutritious food. Crop yields can be measured by assessing the amount of food produced per unit of land and can be calculated using a variety of methods such as crop cutting experiments or yield monitoring. Remote sensing techniques to estimate crop yields, or survey farmers to get their estimated yield or harvest (Žukauskas et al., 2018). Crop yields can be measured for different crops, such as rice, millet, and various vegetables and fruits, which are grown in the Western Ghats region. Food security, on the other hand, can be measured by assessing the availability, access, and use of food by community members. A variety of methods to measure food security, such as household food consumption surveys, dietary assessments, and focus groups. These methods can supply information about the types of food that community members have access to, as well as how much food they are able to consume on a regular basis. Food security indicators such as the Household Food Insecurity Access Scale to assess the degree of food insecurity of the households. The measure to the frequency and severity of food insecurity, and it is commonly used in research and program evaluations (Richa, 2012).

It is important to note that measuring crop yields and food security alone may not supply a complete picture of a community's ability to produce enough food to meet its needs. These measures should be considered in conjunction with other indicators such as land use patterns, water availability, and agricultural practices to get a more comprehensive understanding of the factors affecting food security. Measurement of crop yields and food security are important indicators that can help research to understand the ability of

communities in Western Ghats to produce enough food to meet their needs. By assessing the quantity and quality of food that is being produced and the extent to which community members have access to adequate and nutritious food, to find the barriers and opportunities that communities face in achieving food security (Yin, 2009). Analysis of energy consumption and production to assess the ability of communities to generate and use energy sustainably. Examination of traditional and sustainable agricultural and resource management practices used by the communities. Analysis of the economic and social factors that may influence a community's ability to sustain itself (Carver and Scheier, 1998). It is important to note that operationalization is a continual process, as the researcher will have to check and re-check the operational definitions and measures to ensure that they are measuring what they intend to measure.

Operationalization of theoretical constructs is a crucial step in the research process as it helps to ensure that the research findings are valid and dependable (Vernon-Dotson, 2013) By operationalizing the theoretical construct of self-sustenance in communities of the Western Ghats, it is possible to create a clear and measurable framework for studying this complex and multifaceted concept in a way that is specific, dependable, and valid.

3.3 Research Purpose and Questions

With this research, the study aims to supply a deeper understanding of the role of self-sustenance practices in the livelihoods of communities in the Western Ghats, and the factors that may be affecting their sustainability (Khan, 2014). This understanding can help policymakers and local communities develop strategies to promote and protect these

practices and ensure the livelihoods of communities in the Western Ghats and the conservation of the region's biodiversity.

1. What are the different self-sustenance practices used by communities in the Western Ghats for their livelihoods?
2. What is the impact of self-sustenance practices on the livelihoods of communities in the Western Ghats?
3. What are the factors that are affecting the sustainability of self-sustenance practices in the Western Ghats?
4. How do self-sustenance practices contribute to the conservation of biodiversity in the Western Ghats?
5. How can self-sustenance practices be promoted and protected to support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity?

3.4 Research Design

The research design for self-sustenance in communities of the Western Ghats should be tailored to the specific research question and aims of the study. However, some common research designs that may be proper for studying self-sustenance in these communities include, Longitudinal studies involve collecting data from the same individuals or communities over an extended period. This type of design can be useful for understanding how self-sustenance in Western Ghats communities' changes over time and in response to different environmental, social, and economic conditions. Case studies involve in-depth

examination of a specific community or group of communities (Juma'h, 2006). This type of design can be useful for gaining a detailed understanding of the complex factors that affect self-sustenance in Western Ghats communities and the strategies that communities use to adapt to changing conditions. Comparative studies involve comparing the self-sustenance of multiple communities or groups of communities. This type of design can be useful for finding best practices and innovative solutions that can be used to promote self-sustenance in Western Ghats communities and for understanding the factors that contribute to success or failure of different strategies. Mixed-methods studies involve using a combination of quantitative and qualitative methods to study a research problem (Scott, 2005).

This type of design can be useful for understanding the complex and multifaceted nature of self-sustenance in Western Ghats communities, by combining quantitative data such as crop yields and quantitative data such as the traditional practices and challenges faced by the community (Fusch and Ness, 2015). It is important to note that the research design has been based on the research question and aim, and the resources available, therefore considering the ethical implications of the research and to ensure that the research design is respectful of the communities and their rights. Overall, the research design for self-sustenance in communities of the Western Ghats has been chosen based on the specific research question and aims of the study. A combination of different research designs such as longitudinal, case studies, comparative, and mixed methods is used to gain a comprehensive understanding of the complex and multifaceted nature of self-sustenance in these communities (Bekhet and Zauszniewski, 2012).

3.5 Population and Sample

The population for a study on self-sustenance in communities of the Western Ghats would be all the communities living in the Western Ghats region. The sample, on the other hand, is the specific group of communities or individuals that will be included in the study. The population and sample should be chosen based on the specific research question and aims of the study (Acharya et al., 2013).

When selecting a sample, considering factors such as the size and diversity of the population, the resources available for the study, and the feasibility of data collection. Some common sampling methods that can be used for self-sustenance studies in Western Ghats include. Simple Random Sampling involving randomly selecting a sample from the population using a method such as random number generation (Acharya et al., 2013). This method is useful when the population is large and diverse, and when the goal is to be the population.

Stratified Sampling involves dividing the population into different strata or subgroups and then selecting a sample from each stratum. This method is useful when the population is large and diverse, and when the goal is to ensure that the sample is representative of different subgroups within the population. Cluster Sampling involves dividing the population into clusters or groups, and then randomly selecting a sample of clusters or groups. This method is useful when the population is large and diverse, and when the goal is to reduce the cost and time of data collection by focusing on specific clusters or groups within the population (Acharya et al., 2013). Convenience Sampling involves selecting a sample of individuals or communities that are easily accessible or

willing to take part in the study. This method is useful when the population is small or difficult to access and when the goal is to gather data quickly and with minimal resources (Malterud et al., 2016).

Twenty-six (26) research participants who met all requirements by purposeful sampling were chosen. Purposive sampling is a form of non-probability sampling where the investigator of the research uses as judgment for selecting members of the study population to take part in the study (Papola, 1988) The sample population below explains the categories, number of self-sustenance adopted professions, and roles of these participants for the study. The study used SSAP to be self-sustenance adopted professions and alphanumerical (1,2,3, etc.) to show the type of professions and age categories from the sample population. The SSAP will be used in the results section to give a breakdown, age categories, educational background, and the time span for each of the participants during the one-on-one semi-structured interview for the study. Below is the sample population for the study on Perspective of rural people in Western Ghats for self-sustaining, case study in areas adjoining Kudremukh National Park Business Owners in the Western Ghat region.

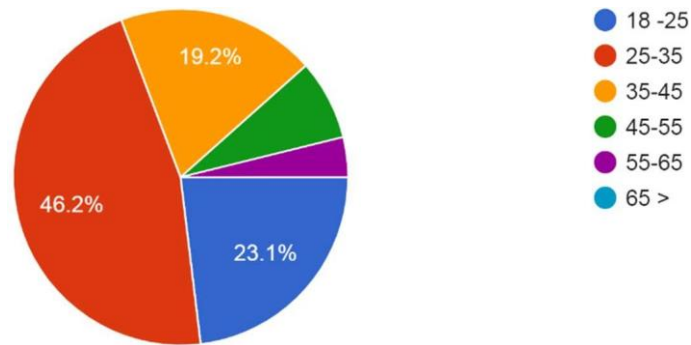


Figure 1: Sample population of participants

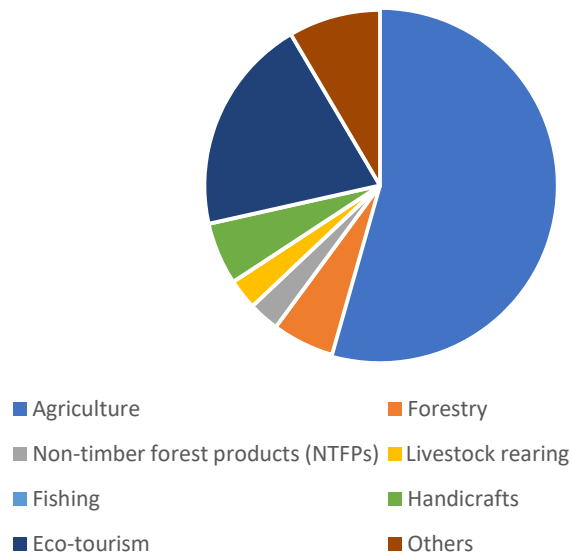


Figure 2: Self Sustenance adopted profession.

Permission was sorted from the research participants to conduct the interview. The criteria for the selection of the participants were that they had been personally involved in small business management. The participant's selection is explained below in the next sub-heading of the study.

3.6 Participant Selection

It is important to base semi-structured interview questions about success of self-sustenance methods and mindset in improving outcome of self-sustenance income source performance. The interview will be confidential and allow research participants to answer confidently. The semi-structured interview will be conducted with business owners to find the necessary loops and outcomes of self-sustenance performance. Letters will be sent to them in advance to ask for their permission to conduct the interview.

Upon receiving confirmation of the participant's willingness to take part in the study, I will send them an informed consent form and an invitation letter for a date that is suitable and convenient to them. (Chiu et al., 1997) noted that in qualitative case study design, the researcher must focus on selecting respondents who can express viewpoints related to the research question in order to achieve data saturation with the twenty-six business owners work satisfaction strategies to enhance results and to ensure an overlap of data to achieve saturation and the study objectives. Morse et al., 2015 claimed that only after data saturation is reached will the study phenomenon become purer and more understandable. Any variables that, if understood, would alter the outcomes of the study, all overlapping information would potentially drop the unknown issue. He recommended that when starting the interview process, to find themes, it is easy to pick a small sample, collect and evaluate information, and then perform more interviews until no new themes or data is available (Morse et al., 2002). Moreover, for the interviewee to communicate openly, (Bowden and Galindo-Gonzalez, 2015) mentioned that the researcher must conduct interviews in a setting that is comfortable for the interview

respondent.

Moreover, it is imperative for the researcher to show flexibility and attentiveness towards accommodating the research participants' preferred locations and schedules to ensure successful interviews. This involves selecting a time and place that is convenient for the business owners to take part in the study. Upon further examination, it was discovered that several participants were knowledgeable about digital technology and could use it. As a result, Google forms were generated in both English and the more commonly spoken local dialect, Kannada, to ease communication.

The study being conducted to a specific community, it was seen during discussion that questionnaire in Kannada would be preferred. Even in purposeful sampling, a limitation may appear as the researcher can leave a quality sample out of the collection and not capture the entire essential to fully explore the study questions (Okech et al., 2012).

Nevertheless, these researched participants were intentionally selected for participation because they have intimate knowledge of the success methods of self-sustenance and the association's success history.

3.7 Instrumentation

Data collection concerns obtaining the essential details of the study phenomenon, and it includes seeing the participants' feelings, emotions, and thought processes (Jonsen and Jehn, 2009). The data was extracted through primary and secondary methods. The

study used the semi-structured interview as the primary source of data to get a general overview of job satisfaction, the implication of a leadership mindset for small business performance. The primary methods were collected through personal one-on-one semi-structured interviews and observation.

The secondary method is reviewing documents, government websites, and academic journal articles. It enabled the researcher to focus beyond the literature on the problem of interest in the study. (Diveck and Molden, 2005) states that semi-structured interview methods allow the researcher to concentrate, structure, and provide the flexibility the study participants need to talk freely and to clarify responses with follow-up questions to gain in-depth understanding and information from the participant. The interview allows the researcher to gather the business leader's knowledge and experiences and analysed the meanings of their exposure to business (Bourgeault et al., 2010).

Moreover, the one-on-one interview is essential in that it aids in setting up rapport with the interviewee and gets the support needed to obtain correct data for validation. Six sources of evidence, as advanced by (Malterud et al., 2016) in qualitative research are:

- (i) Interviews
- (ii) Documentation
- (iii) Direct observation
- (iv) Physical artifacts
- (v) Participant observation
- (vi) Archival records.

The source of evidence the study chooses includes interviews, direct observation, and document analysis as a secondary means of data collection. Document analysis is essential as the researcher can use it to collect documents to develop an understanding of the study phenomenon (Bekhet and Zauszniewski, 2012). The original document gathered helped in explaining the business owners' approach to successful strategies. Besides, the study reviewed policy documents and structures associated with fellow community members from journals and newspapers locally available. The use of multiple evidence sources, such as interviews, record analysis, and observation, form an important part of methodological triangulation, according to (Bekhet and Zauszniewski, 2012). Therefore, the study used several sources mentioned above as a methodological triangulation to enhance the reliability and conformability of the data.

Methodological triangulation ensures validity and richness of the research as it offers a variety of datasets such as the research interviews, documents obtained from literature reviews, and observations before and during the collection of the data. The study used Jonsen and Jehn, (2009) strategies to remain dependable throughout the research. The study considered prior interviews and experiences that were thoroughly done in preparing for the interview, forming in mind the attributes of power dynamics within the interview, observation of verbal signals, and evaluated the on- going process.

The study used member supervision of the participants of the community to ensure validity and correct analysis of interviewee answers to the interview questions to achieve reliability and generalizability. In addition, Morse et al., (2002) claimed that through member checking, researchers could achieve trustworthiness and generalizability. To

achieve validity of the study, all the documents were digitally recorded from the interviews and preserved in a secured place to protect the confidentiality of the interviewees and the signed consent form to mitigate bias.

3.8 Data Collection Procedures

The process of data collection for constructivist grounded theory is flexible and iterative, meaning that it may change throughout the research process as the researcher gains more understanding of the phenomenon. Constructivist Grounded Theory is a qualitative research method that involves collecting and analyzing data to develop a theoretical understanding of a phenomenon (Charmaz, 2017). The data collection procedures for this method typically include open-ended interviews, which are conducted with individuals who have experienced the phenomenon being studied. These interviews are unstructured and allow participants to share their experiences in their own words (DiCicco-Bloom and Crabtree, 2006).

Researchers may see participants in natural settings, such as in their work or home environment, to gain a deeper understanding of the phenomenon being studied. Researchers also analyze documents, such as written or recorded materials, which are related to the phenomenon being studied and keep personal notes and reflective journals throughout the data collection process to document their observations and ideas (Charmaz, 2017). Constant comparative analysis in an ongoing manner as it is collected, and comparisons are made between different data sources to find patterns and relationships, until reached a point of saturation, where no added information is being gained from the

data. In the study on self-sustenance in communities of the Western Ghats, a variety of instruments can be used to collect data on the various aspects of self-sustenance, such as resource access and use, food security, and socio-economic factors. Some common instruments that can be used for data collection in a study on self-sustenance in Western Ghats communities include surveys which are a commonly used method for collecting data on resource access and use, and food security (Fusch and Ness, 2015).

Surveys can be administered in person, by mail, or online, and can include a variety of question types, such as multiple choice, open-ended, and Likert scale questions. Surveys can supply a large amount of data in a relatively brief period of time, but they may not provide the same level of detail and nuance as other methods in addition to interviews are a method for collecting data on self-sustenance in Western Ghats communities. Interviews can be conducted in person, by telephone, or online, and can include open-ended questions that allow participants to share their experiences and perspectives in their own words. Interviews can supply a more in-depth understanding of the experiences and perspectives of community members, but they are generally more time-consuming and expensive than surveys (Jervis and Drake, 2014).

It is also necessary to collect data from focus groups by bringing together a small group of people to discuss a particular topic. This method can be useful for gathering information about the feelings and attitudes of community members towards self-sustenance and finally observation that involves watching and recording the behavior of people or things in their natural setting. Researchers can use observation to collect data on resource access and use, agricultural practices, and other behaviors related to the research.

3.9 Data Analysis

Data analysis is an essential aspect of constructivist grounded theory research, as it is through this process that a theoretical understanding of the phenomenon being studied is developed (Charmaz, 2017). The data analysis process in constructivist grounded theory is characterized by a constant comparative analysis and a focus on finding patterns and relationships within the data. The results of the study are being confirmed with the help of triangulation, which is being used for the study (Jonsen and Jehn, 2009). Triangulation will help to find common patterns by cross-referencing the data obtained from the interviews and the transcripts with the secondary sources. Interviewees were provided with a copy of the research explanations that were discussed during the interview. Computer-assisted qualitative data analysis tools were used for the study.

The themes of the study were connected to the various components of the conceptual structure so that an informed comprehension of the techniques for increasing job satisfaction could be reached. The researcher made sure that the study was dependable and valid by addressing the four most important aspects of dependability, transferability, credibility, and conformability. The data were given more credibility and consistency because of the use of member checks, which helped supply the data. The reliability of the research work is proven by the multiple member checks and reviews of the transcripts. Fusch and Ness, (2015) suggested that researchers use member checking to confirm evidence. The researcher made certain that all the respondents had sufficient time to finish member checking to ensure the accuracy of the interpretation. Academics need to take into

consideration the essential aspects of integrity, transferability, reliability, and conformability for their work to withstand scrutiny (Jonsen and Jehn, 2009).

For the analysis to be legitimate, it is more important to focus on ensuring the data's accuracy, richness, and reliability than on the quantity of the data. The report supplied a detailed explanation of the context in which the analysis took place to aid readers in correctly extending the results to different settings. It ensured compliance by keeping objectivity throughout the process of analysis and by ignoring the preconceptions held by respondents. According to Yin, (2009) in qualitative research, the researcher himself or herself serves as the instrument that is used to collect the data. This study employs a method known as purposive sampling. The information will be gathered by asking the people who took part in the study a series of open-ended questions and conducting personal interviews with them one on one. Triangulation will be performed on all the information that was gathered, including that from interviews, documents, and direct observation.

According to Fusch and Ness, (2015), triangulation refers to the practice of examining a phenomenon from multiple angles and perspectives, such as conducting interviews, drafting reports, and seeing the phenomenon from varying degrees of proximity. The results of the study are being confirmed with the help of triangulation, which is being used for the study. Triangulation will help to find common patterns by cross-referencing the data obtained from the interviews and equating the transcripts with the secondary sources. The interviews supplied a wealth of information. As part of the research, a matrix was developed for each participant interview to make it simpler to find themes and set up connections between the data (Fusch and Ness, 2015) A member check

was used so that we could verify the correctness of the interpretation of the data that was gathered by the interviewee during the condensed session.

According to (DiCicco-Bloom and Crabtree, 2006), a primary way to get positive input from the interviewee, which the researcher uses to confirm the validity, interpretation, and understanding of the interviewee's statements, is to conduct an analysis and interpretation that goes in both directions. This is a two-way analysis and interpretation. The interviewee was provided with a copy of the research explanations that were discussed during the interview, and the process of member checking did not require any changes to be made. In addition to this, because of conducting many interviews and the challenging nature of qualitative data organization and analysis, computer-assisted qualitative data analysis tools were used for the study (Baugh - et al., 2010).

Various software was used such as GraphRobot, gnuplot, SciDAVis etc., throughout the research project to aid with data management and organisation. This software is a qualitative program that allows for thematic categorization of coding as well as the extraction of themes from qualitative data. In the research, the raw data was transcribed into an Excel and Microsoft Word document, then that was uploaded to these software documents, and finally the documents for the procedure were uploaded. In addition, it coded the data and contributed to the paper's management of qualitative data (Merriam et al., 2015). The software was utilized to achieve versatility, which is crucial in locating nodes and matrices. Its functions include coding, organizing, and transcribing audio and documents to identify study themes relevant to the research questions. Comparisons were made between the themes of the study and those shown in the themes or instructions of

transformational leadership theory. These themes include idealised influence, inspiring motivation, intellectual stimulation, and individualized consideration. The themes of the research were connected to the various components of the conceptual structure so that an informed comprehension of the techniques for self-sustenance in communities of western ghat were achievable.

According to Yin, (2009), the quality of a qualitative study is decided by whether it can withstand the test of reliability and validity. The researcher made sure that the study was dependable and valid by addressing the four most important aspects of dependability, transferability, credibility, and conformability. This allowed the study to have a level of trustworthiness that could be relied upon. Researchers conducting qualitative research can achieve reliability and validity in their findings by adhering to trustworthiness standards. Through the verification of members, the analysis of transcripts, and the triangulation of data. The results of the study became consistent. The data were given more credibility and consistency because of the use of member checks, which helped supply the data. The research made certain that each participant received a copy of the explanation that was provided during the interviews so that they could check the findings and adjust as needed. The term "reliability" refers to the degree of precision with which the same analysis, if performed again, would produce the same findings (Morse, 2002).

According to Fusch and Ness (2015), qualitative researchers need to use a variety of perspectives when discussing the significance of the analysis. To ensure data compatibility and to guarantee data consistency, data strength, and data reliability, the study concentrated on all the changes that could potentially influence the analysis

procedure. During an interview procedure, coherence and transparency in the interview questions, as well as an interview transcript and a copy of the transcript, were provided to the research participants for the purpose of confirmation.

According to Yin (2009), the reliability of the data that has been collected will be ensured using member verification rather than transcript analysis. In addition, Fusch and Ness (2015) stated that using member checking improved the reliability of the study's results and suggested that qualitative researchers use member checking when conducting interviews to validate evidence. Their study referred to the practice of member checking as "validating evidence through interviews".

The researcher made certain that all the respondents had sufficient time to finish member checking to ensure the accuracy of the interpretation. Additionally, the researcher made certain that copies of the interpretations were given to each respondent. As a result, the researcher was successful in achieving satisfaction from the respondents. The reliability of the research work is demonstrated by the multiple member checks and reviews of the transcripts.

The researcher is obligated to demonstrate compliance with the standards of the research by adhering to the principles of integrity, transferability, and reliability in order to make certain that the findings of the investigation can be relied upon. According to Yin (2009), if the validity of the research is compromised at any point during the research process, it will result in a reduction in the overall quality of the research. Therefore, validity

is the primary metric for measuring the quality of research because it guarantees a correct interpretation of the data, which is necessary to arrive at valid conclusions.

According to Hong et al., (1997), the findings of the qualitative researcher need to shift to ensure the reliability and validity of the study results. This is because qualitative researchers rely on data that are subjective, interpretive, and contextual. Therefore, for the findings of the research to be useful to both readers and other researchers, they need to be consistent, believable, applicable, and credible. To reiterate, academics need to take into consideration the essential aspects of integrity, transferability, reliability, and conformability for their work to withstand scrutiny. For the analysis to be legitimate, it is more important to focus on ensuring the data's accuracy, richness, and reliability than on the quantity of the data.

Triangulation is extremely important because it ensures precision from multiple perspectives by cross-checking data interpretation with research respondents. This makes triangulation one of the most important research methods. Through consistent interaction, consistent observation, and external job audits, the study was able to prove its credibility, which was helped along using member checks, which help to create credibility and supply evidence that the analysis of the data is correct. According to Hong et al., (1997), for the findings of the study to have transferability, the researcher needs to make sure that the findings can be generalized to other settings and are proper for those settings. The report supplied a detailed explanation of the context in which the analysis took place to aid readers in correctly extending the results to different settings. For better clarifying the results and aiding potential future researchers who might want to replicate them, the study

meticulously documented all aspects of any anomalies or unanticipated events that occurred, reach a level of dependability.

In addition, the study ensured compliance by keeping objectivity throughout the process of analysis and by ignoring the preconceptions held by the people who took part in the research. Malterud et al. (2015) issued a warning that the probability of achieving data saturation would be put in jeopardy if respondents did not respond to the research questions in a comprehensive manner. The sample size was standardized to achieve saturation of the survey with the focused business owners and a survey of fellow community. This was conducted through study. When questions and formats are standardized, respondents can respond in a standardized manner to the same questions using the same format, and the researcher must interpret the answers in the same way. Constructivist grounded theory is constant comparative analysis which involves comparing data from various sources, such as interviews, observations, and document analysis, in an ongoing manner as the data is collected. This allows researchers to find patterns and relationships within the data and to refine their understanding of the phenomenon being studied. Data analysis in constructivist grounded theory is the use of memoing and reflective journals. These tools allow researchers to document their observations, thoughts, and insights throughout the data collection and analysis process (Charmaz, 2017).

The researcher can also use them to make connections between different pieces of data and to find themes that appear across various sources. Once the data was collected, the focus was on finding the core category. The core category is the central phenomenon that captures the essence of the data and explains the relationships among the other

categories. It is the most important concept that has appeared from the data and is the backbone of the theory. Theoretical sampling process was adopted for selecting new participants or data sources to collect data based on the emerging theoretical understanding of the phenomenon of the study (Charmaz, 2017). This allowed them to continue to refine their understanding of the phenomenon, and to evaluate the emerging theory.

It is important to note that the process of data analysis in constructivist grounded theory is flexible and iterative. As we gain a deeper understanding of the phenomenon, they may need to revisit earlier data and analyze it in a new light (Charmaz, 2017). We were also mindful of their own positionality and potential bias, and to be reflexive throughout the data analysis process. In conclusion, data analysis is an essential aspect of constructivist grounded theory research. The researcher uses constant comparative analysis, memoing, reflective journals, identification of the core category, and theoretical sampling to develop a theoretical understanding of the phenomenon being studied. The process of data analysis is flexible and iterative, and the researcher must be mindful of their own positionality and potential bias throughout the process.

3.10 Research Design Limitations

Constructivist grounded theory is a valuable qualitative research method, but it also has certain limitations. The research is primarily focused on understanding a specific phenomenon in a specific context, and the findings may not be generalizable to other populations or contexts. The data collection and analysis process in constructivist grounded theory can be time-consuming, as it involves conducting multiple open-ended interviews and analyzing substantial amounts of data. The process of data analysis in constructivist

grounded theory can be complex and may require a significant amount of skill and experience on the part of the researcher (Glaser, 2002). Also, flexible and iterative processes, which can make it difficult to replicate the study, and to compare the results with other studies.

There may be own biases and perspectives to the research process, which could influence the data collection and analysis. Therefore, it is important to be reflexive and to be mindful of their own positionality throughout the research process. The process of data collection and analysis can be stopped when the researcher reaches the data saturation, but this can vary which can make it difficult to evaluate the quality of the research. Constructivist grounded theory relies primarily on qualitative data and may not be suitable for research questions that require quantitative data (Khan, 2014). Despite these limitations, constructivist grounded theory is a valuable method for understanding complex phenomena and can supply a rich and detailed understanding of the experiences and perspectives of participants. Hence it would require us to be mindful of these limitations and consider them. Yin (2018) said that assumptions are facts that have not yet been verified but confirm the study. Hence, the researcher made some assumptions when developing and analyzing the research design. The researcher assumed business owners and fellow community members were overall representative of self-sustenance of community in the western ghat. Furthermore, the researcher assumed that the small sample population is the small business owners' demographic characteristics in western ghat. Moreover, it is difficult to presume that interview questions were responded to honestly and accurately by the business owners and fellow community members.

The researcher also expected that all the research participants would have proper knowledge of effective strategies to understand and follow the self-sustenance methods and strategies. The limitations that pose a vital weakness of the research design are the study's non-generalizability and the chances of the research participants being hesitant to share their information openly.

3.11 Conclusion

The chapter discussed the use of qualitative case study as a necessary method to analyze the problem of lack of strategies for business owners and fellow community members to increase their efficiency in methods and strategies of self-sustenance. The method, research design, and sample size were outlined, using available software to generate data analysis themes and compare them to literature. The study emphasized the importance of reliability and validity through member checking and triangulation. The findings from the case study could contribute to a better understanding of successful strategies for self-sustenance in communities in the western ghat. The next chapter will introduce the findings obtained from the research on the importance of self-sustenance in communities in the western ghat.

Constructivist Grounded Theory is a qualitative research method that involves collecting and analyzing data to develop a theoretical understanding of a phenomenon. The data collection procedures typically include open-ended interviews, observations, document analysis, memoing, and reflective journals. Data is analyzed through a constant comparative analysis and the identification of the core category. The process of data analysis is flexible and iterative. However, the method also has certain limitations such as

lack of generalizability, being time-consuming, complex, flexible, subjective and based on qualitative data. Researchers should be mindful of these limitations and consider them when deciding whether to use constructivist grounded theory in their research (Charmaz, 2017).

CHAPTER IV: RESULTS

The results section of a research study here the data collected from the study is presented, analyzed, and interpreted. The results section of a research study is divided into two parts, the presentation of the data, and the interpretation of the data. In the presentation of the data, the researcher presents the report on the findings of the study in a clear and concise manner. This includes describing the sample characteristics, and supplying summary statistics such as means, standard deviations, frequencies, and percentages.

Tables, figures, and graphs can be used to help the reader understand the data. In the interpretation of the data, the researcher explains what the data means in the context of the research question and aims.

The researcher discusses the strengths and limitations of the study, as well as any unexpected findings. The researcher also compares the results with earlier research and relevant theory. Note that in the results section, only the facts and findings are presented to avoid drawing conclusions or making recommendations. These are presented in the discussion section. The results section of a research study is where the data collected from the study is presented, analyzed, and interpreted (Khan, 2014).

Table 1: Sample Details of Participants:

SSAP	AGE	EDUCATION	FAMILY SIZE	SELF-SUSTENANCE PRACTICES	DURATION OF SELF-SUSTENANCE PRACTICES
SSAP 1	18 -25	GRADUATE	2-4 FAMILY MEMBERS	ECOTOURISM	< 5 YEARS
SSAP 2	18 -25	MASTER'S DEGREE	2-4 FAMILY MEMBERS	AGRICULTURE	< 5 YEARS

SSAP 3	18 -25	GRADUATE	2-4 FAMILY MEMBERS	AGRICULTURE, FORESTRY, NTFP	< 5 YEARS
SSAP 4	18 -25	GRADUATE	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE, FORESTRY	< 5 YEARS
SSAP 5	18 -25	MASTER'S DEGREE	2-4 FAMILY MEMBERS	ECOTOURISM	< 5 YEARS
SSAP 6	18 -25	GRADUATE	2-4 FAMILY MEMBERS	AGRICULTURE	< 5 YEARS
SSAP 7	25-35	GRADUATE	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE	< 5 YEARS
SSAP 8	25-35	GRADUATE	2-4 FAMILY MEMBERS	AGRICULTURE	< 5 YEARS
SSAP 9	25-35	GRADUATE	2-4 FAMILY MEMBERS	AGRICULTURE	< 5 YEARS
SSAP 10	25-35	GRADUATE	MORE THAN 4 FAMILY MEMBERS	TEACHING	< 5 YEARS
SSAP 11	35-45	MASTER'S DEGREE	2-4 FAMILY MEMBERS	AGRICULTURE, HANDICRAFTS	< 5 YEARS
SSAP 12	45-55	GRADUATE	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE, ECOTOURISM	< 5 YEARS
SSAP 13	45-55	MASTER'S DEGREE	2-4 FAMILY MEMBERS	ECOTOURISM	< 5 YEARS
SSAP 14	55-65	GRADUATE	2-4 FAMILY MEMBERS	HANDICRAFTS	< 5 YEARS
SSAP 15	25-35	8TH TO 10TH CLASS	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE	> 10 YEARS
SSAP 16	25-35	UNDERGRADUATE	2-4 FAMILY MEMBERS	LIVESTOCK REARING	> 10 YEARS
SSAP 17	25-35	GRADUATE	2-4 FAMILY MEMBERS	AGRICULTURE, ECOTOURISM	> 10 YEARS
SSAP	25-35	MASTER'S DEGREE	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE	> 10 YEARS
SSAP 18	25-35	8TH TO 10TH CLASS	2-4 FAMILY MEMBERS	AGRICULTURE	> 10 YEARS

SSAP 19	25-35	MASTER'S DEGREE	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE	> 10 YEARS
SSAP 20	25-35	VEDABYASA	MORE THAN 4 FAMILY MEMBERS	SELF EMPLOYMENT	> 10 YEARS
SSAP 21	35-45	MASTER'S DEGREE	2-4 FAMILY MEMBERS	AGRICULTURE	> 10 YEARS
SSAP 22	35-45	GRADUATE	2-4 FAMILY MEMBERS	AGRICULTURE	> 10 YEARS
SSAP 23	25-35	MASTER'S DEGREE	2-4 FAMILY MEMBERS	AGRICULTURE, ECOTOURISM	5-10 YEARS
SSAP 24	25-35	8TH TO 10TH CLASS	2-4 FAMILY MEMBERS	AGRICULTURE	5-10 YEARS
SSAP 25	35-45	UNDERGRADUATE	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE	5-10 YEARS
SSAP 26	35-45	GRADUATE	MORE THAN 4 FAMILY MEMBERS	AGRICULTURE, ECOTOURISM	5-10 YEARS

The results section is clear, concise, and objective, and provides the reader with a comprehensive understanding of the study's findings. It also has clear discussion on the strengths and limitations of the study, as well as any unexpected findings.

Analyzing qualitative data that aims to find and understand patterns or themes that appear from the data (Scott, 2005). It is an interpretive process that involves several steps, including familiarizing oneself with the data, coding the data, finding themes, interpreting

the themes, and writing up the analysis. It is useful for exploring a wide range of research questions and can supply insights into the experiences and perspectives of individuals or groups, as well as finding barriers and facilitators to behavior change.

Thematic analysis method of analyzing qualitative data, of the transcripts, written responses and field notes were conducted. The goal being to find and understand patterns or themes that appear from the data and to explore a wide range of research questions, including understanding the experiences and perspectives of individuals or groups, finding barriers and facilitators to behavior change, or exploring the cultural context of a phenomenon. Familiarizing oneself with the data by reading and re-reading the data to get a sense of the overall content and context and breaking the data down into smaller chunks, or "codes," which represent specific ideas or concepts. The codes were derived from the data itself and based on pre-existing categories. Further, grouping the codes into broader categories, or "themes," which capture the central ideas or patterns in the data by comparison and contrast, looking for patterns and connections across the data (Castleberry and Nolen, 2018).

Interpreting the meaning and significance of the themes in the context of the research question and aims and describing and interpreting the themes and their significance in a coherent and logical narrative that is supported by the data. In this interpretative process, different researchers may arrive at different themes or interpretations of the same data. Therefore, the interpretation done was with an intent to be transparent about the researcher's own perspectives and experiences, and to consider alternative interpretations of the data.

4.1 Demographic Information

Demographic information is a crucial factor to consider when studying self-sustenance practices in communities of the Western Ghats. Some demographic information that is relevant is mentioned. Below is the graphical presentation of the demographic of the research participants (Richa, 2012).

4.2 Age Distribution

The proportion of children, working-age adults, and older adults in a community can affect the labor force available for self-sustenance activities (Freeman, 1979). Most of the participants were from the age group of 25-35 years followed by the 18-25-year category.

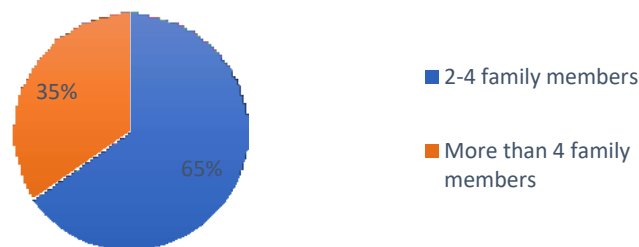
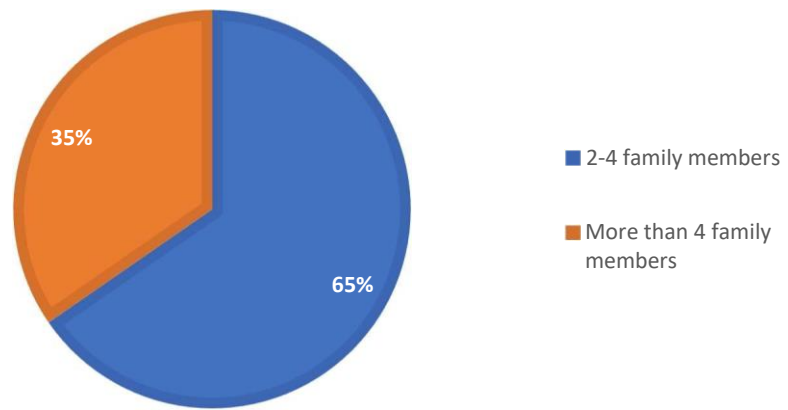


Figure 3: Age distribution of participants

4.3 Gender

Gender roles and responsibilities can affect the types of self-sustenance practices that are undertaken and the level of participation in those practices (Freeman, 1979). The

participants were almost equal in number, which would have an unbiased response in



terms of gender.

Figure 4: Gender of the participants

4.4 Education

Education levels can affect an individual's ability to understand and implement self-sustenance practices, as well as their ability to access information and resources related to self-sustenance.

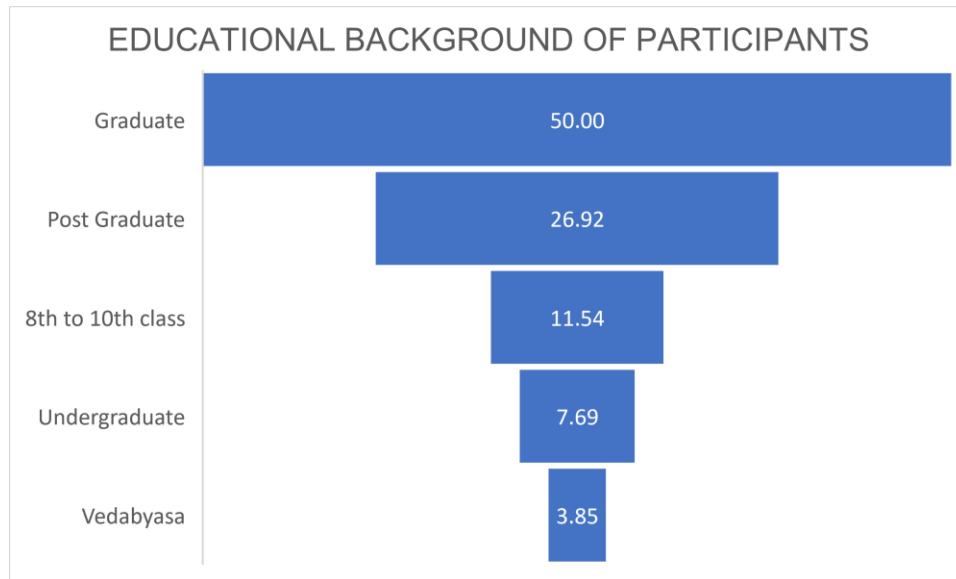


Figure 5: Educational Background of Participants

4.5 Occupation

The occupation of community members can affect the skills and resources available for self-sustenance practices. The data supports the fact that even to this day, the self-sustenance is mostly depending on the traditional practice of agriculture, which 60% of the participants depend on, further the fact that the community has a good educational background, with over 75% of the participants having a minimum of graduation as their educational background.

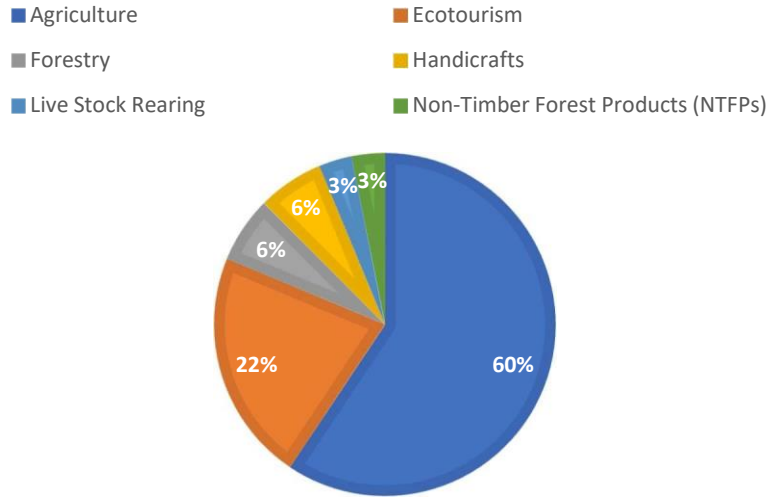


Figure 6: Self-sustenance Profession

4.6 Duration of Practicing Self-Sustenance

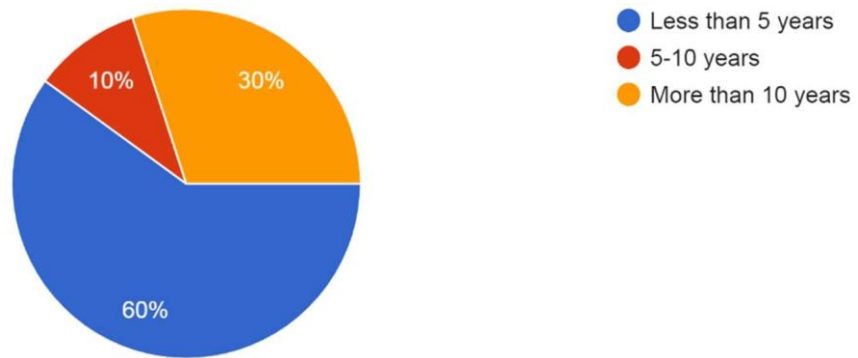


Figure 7: Duration of practicing self-sustenance.

Self-sustenance practices, such as organic farming, permaculture, and sustainable living, have been gaining popularity in recent years as more people are becoming aware of

the environmental and social impact of our current consumption patterns. However, the duration of time that a community or individual has been practicing self-sustenance can vary greatly. In the communities that the study was conducted, self-sustenance practices have been a way of life for generations. These communities have often developed their own traditional methods of farming and resource management that are well-adapted to their local environment (Bawa et al., 2007).

Many Indigenous communities in the Western Ghats have been practicing sustainable agriculture for centuries, using techniques such as farming and agroforestry to conserve resources and keep biodiversity. Other communities or individuals may be relatively new to self-sustenance practices. The chart shows that several participants have started self-sustenance in less than 5 years, it is important to recognize that the transition to a more sustainable way of living is a continuous process. It takes time to learn new skills, set up new systems, and adapt to new ways of doing things. It may take several years to set up a new crop rotation or to see the benefits of using natural pest control methods.

When transitioning to a more sustainable way of living, it may take time to learn how to conserve resources, reduce waste, and minimize environmental impact. This is where the community members with over 10 years of practicing self-sustenance can support the new entrants of the community to learn the art of self-sustenance. The duration of time that a community or individual has been practicing self-sustenance can vary greatly, from generations to just a few years. Regardless of the duration, it is seen that the transition to a more sustainable way of living is a continuous process that requires patience, persistence, and a willingness to learn and adapt. The graph below reflects as to how

important are the self-sustenance activities of livelihood, 75% agreed that self-sustenance is particularly important to their livelihood.

These communities have often developed their own traditional methods of farming and resource management that are well-adapted to their local environment (Bawa et al., 2007). Many Indigenous communities in the Western Ghats have been practicing sustainable agriculture for centuries, using several techniques including farming and agroforestry to conserve resources and keep biodiversity.

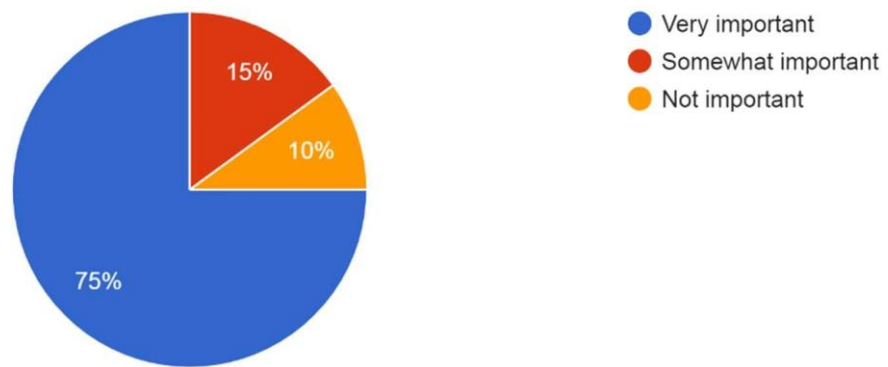


Figure 8: Important are the self-sustenance activities of livelihood.

The demographic information of the community varies depending on the location, and specific community of study (Freeman, 1979).

4.7 Research Question One

The different self-sustenance practices used by communities in the Western Ghats for their livelihoods. Western Ghats, a is a biodiversity hotspot known for its rich natural resources and unique culture. The communities living in this region have traditionally relied on self-sustenance practices to support their livelihoods. In recent years, there has been a renewed focus on these practices to conserve the region's natural resources while also supporting the livelihoods of local communities. Agriculture and Ecotourism are two of the most preferred self-sustenance practices in the Western Ghats.

Organic farming, agroforestry, and terrace farming are some of the agriculture practices that are widely adopted by the communities in the region. These practices are known for their low environmental impact and high productivity, which makes them ideal for the hilly terrain of the Western Ghats. Ecotourism, on the other hand, is a growing industry in the region that supplies income for local communities while also promoting conservation of the area's natural resources. Forests and their products are also an important source of livelihood for the communities in the Western Ghats. Non-Timber Forest Products, such as medicinal plants, honey, and forest fruits, are widely harvested and sold by the local communities (Basavarajaiah et al., 2020). This not only supplies a source of income but also helps to conserve the forest resources. Additionally, forestry practices such as sustainable logging and reforestation are being adopted to ensure the long-term sustainability of the region's forests.

Handicrafts are another important self-sustenance practice in the Western Ghats. The region is known for its traditional handloom and handicrafts made of natural materials such

as bamboo, coir, and wood. These products are highly valued for their unique design and quality and are often sold to tourists as well as in local markets. Livestock rearing is also an important self-sustenance practice in the Western Ghats. The communities in the region have traditionally kept a variety of animals such as cows, goats, and sheep, which supply milk, meat, and other products. In recent years, there has been a renewed focus on sustainable livestock management practices that protect the health and welfare of the animals while also keeping the ecological balance of the local environment (Ramchandra, 2018).

Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing are vital for the livelihoods of communities in the Western Ghats. By adopting sustainable and low-impact practices, these communities can not only support their own livelihoods but also conserve the region's natural resources for future generations.

The impact of self-sustenance practices on the livelihoods of communities in the Western Ghats Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, have a significant impact on the livelihoods of communities in the Western Ghats. These practices not only supply a source of income for the communities, but also play a crucial role in conserving the biodiversity of the region. Agriculture is one of the most important self-sustenance practices in the Western Ghats. It supplies food security and income for the communities and helps to conserve the natural resources in the region.

Many communities in the region rely on farming as their primary source of income and food security. The Western Ghats are known for their diverse agro-climatic conditions, which support a wide range of crops including paddy, millets, pulses, oilseeds, vegetables, and cash crops like coffee, rubber, and spices. These crops supply food security and income for the communities and help to conserve the natural resources in the region by promoting sustainable land use practices. Ecotourism is another important self-sustenance practice, as it supplies an alternative source of income for the communities, while also promoting conservation of the natural resources in the region (Bashir et al., 2020).

Forestry is an important self-sustenance practice in the Western Ghats. It not only supplies income for the communities, but also helps to conserve the natural resources in the region. While also promoting conservation of the natural resources in the region. The Western Ghats are known for their rich biodiversity, which includes rare and endangered species of plants and animals. Ecotourism activities such as trekking, bird watching, and wildlife safaris not only supply income for the communities but also promote conservation by creating awareness about the importance of preserving the natural resources in the region. Handicrafts as a self-sustenance practice in the Western Ghats supply a source of income for the communities and promote the conservation of traditional skills. Also, they supply a source of income for the communities and promote the conservation of traditional skills.

The communities living in the Western Ghats have a rich tradition of handicrafts such as weaving, pottery, and woodcarving. These traditional crafts not only supply income for the communities but also help to preserve the cultural heritage of the region. Livestock

rearing self-sustenance practice in the Western Ghats. It supplies food and income for the communities and helps to conserve the natural resources in the region. The region is known for its diverse agro-climatic conditions, which support a wide range of livestock such as cattle, buffalo, sheep, and goats. These animals supply food and income for the communities and help to conserve the natural resources in the region by promoting sustainable land use practices (Bashir et al., 2020).

Non-Timber Forest Products practice in the Western Ghats, as they supply a source of income for the communities and promote the conservation of the natural resources in the region (Basavarajaiah et al., 2020). The region is known for its rich forest cover and diverse species of plants and animals. The communities living in the Western Ghats rely on the forest for a wide range of non-timber forest products such as honey, medicinal plants, and bamboo. These products not only supply income for the communities but also help to conserve the natural resources in the region by promoting sustainable harvesting practices. Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, livestock rearing, and non-timber forest products play a crucial role in supporting the livelihoods of communities in the Western Ghats while also promoting the conservation of the region's biodiversity (Bashir et al., 2020).

The factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, have long been used by communities in the Western Ghats to support their livelihoods. However, the sustainability of these practices is being impacted by a variety of factors. One major factor is the changing climate, it was seen as

to how lack of access to land, climate change, market fluctuations, loss of biodiversity, and lack of access to credit are affecting the sustainability of self-sustenance practices in the Western Ghats (Bashir et al., 2020).

Economic factors also play a role in the sustainability of self-sustenance practices in the Western Ghats. Many of the products and services produced by these practices are not competitive in the global marketplace, which makes it difficult for communities to earn a living wage. Additionally, the lack of infrastructure and access to markets makes it difficult for communities to sell their products and services. Political and legal factors also affect the sustainability of self-sustenance practices in the Western Ghats (Neumann, 2008)

The lack of clear land tenure rights and the existence of conflicting laws and regulations make it difficult for communities to secure the resources they need to sustain their livelihoods. One of the major factors affecting the sustainability of self-sustenance practices in the Western Ghats is lack of access to land. The Western Ghats are home to many Indigenous communities who have traditionally relied on the land for their livelihoods. However, with increasing population pressures and development, these communities are facing displacement and loss of access to land (Ghosh-Harihar et al., 2019).

This is making it increasingly difficult for them to continue their self-sustenance practices, the factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, have long been used by communities in the Western

Ghats to support their livelihoods. However, the sustainability of these practices is being impacted by a variety of factors. One major factor is the changing climate, it was seen as to how lack of access to land, climate change, market fluctuations, loss of biodiversity, and lack of access to credit are affecting the sustainability of self-sustenance practices in the Western Ghats (Ghosh-Harihar et al., 2019).

The Western Ghats, like many other regions in the world, are experiencing shifts in temperature and precipitation patterns that are affecting crop yields and the growth of forests. This is making it more difficult for communities to rely on traditional self-sustenance practices for their livelihoods. Another factor affecting the sustainability of self-sustenance practices in the Western Ghats is the increasing population pressure on the region (Suresh Kumar, 2021).

As more people move into the Western Ghats, the demand for land and resources is rising, which is putting pressure on traditional self-sustenance practices. As more people clear land for agriculture, the forests that supply essential resources for many communities are being depleted (Basavarajaiah et al., 2020). Economic factors also play a role in the sustainability of self-sustenance practices in the Western Ghats. Many of the products and services produced by these practices are not competitive in the global marketplace, which makes it difficult for communities to earn a living wage. The lack of infrastructure and access to markets makes it difficult for communities to sell their products and services. Political and legal factors also affect the sustainability of self-sustenance practices in the Western Ghats. The lack of clear land tenure rights and the

existence of conflicting laws and regulations make it difficult for communities to secure the resources they need to sustain their livelihoods (Basavarajaiah et al., 2020).

One of the major factors affecting the sustainability of self-sustenance practices in the Western Ghats is lack of access to land. The Western Ghats are home to many Indigenous communities who have traditionally relied on the land for their livelihoods (Basavarajaiah et al., 2020). However, with increasing population pressures and development, these communities are facing displacement and loss of access to land. This is making it increasingly difficult for them to continue their self-sustenance practices. Climate change is another major factor affecting wherein 80% of the participants expressed as factor that the sustainability of self-sustenance practices in the Western Ghats in being affected (Utkarsh et al., 1998).

The region is already experiencing changes in rainfall patterns, temperature, and sea level rise which are affecting crop yields and the availability of water for livestock. This is making it increasingly difficult for communities to continue their traditional self-sustenance practices. The chart above showed a 57.7% decline in the availability of resources for self-sustenance activities in the Western Ghats in recent years due to climate change. 35% mentioned that Market fluctuations are impacting the sustainability of self-sustenance practices in the Western Ghats. Many of the products produced by communities in the region are sold in local and regional markets.

However, these markets are often subject to fluctuations which can make it difficult for communities to earn a stable income from their self-sustenance practices. Loss of

biodiversity is affecting the sustainability of self-sustenance practices in the Western Ghats was mentioned by 40% of the population. The region is home to a rich diversity of plant and animal species, many of which are used by communities for food, medicine, and other purposes.

Deforestation and other forms of habitat loss, many of these species are becoming increasingly rare, making it more difficult for communities to continue their self-sustenance practices. 40% of the population mentioned that lack of access to credit is also impacting the sustainability of self-sustenance practices in the Western Ghats. Many communities in the region do not have access to credit or other forms of financial aid which can help them to invest in their self-sustenance practices. This can make it difficult for them to expand their operations or to make necessary investments in equipment and infrastructure. Self-sustenance practices are an important way of life for communities in the Western Ghats. The sustainability of these practices is being threatened by a number of factors, including lack of access to land, climate change, market fluctuations, loss of biodiversity, and lack of access to credit. To ensure the sustainability of these practices and the livelihoods of communities in the region, it is important to address these factors and to supply support to communities in the form of land rights, access to credit, and conservation of biodiversity (Utkarsh et al., 1998).

The sustainability of self-sustenance practices in the Western Ghats is being affected by a complex web of factors, including climate change, population pressure, economic factors, and political and legal factors (Gadgil, 2014). To support the livelihoods of

communities in the Western Ghats and conserve the region's biodiversity, it will be important to address these factors through targeted interventions and policies.

4.8 Research Question Two

Self-sustenance practices contribute to the conservation of biodiversity in the Western Ghats. Self-sustenance practices in the Western Ghats have been a way of life for many communities living in this region. These practices have helped them to survive and thrive in an area that is known for its challenging terrain and weather conditions. However, in recent years, many of these practices have come under threat, and the sustainability of these practices has been affected. This research data revealed that the several factors that are affecting the sustainability of self-sustenance practices in the Western Ghats.

From the data collected in the order of the factor affecting the most in a descending order, is presented the fact as collected, 80% of the participants felt that there is Lack of support from government that is affecting the sustainability of self-sustenance practices in the Western Ghats. The region is known for its rich biodiversity, and many communities depend on these resources for their livelihoods (Gadgil, 2014). In recent years, there has been a lack of support from the government, which has led to a decline in the availability of resources for the communities living in the region, as they depend on these resources for their livelihoods. 80% of the participants felt that climate change is a major factor that is impacting the sustainability of self-sustenance practices in the Western Ghats.

The region is known for its challenging weather conditions, there has been a change in recent years in the weather patterns, which has led to a decline in the availability of

resources for the communities living in the region, as they depend on these resources for their livelihoods (Gadgil, 2014). Sixty percent of the participants mentioned land conversion as one of the major factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. The region is known for its rich biodiversity, and many species of plants and animals are found here. The population in the region has increased; more and more land are being converted for agriculture and other development activities. The destruction of natural habitats, which in turn has led to the decline of many species, also led to a decline in the availability of resources for the communities living in the region, as they depend on these resources for their livelihoods. Sixty percent of the participants mentioned Over-exploitation of resources as a factor that is affecting the sustainability of self-sustenance practices in the Western Ghats (Gadgil, 2014).

The region is known for its rich biodiversity, and many communities depend on these resources for their livelihoods. There has been an increase in the rate of over-exploitation of resources, which has led to the decline of many species and the depletion of resources for the communities living in the region. 50% of the participants felt that deforestation is a factor that is impacting the sustainability of self-sustenance practices in the Western Ghats. The region is known for its rich forest cover, and many communities depend on these forests for their livelihoods. Increase in the rate of deforestation, which has led to the destruction of natural habitats and the decline of many species and has also led to a decline in the availability of resources for the communities living in the region, as they depend on these resources for their livelihoods. The sustainability of self-sustenance practices in the Western Ghats is land conversion. The conversion of land from natural habitats to human

settlements and industrial or agricultural uses has led to a loss of biodiversity and resources for local communities. Deforestation, which is often a result of land conversion, also threatens the sustainability of self-sustenance practices, as it reduces the availability of resources like timber, non-timber forest products, and water. Climate change is a major challenge to the sustainability of self-sustenance practices in the Western Ghats. The region is particularly vulnerable to the impacts of climate change, such as droughts, floods, and extreme weather events, which can damage crops and make it more difficult for communities to sustain themselves (Gadgil, 2014).

Additionally, over-exploitation of resources and lack of support from the government can also contribute to the sustainability challenges (Gadgil, 2014). Access to land is a factor that is affecting the sustainability of self-sustenance practices in the Western Ghats. Many communities in the region rely on traditional lands and resources but are facing increasing pressure from outside actors looking to exploit these resources. Climate change and market fluctuations also contribute to problems by making it more difficult for communities to predict and plan. To address these challenges, several strategies can be implemented to support the sustainability of self-sustenance practices in the Western Ghats. Community-based resource management is one approach that can help to ensure the long-term health and productivity of resources. The approach involves the active participation of local communities in the management of resources and promotes traditional knowledge and practices. Sustainable land use planning is another key strategy for supporting self-sustenance practices in the Western Ghats which also involves the development of plans and policies that balance the needs of local communities with the

conservation of natural resources. It can include measures such as zoning and land use restrictions, as well as incentives for sustainable practices (Gadgil, 2014).

Policies to support traditional livelihoods are also essential to the sustainability of self-sustenance practices in the Western Ghats. These policies can include measures such as subsidies, tax breaks, and other forms of financial aid to support communities who rely on traditional livelihoods (Gadgil, 2014). Promoting sustainable practices like organic farming, agroforestry, and sustainable harvesting of non-timber forest products can help to ensure the long-term health and productivity of these resources. Biodiversity conservation education is another important strategy for supporting self-sustenance practices in the Western Ghats. Education programs can help to raise awareness about the importance of preserving biodiversity and the role of traditional knowledge and practices in conservation. Additionally, partnership and collaboration with local communities and government agencies can help to build support for self-sustenance practices in the Western Ghats. There are many factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. These include land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from government. These factors have led to the decline of many species and the depletion of resources for the communities living in the region (Kumar, 2010).

Therefore, it is important that steps are taken to address these issues, so that the communities living in the Western Ghats can continue to practice self-sustenance and preserve the region's rich biodiversity. How can self-sustenance practices be promoted and protected to support the livelihoods of communities in the Western Ghats and conservation

of the region's biodiversity? Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, are essential to the livelihoods of communities in the Western Ghats (Gadgil, 2014). However, these practices are often affected by a variety of factors that threaten their sustainability. These factors can provide ways in which community-based resource management, sustainable land use planning, policies to support traditional livelihoods, promoting sustainable practices, biodiversity conservation education, and partnership and collaboration can help to ensure the continued success of self-sustenance practices in the Western Ghats. To address these challenges, several strategies can be implemented to support the sustainability of self-sustenance practices in the Western Ghats. Community-based resource management is one approach that can help to ensure the long-term health and productivity of resources.

The approach involves the active participation of local communities in the management of resources and promotes traditional knowledge and practices. Sustainable land use planning is another key strategy for supporting self-sustenance practices in the Western Ghats involving the development of plans and policies that balance the needs of local communities with the conservation of natural resources. It can include measures such as zoning and land use restrictions, as well as incentives for sustainable practices. Policies to support traditional livelihoods are also essential to the sustainability of self-sustenance practices in the Western Ghats. These policies can include measures such as subsidies, tax breaks, and other forms of financial aid to support communities who rely on traditional livelihoods. Additionally, promoting sustainable practices like organic farming, agroforestry, and sustainable harvesting of non-timber forest products can help to ensure

the long-term health and productivity of these resources. Biodiversity conservation education is another important strategy for supporting self-sustenance practices in the Western Ghats (Dilip Kumar, 2014).

Education programs can help to raise awareness about the importance of preserving biodiversity and the role of traditional knowledge and practices in conservation. Additionally, partnership and collaboration with local communities and government agencies can help to build support for self-sustenance practices in the Western Ghats. Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, as well as the collection and sale of non-timber forest products, have long been a way for communities in the Western Ghats to support their livelihoods. The case study revealed so far that these practices are facing increasing challenges due to factors such as land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from government. To promote and protect self-sustenance practices in the Western Ghats, a variety of strategies can be employed (Bawa et al., 2007).

One important approach is community-based resource management, which involves local communities in the decision-making and management of natural resources that can help ensure that resources are used in a sustainable manner, while also supporting the livelihoods of the communities that depend on them. Another important strategy is sustainable land use planning, which involves developing land use plans that consider the needs of local communities, as well as the conservation of biodiversity and helps ensure that self-sustenance practices are not negatively affected by development or other activities (Bawa et al., 2007). Policies to support traditional livelihoods, such as supplying subsidies

or other financial support to farmers, can also be an effective way to promote self-sustenance practices. Additionally, promoting sustainable practices, such as agroforestry and organic farming, can help ensure that these practices are more resilient to climate change and other environmental challenges. Biodiversity conservation education is another important strategy for promoting self-sustenance practices in the Western Ghats. By educating local communities about the importance of biodiversity and the ways in which their livelihoods are dependent on it, they can be more inclined to engage in conservation practice (Vodouhe et al., 2010).

Partnership and collaboration are key to promoting and protecting self-sustenance practices in the Western Ghats. By working with NGOs, government agencies, and other stakeholders, local communities can access resources and support that they might not otherwise have. Partnership and collaboration are key practices that can be promoted and protected to support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity. These practices involve collaborating with local communities, government agencies, non-governmental organizations, and other stakeholders to achieve common goals. One way to promote partnership and collaboration is through community-based resource management additionally involving local communities in the management of their natural resources.

By involving communities in decision-making, they are more likely to take ownership of the resources and be motivated to use them in a sustainable manner leading to better management of resources and improved livelihoods for communities. Another way to promote partnership and collaboration is through sustainable land use planning

involving collaborating with communities to plan land use in a way that balances conservation and development goals. By involving communities in the planning process, they are more likely to understand and support the plan, which can lead to better implementation and more sustainable land use. Policies to support traditional livelihoods can also be implemented to promote self-sustenance practices in the Western Ghats. Policies that support the collection and sale of non-timber forest products can help to promote the traditional livelihoods of communities who rely on these products. Promoting sustainable practices among local communities can also be a keyway to support self-sustenance practices in the Western Ghats (Sohaana and Rahman, 2021).

Supplying training on sustainable farming practices can help to improve crop yields and reduce pressure on natural resources (Sohaana and Rahman, 2021) Biodiversity conservation education and public awareness campaigns can be implemented to promote the importance of self-sustenance practices in the Western Ghats. By raising awareness about the significant role that local communities play in conservation, more people may be motivated to support and protect these practices. Community-based resource management empowering local communities to manage and conserve their own resources in a sustainable manner. By giving them control over their own resources, they can make decisions that are in their best interest and promote sustainable practices. Sustainable land use planning involves creating land use plans that consider the needs of local communities and the conservation of biodiversity and can be done through the creation of protected areas or community-managed conservation areas. Policies to support traditional livelihoods,

Government policies that support traditional livelihoods, such as agriculture, forestry, and NTFP collection, can help promote sustainable practices (Basavarajaiah et al., 2020).

This can be done through the provision of credit, subsidies, and technical aid. By educating local communities about the importance of biodiversity conservation and the link between sustainable practices and biodiversity conservation, they will be more likely to adopt sustainable practices. Sustainable land use planning is a crucial aspect of promoting and protecting self-sustenance practices in the Western Ghats. The Western Ghats, a biodiversity hotspot, is home to many Indigenous communities who rely on the natural resources of the region for their livelihoods. These communities practice a wide range of self-sustenance activities, including agriculture, ecotourism, forestry, handicrafts, and livestock rearing (Panwar et al., 2011).

The sustainability of these practices is increasingly under threat due to several factors such as land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from the government. Sustainable land use planning can play a crucial role in addressing these challenges and supporting the livelihoods of Western Ghats communities. It involves the management and conservation of natural resources through the integration of economic, social, and environmental considerations (Panwar et al., 2011). The needs and aspirations of local communities are considered while also protecting the biodiversity of the region. One aspect of sustainable land use planning is the participation of local communities in the planning process. Community-based resource management is an effective tool for involving local communities in land use planning and decision-making (Panwar et al., 2011).

Empowering communities to take responsibility for the management and conservation of their resources and helps to ensure that their needs and aspirations are considered, in addition to which sustainable land use planning is the development of policies to support traditional livelihoods. These policies should aim to supply legal and institutional support for self-sustenance practices, as well as access to resources and markets, which can include measures such as land tenure reform, access to credit, and support for value-added activities. Sustainable land use planning can also promote biodiversity conservation by protecting key habitats and ecosystem services which can be achieved through the identification and protection of critical areas such as wetlands, forests, and other important habitats. Furthermore, biodiversity conservation education can help raise awareness among local communities about the importance of conservation and the need to adopt sustainable practices (Panwar et al., 2011).

4.9 Summary of Findings

Partnership and collaboration are key practices that can be promoted and protected to support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity. By working together, different stakeholders can achieve common goals and create a more sustainable future for the region. Community-based resource management, sustainable land use planning, policies that support traditional livelihoods, biodiversity conservation education, and partnerships and collaboration. By implementing

these strategies, we can ensure that the self-sustenance practices of the communities in the Western Ghats are both economically practical and environmentally sustainable for generations to come. Sustainable land use planning is a vital tool for promoting and protecting self-sustenance practices in the Western Ghats (Panwar et al., 2011)

By involving local communities in the planning process, developing policies to support traditional livelihoods, and promoting biodiversity conservation, sustainable land use planning can ensure the long-term sustainability of self-sustenance practices and the livelihoods of Western Ghats communities. Self-sustenance practices are vital for the livelihoods of communities in the Western Ghats, and for the conservation of the region's biodiversity. To promote and protect these practices, a variety of strategies can be employed, including community-based resource management, sustainable land use planning, policies to support traditional livelihoods, promoting sustainable practices, biodiversity conservation education, and partnership and collaboration. Biodiversity conservation education is a crucial aspect of promoting self-sustenance practices in the Western Ghats (Gadgil, 2014).

The Western Ghats are a biodiversity hotspot, home to a wide range of flora and fauna, many of which are found nowhere else in the world. However, the rapid pace of development, coupled with over-exploitation of resources, has led to the degradation of these unique ecosystems. One of the keyways to address the issue is through educating communities about the importance of biodiversity conservation. Communities that understand the value of biodiversity are more likely to take steps to protect including adopting sustainable land use practices, such as agroforestry and shifting cultivation, which

can help to conserve biodiversity while also supplying livelihoods for communities. Biodiversity conservation education is empowering communities to take ownership of their local ecosystems can include training communities to check and protect local biodiversity, as well as involving them in decision-making processes related to conservation (Panwar et al., 2011).

Promoting traditional knowledge and practices that are intricately connected to conservation of biodiversity is important. These practices include conservation of sacred groves, community-managed forests, and other traditional conservation practices. Biodiversity conservation education is a critical tool for supporting the livelihoods of communities in the Western Ghats. By educating communities about the importance of conservation, empowering them to take ownership of their local ecosystems, and promoting traditional knowledge and practices, we can help to ensure that the unique biodiversity of the Western Ghats is protected for future generations (Panwar et al., 2011).

4.10 Conclusion

Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing are vital for the livelihoods of communities in the Western Ghats. By adopting sustainable and low-impact practices, these communities can not only support their own livelihoods but also conserve the region's natural resources for future generations. Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, livestock rearing, and non-timber forest products play a crucial role in

supporting the livelihoods of communities in the Western Ghats while also promoting the conservation of the region's biodiversity (Panwar et al., 2011).

Self-sustenance practices are an important way of life for communities in the Western Ghats. However, several factors are threatening the sustainability of these practices, including lack of access to land, climate change, market fluctuations, loss of biodiversity, and lack of access to credit. To ensure the sustainability of these practices and the livelihoods of communities in the region, it is important to address these factors and to supply support to communities in the form of land rights, access to credit, and conservation of biodiversity. There are many factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. These include land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from government (Basavarajaiah et al., 2020). These factors have led to the decline of many species and the depletion of resources for the communities living in the region. Therefore, it is important that steps are taken to address these issues, so that the communities living in the Western Ghats can continue to practice self-sustenance and preserve the region's rich biodiversity.

Sustainable land use planning can also promote biodiversity conservation by protecting key habitats and ecosystem services. This can be achieved through the identification and protection of critical areas such as wetlands, forests, and other important habitats. Furthermore, biodiversity conservation education can help raise awareness among local communities about the importance of conservation and the need to adopt sustainable practices (Basavarajaiah et al., 2020).

Biodiversity conservation education is a critical tool for supporting the livelihoods of communities in the Western Ghats. By educating communities about the importance of conservation, empowering them to take ownership of their local ecosystems, and promoting traditional knowledge and practices, we can help to ensure that the unique biodiversity of the Western Ghats is protected for future generations.

CHAPTER V: DISCUSSION

5.1 Discussion of Results

The first trend that arose from the findings was supplying support and considering needs and challenges to increase and improve results from self-sustenance practice performance. Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing are vital for the livelihoods of communities in the

Western Ghats. By adopting sustainable and low-impact practices, these communities can not only support their own livelihoods but also conserve the region's natural resources for future generations. The chapter triangulates the findings, correlation to the conceptual framework, and results related to the existing literature review.

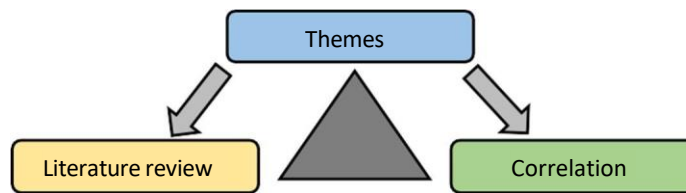


Figure 12: Linking the themes, correlations, and literature discussions.

5.2 Discussion of Research Question One

What are the different self-sustenance practices used by communities in the Western Ghats for their livelihoods? The Western Ghats is a biodiversity hotspot known for its rich natural resources and unique culture. The communities living in this region have traditionally relied on self-sustenance practices to support their livelihoods. In recent years, there has been a renewed focus on these practices to conserve the region's natural resources while also supporting the livelihoods of local communities.

Agriculture and Ecotourism are two of the most preferred self-sustenance practices in the Western Ghats. Organic farming, agroforestry, and terrace farming are some of the agriculture practices that are widely adopted by the communities in the region. These practices are known for their low environmental impact and high productivity, which

makes them ideal for the hilly terrain of the Western Ghats. Ecotourism, on the other hand, is a growing industry in the region that supplies income for local communities while also promoting conservation of the area's natural resources. Forests and their products are also an important source of livelihood for the communities in the Western Ghats. Non-timber forest products, such as medicinal plants, honey, and forest fruits, are widely harvested and sold by the local communities. This not only supplies a source of income but also helps to conserve the forest resources. Forestry practices such as sustainable logging and reforestation are being adopted to ensure the long-term sustainability of the region's forests. Handicrafts are another important self-sustenance practice in the Western Ghats (Sowole et al, 2018).

The region is known for its traditional handloom and handicrafts made of natural materials such as bamboo, coir, and wood. These products are highly valued for their unique design and quality and are often sold to tourists as well as in local markets. Livestock rearing is also an important self-sustenance practice in the Western Ghats. The communities in the region have traditionally kept a variety of animals such as cows, goats, and sheep, which supply milk, meat, and other products. In recent years, there has been a renewed focus on sustainable livestock management practices that protect the health and welfare of the animals while also keeping the ecological balance of the local environment (Kloppenborg, 2010).

Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing are vital for the livelihoods of communities in the Western Ghats. By adopting sustainable and low-impact practices, these communities can not only support

their own livelihoods but also conserve the region's natural resources for future generations. The impact of self-sustenance practices on the livelihoods of communities in the Western Ghats. Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, have a significant impact on the livelihoods of communities in the Western Ghats. These practices not only supply a source of income for the communities, but also play a crucial role in conserving the biodiversity of the region. Agriculture is one of the most important self-sustenance practices in the Western Ghats. It supplies food security and income for the communities and helps to conserve the natural resources in the region (Kloppenburger, 2010).

Many communities in the region rely on farming as their primary source of income and food security. The Western Ghats are known for their diverse agro-climatic conditions, which support a wide range of crops including paddy, millets, pulses, oilseeds, vegetables, and cash crops like coffee, rubber, and spices. These crops supply food security and income for the communities and help to conserve the natural resources in the region by promoting sustainable land use practices. Ecotourism is another important self-sustenance practice, as it supplies an alternative source of income for the communities, while also promoting conservation of the natural resources in the region. Forestry is an important self-sustenance practice in the Western Ghats. It not only supplies income for the communities, but also helps to conserve the natural resources in the region. While also promoting conservation of the natural resources in the region.

The Western Ghats are known for their rich biodiversity, which includes rare and endangered species of plants and animals. Ecotourism activities such as trekking, bird

watching, and wildlife safaris not only supply income for the communities but also promote conservation by creating awareness about the importance of preserving the natural resources in the region. Handicrafts as a self-sustenance practice in the Western Ghats, supply a source of income for the communities and promote the conservation of traditional skills. Also, they supply a source of income for the communities and promote the conservation of traditional skills (Bawa, 1997).

The communities living in the Western Ghats have a rich tradition of handicrafts such as weaving, pottery, and woodcarving. These traditional crafts not only supply income for the communities but also help to preserve the cultural heritage of the region. Livestock rearing self-sustenance practice in the Western Ghats. It supplies food and income for the communities and helps to conserve the natural resources in the region. The region is known for its diverse agro-climatic conditions, which support a wide range of livestock such as cattle, buffalo, sheep, and goats. These animals supply food and income for the communities and help to conserve the natural resources in the region by promoting sustainable land use practices. Non-Timber Forest Products practice in the Western Ghats, as they supply a source of income for the communities and promote the conservation of the natural resources in the region (Bawa, 1997).

The region is known for its rich forest cover and diverse species of plants and animals. The communities living in the Western Ghats rely on the forest for a wide range of non-timber forest products such as honey, medicinal plants, and bamboo. These products not only supply income for the communities but also help to conserve the natural resources in the region by promoting sustainable harvesting practices. Self-sustenance practices such

as agriculture, ecotourism, forestry, handicrafts, livestock rearing, and non-timber forest products play a crucial role in supporting the livelihoods of communities in the Western Ghats while also promoting the conservation of the region's biodiversity (Cheng and Durst, 2000).

The factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, have long been used by communities in the Western Ghats to support their livelihoods. However, the sustainability of these practices is being impacted by a variety of factors. One major factor is the changing climate, it was seen as to how lack of access to land, climate change, market fluctuations, loss of biodiversity, and lack of access to credit are affecting the sustainability of self-sustenance practices in the Western Ghats. The Western Ghats, like many other regions in the world, are experiencing shifts in temperature and precipitation patterns that are affecting crop yields and the growth of forests. This is making it more difficult for communities to rely on traditional self-sustenance practices for their livelihoods (Bawa, 1997).

Another factor affecting the sustainability of self-sustenance practices in the Western Ghats is the increasing population pressure in the region. As more people move into the Western Ghats, the demand for land and resources is rising, which is putting pressure on traditional self-sustenance practices. As more people clear land for agriculture, the forests that supply essential resources for many communities are being depleted. Economic factors also play a role in the sustainability of self-sustenance practices in the Western Ghats. Many of the products and services produced by these practices are not competitive in the

global marketplace, which makes it difficult for communities to earn a living wage. Additionally, the lack of infrastructure and access to markets makes it difficult for communities to sell their products and services. Political and legal factors also affect the sustainability of self-sustenance practices in the Western Ghats (Lertdhamtewe, 2014).

The lack of clear land tenure rights and the existence of conflicting laws and regulations make it difficult for communities to secure the resources they need to sustain their livelihoods. One of the major factors affecting the sustainability of self-sustenance practices in the Western Ghats is lack of access to land. The Western Ghats are home to many Indigenous communities who have traditionally relied on the land for their livelihoods. However, with increasing population pressures and development, these communities are facing displacement and loss of access to land. This is making it increasingly difficult for them to continue their self-sustenance practices. Climate change is another major factor affecting wherein 80% of the participants expressed as factor that the sustainability of self-sustenance practices in the Western Ghats in being affected. The region is already experiencing changes in rainfall patterns, temperature, and sea level rise which are affecting crop yields and the availability of water for livestock. This is making it increasingly difficult for communities to continue their traditional self-sustenance practices. 35% mentioned that Market fluctuations are impacting the sustainability of self-sustenance practices in the Western Ghats. Many of the products produced by communities in the region are sold in local and regional markets.

These markets are often subject to fluctuations which can make it difficult for communities to earn a stable income from their self-sustenance practices. Loss of

biodiversity is affecting the sustainability of self-sustenance practices in the Western Ghats was mentioned by 40% of the population (Suresh Kumar, 2021) The region Urso et al., (2016) is home to a rich diversity of plant and animal species, many of which are used by communities for food, medicine, and other purposes.

With deforestation and other forms of habitat loss, many of these species are becoming increasingly rare, making it more difficult for communities to continue their self-sustenance practices. 40% of the population mentioned that lack of access to credit is also impacting the sustainability of self-sustenance practices in the Western Ghats. Many communities in the region do not have access to credit or other forms of financial aid which can help them to invest in their self-sustenance practices (Bawa, 2007). This can make it difficult for them to expand their operations or to make necessary investments in equipment and infrastructure.

Self-sustenance practices are an important way of life for communities in the Western Ghats. However, the sustainability of these practices is being threatened by several factors, including lack of access to land, climate change, market fluctuations, loss of biodiversity, and lack of access to credit. To ensure the sustainability of these practices and the livelihoods of communities in the region, it is important to address these factors and to supply support to communities in the form of land rights, access to credit, and conservation of biodiversity (Adhikari and Agrawal, 2013).

The sustainability of self-sustenance practices in the Western Ghats is being affected by a complex web of factors, including climate change, population pressure, economic

factors, and political and legal factors. To support the livelihoods of communities in the Western Ghats and conserve the region's biodiversity, it will be important to address these factors through targeted interventions and policies (Bawa, 1997).

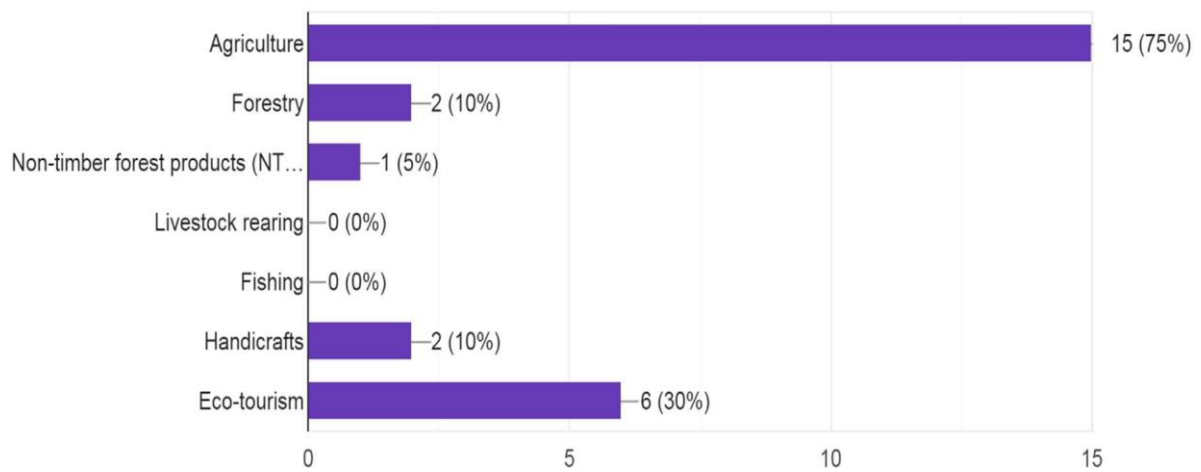


Figure 13: Different self-sustenance practices

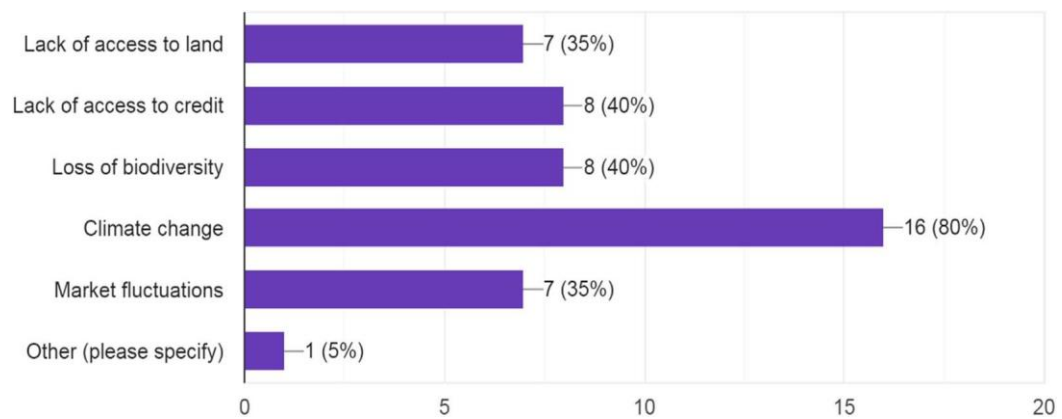


Figure 94: Factors that affect the sustainability of self-sustenance.

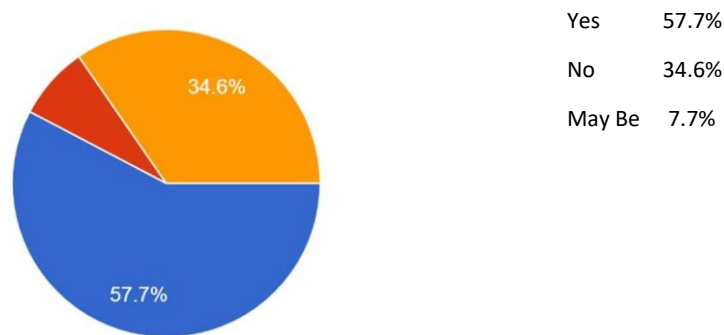


Figure 105: Change in climate felt or seen.

5.3 Discussion of Research Question Two

The self-sustenance practices contribute to the conservation of biodiversity in the Western Ghats. Self-sustenance practices in the Western Ghats have been a way of life for many communities living in this region. These practices have helped them to survive and thrive in an area that is known for its challenging terrain and weather conditions (Bawa, 2007). In recent years, many of these practices have come under threat, and the sustainability of these practices has been affected. This research data revealed that the several factors that are affecting the sustainability of self-sustenance practices in the Western Ghats.

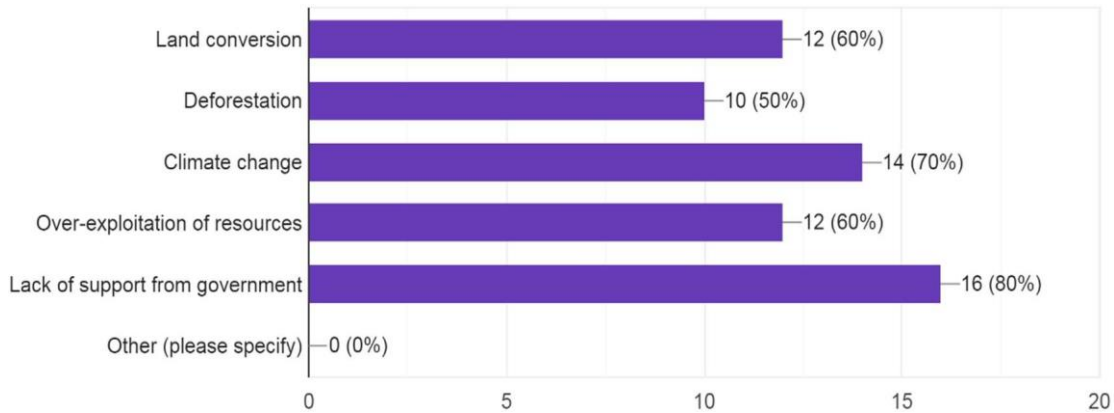


Figure 11: Self-sustenance practices contribute to the conservation of biodiversity.

From the data collected in the order of the factor affecting the most in a descending order, is presented the fact as collected, 80% of the participants felt that there is Lack of support from government that is affecting the sustainability of self-sustenance practices in the Western Ghats. The region is known for its rich biodiversity, and many communities depend on these resources for their livelihoods.

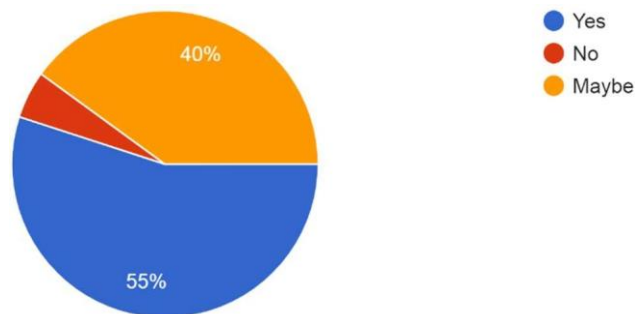


Figure 17: Changes in availability of resources for Self-Sustenance

In recent years, there has been a lack of support from the government, which has led to a decline in the availability of resources for the communities living in the region, as they depend on these resources for their livelihoods (Lobell et al., 2003). 80% of the participants felt that climate change is a major factor that is impacting the sustainability of self-sustenance practices in the Western Ghats.

The region is known for its challenging weather conditions, and many communities depend on these conditions for their livelihoods. However, in recent years, there has been a change in the weather patterns, which has led to a decline in the availability of resources for the communities living in the region, as they depend on these resources for their livelihoods. 60% of the participants mentioned land conversion as one of the major factors that are impacting the sustainability of self-sustenance practices in the Western Ghats. The region is known for its rich biodiversity, and many species of plants and animals are found here. However, as the population in the region has increased, more and more land is being converted for agriculture and other development activities (Raman and Mudappa, 1998).

This has led to the destruction of natural habitats, which in turn has led to the decline of many species. This has also led to a decline in the availability of resources for the communities living in the region, as they depend on these resources for their livelihoods. 60% of the participants mentioned Over-exploitation of resources as a factor that is impacting the sustainability of self-sustenance practices in the Western Ghats. The region is known for its rich biodiversity, and many communities depend on these resources for their livelihoods. However, in recent years, there has been an increase in the rate of over-exploitation of resources, which has led to the decline of many species and the

depletion of resources for the communities living in the region. 50% of the participants felt that deforestation is a factor that is impacting the sustainability of self-sustenance practices in the Western Ghats.

The region is known for its rich forest cover, and many communities depend on these forests for their livelihoods. However, in recent years, there has been an increase in the rate of deforestation, which has led to the destruction of natural habitats and the decline of many species. This has also led to a decline in the availability of resources for the communities living in the region, as they depend on these resources for their livelihoods. The sustainability of self-sustenance practices in the Western Ghats is land conversion. The conversion of land from natural habitats to human settlements and industrial or agricultural uses has led to a loss of biodiversity and resources for local communities. Deforestation, which is often a result of land conversion, also threatens the sustainability of self-sustenance practices, as it reduces the availability of resources like timber, non-timber forest products, and water. Climate change is a major challenge to the sustainability of self-sustenance practices in the Western Ghats. The region is particularly vulnerable to the impacts of climate change, such as droughts, floods, and extreme weather events, which can damage crops and make it more difficult for communities to sustain themselves. Additionally, over-exploitation of resources and lack of support from the government can also contribute to the sustainability challenges (Saha and Saha, 2011).

Access to land is a factor that is affecting the sustainability of self-sustenance practices in the Western Ghats. Many communities in the region rely on traditional lands and resources but are facing increasing pressure from outside actors looking to exploit these

resources. Climate change and market fluctuations also contribute to this problem by making it more difficult for communities to predict and plan. To address these challenges, several strategies can be implemented to support the sustainability of self-sustenance practices in the Western Ghats. Community-based resource management is one approach that can help to ensure the long-term health and productivity of resources (Saha and Saha, 2011).

This approach involves the active participation of local communities in the management of resources and promotes traditional knowledge and practices. Sustainable land use planning is another key strategy for supporting self-sustenance practices in the Western Ghats. This approach involves the development of plans and policies that balance the needs of local communities with the conservation of natural resources (Saha and Saha, 2011). It can include measures such as zoning and land use restrictions, as well as incentives for sustainable practices. Policies to support traditional livelihoods are also essential to the sustainability of self-sustenance practices in the Western Ghats.

These policies can include measures such as subsidies, tax breaks, and other forms of financial aid to support communities who rely on traditional livelihoods. Promoting sustainable practices like organic farming, agroforestry, and sustainable harvesting of non-timber forest products can help to ensure the long-term health and productivity of these resources. Biodiversity conservation education is another important strategy for supporting self-sustenance practices in the Western Ghats. Education programs can help to raise awareness about the importance of preserving biodiversity and the role of traditional knowledge and practices in conservation. Partnership and collaboration with local

communities and government agencies can help to build support for self-sustenance practices in the Western Ghats.

There are many factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. These include land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from government. These factors have led to the decline of many species and the depletion of resources for the communities living in the region (Saha and Saha, 2011). It is important that steps are taken to address these issues, so that the communities living in the Western Ghats can continue to practice self-sustenance and preserve the region's rich biodiversity. How can self-sustenance practices be promoted and protected to support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity? Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, are essential to the livelihoods of communities in the Western Ghats.

These practices are often affected by a variety of factors that threaten their sustainability. These factors that can supply ways in which community-based resource management, sustainable land use planning, policies to support traditional livelihoods, promoting sustainable practices, biodiversity conservation education, and partnership and collaboration can help to ensure the continued success of self-sustenance practices in the Western Ghats. To address these challenges Raman and Mudappa (1998) mentions several strategies that can be implemented to support the sustainability of self-sustenance practices in the Western Ghats. Community-based resource management is one approach that can help to ensure the long-term health and productivity of resources. This approach involves

the active participation of local communities in the management of resources and promotes traditional knowledge and practices.

Sustainable land use planning is another key strategy for supporting self-sustenance practices in the Western Ghats. This approach involves the development of plans and policies that balance the needs of local communities with the conservation of natural resources. It can include measures such as zoning and land use restrictions, as well as incentives for sustainable practices. Policies to support traditional livelihoods are also essential to the sustainability of self-sustenance practices in the Western Ghats (Sowole et al, 2018). These policies can include measures such as subsidies, tax breaks, and other forms of financial aid to support communities who rely on traditional livelihoods. Additionally, promoting sustainable practices like organic farming, agroforestry, and sustainable harvesting of non-timber forest products can help to ensure the long-term health and productivity of these resources. Biodiversity conservation education is another important strategy for supporting self-sustenance practices in the Western Ghats (Sowole et al, 2018). Education programs can help to raise awareness about the importance of preserving biodiversity and the role of traditional knowledge and practices in conservation. Self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing, as well as the collection and sale of non-timber forest products, have long been a way for communities in the Western Ghats to support their livelihoods (Basavarajaiah et al., 2020)

The case study revealed so far that these practices are facing increasing challenges due to factors such as land conversion, deforestation, climate change, over-exploitation of

resources, and lack of support from government. To promote and protect self-sustenance practices in the Western Ghats, a variety of strategies can be employed. Partnership and collaboration with local communities and government agencies can help to build support for self-sustenance practices in the Western Ghats.

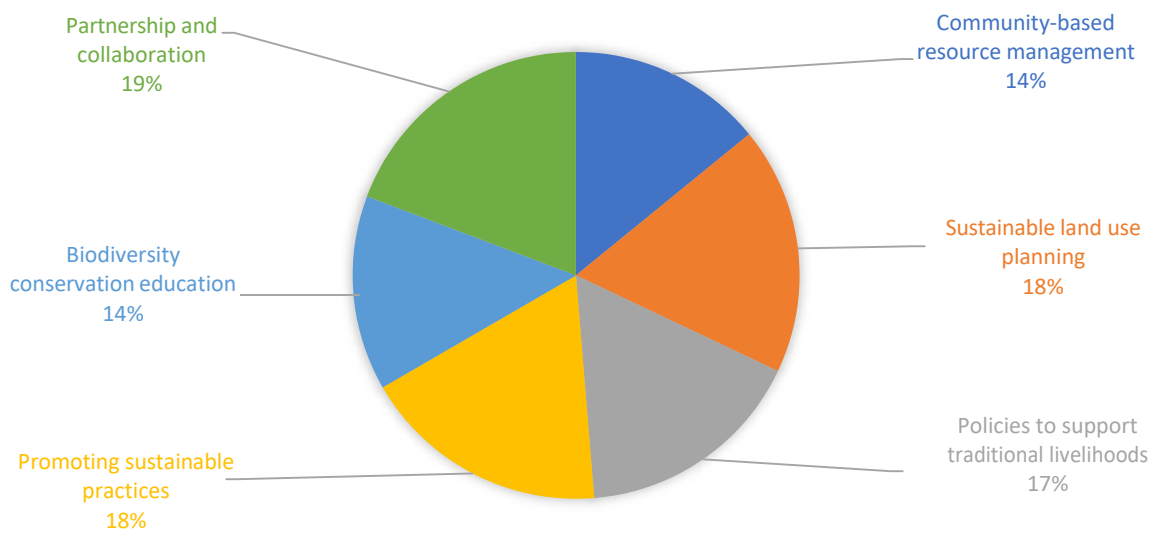


Figure 128: Self-sustenance practices to support the livelihoods.

One important approach is community-based resource management, which involves local communities in the decision-making and management of natural resources. This can help ensure that resources are used in a sustainable manner, while also supporting the livelihoods of the communities that depend on them. An important strategy is sustainable land use planning, which involves developing land use plans that consider the needs of local communities, as well as the conservation of biodiversity. This can help ensure that self-sustenance practices are not negatively affected by development or other

activities. Policies to support traditional livelihoods, such as supplying subsidies or other financial support to farmers, can also be an effective way to promote self-sustenance practices (Magis, 2010). Promoting sustainable practices, such as agroforestry and organic farming, can help ensure that these practices are more resilient to climate change and other environmental challenges. Biodiversity conservation education is another important strategy for promoting self-sustenance practices in the Western Ghats. Educating local communities about the importance of biodiversity and the ways in which their livelihoods are dependent on it, they can be more inclined to engage in conservation practices.

Partnership and collaboration are key to promoting and protecting self-sustenance practices in the Western Ghats. By working with NGOs, government agencies, and other stakeholders, local communities can access resources and support that they might not otherwise have (Ranjbari et al., 2018). Partnership and collaboration are key practices that can be promoted and protected to support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity. These practices involve collaborating with local communities, government agencies, non-governmental organizations, and other stakeholders to achieve common goals. One way to promote partnership and collaboration is through community-based resource management. This approach involves involving local communities in the management of their natural resources. By involving communities in decision-making, they are more likely to take ownership of the resources and be motivated to use them in a sustainable manner. This can lead to better management of resources and improved livelihoods for communities (Ranjbari et al., 2018).

To promote partnership and collaboration is through sustainable land use planning. This approach involves collaborating with communities to plan land use in a way that balances conservation and development goals. By involving communities in the planning process, they are more likely to understand and support the plan, which can lead to better implementation and more sustainable land use. Policies to support traditional livelihoods can also be implemented to promote self-sustenance practices in the Western Ghats. Policies that support the collection and sale of non-timber forest products can help to promote the traditional livelihoods of communities who rely on these products. Promoting sustainable practices among local communities can also be a keyway to support self-sustenance practices in the Western Ghats. Supplying training on sustainable farming practices can help to improve crop yields and reduce pressure on natural resources. Biodiversity conservation education and public awareness campaigns can be implemented to promote the importance of self-sustenance practices in the Western Ghats (Basavarajaiah et al., 2020). By raising awareness about the significant role that local communities play in conservation, more people may be motivated to support and protect these practices.

Community-based resource management empowering local communities to manage and conserve their own resources in a sustainable manner. By giving them control over their own resources, they can make decisions that are in their best interest and promote sustainable practices. Sustainable land use planning involves creating land use plans that consider the needs of local communities and the conservation of biodiversity. This can be done through the creation of protected areas or community-managed conservation areas. Policies to support traditional livelihoods, Government policies that support traditional

livelihoods, such as agriculture, forestry, and NTFP collection, can help promote sustainable practices. This can be done through the provision of credit, subsidies, and technical aid. By educating local communities about the importance of biodiversity conservation and the link between sustainable practices and biodiversity conservation, they will be more likely to adopt sustainable practices. Sustainable land use planning is a crucial aspect of promoting and protecting self-sustenance practices in the Western Ghats (Basavarajaiah et al., 2020).

The Western Ghats, a biodiversity hotspot, is home to many Indigenous communities who rely on the natural resources of the region for their livelihoods. These communities practice a wide range of self-sustenance activities, including agriculture, ecotourism, forestry, handicrafts, and livestock rearing (McCall and Minang, 2005). The sustainability of these practices is increasingly under threat due to several factors such as land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from the government. Sustainable land use planning can play a crucial role in addressing these challenges and supporting the livelihoods of Western Ghats communities. It involves the management and conservation of natural resources through the integration of economic, social, and environmental considerations. The approach ensures that the needs and aspirations of local communities are considered while also protecting the biodiversity of the region.

One aspect of sustainable land use planning is the participation of local communities in the planning process. Community-based resource management is an effective tool for involving local communities in land use planning and decision-making.

This approach empowers communities to take responsibility for the management and conservation of their resources and helps to ensure that their needs and aspirations are considered, in addition to which sustainable land use planning is the development of policies to support traditional livelihoods. These policies should aim to supply legal and institutional support for self-sustenance practices, as well as access to resources and markets. This can include measures such as land tenure reform, access to credit, and support for value-added activities (McCall and Minang, 2005).

Sustainable land use planning can also promote biodiversity conservation by protecting key habitats and ecosystem services. This can be achieved through the identification and protection of critical areas such as wetlands, forests, and other important habitats. Biodiversity conservation education can help raise awareness among local communities about the importance of conservation and the need to adopt sustainable practices (Basavarajaiah et al., 2020).

CHAPTER VI: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Summary

Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, and livestock rearing are vital for the livelihoods of communities in the Western Ghats. By adopting sustainable and low-impact practices, these communities can not only support their own livelihoods but also conserve the region's natural resources for future generations. Self-sustenance practices such as agriculture, ecotourism, forestry, handicrafts, livestock rearing, and non-timber forest products play a crucial role in supporting the livelihoods of communities in the Western Ghats while also promoting the conservation of the region's biodiversity. Self-sustenance practices are an important way of life for communities in the Western Ghats (Pushpakarani and Natarajan, 2014)

Several factors are threatening the sustainability of these practices, including lack of access to land, climate change, market fluctuations, loss of biodiversity, and lack of access to credit. To ensure the sustainability of these practices and the livelihoods of communities in the region, it is important to address these factors and to supply support to communities in the form of land rights, access to credit, and conservation of biodiversity. There are many factors that are affecting the sustainability of self-sustenance practices in the Western Ghats. These include land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from government (Bawa, 1997).

These factors have led to the decline of many species and the depletion of resources for the communities living in the region. Therefore, it is important that steps are taken to address these issues, so that the communities living in the Western Ghats can continue to practice self-sustenance and preserve the region's rich biodiversity. Sustainable land use planning can also promote biodiversity conservation by protecting key habitats and ecosystem services. This can be achieved through the identification and protection of critical areas such as wetlands, forests, and other important habitats (Gadgil, 2014).

Biodiversity conservation education can help raise awareness among local communities about the importance of conservation and the need to adopt sustainable practices. Biodiversity conservation education is a critical tool for supporting the livelihoods of communities in the Western Ghats. By educating communities about the importance of conservation, empowering them to take ownership of their local ecosystems, and promoting traditional knowledge and practices, we can help to ensure that the unique biodiversity of the Western Ghats is protected for future generations (Gadgil, 2014).

6.2 Implications

Partnership and collaboration are key practices that can be promoted and protected to support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity. By working together, different stakeholders can achieve common goals and create a more sustainable future for the region. Community-based resource management, sustainable land use planning, policies that support traditional livelihoods, biodiversity conservation education, and partnerships and collaboration.

By implementing these strategies, we can ensure that the self-sustenance practices of the communities in the Western Ghats are both economically practical and environmentally sustainable for generations to come. Sustainable land use planning is a vital tool for promoting and protecting self-sustenance practices in the Western Ghats. By involving local communities in the planning process, developing policies to support traditional livelihoods, and promoting biodiversity conservation, sustainable land use planning can ensure the long-term sustainability of self-sustenance practices and the livelihoods of Western Ghats communities (Gadgil, 2014).

Self-sustenance practices are vital for the livelihoods of communities in the Western Ghats, and for the conservation of the region's biodiversity. To promote and protect these practices, a variety of strategies can be employed, including community-based resource management, sustainable land use planning, policies to support traditional livelihoods, promoting sustainable practices, biodiversity conservation education, and partnership and collaboration. Biodiversity conservation education is a crucial aspect of promoting self-sustenance practices in the Western Ghats. The Western Ghats are a biodiversity hotspot, home to a wide range of flora and fauna, many of which are found nowhere else in the world.

The rapid pace of development, coupled with over-exploitation of resources, has led to the degradation of these unique ecosystems. One of the keyways to address this issue is through educating communities about the importance of biodiversity conservation. Communities that understand the value of biodiversity are more likely to take steps to protect it. This can include adopting sustainable land use practices, such as agroforestry

and shifting cultivation, which can help to conserve biodiversity while also supplying livelihoods for communities. Biodiversity conservation education is empowering communities to take ownership of their local ecosystems (Gadgil, 2014). This can include training communities to check and protect local biodiversity, as well as involving them in decision-making processes related to conservation.

Promoting traditional knowledge and practices that are intricately connected to conservation of biodiversity is important. These practices include conservation of sacred groves, community-managed forests, and other traditional conservation practices. Biodiversity conservation education is a critical tool for supporting the livelihoods of communities in the Western Ghats. By educating communities about the importance of conservation, empowering them to take ownership of their local ecosystems, and promoting traditional knowledge and practices, we can help to ensure that the unique biodiversity of the Western Ghats is protected for future generations.

6.3 Recommendations for Future Research

Self-sustenance practices have been an integral part of the livelihoods of communities in the Western Ghats for centuries. However, with the increasing pressures of land conversion, deforestation, climate change, over-exploitation of resources, and lack of support from government, the sustainability of these practices is at risk. Therefore, it is crucial to conduct research to understand the factors that are changing the sustainability of self-sustenance practices in the Western Ghats and to develop effective strategies to promote and protect these practices.

One area of research that is recommended is to conduct a detailed study on the impact of land conversion and deforestation on the livelihoods of communities in the Western Ghats. This research should focus on the specific impacts on different self-sustenance practices, such as agriculture, ecotourism, forestry, handicrafts, and non-timber forest products. Research on the effects of climate change on these practices should also be conducted.

An area of research that is recommended is to study the impact of market fluctuations on the sustainability of self-sustenance practices in the Western Ghats. This research should focus on understanding how changes in market demand and prices for various products affect the livelihoods of communities in the region. Additionally, research on the effects of loss of biodiversity on these practices should also be conducted. A third area of research that is recommended is to study the impact of policies and regulations on the sustainability of self-sustenance practices in the Western Ghats.

This research should focus on understanding how different policies and regulations, such as land use planning, change the livelihoods of communities in the region. Additionally, research on the effectiveness of different policies and regulations in promoting sustainable practices should also be conducted.

6.4 Conclusion

Promoting sustainable practices is crucial for supporting the livelihoods of communities in the Western Ghats. This can be done through a variety of ways, such as Community-based resource management and that approach involves empowering local

communities to manage and conserve their own resources in a sustainable manner. Giving them control over their own resources, they can make decisions that are in their best interest and promote sustainable practices.

Supplying Sustainable land use planning by creating land use plans that consider the needs of local communities and the conservation of biodiversity. This can be done through the creation of protected areas or community-managed conservation areas. Government policies that support traditional livelihoods and policies to support traditional livelihoods. Government policies that support traditional livelihoods, such as agriculture, forestry, and NTFP collection, can help promote sustainable practices (Basavarajaiah et al., 2020). This can be done through the provision of credit, subsidies, and technical aid.

By educating local communities about the importance of biodiversity conservation and the link between sustainable practices and biodiversity conservation, they will be more likely to adopt sustainable practices. By forming partnerships and collaborations between local communities, NGOs, government agencies, and private sector organizations, the promotion and protection of self-sustenance practices can be enhanced. This can be done through the sharing of knowledge, resources, and ability. Research on the effectiveness of different strategies for promoting and protecting self-sustenance practices in the Western Ghats is also recommended.

This research should focus on understanding the effectiveness of community-based resource management, sustainable land use planning, policies to support traditional livelihoods, promoting sustainable practices, biodiversity conservation education, and

partnership and collaboration in promoting and protecting self-sustenance practices in the Western Ghats. The research recommended in this article will supply a better understanding of the factors affecting the sustainability of self-sustenance practices in the Western Ghats and will help develop effective strategies to promote and protect these practices. This will support the livelihoods of communities in the Western Ghats and conservation of the region's biodiversity.

APPENDIX A

SURVEY COVER LETTER

This letter was sent to all potential participants along with a link to the screener survey.

The letter was sent through email, inland post or via social platforms such as LinkedIn, WhatsApp, depending on where the researcher made initial contact with the participant in both English and local language, Kannada.

“I am Prashanth Manohar Muthyala, a DBA scholar, and a Techno Commercial Executive working for Chromachemie Laboratory Private Limited. I am conducting research into the Perspective of Rural People in Western Ghats for Self-Sustaining as part of my doctoral thesis. As part of this research, I am talking to several people in the region of Western Ghats to gain insights. The research interview process is simple and will not take more than 45-60 minutes to complete. Would you be interested in taking part?”

If following this introduction, the potential participant agreed to be part of the study, the researcher then sent the following email.

Thank you very much for agreeing to take part in this research.

Before we get into it, a brief introduction about myself, and why I am doing this.

I am currently a Techno-Commercial Executive working for Chromachemie Laboratory Private Limited for over two decades now.

I have worked at various levels of the organization, starting my career at an entry level and have been successful at every stage. Through this time, I have seen some phenomenal successes and other businesses that looked very promising.

My personal motivation is this: **It always fascinated me of an informal process when seen at vel but at micro level it is a well-organized process, may not be recorded as a document, but as a general agreement to an already followed process for decades in terms of self-sustenance without looking forward to an external support system.**

I believe that the research I am conducting will be beneficial not just to the participants, but to a lot of other villages which may currently be facing poverty and looking forward to an anticipation to stretch a helping hand.

If you are comfortable with answering these questions, please complete the screener survey at this link.

Furthermore, I have attached two more documents for you to review and sign.

- Information sheets.
- A consent forms.

I ask that you carefully read the entire information sheet. This document has details about the nature of the research, what to expect from the interview, and your options.

After reading the information sheet, please enter your name, sign and date on the **last page.**

The interview consent form presents you with options on how the information you share is managed.

After reading the interview consent form, please select the proper level of consent for direct quotation, and please enter your name, sign, and date on the **second page**.

After you have read and signed both documents, please send a soft copy of the same. You may also preserve a copy for your records.

The information sheet and consent form also have contact information for my doctorate guide, who you can reach out to directly if you have any concerns or wish to have clarifications.

Thank you, and I hope we get to speak soon.

APPENDIX B
INFORMED CONSENT

Research project title: Perspective Of Rural People In Western Ghats For Self
Sustaining: Case Study In Areas Adjoining Kudremukh National Park

Research investigator: Prashanth Manohar Muthyala

Research Participants name:

The interview will take between 45 – 60 minutes. We do not anticipate that there are any risks associated with your participation, but you have the right to stop the interview or withdraw from the research at any time.

Thank you for agreeing to be interviewed as part of the above research project. Ethical procedures for academic research require that interviewees explicitly agree to being interviewed and how the information contained in their interview will be used. This consent form is necessary for us to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation. Would you therefore read the accompanying information sheet and then sign this form to certify that you approve the following:

1. The interview will be recorded, and a transcript will be produced
2. You will be sent the transcript and given the opportunity to correct any factual errors

3. The transcript of the interview will be analysed by Prashanth Manohar Muthyala as research investigator
4. Access to the interview transcript will be limited to Prashanth Manohar Muthyala and academic colleagues and researchers with whom he might collaborate as part of the research process
5. Any summary interview content, or direct quotations from the interview, that are made available through academic publication or other academic outlets will be anonymized so that you cannot be identified, and care will be taken to ensure that other information in the interview that could identify yourself is not revealed
6. The actual recording will be kept
7. Any variation of the conditions above will only occur with your further explicit approval.

Optional consent for direct quotation

If you wish to give explicit consent to the researcher to allow them to quote you directly, please initial next to any of the below statements. If all statements below are left unchecked, clause (5) from the previous section will apply.

	I wish to review the notes, transcripts, or other data collected during the research about my participation.
	I agree to be quoted directly.
	I agree to be quoted directly if my name is not published and a made-up name (pseudonym) is used.
	I agree that the researchers may publish documents that contain quotations by me.

All or part of the content of your interview may be used

1. In academic papers, policy papers or news articles
2. On our website and in other media that we may produce such as spoken presentations
3. On other feedback events
4. In an archive of the project as noted above

By signing this form, I agree that

1. I am voluntarily taking part in this project. I understand that I do not have to take part, and I can stop the interview at any time.
2. I have read the accompanying information sheet
3. The transcribed interview or extracts from it may be used as described above
4. I do not expect to receive any benefit or payment for my participation
5. I can request a copy of the transcript of my interview and may make edits I feel necessary to ensure the effectiveness of any agreement made about confidentiality
6. I have been able to ask any questions I might have, and I understand that I am free to contact the researcher with any questions I may have in the future.

APPENDIX C
INTERVIEW QUESTIONS

Demographic Information

Name: _____

Age: _____

Gender: _____

Occupation: _____

Education level: _____

Household size: _____

Information on Self-Sustenance Practices

What self-sustenance practices do you rely on for your livelihood? (Please tick all that apply)

Agriculture

Forestry

Non-timber forest products (NTFPs)

Livestock rearing

Fishing

Handicrafts

Eco-tourism

Others (please specify) _____

How long have you been practicing these self-sustenance practices?

How important are these self-sustenance practices for your livelihood?

Impact of Self-Sustenance Practices on Livelihoods

How have these self-sustenance practices affected your income?

How have these self-sustenance practices affected your food security?

How have these self-sustenance practices affected your access to healthcare and education? _____

Threats to Self-Sustenance Practices

What factors do you think are affecting the sustainability of your self-sustenance practices? _____

How do these factors affect your livelihoods? _____

Conservation of Biodiversity

How do your self-sustenance practices contribute to the conservation of biodiversity in the Western Ghats? _____

How do you think conservation of biodiversity can be integrated with your self-sustenance practices? _____

Support for Self-Sustenance Practices

What kind of support do you think is needed to promote and protect your self-sustenance practices? _____

How do you think this support can be provided? _____

Additional Comments

Are there any other things you would like to share about your self-sustenance practices and their impact on your livelihoods? _____

REFERENCES

- Acharya, A.S., Prakash, A., Saxena, P. and Nigam, A. (2013). 'Sampling: why and how to fit?', *Indian Journal of Medical Specialties*, pp.330-333.
- Adam, H.N., Kjosavik, D.J. and Shanmugaratnam, N. (2018). 'Adaptation trajectories and challenges in the Western Ghats: a case study of Attappady, south India', *Journal of Rural Studies*, pp.1-11.
- Adhikari, B. and Agrawal, A. (2013). 'Understanding the social and ecological outcomes of PES projects: a review and an analysis', *Conservation and Society*, pp.359-374.
- Ashford, B. (2007). 'How benchmarking can mitigate risk in business transformation', *BT Technology Journal*, pp.50-57.
- Ajzen, I., and Fishbein, M. (2005). 'Theory-based behavior change interventions: comments on Hobbis and Sutton', *Journal of Health Psychology*, pp.27-31.
- Bashir, M.A., Liu, J., Geng, Y., Wang, H., Pan, J., Zhang, D., Rehim, A., Aon, M. and Liu, H. (2020). 'Co-culture of rice and aquatic animals: An integrated system to achieve production and environmental sustainability', *Journal of Cleaner Production*, p.119.
- Basavarajaiah, D.M., Narasimhamurthy, B., Bharathi, M. and Naik, J., 2020. 'Tribal livelihood status in Western Ghats', *Fores Res*, p.234.
- Bawa, K.S. and Menon, S. (1997). 'Biodiversity monitoring the missing ingredients', *Trends in Ecology & Evolution*, p.42.

- Bawa, K.S., Joseph, G. and Setty, S. (2007). 'Poverty, biodiversity and institutions in forest-agriculture ecotones in the Western Ghats and Eastern Himalaya ranges of India', *Agriculture, Ecosystems & Environment*, pp.287-295.
- Behera, M., Mishra, S. and Behera, A.R. (2021). 'The COVID-19-led reverse migration on labour supply in rural economy: challenges, opportunities and road ahead in Odisha', *The Indian Economic Journal*, pp.392-409.
- Bekhet, A.K. and Zauszniewski, J.A. (2012). 'Methodological triangulation: an approach to understanding data', *Nurse Researcher*.
- Bourgeon, G. (1989). *Explanatory booklet on the reconnaissance soil map of forest area—Western Karnataka and Goa*, pp. 96. Pondicherry: Institut français de Pondichéry.
- Bowden, C. and Galindo-Gonzalez, S. (2015). 'Interviewing when you're not face-to-face: The use of email interviews in a phenomenological study', *International Journal of Doctoral Studies*, p.79.
- Bowonder, B., Prasad, S.S.R. and Vinay, M. (1987). *Pricing of urban water supply in India: Policy issues*. In Natural Resources Forum, pp. 385-390. Oxford : Blackwell Publishing Ltd.
- Bresin, R. C., Murdock, N. L., Marszalek, J. M., & Stapley, L. A. (2017). 'The triangular relationship inventory: development and validation', *Couple and Family Psychology*, pp. 287–310.

Bromley, J., Cruces, J., Acreman, M., Martinez, L. and Llamas, M.R. (2001). 'Problems of sustainable groundwater management in an area of over-exploitation: The upper Guadiana catchment, central Spain', *International Journal of Water Resources Development*, pp.379-396.

Bushi, D., Bam, K., Mahato, R., Nimasow, G., Dai Nimasow, O. and Tag, H. (2021). 'Ethnomedicinal plants used by the indigenous tribal communities of Arunachal Pradesh, India: A review', *Ethnobotany Research and Applications*, pp.1-40.

Carver, C.S. and Scheier, M.F. (1988). 'A control-process perspective on anxiety', *Anxiety Research*, pp.17-22.

Castleberry, A. and Nolen, A. (2018). 'Thematic analysis of qualitative research data: is it as easy as it sounds?', *Currents in Pharmacy Teaching and Learning*, pp.807-815.

Chandrashekhara, U.M. and Ramakrishnan, P.S. (1994). 'Vegetation and gap dynamics of a tropical wet evergreen forest in the Western Ghats of Kerala, India', *Journal of Tropical Ecology*, pp.337-354.

Charmaz, K., (2017). 'Constructivist grounded theory', *The Journal of Positive Psychology*.

Chiu, C.Y., Dweck, C.S., Tong, J.Y.Y. and Fu, J.H.Y. (1997). 'Implicit theories and conceptions of morality', *Journal of Personality and Social Psychology*, p.923.

Chowdhury, S. (1990). 'People cause pollution', *BMJ: British Medical Journal*, p.124.

- Cox, M., Arnold, G. and Tomás, S.V. (2010). 'A review of design principles for community-based natural resource management', *Ecology and Society*.
- Cumming, G.S. and Allen, C.R. (2017). 'Protected areas as social-ecological systems: perspectives from resilience and social-ecological systems theory', *Ecological Applications*, pp.1709-1717.
- DiCicco-Bloom, B. and Crabtree, B.F. (2006). 'The qualitative research interview', *Medical Education*, pp.314-321.
- Dweck, C.S. and Molden, D.C. (2017). *Handbook of Competence and Motivation: theory and application*, p.135. New York: Guilford publications.
- Fishbein, M. and Ajzen, I. (2011). *Predicting and changing behavior: the reasoned action approach*. New York: Taylor & Francis.
- Frederick, M.A.J., Joseph, S.T., Srivastava, H., Frederick, A., Joseph, D. and Srivastava, H. (2016). 'Begging in India: barricading the sustainable financial development', *Social Sciences*, p.2016.
- Freeman, R.B. (1979). 'The effect of demographic factors on age-earnings profiles', *Journal of Human Resources*, pp. 289-318.
- Fusch, P.I. and Ness, L.R. (2015). 'Are we there yet? Data saturation in qualitative research', *The Qualitative Report*.
- Gadgil, M. (2014). 'Western Ghats ecology expert panel: a play in five acts', *Economic and Political Weekly*, pp.38-50.

Gadgil, M., Joshi, N.V. and Utkarsh, G. (1998). 'On the patterns of tree diversity in the Western Ghats of India', *Current Science*, pp.594-603.

Garcia, C.A., Bhagwat, S.A., Ghazoul, J., Nath, C.D., Nanaya, K.M., Kushalappa, C.G., Raghuramulu, Y., Nasi, R. and Vaast, P. (2010). 'Biodiversity conservation in agricultural landscapes: challenges and opportunities of coffee agroforests in the Western Ghats, India', *Conservation Biology*, pp.479-488.

Ghosh-Harihar, M., An, R., Athreya, R., Borthakur, U., Chanchlani, P., Chetry, D., Datta, A., Harihar, A., Karanth, K.K., Mariyam, D. and Mohan, D. (2019). 'Protected areas and biodiversity conservation in India', *Biological Conservation*, pp.114-124.

Guha, R., (1983). 'Forestry in British and post-British India: a historical analysis', *Economic and Political weekly*, pp.1882-1896.

Gyawali, P., Bhandari, S. and Shrestha, J. (2022). 'Horti-tourism; an approach for strengthening farmers' economy in the post-covid situation', *Journal of Agriculture and Food Research*, p.100-278.

Hegde, N., Elias, M., Lamers, H.A.H. and Hegde, M. (2017). 'Engaging local communities in social learning for inclusive management of native fruit trees in the Central Western Ghats, India', *Forests, Trees and Livelihoods*, pp.65-83.

Henry, A.N. and Swaminathan, M.S. (1981). 'Observations on the vegetation of Kanyakumari district, Tamil Nadu', *Bulletin of the Botanical Survey of India*, pp.135-139.

- Heslin, P.A., Latham, G.P. and VandeWalle, D. (2005). 'The effect of implicit person theory on performance appraisals', *Journal of Applied Psychology*, p.842.
- Hill, C.E., Thompson, B.J. and Williams, E.N. (1997). 'A guide to conducting consensual qualitative research', *The Counseling Psychologist*, pp.517-572.
- Hong, Y.Y., Chiu, C.Y., Dweck, C.S. and Sacks, R. (1997). 'Implicit theories and evaluative processes in person cognition', *Journal of Experimental Social Psychology*, pp.296-323.
- Hussain, S.A. (2003). *Kudremukh National Park, Karnataka: a pro-file and a strategy for the future*. (edn.100th). Mumbai: Journal of Bombay National History Society.
- Israr, M., Khan, H., Jan, D. and Ahmad, N. (2014). 'Livelihood diversification: A strategy for rural income enhancement', *Journal of Finance and Economics*, pp.194-198.
- Jatav, M. and Nair, J. (2022). 'Determinants of participation in India's Mahatma Gandhi national rural employment guarantee scheme in three southern states', *Journal of Asian and African Studies*, p.219.
- Jayalakshmi, K., Sasikala, M., Veeraselvam, M., Venkatesan, M., Yogeshpriya, S., Ramkumar, P.K., Selvaraj, P. and Vijayasarathi, M.K. (2019). 'Prevalence of haemoprotozoan diseases in cattle of Cauvery delta region of Tamil Nadu', *Journal of Parasitic Diseases*, pp.308-312.
- Jervis, M.G. and Drake, M. (2014). 'The use of qualitative research methods in quantitative science: a review', *Journal of Sensory Studies*, pp.234-247.

Johnson, M., O'Hara, R., Hirst, E., Weyman, A., Turner, J., Mason, S., Quinn, T., Shewan, J. and Siriwardena, A.N. (2017). 'Multiple triangulation and collaborative research using qualitative methods to explore decision making in pre-hospital emergency care', *BMC Medical Research Methodology*, pp.1-11.

Jonsen, K. and Jehn, K.A. (2009). 'Using triangulation to validate themes in qualitative studies', *Qualitative Research in Organizations and Management*, pp. 123-150.

Juma'h, A. (2006). 'Empirical and realistic approaches of research', *Revista Empresarial Inter Metro/Inter Metro Business Journal*, p.88.

Karabhari, R.B. and Savita, I. (2015). 'Poshan Vatika-an alternate livelihood option for tribal families', *International Journal of Tropical Agriculture*, pp.2863-2868.

Kasturirangan, K., Babu, C. R., Mauskar, J.M., Chopra, K., Kishwan, J., Shankar, D., Narain, S., Roy, P. S., Tyagi, A. and Chandrasekharan, I. (2013). 'Report on the high-level working group on Western Ghats', *Ministry of Environment and Forests, Government of India*, p.1.

Khan, S.N. (2014). 'Qualitative research method: grounded theory', *International Journal of Business and Management*, pp.224-233.

Kloppenbug Jr, J. (1991). 'Social theory and the de/reconstruction of agricultural science: Local knowledge for an alternative agriculture', *Rural Sociology*, pp.519-548.

Koy, V., Yunibhand, J. and Angsuroch, Y. (2016). 'The quantitative measurement of nursing care quality: a systematic review of available instruments', *International Nursing Review*, pp.490-498.

Krause, D. and Denzin, N.K. (2017). *The research act: a theoretical introduction to sociological methods*. Oxfordshire: Routledge media company.

Kumar, A., Umapathy, G. and Prabhakar, A. (1995). 'A study of the management and conservation of small mammals in fragmented rain forests in the Western Ghats, South India: a preliminary report,' *Primate Conservation*, pp.53-58.

Kumar, K.A. (2010). *Local knowledge and agricultural sustainability: a case study of pradhan tribe in Adilabad district*. Hyderabad: Centre for Economic and Social Studies.

Lasgorceix, A. and Kothari, A. (2009). 'Displacement and relocation of protected areas: a synthesis and analysis of case studies', *Economic and Political Weekly*, pp.37-47.

Lertdhamtewe, P. (2014). 'The protection of geographical indications in Thailand', *The Journal of World Intellectual Property*, pp.114-128.

Lobell, D.B., Asner, G.P., Ortiz-Monasterio, J.I. and Benning, T.L. (2003). 'Remote sensing of regional crop production in the Yaqui valley, Mexico: estimates and uncertainties', *Agriculture, Ecosystems & Environment*, pp.205-220.

Lloydjones, T. and Rakodi, C. (2014). *Urban livelihoods: A people-centred approach to reducing poverty*. London: Routledge media company.

Magis, K. (2010). 'Community resilience: an indicator of social sustainability', *Society and natural resources*, pp.401-416.

Mahrer, A.R. and Bornstein, R. (1969). 'Depression: characteristic syndromes and a prefatory conceptualization', *The Journal of General Psychology*, pp.217-229.

Malterud, K., Siersma, V.D. and Guassora, A.D. (2016). 'Sample size in qualitative interview studies: guided by information power', *Qualitative Health Research*, pp.1753-1760.

Martin, A. (1999). *Background to Western Ghats of Karnataka*. Leicester: De Montfort University.

Martin, A. (2003). 'On knowing what trees to plant: local and expert perspectives in the Western Ghats of Karnataka', *Geo-forum*, pp.57-69.

McAllister, M. and McKinnon, J. (2009). 'The importance of teaching and learning resilience in the health disciplines: a critical review of the literature', *Nurse Education Today*, pp.371-379.

McCall, M.K. and Minang, P.A. (2005). 'Assessing participatory GIS for community-based natural resource management: claiming community forests in Cameroon', *Geographical Journal*, pp.340-356.

Memon, N.Z. and Jena, L.K. (2017). 'Gender inequality, job satisfaction and job motivation: evidence from Indian female employees', *Management and Labour Studies*, pp.253-274.

Merriam, S.B. and Tisdell, E.J. (2015). *Qualitative research: A guide to design and implementation*. New Jersey: John Wiley & Sons.

Morse, J.M., Barrett, M., Mayan, M., Olson, K., and Spiers, J. (2002). 'Verification strategies for establishing reliability and validity in qualitative research', *International Journal of Qualitative Methods*, pp.13-22.

Nagaraja, B.C., Raj, M.B., Kavitha, A. and Somashekar, R.K. (2011). 'Impact of rural community harvesting practices on plant biodiversity in Kudremukh National Park, India', *International Journal of Biodiversity Science, Ecosystem Services & Management*, pp.69-74.

Nayak, S.V., Swamy, H.R., Nagaraj, B.C., Rao, U. and Chandrashekara, U.M. (2000). 'Farmers' attitude towards sustainable management of soppina betta forests in Sringeri area of the Western Ghats, South India', *Forest ecology and management*, pp.223-241.

Neumann, R.P. (2009). 'Political ecology: theorizing scale', *Progress in human geography*, pp.398-406.

Nyanga, P.H. (2012). 'Factors influencing adoption and area under conservation agriculture: a mixed methods approach', *Sustainable Agriculture Research*, pp.27-40.

Okech, R., Haghiri, M. and George, B.P. (2012). 'Rural tourism as a sustainable development alternative: an analysis with special reference to Luanda, Kenya', *Cultura-Revista de Cultura e Turismo*, 6(3), pp.36-54.

Panwar, N.L., Kaushik, S.C. and Kothari, S. (2011). 'Role of renewable energy sources in environmental protection: a review', *Renewable and sustainable energy reviews*, pp.1513-1524.

Papola, T.S. (1988). 'Rural-urban migration: problem of socio-demographic regulations', *Indian Journal of Industrial Relations*, pp.230-237.

Patidar, H. and Chothodi, S. (2021) 'Livelihood Diversification in Rural India', *Space and Culture, India*, pp. 32–44.

Polites, G.L., Roberts, N. and Thatcher, J. (2012). 'Conceptualizing models using multidimensional constructs: a review and guidelines for their use', *European Journal of Information Systems*, pp.22-48.

Prasad, R. (2000). 'Sustainable forest management for dry forests of South Asia', *Development of Criteria and Indicators for Dry Forests in Asia*, pp.27-74

Pushpakarani, R. and Natarajan, S. (2014). 'Ethnomedicines used by Kaniyakaran tribes in Kaniyakumari District-Southern Western Ghats of Tamil Nadu, India', *Journal of Applied pharmaceutical science*, pp.056-060.

Ramachandra, T.V., Vinay, S., Bharath, S. and Shashishankar, A. (2018). 'Focus: ecology and evolution: eco-hydrological footprint of a river basin in Western Ghats', *The Yale journal of biology and medicine*, p.431.

Richa, D. (2012). 'Impact of demographic factors of consumers on online shopping behaviour: a study of consumers in India', *International journal of engineering and management sciences*, pp.43-52.

Ranjbari, M., Morales-Alonso, G. and Carrasco-Gallego, R. (2018). 'Conceptualizing the sharing economy through presenting a comprehensive framework', *Sustainability*, p.2336.

Roszkowska, P. and Melé, D. (2021). 'Organizational factors in the individual ethical behaviour: the notion of the organizational moral structure', *Humanistic Management Journal*, pp.187-209.

Rai, S. N. (1979). 'Gap regeneration in wet evergreen forest of Karnataka', *Centre for Agriculture and Biosciences International*.

Raman, T.S. and Mudappa, D. (1998). 'Nature watch: Hornbills-Giants among the forest birds', *Resonance*, 3(8), pp.56-65.

Saha, T.K. and Saha, S. (2011). 'On some three-dimensional problems of piezoelectricity', *International Journal of Engineering, Science and Technology*.

Scheyvens, R. (1999). 'Ecotourism and the empowerment of local communities', *Tourism management*, pp.245-249.

Schilling, N. (2013). 'Surveys and interviews', *Research methods in linguistics*, pp.96-115.

- Scoones, I. (2015). *Sustainable livelihoods and rural development*. Rugby: Practical Action Publishing.
- Scott, S. (2005). 'Three handbooks of qualitative research and data analysis', *Qualitative Research*, pp.133-137.
- Shoaib, S. and Mujtaba, B.G. (2016). 'Use it or lose it: prudently using case study as a research and educational strategy', *American Journal of Education and Learning*, pp.83-93.
- Sohaana, A.I. and Rahman, M.A. (2021). 'Challenges in sustaining resilience in the coastal settlements of south-eastern Bangladesh: achieving self-sustenance through architectural synthesis', *Architecture Papers of the Faculty of Architecture and Design STU*, pp.3-17.
- Sowole, O.E., Hogue, M.E. and Adeyeye, O.P. (2018). 'Entrepreneurship: psychological factors influencing youth's desire for self-sustenance in Mpumalanga', *Academy of Entrepreneurship Journal*, pp.1-16.
- Suresh, L. (2021). 'Understanding the Relationship Between Sustainability and Ecofeminism in an Indian Context', *Journal of developing societies*, pp.116-135.
- Taberner, C. and Wood, R.E. (1999). 'Implicit theories versus the social construal of ability in self-regulation and performance on a complex task', *Organizational Behavior and Human Decision Processes*, pp.104-127.

Urso, V., Signorini, M.A., Tonini, M. and Bruschi, P. (2016). 'Wild medicinal and food plants used by communities living in Mopane woodlands of southern Angola: results of an ethnobotanical field investigation', *Journal of Ethnopharmacology*, pp.126-139.

Vadigi, S. (2016). 'Indigenous knowledge systems and formal scientific research for climate change', *Journal of Human Ecology*, pp.148-156.

Veerabhadru, B. and Subramanyam, V. (2013). 'Displacement, migration and occupational change among the project displaced tribal communities in India: a study of Peddagadda reservoir', *Journal of Humanities and Social Sciences*, pp.26-35.

Vernon-Dotson, L.J. (2013). 'A review of doing case study research: a practical guide for beginning researchers', *The Journal of Educational Research*, p.250.

Vodouhê, F.G., Coulibaly, O., Adégbidi, A. and Sinsin, B. (2010). 'Community perception of biodiversity conservation within protected areas in Benin', *Forest Policy and Economics*, pp.505-512.

Wiseman, V., Conteh, L. and Matovu, F. (2005). 'Using diaries to collect data in resource-poor settings: questions on design and implementation', *Health Policy and Planning*, pp.394-404.

Yin, R.K. (2018). *Case study research and applications*. New York: SAGE Publishing Inc.

APPENDIX D:

INTERVIEW QUESTIONS CHECK LIST

Interview: Perspective of Rural People in Western Ghats for Self-Sustaining: Case Study in Areas Adjoining Kudremukh National Park

The face-to-face interviews will begin with introductions and an overview of the topic.

A. I will tell the participants I am sensitive to their time and thank them for agreeing to take part in the study.

B. I will remind the participants of the recorded interview, and the conversation we are about to have will remain strictly confidential.

C. I will turn on the recorder if needed, and I will announce the participant's finding code, as well as the date and time of the interview.

D. The interview will last approximately 30 minutes to obtain responses for Thirteen interview questions and follow-up questions.

E. I will also explain the concept and plan for member checking by contracting participants with transcribed data and request verification of the accuracy of collected information as soon as possible.

F. After confirming answers recorded to the participants' satisfaction, the interview will conclude with a sincere thank you for taking part in the study.

Girish Acharya...	25-35	8 & 10 ನ ತರಗತಿ	4 & 10 ನ ತರಗತಿ	ಕನ್ನಡ	10 ನ ಪುಸ್ತಕ
Rakha.mahesh	25-35	8 & 10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಕನ್ನಡ	5-10 ನ ಪುಸ್ತಕ
Durga	35-45	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಕನ್ನಡ, ಕರಕಲಾ ವಿಸ್ತಾರ	5 ನ ಪುಸ್ತಕ
Nishu	45-55	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಪ್ರಾಚೀನ ಇತಿಹಾಸ, ಮ	5 ನ ಪುಸ್ತಕ
Chaya	35-45	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಕನ್ನಡ	10 ನ ಪುಸ್ತಕ
Chandu	18 -25	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಪ್ರಾಚೀನ ಇತಿಹಾಸ, ಮ	5 ನ ಪುಸ್ತಕ
Shashikala	35-45	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಕನ್ನಡ	10 ನ ಪುಸ್ತಕ
Bhoomika	18 -25	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಕನ್ನಡ, ಅರಣ್ಯ, ಮನುಷ್ಯದ ಅರಣ್ಯ, ಉತ್ಪನ್ನಗಳ (NTFPs)	5 ನ ಪುಸ್ತಕ
Myk	18 -25	10 ನ ತರಗತಿ	4 & 10 ನ ತರಗತಿ	ಕನ್ನಡ, ಅರಣ್ಯ	5 ನ ಪುಸ್ತಕ
Darshan	18 -25	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಪ್ರಾಚೀನ ಇತಿಹಾಸ, ಮ	5 ನ ಪುಸ್ತಕ
Varsha S	18 -25	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಕನ್ನಡ	5 ನ ಪುಸ್ತಕ
Leela	55-65	10 ನ ತರಗತಿ	2-4 ಕ್ಷೇತ್ರ	ಕರಕಲಾ ವಿಸ್ತಾರ	10 ನ ಪುಸ್ತಕ