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(PROJECT PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF APPLIED ECOLOGY)

(Attitude and perception towards the natural environment of Norway among immigrants from Afghanistan)

(Master in Applied Ecology)

(2021-2023)

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ABSTRACT

This thesis explores the environmental attitudes and perceptions of immigrants from Afghanistan residing in Norway, focusing on their engagement in outdoor recreational activities. The study employs a multifaceted approach, integrating statistical analyses, including Kruskal-Wallis tests and Ordinary Least Squares (OLS) regression, to unravel the complex relationship between environmental attitudes and outdoor recreation preferences.

The results indicate that Afghani immigrants with a heightened sense of responsibility for environmental protection tend to engage less frequently in specific outdoor activities, such as hiking, mushroom picking, and hunting. This nuanced relationship suggests a potential trade-off between environmental responsibility and participation in certain recreational pursuits. Moreover, Afghani immigrants who prioritize economic growth over environmental conservation tend to participate more frequently in outdoor activities. This highlights the intricate relationship between economic priorities and engagement in nature-based recreation.

Comparisons with existing literature on Norwegian environmental attitudes reveal both parallels and distinctions. Norwegians, known for their environmental consciousness, exhibit similarities in attitudes, particularly concerning responsibility and technology. However, gender differences in environmental concern among Afghani immigrants diverge from trends observed among Norwegians, emphasizing the need for a culturally sensitive understanding of environmental perspectives. Geographical considerations play a role, with significant differences in outdoor activity preferences based on the site of residence. This aligns with existing research differentiating rural and urban environmental attitudes in Norway.

The study contributes valuable insights into the complex interplay of cultural, economic, and individual factors shaping the environmental attitudes and outdoor engagement of Afghani immigrants in Norway. The findings underscore the importance of considering cultural nuances in environmental research and provide a foundation for future investigations in multicultural contexts. Recommendations for policy implications and community engagement strategies are discussed, emphasizing the need for tailored approaches to enhance environmental consciousness and sustainable engagement among immigrant communities in Norway.

Keywords: Environmental attitude, immigrants, perception, outdoor recreatio

Acknowledgements

The development and completion of this thesis has been a fulfilling and enriching experience. First and foremost, I would like to express my gratitude to professor john linnel, my supervisor for the constant feedback, you have contributed with valuable insights, perspectives, discussions, comments, and support.

I am very grateful also to Dean of Agriculture faculty, university of Badakhshan, Ahmad Shabir Hozad and Shams Ibrahimkhel for participating in back translation of the questionnaire to national languages (Pashto and Dari).

Thank you to Inland Norway University of Applied Sciences for providing the access to Nettskjeme.no which I used to create the form (questionnaire) for collecting the data.

I would also like to express my gratitude to the Afghan participants in the study for sharing all their experiences, thoughts, and reflections.

With gratitude to all the irreplaceable individuals in my life who have helped me along the way in both life and this project.

Thanks to all my friends and family for your presence and for always having faith in me and wanting me to succeed – you know who you are.

Mohammad Dawood Mohammad Yaqob

2023, Norway

CHAPTER ONE: INTRODUCTION

1.1 Background

Norway is renowned for its pristine natural landscapes and serves as home to a diverse immigrant population, including individuals from Afghanistan. The unique cultural perspectives and experiences brought by Afghan immigrants warrant a comprehensive investigation into their attitudes and perceptions regarding Norway's natural environment. This research is essential not only for fostering effective integration but also for enhancing overall well-being and contributing to sustainable community development.

The global landscape is marked by pressing environmental challenges, prompting a shift in societal approaches to resource utilization. Psychological studies, focusing on individual behavior, play a crucial role in understanding factors influencing ecological behavior and actions contributing to environmental preservation and conservation (Stern, 1992; Kruse, 1995; Axelrod & Lehman, 1993). While numerous studies have explored the link between environmental attitudes and behavior, the consistently moderate correlation observed across these studies has prompted some to question the extent to which environmental attitudes can reliably predict behavior. (Hines et al., 1986; Stern, 1978; Lloyd, 1980).

Human socio-economic development has often exceeded nature's resilience limits, with behaviors like excessive resource consumption and high fertility rates identified as central drivers of environmental issues (Clinebell, 1998; Oskamp, 2000; Schultz, 2011). Achieving global ecological and economic sustainability requires strategies to amend detrimental practices within societies (McKenzie-Mohr, 2000; Kurz, 2002; Mascia et al., 2003; Ehrlich and Kennedy, 2005). In Western socio-cultural contexts, positive attitudes consistently link to pro-environmental behavior, emphasizing the need for a thorough examination of public environmental attitudes (Milfont and Duckitt, 2004; Ajzen and Fishbein, 1980; Heberlein, 1989; Ajzen and Driver, 1992; Kaiser et al., 1999; Fielding et al., 2008).

Human attitudes towards the environment are intertwined with complex moral and social values, encompassing beliefs, affective responses, and behavioral intentions related to environmental issues and activities (Clayton and Myers, 2009; Schultz et al., 2004).

The challenge in psychological research lies in selecting appropriate and reliable measurement tools for attitudes, leading to what is termed an 'anarchy of measurement' due to the proliferation of numerous measures (Stern, 1992; Hawcroft and Milfont, 2010).

Studies suggest that access to natural sites significantly benefits the health of immigrants, aiding in quicker adaptation processes by fostering feelings of attachment and belonging (Gentin, 2011; Stodolska, Peters & Horolets, 2017b). However, immigrants, including those in Norway, tend to engage less in nature-based activities compared to the majority populations, giving rise to various hypotheses, including the ethnicity, marginality, and perceived discrimination hypotheses (Dervo et al., 2014; Jay et al., 2012).

Given the specific challenges faced by Afghan immigrants, exploring their perspectives becomes crucial. Previous research indicates that this group may encounter unique barriers in utilizing natural environments. Therefore, the present research aims to provide a preliminary understanding of the attitudes and perceptions towards Norway's natural environment among Afghan immigrants. The study seeks to identify variables that may contribute to discrimination in the utilization of natural environments across various activities in Norway.

1.2 Rationale of the study

Early and meaningful exposure to nature, particularly during childhood, is believed to be crucial for fostering positive values and deep connections with the natural environment (Chawla, 2002; Horwitz, 1996; Kellert, 2002). Direct interactions between people and nature are increasingly recognized for their significant impact on human health, attitudes, behavior towards nature, and effects on wildlife. Empirical studies indicate that cultivating greater empathy for nature contributes to a heightened sense of connection (Schultz, 2000).

In Norway, recent environmental challenges include urbanization, rising energy demands, and accelerated climate change, compounded by a global increase in immigration. This surge in immigration influences people's perceptions and attitudes towards the natural environment. Therefore, it is crucial to conduct a study on the attitudes and perceptions of immigrants from Afghanistan towards Norway's natural environment. Such research will help identify factors that directly or indirectly affect nature positively or negatively. Despite the acknowledged benefits of nature interaction on mental and physical health, studies suggest that immigrants, especially in Western European countries like Norway, may engage less in nature-based activities than the local

populations. This raises important questions about the factors shaping the attitudes and perceptions of Afghan immigrants towards Norway's natural surroundings.

1.3 Significance of the study

This study holds paramount significance by providing essential baseline data for researchers and learners interested in understanding the attitudes and perceptions of Afghan immigrants towards Norway's natural environment. It offers a unique opportunity to analyze the potential impact of cultural differences between Afghan immigrants and native Norwegians on their environmental outlook. The study's focus on the attitudes and perceptions of Afghan immigrants facilitates a nuanced reflection on their relationship with Norway's natural surroundings, contributing to cultural awareness and integration. Beyond academic implications, the research is highly relevant for environmental professionals, including environmentalists, conservationists, and ecologists. Insights gained from this study can inform conservation strategies and practices, aiding these professionals in comprehending feedback for the protection and enhancement of nature. Overall, the study's multifaceted significance extends to academic, cultural, and practical domains, offering valuable insights for diverse stakeholders.

1.4 Statement of the Problem

While existing literature acknowledges the importance of nature for well-being and social integration, there is a noticeable gap in our understanding of how immigrants from Afghanistan specifically perceive and engage with Norway's natural surroundings. Exploring this gap is vital for developing culturally sensitive strategies that enhance the integration and overall quality of life for this immigrant group.

This research aims to contribute valuable insights into the attitudes and perceptions of Afghan immigrants towards Norway's natural environment. The findings could inform policies and interventions that promote positive interactions with nature, support immigrant well-being, and facilitate a deeper sense of belonging and integration within Norwegian society.

1.5 Research Questions

1. What are the attitudes of Afghan immigrants in Norway towards the natural environment?
2. How do Afghan immigrants perceive and engage with Norway's natural surroundings?

1.6 Objectives of the Study

1.6.1 General Objective

The primary goal is to examine the attitudes and perceptions of immigrants from Afghanistan towards the natural environment of Norway.

1.6.2 Specific Objectives

- To assess the extent of positive or negative attitudes held by immigrants from Afghanistan towards the natural environment in Norway.
- To pinpoint and understand the varying levels and forms of perception and engagement that immigrants from Afghanistan have regarding the natural environment in Norway.

1.7 Organization of the study

The study is broken down into five chapters: the introduction, the review of related literature, the research design, results and discussion and conclusion and recommendation which includes all strategies and instruments used to accomplish the stated goals. Chapter one covers the background of the study, the statement of the problem, the objective of the study, and the significance of the study. Chapter two and three gives insights of related literatures and research methods respectively. Results and discussion are covered in the fourth chapter, and the research's conclusion and recommendations are given in the final chapter.

CHAPTER TWO: RELATED LITERATURE

2.1 Introduction

This chapter delves into the conceptual framework, theoretical literature, and empirical research on the attitude and perception towards the natural environment of Norway among immigrants from Afghanistan. By reviewing empirical research and conceptual studies, the aim is to gain a comprehensive understanding of these elements. The examination of independent variables concerning the dependent variable is followed by the identification of knowledge gaps resulting from the scrutiny of theoretical and empirical literature.

2.2 Status of Norway and its Immigrants in Relation to Environmental Values

Norway, celebrated for its stunning natural landscapes, hosts approximately 5.5 million people and is renowned for iconic features such as fjords, coasts, mountains, glaciers, waterfalls, the northern lights, and the midnight sun (Sollund, 2011). Despite its relatively small population, Norway accommodates around 610,000 immigrants with foreign citizenship, contributing to the nation's cultural diversity (Paparusso, 2021).

While experiencing rapid economic growth since World War II, making it one of the world's wealthiest nations, Norway faces challenges arising from modern lifestyles that have led to a perceptible detachment between human inhabitants and the natural world. A similar trend, as observed in Britain since the 1850s, showcases a shift towards urban living and indirect experiences of nature (Thomas, 1983). Scholars like Kellert (2002) and Schultz (2002) highlight this growing disconnect between people and the natural environment.

2.3 Culture, Attitude and Behavior

Culture, as a visible manifestation of behavior, significantly influences cognitive processes, as argued by anthropologists like Donald (2002). Geert Hofstede further emphasizes culture's impact on thinking and attitudes, defining it as collective programming that distinguishes one group from another (Brown, 1995). Cultural dimensions, such as Uncertainty Avoidance and Individualism, relate to ethical perceptions, influencing attitudes (Armstrong, 1996).

In functionalist thinking, culture is integral to an integrated social system, influencing organizational effectiveness and stakeholder well-being (Racelis, 2009). Culture encompasses knowledge, beliefs, art, morals, law, and customs, significantly influencing human behavior (Racelis, 2009). Environmental problems, rooted in human attitudes towards the environment, require a cultural shift to alter perceptions and attitudes (Maloney & Ward, 1973; Oskamp, 2000).

2.4 Environmental Attitude

Environmental attitude, influencing an individual's intentions and behaviors related to environmental activities or issues (Schultz et al., 2004), shapes human behavior towards the environment (Hines et al., 1987; Kaiser et al., 1999). The dimensions of environmental attitude lack a unified perspective, with various scales proposed by researchers like Pierce and Lovrich (1980), Poortinga et al. (2002), and Stern and Dietz (1994).

This study adopts the Environmental Attitude Inventory (EAI) by Milfont and Duckitt (2006), categorizing environmental attitudes into twelve dimensions. Attitude, as a learned predisposition, plays a pivotal role in shaping behavior (Eilam & Trop, 2012). In this study, attitudes towards the environment, ecological behavior, and behavior towards the environment are differentiated, recognizing the multidimensional nature of environmental attitudes.

2.5 Human Attitude over Nature: Dominance, Conservation, or Utilization

Our perspectives on nature are profoundly shaped by culture, influencing attitudes towards nature (Gibson, 2002). Religious teachings, such as Genesis 1:26, contribute to the belief in human dominion over nature, with a nuanced understanding emphasizing responsibility and protection (Gibson, 2002).

Another factor influencing dominant behavior over nature is the belief in human distinctiveness from animals. While socio-biologists highlight genetic relationships, religious beliefs often reject these connections, maintaining human superiority (Gibson, 2002). Environmental anthropocentrism, valuing nature for material benefits, reinforces the idea of human-centric value, contributing to environmental degradation.

In contrast, eco-centrism challenges anthropocentrism by emphasizing nature-centered perspectives, recognizing the interrelation and contribution of non-human nature to human life. This study advocates for a balanced and sustainable relationship with the environment.

2.6 Attitude toward Public Regulations

Conservation, as the supervisory act of natural resources, is essential for preserving and protecting them through prudent management. This requires policies regulating the use of natural resources, falling within the government's jurisdiction (National Park Service, n.d).

Conservation policy, rooted in environmental ethics, explores the ethical relationship between humans and the natural environment. Human obligations include preserving the health of the natural world and conserving materials, crucial for safeguarding the environment. Population growth policies have become integral to natural resources management.

2.7 Environmental Behaviour

Environmental behavior, as any active response to environmental issues perceived as pro-environmental, underscores the role of human actions in shaping the global climate. Anthropocentric concerns, as highlighted by Jarreau (2014), are deeply rooted in values, attitudes, beliefs, and intentions, driving individual and organizational consumption patterns.

Environmental movement activism, encompassing scientific, social, and political aspects, aims to address environmental issues through changes in public policy and individual behavior. However, its effectiveness depends on grassroots support, emphasizing that large-scale change should originate from the grassroots.

Personal conservation behavior becomes crucial as natural resources become scarce, contributing to the sustained well-being of the natural environment. Education and communication play vital roles in fostering sustainable practices, ensuring a harmonious coexistence between human populations and the surrounding nature.

2.8 Outdoor Recreation and Immigrants

Outdoor recreation holds a well-established tradition of popularity in Norway, particularly in regions where substantial segments of the population reside amidst exceptional natural environments conducive to recreational activities (Vorkinn et al., 1997). Despite the widespread perception of outdoor recreation as beneficial and significant, evidence points to nuanced scenarios, challenging simplistic perspectives.

A nuanced understanding of leisure patterns in Norway and their connection to environmental values is crucial for various stakeholders, including the tourism industry, public authorities, and private leisure interest groups. This comprehensive understanding of nature-related values and leisure patterns is essential for guiding their initiatives effectively.

Immigrants in Western European countries, including Norway, typically engage less in nature-based activities compared to the majority populations in their new residences (Dervo et al. 2014; Jay et al. 2012). In response, Norwegian public health authorities have prioritized the promotion of outdoor recreation among immigrants (NMHCS 2014; NME 2015).

The comprehension and promotion of health-related behaviors necessitate a thorough grasp of the determinants of these behaviors (Bauman et al. 2002). To explain the observed differences in nature engagement between immigrants and the majority populations, three hypotheses have been proposed (Krymkowski, Manning & Valliere 2014; Washburne 1978).

The ethnicity hypothesis emphasizes distinct cultural norms, with some immigrant groups preferring managed green spaces for social interaction and meal-sharing (Byrne, Wolch & Zhang 2009; Jay & Schraml 2013; Kloek et al. 2017). Cultural and religious factors, such as limited free time and gender-related constraints, may also affect some immigrant women's use of natural environments (Stodolska & Livengood 2006). The marginality hypothesis highlights socio-economic constraints, with immigrants facing challenges like lack of money and inadequate access to suitable natural sites (Byrne 2012; Byrne et al. 2009; Carlson et al. 2010; Kloek et al. 2013; Lovelock et al. 2011; Wolch, Byrne & Newell 2014). The perceived discrimination hypothesis suggests that discrimination and feelings of not being at home or welcome hinder immigrants' use of natural environments (Byrne 2012; Gobster 2002; Kloek, Peters & Sijtsma 2013). Qualitative interviews with Muslim women in the Netherlands revealed that those wearing veils experienced

discriminatory actions, such as unpleasant looks and negative remarks, during activities like walks in the forest (Kloek et al. 2013).

In summary, this literature review has explored various facets related to the attitude and perception towards the natural environment of Norway among immigrants from Afghanistan. The status of Norway and its immigrants, cultural influences on attitude and behavior, environmental attitudes, perspectives on human dominance over nature, the role of public regulations, environmental behavior, and the significance of outdoor recreation have been examined.

This review sets the stage for the empirical investigation, providing a solid foundation for understanding the complex interplay between immigrants' attitudes, cultural backgrounds, and the environmental context of Norway. The research aims to fill existing knowledge gaps and contribute to a deeper understanding of the factors shaping individuals' interactions with the natural environment, particularly in the unique context of immigrants in Norway.

The subsequent chapters will delve into the research methodology, data collection, analysis, and findings, allowing for a more detailed exploration of the attitudes and perceptions towards the natural environment among immigrants from Afghanistan in Norway.

CHAPTER THREE: RESEARCH METHODS

3.1 Research Design

A research design is a comprehensive strategy that outlines the techniques and steps to be taken in order to gather and analyze the necessary data. The objectives that this study hope to accomplish determine the research strategy that was used (Kothari, 2004).

The explanatory research design is used to explain, understand, predict, and manage the cause-and-effect relationships between the effects of working environment on employee productivity, according to Kothari (2004). The descriptive study design is used to describe the results in detail and to calculate the frequency, regression, and inferential statistics specifically Kruskal-wallis test of comparison of an event or the relationship between variables. This study employed both a descriptive and an explanatory research technique. The descriptive strategy concentrates on describing the current situation. Additionally, a quantitative approach was used to assess the data collected from workers in an explanatory study design. Using this strategy, this study can clarify, understand, and predict the cause-and-effect relationship between variables.

3.2 Research approach

A quantitative methodology was applied in this investigation. Researchers can evaluate the correlations between variables by using a quantitative method (Creswell, 2012). Since it can involve gathering and analyzing numerical data and using statistical tests, this type of research strategy is supportive of achieving the study objective and gives useful data regarding the research topic. It guarantees that the study will employ cost-effective methods and will be pertinent to the issue. As suggested by Creswell (2012), a quantitative method was used in this investigation According to Creswell (2012), a quantitative approach is one in which the researcher primarily uses postpositive claims for knowledge development, i.e., cause and effect relationships between known variables of interest, or it employs strategies of inquiry like experiments and surveys, and collects data on predetermined instruments that produce statistical data.

According to Hopkins (2009), quantitative research links independent and dependent variables. As a result, the study was carried out using a quantitative approach, which seemed more appropriate for determining the impact of an independent variable on employee performance. Additionally, this research was able to extrapolate the results to a larger group because the study tried to collect data from a representative sample of the community. Surveys include cross-sectional and

longitudinal research that generalize results from a sample to the entire community using questionnaires or structured interviews (Creswell, 2012).

3.3 Data collection

This study employed a non-probability purposive sampling strategy, chosen for its reliability and appropriateness for this topic. Given the challenges associated with obtaining responses from immigrant communities—stemming from factors such as culture, gender, and literacy—the selection focused on population components aligning most effectively with the study's goals.

3.3.1 Primary Data

The primary data were obtained from responses elicited using a questionnaire from Afghan immigrants' respondents which include 96 Afghani immigrants in Norway.

The Questionnaire had two parts; The first part of the was based on an instrument developed by The Norwegian Institute for Nature Research (NINA) to explore general environmental values. The NINA Scale has seven dimensions and twenty-seven items. The dimensions are Responsibility, Public regulations, Nature's values, Wild animal rights, Economy, Technology and Use and protection (Kaltenborn et al., 2021). The second part of the survey questionnaire measured participation in outdoor recreation activities with twelve items. Furthermore, self-administered questions were used to obtain background information of respondents relevant to the study. The questionnaire was translated into two national languages (Pashto and Dari). In order to ensure accuracy of translation, the translated texts were then backtranslated into English as a test. Data were analyzed with the help of SPSS 2.0 Software.

3.3.2 Secondary Data

Secondary data is data that is used for purposes other than for which it was originally obtained. It may be descriptive or explanatory (Saunders et al, 2007). They can be categorized into documentary, multi-source or survey- based (Saunders et al, 2007). Secondary data for the research were collected by reviewing textbooks, journals, articles, magazines, publications, newspapers etc. to gather historical perspectives of the research data from other authors and researchers.

3.3.3 Data Collection Instruments

The data in this study was collected using Nettskjema.no, an anonymous online survey service. This study used questionnaires as the tools for obtaining the necessary information for the research. All questionnaires in this study are measured by using a six – point Likert scale which expressed

by strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1) and undefined / cannot answer (0). This is to ensure that the choice of answers directly addressed issues at stake and make collation and analysis of the data simple the importance of the research was explained to the respondents and encouraged to be truthful and diligent with their responses to make the research worthwhile.

Similarly, for measuring the outdoor recreation activities frequency 12 questions involving various form of activities were used which was measured in the form of frequency as in never (0), once a year (1), 2-6 times a year (2), once a month (3) and once a week (4).

Self-administered questions were used to obtain background information of respondents relevant to the study. Participants were asked to provide information with regard to their gender, age, educational level, geographical residence, duration of stay. The questionnaire was distributed through social media platforms. The survey was anonymous and online. Data was collected from 6th until the end of March 2023. Respondents were 18 to over 60 years old, with different professions and genders and tribes, due to culture sensitivity Afghans were not asked about their tribes. questionnaire was in Pashto and Dari which are official languages of Afghanistan. The participants were informed that the information they have provided will be published for a thesis.

3.3.4 Limitation:

"In this study, aim is to investigate “Attitude and perception towards natural environment of Norway among immigrants of Afghanistan”. However, it is important to present several limitations that may affect the robustness and generalizability of our findings. Firstly, the potential lack of representativeness within our survey sample raises concerns about the broader applicability of our results to the entire target population. Furthermore, we acknowledge the inherent limitation of this survey to provide depth and context understanding that could have been achieved by qualitative research methods. The cross-sectional nature of our survey restricts our ability to establish causation or track changes over time. Furthermore, the low participation rate in the survey may have compromised the reliability of our results, as it might not accurately represent the wide range of opinions within our target population. In addition, the respondent’s misinterpretation of complex or technical questions could pose a challenge to data accuracy. Moreover, the potential cultural and linguistic limitations of our survey may introduce bias, as it may not be universally valid across different languages and cultures. Lastly, the convenience of online surveys may inadvertently exclude individuals without internet access or those less comfortable with

technology, potentially skewing our results. Despite these limitations, we believe that our study provides valuable insights into “Attitude and perception towards natural environment of Norway among immigrants of Afghanistan” and offers a foundation for further investigation and exploration in this area."

3.4 Validity and Reliability

The methods of analysis should be appropriate, and the data analysis should be sufficient to disclose the relevance of the data. The data's accuracy and dependability were rigorously examined. Meaningful interpretations of the data result from the validity and reliability of test scores, which are additional conditions for establishing knowledge claims.

3.4.1 Validity

Validity represents the relationship between the construct and its indicators (Punch, 2013). The content validity of the research instrument was examined to assure the high caliber of this research design. The research advisor will examine the suitability of the questions and measuring scales to confirm the content validity. We'll also have peer discussions with other researchers because that's another method to make sure the questions are suitable. This is done to determine whether the prepared instruments measure what they are intended to measure as well as to examine the questions' clarity, length, structure, and language. The results of this test will give the study insightful feedback to improve some of the questions.

3.4.2 Reliability

The accuracy and precision of a measuring technique are what reliability is all about. Cronbach alpha is a reliability coefficient. It is frequently used to assess an instrument's internal consistency or reliability. According to statistical interpretation, the internal consistency reliability increases when the reading of Cranach's Alpha approaches 1. Reliability below 0.60 is typically regarded as bad, while those in the 0.70 range are acceptable and those over 0.80 are good.

CHAPTER FOUR: RESULTS AND DISCUSSION

4.1 Introduction

This study tried to investigate attitude and perception towards natural environment of Norway among immigrants of Afghanistan, as mentioned in earlier chapters. In this chapter, the study's results are therefore discussed and presented. Multiple studies were conducted in this chapter. The background data of the employee was examined using descriptive statistics. Evaluation of the Attitude and perception towards natural environment of Norway among immigrants of Afghanistan and assessed their association and variation across 6 demographic categories. Respondents which include 96 Afghani immigrants. The SPSS 20 software version was used to show and analyze the data that had been gathered. To assess the level of association between the two variables under examination, the study conducted non-parametric test for comparison namely Kruskal-Walli's test and Mann-Whitney U test.

4.2 Descriptive analysis

Descriptive analysis techniques were used to analyze the results of descriptive statistics to describe the demographic and general results are presented by figures of distribution. The demographic profile of the respondents was presented in this part. The personal profile of the respondents is analyzed as per their gender, age, level of education, location of respondent, urban or rural residence and residence duration Norway.

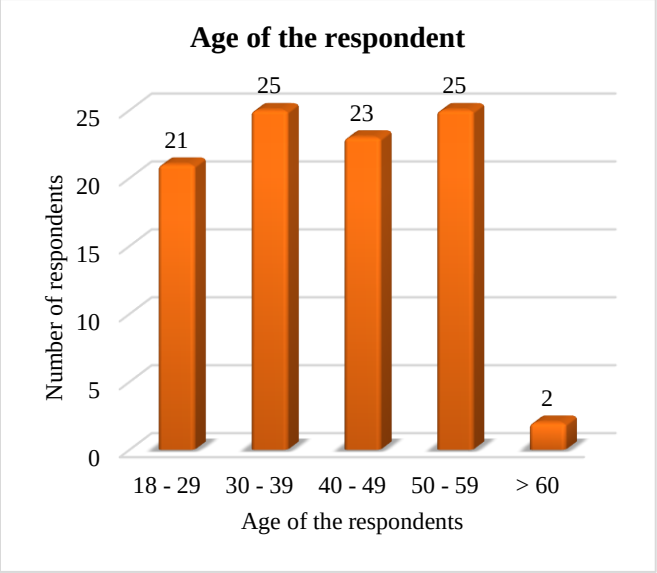

Figure 1. Age distribution of the respondents

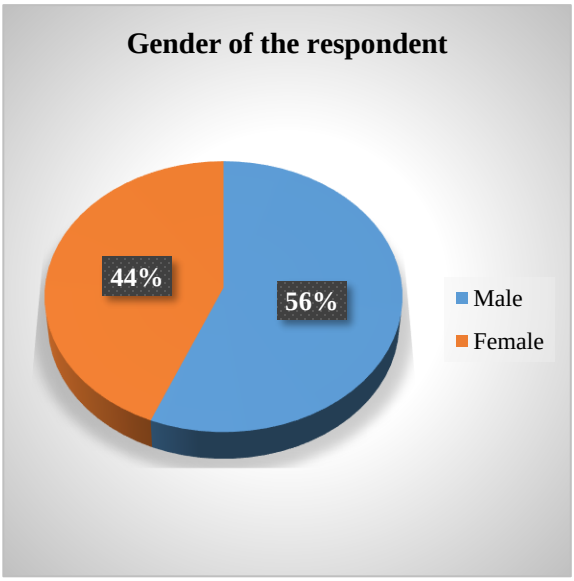

Figure 2. Gender distribution of the respondents

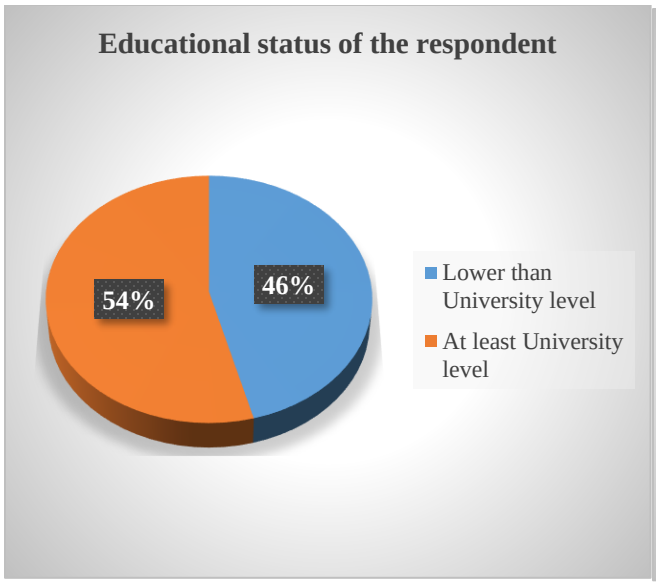

Figure 3.Education distribution of respondents

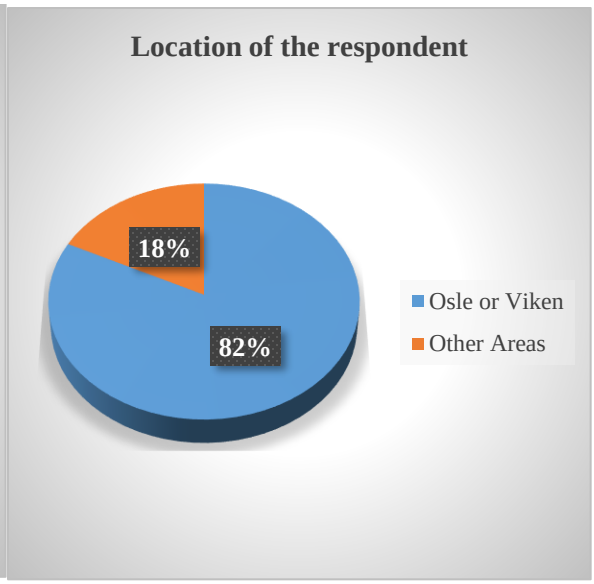

Figure 4. Location distribution of respondents

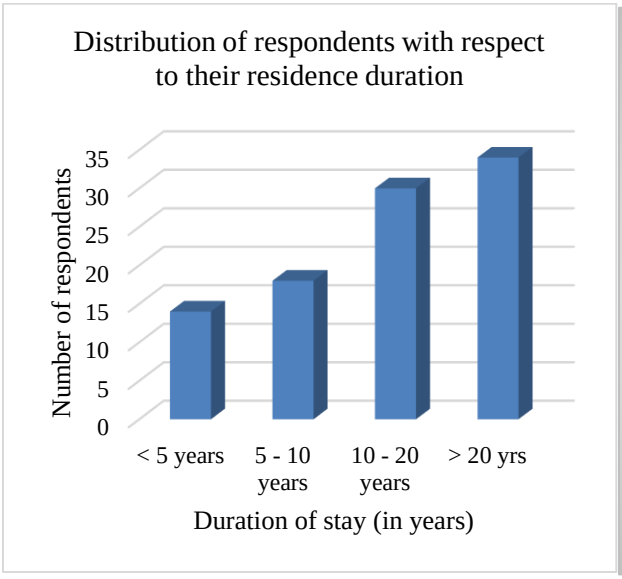

Figure 5. Residence duration distribution

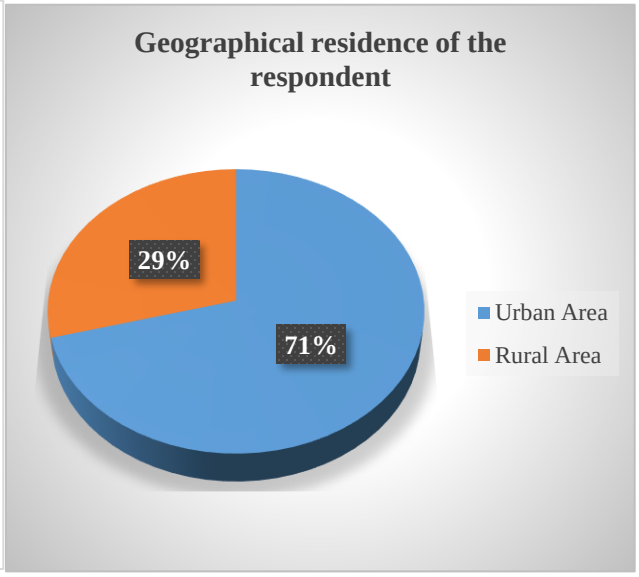

Figure 6. Geographic location distribution

Our research encompassed a wide age range, from 18 to beyond 60 years old. The highest number of respondents fell within the 30-39 and 50-59 age groups, constituting 26% of the surveyed population each (Figure 1). This distribution ensured a balanced representation of different life stages and perspectives. Gender diversity was a key aspect of our study, with 44% of respondents identifying as female, 56% as male (Figure 2). This approach aimed to capture a comprehensive range of experiences and viewpoints. Educational backgrounds were such that the majority of

respondents (54%) were involved in university studies while the rest were that of lower level, reflecting a well-educated participant pool (Figure 3). Most respondents were from either Oslo or Viken (82%) while the rest belonged to other cities (Figure 4). Geographic representation was comprehensive dominated by urban dwellers but including some living in rural areas. Most respondents (71%) resided in urban settings, allowing for nuanced comparisons in our findings (Figure 5). Breaking down the demographics, we found that 14.6% of the surveyed immigrants had been in the host country for less than 5 years, 18.8% for 5 to 10 years, 31.3% for 11 to 20 years, and 35.4% for >20 years on.

Table 1. Reliability test

Topic	**Cronbach's Alpha**	**N of Statements**
Environmental perception	.806	27
Environmental interaction	.731	12

As indicated the above table, a total of 27 Statements were designed to measure parameters for their perception and attitude towards nature: Responsibility (4 statements), Public regulations (4 statements), Natures value (4 statements), Wildlife rights (4 statements), Economy (4 statements), Technology (4 statements) and use and protection (3 statements) using a six - point Likert-type scale. The coefficient of reliability for this scale is (0.806) stating the reliability being good for the data regarding perception. Similarly for case of interaction related survey the coefficient of reliability was (0.731) stating the reliability being acceptable for the data.

4.3 Descriptive statistics

The attitude and perception towards natural environment of Norway among immigrants of Afghanistan are evaluated and analyzed based on the response of statements by using and comparing the frequency and percentage alongside mean score of each variable with the help of the weighted average score being 3.1 of the entire 27 statements for 7 themes.

Table 2. Descriptive analysis of theme - Responsibility

Responsibility	Undefined		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean Score	Perception
	F	P	F	P	F	P	F	P	F	P	F	P		
Rich countries have a particular responsibility for protecting the environment worldwide.	2	2.1	7	7.3	9	9.4	16	16.7	37	38.5	25	26	3.60	High
It is important to contribute money to environmental causes.	2	2.1	5	5.2	4	4.2	8	8.3	49	51	28	29.2	3.89	High
Rich countries should do more for the environment.	5	5.2	5	5.2	8	8.3	7	7.3	37	38.5	34	35.4	3.75	High
We must contribute to solving global environmental problems because we will all reap the benefits.	4	4.2	4	4.2	7	7.3	9	9.4	31	32.3	41	42.7	3.90	High

F and P represent frequency and percentage.

From the above table we can find that the mean score of every statement is greater than the weighted average score of overall statement (3.1). We can deduce most respondents believe that rich countries have a particular responsibility for protecting the environment worldwide. This indicates an awareness of the role that economically developed nations play in environmental issues. The data shows that most respondents feel personally responsible and are willing to contribute money to environmental causes. This reflects a sense of personal accountability and a recognition of the financial resources needed to address environmental challenges. The analysis suggests that most respondents believe that rich countries should do more for the environment, given their perceived responsibility for a significant portion of environmental problems. This reflects an expectation for wealthier nations to take greater action in addressing global environmental issues. Respondents expressed the view that each individual person should contribute to solving global environmental problems. This indicates a belief in the collective responsibility of individuals to make a positive impact on the environment. The overall positive

perception of Afghani immigrants regarding the responsibility of rich countries and individuals for environmental protection suggests a willingness to support and engage in efforts to address environmental challenges.

Table 3. Descriptive analysis of theme - Public regulations

Public regulations	Undefined		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean Score	Perception
	F	P	F	P	F	P	F	P	F	P	F	P		
Industry and business should be required by law to use environmentally friendly and recycled materials.	8	8.3	7	7.3	29	30.2	12	12.5	28	29.2	12	12.5	3.57	High
I agree with actions to require industry to use environmentally friendly materials even if it makes the products more expensive.	13	13.5	8	8.3	21	21.9	20	20.8	19	19.8	15	15.6	3.34	High
The authorities should enforce a transition to a carbon-free economy.	9	9.4	8	8.3	26	27.1	22	22.9	17	17.7	14	14.6	3.43	High
People will not do what is necessary to ensure a sustainable future unless the authorities actively intervene.	15	15.6	7	7.3	23	24	15	15.6	28	29.2	8	8.3	2.95	Low

F and P represent frequency and percentage.

From the above table we can see that apart from the last statement the mean score of all the statements is higher than the weighted score of perception value in the research. Afghani immigrants in Norway seem to believe that industry and business should be legally required to use environmentally friendly and recycled materials. This suggests a preference for regulatory measures to ensure environmentally responsible practices in the business sector. The data indicates that respondents agree with actions that would require industries to use environmentally friendly materials, even if it leads to higher costs for the products. This implies a prioritization of environmental concerns over potential economic considerations, aligning with a willingness to bear the cost for sustainable practices. The data suggests that respondents believe that authorities should enforce a transition to a carbon-free economy. This aligns with an acknowledgment of the need for regulatory interventions to drive systemic changes in economic activities to address climate change. Interestingly, respondents do not agree with the statement that people will not take

necessary actions for a sustainable future unless authorities actively intervene. This suggests a belief that individuals, on their own, may not take sufficient actions, and regulatory measures are necessary for widespread compliance.

In summary, the conclusions drawn from the data suggest that Afghani immigrants in Norway generally hold a positive view of public regulations and government intervention in environmental conservation. They express support for policies mandating environmentally friendly practices in businesses, even if it involves increased costs. Additionally, there is a belief that authorities should play a proactive role in enforcing a transition to a carbon-free economy. This reflects a preference for collective and regulatory approaches to address environmental challenges within the Norwegian context.

Table 4. Descriptive analysis of theme - Natures value

Natures value	Undefined		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean Score	Perception
	F	P	F	P	F	P	F	P	F	P	F	P		
Nature has value in and of itself.	12	12.5	3	3.1	10	10.4	3	3.1	35	36.5	33	34.4	3.51	High
The intrinsic value of nature is more important than the extracted resources for industry.	7	7.3	7	7.3	7	7.3	11	11.5	40	41.7	24	25	3.48	High
It makes me sad to see large-scale development in nature.	5	5.2	7	7.3	16	16.7	24	25	29	30.2	15	15.6	3.15	High
The quality of our local nature says a lot about who we are as a society and people.	8	8.3	5	5.2	10	10.4	12	12.5	44	45.8	17	17.7	3.35	High

F and P represent frequency and percentage.

The mean scores being greater than the weighted average score for the statement "Nature has value in and of itself" suggest that Afghani immigrants in Norway generally believe in the intrinsic value of nature. This means they attribute value to nature independent of its utility to human needs. The mean score being higher than the weighted average score for the statement "The intrinsic value of nature is more important than the extracted resources for industry" indicates a tendency among respondents to prioritize the intrinsic value of nature over its use for industrial purposes. The

statement "It makes them sad to see large-scale development in nature" received a mean score higher than the weighted average. This suggests that respondents generally express a negative emotional response to large-scale development in natural areas. The mean score being higher than the weighted average for the statement "The quality of our local nature says a lot about who we are as a society and people" indicates a belief that the state of the local environment reflects the values and identity of the society.

In summary, Afghani immigrants in Norway, based on the data provided, appear to have a strong belief in the intrinsic value of nature, a preference for preserving nature over extracting resources for industry, an emotional response against large-scale development in nature, and a belief in the symbolic significance of the local environment in shaping societal identity. These values reflect a positive orientation toward environmental conservation and an appreciation for the non-utilitarian aspects of nature.

Table 5. Descriptive analysis of theme – Wild animal rights

Wild animal rights	Undefined		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean Score	Perception
	F	P	F	P	F	P	F	P	F	P	F	P		
All animals in nature have the same rights to life as humans.	4	4.2	6	6.3	9	9.4	6	6.3	43	44.8	28	29.2	3.69	High
Humans are no more important than any other species of animal.	15	15.6	13	13.5	23	24	14	14.6	21	21.9	10	10.4	2.45	Low
The needs of wild animals for good living conditions (food, habitat) are equally important as our needs.	7	7.3	6	6.3	6	6.3	19	19.8	42	43.8	16	16.7	3.36	High
We should take as much care for the future of wild animals as for ourselves.	4	4.2	7	7.3	7	7.3	14	14.6	46	47.9	18	18.8	3.51	High

F and P represent frequency and percentage.

Perception of Afghani immigrants in Norway regarding the environment can be characterized by their scores on different statements. The mean score being higher than the weighted average score suggests that, on average, Afghani immigrants in Norway tend to believe that all animals in nature have the same rights to life as humans. This indicates a perspective that values the lives of animals on par with human life. The mean score being lower than the weighted average score indicates that, on average, Afghani immigrants in Norway may not strongly believe that humans are no more important than any other species of animal. This could suggest a perspective that places some importance on the unique role or value of humans in the natural world. The mean score being higher than the weighted average score implies that, on average, respondents believe that the needs of wild animals for good living conditions are equally important as human needs. This reflects a viewpoint that values the well-being of wild animals on a par with humans. The mean score being higher than the weighted average score suggests that, on average, Afghani immigrants in Norway believe that they should take as much care for the future of wild animals as for themselves. This indicates a sense of responsibility and care for the well-being and future of wild animals.

In summary, the perception of Afghani immigrants in Norway, as reflected in the scores, indicates a belief in the equal rights of animals, a nuanced view on the importance of humans in relation to other species, a recognition of the importance of meeting the needs of wild animals, and a sense of responsibility for the future well-being of wild animals.

Table 6. Descriptive analysis of theme – Economy

Economy	Undefined		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean Score	Perception
	F	P	F	P	F	P	F	P	F	P	F	P		
Economic growth is more important than environmental concerns.	8	8.3	7	7.3	29	30.2	12	12.5	28	29.2	12	12.5	2.84	Low
It is more important to have the opportunity to use natural resources to produce goods and services then protect nature.	13	13.5	8	8.3	21	21.9	20	20.8	19	19.8	15	15.6	2.72	Low
It is more important to create economic growth than to protect nature.	9	9.4	8	8.3	26	27.1	22	22.9	17	17.7	14	14.6	2.75	Low
Our environment is not in such a critical condition that we need to limit the extraction of resources.	15	15.6	7	7.3	23	24	15	15.6	28	29.2	8	8.3	2.60	Low

F and P represent frequency and percentage.

From the table we can find mean score for every statement is lower than the weighted average score of the overall statement (3.1), it suggests a positive perception towards the environment. On average, Afghani immigrants in Norway do not prioritize economic growth over environmental concerns. In other words, they might value environmental concerns more than economic growth. Respondents do not prioritize the use of natural resources for economic production over the protection of nature. This suggests a preference for protecting nature. Afghani immigrants in Norway do not see economic growth as more important than protecting nature. This suggests a value placed on environmental protection. Respondents do not agree that the environment is not in a critical condition, and they believe there is a need to limit the extraction of resources.

In summary, based on the information provided, it seems that Afghani immigrants in Norway have a generally positive perception or agreement with statements that prioritize environmental concerns over economic growth and the protection of nature over the use of natural resources for production.

Table 7. Descriptive analysis of theme - Technology

Technology	Undefined		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean Score	Perception
	F	P	F	P	F	P	F	P	F	P	F	P		
Most environmental problems can be solved by using new and better technology.	11	11.5	5	5.2	8	8.3	13	13.5	38	39.6	21	21.9	3.30	High
Technology will ensure a sustainable society in the future.	14	14.6	4	4.2	17	17.7	19	19.8	29	30.2	13	13.5	2.88	Low
Technological development solves more environmental problems than it creates.	13	13.5	6	6.3	14	14.6	28	29.2	16	16.7	19	19.8	2.89	Low
Technology will reduce the negative sides of human consumption so we can live in the future as we do now.	10	13.5	6	6.3	16	14.6	24	29.2	30	16.7	10	19.8	2.92	Low

F and P represent frequency and percentage.

Afghani immigrants in Norway exhibit a nuanced perspective on the role of technology in environmental protection. The data reveals an optimistic stance toward the potential of technology in addressing environmental challenges, as indicated by the higher mean score for the statement "Most environmental problems can be solved by using new and better technology." This positive outlook indicates a belief in the efficacy of technological advancements for environmental solutions. However, a degree of skepticism emerges in their perceptions of technology's ability to ensure a sustainable society, as seen in the lower mean score for the statement "Technology will ensure a sustainable society in the future." This suggests a recognition among respondents that sustainability requires a more multifaceted approach beyond technological solutions. Furthermore, the lower mean score for the statement "Technological development solves more environmental

problems than it creates" indicates a balanced perspective, acknowledging that technological progress may have both positive and negative impacts on the environment. Lastly, the lower mean score for the statement "Technology will reduce the negative sides of human consumption so we can live in the future as we do now" implies a certain level of doubt about the transformative power of technology in mitigating the negative aspects of human consumption patterns.

In summary, Afghani immigrants in Norway, based on the provided information, generally have a positive view regarding the potential of new and better technology to address environmental problems. However, there appears to be some skepticism or reservations about the capacity of technology alone to ensure a sustainable society, and a belief that technological development may come with both positive and negative environmental consequences.

Table 8. Descriptive analysis of theme - Use and Protection

Use and Protection	Undefined		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean Score	Perception
	F	P	F	P	F	P	F	P	F	P	F	P		
Future environmental solutions will be created through economic growth.	19	19.8	5	5.2	17	17.7	15	15.6	30	31.3	10	10.4	2.65	Low
There is no contradiction between a climate friendly future and the consumption level we have today.	17	17.7	2	2.1	19	19.8	17	17.7	26	27.1	15	15.6	2.81	Low
Economic growth is a prerequisite for a successful green transition.	13	13.5	1	1	8	8.3	19	19.8	36	37.5	19	19.8	3.26	High

F and P represent frequency and percentage.

On average, Afghani immigrants in Norway do not strongly believe that future environmental solutions will be primarily driven by economic growth. This suggests a level of skepticism or a belief that economic growth alone may not be sufficient for addressing environmental challenges. On average, respondents do not strongly believe that there is no contradiction between achieving a climate-friendly future and maintaining current consumption levels. This implies a recognition among immigrants that adjustments in consumption patterns may be necessary for a sustainable future. On average, Afghani immigrants in Norway tend to believe that economic growth is a

prerequisite for a successful green transition. This suggests a positive view regarding the role of economic growth in facilitating a transition to environmentally sustainable practices.

In summary, the data indicates a degree of skepticism among Afghani immigrants in Norway regarding the idea that economic growth alone will drive future environmental solutions. There is also a recognition that achieving a climate-friendly future may necessitate changes in consumption patterns. However, the respondents generally express a belief that economic growth is a prerequisite for a successful transition to environmentally friendly practices. These findings highlight nuanced perspectives on the interplay between economic growth and environmental sustainability among Afghani immigrants in Norway.

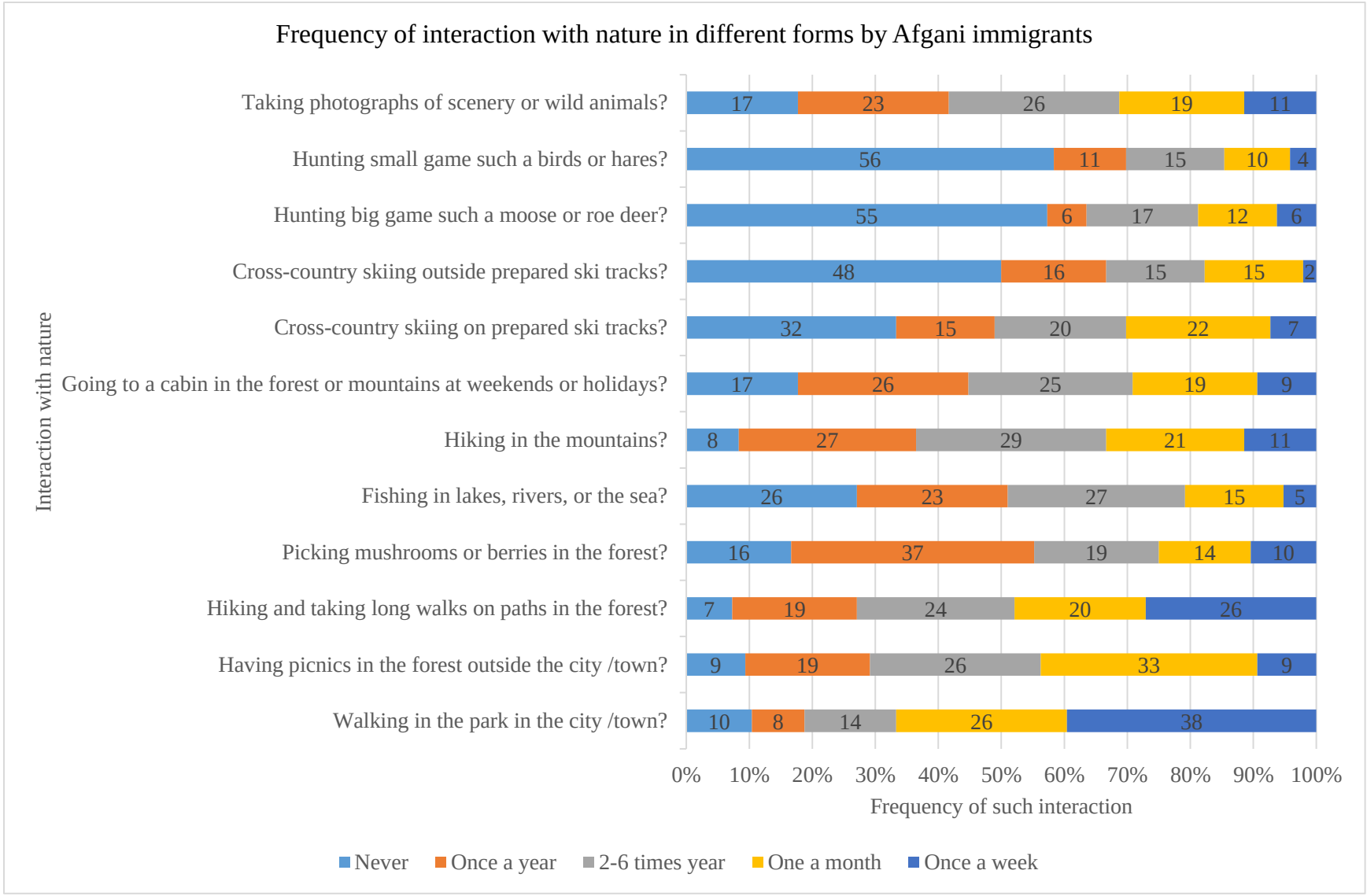

Figure 7. Bar Diagram showing nature interaction of Afghani immigrants through various activities in respective frequency

A substantial 39.6% engage in walking in the park once a week, making it a frequent and popular activity among Afghani immigrants in Norway. Picnicking in the forest is widespread, with 34.4% opting for once a month, while 27.1% participate 2-6 times a year. Hiking and long walks in the forest are varied, with 27.1% participating once a week, indicating a substantial interest in regular nature exploration. Picking mushrooms or berries is diverse, with the highest percentage (38.5%) engaging once a year. Fishing sees a variety of engagement levels, with 28.1% participating 2-6 times a year. It is a moderately popular activity among Afghani immigrants in Norway. Hiking in the mountains attracts diverse engagement, with 30.2% participating once a month. Visiting a cabin is popular, with 27.1% going once a month. Cross-country skiing on prepared tracks is popular, with 33.3% engaging once a month. Skiing outside prepared tracks is particularly popular, with 50% engaging once a month. This activity showcases a strong preference for more independent skiing. Small game hunting is less common, with the majority (57.3%) never participating. It indicates a lower interest or cultural preference against this activity. Big game hunting is similarly less common, with 58.3% never participating. This suggests a lower level of interest or cultural considerations against this activity. Photography is moderately popular, with 27.1% engaging once a week. This activity represents a significant interest in capturing the beauty of nature through photography.

In summary, Afghani immigrants in Norway exhibit diverse levels of engagement in various nature-related activities, with some activities being more popular and frequent than others. This diversity reflects a range of interests and preferences within the community.

4.4 Results of Inferential Statistics

Table 9. Test Statistics[a,b] for Age of respondent vs Environmental perception variables

	Responsibility	Public Regulations	Natures Value	Wild animal rights	Economy	Technology	Use and Protection
Chi-Square	.466	2.953	.692	2.036	1.073	3.029	7.793
df	4	4	4	4	4	4	4
Asymp. Sig.	.977	.566	.952	.729	.898	.553	.099

a. Kruskal Wallis Test

b. Grouping Variable: Age of the respondent

The Kruskal-Wallis tests were conducted to assess potential differences in perceptions among different age groups across 7 environmental-related themes or variables. The variables examined include Responsibility, Public Regulations, Natures Value, Wild Animal Rights, Economy, Technology, and Use and Protection. For the all of these variables, the chi-square statistics did not yield significant results, with p-values (Asymp. Sig.) exceeding the conventional significance level of 0.05. The results suggest a consistent view on these aspects among respondents of different ages.

Table 10. Test Statistics[a,b] for Education level of respondent vs Environmental perception variables

	Responsibility	Public Regulations	Natures Value	Wild animal rights	Economy	Technology	Use and Protection
Chi-Square	.279	.967	.220	.000	.698	3.085	.003
df	1	1	1	1	1	1	1
Asymp. Sig.	.597	.326	.639	.997	.404	.079	.956

a. Kruskal Wallis Test

b. Grouping Variable: Education level of the respondent

The Kruskal-Wallis tests were conducted to explore potential variations in environmental perceptions among respondents with different education levels across seven variables: Responsibility, Public Regulations, Natures Value, Wild Animal Rights, Economy, Technology, and Use and Protection. The results indicate that there were no statistically significant differences

in perceptions related to Responsibility, Public Regulations, Natures Value, Wild Animal Rights, and Economy based on education level, as evidenced by p-values greater than 0.05. However, for the variable Technology, there was a marginally significant result (p = 0.079), suggesting a potential difference in how individuals with different education levels perceive the relationship between technology and the environment. Additionally, the Use and Protection variable yielded a low p-value of 0.003, but this was not considered significant due to a high chi-square -value (0.956). In summary, the findings suggest overall consistency in environmental perceptions across education levels, with subtle indications of potential divergence in views regarding technology and, to a lesser extent, use and protection.

Table 11. Test Statistics[a,b] for Location of respondent vs Environmental perception variables

	Responsibility	Public Regulations	Natures Value	Wild animal rights	Economy	Technology	Use and Protection
Chi-Square	.206	1.697	.771	.000	2.458	.755	1.343
Df	1	1	1	1	1	1	1
Asymp. Sig.	.650	.193	.380	.992	.117	.385	.247

a. Kruskal Wallis Test

b. Grouping Variable: Location of respondents (Osle/Vikens or Other areas)

The Kruskal-Wallis tests were conducted to examine potential differences in environmental perceptions between respondents located in Oslo/Viken and those in other areas across seven variables: Responsibility, Public Regulations, Natures Value, Wild Animal Rights, Economy, Technology, and Use and Protection. The results show that there were no statistically significant differences in perceptions related to Responsibility, Natures Value, Wild Animal Rights, Technology, and Use and Protection based on location, as indicated by p-values greater than 0.05.

Table 12. Test Statistics[a,b] for Gender of respondent vs Environmental perception variables

	Responsibility	Public Regulations	Natures Value	Wild animal rights	Economy	Technology	Use and Protection
Chi-Square	7.224	10.893	1.324	.109	.192	4.752	.362
Df	1	1	1	1	1	1	1
Asymp. Sig.	.007	.001	.250	.741	.661	.029	.547

a. Kruskal Wallis Test

b. Grouping Variable: Gender of the respondent

The Kruskal-Wallis tests were conducted to assess potential differences in environmental perceptions based on the gender of the respondents across seven variables: Responsibility, Public Regulations, Natures Value, Wild Animal Rights, Economy, Technology, and Use and Protection. The results indicate that there are statistically significant differences in perceptions related to Responsibility (Chi-Square = 7.224, p = 0.007), Public Regulations (Chi-Square = 10.893, p = 0.001), Technology (Chi-Square = 4.752, p = 0.029). Specifically, these findings suggest that there are variations in how individuals of different genders perceive their responsibility towards the environment, the importance of public regulations, and the role of technology in environmental matters. However, for Natures Value, Wild Animal Rights, Economy, and Use and Protection, the p-values are greater than 0.05, indicating no significant differences in perceptions based on gender for these variables.

Table 13. Post hoc Man Whitney Test Statistics[a] for Gender

	Responsibility	Public Regulations	Technology
Mann-Whitney U	772.000	689.500	840.500
Wilcoxon W	1675.000	1592.500	1743.500
Z	-2.688	-3.300	-2.180
Asymp. Sig. (2-tailed)	.007	.001	.029

a. Grouping Variable: Gender of the respondent

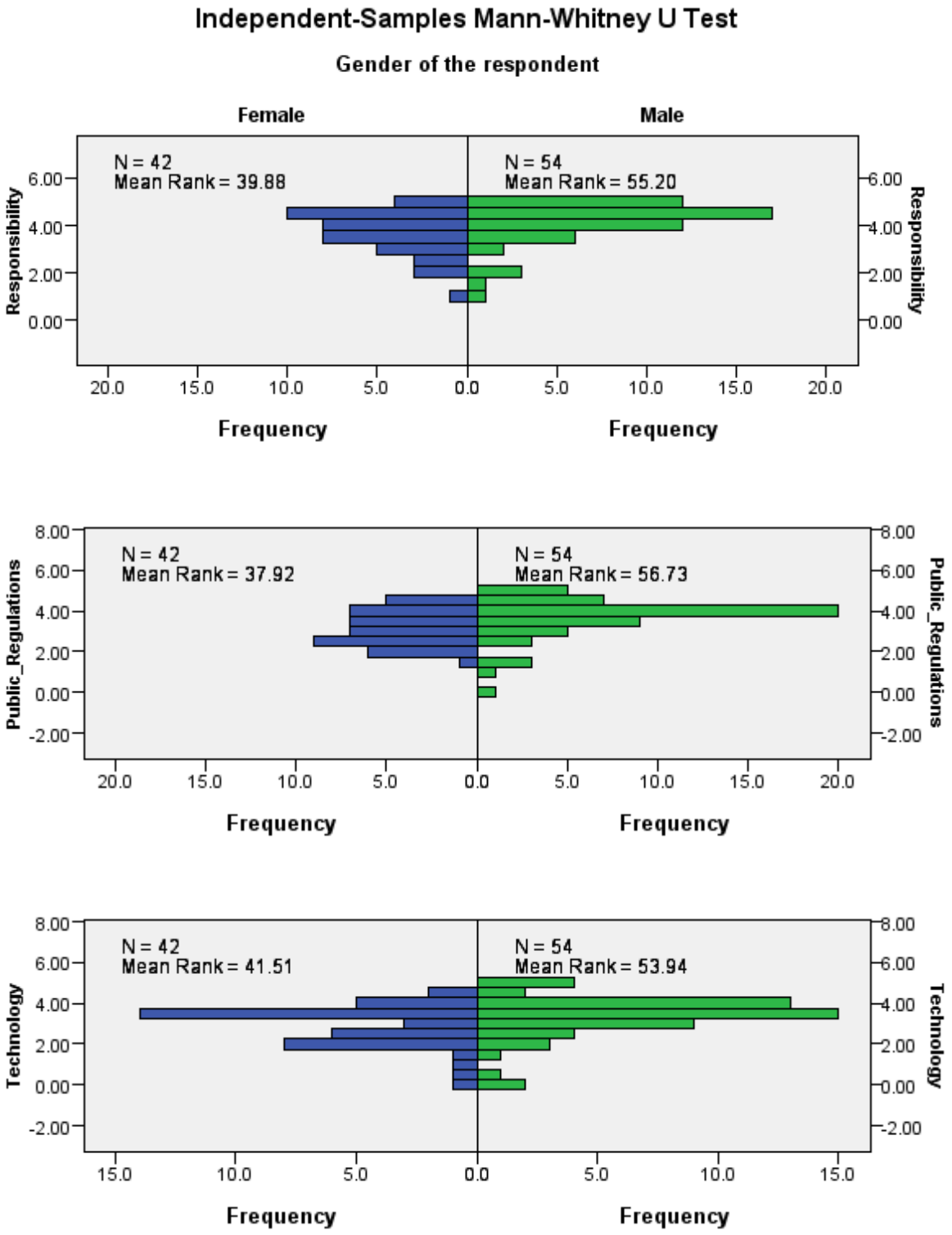

Figure 8. Bar diagram showing Post hoc Man-Whitney U test result of gender vs Responsibility, Public regulations and Technology.

The provided test statistics, including Mann-Whitney U, Wilcoxon W, Z scores, and Asymp. Sig. (2-tailed), are associated with three categories: Responsibility, Public Regulations, and Technology, comparing responses between male and female participants. These statistics are indicative of the significance of differences in rankings between the two gender groups. In the context of Responsibility, the Mann-Whitney U test yielded a statistic of 772.000, with a corresponding Z score of -2.688 and a two-tailed p-value of 0.007. This suggests a significant difference in rankings between males and females, with females generally having lower rankings in Responsibility. The Wilcoxon W value of 1675.000 signifies that the sum of ranks for females is smaller. For Public Regulations, the Mann-Whitney U test produced a statistic of 689.500, a Z score of -3.300, and a p-value of 0.001. These results suggest a significant difference in rankings, with females having lower ranks in Public Regulations compared to males. The Wilcoxon W value of 1592.500 indicates a smaller sum of ranks for females. In the case of Technology, the Mann-Whitney U test resulted in a statistic of 840.500, a Z score of -2.180, and a p-value of 0.029. This indicates a significant difference in rankings, with females generally having lower ranks in Technology compared to males. The Wilcoxon W value of 1743.500 indicates a smaller sum of ranks for females.

The observed gender-based variations in environmental perceptions among Afghani immigrants in Norway, specifically in the dimensions of Responsibility, Public Regulations, and Technology, may be influenced by a combination of cultural, social, and individual factors. These factors might shape the ways in which males and females within this immigrant community perceive and engage with environmental issues.

In terms of Responsibility, the lower levels of perceived responsibility among females could be tied to cultural norms and gender roles prevalent in their country of origin. It's possible that traditional gender roles that assign primary responsibility for domestic and environmental matters to males may persist, influencing the perceptions of Afghani immigrant females in Norway.

The lower mean ranks of females in the dimension of Public Regulations may reflect diverse perspectives on the role of regulations in environmental protection. Cultural backgrounds might contribute to varying attitudes toward authority and regulatory frameworks, influencing how males and females perceive the effectiveness and importance of public regulations in environmental conservation.

Regarding Technology, the lower mean ranks among females may be linked to differing levels of exposure, comfort, or trust in technology. Cultural factors, educational backgrounds, or pre-migration experiences may contribute to distinct perceptions of the role of technology in addressing environmental challenges. Females might exhibit a more cautious or skeptical stance, potentially influenced by cultural or gendered views on the adoption of new technologies.

Additionally, the experiences of migration and adaptation to a new cultural context can play a role. Immigrants often navigate a complex process of acculturation, where their existing beliefs and values may interact with those of the host culture. These interactions can result in nuanced shifts in attitudes and perceptions.

Table 14. Test Statistics[a,b] for Geographical site of residence vs Environmental perception variables

	Responsibility	Public Regulations	Natures Value	Wild animal rights	Economy	Technology	Use and Protection
Chi-Square	3.611	5.297	.139	.092	1.987	3.707	.001
Df	1	1	1	1	1	1	1
Asymp. Sig.	.057	.021	.709	.761	.159	.054	.971

a. Kruskal Wallis Test

b. Grouping Variable: Geographical site of residence (Rural Area or Urban Area)

The Kruskal-Wallis tests were performed to explore potential differences in environmental perceptions between respondents residing in rural and urban areas across seven variables: Responsibility, Public Regulations, Natures Value, Wild Animal Rights, Economy, Technology, and Use and Protection. The results reveal that there were no statistically significant differences in perceptions related to Responsibility, Natures Value, Wild Animal Rights, Economy, Technology, and Use and Protection based on the geographical site of residence, as the p-values for these variables are greater than the 0.05 significance level. However, for Public Regulations (Chi-Square = 5.297, p = 0.021) the results suggest potential differences in how individuals in rural and urban areas perceive the importance of public regulations in environmental matters.

Table 15. Post hoc ManWhitney Test Statistics[a] Geographical site of residence

	Public Regulations
Mann-Whitney U	668.000
Wilcoxon W	1074.000
Z	-2.301
Asymp. Sig. (2-tailed)	.021

a. Grouping Variable: Geographical site of residence (Rural Area or Urban Area)

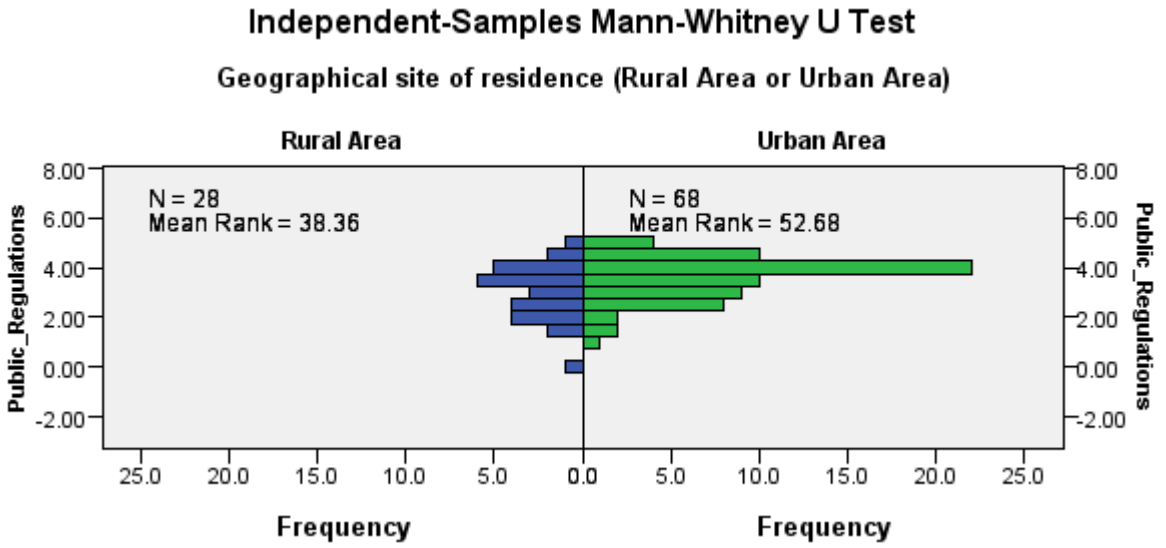

Figure 9. Bar diagram showing Post hoc Man-Whitney U test result of Geographical site of residence vs Public regulations.

In the context of the Mann-Whitney U test, the statistic of 668.000 indicates the sum of ranks for the smaller of the two groups (Rural Area or Urban Area). The Wilcoxon W value of 1074.000 represents the sum of ranks for the Rural Area group. The negative Z score of -2.301 suggests that the mean ranks of the Rural Area group are lower than those of the Urban Area group. The two-tailed p-value of 0.021 is less than 0.05, indicating that this difference is statistically significant. The observed significant difference in the rankings for Public Regulations between Afghani immigrants in Rural Areas and Urban Areas in Norway may be influenced by a combination of cultural backgrounds, lived experiences, and the varying degrees of exposure to regulatory environments in these different settings. In rural areas, where individuals may have a closer relationship with nature and traditional practices, there might be a perception that strict public regulations could impede their accustomed ways of interacting with the environment. The negative Z score suggests that, on average, respondents from Rural Areas tend to prioritize a more hands-on or less regulated approach to environmental matters compared to those in Urban Areas.

Additionally, the difference might be influenced by the level of trust in authorities and regulatory bodies, which can be shaped by cultural factors and experiences in their home country and in Norway.

Table 16. Test Statistics[a,b] for Duration of stay in Norway vs Environmental perception variables

	Responsibility	Public Regulations	Natures Value	Wild animal rights	Economy	Technology	Use and Protection
Chi-Square	5.141	1.424	2.960	4.267	4.413	2.816	2.208
Df	4	4	4	4	4	4	4
Asymp. Sig.	.273	.840	.565	.371	.353	.589	.698

a. Kruskal Wallis Test

b. Grouping Variable: Duration of stay in Norway

The provided test statistics represent the results of a Kruskal-Walli's test conducted across multiple variables, including Responsibility, Public Regulations, Natures Value, Wild animal rights, Economy, Technology, and Use and Protection. The Kruskal-Walli's test is employed to assess whether there are significant differences in the ranks of these variables among groups defined by the duration of stay in Norway. The degrees of freedom (df) for each variable are 4, indicating the number of groups minus 1. The chi-square statistics for Responsibility, Public Regulations, Natures Value, Wild animal rights, Economy, Technology, and Use and Protection are 5.141, 1.424, 2.960, 4.267, 4.413, 2.816, and 2.208, respectively. The associated p-values (Asymp. Sig.) for all variables are greater than 0.05, ranging from 0.273 to 0.840. Consequently, there is insufficient evidence to reject the null hypothesis that there are no significant differences in the rankings of these variables based on the duration of stay in Norway. In other words, the data does not provide strong statistical support for the presence of significant variations in opinions or perceptions across the groups categorized by the duration of stay in Norway for any of the assessed variables.

Table 17. Test Statistics[a,b] for Age of the respondent vs Outdoor recreation

	Walking in the park in the city /town.	Having picnics in the forest outside the city /town.	Hiking and taking long walks on paths in the forest.	Picking mushrooms or berries in the forest.	Fishing in lakes, rivers, or the sea.	Hiking in the mountains.	Going to a cabin in the forest or mountains at weekends or holidays.	Cross-country skiing on prepared ski tracks.	Cross-country skiing outside prepared ski tracks.	Hunting small game such a birds or hares.	Hunting big game such a moose or roe deer.	Taking photographs of scenery or wild animals.
Chi-Square	5.073	.985	4.867	3.209	2.623	3.558	3.416	.380	.876	5.188	5.534	2.681
df	4	4	4	4	4	4	4	4	4	4	4	4
Asymp. Sig.	.280	.912	.301	.524	.623	.469	.491	.984	.928	.269	.237	.613

a. Kruskal Wallis Test

b. Grouping Variable: Age of the respondent

Table 18. Test Statistics[a,b] for Gender of the respondent vs Outdoor recreation

	Walking in the park in the city /town.	Having picnics in the forest outside the city /town.	Hiking and taking long walks on paths in the forest.	Picking mushrooms or berries in the forest.	Fishing in lakes, rivers, or the sea.	Hiking in the mountains.	Going to a cabin in the forest or mountains at weekends or holidays.	Cross-country skiing on prepared ski tracks.	Cross-country skiing outside prepared ski tracks.	Hunting small game such a birds or hares.	Hunting big game such a moose or roe deer.	Taking photographs of scenery or wild animals.
Chi-Square	3.242	2.586	.611	1.163	.005	.461	3.828	.547	.239	1.926	1.186	.362
df	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.072	.108	.434	.281	.942	.497	.051	.459	.625	.165	.276	.547

a. Kruskal Wallis Test

b. Grouping Variable: Gender of the respondent

Table 19. Test Statistics[a,b] for Education level of the respondent vs Outdoor recreation

	Walking in the park in the city /town.	Having picnics in the forest outside the city /town.	Hiking and taking long walks on paths in the forest.	Picking mushrooms or berries in the forest.	Fishing in lakes, rivers, or the sea.	Hiking in the mountains.	Going to a cabin in the forest or mountains at weekends or holidays.	Cross-country skiing on prepared ski tracks.	Cross-country skiing outside prepared ski tracks.	Hunting small game such a birds or hares.	Hunting big game such a moose or roe deer.	Taking photographs of scenery or wild animals.
Chi-Square	.213	1.641	1.225	1.080	.007	.612	.338	.383	.035	1.327	.046	1.913
df	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.644	.200	.268	.299	.934	.434	.561	.536	.852	.249	.830	.167

a. Kruskal Wallis Test

b. Grouping Variable: Education level of the respondent

Table 20. Test Statistics[a,b] for Location of the respondent vs Outdoor recreation

	Walking in the park in the city /town.	Having picnics in the forest outside the city /town.	Hiking and taking long walks on paths in the forest.	Picking mushrooms or berries in the forest.	Fishing in lakes, rivers, or the sea.	Hiking in the mountains.	Going to a cabin in the forest or mountains at weekends or holidays.	Cross-country skiing on prepared ski tracks.	Cross-country skiing outside prepared ski tracks.	Hunting small game such a birds or hares.	Hunting big game such a moose or roe deer.	Taking photographs of scenery or wild animals.
Chi-Square	.426	1.913	.201	.048	.588	.114	.942	1.156	1.005	.179	.094	3.032
df	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.514	.167	.654	.826	.443	.736	.332	.282	.316	.672	.759	.082

a. Kruskal Wallis Test

b. Grouping Variable: Location of respondents (Osle/Vikens or Other areas)

Table 21. Test Statistics[a,b] for Duration of stay in Norway of the respondent vs Outdoor recreation

	Walking in the park in the city /town.	Having picnics in the forest outside the city /town.	Hiking and taking long walks on paths in the forest.	Picking mushrooms or berries in the forest.	Fishing in lakes, rivers, or the sea.	Hiking in the mountains.	Going to a cabin in the forest or mountains at weekends or holidays.	Cross-country skiing on prepared ski tracks.	Cross-country skiing outside prepared ski tracks.	Hunting small game such a birds or hares.	Hunting big game such a moose or roe deer.	Taking photographs of scenery or wild animals.
Chi-Square	3.802	6.517	6.498	.960	1.507	1.224	2.729	1.706	3.888	9.635	1.557	1.330
df	3	3	3	3	3	3	3	3	3	3	3	3
Asymp. Sig.	.284	.089	.090	.811	.681	.747	.435	.636	.274	.022	.669	.722

a. Kruskal Wallis Test

b. Grouping Variable: Duration of stay in Norway

Table 22. Post hoc test for Hunting small game such as birds or hares

Ranks

	Duration of stay in Norway	N	Mean Rank	Sum of Ranks
Hunting small game such a birds or hares.	11 - 20	30	26.53	796.00
	> 20 yrs	34	37.76	1284.00
	Total	64		

Test Statistics[a]

	Hunting small game such a birds or hares.
Mann-Whitney U	331.000
Wilcoxon W	796.000
Z	-2.749
Asymp. Sig. (2-tailed)	.006

a. Grouping Variable: Duration of stay in Norway

Table 23. Test Statistics[a,b] for Geographical site of residence of the respondent vs Outdoor recreation

	Walking in the park in the city /town.	Having picnics in the forest outside the city /town.	Hiking and taking long walks on paths in the forest.	Picking mushrooms or berries in the forest.	Fishing in lakes, rivers, or the sea.	Hiking in the mountains.	Going to a cabin in the forest or mountains at weekends or holidays.	Cross-country skiing on prepared ski tracks.	Cross-country skiing outside prepared ski tracks.	Hunting small game such a birds or hares.	Hunting big game such a moose or roe deer.	Taking photographs of scenery or wild animals.
Chi-Square	1.496	.000	3.259	.543	.426	2.423	.121	.524	2.440	6.495	4.610	.009
df	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.221	.993	.071	.461	.514	.120	.728	.469	.118	.011	.032	.924

a. Kruskal Wallis Test

b. Grouping Variable: Geographical site of residence (Rural Area or Urban Area)

Table 24. Post hoc test for Hunting small game such as birds or hares and Hunting big game such a moose or roe deer.

Ranks

	Geographical site of residence (Rural Area or Urban Area)	N	Mean Rank	Sum of Ranks
Hunting small game such a birds or hares.	Urban Area	68	44.33	3014.50
	Rural Area	28	58.63	1641.50
	Total	96		
Hunting big game such a moose or roe deer.	Urban Area	68	45.01	3060.50
	Rural Area	28	56.98	1595.50
	Total	96		

Test Statistics[a]

	Hunting small game such a birds or hares.	Hunting big game such a moose or roe deer.
Mann-Whitney U	668.500	714.500
Wilcoxon W	3014.500	3060.500
Z	-2.549	-2.147
Asymp. Sig. (2-tailed)	.011	.032

a. Grouping Variable: Geographical site of residence (Rural Area or Urban Area)

The provided statistical analyses involve Kruskal-Wallis Tests conducted to explore the relationships between various outdoor activities and different grouping variables, such as age, gender, education level, location, duration of stay in Norway, and geographical site of residence.

The analysis did not find statistically significant differences in outdoor activity preferences among different age groups. The p-values for all activities are greater than 0.05, suggesting that age is not a significant factor in explaining variations in engagement in the listed outdoor activities. Similar to age, gender did not show significant associations with outdoor activities. None of the p-values for the activities are less than 0.05, indicating that gender is not a significant determinant of preferences for these outdoor activities. The education level of the respondents also does not appear to have a significant impact on outdoor activity preferences. All p-values are greater than 0.05, suggesting that there are no significant differences in preferences across education levels. The location of respondents did not show statistically significant differences in preferences for outdoor activities. The p-values for all activities are above 0.05, indicating that location is not a significant factor influencing engagement in the listed outdoor activities. The duration of stay in Norway did not significantly affect outdoor activity preferences, except for "Hunting small game The p-value for this activity is 0.022, which is less than 0.05, suggesting that there is a significant difference in preferences for this activity based on the duration of stay in Norway. The analysis reveals significant differences in preferences for "Hunting big game" and "Hunting small game" based on the geographical site of residence. For both activities, the p-values are less than 0.05, indicating that there are significant variations in preferences between residents of urban and rural areas.

The impact of the duration of stay in Norway on outdoor activity preferences among immigrants shows a nuanced pattern. Generally, the duration of stay did not exert a significant influence on preferences, indicating a consistent choice of activities over time. However, a notable exception is observed in the case of "Hunting small game," where the p-value of 0.022 falls below the 0.05 threshold. This suggests that the duration of an individual's stay does play a role in shaping preferences for this specific activity, implying a potential shift in attitudes towards hunting small game as immigrants spend more time in Norway.

Furthermore, the analysis highlights substantial divergences in preferences based on the geographical site of residence. Both "Hunting small game" and "Hunting big game" exhibit p-values below 0.05, indicating significant variations in preferences between residents of urban

and rural areas. This divergence can be attributed to a multitude of factors, including cultural, environmental, and socio-economic influences. Rural residents may have a stronger cultural connection to hunting practices, influencing their preferences, while urban dwellers may be inclined towards different recreational activities. The significance of geographical location underscores the importance of local context and community dynamics in shaping outdoor activity preferences among immigrants in Norway.

Table 25. Descriptive statistics for Afghani immigrant's outdoor recreation frequency in Norway by environmental attitude: OLS regression results

Outdoor recreation frequency	Mean	Responsibility	Public Regulations	Natures Value	Wild animal rights	Economy	Technology	Use & Protection	R^2	S.E.
Walking in the park in the city /town.	2.77	0.354	-0.19	0.275	0.167	-0.195	-0.05	0.277	0.142	1.28
Having picnics in the forest outside the city /town.	2.15	-0.081	0.27	0.006	-0.07	0.31*	0.048	-0.08	0.111	1.11
Hiking and taking long walks on paths in the forest.	2.41	-0.41*	0.29	0.383*	0.005	0.093	-0.04	0.008	0.165	1.21
Picking mushrooms or berries in the forest.	1.64	-0.64*	0.14	0.141	-0.07	0.39*	-0.14	-0.07	0.295	1.07
Fishing in lakes, rivers, or the sea.	1.48	-0.26	0.15	0.033	-0.16	0.38*	-0.04	-0.09	0.103	1.18
Hiking in the mountains.	2.00	-0.31	0.21	0.07	-0.10	0.145	0.118	-0.09	0.08	1.14
Going to a cabin in the forest or mountains at weekends or holidays.	1.76	-0.332	0.01	0.138	-0.11	0.194	-0.14	0.067	0.123	1.19
Cross-country skiing on prepared ski tracks.	1.55	-0.061	0.01	-0.265	-0.16	0.46*	0.008	-0.17	0.127	1.31
Cross-country skiing outside prepared ski tracks.	1.03	-0.257	0.13	-0.174	-0.13	0.56*	0.008	-0.03	0.264	1.09
Hunting small game such a birds or hares.	1.04	-0.47*	0.03	-0.125	-0.13	0.50*	-0.02	-0.17	0.274	1.19
Hunting big game such a moose or roe deer.	0.91	-0.47*	0.21	-0.146	-0.14	0.30*	-0.2	0.083	0.269	1.10
Taking photographs of scenery or wild animals.	1.83	-0.005	-0.02	0.036	-0.18	0.239	0.20	-0.20	0.056	1.27

Note: The figures in column (3) to (9) are unstandardized regression coefficients. For Mean 0= Never, 1=Once a year, 2 = 2-6 times a year, 3= Once a month, 4= Once a week, S.E. = Standard Error. * Represents $p<0.05$.

Table 21 presents an overview of how 12 outdoor recreation interests are distributed among Afghani immigrants in Norway, with ratings on a scale from 0 to 4. Notably, there are discernible differences in popularity among these activities. Only three activities, namely walking in the park, having picnics in the forest, and hiking on forest paths, can be considered very popular, with interest mean values above 1.1. Conversely, activities such as cross-country

skiing outside prepared ski tracks, hunting small game like birds or hares, and hunting big game like moose or roe deer, demonstrate lower popularity, each with interest mean values below 1.1.

Columns 3 to 9 provide unstandardized regression coefficients for environmental attitude variables, including Responsibility, Public Regulations, Nature's Value, Wild Animal Rights, Economy, Technology, and Use & Protection. These coefficients offer insights into the strength and direction of the relationship between each environmental attitude variable and the frequency of outdoor activities. Positive coefficients signify a positive relationship, while negative coefficients indicate the opposite. Significance levels, denoted by asterisks (*), highlight variables with $p<0.05$, and R-squared values offer an overall measure of how well environmental attitudes explain variance in outdoor recreation frequency. Standard Error (S.E.) represents the standard deviation of the coefficient estimates.

Despite potential counterintuitive impressions, several plausible explanations emerge. Afghani immigrants with a strong sense of responsibility for environmental protection may prioritize other forms of environmental engagement or conservation activities over traditional outdoor recreational pursuits. Their heightened awareness of ecological impact may lead to reduced participation in activities that could potentially harm the environment.

In the presented Ordinary Least Squares (OLS) regression results, the environmental attitude variable "Responsibility" stands out, significantly impacting the frequency of specific outdoor activities among Afghani immigrants in Norway. Notably, a positive perception of responsibility for environmental protection is associated with a lower frequency of engagement in certain activities, including hiking, picking mushrooms or berries, and both small and big game hunting. This hints at a potential trade-off, where a heightened sense of responsibility may be linked to a reduced frequency of recreational outdoor activities, possibly due to a preference for non-intrusive activities or ethical concerns related to specific pursuits.

Similarly, positive coefficients for the "Economy" variable across various outdoor activities suggest that a positive economic perception is associated with a higher frequency of participation. Economic considerations appear to shape the outdoor recreational behavior of Afghani immigrants in Norway, particularly in activities such as picnicking, picking mushrooms, fishing, skiing, and hunting. This implies that those who prioritize economic growth over environmental concerns may find themselves more engaged in specific outdoor activities, viewing nature as a resource for both sustenance and leisure.

The findings underscore the intricate interplay between environmental attitudes and outdoor recreation choices, reflecting the diverse motivations and values within the Afghani immigrant community in Norway.

4.5 Discussions

Summary of these findings in the context of existing literature, particularly emphasizing Norwegian perspectives on environmental consciousness and outdoor activities:

Environmental Attitudes and Outdoor Activities:

The regression results reveal a nuanced relationship between environmental attitudes and outdoor recreation frequency among Afghani immigrants. The findings suggest that a strong sense of responsibility for environmental protection is associated with a lower frequency of engaging in certain outdoor activities, such as hiking, mushroom/berry picking, and hunting. This may be indicative of a trade-off between a heightened sense of responsibility and the willingness to participate in recreational activities that might impact the environment. This aligns with general trends observed in Norway, where environmental consciousness is often associated with a cautious approach toward outdoor activities to minimize ecological impact (Strømsnes et al., 1996).

A strong sense of responsibility for environmental protection, deeply rooted in the teachings of the Quran and hadith, underlines the importance of nature and the environment in Islam. The Quran, revered as the holy book for Muslims, places significant emphasis on the intrinsic value of nature. Similarly, the teachings of Nabawai et al. (2014) also affirm that humans carry a responsibility towards the natural environment. These Islamic teachings and the scholarly insights may well serve as the driving forces behind the Afghan people's commitment to environmental preservation and protection, as well as their advocacy for animal rights. This dedication to environmental stewardship finds its origins in historical periods, including the Zardashat and Sasani eras, as documented by Amani et al. (2015).

Economic Considerations in Outdoor Recreation:

The positive coefficients for the "Economy" variable in the regression results indicate that a positive economic perception is associated with a higher frequency of participation in specific outdoor activities. This aligns with broader patterns in Norway, where economic

considerations, particularly in the context of resource utilization, can influence engagement in outdoor recreation. The utilitarian perspective, where nature serves as a source of tangible benefits, is reflected in preferences for activities such as picnics, fishing, and hunting, which are often viewed through an economic lens (Dunlap et al., 2000).

Comparison with Norwegian Perspectives:

Norwegians, in general, are considered environmentally conscious, as evidenced by their agreement with the New Environmental Paradigm (NEP) scale statements. This aligns with the findings for Afghani immigrants who exhibit positive attitudes towards responsibility, public regulations, and technology in the context of the environment. The literature on Norwegians also indicates a negative association between age and NEP score, which is consistent with the absence of significant differences in outdoor activity preferences among different age groups in the Afghani immigrant community (Bjerke et al., 2006).

Gender Differences and Environmental Concern:

While Norwegian studies often find women to be more environmentally concerned, the results for Afghani immigrants show significant gender differences in perceptions of responsibility, public regulations, and technology. This aligns with global variations in gender-environment relationships, emphasizing the complexity of these dynamics (Zelezny et al., 2000). The negative association between responsibility and gender in Afghani immigrants suggests that women may express lower environmental concern.

Geographical Site of Residence:

The Kruskal-Wallis test results indicate significant differences in preferences for outdoor activities based on the geographical site of residence. This finding is reminiscent of Norwegian studies that highlight differences in environmental attitudes between rural and urban areas, with rural areas often exhibiting lower NEP scores (Dunlap et al., 2000).

In conclusion, while there are both similarities and variations in the environmental attitudes and outdoor activity preferences of Afghani immigrants compared to Norwegians, the findings suggest a complex interplay of cultural, economic, and individual factors.

CHAPTER FIVE: CONCLUSION AND IMPLICATIONS

5.1 Conclusions

1. Demographic Representation: The study included a diverse demographic representation of Afghani immigrants in Norway, encompassing a wide age range, with a balanced distribution across genders, educational backgrounds, and geographical locations (urban and rural).

2. Environmental Attitudes: Afghani immigrants in Norway generally demonstrated positive environmental attitudes, emphasizing a sense of responsibility for environmental protection, a preference for public regulations, and recognition of the intrinsic value of nature.

3. Economic Considerations: Economic perspectives significantly influenced outdoor recreation choices. Positive economic perceptions were associated with higher engagement in specific activities, such as picnics, fishing, and hunting, suggesting a utilitarian approach to nature driven by economic considerations.

4. Responsibility Trade-Off: Individuals with a stronger sense of responsibility for environmental protection exhibited a trade-off, engaging less frequently in certain outdoor activities like hiking, mushroom picking, and hunting, possibly due to ethical or conservation-oriented choices.

5. Technology and Environment: Afghani immigrants displayed optimism about the potential of technology to address environmental challenges, although with some skepticism about its ability to ensure a sustainable society without negative consequences.

6. Nature's Intrinsic Value: Respondents consistently expressed a belief in the intrinsic value of nature, prioritizing its preservation over economic growth, and showing a negative emotional response to large-scale development in natural areas.

7. Wildlife Rights and Responsibility: Afghani immigrants exhibited a sense of responsibility towards wildlife, believing in the equal rights of animals, recognizing the needs of wild animals, and expressing a commitment to their future well-being.

8. Duration of Stay and Activities: While the duration of stay did not significantly influence most outdoor activities, it did show an impact on specific activities like hunting small game, indicating potential adaptation or cultural shifts over time.

9. Geographical Influence on Regulations: Geographical location, particularly residing in rural or urban areas, influenced perceptions of the importance of environmental perceptions regarding public regulations for environmental conservation, with urban residents placing higher importance.
10. Gender-Based Differences: Significant gender-based variations were observed in environmental responsibility, public regulations, and technology perceptions, with females generally showing lower rankings in these dimensions highlighting males are more environment sensitive thinkers. This highlights the need for gender-sensitive approaches in environmental programs.

These key points encapsulate the nuanced findings of the study, shedding light on the complex interplay between demographic factors, environmental attitudes, and outdoor recreation preferences among Afghani immigrants in Norway.

5.2 Recommendations:

1. Cultural Sensitivity in Environmental Initiatives: Given the diverse cultural backgrounds of Afghani immigrants, environmental initiatives and policies should be developed with cultural sensitivity. Understanding their unique perspectives can lead to more effective and inclusive approaches to conservation and outdoor activities.

2. Promoting Sustainable Recreation: Encouraging sustainable and eco-friendly outdoor activities that align with environmental conservation goals may resonate more with Afghani immigrants who exhibit a strong sense of responsibility for environmental protection. This could include promoting nature appreciation activities that minimize ecological impact.

3. Education and Outreach: Outreach programs can be designed to educate Afghani immigrants about the environmental benefits of specific outdoor activities. This could help bridge the gap between their cultural values and sustainable practices, fostering a greater appreciation for nature.

4. Community Engagement: Establishing community-driven initiatives that involve Afghani immigrants in environmental conservation efforts can foster a sense of ownership and shared responsibility. This could include community clean-up events, tree planting programs, or educational workshops on sustainable living.

5. Tailored Recreation Programs: Recognizing the positive association between positive economic perceptions and engagement in specific outdoor activities, local authorities and organizations could tailor recreational programs that align with these preferences. This might involve creating spaces or events that cater to utilitarian perspectives on nature.

6. Further Research: Continued research on the intersection of cultural backgrounds, environmental attitudes, and recreational choices among immigrant communities can provide deeper insights. This can inform more targeted interventions and policies.

In conclusion, understanding and respecting the diversity of perspectives within the Afghani immigrant community is crucial for creating inclusive and effective environmental initiatives. By aligning conservation efforts with cultural values and preferences, it's possible to encourage sustainable practices and enhance the overall well-being of the community in their new environment.

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