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in North Macedonia”**

**Activity Area IV - Development and Delivery of Capacity Building
activities on Climate Change and Labour and Social Policy**

**Guidelines for Integrating Gender and Human Capital Dimensions in
Climate-Related Project Appraisal and Design**

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List of abbreviations

ENDC	Enhanced Nationally Determined Contributions
GCF	Green Climate Fund
MoLSP	Ministry of Labour and Social Policy
NAPs	National Adaptation Plans
NDCs	Nationally Determined Contributions
SAC	Strategic Advisory Committee
SDGs	Sustainable Development Goal(s)

1. Introduction

An assessment of the country's environmental and climate policies through a gender and human capital dimension lens shows that there is no systematic application of the gender-environment nexus in policy design or implementation. Issues such as tackling women's energy poverty, introducing gender-sensitive climate adaptation in urban design, and applying gender-sensitive environmental impact assessments, are absent. At the same time, women's role in phasing out fossil fuel dependency is partly recognised, with targeted measures linked to women's employment being introduced. This is also the case for women's role in sustainable agriculture and forestry. More strategically supporting women in engineering studies and reaching leadership positions, could increase the number of women in traditionally male-dominated sectors such as eco-innovation and green patenting. In the case of circular economy, supporting women's inclusion in green entrepreneurship, promoting gender-sensitive green public procurement, and taking account of female behavioural preferences and consumption patterns in policy design and implementation could lead to more sustainable choices.

The assessment of the country's gender equality and human capital policies through an environmental sustainability lens highlights the need for more explicit actions to empower women and other vulnerable groups in the green economy. Targeted approaches to green skills and vocational training, to science and technology programmes, and to gender-sensitive green recovery measures, could increase women's and vulnerable groups' presence in green occupations. Further mainstreaming of those in sectoral policies, such as in data collection and building gender-sensitive environmental statistics, as well as introducing gender budgeting and financing, could better reflect the differentiated environmental impacts for policies. Finally, guaranteeing women's participation in public consultation and decision-making could increase emphasis on women's role as agents of change in environmental and climate policy.

Integrating the gender-environment and human capital-environment nexus into national policies requires tools and initiatives that mainstream gender and human capital dimensions in sectoral policies and enhance their role in the economy and society. This guideline includes recommendations which, if implemented, could exploit the potential lying within the synergies from integrating gender equality, human capital and environmental sustainability goals.

1.1. Background and Rationale

The nexus between gender, human capital, and climate change, is mostly overlooked and requires immediate action at national and international levels. The environmental and climate crises and social inequalities exacerbated by the COVID-19 pandemic have prompted countries to increase action on both fronts. Yet an integrated approach is often lacking, with countries missing the opportunity to explore trade-offs and complementarities between gender equality, human capital, and environmental sustainability, and to minimise potential negative impacts of environmental and climate policies.

Differences in vulnerability and exposure arise from non-climatic factors and from multidimensional inequalities often produced by uneven development processes. These differences shape differential risks from climate change. People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses. This heightened vulnerability is rarely due to a single cause. Rather, it is the product of intersecting social processes that result in inequalities in socioeconomic status and income, as well as in exposure. Such social processes include, for example, discrimination on the basis of gender, class, ethnicity, age, and (dis)ability. Gender equality and the empowerment of women must shape and drive future development and climate actions and investments.

There has been significant recent progress in elevating gender and vulnerability, as well as the human capital in climate change planning at the national and global levels. Global examples include the Green Climate Fund (GCF), which has mandated a gender-sensitive approach in its charter and put in place a gender policy and a gender action plan to guide its operations. The latest examples of progress come from the inclusion of gender and human capital dimensions in a selection of Nationally Determined Contributions (NDCs).

Macedonia's Enhanced Nationally Determined Contribution (ENDC) pledges for climate action that represents a country assessment of the potential reduction of their greenhouse gas emissions. The gender and human capital dimension must become part of the national ambitions on climate change adaptation and mitigation, and further be identified as a cross-cutting policy priority. A clear commitment to integrating or mainstreaming them into all climate change actions, strategies and policies is essential. As the country moves into the implementation phase of the Paris Agreement, the ENDC, and other related national adaptation and mitigation instruments, open huge potential for embedding gender-responsive and human capital-transformative approaches that promote women's empowerment and further adaptation of the human capital dimension while also delivering results for zero-carbon and climate-resilient futures. Other similar instruments such as the national low-emission development strategies and, in the case of adaptation, the National Adaptation Plans (NAPs), provide even more leverage and opportunity for mainstreaming gender and human capital considerations in climate action planning. However, this needs to be further extended to sectoral strategies and action plans with specific measures and targets.

1.2. Guideline Objectives

Integrating gender and human capital dimensions in climate-related project appraisal and design is essential for ensuring that climate projects are not only effective in addressing environmental challenges, but also contribute to social equity and sustainable development. These guidelines aim at providing a systematic framework to be applied during project appraisal and design for the use of NDA and SAC.

The objective is to create strategic and policy support for stimulating climate-smart, gender sensitive and inclusive employment and that stimulate measures for facilitation of green jobs, climate-smart and inclusive employment across key economic sectors in the country.

1.3. Scope and structure

This guide is structured in a way to elaborate the scope and raise the potential role of gender and human capital social in addressing climate change induced challenges to support the transition to sustainable development and to gain increasing attention. There is a growing understanding among the NDA and SAC that climate change will have an increasing impact on the human capital demand and will require adjustment of the existing policies. This guide provides tools and references for the NDA and SAC to define informed measures for promoting climate-smart and inclusive employment, by first understanding the nexus between gender, human and climate change; gender mainstreaming in climate projects; human capital considerations in climate projects; and integrating gender and human capital in climate projects.

2. Understanding the nexus between gender, human capital and climate change

Environmental factors may affect men, women, and vulnerable groups differently, due to different behaviours and roles they play in the society as well as their different physiological characteristics. Regardless if we observe energy, water, transport, urban design, agriculture, or consumption patterns, a gender and human capital prospective is key to understand differences in environmental impacts. Environmental degradation can also lead to increased gender-based violence. On the other hand, women's economic, social, and political empowerment can help accelerate action on climate, environmental protection and conservation. At the same time, human capital development relies on the skills and development needs determined by climate change actions and it encompasses the knowledge, skills, health, and well-being of individuals and communities. Climate change can directly impact human capital by affecting health through extreme weather events, changing disease patterns, and food insecurity. Additionally, disruptions in education and skill development caused by climate-related disasters can have long-lasting effects on human capital development.

Building human capital is a crucial component of enhancing climate resilience. Communities with well-developed human capital are better equipped to adopt climate-resilient practices, technologies, and disaster preparedness measures. Knowledge and skills play a central role in strengthening adaptation efforts. Achieving sustainable development goals, such as poverty reduction, gender equality, and access to quality education and healthcare, is inherently linked to addressing climate change and human capital development. Climate-related projects that promote human capital development contribute to broader development objectives.

By exploring the complex interplay between gender, human capital, and climate change, we can better appreciate the need for comprehensive, integrated approaches that prioritize equity and resilience. Understanding this nexus is a crucial step towards developing effective strategies that protect human well-being, promote social equity, and mitigate the adverse effects of a changing climate.

2.1. The concept of gender

Development of an adequate understanding of mainstreaming requires clarity on the related concepts of gender and equality.

Gender refers to the social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, as well as the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context/ time-specific and changeable. Gender determines what is expected, allowed, and valued in a woman or a man in a given context. In most societies there are differences and inequalities between women and men in responsibilities assigned, activities undertaken, access to and control over resources, as well as decision-making opportunities. Gender is part of the broader socio-cultural context.

Equality between women and men (gender equality) refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centred development.

2.2. The concept of human capital

The term human capital refers to the economic value of a worker's experience and skills. Human capital includes assets like education, training, intelligence, skills, health, and other things employers value such as loyalty and punctuality. The human capital definition is "the knowledge and skills held by employees that can be used to increase production and value".

The concept of human capital is that the abilities, skills, and knowledge that each employee has is something that can be measured and contribute to productivity. This means that investments in the employees' training, education, health, and compensation will help improve overall productivity.

By providing training and education to employees, a company can increase its production and make the investment in human capital worthwhile. In this view, human capital is focused on the intellectual skills and procedural knowledge that make up human capital. An important aspect of human capital is that it is not transferrable – the education, degree, certification, knowledge, and skill set cannot be retained or transferred to a new employee.

However, human capital tends to migrate, especially in global economies. That is why there is often a shift from developing places or rural areas to more developed and urban areas. This phenomenon is often referred to as "brain drain", describing the process that keeps certain areas underdeveloped while other areas are thriving and developing.

Human capital can depreciate and the most common ways are through unemployment, injury, mental decline, or the inability to keep up with innovation. Consider an employee who has a specialized skill – If they go through a long period of unemployment, or if a technology used drastically changes, they may be unable to keep these levels of specialization. That is because their skills may no longer be in demand. An individual's human capital may depreciate if they can't or won't adopt new technology or techniques, an aspect that is profoundly valid for climate change effects on technologies used. Creating resilient human capital is the ultimate goal for mitigating the climate changes, and this can be achieved by continuous training and investment in their skills.

2.3. The importance of gender and human capital dimensions

Human capital **allows an economy to grow**. When human capital increases in areas such as science, education, and management, it leads to increases in innovation, social well-being, equality, increased productivity, improved rates of participation, all of which contribute to economic growth. Also, by adopting new technology and by the ability to adapt to the changing climatic conditions, the human capital will bring economic growth and resilience to the climate change.

At the same time, women's economic, social, and political empowerment can help to accelerate action on climate, environmental protection and conservation.

2.4. Climate change impacts on vulnerable populations

Certain groups are at more risk than others due to both climate and non-climate factors. For example, people living on floodplains, coastlines, or in areas prone to severe storms are more exposed and therefore in most cases more vulnerable to extreme weather. Those living in poverty have less capacities and resources to prepare for or respond to extreme events. As a result, these individuals or groups are expected to have greater impacts from climate-related hazards.

Usually, the groups at higher risk are:

- Children
- Socially vulnerable groups
- Older persons
- People with chronic medical conditions
- Persons with disability
- Open air workers
- Pregnant, breastfeeding, and postpartum women
- Single parents

It is very important not to leave anyone behind, that is why a targeted attention for specific groups of women/girls or men/boys is crucial. Some groups in vulnerable or marginal situations may need targeted attention, including such groups as migrants, minorities, the landless, single-headed households, persons with disabilities or the elderly. Girls may need particular attention because of significant risks of exploitation in different contexts. Intersectionality should also be accounted for to identify marginalized minorities and vulnerability arising from multiple, interlinked causes,

including discrimination and exclusion based on gender identity, sexual orientation, and sex characteristics.

3. Gender mainstreaming in climate projects

The impacts of climate change perpetuate and magnify structural inequalities, such as those between women and men.

The links between climate change and sustainable development are strong; **SDG 13 specifically aims at combating climate change and its impacts** [1], and Article 7 of the Paris Agreement calls for 'enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change.

The poor and marginalized segments in many societies (women, the elderly, immigrants, etc.) are structurally vulnerable. Climate change impacts men and women differently, largely due to their gender-differentiated relative powers, roles and responsibilities at the household and community levels. Women tend to be overly burdened with household work and caring for children, the sick and the elderly. Further, cultural and religious norms on respective gender roles sometimes limit women's abilities to make quick decisions in disaster situations and, in some cases, their responsibilities in caring for children could hamper their mobility in times of emergency. Disparities in economic opportunities and access to productive resources also render women more vulnerable to climate change because they are often poorer, receive less education, and are not involved in political, community and household decision-making processes that affect their lives. Women tend to possess fewer assets and depend more on natural resources for their livelihoods. Poverty, along with socio-economic and political marginalization, therefore cumulatively put women in a disadvantaged position in coping with the adverse impacts of the changing climate.

Mainstreaming gender in environmental and climate policies can be structured under the following four target areas:

- Empowering women in environmental sectors;
- Supporting women's presence in environmental leadership and decision-making;
- Promoting gender-sensitive environmental justice;
- Building up statistical data to monitor progress.

These classifications can provide a frame for North Macedonia's efforts to integrate gender in national climate policies, but also in project development and design.

3.1. Gender mainstreaming principles

Gender mainstreaming is the process of assessing the implications for women and men of any planned action, including legislation, policies, or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political,

economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality.

Gender mainstreaming refers to the use of the mainstreaming strategy to bring attention and resources to critical issues of gender equality, women's rights, and empowerment, which otherwise can be ignored or neglected. An essential element of gender mainstreaming is ensuring that prioritized gender equality issues are systematically and explicitly identified and addressed in all goals, processes, and outcomes to ensure positive change and 'transformation' and results for gender equality. Gender mainstreaming should focus strongly and explicitly on achieving positive development results for gender equality, and women's rights and empowerment. Whereas all areas of development must be covered, and all phases of development policy and practice must be made gender-responsive – from norm development, goal formulation and conceptualization, through to design, planning, implementation follow-up, monitoring and evaluation, and results management and reporting.

Attention to gender equality issues should always be included in initial processes, in particular in all data collection and analyses. Gender equality issues can be retrofitted at later stages, but this is always more difficult and less effective than including them from initial stages. Capacities needed to ensure systematic and effective implementation of mainstreaming for gender equality results include conceptual clarity on both the mainstream or development context in which interventions will be implemented, and on the process of mainstreaming, including gender-responsive analyses, planning, results management and knowledge management and communication.

Gender mainstreaming aims to bring about transformative change to achieve positive results for gender equality and women's empowerment and it has limited value unless it is explicitly focused on promoting and monitoring positive gender equality results in all development interventions.

Gender mainstreaming is important at both national and subnational intervention levels. It is important at the national policy level, in goal setting, developing overarching strategic frameworks, national development plans and programming approaches, and in creating and following up on budgets. At subnational level, it is critical in the design, implementation and follow-up of programmes, projects, and services.

Gender mainstreaming should integrate attention to gender equality in routine processes and procedures and employ targeted interventions to address specific constraints and challenges faced by women or men and girls or boys. Attempting to address gender equality challenges in a sector or policy area through targeted interventions that are separate from integrated efforts in the same areas does not lead to sustainable results and may have negative consequences.

3.2. Gender analysis in project design

Gender analysis is an examination of the differences in gender roles, responsibilities, needs, opportunities, and rights of women, men, girls, boys and persons of other genders within various contexts. The purpose of gender analysis in any sector or policy area, or any specific development context, is to better understand the gender equality situation in order to ensure that policy and practice can systematically and effectively promote gender equality and women's rights and empowerment. It gives explicit attention to the relative situation and status of women, men and all

gender-diverse people in a given context by investigating differences, inequalities and underlying gender relations. It has the potential to reveal how gender-based inequality, discrimination and exclusion are socially constructed by identifying underlying root causes and highlighting the ways by which transformative change and results can be promoted.

Gender analysis is used as a tool to identify major areas of gender-based inequality, discrimination, and exclusion and specific challenges and constraints, as well as the actions needed to address them. It reveals the opportunities for building on the knowledge, experience, contributions, and leadership of women, men and gender-diverse persons, and for meeting their self-expressed needs, priorities, and aspirations.

Gender analysis should always be context-specific to the sector or policy area, as well as to the context in which interventions or projects are planned and implemented. One of the best ways to ensure contextualized analysis that is based on local realities and linked to the goals, needs and priorities of stakeholders is to involve the stakeholders themselves in carrying out the analyses. Stakeholders' active involvement can help facilitate understanding of the local context by identifying challenges and constraints as well as potentials and opportunities. It can also strengthen ownership of, and support for, development interventions and the identified transformative changes and results. Gender analysis must focus on women and men, and girls and boys, and on the relations between and amongst them. When gender is applied as a synonym for women, and men are not included in analyses, the potential to identify gender relations, in particular the power relations that exist among women, men and gender-diverse groups, as well as within these groups, is seriously constrained.

A mix of quantitative and qualitative methods will give different types of information and provide important complementary views of the gender equality situation. The statistics utilized to provide quantitative information in gender analyses should include:

- Gender- and age-disaggregated data, as far as possible. Where such disaggregated data is not available, this should be made clear in the findings, and possible ways of rectifying this constraint identified; and
- Gender-specific data, i.e., information of particular importance for gender equality and women's rights and empowerment.

Data derived from consultations, interviews, and participatory methodologies will provide important qualitative narratives, bringing the perceptions and views of stakeholders to the fore, and facilitating the identification of desired change and results.

Gender analysis should not be used selectively; it should be undertaken in all sector and policy areas, keeping in mind the general rule that there will probably be more gender equality issues to consider in sectors, policy areas and interventions with direct implications for people. It should always be carried out at initial stages of an intervention and planning.

3.3. Gender-responsive climate project objectives

Increasing gender-responsiveness in the programming of climate related activities or investments presents an opportunity to equitably reduce the adverse impacts of climate change for women, men, girls and boys, as well as to achieve gender equality.

This guideline will be used by the NDA and SAC during the process of prioritizing and evaluation GCF-related project proposals. In that line, a sensitization of the representatives of the ministries and NDA/SAC on gender-responsive approaches to the climate change actions and objectives is necessary. Women are change agents, leaders, and innovators in addressing climate change threats. They bring different and innovative perspectives and experiences to political processes, to natural resource management, to adaptation, mitigation and technology and their opportunities and use in climate action. Yet women and men experience the impacts of climate change differently, with women disproportionately affected due to gender inequalities. Effective responses to climate change requires an understanding of how such gender inequalities affect issues such as access to and control over resources; institutional structures; social, cultural and formal networks and decision-making processes. Gender mainstreaming based on gender analysis therefore must be an integral part of climate policy and action. By mainstreaming gender considerations in climate policy and action, climate approaches will be more efficient, effective, and equitable by being responsive to and providing broader benefits to address the needs of women and men, including through compensation and shared benefits. Most sectoral ministries lack capacity to recognize and incorporate gender perspectives in their work. Gender equality mechanisms or ministries are rarely, if ever, consulted with regards to ensuring the incorporation of gender perspectives in the work of the NDA.

Women's organizations and feminist groups are traditionally at the forefront of change for gender equality and the empowerment of women, in many sectors and areas, but their technical expertise in regards to climate change remains limited, and the number of groups and organizations that play a prominent role in this respect remains small. However, technical expertise on the many facets of climate change, as well as on gender equality, and the intersection of the two fields is needed to enhance advocacy and provide inputs for gender-responsive climate policy and action. Collaboration between technical experts on climate and gender equality experts needs to be fostered to ensure effective gender mainstreaming in climate change. There is also a need to engage national gender equality mechanisms/machineries and build their capacity to ensure systematic integration of gender and climate change, and to provide political leadership in this field.

Gender-responsive climate projects aim to address the unique needs, roles, and experiences of both women and men in the context of climate change. Here are some objectives commonly pursued in such projects:

1. **Inclusivity and Participation:** Encourage equal participation of women and men in decision-making processes related to climate change adaptation and mitigation strategies.
2. **Empowerment and Capacity Building:** Provide opportunities for women and men to develop skills, knowledge, and resources to actively engage in climate action and sustainable practices.

3. **Addressing Gender Inequality:** Identify and address underlying gender inequalities exacerbated by climate change, such as unequal access to resources, economic opportunities, and decision-making power.
4. **Data Collection and Analysis:** Gather sex-disaggregated data to better understand the differential impacts of climate change on women and men, enabling more targeted and effective interventions.
5. **Promoting Livelihood Diversification:** Support initiatives that enable women and men to diversify their livelihoods and adapt to changing environmental conditions caused by climate change.
6. **Health and Well-being:** Focus on improving access to healthcare, sanitation, and nutrition for women and men in vulnerable communities affected by climate-related disasters.
7. **Infrastructure and Services:** Ensure equitable access to climate-resilient infrastructure, energy, water, and sanitation services for women and men, considering their specific needs and vulnerabilities.
8. **Advocacy and Policy Influence:** Advocate for gender-responsive policies at local, national, and international levels, integrating gender considerations into climate change policies, plans, and budgets.
9. **Knowledge Sharing and Awareness:** Promote awareness and education on gender-specific vulnerabilities to climate change, fostering behavioural change and community resilience.
10. **Partnerships and Collaboration:** Encourage partnerships between governments, NGOs, businesses, and communities to implement inclusive and effective climate strategies that address gender disparities.

These objectives, when integrated into climate projects, can contribute to more holistic, equitable, and impactful efforts in addressing the challenges posed by climate change while ensuring the inclusion and empowerment of all genders.

4. Human capital considerations in climate projects

Human capital, which includes knowledge, skills, and health, is a critical component of community resilience. In the face of climate-related challenges, individuals and communities with greater human capital are better equipped to adapt and respond effectively. Investments in human capital development enhance the capacity of individuals and communities to cope with changing conditions.

One promising approach is the accumulation of human capital through increased educational attainment. More educated individuals may be better equipped to understand the complexities of climate science and have more awareness of the risks of climate change. More education might also yield transferable skills across occupations, encouraging voting for policies which promote less-polluting industries, such as renewable energy subsidies. Yet determining the causal effect of

human capital accumulation on pro-climate beliefs and behaviours is challenging. People who choose to pursue more education are, by revealed preference, forward looking and thus more concerned with the future consequences of climate change. It might not be education that is causing pro-climate beliefs and actions, but rather time preferences. Reverse causality is another challenge: individuals who believe in climate change might choose to pursue more education to better adapt to a changing world increasing their resilience to changes.

4.1. Identifying human capital in climate projects

Human capital plays a pivotal role in the success of climate projects, encompassing a diverse range of skills, knowledge, and perspectives vital for effective implementation. Identifying this crucial human capital during project planning involves a comprehensive approach. It requires recognizing not just technical expertise but also the broader spectrum of individual capabilities, including socio-cultural backgrounds, gender perspectives, and community insights. By thoroughly assessing and acknowledging this diverse human capital, project planners can strategically align teams, leveraging varied strengths and experiences. This inclusive approach cultivates an environment conducive to innovation, essential for navigating the intricate landscape of climate challenges.

4.2. Assessing skills and capacities

Assessing employee skills and capacities is an essential aspect of managing a successful team. A good understanding of the employees' abilities allows you to identify knowledge gaps, strengths, and areas for improvement. It is an essential step used in companies and sectors influenced by climate change in order to evaluate the abilities of the employees to adapt to the change.

A skills assessment is a process used to evaluate an individual's abilities, knowledge, and competencies in a particular area. The process typically involves completing specific tests and tasks to demonstrate some level of proficiency in a given skill set. Such activities are critical to onboarding, career development, promotion, and certification processes, as well as for keeping up with the changes.

Disruptions caused by climate change, such as extreme weather events and displacement, can interrupt educational opportunities, especially for women and youth. Limited access to education and skills development has long-term implications for human capital.

Climate change can damage infrastructure, disrupt supply chains, and harm economic sectors such as agriculture and forestry. When livelihoods are jeopardized, the capacity for skill development and economic growth is constrained. A well-developed human capital can enhance a community's capacity to adapt to climate impacts. Knowledge and skills are vital for implementing climate-resilient practices and technologies, as well as for disaster preparedness.

It is vital to ensure development and transfer of technologies for adaptation and mitigation on the climate changes. It is crucial that the country applies a technology needs assessment (TNA) process that will identify the skills and capacities of the human capital. The TNA puts the

responsibility for the institutionalization of human capital perspectives on the national designated authority (NDA).

4.3. Strengthening human capital for climate resilience

Strengthening human capital for climate resilience stands as a cornerstone in fortifying communities and systems against the challenges posed by a changing climate. The augmentation of human capital is pivotal in enhancing climate resilience for several reasons. Firstly, increased human capital equips communities with a diversified skill set and knowledge base, enabling them to better comprehend, adapt to, and mitigate climate-related risks. Secondly, heightened human capital fosters innovation and the adoption of adaptive strategies, enhancing the overall resilience of groups facing environmental stressors. Particularly crucial aspects of human capital in bolstering climate resilience encompass a blend of technical expertise, traditional knowledge, adaptive capacities, and socio-cultural awareness. When these elements are nurtured and integrated within communities, they empower individuals and groups to navigate and withstand the multifaceted challenges brought about by climate change, ultimately fostering greater resilience at local, regional, and global levels.

Strengthening climate resilience through improved human capital involves empowering communities and individuals with the skills, knowledge, and adaptive capacities necessary to confront and adapt to climate challenges. This can occur in different ways as listed below:

1. **Enhanced Understanding and Awareness:** Improved human capital leads to better comprehension of climate change impacts and risks. Education and awareness programs increase understanding about climate-related threats, enabling communities to make informed decisions and take proactive measures.
2. **Adaptive Capacity Building:** Investing in human capital involves developing adaptive capacities. Training programs, skill-building initiatives, and knowledge-sharing platforms equip individuals with the tools to adapt their livelihoods, agricultural practices, infrastructure, and disaster response strategies to changing climatic conditions.
3. **Innovation and Problem-Solving:** Heightened human capital sparks innovation. It encourages the development of new technologies, techniques, and solutions to address climate challenges. Communities with diverse skill sets can collaboratively devise creative and context-specific strategies to tackle local climate-related issues.
4. **Community Engagement and Participation:** Improved human capital fosters community engagement and participation. When individuals are equipped with the necessary skills and knowledge, they become active participants in decision-making processes related to climate adaptation and resilience-building efforts.
5. **Preservation of Traditional Knowledge:** Recognizing and integrating traditional knowledge systems within communities contributes significantly to resilience. Enhanced human capital respects and utilizes indigenous practices that have sustained communities in the face of environmental changes for generations.
6. **Social Cohesion and Networks:** Strengthening human capital fosters social networks and cohesion. Stronger bonds within communities enable collective action in response to climate-related challenges, facilitating mutual support during times of crisis.

- 7. Policy Advocacy and Implementation:** Improved human capital can drive policy advocacy and implementation. Well-informed and skilled individuals can advocate for policies that support climate resilience, ensuring that governance structures are responsive to community needs and challenges.

By enhancing human capital through education, skill development, knowledge-sharing, and inclusive participation, communities become better equipped to adapt, innovate, and respond effectively to the impacts of climate change, thereby reinforcing their overall resilience.

5. Integrating gender and human capital in climate projects

Climate change is one of the most pressing global challenges of our time, with far-reaching implications for ecosystems, economies, and human societies. The increasing frequency and severity of extreme weather events, rising sea levels, temperature changes, and altered precipitation patterns are all evidence of a planet in flux. These shifts in climate patterns are affecting the way we live, work, and interact with the environment, posing significant risks to both developed and developing nations.

Climate change has been characterized as a "threat multiplier" because it amplifies existing vulnerabilities and disparities within and between countries. These impacts are far from gender-neutral. Women, men, and marginalized groups often experience climate change differently, with unique challenges and opportunities arising from their distinct roles in society. Gender disparities and inequalities that existed before climate change are exacerbated, making women and marginalized populations particularly vulnerable to the impacts of climate change.

In parallel, climate change and its associated effects, such as extreme weather events, have consequences for human capital. Human capital encompasses the skills, knowledge, health, and productive capabilities of individuals, which are critical for both personal and societal development. Climate change can undermine human capital in various ways, including through adverse health effects, reduced access to education, and damage to livelihoods. These impacts, in turn, can perpetuate cycles of poverty and vulnerability.

5.1. Project design principles

Recognizing the disproportionate impact of climate change on women and marginalized groups, is an imperative to integrate gender considerations into climate-related projects. Gender equity and equality are not only fundamental human rights but also key drivers of resilience and sustainable development. By addressing gender disparities in climate projects, we can empower women, enhance their adaptive capacity, and ensure that they have equal access to resources, opportunities, and decision-making processes.

Climate change adaptation and mitigation strategies should be socially inclusive. Neglecting the needs of marginalized communities perpetuates inequalities and exacerbates the vulnerability of

these groups. Integrating human capital considerations means investing in the knowledge and skills of these communities, enhancing their capacity to adapt to climate impacts, and breaking the cycle of poverty.

Resilience is a core objective in climate-related projects. By addressing gender disparities and enhancing human capital, these projects can help communities build resilience. Women, in particular, play critical roles in managing natural resources and adapting to environmental changes. By empowering them and investing in their well-being, projects can better achieve resilience goals.

Sustainable development is an overarching goal for any climate-related project. Integrating gender and human capital dimensions is pivotal for achieving this goal. Healthy, educated, and empowered populations are more capable of participating in economic activities, contributing to local development, and adapting to a changing climate. A well-educated and healthy population is more productive, both in terms of labour force participation and economic output. Climate projects that improve human capital can boost local economies, making communities more resilient to climate shocks.

Climate projects have dual goals of mitigation (reducing greenhouse gas emissions) and adaptation (responding to the impacts of climate change). Integrating gender and human capital dimensions can enhance the effectiveness of both strategies. Gender-sensitive projects can promote renewable energy solutions while addressing social disparities, and human capital development can enhance adaptive capacity.

In conclusion, the nexus between human capital and climate change underscores the urgent need to integrate gender and human capital dimensions in climate-related project appraisal and design. By doing so, we can address the unequal impacts of climate change, build resilience, foster sustainable development, and advance the global agenda for climate action. This approach is not only ethical but also strategic in ensuring the long-term success of climate projects.

5.2. Setting gender and human capital objectives and indicators

Developing objectives and indicators for gender and human capital within climate resilience initiatives requires a balanced and comprehensive approach. Gender-inclusive objectives are crucial to ensure fair participation and account for the diverse strengths and vulnerabilities across communities facing climate challenges. Human capital objectives encompass a wide range of skills, knowledge, and adaptive capacities essential for building resilience. Indicators might include measures of education levels, skill enhancement, involvement in decision-making processes, incorporation of traditional knowledge, and the implementation of supportive policies. This balanced approach acknowledges the importance of both gender inclusivity and diverse skill sets in effectively addressing and adapting to climate-related risks.

1. Gender Objectives:

Objective: Increase gender-inclusive participation in decision-making processes.

Indicator: Percentage increase in women's representation in community climate resilience committees or local governance bodies.

Objective: Ensure equitable access to climate-related education and training.

Indicator: Number of girls and women enrolled in climate adaptation workshops or educational programs.

Objective: Reduce gender disparities in resource access and control for climate adaptation.

Indicator: Percentage increase in women's access to and ownership of climate-resilient resources (land, water, etc.).

2. Human Capital Objectives:

Objective: Enhance climate-related skills and knowledge.

Indicator: Number of individuals trained in climate-resilient agricultural practices or disaster preparedness techniques.

Objective: Foster innovation and knowledge-sharing for climate adaptation.

Indicator: Number of community-led initiatives or projects addressing climate challenges.

Objective: Incorporate traditional knowledge systems into climate resilience strategies.

Indicator: Documentation of traditional practices integrated into local climate adaptation plans.

3. Combined Objectives:

Objective: Develop gender-sensitive policies supporting human capital development for climate resilience.

Indicator: Number of policies or strategies explicitly addressing gender inclusivity in climate resilience programs and initiatives.

Objective: Improve access to climate information and technology for all genders.

Indicator: Percentage increase in the use of climate information services and technologies among both men and women in target communities.

Objective: Strengthen community resilience through inclusive decision-making processes.

Indicator: Level of participation and engagement of diverse genders in the planning and implementation of climate resilience projects.

These objectives and corresponding indicators aim to create a comprehensive framework that promotes gender inclusivity and the development of diverse human capital essential for building resilience to climate change impacts.

5.3. Stakeholder participation

It is of great importance to involve women, men, and marginalized groups at all stages of the project, including planning, design, implementation, and monitoring. To make sure that their voices are

heard and their needs are considered in the process. Data derived from consultations, interviews, and participatory methodologies will provide important qualitative narratives, bringing the perceptions and views of stakeholders to the fore, and facilitating the identification of desired change and results.

Application of participatory approach will bring a holistic observation and treatment of the needs of the diverse gender and human capital arising from climate change aspects.

Therefore, it is important to:

- Share information: keeping all the interested parties informed;
- Hold consultation: ensuring a multi-way flow of information for establishing a closer dialogue;
- Make decisions: involving high-level representatives of all the interested parties in making decisions;
- Initiate actions: as the highest level of participation is achieved when all the interested parties initiate new actions.

5.4. Step by step guidance for gender and human capital integrated project design

This section presents a practical step by step guidance for incorporating these gender and human capital dimensions into project design and appraisal, the following phases are essential for the process:

1. Gender Analysis:
 - Conduct a thorough gender analysis to understand how climate change affects women, men, and vulnerable groups differently.
 - Identify gender disparities in access to resources, decision-making, and opportunities related to the project.
2. Stakeholder Engagement:
 - Involve women, men, and marginalized groups at all stages of the project, including planning, design, implementation, and monitoring. Ensure that their voices are heard and their needs are considered.
3. Capacity Building:
 - Invest in capacity-building activities to enhance the knowledge and skills of women and marginalized communities to actively participate in the project and adapt to climate change impacts.
4. Data Collection and Analysis:
 - Collect gender-disaggregated data and ensure that gender considerations are integrated into the project's data collection and analysis processes. This data will help track the project's impact on different gender groups.
5. Gender-Responsive Budgeting:
 - Allocate resources specifically for gender-responsive activities within the project budget. This includes funds for gender-related training, women's empowerment initiatives, and promoting women's entrepreneurship in climate-resilient sectors.
6. Gender-Responsive Policies and Regulations:

- Ensure that project design and implementation adhere to national and international gender-related policies and regulations. Promote legal frameworks that support gender equality and women's rights.
- 7. Mainstreaming Gender into Project Activities:
 - Ensure that climate-related project activities consider and address gender-specific needs and vulnerabilities. For instance, women may have specific roles in agriculture or water management that need to be accounted for in adaptation strategies.
- 8. Human Capital Development:
 - Invest in human capital by providing education and training opportunities determined by the climate change, especially for women and marginalized groups, to enhance their employability and income-generating potential, which contributes to climate resilience.
- 9. Health and Well-being:
 - Consider the health and well-being of project beneficiaries, especially women and children, by integrating aspects such as clean water, sanitation, and healthcare into climate projects. Climate impacts can affect health outcomes.
- 10. Monitoring and Evaluation:
 - Develop a robust monitoring and evaluation system that tracks the project's impact on gender and human capital dimensions. Regularly assess whether the project is achieving its goals in terms of gender equity and human development.
- 11. Adaptive Management:
 - Be prepared to adapt the project as necessary based on the changing climate conditions and the evolving needs of the affected communities. Incorporate feedback from stakeholders, especially marginalized groups.
- 12. Knowledge Sharing:
 - Promote knowledge sharing and best practices related to gender and human capital integration in climate projects to ensure that lessons learned are applied to future initiatives.

6. Conclusions

These guidelines for climate-related projects have the potential to contribute to sustainable development, reduce gender disparities, and build the resilience of the human capital and the communities facing the challenges of climate change.

Understanding of the nexus between gender, human capital and climate change brings better resilience to climate changes. It is important to have clarity on the related concepts of gender and equality in order to develop an adequate understanding of mainstreaming it in climate projects. At the same time, individuals and communities with greater human capital are better equipped to adapt and respond effectively. Investments in human capital development enhance the capacity of individuals and communities to cope with changing conditions. It requires recognizing not just technical expertise but also the broader spectrum of individual capabilities, including socio-cultural backgrounds, gender perspectives, and community insights. By thoroughly assessing and acknowledging this diverse human capital, project planners can strategically align teams, leveraging varied strengths and experiences.

Recognizing the disproportionate impact of climate change on women and marginalized groups, is an imperative to integrate gender considerations into climate-related projects. Climate change adaptation and mitigation strategies should be socially inclusive.

Integrating the gender-environment and human capital-environment nexus into national policies requires tools and initiatives that mainstream gender and human capital dimensions in sectoral policies and enhance their role in the economy and society. Climate adaptation and mitigation strategies to address the specific needs and vulnerabilities of women, men, and marginalized groups should be tailored, sustainable and equitable access to climate-resilient technologies and resources should be promoted.

Equally important is to regularly review the measures implementation progress and to make necessary adjustments to ensure it remains responsive to gender and human capital issues.