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BOSNIA AND HERZEGOVINA
Ministry of Foreign Trade and Economic
Relations of Bosnia and Herzegovina

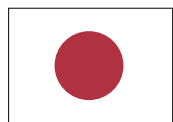


INCLUSIVE DECARBONIZATION ACTIVITY
(IDA) PROJECT

BLUEPRINT
FOR GENDER RESPONSIVE
JUST TRANSITION FOR ALL
IN BOSNIA AND HERZEGOVINA

Disclaimer:

This publication was produced under the “*Inclusive Decarbonization Activity*” (IDA) project, which was funded by the Government of Japan and implemented by the UNDP in cooperation with the Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina. The views expressed in this publication are those of the author(s) and do not necessarily represent those of the United Nations, including UNDP, or the UN Member States, nor of the donor. Expert review by Nera Monir Divan, a Gender Expert.



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BLUEPRINT FOR GENDER RESPONSIVE JUST TRANSITION FOR ALL IN BOSNIA AND HERZEGOVINA

OCTOBER 2023

ACRONYMS

AGE	Agency for Gender Equality of Bosnia and Herzegovina, Ministry of Human Rights and Refugees of Bosnia and Herzegovina
BiH	Bosnia and Herzegovina
CBAM	Carbon Border Adjustment Mechanism
EU ETS	EU Emissions Trading System
GHG	Greenhouse Gas
GEWE	Gender Equality and Empowerment of Women
IDA	Inclusive Decarbonization Activity
SDG	Sustainable Development Goals
SME	Small and Medium-sized Enterprises
TA Project Team	Technical team of the Inclusive Decarbonization Activity (IDA) project, financed by the Government of Japan and implemented by UNDP in partnership with MoFTER.
ToR	Terms of Reference
GAWB	Green Agenda for the Western Balkans
NDC	Nationally Determined Contribution

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INTRODUCTION

Bosnia and Herzegovina (BiH) is a **highly fossil fuel dependent country**, which limits the country's progress towards clean energy transition. According to the most recent Energy Transition Index Report¹, **BiH is ranked 98th among 115 countries for energy transition and 88th for transition readiness**. In 2020, the country generated 15,390.67 GWh of electricity, of which 67.85% was generated from coal.² Total heat production in 2019 was 5571 TJ, where the main source of energy was coal, with 35,910 tons of brown coal and 48,531 tons of lignite burned for heating of households and industry.³ The coal used to generate electricity and heat comes from **14 major coal mines**⁴ which, together with **coal-fired power plants, employ more than 17,000 BiH citizens**. Even with export of electricity, these mines and power plants are operating with high losses, demanding government subsidies to cover costs and keep running. Over the last five years alone, **BiH has subsidized the coal-based energy production with € 170 million**.⁵ The **predicted budget loss** due to the coal-fired thermal power plants **may amount to € 750 million in the next 30 years**.

The situation in 2021 and beyond becomes even more difficult as the European Union (EU) is in the process of establishing a carbon border adjustment mechanism (CBAM), under which goods imported into the EU should be covered by equivalent carbon pricing to that applicable to production of the same goods within the EU, under the Emissions Trading System. CBAM will impact BiH's steel, iron, cement, fertilizers, aluminium and power industries and increase unsustainability of coal dependency. **Initial, first-ever in BiH, UNDP analysis⁶ estimates that just in metal sector (steel, iron and aluminium) CBAM will result in a 22% drop in export and 2,461 laid off workers**. The country is hoping to get an exemption from CBAM, but this requires introduction of EU ETS and harmonization with EU legislation on electricity, renewable energy and environmental protection. Even if the country succeeds, introduction of EU ETS in BiH will place a burden on industry, with estimated EUR 1.3 million to be collected on a yearly basis from the SMEs⁶.

There is a growing recognition that climate change is gendered. **The European Green Deal states that the EU aims to achieve climate neutrality by 2050 and that “the transition must be just and inclusive”**, including gender equality. There are gendered differences in exposure to the impact of and ability to adapt to climate change, the process of climate change production, leadership, participation and activism. These gendered differences are in a dynamic interplay with other structural inequalities, including age, location, education levels and income. An approach which takes into account the intersections between these structural inequalities is therefore essential in order to achieve a gender- and climate-just future. Unless gender equality is explicitly incorporated into policies, programmes and projects, gender inequalities, which are ingrained in social norms, practices and institutions, will be perpetuated.

But even without CBAM, coal production is unsustainable. Through organizational measures and layoff of excess working force, it would be possible to reduce production costs, but not to ensure sustainability of production at competitive prices, due to outdated technologies and capacities, as well as the rising demand for investments into the GHG emission and pollution reduction. The country has recognized this and has planned layoffs in the

1 http://www3.weforum.org/docs/WEF_Fostering_Effective_Energy_Transition_2021.pdf

2 <https://www.derk.ba/DocumentsPDFs/DERK-lzvjestaj-o-radu-2020-b.pdf>

3 https://bhas.gov.ba/data/Publikacije/Saopštenja/2020/ENE_03_2019_Y1_0_BS.pdf

4 http://www.mvteo.gov.ba/data/Home/Dokumenti/Energetika/Framework_Energy_Strategy_of_Bosnia_and_Herzegovina_until_2035_ENG_FINAL....pdf

5 https://china-cee.eu/wp-content/uploads/2021/03/2021e03_Bosnia-Herzegovina.pdf

6 Report on CBAM and EU ETS impact assessment on BiH, UNDP CO BiH, 2021.

coal mining and energy sectors: 2,000 in the power utility “Elektroprivreda BH”, 450 in coal mine Breza and 400 in coal mine Zenica⁷. However, this is not a long-term solution and raises concerns about the impact on laid off workers, their families and communities. At the end of 2021, **unsustainability of coal production has led to an increase in electricity prices for industry ranging from 70% to 300%. This resulted in private sector protests, the rise of economic instability and brought into question the future economic development of the country.**

On the other hand, high fossil fuel dependency is the main reason for **air pollution and greenhouse gas (GHG) emissions in BiH, which is nearly five times greater than in the EU in relation to Gross Domestic Product (GDP).**⁸ The World Bank data reveals that **99,6% of the BiH population is exposed to PM2.5 air pollution and that around 3,300 people die prematurely every year because of exposure to ambient PM2.5 air pollution in BiH.** Since the COVID-19 outbreak, exposure to PM2.5 brought additional danger, as recent study shows that an increase of only 1 µg/m³ in PM2.5 exposure is associated with an 8% increase in the COVID-19 fatality rate, while long-term exposure to air pollution largely increases the COVID-19 mortality rates.⁹ In addition to causing pain and suffering, premature deaths and illnesses caused by air pollution result in increased health expenditures and labour productivity losses. **The estimated economic cost associated with mortality from exposure to air pollution in BiH is in the range of US\$1–1.8 billion, equivalent to 5.9–10.5 percent of GDP in 2016.**¹⁰ This statistical data illustrates the **economic and social situation of BiH, which is trapped in poverty that encourages fossil fuel consumption, with low GDP per capita, which has further dropped by 3.7% due to the COVID-19 pandemic**¹¹. UNDP’s *Intersectional Analysis of the Differential Impact of the COVID-19 Crisis and Inflation on Women in BiH*¹², conducted on a representative sample of 1800+ households, shows **significant impact of the pandemic and inflation on women, with women from vulnerable groups or with multiple vulnerabilities having it even worse. 55.5% of all women respondents experience a worsened financial situation (versus 44.9% of men). 13.5% of women report reduced remittances, versus 8% of men. Particularly hit are women from rural areas 79% of whom report a worse or much worse financial situation. A quarter of all women with income below BAM 900 had to borrow money to cover basic needs, the numbers going up to 39% of poor and 35% of single mothers. 24% of all women resort to reduced food intake compared to 15% of men, with numbers dramatically rising for poor women (55%) and women with disabilities (40%), single mothers (38%), internally displaced women (38%). Rising inequalities and poverty are in direct correlation with high health risks that increase mortality and together with brain-drain paint a non-sustainable and alarming future for Bosnia and Herzegovina.**

On a positive note, on April 21, 2021, BiH presented its second national climate pledge to the United Nations Framework Convention on Climate Change (UNFCCC), showcasing its aspirations to become an EU member and marking its renewed commitment to the landmark 2015 Paris Agreement. Having submitted this document, **BiH became one of the first countries in the Western Balkans to have adopted an updated Nationally Determined Contributions (NDCs),¹³ including the plan to cut GHG emissions by 33.2 percent by 2030, and by nearly 66 percent by 2050, compared to the 1990 levels, with energy sector and carbon-intensive industries being at the heart of the country’s transition towards low-carbon economy. BiH is also a signatory to the Sofia Declaration¹⁴, thereby committing itself to working towards the 2050 target of carbon-neutrality.**

7 https://china-cee.eu/wp-content/uploads/2021/03/2021e03_Bosnia-Herzegovina.pdf

8 <https://www4.unfccc.int/sites/NDCStaging/pages/Party.aspx?party=BIH&prototype=1>

9 <https://www.frontiersin.org/articles/10.3389/fpubh.2020.580057/full>

10 <https://documents1.worldbank.org/curated/en/117281576515111584/pdf/Air-Quality-Management-in-Bosnia-and-Herzegovina.pdf>

11 <https://bosniaherzegovina.un.org/en/47601-economic-impact-assessment-covid-19-bih>

12 <https://www.undp.org/bosnia-herzegovina/publications/intersectional-analysis-differential-impact-covid-19-crisis-and-inflation-women-bosnia-and-herzegovina>

13 <https://www4.unfccc.int/sites/NDCStaging/pages/Party.aspx?party=BIH>

14 [Sofia Declaration-on-the-Green-Agenda-for-the-WB.pdf](#)

Given the high fossil fuel dependency and ambitious targets for GHG reduction, **BiH faces a serious risk of either: a) failing to achieve NDC targets and implement measures which are required not only for clean energy transition but also for EU integration of the country, which will undoubtedly result in higher air pollution and increase the pressure on the already stretched capacity of the healthcare system, or b) facing a further rise in poverty, inequalities and gender gaps, downfall of GDP and a stronger socioeconomic crisis** due to the negative impact of low-carbon transition on the economy, carbon-intensive industries and households and communities dependent on them.

To mitigate these risks, Inclusive Decarbonization Activity (IDA) project, funded by the Government of Japan and implemented by UNDP BiH in partnership with the Ministry of Foreign Trade and Economic Relations (MoFTER), set the **objective of taking initial steps towards introducing a gender responsive just transition mechanism that will ensure that the transition to low-carbon economy and implementation of the NDC in BiH happens in a fair and gender-responsive way, leaving no one behind**. Also, the project **seeks and explores interlinkages between gender, poverty and sustainable energy, and identifies important elements specific for the context of BiH**, that would need to be considered in the transition from fossil fuels to low-carbon economy in order to ensure that this transition does not exacerbate inequalities, but instead advances equality, particularly gender equality.

This has led to the development of a strategic basis for just transition towards low-carbon economy by creating the **Blueprint for Gender Responsive Just Transition for All in BiH** with the focus on identifying and developing concrete actions and allocating required funds for **mitigating the negative and scaling-up the positive socioeconomic impacts** that the low-carbon transition may have **on carbon-intensive industries, SMEs, women, youth, marginalized and vulnerable communities and groups and the overall society of BiH**. One of the specific targets of the Blueprint is to **identify entry points for extending renewable energy access to poor and rural communities in order to reduce the gap in energy access**, improve air quality, as well as increase leadership and economic opportunities for women and tackle climate change. The Blueprint has been developed in close cooperation with the governmental and private sector stakeholders, led by the Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina (MOFTER). The document was developed on the basis of the following activities:

- Analysis of the current situation and low-carbon market demand in BiH,
- Analysis of the current socioeconomic position of women and gender aspects of just transition process,
- Analysis of socioeconomic development impact of NDC and identification of vulnerable industries, SMEs, women, youth, marginalized communities, and vulnerable groups,
- Assessment of the policy and regulatory framework and mapping of relevant actors and institutions related to just transition towards low-carbon economy and fulfilment of Nationally Determined Contributions (NDC) Bosnia and Herzegovina goals, and
- Consultations with 30 local stakeholders through the Working Group meetings and workshops led by technical and advisory support from national and international experts.

The chapters below present the key findings and recommendations for integration of gender responsive just transition mechanism into energy transition of Bosnia and Herzegovina that will ensure that the transition happens in a fair and just way.

ANALYSIS OF THE CURRENT SOCIOECONOMIC POSITION OF WOMEN AND GENDER ASPECTS OF JUST TRANSITION PROCESS

Various indicators confirm that gender inequality in Bosnia and Herzegovina persist and that its negative toll impact multiple dimensions of life. The Human Development Index value is lower for women than for men (0.754 vs 0.802 respectively)¹⁵ and the Gender Development Index is 0.94¹⁶, which indicates significant room for improvement across its three indicators of human development (health, knowledge and living standard). In terms of legislation, the BiH Gender Equality Law provides an adequate legal framework for creating conditions for equal opportunities between women and men, while a number of Gender Action Plans have been implemented under the leadership of the BiH Agency for Gender Equality and in close coordination with the entity-level Gender Centres. The Funding Mechanism for the Implementation of the Gender Action Plan (FIGAP) became operational in 2010, the year in which BiH also became the first country in the Western Balkans to adopt the Action Plan to Implement the UN Security Council Resolution 1325 on Women, Peace and Security. The Gender Equality Law was amended in 2009 to meet the EU and the Council of Europe standards. In addition to the gender specific laws, the state-level Law on Prohibition of Discrimination on different grounds and Employment and Social Protection Laws offer de jure framework of equal opportunities. The State-level Election Law requires that candidate lists contain at least 40% of women. In July 2015, the Council of Ministers adopted the Framework Strategy for the Implementation of the Istanbul Convention on preventing and combating violence against women and domestic violence 2015-2018. Despite a sound legislative framework, data shows that violence against women remains a pervasive issue in BiH. According to the OSCE-led survey on violence against women in BiH, close to half (48%) of women have experienced some form of psychological, physical or sexual violence, including intimate partner violence, non-partner violence, stalking and sexual harassment, since the age of 15¹⁷.

Poverty and precarious socioeconomic conditions are still strongly feminized in Bosnia and Herzegovina and gender-based discrimination in employment and the labour market represents a significant challenge. Gender inequality is reflected in employment rates, with current labour force participation for women being at 37% and 63%¹⁸ for men. This is especially so in women's prime working and childbearing age. In the case of active population of women that do have a job, they are more likely to face worse working conditions, dealing with precarity, discrimination, gender pay gaps, and the remaining more likely than men to be relegated to the informal sector.¹⁹ Furthermore, economic precarity is directly linked to constrained access to social and health services, given that obtaining health insurance is usually done either through employment or registration with employment bureaus, which not all women are in the position to achieve²⁰.

15 United Nations., 2021. *Human Development Index*. [online] Hdr.undp.org. Available at: <<https://hdr.undp.org/data-center/>>.

16 United Nations., 2021. *Gender Development Index*. [online] Hdr.undp.org. Available at: <<https://hdr.undp.org/gender-development-index#/indicies/GDI>>.

17 OSCE, 2019. *OSCE led survey on violence against women*. Well-being and safety of women. [online] Bosnia and Herzegovina: OSCE. Available at: <https://www.osce.org/files/f/documents/3/5/423470_1.pdf>].

18 UNDP, 2021. *National Human Development Report 2020: Social Inclusion in Bosnia and Herzegovina*. Available at: <https://www.undp.org/bosnia-herzegovina/publications/national-human-development-report-2020-social-inclusion-bosnia-and-herzegovina>

19 UNDP, 2021. *National Human Development Report 2020: Social Inclusion in Bosnia and Herzegovina*. Available at: <https://www.undp.org/bosnia-herzegovina/publications/national-human-development-report-2020-social-inclusion-bosnia-and-herzegovina>

20 Ibidem

Poverty remains a particular concern, particularly for women and in rural areas that are generally characterized by fewer job opportunities, weak physical infrastructure and public services, as well as limited access to markets, business development and financial services. Unemployment rates in rural areas are considerable and can be 40% higher than in the main urban centres. Wages are also 25% lower, while the estimated GDP per capita is less than half the level reported in urban environments²¹.

In Bosnia and Herzegovina, women are in a disfavoured position across decision-making platforms, political representation and public life. There are no women among party leaders and only few in other leadership positions. Although the national Law on Elections was aligned twice with the Law on Gender Equality, women continue to be under-represented across governments. The last local election, held in 2020, resulted in having only 5 women mayors despite significant local level activism championed by women leaders. The 2022 General Election brought a total of 518 elected officials, of whom 142 women. Only 7 women out of 42 representatives in total were elected to the House of Representatives of the Parliamentary Assembly of Bosnia and Herzegovina. Less than a third of women were elected to the House of Representatives of the Parliament of the Federation of Bosnia and Herzegovina (27 women, 98 members in total). Three men were elected to the positions of president and two vice presidents of the RS. 83 deputies (16 women) were elected to the National Assembly of the Republika Srpska. 91 women out of 289 representatives in total were elected to the cantonal assemblies. There is no systematic promotion of gender equality in the civil service and the representation of women in top management varies from only 19% in the Republika Srpska entity to 41% in the state institutions.

Overall, long-lasting and pervasive gender-based stereotypes further fuel these forms of exclusion²² and keep damaging women political candidates. The advancement of technology has provided BiH women with significant access to know-how, information-sharing and networking. However, it has also provided new channels for gender-based violence against women and girls to an alarming extent, while creating new forms of silencing and harassment of women active in public life and leaving thin margins for accountability. All these factors combined hamper decades of emancipatory work, relegating women to the private sphere, constraining their aspirations while the absence of effective and affordable public services burdens them with unpaid care work²³.

Inclusive and gender-responsive resilience to shocks and crises is crucial for BiH and its capacity to bounce back from adversity while leaving no one behind. From extended political instability to the COVID-19 pandemic, inflation, food insecurity, poverty and climate change, the country has been exposed to the shattering crisis that have disproportionately impacted women and girls, while systematically excluding them from decision-making processes linked to recovery and resilience. Women in BiH have been especially affected by the multidimensional impact of the COVID-19 pandemic, as shown in an **Intersectional Analysis** of the Differential Impact of the COVID-19 Crisis and Inflation on Women in Bosnia and Herzegovina. Economic disruption has been one of the most severe consequences of the pandemic, worsening the financial situation of 52% of the households and having a disproportionate toll on women, which further escalated in 2022²⁴. Data shows that 55.5% of women experienced a worsened financial situation,

21 <https://www.undp.org/bosnia-herzegovina/projects/eu4agri-%E2%80%93-modernizing-agri-food-sector-bosnia-and-herzegovina-thriving-rural-areas>

22 Ibidem

23 UNDP, 2020. *Social Inclusion in Bosnia and Herzegovina*. National Human Development Report. [online] Available at: <<https://www.undp.org/bosnia-herzegovina/publications/national-human-development-report-2020-social-inclusion-bosnia-and-herzegovina#:~:text=In%202007%2C%20UNDP%20produced%20a,the%20end%20of%20the%20conflict>>.

24 UNDP and UNICEF, 2022. *Social Impact Assessment Study*. Third Household Survey. [online] Available at: <https://www.undp.org/sites/g/files/zskgke326/files/2022-06/SIA%20III_ENG.pdf>.

compared with 44.9% of men. In addition, the sectors with the highest rates of women employment experienced the heaviest job losses²⁵. Likewise, in terms of access to public services, women have been particularly affected by reduced access to healthcare, which has negatively impacted the preventive health and enjoyment of reproductive rights. In terms of gender roles and division of labour, a significant proportion of women has experienced a damaging slide and return to traditionalism, as they have become overwhelmed by magnified economic dependency and care work. 75% of women reported having to devote more time to their children, while 63.3% spent significantly more time doing household chores, compared to last year²⁶. Pandemic disruptions, together with an increase in the socioeconomic risk factors, have correlated with higher rates of gender-based violence, a greater level of economic dependence on partners and weakened capacity to access referrals, social and institutional support²⁷.

This ripple effect caused by the COVID-19 pandemic and inflation is even more profound if we consider how gender interacts with multiple and intersecting forms of deprivation, disadvantage and discrimination. For this reason, it is crucial to consider the increased and combined forms of exclusion and inequality experienced by young, rural, Roma women, single parents, women with disabilities or women living below the poverty line. Particularly hit are women from rural areas 79% of whom report a worse or much worse financial situation. A quarter of all women with income below BAM 900 had to borrow money to cover basic needs, the numbers going up to 39% of poor and 35% of single mothers. 24% of all women resort to reduced food intake compared to 15% of men, with numbers dramatically rising for poor women (55%) and women with disabilities (40%), single mothers (38%), internally displaced women (38%). Only by adopting intersectional approach will it be possible to consider that all women are empowered, all voices are being heard, marginalization is not being reinforced and no one is left behind.

The energy sector is influenced by a set of persistent gender inequalities, such as gender gaps in energy access, gender gaps in the energy labour market, gender gaps in energy-related education, gender gaps in decision-making. Women in BiH are also disproportionately excluded from the control and access to environmental resources and participation in decision-making in the area of energy and environment. Women are also less likely to hold decision-making positions in the energy sector. The absence of women in energy policy and strategy planning decreases the likelihood that women's interests and needs will be taken into account.

Increasing women's involvement in the field of energy has the potential to stimulate sustainable economic growth. But women are often employed in low-qualified and non-technical jobs in the energy sector. Fewer women than men undertake STEM studies. Women's participation in the energy labour market is also discouraged by gender stereotypes. As BiH aims to transition towards environmentally friendly economic systems²⁸, women in the country risk to be left out from participating along the process and therefore from enjoying its benefits. By being left behind from full and meaningful participation in the design, implementation and access to policies linked to sustainable management of natural resources and new forms low carbon economic growth, women can become not only further economically marginalized, but additionally affected by the consequences of environmental degradation and unsustainable practices. Also, failure to promote women to leadership positions, provide concrete opportunities for women entrepreneurs in the energy sectors and to integrate a gender lens into climate mitigation and resilience activities will not only undermine the effectiveness of climate change response and environmental protection but also have detrimental impacts on development outcomes. Therefore,

25 Ibidem

26 Ibidem

27 Bosnia and Herzegovina. 2020. *Violence increased during the coronavirus pandemic, women and girls need psychological support*. [online] Available at: <<https://bosniaherzegovina.un.org/en/51777-violence-increased-during-coronavirus-pandemic-women-and-girls-need-psychological-support>>

28 UNDP, 2021. Country program document for Bosnia and Herzegovina. [online] UNDP.

closing gender gaps in partnership with gender machinery and women's organizations in the implementation of these targeted actions is of crucial importance.

The process of just transition must be implemented keeping in mind that energy policy is not gender neutral. Achieving gender equality in the field of energy can be linked with human rights and social, environmental and economic development. From a gender and human rights perspective, women and men have different energy needs. As it can be seen from the above presented statistics, due to traditional social norms in Bosnia and Herzegovina, women still spend more time than men in unpaid household work. This means that in reality, women spend more time at home and are more dependent than men on heating and indoor air quality. For the same reason, women are more dependent on energy to use household devices and more affected by poor housing conditions, including badly insulated environments and inadequate heating devices.

Also, energy availability trends and affordability affect women and men differently, with more women than men being subject to energy poverty. Then again, as can be seen from the Intersectional Analysis, different groups of women in BiH such as elderly women, Roma women, women with disabilities, minority returnee women, single mothers and those living at collective centres are at an even higher risk of energy poverty.

Finally, data points out that women tend to be more sustainable consumers than men as they: feel greater concern about their ecological footprint, are more likely to buy eco products, they are more avid public transport users and attach more importance to energy-efficient transport, they are more willing to change their behaviours to achieve positive social change, including energy efficiency. Therefore, even though women have gender specific vulnerabilities, they also have unique strengths and coping skills, neighbourhood connections and networks. Hence, women and women-led grassroots and civil society organizations should be used as agents of change, early adopters and advocates for transformational change. A positive example is Gender and Climate Coalition, which emerged under the UNDP lead within the Generation Equality movement, in partnership with the Agency for Gender Equality of BiH and UN Women. The Coalition mobilizes, supports and builds capacities of a broad-based range of actors working on the intersection between gender equality and environmental concerns, including women's grassroots organizations. It also develops tools and data to inform gender-sensitive policymaking in climate mitigation, adaptation and disaster risk reduction. This initiative accurately responds to UNDP's overarching commitments of increasing women's environmental stewardship and leadership at all levels and fostering the implementation of better data and analysis and gender equality commitments in climate policymaking.

AN ANALYSIS OF SOCIOECONOMIC DEVELOPMENT IMPACTS OF NDC AND IDENTIFICATION OF VULNERABLE INDUSTRIES, SMES, WOMEN, YOUTH, MARGINALIZED COMMUNITIES AND VULNERABLE GROUPS

Map of vulnerable groups

The most vulnerable groups of population in the target carbon intensive regions, along with those employed (and potentially laid off) within carbon intensive industries in BiH are: women and especially vulnerable groups of women (in particular single parents, Roma women, women with disabilities, ethnic minority returnee women), poor and relatively poor people, old and chronically ill persons, persons and children with disabilities, unemployed persons, children without parental care, Roma, internally displaced persons, persons living in collective accommodation and refugees, members of an ethnic minority in the place of return after the war, victims of disasters and other categories of population in need of social care. This chapter further provides an overview of the impact of BiH's NDC and decarbonization on vulnerable groups. Nevertheless, among these mapped groups, this chapter further focuses on those with more data and information available for the analysis.

Impact of the BiH NDC on vulnerable groups

Roadmap and Action Plan to implement defined NDC of BiH in the period 2020–2030 define a set of needed activities and investments until 2030 in order to achieve emissions reduction defined in the revised NDC of BiH until 2030.

Table 1 below gives an overview of sectors, measures per sector, potential investment costs and sources necessary for the country's NDC to be delivered. While the measures envisaged by the NDC which are seen as positive and/or progressive for achieving the country's goals in terms of climate change, it is important to note that each of these measures might not have a positive effect or contribute to the gender

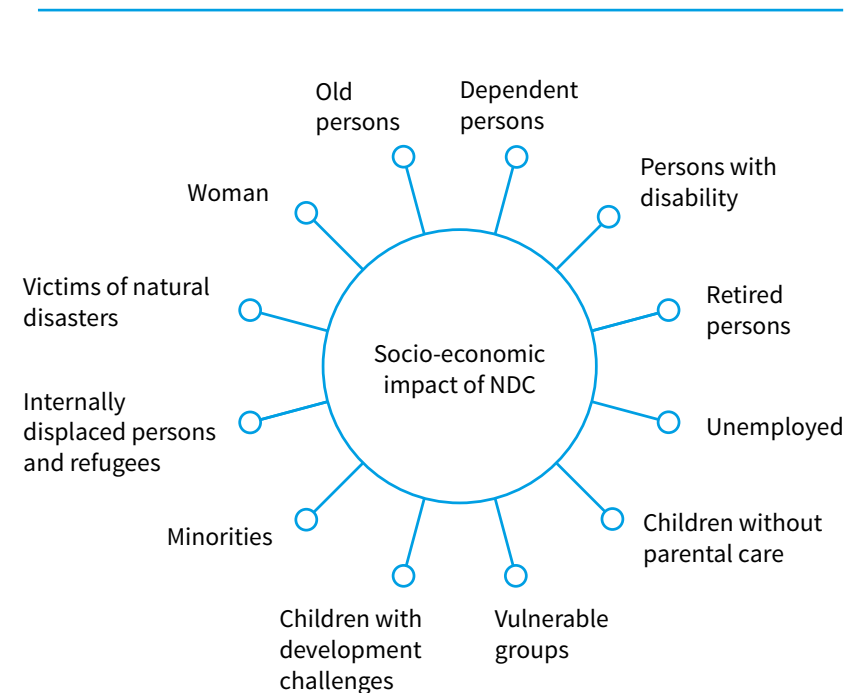





Figure 1:
Map of vulnerable groups

responsive just transition. On the contrary, with the focus on vulnerable groups, some of the measures can make vulnerable groups worse off in the short- and medium-term.

In order to present the effect of these measures, Table 1 also provides an assessment of the distributional impact of these proposed measures on vulnerable groups, as it is important to bear in mind that not all vulnerable groups can or will benefit from the same measure at the same time.

In evaluating the distributional effect of the proposed measures on vulnerable groups, we have used the following colour code to depict if these measures will generate positive/progressive, neutral or negative/regressive effect on these groups.

	Amber	Regressive distributional impact – vulnerable groups are affected more than other groups
	Grey	Neutral distributional impact – vulnerable groups are affected equally as other groups and/or distributional impact will depend on the position vulnerable groups will be given within the specific measure
	Green	Progressive distributional impact – vulnerable groups could be impacted positively

Sector	MEASURES	Distributional impact on vulnerable groups	INSTITUTION RESPONSIBLE	€	FINANCE SOURCE
ELECTRICAL ENERGY	Improving the efficiency of energy production from coal-fired thermal power plants (through the replacement/new thermal power plants)	Green	RS Ministry of Energy and Mining, Federation Ministry of Energy, Mining and Industry, RS Ministry of Physical Planning, Civil Engineering and Ecology, Federation Ministry of the Environment and Tourism, public and private enterprises, BiH Ministry of Foreign Trade and Economic Relations	4.3 billion	International grants for preparation, own resources of natural persons and legal entities, loans, the Environmental Protection Fund of the Federation of Bosnia and Herzegovina, the Environmental Protection and Energy Efficiency Fund of the RS
	Construction of wind farms	Grey			
	Construction of solar power plants	Grey			
	Construction of biomass cogeneration plants	Grey			
	Construction of small hydropower plants	Grey			
	Construction of large hydropower plants	Grey			
Investment in the transmission and distribution network	Green				
DISTRICT HEATING	Installation of cumulative and individual heat energy consumption meters in all facilities connected to district heating	Green	RS Ministry of Energy and Mining, Federation Ministry of Energy, Mining and Industry and the relevant Department in the BD Government, cantonal, city and municipal authorities, district heating companies	400 million	Loans, public budgets, district heating companies, the Environmental Protection Fund of the Federation of Bosnia and Herzegovina, the Environmental Protection and Energy Efficiency Fund of the RS, EU funds, beneficiaries of district heating
	Introduction of renewable energy sources in existing district heating	Grey			
	Reconstruction and modernization of the district heating network and heat substations	Green			

Sector	MEASURES	Distributional impact on vulnerable groups	INSTITUTION RESPONSIBLE	€	FINANCE SOURCE
CONSTRUCTION	Completion of construction of residential buildings	Green	RS Ministry of Physical Planning, Civil Engineering and Ecology, Federation Ministry of the Environment and Tourism and the relevant Department of the BD Government, Environmental Protection Fund of the Federation of Bosnia and Herzegovina, the Environmental Protection and Energy Efficiency Fund of the RS	2.1 billion	Building owners, loans, public budgets, the Environmental Protection Fund of the Federation of BiH, the Environmental Protection and Energy Efficiency Fund of the RS, EU funds
	Renovation of buildings – residential	Green			
	Renovation of public and commercial buildings	Orange			
	Application of solar heat systems	Orange			
	Application of heat pumps	Orange			
TRANSPORT	Increasing the share of rail transport	Green	Ministry of Transport and Communication of BiH, RS Ministry of Transport and Communication, Federation Ministry of Transport and Communication, BD Government, PE Railways of FBiH, PE Railways of RS	1.22 billion	Development loans, company's own funds, public budgets, private investors, the Environmental Protection Fund of the Federation of BiH, the Environmental Protection and Energy Efficiency Fund of the RS, vehicle owners
	Increasing the share and modernization of public transport	Green			
	Increasing the share of environmentally friendly vehicles with the construction of the necessary infrastructure (for electric vehicles, bicycle paths, etc.)	Grey			

Sector	MEASURES	Distributional impact on vulnerable groups	INSTITUTION RESPONSIBLE	€	FINANCE SOURCE
AGRICULTURE	Changes in livestock nutrition		RS Ministry of Agriculture, Forestry and Water Management, Federation Ministry of Agriculture, Water Management and Forestry, the cantonal line ministries in charge of agriculture, and the Brčko District Department for agriculture, under the coordination of the BiH Ministry of Foreign Trade and Economic Relations, the Plant Health Protection Authority of Bosnia and Herzegovina plants and the Veterinary Office of Bosnia and Herzegovina	105 million	Dedicated budget funds, EU funds, incentives within rural development measures
	Improving the manure storage system				
	Use of fertilizers and biomass waste in anaerobic decomposition and biogas production				
	Construction of hydrotechnical facilities for protection against natural disasters				
	Application of mineral fertilizers coated with polymers				
	Introduction of new species, varieties and breeds in agricultural production				
	Improving animal health and welfare				
Using the natural potential of microorganisms in sustainable agricultural production					
WASTE	Preventing/minimizing waste generation and reducing the amount of generated solid waste		RS Ministry of Physical Planning, Civil Engineering and Ecology, Federation Ministry of the Environment and Tourism, Federation Ministry of Physical Planning, BD Environmental Protection Department, Environmental Protection Fund of the Federation of Bosnia and Herzegovina, RS Environmental Protection and Energy Efficiency, municipal utility companies, local governance units	172 million	Public budgets, international development loans, private investors, utility companies
	Increasing the amount of separately collected/sorted solid waste and recycling for further reuse				
	Ensuring a waste treatment system with collection and utilization of landfill gas				
	Reduction of the amount of disposed biodegradable waste, production of biogas and compost				

Sector	MEASURES	Distributional impact on vulnerable groups	INSTITUTION RESPONSIBLE	€	FINANCE SOURCE
FORESTRY	Detailed mapping of forest inventory				
	Research on species selection and establishment of new forests based on modelled climate changes				
	Established areas for monitoring in sensitive ecotypes				
	Education of employees in forestry, raising citizens' awareness of the importance of forests and sensitivity to climate change				
	Laws and by-laws adapted to the effect of climate change		RS Ministry of Agriculture, Forestry and Water Management, Federation Ministry of Agriculture, Water Management and Forestry, public and private forest management companies, scientific research institutes, public and private TV and radio services		
	Improvement of the forest fire protection system				
	Afforestation of bare, coppices, and degraded forests				
	Establishment of plantations of fast-growing species				
	Afforestation of areas affected by erosion				
	Laws and by-laws adapted to the effect of climate change in order to improve "adaptive systems of cultivation and forest planning"				
	Designation of protected areas (100 ha/year) in order to increase the area of "adaptive forest ecosystems"				

60.3 million

International creditors (e.g. the World Bank), RS Ministry of Agriculture, Forestry and Water Management, Federation Ministry of Agriculture, Water Management and Forestry, public companies and private entrepreneurs

Sector	MEASURES	Distributional impact on vulnerable groups	INSTITUTION RESPONSIBLE	€	FINANCE SOURCE
CROSS-CUTTING SECTOR	Development of a plan for the gradual reduction of hydrofluorocarbon (HFC) use		MoFTER of Bosnia and Herzegovina in cooperation with the Federation Ministry of the Environment and Tourism, RS Ministry of Physical Planning, Civil Engineering and Ecology and the relevant department in the Brčko District Government	4.8 million	Multilateral fund for the implementation of the Montreal Protocol, Green Climate Fund (GCF), Kigali Cooling Efficiency Program (K-CEP), bilateral programmes in the field of climate change (SIDA, GIZ, etc.)
	Control of the consumption of HFC substances and the implementation of the procedure of gradually reducing the consumption of HFC substances with the use of international grants and donor funds				
	Inventory and maintenance of the register of HFC substances				
	Energy efficiency in the cooling sector				

Table 1: Overview of the NDC measures across sectors and their impact on vulnerable groups **Predicting potential socioeconomic impacts of NDC**

Predicting potential socioeconomic impacts of NDC

By incorporating just transition principles and/or mechanisms into the NDCs and LTS (Low Carbon Transition Strategies), countries can broaden the scope of just transition discourse to one that addresses impacts across sectors and stakeholders and moves away from simple recognition and participation of stakeholders and vulnerable groups towards empowerment of their roles and reforms existing systems that undermine climate and social equity. Existing NDC and/or LTS policies, transparency and financial frameworks, coordination platforms and data/assessments can all be used as entry points to integrate key building blocks of just transition.²⁹

Climate change and the policy responses required to combat it raise new challenges for social justice, human rights, gender equality, jobs and livelihoods that must be addressed at all levels of the economy and society. To date, there has been limited focus on specific stakeholders (i.e. workers in male-dominated industries) and on a narrow range of impacts in specific sectors (i.e. energy). Experience shows that achieving a just transition while combatting climate change has far wider systematic implications for consumers, employers, women and communities and thus requires economic transformation across all sectors and industries. Although the energy is a major component of this shift, the limited focus on energy transition may perpetuate existing vulnerabilities, create direct and inadvertent negative impacts on women and overlook issues of systematic inequalities while

²⁹ https://climatepromise.undp.org/sites/default/files/research_report_document/Just%20Transition%20Issue%20Brief_0.pdf

further politicizing the agenda. In the renewable energy sector, for example, women may not automatically be part of new high-tech value chains unless deliberate policy incentives and capacity support measures targeting women are provided. Bosnia and Herzegovina must thus consider gendered impacts of green transition and ensure that women benefit when economies are shifting to sustainable production models, by providing an opportunity for improving their livelihoods and increasing their leadership roles.³⁰ Finally, mechanisms must be put in place to include vulnerable groups of people in discussions and decision-making processes as well as enable them to shape the outcomes of just transition change processes.

Table 2 below gives an overview of the socioeconomic factors and mitigation measures across all identified vulnerable groups. The information presented therein should be used to inform the future policies on which the just transition process will be built.

	FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
WOMEN	Economic growth and development	Women in BiH still face many challenges and obstacles in achieving full equality in all areas of life. Bosnia and Herzegovina is still negatively affected by traditional social norms. Their activities and livelihoods have also been seriously affected by climate change and natural disasters in the recent decade.	<p>Raise awareness and increase knowledge about the root causes of gender-based inequalities and negative consequences of gender-based stereotypes and discrimination. Acknowledge the benefits and added value of taking a gender-responsive approach which includes an increase in GDP, among other goals.</p> <p>Expand space for urban and rural women-led civil society organizations and networks to advance women’s leadership and participation in just transition and enhance capacities for feminist green collective action by working with gender equality organizations and experts to nurture their growth and sustainability.</p>

FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
<p>Income equality</p>	<p>Despite sound legislative framework (the Law on Gender Equality which guarantees equal access to economic resources, Anti-Discrimination and Labour Laws that include specific provisions promoting gender equality, guaranteeing equal representation of men and women, prohibiting discrimination against employees and job seekers on grounds of sex, marital status, family duties and pregnancy), there are persistent gender barriers that hinder women's full participation in the economy. Women have fewer employment opportunities, especially in the formal economy and well-paid occupations. The latest statistics point to 26 percentage difference in labour force participation between women and men. Two of the three inactive persons are women, with 62% of women being inactive. There are high levels of occupational gender segregation, the gender pay gap and the glass ceiling. Also, finding a job is much harder for women, they are overrepresented in the informal sector and more likely to work under precarious conditions, such as long working hours, small and delayed salaries and fear of job loss. Women are also underrepresented in entrepreneurship and leadership positions in the private sector.</p>	<p>Ensure participation of women in decision making processes and design gender responsive employment measures, including affirmative measures, within the target regions. Include potential impact of job losses on the employment market and create equal opportunities for women to access finance as well as new, green jobs in the target regions. Sensitize to and deconstruct gender stereotypes from an early age at school and in public spaces.</p> <p>Temporary special measures should be taken to support women-led and owned companies and projects that provide green employment and income generation opportunities for women, especially from less developed areas.</p> <p>Win-win partnerships with the private sector should be taken to nurture purpose-driven business models and strengthen the gender and green nexus.</p> <p>Women who are already active in the labour market could be empowered by enforcing implementation of the existing legislation and introducing standards such as UNDPs Gender Equality Seal for Public and Private Enterprises to transform the culture and practices by mainstreaming gender into every aspect of their programmes and operations, increasing a share of women in leadership positions and eliminating the gender pay gap.</p>

FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
<p>Care economy</p>	<p>Unemployment and poverty affect women in Bosnia and Hercegovina to a greater extent and in the target coal regions. Data generated through UNDP’s Intersectional Analysis³¹ shows that socioeconomic rights of women in the country are in jeopardy due to the combined impact of the pandemic and the inflation, threatening to undo decades of emancipation and hard-fought development gains.</p> <p>The role of women in the mining regions is mostly connected with domestic and unpaid work. There is still excessive reliance on women in the care economy due to traditional social norms that treat this work as an unpaid and deeply gendered obligation. Therefore, poor quality and low affordability of social services are among the key challenges.</p>	<p>The situation requires that we both regain lost gender dividend and accelerate progress by pushing for more-sustainable, inclusive and gender-responsive socioeconomic systems and just transition processes.</p> <p>Introduce affordable and accessible social services, including networks of child-care, daily centres and respite for older people, persons and children with disabilities.</p> <p>Ensure participation of women in decision-making processes and design gender sensitive employment measures within the target regions. Include potential impact of job losses on the employment market and create equal opportunities for both women and men to access new, green jobs in target regions.</p>

31 <https://www.undp.org/bosnia-herzegovina/publications/intersectional-analysis-differential-impact-covid-19-crisis-and-inflation-women-bosnia-and-herzegovina>

FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
<p>Public policy and governance factors</p>	<p>Within climate and environmental policy framework, no gender sensitive policy measures are defined to ensure women's increased representation in decision-making processes and resources management. The current energy policies in BiH (defined largely by the Energy Strategy) are fully gender-blind and there is no gender mentioned in the 1st or enhanced NDCs submitted. National and local strategies missed the opportunity to make women agents of change and not perpetuating the same unequal power structures.</p>	<p>Convene high-level policy dialogues to connect and foster engagement between policymakers, other relevant stakeholders and women's CSOs and grassroots movements to define green economic demands and advocate for factoring findings into national, entity, municipal and community level plans and budget allocations.</p> <p>Ensure design of gender-responsive green policy and regulatory frameworks that contribute to reforms and system changes. Also, capacities of institutions need to be improved through technical assistance in green gender-responsive policy design and delivery, introducing gender-responsive public financial schemes to support green employment and job creation, skill development, SME competitiveness, entrepreneurship, rural development and agriculture.</p> <p>Implement Gender Action Plan in all carbon-intensive regions. Introduce gender related considerations, measures, targets and indicators in energy policies and in NDC.</p>

FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
<p>Economic trends</p>	<p>Increasing inflation lowers purchasing power of women. Additionally, rise of interest rates can endanger persons with loan exposures.</p>	<p>Include gender approach to economy, bringing care economy into economic discussions and raising awareness about the fact that the care economy is the economy. Therefore, low participation of women in the labour markets cannot be discussed without taking into consideration social sector systems, such as social protection and social services. It is thus important to ensure that there is no separation between economic and social discussions when discussing the just transition processes.</p> <p>Promote off-grid energy solutions and recognition of the care work as a green work.</p> <p>Support women’s CSOs, in particular at the grassroots level, by introducing “positive discrimination” measures in the grant competitions.</p> <p>The social enterprise is giving a significant boost to another great trend with a very high revitalizing potential for the global economy: green start-ups. Therefore, it is recommended to strengthen green start-ups, social entrepreneurship models and cooperatives due to their potential to economically empower women, especially those living in rural areas and coming from vulnerable groups. Such models can also significantly contribute to sustainable development by working towards a combination of social, environmental and business targets and bringing a diverse range of benefits to their communities.</p> <p>Develop measures and methodologies to capture and report on data related to such models and give inspirational entrepreneurs the recognition and support they deserve to scale up their impact.</p>

FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
Job creation/ destruction	Women within carbon-intensive industries dominantly work at specific working positions (e.g. in administration and service provision).	Promote off-grid energy solutions bringing energy choices closer to the household and community level where women tend to have a greater voice. Empower women to take more active roles as agents of change and leaders in green jobs and community energy.
Labour market opportunities	Specific gender-sensitive measures of decarbonization or restructuring of carbon intensive industries are missing.	Design gender-sensitive employment measures particularly within the target regions. Assess impact of job losses on the employment market with the aim to prevent further gender segregation. Plan and impose policy measures to protect and promote women by providing them with opportunities. Encourage and support women entrepreneurship.
Air quality	Women are more endangered with low air quality due to higher exposure to indoor air pollution since due to traditional social norms they tend to spend more time at home performing domestic work and taking care of children.	Increase awareness of indoor pollution.
Energy dependency	Women in the mining regions are dependent on non-renewable energy resources. They are more endangered by environmental degradation characteristic of these regions.	Ensure women participation in the development of renewable energy projects within the target regions. Design gender responsive environmental policies within the mining regions.

	FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
OLD PEOPLE	Economic growth and development	The country's overall economic performance, which is currently below its potential, negatively reflects on the position of old and dependent persons in the short and long term (e.g. employment opportunities, retirement benefits, social care etc.).	Solving political stalemates, moving from short-term to long-term orientation and focusing on growth-enhancing policy measures.
	Income equality	<p>Ever-increasing income inequality additionally worsens the status of the old and dependent as they are already positioned at the bottom of the income scale.</p> <p>Significant numbers of older people, especially farmers, remain outside the pension system due to high levels of informality, making this population particularly vulnerable to poverty, especially in old age.</p>	Strengthening the position of old and dependent persons by designing policies which would enable pre-qualification, obtaining special educational and working skills for high-demand jobs, better health and care services, schemes and incentives aimed at formalizing informal work enabling enrolment of informal workers into social insurance system (pension and disability insurance) and better access to green jobs.
	Quality of life	Purchasing power, safety and healthcare indexes might additionally worsen	Ensuring that the pension system can sustain laid off from carbon-intensive industries; ensuring better workers' mobility; ensuring participation of old and dependent persons in decision-making processes and employment measures within the target regions; ensuring greater social inclusion of old and dependent people.
	Public policy and governance factors	Lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus further worsening the position of old and dependent persons.	Improving transparency and coordination between various key stakeholders in the country; designing well-targeted measures to protect the most vulnerable segments of the population.
	Economic trends	Increasing inflation lowers purchasing power. Additionally, rise of interest rates can endanger persons with loan exposures.	Improve and adjust socioeconomic policies to respond to the negative impact of current economic trends.

	FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
	Job creation/ destruction	Old and dependent persons face difficulties in finding jobs, they are in need of up- and re-skilling and still face challenges due to the limiting life circumstances and structural obstacles and would rather opt for early pension or severance pay. Higher pressure on unemployment.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower old and dependent persons to take more active roles in energy transition process; provide income support, retraining, redeployment and secure pensions for older workers.
	Labour market opportunities	Lack of labour market opportunities might lead to lower disposable income, putting a higher pressure on the household and dependent persons.	Designing employment measures with respect to the regional differences. Planning and implementing policy measures to protect and promote old and dependent persons by providing them with opportunities; encourage and support social entrepreneurship.
	Air quality	Old and dependent persons are more endangered by low air quality due to their vulnerability, health status and higher exposure to indoor air pollution.	Design and implementation of policy measures for improving air quality with a special emphasis on the needs of old and dependent persons.
	Energy dependency	Old and dependent persons are more dependent on non-renewable energy sources (cheap fossil fuels) and can often be found in the state of energy poverty.	Ensuring the participation of old and dependent groups in the development of renewable energy projects within the target regions. Designing environmental policies within the mining regions, while taking into account the particular needs of the old and dependent persons.

	FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
PERSONS WITH DISABILITIES	Economic growth and development	The country's overall economic performance which is currently below its potential negatively reflects on the position of persons with disabilities in the short- and long-term (e.g. employment opportunities, social care, disability allowance and similar).	Solve political stalemates, move from short-term to long-term orientation and focus on growth-enhancing policy measures.
	Income equality	Ever-increasing income inequality additionally worsens the status of persons living with disabilities as they are already positioned at the bottom of the income scale.	Remove structural flows in the social protection systems, equalize social assistance so that persons with disabilities are not discriminated against on grounds of cause and type of disability and place of residence. Strengthen the position of persons living with disabilities through designing policies which would enable for better health and care services in order to reduce the gap, introduce and support social entrepreneurship and green start-ups.
	Quality of life	Purchasing power, safety and healthcare indexes might additionally get more difficult.	Empower persons living with disabilities to take more active roles in energy transition process; adjust social and healthcare policies and social sector systems; introduce and advance respite and day centres and social services to enable independent and dignified living for people with disabilities.
	Public policy and governance factors	Lack of records including a lack of registry of people with disabilities, lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus further worsening the position of the people living with disabilities.	Improve transparency and coordination between various key stakeholders in the country; design well-targeted measures to protect the most vulnerable segments of the population.

	FACTORS	ISSUES PER FACTOR	GENERAL MEASURES TO ADDRESS THE ISSUES
	Economic trends	Increasing inflation lowers purchasing power. Additionally, rise of interest rates can endanger persons with loan exposures.	Improve and adjust social policies to respond to the negative impact of current economic trends; support social entrepreneurship; introduce specialized capacity-building instruments.
	Job creation/ destruction	Additional pressure on unemployment, deepening the mismatch with the labour market needs.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; employment support schemes; empower persons living with disabilities to take more active roles in energy transition process; social entrepreneurship.
	Labour market opportunities	Lack of labour market opportunities might lead to lower disposable income, putting a higher pressure on the household and dependent persons.	Design employment measures with respect to the regional difference. Planning and implementing policy measures to protect and promote persons living with disabilities by providing them with opportunities; encourage and support social entrepreneurship; educational capacity building.
	Air quality	Persons living with disability are more endangered by low air quality due to their vulnerability, health status and higher exposure to indoor air pollution.	Design and implementation of policy measures for improving air quality with a special emphasis on the needs of persons with disabilities.
	Energy dependency	Persons living with disabilities are more dependent on non-renewable energy resources (cheap fossil fuels) and can often be found in the state of energy poverty.	Ensure the participation of persons with disabilities in the development of renewable energy projects within the target regions. Design environmental policies within the mining regions, while taking into account the particular needs of the persons with disabilities.

	FACTORS	ISSUES PER FACTOR	MITIGATION MEASURES AND HOW THEY RESOLVE IMPACT
UNEMPLOYED	Economic growth and development	The country's overall economic performance which is currently below its potential negatively reflects on the position of unemployed in the short and long term (e.g. economic status, social care, employment opportunities etc.).	Solving political stalemates, moving from short-term to long-term orientation and focusing on growth-enhancing policy measures.
	Income equality	Ever-increasing income inequality additionally worsens the status of unemployed as they are already positioned at the bottom of the income scale.	Strengthening the position of unemployed through designing policies and measures which would enable pre-qualification, obtaining special educational and working skills for high-demand jobs, better health and care services, better access to green jobs. Direct focus on popularizing STEM fields and providing retraining in digital skills and creative industries to boost employability.
	Quality of life	Purchasing power, safety and healthcare indexes might additionally worsen; increased brain drain.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower unemployed to take more active roles in energy transition process; improve policies which would reduce brain drain; tax exemption for employment of this target group, support to innovation.
	Public policy and governance factors	Lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus further worsening vulnerable groups' position.	Improving transparency and coordination between various key stakeholders in the country; improving inefficiency of the oversized public sector; designing well-targeted measures to protect the most vulnerable segments of the population.

FACTORS	ISSUES PER FACTOR	MITIGATION MEASURES AND HOW THEY RESOLVE IMPACT
Economic trends	Increasing inflation lowers purchasing power. Additionally, rise of interest rates can endanger persons with loan exposures.	<p>Improve and adjust social policies to respond to the negative impact of current economic trends; supporting social entrepreneurship (incentives); specialized capacity-building instruments, vocational trainings; support to innovation.</p> <p>Green start-ups based on circularity in the fields of pollution, clean and renewable energies, and in the fight against food waste, represent important economic sub-sectors capable of generating employment, stimulating local development and promoting creativity. Support green start-ups in the areas of sustainable tourism, cultural and creative industries.</p>
Job creation/ destruction	Mismatch in the labour market; long-term unemployment; lack of new job opportunities in the innovative sectors and industries; lack of investment in education.	<p>Promote off-grid energy solutions bringing energy choices closer to the household and community level; Empower unemployed to take more active roles in energy transition process; provide financial support to the creation of new green jobs; encourage and support social entrepreneurship and education, re-skilling; investment in innovation system.</p>
Labour market opportunities	Lack of employment opportunities; mismatch in the labour market; lack of investment in education.	<p>Designing employment measures with respect to the regional differences; planning and implementing policy measures to protect and promote unemployed people by providing them with opportunities; providing public and employer support for reskilling and formalization of work; financial support to the creation of new green jobs; initiatives to develop skills that support entrepreneurship, resilience, innovation, and transition to sustainable practices; encourage and support social entrepreneurship.</p>
Air quality	Being a vulnerable group, unemployed persons are more exposed to air pollution and related health issues	<p>Design and implement policy measures for improving air quality with a special emphasis on the needs of unemployed persons.</p>

FACTORS		ISSUES PER FACTOR	MITIGATION MEASURES AND HOW THEY RESOLVE IMPACT
CHILDREN WITHOUT PARENTAL CARE	Energy dependency	Unemployed people are more dependent on non-renewable energy resources (cheap fossil fuels) and can often be found in the state of energy poverty	Ensuring the participation of unemployed persons in the development of renewable energy projects within the target regions. Designing environmental policies within the mining regions, while taking into account the particular needs of the unemployed people.
	Economic growth and development	The country's overall economic performance which is currently below its potential negatively reflects on the position of children without parental care in the short- and long-term (e.g. social care, accommodation etc.)	Solving political stalemates, moving from short-term to long-term orientation and focusing on growth-enhancing policy measures.
	Income equality	Ever-increasing income inequality additionally worsens the status of children without parental care as they are already positioned at the bottom of the income scale	Strengthening the position of children without parental care through deinstitutionalization and designing policies which would enable for better health and care services in order to reduce the gap. Child labour and early marriage prevention and special support to ensure their access to education and care (through adoption or specific care structures).
	Quality of life	Purchasing power, safety and healthcare indexes might additionally worsen; increased brain drain	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower children without parental care to take more active roles in energy transition process; improve policies which would reduce brain drain; support to innovation.
	Public policy and governance factors	Lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus further worsening the position of the children without parental care	Improve transparency and coordination between various key stakeholders in the country; improve inefficiency of the oversized public sector; design well-targeted measures to protect the most vulnerable segments of the population.

FACTORS	ISSUES PER FACTOR	MITIGATION MEASURES AND HOW THEY RESOLVE IMPACT
Economic trends	Increasing inflation lowers purchasing power. Additionally, rise of interest rates can endanger persons with loan exposures.	Improve and adjust social policies to respond to the negative impact of the current economic trends.
Job creation/ destruction	Increased youth unemployment	Sensitize to green careers and opportunities in school. Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower children without parental care to take more active roles in energy transition process; improve policies which would reduce brain drain.
Labour market opportunities	Less resources available to support the needs of children without parental care on the national level	Support new knowledge and skills; improve policies which would reduce brain drain.
Air quality	Being a vulnerable group, children without parental care are more exposed to air pollution and related health issues	Design and implement policy measures for improving air quality with a special emphasis on the needs of vulnerable children.
Energy dependency	Children without parental care are more dependent on non-renewable energy resources (cheap fossil fuels) and can often be found in the state of energy poverty	Design environmental policies and conduct renewable energy projects, while taking into account the particular needs of vulnerable children without parental care.

	FACTORS	ISSUES PER FACTOR	MITIGATION MEASURES AND HOW THEY RESOLVE IMPACT
MINORITIES	Economic growth and development	The country's overall economic performance which is currently below its potential negatively reflects on the position of minorities in the short- and long-term (e.g. social care, accommodation, employment, social inclusion and similar).	Solving political stalemates, moving from short-term to long-term orientation and focusing on growth-enhancing policy measures.
	Income equality	Ever-increasing income inequality additionally worsens the status of minorities as they are already positioned at the bottom of the income scale.	Strengthening the position of minorities through designing policies which would enable for better health and care services in order to reduce the gap; introducing social entrepreneurship.
	Quality of life	Purchasing power, safety and healthcare indexes might additionally worsen; increased brain-drain.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower minorities to take more active roles in energy transition process; improve policies which would reduce brain drain; tax exemption for employment of this target group; support to innovation.
	Public policy and governance factors	Lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus furthermore worsening the minorities' position.	Improving transparency and coordination between various key stakeholders in the country; improving inefficiency of the oversized public sector; designing well-targeted measures to protect the most vulnerable segments of the population.
	Economic trends	Increasing inflation lowers purchasing power. Additionally, rise of interest rates can endanger persons with loan exposures.	Improve and adjust social policies to respond to the negative impact of the current economic trends; support social entrepreneurship (incentives); specialized capacity-building instruments, vocational training.

Job creation/ destruction	Drop in purchasing power; lack of job opportunities and investment in education.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower minorities to take more active roles in energy transition process; improve policies which would reduce brain drain; tax exemption for employment of this target group; support to innovation.
Labour market opportunities	Lack of labour market opportunities might lead to lower disposable income, putting a higher pressure on the household and dependent persons.	Sensitize to discrimination at school, in the labour market and the public spaces. Design employment measures with respect to the regional differences; planning and implementing policy measures to protect and promote minority group by providing them with opportunities; provide public and employer support for reskilling and formalization of work; financial support to the creation of new green jobs; initiatives to develop skills that support entrepreneurship, resilience, innovation, and transition to sustainable practices; encourage and support social entrepreneurship.
Air quality	Some minorities are more endangered by low air quality due to their life in segregated (and often poor) urban and rural areas and informal settlements.	Design and implement policy measures for improving air quality with a special emphasis on the needs of minority population.
Energy dependency	Minorities are more dependent on non-renewable energy resources (cheap fossil fuels) and can often be found in the state of energy poverty.	Ensuring the participation of minorities in the development of renewable energy projects within the target regions. Design environmental policies within the mining regions, while taking into account the particular needs of the minority population.

INTERNALLY DISPLACED PERSONS AND REFUGEES	Economic growth and development	The country's overall economic performance, which is currently below its potential, negatively reflects on the position of refugees and IDPs in the short and long term (e.g. social care, accommodation, employment opportunities, social inclusion, etc.).	Solving political stalemates, moving from short-term to long-term orientation and focusing on growth-enhancing policy measures.
	Income equality	Ever-increasing income inequality additionally worsens the status of internally displaced persons and refugees as they are already positioned at the bottom of the income scale.	Strengthening the position of vulnerable groups through designing policies which would enable for better health and care services in order to reduce the gap, introducing social entrepreneurship.
	Quality of life	Purchasing power, safety and healthcare indexes might additionally worsen; increased brain drain.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower internally displaced persons and refugees to take more active roles in energy transition process; improve policies which would reduce brain drain; tax exemption for employment of this target group, support to innovation.
	Public policy and governance factors	Lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus further worsening the position of internally displaced persons and refugees.	Improve transparency and coordination between various key stakeholders in the country; improve inefficiency of the oversized public sector; design well-targeted measures to protect the most vulnerable segments of the population.
	Economic trends	Increasing inflation lowers purchasing power. Additionally, rise of interest rates can endanger persons with loan exposures.	Improve and adjust social policies to respond to the negative impact of current economic trends; supporting social entrepreneurship (incentives); specialized capacity-building instruments, vocational trainings; support to innovation.

	Job creation/ destruction	Drop in purchasing power; lack of additional income opportunities and investment in education.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower internally displaced persons and refugees to take more active roles in energy transition process; improve policies which would reduce brain drain; tax exemption for employment of this target group, support to innovation.
	Labour market opportunities	Lack of labour market opportunities might lead to lower disposable income, putting a higher pressure on the household and dependent persons.	Design employment measures with respect to the regional differences; plan and implement policy measures to protect and promote unemployed group by providing them with opportunities; provide public and employer support for reskilling and formalization of work; provide financial support to the creation of new green jobs; initiatives to develop skills that support entrepreneurship, resilience, innovation and transition to sustainable practices; empowering social entrepreneurship.
	Air quality	Internally displaced persons (IDPs) and refugees are more endangered by low air quality (both indoor and ambient) due to their life in segregated (and often poor) refugee camps and other forms of alternative accommodation.	Design and implement policy measures to improve air quality with a special emphasis on the needs of the refugee and IDP population.
	Energy dependency	Due to their living and housing conditions, as well as economic status, internally displaced persons (IDPs) and refugees are more dependent on non-renewable energy sources and can often be found in the state of energy poverty.	Ensure the participation of refugees and IDPs in the development of renewable energy projects within the target regions. Design environmental policies within the mining regions, while taking into account the particular needs of the refugee and IDP population

NATURAL DISASTER VICTIMS	Economic growth and development	The country's overall economic performance, which is currently below its potential, negatively reflects on the position of victims of natural disasters in the short and long term (e.g. social care, accommodation, employment opportunities, etc).	Solving political stalemates, moving from short-term to long-term orientation and focusing on growth-enhancing policy measures.
	Income equality	Ever-increasing income inequality additionally worsens the status of victims of natural disasters as they are already positioned at the bottom of the income scale.	Strengthening the position of victims of natural disasters through designing policies which would enable for better health and care services in order to reduce the gap; introducing social entrepreneurship.
	Quality of life	Purchasing power, safety and healthcare indexes might additionally worsen; increased brain drain.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower victims of natural disasters to take more active roles in energy transition process; improve policies which would reduce brain drain; tax exemption for employment of this target group, support to innovation.
	Public policy and governance factors	Lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus further worsening the position of vulnerable groups.	Improving transparency and coordination between various key stakeholders in the country; improving inefficiency of the oversized public sector; designing well-targeted measures to protect the most vulnerable segments of the population.
	Economic trends	Increasing inflation lowers purchasing power. Additionally, rise of interest rates can endanger persons with loan exposures.	Improve and adjust social policies to respond to the negative impact of current economic trends; support social entrepreneurship (incentives); specialized capacity-building instruments, vocational training; support to innovation.

	Job creation/ destruction	Drop in purchasing power; lack of additional income opportunities and investment in education.	Promote off-grid energy solutions bringing energy choices closer to the household and community level; empower victims of natural disasters to take more active roles in energy transition process; improve policies which would reduce brain drain; tax exemption for employment of this target group, support to innovation.
	Labour market opportunities	Lack of labour market opportunities might lead to lower disposable income, putting a higher pressure on the household and dependent persons.	Designing employment measures with respect to the regional differences. Planning and implementing policy measures to protect and promote unemployed group by providing them with opportunities; providing public and employer support for reskilling and formalization of work; financial support to the creation of new green jobs; initiatives to develop skills that support entrepreneurship, resilience, innovation and transition to sustainable practices; empowering social entrepreneurship.
	Air quality	Victims of natural disasters are more endangered by low air quality (both indoor and ambient) due to their life in temporary low-quality accommodation and segregated settlements.	Design and implement policy measures for improving air quality with a special emphasis on the needs of victims of natural disasters.
	Energy dependency	Due to their living and housing conditions, as well as economic status, victims of natural disasters are more dependent on non-renewable energy resources and can often be found in the state of energy poverty.	Ensuring the participation of victims of natural disasters in the development of renewable energy projects within the target regions. Designing environmental policies within the mining regions, while taking into account the particular needs of the victims of natural disasters.

SMEs	Economic growth and development	The country's current economic development is below its potential. SMEs are impacted by overall economic conditions in the country.	Influence business associations and government to impose favourable business conditions and incentives for innovation and increase of competitiveness.
	Income equality	n/a	n/a
	Quality of life	n/a	n/a
	Public policy and governance factors	Lack of transparency and coordination between various key stakeholders in the country hinders the transition process thus further worsening the SMEs' position.	Use joint initiatives and associations to put pressure on the decision-makers to improve and impose favourable public policies.
	Economic trends	Increasing inflation puts pressure on the companies' cost management. Additionally, rise of interest rates can endanger companies with significant loan exposures.	Improve and adjust social policies to respond to the negative impact of the current economic trends; Support gender responsive green start-ups and models that rely on the principles of circularity (incentives), support social entrepreneurship (incentives); specialized capacity-building instruments, vocational training; support to innovation.
	Job creation/ destruction	SMEs are directly impacted	Adaptation and changes of business model to respond to new trends and market needs.
	Labour market opportunities	Companies can miss to adapt to new market demands in terms of labour skills.	Support training programmes for re-skilling and up-skilling as well as training of women and youth for new potential green jobs and other jobs of the future.
	Air quality	Bad air quality can lower workers' productivity and increase costs for health insurance.	Use joint initiatives and associations to put pressure on decision-makers to impose air quality improvement strategies.
	Energy dependency	Dependence on fossil fuels with growing prices can have significant impact on the companies' profitability and competitiveness.	Increase use of renewables.

Table 2: Impact of different socioeconomic factors on vulnerable groups and related mitigation measures

GUIDING PRINCIPLES FOR A GENDER-RESPONSIVE JUST TRANSITION

It is widely recognized that without concerted efforts to minimize global temperature rises, future generations will live in a much different world. Global climatic shifts have already started to negatively impact economies around the world, as physical climate risks start to materialize. More frequent and severe storms, droughts, floods and forest fires are causing damage to homes, farms and communities. More frequent heat waves are putting the lives at risk. Climate change is also putting pressure on the livelihoods of workers and their families. Recognizing that future economic growth and people's quality of life depend on actions taken today, many European countries have accelerated their efforts to reduce greenhouse gas (GHG) emissions.

If implemented in an effective and coordinated way, through a combination of policy reform and coordinated action, efforts to reduce GHG emissions can also result in new economic opportunities for economies undergoing decarbonization. As some countries are already demonstrating, good green jobs linked to technological innovations are resulting in robust new economic sectors.

However, the economic and social costs to those who have made a good living working in traditional carbon-intensive resource sectors cannot be overlooked. Governments, along with employers and unions, must ensure that workers and their families are not left behind in the transition to a cleaner, low-carbon economy.

Globally, 4 million coal workers lost their jobs over the last half century. Just transition has been a considerable challenge for policy makers because the narrow economic base of many coal mining regions required careful mitigation of coal mine closure impacts.

For instance, in Poland the coal mining sector has been gradually but steadily shrinking for the past three decades, but not as part of an intentional and planned energy transition. Rather, the shift reflected wider, unavoidable economic trends. On the other hand, the coal phaseout is a policy objective pursued deliberately to achieve Europe-wide environmental objectives and more broadly, as part of a global effort to address climate change.³²

Just transition implies that coal regions should not be left to cope alone with economic and social declines associated with the shift to a low-carbon energy economy, rather, mitigation measures and policies need to be put in place in order to reduce the adverse outcomes for coal workers and communities making the shift from a coal-based economy to a low-carbon and sustainable economy.

In case of Poland, just transition implies several steps: first, there is a need to properly plan and manage the transition with a clear coal phaseout schedule that offers enough time for effective implementation of the transition policies. Second, all relevant stakeholders should be involved in planning and implementing the transition, creating a strong sense of shared ownership and control. Third, mining regions should be offered adequate financial and technical assistance in building alternatives to the disappearing coal economy. Also, new development models should seek to sustain a reasonable quality of life for local communities, including a healthy environment and strong public services. Finally, workers should be offered tailored re-skilling and outplacement opportunities.³³

32 Just Transition in Poland: A Review of Public Policies to Assist Polish Coal Communities in Transition, 2022.

33 Just Transition in Poland: A Review of Public Policies to Assist Polish Coal Communities in Transition, 2022.

In Canada, a just transition required the inclusion of just transition principles in the institutional framework and operations, the provision of locally available support, the development of several pathways for retiring workers from carbon intensive industries, support for workers in finding and developing sustainable employment opportunities, as well as the investment in community infrastructure.³⁴

In developing the Blueprint for a just transition in BiH, the TA Project Team followed several guiding principles for a Just Transition:

- Ensure that decisions are participatory, inclusive, informed and accountable, with transparent monitoring of outcomes.
- Advance social justice and equality in all carbon reduction policies and programmes.
- Ensure the benefits of decarbonization are shared equitably, including access to low carbon goods and services.
- Empower women as agents of change in the just transition process, ensuring their equitable participation in decision-making and access to finance. Protect low-income and traditionally disadvantaged groups and communities from any adverse consequences of decarbonization.
- Choose emission reduction policies and programmes that create good quality local jobs and attend to existing inequalities in the workforce and thereby allow participation by all people.
- Support a just transition for workers, businesses and communities vulnerable to structural adjustments in the economy resulting from decarbonization.

Ensure that carbon reduction policies and programmes improve public health and do not exacerbate existing health disparities.

34 Final Report by the Task Force on Just Transition for Canadian Coal Power Workers and Communities, 2022.

FRAMEWORK PROPOSAL FOR BIH'S JUST TRANSITION FOR ALL

Role of the stakeholders

Ministries and institutions:

State level

- MOFTER Ministry of Foreign Trade and Economics Relations of Bosnia and Herzegovina
- SERC/DERK The State Electricity Regulatory Commission
- NOS BIH Independent System Operator in BiH
- GA BIH Gender Equality Agency BiH

Level of Federation of Bosnia and Herzegovina

- FMERI Federation Ministry of Energy, Mining and Industry
- FERK Regulatory Commission for Energy in FBiH
- OP OIEIEK Operator for Renewable Energy Sources and Efficient Cogeneration
- FMPU Federation Ministry of Spatial Planning
- FMPVŠ Federation Ministry of Agriculture, Water Management and Forestry
- FMOIT Federation Ministry of Environment and Tourism
- FZO FBiH Environmental Fund of the FBiH
- GC FBiH Gender Center FBiH
- MRR BIH Ministry of Human Rights and Refugees

Level of Republika Srpska

- MEIR RS Republika Srpska Ministry of Energy and Mining
- RERS Regulatory Commission for electricity of RS
- OSP RS Incentive system operator
- MPŠ/RS Ministry of Agriculture, Forestry and Water Management
- FZOIEE RS Environmental Protection and Efficiency Fund of the RS
- GC RS Gender Center RS
- MRR RS Ministry of Human Rights and Refugees

International organizations and other donors:

- USAID US Agency for International Development
- UNDP United Nations Development Programme
- GIZ German company for international cooperation
- EU BIH European Union Delegation in BiH
- SIDA Sweden's government agency for development cooperation
- IFC International Financial Cooperation
- WBIF Western Balkans Investment Framework
- EIB European Investment Bank
- EBRD European Bank for Reconstruction and Development
- APEOR Association of Energy Producers From Renewable Resources
- RCC Regional Cooperation Council
- CSOs Civil Society organizations
- NGOs Non-governmental organisations

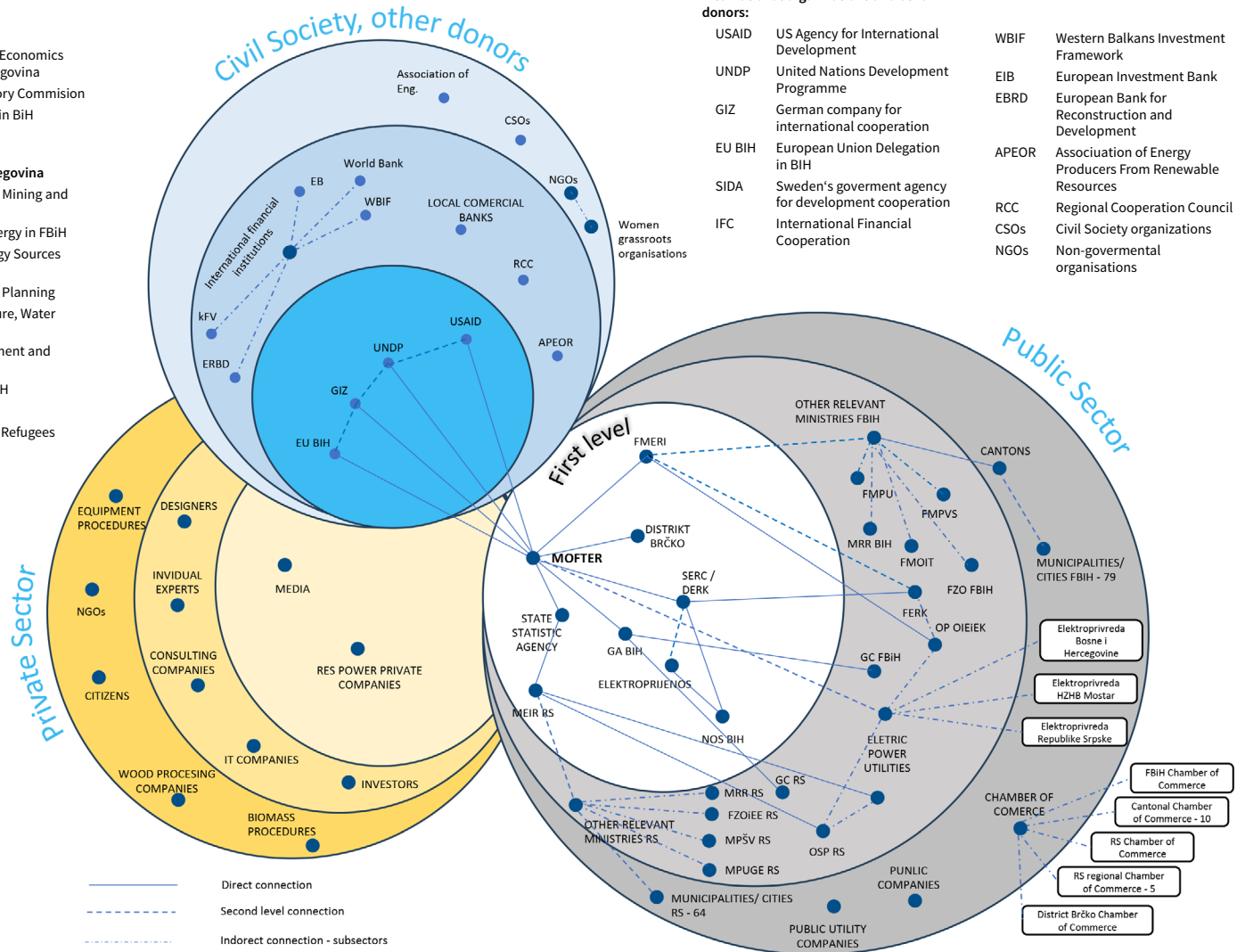


Figure 2:
 Mapping of stakeholders
 in decarbonization
 process in BiH

Although the decarbonization process sees a clear advantage in being led by local actors, it is necessary to set guidelines and policy frameworks at the state, entity and cantonal levels, as this is the only way to ensure stability and enable long-term planning. Based on all the analyses conducted thus far, it has been concluded that a cross-sectoral approach to the implementation of decarbonization activities is required and so, different sub-sectors are recognized:

- Entities and Cantons with its institutions;
- Local Governance Units (its administrative services, public enterprises and public institutions founded by LGU);
- Agency for Gender Equality of BiH of the Ministry of Human Rights and Refugees of BiH, Gender Centres of RS and FBiH.
- Public Enterprises founded on Canton or Entity level;
- Small and medium-sized enterprises (SME);
- Educational sector, both public and private;
- Labour unions;
- Environmental NGOs;
- NGOs dealing with gender equality, women, grassroots and social inclusion.

Role of the public sector

Although the decarbonization process has already started and local actors are driving the transition, the public sector should take one of the main roles to ensure a strategic approach to Bosnia and Herzegovina's path towards a just transition for all. Since climate policy and action is a relatively new area for many employers, creating dedicated government departments and allocating specific resources to this issue could help provide new services and also the necessary guidance to the private sector. In this case, employers would have the opportunity to seek support or partnership with the public sector in introducing new services in the decarbonization process. The role of the public sector and a systematic approach can also help make the process fair for all stakeholders and affected groups. Public sector involvement is reflected in various available policy instruments:

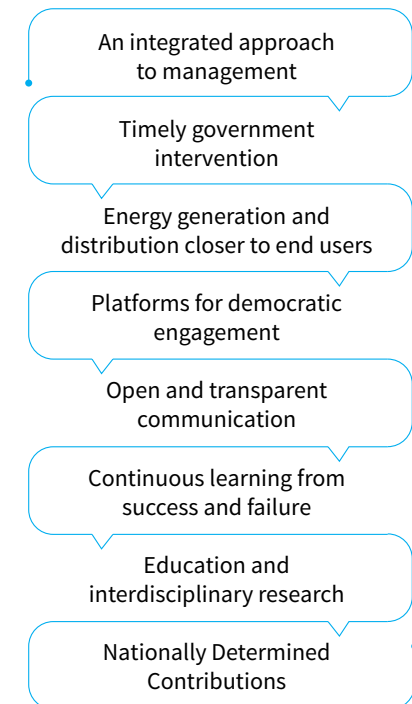
An integrated approach to management

The usual approach in Bosnia and Herzegovina includes individual approaches, depending on the topic addressed. For example, previous approaches to sustainable development have mainly considered the energy aspect, without addressing social and gender issues. Also, financing mechanisms are often prepared as separate documents that are not related to activities in other strategic documents. To accelerate the transition process and define synergies between different sectors (e.g. transport and energy) and problem areas, an integrated management approach that encompasses the entire economy is most appropriate. This approach must also simultaneously consider potential resistance and unintended consequences (e.g. human rights and accompanying environmental impacts of new green technologies). Ambitious, long-term decarbonization goals should be accompanied by risk assessments that address the various dimensions of equality identified above, and timely adequate involvement of gender mechanism should be ensured.

Timely government intervention

Prompt government intervention is likely necessary to create distributive and restorative justice, such as through job creation in green sectors, implementation of comprehensive retraining and redistribution programmes or compensation schemes for individuals and communities negatively affected by the transition. Dedicated mechanisms for a just transition, in line with the European Green Deal, must be linked to ambitious climate action and ensure that support reaches those who need it most. Phasing out fossil fuel subsidies can free up funds to strengthen social safety nets. States should also support private sector decarbonization strategies and ensure that they include a social equity component.

The EU has a long-standing commitment to gender equality, which is a treaty obligation, a core value of the EU, a fundamental right and a key principle of the European Pillar of Social Rights. The Gender Equality Strategy 2020- 2025 is the most recent iteration of how gender equality will be achieved and it incorporates a recognition of the importance of diversity and intersectionality. The Commission Communication "Fit for 55: Delivering the EU's 2030 Climate Target on the way to climate neutrality" states that "The transition towards climate neutrality can be a unique opportunity to reduce systemic inequality".



Bring energy generation and distribution closer to end users

Supporting state agencies and empowering local communities in developing local energy solutions will demonstrate the catalytic role of decentralized decision-making in ensuring local energy resilience. However, for community energy initiatives to succeed, adequate physical infrastructure, investment, transparent government regulation and political will, and adequate financial support are required. The strengthening of capacities of stakeholders at all levels and allocation of resources to deliver on green and gender nexus, as well as pursue implementation of the environmental protection and climate change chapter of the Gender Action Plan of Bosnia and Herzegovina is of utmost importance.

Establishment of the platform for democratic engagement

Democratic engagement platforms need to provide space for citizens and other stakeholders to engage in ongoing debate, recognizing that JT is a process that needs to be constantly negotiated. This could include various mechanisms, the so-called “deliberative mini-publics”, such as citizens’ assemblies or digital platforms for civic engagement. It is important that such platforms provide the most vulnerable and excluded individuals and communities with real access to policymaking. Existing communication channels can be used for these purposes, duplicated and made available to all affected local communities.

It is important to continue to solidify and scale up existing partnership with women’s CSOs and grassroots movements, including through the *Women Forum for Development* and the *Action Coalition on Gender and Environment* by regularly exploring new activities and further avenues for increased impact. These platforms should be used to establish regular and structured consultation processes with women’s CSOs and grassroots movements to monitor, evaluate, improve and expand the existing and potential partnerships in the green and gender nexus, gain and implement feedback on their insights, proposals, priorities and needs when it comes to just transition, mutually share knowledge and expertise and encourage their growth and sustainability over time.

Ensure that mechanism is in place for ensuring gender equality as well as for ensuring accountability

Governments need to establish accountability procedures to ensure all relevant stakeholders are held accountable for operating in a gender-responsive manner to achieve the set gender equality outcomes in the green job sectors. This can be done through gender responsive planning, monitoring and evaluation mechanisms to ensure that interventions put in place to advance gender equality in the green job sector are having the impact they are designed to have.

Policy and decision makers should ensure employment and skills development policies designed for green job sectors are gender responsive, well informed, coherent and broadly supported by all relevant stakeholders. They must ensure that green job policies are aligned with the existing international gender frameworks and treaties.

Askills needs assessment should be conducted at government and institutional level to determine skills required by men and women to equally participate and benefit from opportunities created in the green job sectors. This needs to be done in cooperation with employers and labour organizations. This should inform targeted green skills development and training initiatives for men and women.

All relevant stakeholders (e.g. governments, education institutions, donors) need to earmark resources to train women for non-traditional positions to prepare them to make a transition into male-dominated occupations in the green economy. Investing in women will improve access to green and decent jobs and promote cleaner and more equitable development.

Open and transparent communication

In order to build trust and support the transition, transparent communication from the relevant authorities in the process of strategic approach in decarbonization is key. Too often, climate policy and the risks and opportunities it presents are framed in a de-ethnicized and depoliticized vacuum, without making clear how issues of social (in)justice, gender inequalities and social exclusion are reflected in climate policy. Ensuring continued access to information to enable meaningful participation in policy decisions is an important outcome. In particular, high level policy dialogues and joint action with gender machinery, line ministries involved in just transition, women's CSOs and grassroots movements to jointly address the specific challenges identified as the most pressing stumbling blocks encountered by women, such as general regression of women's human rights after the pandemic and revival of traditional patriarchal patterns, gender-based stereotypes towards women leaders and the dominance of patriarchal patterns in leadership structures, lack of systemic support for the initiatives of women leaders and activists within local self-governance units and online harassment and cyberbullying via social networks.

Continuous learning from success and failure

An increasing number of countries around the world have adopted financial policy (FP) legislation, established FP working groups and/or incorporated FP concerns into long-term policy planning. Continuous learning from successes and failures and the use of good examples are essential to enable large-scale complex transitions. Policies already implemented and successes and failures in responding to JT implications in other countries can offer lessons for decarbonization policy. It is crucial that a gender perspective is applied to all aspects of this work.

Investing in education and interdisciplinary research

Investments in educational programme development and financial support in the form of grants for climate change, energy and environmental justice research can improve understanding of JT, including gendered impacts and provide empirical evidence on which policies are politically feasible, have broad support and are consistent with the urgent needs of decarbonization. Governments could also establish independent bodies to advise and facilitate stakeholder engagement. In contrast to the aforementioned Platform for Democratic Engagement, this body has a different focus, which is reflected in the preparation of educational and scientific foundations and adaptation to the implementation of activities within the framework of the decarbonization process.

Nationally Determined Contributions and Just Transition (JT)

Finally, governments should incorporate the provisions of the JT into their nationally determined contributions. This analysis provides an opportunity to review such provisions and promote peer learning. The UNFCCC, ILO, ITUC and other international organizations should continue to facilitate the collection of practical experiences, particularly in developing countries, to provide guidance on best practices. This could also be linked to actions under the SDGs and other international platforms. In short, there is no one-size-fits-all solution for implementing JT. Cross-sectoral working groups serve to link activities among international organizations, regional and national governments, businesses and investors, gender machinery and women grassroots, the development and philanthropic sectors and, most importantly, the workers and communities who will feel the impact of the transition the most.

Public sector will:

- Define internal commitments on all governmental levels based on the NDC commitment to the decarbonization process;
- Establish an organizational structure to support commitment in the Local Self Governance Units, including in local gender action plans and through municipal gender commissions, public enterprises, SMEs, gender machinery etc.;
- Be involved from the very beginning;
- Adapt policies/plans;
- Conduct a gender-responsive analysis of the current state on the market;
- Conduct gender impact assessments;
- Define concrete decarbonization measures and activities for each government level;
- Implement a campaign on importance of decarbonization and promotion of decarbonization goals;
- Make a projection of necessary finances;
- Ensure necessary finances (different financing mechanisms);
- Conduct activities towards decarbonization;

Evaluate the results.

- Financing of these measures can be explored in different sources, such as:
- Regular and supplementary budget;
- Loans from international financial institutions;
- Grants, donations;
- Private sector investment (domestic and foreign);
- ESCo mechanisms;
- Revolving funds;
- Blended finance models;

Scholarship schemes for new jobs, green shadowing programmes for girls.

To fulfil the previously enumerated activities and ensure a systematic approach, the continuous improvement process (CIP) is a necessity as a constant effort to improve the public service provision and support. These efforts can bring incremental improvements over time or “breakthrough”

improvements all at once. Delivery processes and operational activities are constantly evaluated and improved for efficiency, effectiveness and flexibility. As mentioned earlier, the process of continuous learning from successes and failures is key. In such a new process, failures are inevitable, but the CIP approach to solving these problems and continuous improvement will lead to the success of the process and continuous improvement.

Although the process of decarbonization in BiH has already spontaneously begun and local stakeholders are leading the transition, the public sector should take one of the main roles in ensuring Bosnia and Herzegovina's strategic approach to a just transition for all. Since climate policy and action are a relatively new area for many employers, the formation of dedicated government departments and the allocation of resources for this issue would be helpful in providing new services, but also in directing the private sector. In this case, employers would have the opportunity to seek support or partnership with the public sector in introducing new gender-responsive services in the decarbonization process. The role of the public sector and a systematic approach can also help make the process inclusive and fair for all stakeholders and affected/vulnerable groups.

It is necessary to establish guidelines and policy frameworks at the state, entity and cantonal levels, because this is the only way to ensure stability and enable long-term planning. Based on all the analyses conducted, it was concluded that a cross-sectoral approach to the implementation of decarbonization activities is needed.

In order to realize the previously listed activities and ensure a systematic approach, a process of continuous improvement is necessary as a constant effort to improve the provision and support of public services and making them more gender responsive in design and delivery. These efforts can bring gradual improvements over time or “revolutionary” improvements at once. Service delivery and operational activities need to be constantly evaluated and improved in order to improve efficiency, effectiveness and flexibility.

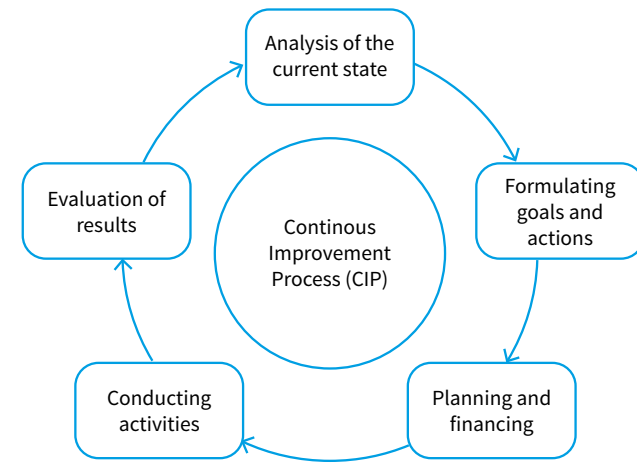


Figure 3:
An overview of the continuous improvement process (CIP)

Strategic direction - needed actions for ensuring a just transition

Based on the analysis presented in the previous sections of this plan, a list of recommended actions that are needed for a Just Transition to a Low Carbon economy was developed. The implementation of these recommendations will represent a basis for defining sound actions in terms of policy and finance needed for a Just Transition.

NEEDED ACTIONS AND RECOMMENDATIONS

General recommendations

Develop and implement the regulatory framework needed for a gender responsive just transition to a low carbon economy

Conduct Gender Responsive Regulatory Impact Assessment

Ensure the implementation of relevant legislation that will provide a strategic basis for decarbonization of BiH.

Implement a Climate Law and Action Plan that will:

- be the basis for developing state, regional and industry level decarbonization strategies
- have a clear GHG reduction pathway, coupled with a plan for increasing RE generation and energy efficiency measures ensuring in such way energy security and availability during the transition
- be the basis for establishing a carbon pricing scheme whether in the form of carbon tax or a cap and trade scheme

Develop a regulatory framework for the issuance of the origin of energy certificates so that generated RE can be exported.

NEEDED ACTIONS AND RECOMMENDATIONS

Define just transition principles in BiH, recognize gender dimension in green job opportunities and develop gender responsive just transition plans, policies and strategies.

Include gender specific policies within just transition plans and strategies. If just transition policies are not gender responsive, occupational gender stereotypes are likely to persist even in the emerging green economy, preventing women from benefitting from the new jobs created.

Define just transition principles in the context of BiH, such as justice, gender equality, inclusion in decision making, equal opportunities, access to training, ability to participate in new sectors, rights at work, social dialogue, environmental protection, and/or other principles that are deemed necessary at the strategic decision-making level.

Define specific gender responsive policies for a just transition that will define:

- the government`s role in a just transition with focus on its support for transitioning workers and communities and breaching gender gaps
- establish the governmental capacity to implement defined policies
- create accountability for planning at national, entity and sectoral levels.

Ensure women`s equitable participation and leadership in all steps of the formulation, implementation, monitoring and evaluation of just transition policies and programmes.

Ensure that policies are based on sound statistical evidence and consider that women face compounded inequalities and discrimination due to their gender, age, disability and socioeconomic status.

Introduce commitments and language highlighting the gender dimension of just transition plans, policies, and programmes in a systematic way in nationally determined contributions (NDCs)

Develop relevant bodies and mechanism for ensuring a Just Transition in BiH

Define mechanisms for the implementation of just transition principles:

Create an inter-ministerial committee for a just transition, ensuring parity and equal representation.

Establish a governmental body to facilitate tripartite dialogues between employers, workers and the government to facilitate social dialogues.

NEEDED ACTIONS AND RECOMMENDATIONS

<p>Develop state and industry level just transition plans</p>	<p>Develop a gender responsive just transition plan for BiH. The plan needs to outline:</p> <ul style="list-style-type: none"> ➤ the pathways for workers in high-emitting sectors to move into decent, good work in the low-emitting sectors ➤ the pathways on how the government will ensure that the newly created jobs are decent work and made available for the transitioning workers. Ensure that this process leverages gender equality and women’s representation and empowerment and promotes decent work for all women and men in the green economy. Ensure that all relevant stakeholders participate in the development of a just transition plan for BiH. <p>Governments need to establish accountability procedures to ensure all relevant stakeholders are held accountable for operating in a gender-responsive manner to achieve set gender equality outcomes in the green job sectors. This can be done through gender responsive planning, monitoring and evaluation mechanisms to ensure that interventions put in place to advance gender equality in the green job sector are having the impact they are designed to have.</p> <p>Policy and decision makers should ensure employment and skills development policies designed for green job sectors are gender responsive, well-informed, coherent and broadly supported by all relevant stakeholders. Skills development policies need to address the issue of occupational segregation in BiH and ensure that women and girls fully benefit from emerging employment opportunities in the green economy. Green job policies need to be aligned with the existing international gender frameworks and treaties.</p> <p>A skills needs assessment should be conducted at government and institutional level to determine skills required by men and women to equally participate and benefit from opportunities created in the green job sectors. This needs to be done in cooperation with employers and labour organizations. This should inform targeted green skills development and training initiatives for men and women.</p> <p>All relevant stakeholders (e.g. governments, education institutions, donors) need to earmark resources to train women for non-traditional positions to prepare them to make a transition into male-dominated occupations in the green economy. Investing in women will improve access to green and decent jobs and promote cleaner and more equitable development.</p>
<p>Develop state level decarbonization plans</p>	<p>Based on BiH NDC, the Green Agenda for the Western Balkan implementation plan and a developed just transition plan for BiH, develop a state level decarbonization plan with specific targets and milestones. It is important that goals and milestone be defined both in the short term (3-5 years) and long term (until 2030 or 2050 in line with EU decarbonization goals).</p>
<p>Develop industry level decarbonization plans</p>	<p>Based on state level just transition and decarbonization plans, develop an industry level decarbonization plan with specific milestones and targets for all carbon intensive industries.</p>

NEEDED ACTIONS AND RECOMMENDATIONS

Raising awareness about just transition and its implications

Organize seminars, roundtables and other events with relevant representatives from carbon intensive industries to raise awareness about subjects:

- what is decarbonization;
- why is it important;
- what are expected phase and emission reductions per sector;
- what is the timeline for expected emissions reduction;
- what are the benefits and opportunities of decarbonization.

Ensuring that all the participants in the decarbonization process understand its implications and processes and have all the relevant information is the necessary prerequisite for a successful transition.

Ensure cooperation of all interested parties

For the decarbonization process to be just and inclusive, all relevant stakeholders must cooperate and communicate on a regular basis, this includes but is not limited to:

- Government representatives from all relevant ministries and other entity and state level bodies
- People in decision-making positions in carbon intensive companies
- Workers from carbon intensive companies
- Representatives of local communities
- Women CSOs and grassroots organizations
- Representatives from SMEs

The engagement of all relevant state and industry level stakeholders will greatly help the operationalization of the state and industry level plans and ensure a sound follow-up implementation process.

Work with companies from carbon intensive industries to develop firm-level just transition plans

Provide technical support for companies to develop firm level transition plans with defined goals and milestone, and follow the implementation of defined transition plans

NEEDED ACTIONS AND RECOMMENDATIONS

Data availability

Improve existing and create new data gathering systems (carbon intensive industries)

Ensure that timely, detailed data about workers in carbon intensive industries is gathered and regularly updated in a centralized database. This would be the prerequisite for ensuring a just transition that leaves no one behind.

Ensure timely, detailed data about:

- carbon intensities of energy-intensive industries;
- carbon footprint of the industrial sector;
- carbon and energy efficiency;
- emissions by sectors;
- research and innovation communities and industry;
- CEI from industrial sources, etc.

Improve existing and create new data gathering systems (green industries)

Ensure that timely, detailed data about workers in green industries is gathered and regularly updated in a centralized database.

Ensure timely, detailed data about:

- renewable energy generation and sustainable products; environmental tax payments;
- green employment opportunities;
- raw material consumption in green industries;
- climate related economic losses.

NEEDED ACTIONS AND RECOMMENDATIONS

Transition to a low carbon economy

Carefully develop lay off plans and provide assistance for workers reallocation

Based on state, regional, industry and firm level decarbonization plans, carefully develop lay off plans, paying due attention to country specific vulnerable groups.

Ensure a thorough process of profiling workers at risk during layoffs based on their experience, education, willingness to requalify etc. so that the established just transition mechanisms target well-defined groups.

Prepare skills development policies and plans, ensuring that women and girls fully benefit from emerging employment opportunities in the green economy.

Offer pension bridging programmes for workers who will retire earlier than planned due to the coal phase out.

For workers that will stay in the labour market offer financial and educational support.

Establish comprehensive and inclusive funding programmes for regional economic revitalization of affected communities.

Implement new operating models in the energy sector

Implement new operating models in the energy sector, such as ESCO or IPPP models.

Enable financial incentives for renewable energy generation.

NEEDED ACTIONS AND RECOMMENDATIONS

Green industries and jobs

Formally define green industries

Understanding that almost all industries can “green” their operation to a certain level, there is a need to develop a strategic document that clearly defines on BiH level what industries can be considered green and what are the requirements for a certain product or activity to be considered green. As a reference, the EU Taxonomy can be used.

Recognize the gender dimension in the green job opportunities.

Also, as a starting point for defining green jobs, sectors defined in the NDC Action plan can be used:

- power;
- district heating;
- construction;
- transport;
- industry;
- agriculture;
- forestry;
- waste management;
- cross-cutting sectors.

Defining thresholds and clear criteria helps prevent greenwashing and also enables a just transition.

If, for instance, in a certain sector some activities are labelled as “green” and therefore they help create “green” jobs, there is a risk that once the decarbonization process is implemented and EU regulations applied, people will once again lose their jobs and will need to undertake re-skilling, as companies that do not comply with the EU sustainability regulation will have to either adapt or shut down their operations.

Raising awareness about green and low carbon activities

Provide seminars, roundtables and educational programmes for SMEs to raise awareness about what are green and low carbon activities in particular sectors and how they can transform their existing operations to a new greener business model. Raise awareness about the gender dimension in green job opportunities.

Develop a *Green Jobs Generator Hub*

Develop a dedicated body in BiH that will establish and regularly update a publicly available database of existing green jobs in BiH and promote cooperation between green companies. Acknowledge the gender and green nexus in green jobs.

Develop a dedicated *Green Start Up facility*

Develop a facility that will provide assistance for individuals to establish their own green start-ups in BiH. Affirmative measures for women and youth in green start-ups should be developed.

Assistance should be available in the form of grants and loans with low interest rate and should provide additionally favourable financing conditions for people with disabilities and other marginalized groups that want to establish a green start-up.

NEEDED ACTIONS AND RECOMMENDATIONS

Establish industry level working groups	For green industries (for instance, renewable energy production or low emission public transportation developers) establish industry or firm level working group to gain knowledge about specific obstacles they face when expanding their operations and gain knowledge about areas where assistance is needed.
Provide technical support for green and low carbon companies	Technical support should be given on an industry-by-industry basis, given that different industries have different opportunities to green their operations. Establish cooperation with EU-based green companies in the same industry to enable knowledge and experience transfer, including in gender and green nexus.
Provide financial support to green and low carbon companies	Provide grants, loans, credit lines, help with entering financial markets and issuing green and sustainable bonds.
Provide capacity building	Establish cooperation with universities to help them adjust their curricula to the future needs of green jobs, with incentives, mentoring schemes and shadowing programmes for women students. Provide access to re-skilling programmes. Provide access to regular free seminars for additional training and re-skilling, including in gender and green nexus.
Develop the educational infrastructure for educating people to do green jobs	Cooperate with universities and high schools to develop new gender-responsive curricula, which are more adjusted to the knowledge needs of future green jobs.
Inclusive and just transition	
Increase the role of vulnerable groups in a just transition	Value and strengthen vulnerable groups' role in the just transition: Encourage the inclusion of vulnerable (disadvantaged) groups in the workforce Anticipate the impact of job losses in carbon intensive industries (that will affect mostly men) on financially dependent women/partners undertaking the unpaid care work, therefore impacting the whole household. Encourage re-skilling for both people losing their jobs (mostly men) and those undertaking the burden of unpaid care work (mostly women) in order to shape a more equal economy in both the labour market and within the household. Integrate disadvantaged groups in decision-making spaces to make sure their specific needs and priorities are taken into account in the low-carbon economy.

NEEDED ACTIONS AND RECOMMENDATIONS

<p>Foster participation of women in decision-making</p>	<p>Ensure women’s equitable participation and leadership in all steps of the formulation, implementation, monitoring and evaluation of just transition policies and programmes.</p> <p>Integrate also vulnerable groups of women in decision-making spaces to make sure their specific needs and priorities are taken into account in the low-carbon economy.</p> <p>Tailor leadership training for women to encourage them to enter decision-making spaces.</p>
<p>Pay due attention to older people in the workforce</p>	<p>People who will be in their mid-50s when their carbon intensive company shuts down or downsizes are especially vulnerable. With their age, and especially if unqualified or semi-qualified, they are likely to experience difficulties in finding new jobs.</p> <p>Create mechanism that ensures a just transition to new green jobs for this particular vulnerable group.</p> <p>Develop early retirement schemes available for people in their 50s in carbon intensive industries.³⁵</p>
<p>Pay attention to informal workers in carbon intensive industries</p>	<p>Workers that are not formally employed in carbon intensive industries and/or work as such for companies in the value chain of carbon intensive industries need to be considered as people at risk during layoffs as well.</p> <p>Make sure to include them in re-skilling programmes.</p>
<p>Give marginalized groups employment opportunities</p>	<p>Prevent discrimination against minorities, people with disabilities and other marginalized groups when accessing the labour market.</p> <p>This should be done by raising general awareness levels through campaigns in all public spaces (schools, media etc.) about the benefits of the low carbon transition and the need to make it inclusive and just.</p> <p>Offer targeted training/scholarships to women and disadvantaged groups to encourage them to enter the sectors related to the low-carbon economy.</p> <p>Implement preventive mechanisms against gender-based violence (GBV) to ensure that private and public spaces, especially decision-making spaces, are safe for all.</p> <p>Make sure that companies/organizations fully respect the entity labour legislation in practice and have strong gender/ social inclusion policies and mechanisms in place to prevent and address sexual harassment for the purpose of ensuring safe workplaces.</p>

³⁵ Pay special attention to the structure of early retirement schemes. For instance, if they only cover workers who will retire in 5 to 8 years, ensure that workers that are close to this limit value but do not fall under it are not disadvantaged.

NEEDED ACTIONS AND RECOMMENDATIONS

Implement measures to prevent gender-biased hiring practices

Make sure that women have the same opportunities as men to get jobs in green and low carbon companies.

Pay due attention that women, including working mothers, are not discriminated against when applying for green jobs (through strong HR/gender policies at both company and national levels).

Pay due attention that young women are not discriminated against and given less access to green jobs vs. young men due to the fact that they can potentially become mothers in a few years' time. Give both men and women the right to take parental leave, also ensuring that companies exert no pressure on mothers to return to work after minimal/ guaranteed maternity leave defined by the labour legislation expires.

Implement measures to ensure women are given equal opportunities for career advancement

Implement measures to prevent occupational gender segregation and career advancement discrimination for women in a decarbonized economy and to avoid the 'glass-ceiling' effect. Standards such as UNDPs Gender Equality Seal for Private and Public enterprises should be applied to empower women at work. These projects transform the culture and practices of the participating businesses and public institutions by mainstreaming gender into every aspect of their programmes and operations, strengthening the position of women in decision making and eliminating the gender-pay-gap.

Implement measures to ensure women are paid equally as men

Green job rolls should offer equal pay for equal positions, regardless of employees' gender.

Table 3: Needed actions and recommendations

Needed skills and educational levels for future green jobs

In order to further support the recommendations given in the previous sections and given that the transition to a circular and low/carbon economy also brings many new employment opportunities, this section outlines the anticipated knowledge and skills needed for performing future green jobs.

Industry	Needed knowledge and skills for future green jobs
Agriculture* Food Production	Management of natural resources in a way that maximizes the health and productivity of the environment, agriculture, communities and society.
	Knowledge of policy development and assessment of impact of green and sustainability principles on Agriculture and Food Production (AF) fields.
	Assessment of renewable energy options and renewable materials options to promote sustainable practices across AF fields.
	Knowledge of green technologies and sustainability practices and their implementation potential as well as impacts of AF processes and markets.
	Knowledge of national laws and regulations, as well as law and regulations of exporting countries regarding green and sustainability production criteria in the Agriculture and Food fields.
	Assessment of AF operation impacts on the environment and public health and development of strategies to manage AF industries' influence on natural resource utilization
	Understanding factors that drive landscape ecological patterns enabling sustainable land use and increased resource productivity
	Develop and implement <i>best practice</i> policies for agribusiness based on ecological and social criteria.
	Technical, managerial and leadership skills that promote gender equality, social well-being and environmentally responsible practices in agribusiness.
	Integration of green and sustainability-based practices in the whole product life cycle.
	Application of green and sustainability principles to animal (e.g. livestock, poultry, aquatic) production practices.
	Design of animal production systems that incorporate conservation of air, water, soil, and energy.
	Assessment and management of physical and transition risks' impacts on AF fields.
Development of solutions for environmental and related human welfare issues caused by industry activities.	

	Knowledge of differentiated gender impacts in processes in agriculture and food production; knowledge of gender gaps in the agricultural sector that make women particularly vulnerable; know-how needed to identify appropriate responses to close the gender gap in the agricultural sector and most effective ways of giving women greater voice in decision-making and mainstreaming gender in agriculture.			
	Apply green technologies and sustainability principles in resource exploitation, increasing the reuse and circularity of used resources.			
	Integration of sound waste management systems and water conservation practices.			
	Implementation of techniques that increase industry efficiency and reduce environmental impact of the food production and processing industry.			
	Implementation of green technologies and sustainability principles in food production.			
	Assessment and implementation of renewable biological energy options managing their impacts on soil, water and air systems.			
	Employment of technologies that prevent and/or mitigate negative environmental impacts on crop production.			
	Implementation of green design and construction principles to facilitate the development of agricultural buildings and structures.			
Potential green job educational profiles**	Agronomists, biochemists, food technicians, soil and plant scientist, environmental engineer, renewable energy analyst, natural resources specialist, agricultural lawyer, animal geneticist, supply chain managers, economists, green agricultural policy analysts, farm managers, horticulturalist, waste management professionals, toxicologists, bacteriologists, experts in gender and agriculture nexus etc.			
Educational structure for future green jobs	Postgraduate	degree	-	20%
	Graduate	degree	-	35%
	Secondary	degree	-	35%
	Elementary school	degree	-	10%

Table 4: Needed knowledge and skills for future green jobs in Agriculture and Food Production

*All general principles for Agriculture apply to forestry as well

**Specific green job roles would have to be tailor-made for a specific companies' needs but these educational profiles will certainly be needed for performing jobs in this industry.

*** The Table shows needed skills and knowledge for future green jobs per industry and they are based on TA Project Teams expertise and the analysis of relevant literature listed in the resources section of this document.

Industry	Needed knowledge and skills for future green jobs			
Architecture and Construction	Understand the impacts of the building and design industries, as well as building operations and maintenance on the environment, air, food, water, biodiversity and energy.			
	Application of integrated design processes and principles to accomplish green and sustainable outcomes in the design and construction of projects.			
	Estimation of impacts on environmental and societal conditions over the whole life cycle of a buildings (pollution, health impacts on humans involved in the procurement of goods, impacts on the health of people using the buildings, impacts on environmental degradation and so on).			
	Employment of more sustainable materials and components.			
	Application of green and energy efficient solutions.			
	Knowledge of standards, regulations and codes for a greener and more sustainable built environment.			
	Making systems and flows of land, materials, energy and natural resources in the design of new and remodelling projects consistent with sustainability criteria.			
	Implementation of green principles in the process of facility site and landscape definition.			
	Follow and access the impact of material and energy sourcing on the overall projects impact on people and the environment.			
	Make design solutions for lighting, heating and cooling consistent with sustainability criteria. Development of preventative maintenance methods that can increase energy efficiency and reduce pollution from buildings and building sites.			
Knowledge of project development methods that enable the elimination of unnecessary uses of energy for heating and cooling and the mitigation and minimization of negative environmental impacts of construction projects.				
Knowledge of gender aspects of architecture and construction.				
Knowledge of universal design principles in architecture and construction.				
Implementation of indoor air quality considerations that mitigate and minimize the negative environmental and human impacts of construction projects.				
Potential green job educational profiles**	Sustainable / Green / Gender responsive / Universal Design Architects, architectural lighting designers, urban planners, energy efficiency engineers, environmental technicians, LEED managers, construction manager, construction workers etc.			
Educational structure for future green jobs	Postgraduate	degree	-	45%
	Graduate	degree	-	40%
	Secondary	degree	-	10%
	Elementary school	degree	-	5%

Table 5: Needed knowledge and skills for future green jobs in Architecture and Construction***Specific green job roles would have to be tailor-made for specific company's needs but these educational profiles will certainly be needed for performing jobs in this industry.*

*** *The Table shows needed skills and knowledge for future green jobs per industry and they are based on TA Project Teams expertise and the analysis of relevant literature listed in the resources section of this document.*

Industry	Needed knowledge and skills for future green jobs			
Transportation	Access the economic costs and benefits for green and sustainability initiatives in transportation, distribution and logistics.			
	Access social and environmental as well as gender impacts of business model choices in transportation, distribution and logistics.			
	Implement sustainable solutions for repair or replacement of transportation equipment.			
	Understand the characteristics and maintenance requirements of alternative engine energy sources in transportation operations.			
	Knowledge of environmental, human and economic impacts of using alternative fuels and lubricants in transportation equipment.			
	Employment of green and sustainable practices in the reuse, recycling and disposal of maintenance products.			
	Understand key concepts of route planning and the analysis used to promote environmental efforts.			
	Knowledge of existing and emerging standards, metrics and best practices for green and sustainable manufacturing.			
	Knowledge about green procurement processes for full transportation fleet replacements.			
	Digitalization solutions for new sustainable transportation solutions.			
	Technical knowledge needed for operating improved transportation solutions, such as new railway trains, electric cars etc.			
	Knowledge of unfractured development and adaptation needs for improved green and sustainable vehicles.			
Potential green job educational profiles**	Mechanical engineers, computer science professionals, transportation engineers, electrical engineers, drivers etc.			
Educational structure for future green jobs	Postgraduate degree	degree	-	15%
	Graduate degree	degree	-	45%
	Secondary degree	degree	-	30%
	Elementary school	degree	-	10%

Table 6: Needed knowledge and skills for future green jobs in Transportation

**Specific green job roles would have to be tailor-made for specific company's needs but these educational profiles will certainly be needed for performing jobs in this industry.

*** The Table shows needed skills and knowledge for future green jobs per industry and they are based on TA Project Teams expertise and the analysis of relevant literature listed in the resources section of this document.

Fields	Needed knowledge and skills for future green jobs			
Science, Technology, Engineering & Mathematics (STEM)*	Development of solutions to eliminate environmental threats such as chemical toxicity in the environment, water and air quality degradation, climate change, and carbon emissions.			
	Application of sustainability principles to engineering and technology solutions.			
	Understanding and implementation of sustainability of design, manufacturing, and other technology and applied engineering processes.			
	Applying scientific and mathematical problem-solving skills to develop solutions that create a more sustainable economies and societies.			
	Knowledge about wind powerplant development and operations.			
	Knowledge of wind turbine assembly, repair and reassembly.			
	Green procurement practices for sourcing wind turbines, solar panels and parts for hydroelectric powerplants			
	Knowledge about solar panel installations and functioning principles.			
	Knowledge of solar panel assembly, repair and reassembly.			
	Knowledge of hydro powerplants management and operations.			
Know-how in closing the STEM gender gap: designers of shadowing programmes for women in green and STEM, mentors, educators, role models.				
Technical knowledge needed for repair and operations of hydro powerplants.				
Educational structure for future green jobs	Postgraduate	degree	-	20%
	Graduate	degree	-	50%
	Secondary	degree	-	20%
	Elementary school	degree	-	10%

Table 7: Needed knowledge and skills for future green jobs in STEM fields

* These fields are relevant for the energy and manufacturing sectors. Professionals with a degree in Science, Technology, Engineering and Mathematics are primed to be high demand during the decarbonization process.

*** The table shows needed skills and knowledge for future green jobs per industry and they are based on TA Project Teams expertise and the analysis of relevant literature listed in the resources section of this document.

Financing opportunities

Recognizing the need to chart a path to carbon neutrality by 2050, the economies of the Western Balkans should develop and adopt their long-term development strategies for low greenhouse gas emissions (long-term strategies) in accordance with the provisions of the European Union Climate Law, regulation on management and other elements from the framework of EU climate policy, and they need to adopt them without further delay by 2025 at the latest. These long-term strategies should focus on the decarbonization of carbon-intensive sectors (energy and transport) and define economy-wide targets for reducing emissions from all forms of transport, buildings, agriculture, industry and the waste sector.

In order to follow the path of a socially acceptable and fair phase-out of coal-fired power generation, the authorities of the Western Balkans should establish a Committee for Decarbonization (DcC) with a mandate to develop an Action Programme for the gradual phase-out of coal by the end of 2024³⁶. This Committee should consist of various actors from the fields of politics, business, environment, including representatives of affected branches and business entities, employee unions and other interested parties. The action programme (which should be aligned with the National Energy and Climate Plan) should contain a mix of instruments and a strategic vision for phasing out coal-fired electricity generation, including milestones and deadlines, with proposals for the necessary legal, economic, social and other measures to prevent and mitigate potential negative impacts. These documents should analyse the social, energy and economic aspects of decarbonization and identify opportunities to resolve the contradictions between energy security, climate goals and social elements, including opportunities to create new jobs and prevent the increase in electricity costs and the worsening of the problem of energy poverty. Women's full and equitable participation and leadership needs to be ensured in all steps of the design, implementation, monitoring and evaluation of all just transition policies and programmes. Work of the Committee and policy work must be based on sound statistical information and must fully consider that women face compounded inequalities and discrimination due to gender, age, income and education levels.

	Sources of financing	Types	Form of financing
Local sources	Budget funds	Own funds	Grants
	Entities' Environmental Funds	Own funds	Grants
	Development finance institutions	Private funds	Loan under favourable terms
	Commercial financial institutions	Private funds	Loans
	Private investors	Private funds	Financing; co-financing
International sources	International organizations, EU and bilateral cooperation funds	International funds	Technical assistance; grants
	International financial institutions	International funds	Loans; loans under more favourable conditions

Table 8: An overview of funding sources

36 Action plan for the implementation of the Sofia Declaration on the Green Agenda for the Western Balkans for the period 2021-2030.

During the development of the Coal Phase-out Action Programme, the Decarbonization Committees should take into account and assess the potential impacts of the Carbon Cap Adjustment Mechanism on competitiveness and overall economic activity for each Western Balkan economy. These carbon cap adjustment mechanism impact assessments should be prepared by the Decarbonization Committee by the end of 2024 and presented to the relevant authorities in the Western Balkans. The prepared impact assessments should also provide valuable input to the process of aligning with the European Union's Emissions Trading System or introducing other carbon pricing instruments. They will also serve as a useful tool for defining strategic orientation in the development or finalization of National Energy and Climate Plans (NECPs).

In order to implement measures for decarbonization, adequate financial resources must be provided. These funds can be mobilized from a single source of financing or through a combination of several sources. The currently available financing mechanisms enable various forms of assistance from domestic and international sources. Considering the current situation, decision-makers should choose the optimal financing model that corresponds to the situation in the local self-governance unit. An overview of funding sources is presented in the Table above.

Budget funds at different levels of government

A potential source of funding, from which it is possible to provide funds for the implementation, includes budget funds. When it comes to funds from the budget, it is possible to identify the following sources:

- Budget of the Municipality - through its regular operations, the Municipality has the possibility to include in its strategic documents the measures to be implemented and, based on this, it plans the necessary funds in its budget.
- Budget of the Canton
- The budget of the Government of the Federation of Bosnia and Herzegovina/ the Republika Srpska/ BD - has the possibility of transferring budget funds to lower levels of government, which can be used to implement energy efficiency measures and reduce CO2 emissions.

Environmental Protection Fund of the Federation of Bosnia and Herzegovina

The Environmental Protection Fund of the Federation of Bosnia and Herzegovina collects and distributes financial resources for the environmental protection in the territory of the Federation of Bosnia and Herzegovina, which can be used to: support the achievement of tasks arising from obligations and responsibilities towards the international community in the field of environmental protection; suppress damage to the environment when the principle of responsibility for the damage done to a specific person cannot be applied (the polluter pays); cover the costs of preventing or eliminating damage to the environment that requires immediate intervention; support measures aimed at environmental protection, especially in the field of development and financing of the information system, education and dissemination of information; improve the development of an economic structure that is favourable for the environment; preserve protected natural areas; improve public ecological awareness and environmental research; and for preservation, sustainable use, protection and improvement of the environment.

Environmental Protection and Energy Efficiency Fund of RS

The Environmental Protection and Energy Efficiency Fund of the Republika Srpska through its operations ensures financial assistance to projects aimed at environmental protection and energy efficiency. The Fund is financed from fees paid by environmental polluters, waste disposal fees, water protection fees, contributions, donations, funds from international projects, etc.

The activities of the Fund include those related to the collection of funds, as well as the financing of the preparation, implementation and development of programmes, projects and similar activities in the field of conservation, sustainable use, protection and improvement of the environment and in the field of energy efficiency and the use of renewable energy sources established by the Law on the Fund.

The Fund for the Implementation of the Gender Action Plan (FIGAP)

FIGAP is set up to support the implementation of the GAP. Activities include strengthening human and material resources, as well as developing and strengthening partnership between institutions responsible for achieving gender equality at regional, state and international level. The following development results are pursued:

- More women politicians and more women in leadership positions (all political positions at all levels of BiH state and entities)
- Improved economic position and situation of BiH women and other marginalized groups (focusing on the public and private labour market, access to economic rights)
- Improved social position of women and other marginalized groups (focusing on reduced violence, cultural perceptions of men and women's roles and status, education and health).
- In order to reach end users, gender mainstreaming will also be carried out at the local level and with non-institutional partners (municipalities, NGOs, academic community).

Investment development institutions

The Development Bank of the Federation of BiH is a financial institution that provides the possibility of closing the financial structure for the implementation of the Action Plan for Sustainable Energy Management and Adaptation to Climate Change. In its credit portfolio, the Development Bank of the Federation of Bosnia and Herzegovina has a special credit line intended for local self-governance units. This credit line enables the withdrawal of financial resources for local self-governance units in the Federation of Bosnia and Herzegovina under favourable credit terms (repayment period of up to 12 years with a 12-month grace period, a minimum interest rate of 2.5% per annum, and loan processing fees of up to 0.3% of the loan value).

Commercial financial institutions

Commercial financial institutions operate through BiH, primarily through banks, which place funds according to market conditions. Certain banks have developed programmes for financing projects related to energy efficiency and the use of renewable energy. Local self-governance units have the option of borrowing or issuing guarantees for the timely payment of liabilities of public enterprises. Borrowing from commercial financial institutions is a tool that can provide partial or total financing of the measures. Some banks have special lines for financing energy efficiency. Also, private capital of investors is a significant source of financial resources that can be used for this purpose. The most frequently used models of engagement of private capital for public purposes are:

Public Private Partnership (PPP) - represents a model of pooling public and private sector resources for the purposes of producing public products or providing public services. Local self-governance units have the option of using this model of organization of a certain job in cases where they do not have the necessary resources for this or when they are unable to perform public duties independently. The primary reasons why the public sector chooses

PPP are: lack of capacity and resources, lack of professional staff, high costs, high business risk, etc. On the other hand, PPPs imply the participation of the private sector with its capacities, knowledge, skills and capital. In this relationship, the public sector defines the need and scope of a public product or service, ensures equality and prevention of abuses, while the private sector strives to ensure profitability while meeting all requirements. PPP as a model represents a long-term contractual cooperation between a public and a private partner, whereby the redistribution of business risk is mostly transferred to the private partner. Projects where PPP is most often used as a model of cooperation include the energy sector, health and education.

ESCO model (Eng. Energy Service Companies) - The ESCO business model includes the development, construction and financing of projects aimed at increasing energy efficiency, while simultaneously reducing exploitation and maintenance costs. This model is based on the reduction of energy costs through the construction of infrastructure that will enable system optimization and more efficient use of energy. The ESCO invests its funds in the implementation of measures to increase energy efficiency, and the return of the investment is realized through the savings that will arise. During the implementation of the project, that is, during the repayment of the investment, service users pay the same amount for energy costs as they did before the implementation of the project. After paying off the investment, the ESCO exits the project and the financial difference resulting from the savings is transferred to the end users, which in the long term represents an exceptional benefit for the users. The ESCO model can be applied to public companies, institutions and local self-governance units, and most often for projects from the energy sector.

International sources of funding

In addition to the above-mentioned domestic sources of funding, it is also possible to use international aid funds for the implementation of the measures of the Action Plan for Sustainable Energy Management and Adaptation to Climate Change. Namely, international organizations, international financial institutions and agencies that are present within the territory of Bosnia and Herzegovina carry out activities aimed at protecting the environment and improving the living conditions of citizens.

International organizations and means of bilateral cooperation (UNDP, GIZ, EU, USAID)

Numerous international organizations are present in Bosnia and Herzegovina, which implement programmes through which they offer technical assistance, as well as financial resources. By using these funds, it is possible to secure the necessary financing of the measures of this Action Plan. The programmes that offer financing for the mentioned projects are limited in time, but tend to be repeated in the same or similar form.

The most important international donors in the field of energy efficiency, use of renewable energy and reduction of CO₂ emissions in Bosnia and Herzegovina is the European Union - with the Instrument of Pre-Accession Assistance (IPA II). Countries that are candidates or potential candidates for EU membership can obtain financing. IPA II is an instrument that prepares beneficiary countries for the use of funds once they are part of the EU. The pre-accession assistance in Bosnia and Herzegovina is provided in the spheres of democracy and governance, rule of law and law, competitiveness and innovation, education, employment and social change, transport, environment, climate change and energy, agricultural development and rural development. The most important agencies through which the European Union distributes its assistance are:

- Directorate for European Integration;
- Department for EU Support to Bosnia and Herzegovina Participation in Union Programmes.

Horizon 2020 is the European Union's research and innovation programme that brings together the activities of the Seventh Framework Programme

(FP7), the innovation aspects of the Competitiveness and Innovation Programme (CIP) and the EU contribution to the European Institute of Innovation and Technology (EIT). The structure of Horizon 2020 is based on three main priorities: Excellent Science, Industrial Leadership and Societal Challenges. In the strategic programming of social challenges with a high potential for growth and innovation, twelve focus areas have been identified on which funds and research activities will be concentrated to support the key objectives of the programme. They include, among others:

- Blue growth: realizing the potential of the ocean,
- Smart cities and communities,
- Competitive energy with low CO2 emissions,
- Energy efficiency,
- Disaster resilience: secure societies, including adaptation to climate change and
- Digital security.

UNDP is one of the largest individual donors of international support for strengthening institutional capacities in Bosnia and Herzegovina. Local self-governance units can obtain UNDP support by applying to projects funded by UNDP independently or in partnership with other agencies. In addition to financial assistance, programmes financed by UNDP also provide technical support in the implementation of green project activities.

UNDP has intensified work on gender equality. This commitment is overall framed and guided by UNDP's corporate gender equality guidelines. The main global instrument in this regard is the **UNDP Gender Equality Strategy 2022-2025**, which sets the main pillars and foundations for both global and local gender equality action. In this line, the Strategy is grounded in UNDP's commitment to eradicating poverty, reducing inequalities and exclusion, and supporting the empowerment of all women. It describes how UNDP, together with partners, will pursue gender equality -- helping to make a difference to millions of people across the globe through **UNDP's Six Signature Solutions**³⁷, **Three Directions of Change**³⁸ and **Three 'enablers'**³⁹, outlined in UNDP's **Strategic Plan 2022-2025**. To provide a localized map to implement them, the Country Office developed its own Gender Equality Strategy and Action Plan 2021-2025 to operationalize the gender actions set in the **UN Sustainable Development Cooperation Framework (2021-2025)** and the **Country Programme Document for Bosnia and Herzegovina 2021-2025**, while keeping in mind the broader **global strategic context of the 2030 Agenda for Sustainable Development**. Another fundamental milestone of the BiH CO has to do with the Gender Equality Seal Certification Process (GES), a framework for institutional gender equality transformation at all levels. The Gender Equality Seal is a standard that, through series of independent evaluations, meticulously assesses and awards gender equality excellence in both programme and operations of UNDP offices.

The German Organization for Technical Cooperation (GIZ) is an organization that works intensively on institutional strengthening within Bosnia and Herzegovina and the creation of preconditions for independent collection of resources from European funds. GIZ is present in South-Eastern Europe, which is why the Open Regional Fund for South-Eastern Europe was created, which also includes a fund for energy efficiency and renewable energy sources. Withdrawal of funds from the aforementioned fund is possible through international cooperation with other countries, where the right to co-financing and technical assistance is exercised.

37 Poverty and Inequality, Governance, Resilience, Environment, Energy, Gender Equality.

38 Structural Transformation, Leaving No one Behind, Building Resilience.

39 Strategic Innovation, Digitalization, Development Financing.

USAID is an organization that provides assistance in areas relevant to energy sustainable development and climate change, which primarily concern the adoption of measures, attraction of investments and integration of the energy market of Bosnia and Herzegovina with the regional and EU markets.

International financial institutions (EIB, EBRD, EEEF)

Numerous international financial institutions are present on the financial market of Bosnia and Herzegovina, which, through favourable credit arrangements, strive to promote the importance of environmental protection and the reduction of CO2 emissions. Financial institutions, through commercial banks that have their branches throughout the Federation of Bosnia and Herzegovina, place loans intended for the financing of energy efficiency projects and the use of energy from renewable sources. In a large number of cases, the mentioned credit lines also offer an incentive for investment, which is reflected in grants (grant component), technical assistance, favourable financing conditions, grace period, etc. Leading financial institutions that place the funds in our country which are needed to reduce emissions CO2 is the European Investment Bank (EIB), the German Development Bank (KfW), the European Bank for Reconstruction and Development (EBRD) and others.

Action and Financing Plans

The Table below presents the outputs that will lead to the implementation of all previously proposed activities with possible sources of financing, responsible institutions as well as money needed for developing those outputs.

The cost estimate is very approximate, since estimation is mainly done for staff training and capacity building. Stakeholders from the following sectors are included: electric energy, district heating, construction, transport, industry, agriculture, forestry, waste and multidisciplinary (cross-cutting) sector. Training and capacity building costs have been estimated in accordance with current cost for training per day and per approximate number of participants of training. The total cost of training and capacity building costs for the next 10 years is estimated up to BAM 224 mil. Activity number A20 Financial support for green and low carbon companies provided implies direct financial support in the amount of BAM 50 million.

Just transition must be informed by gender impact assessments and must be gender mainstreamed throughout, including its financing. To be gender responsive, gender must be mainstreamed in the policies in the areas of climate change, energy, transport, trade and agriculture. Gender mainstreaming must take place at all stages of the policy making process, from issue definition through policy formulation, to implementation and evaluation. Furthermore, gender budgeting needs to be fully integrated into climate and just transition policies and its implementation needs to be monitored and evaluated. Gender impact assessments are a crucial part of this process, and they should identify who is affected by the impact of just transition and by measures taken to address it.

Ac. No	Activity	Institution responsible	Possible source for financing	Estimated investments (cost) in BAM (in thousands)
A1	Develop and implement the regulatory framework needed for a just transition to a low carbon economy	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, public power companies	International grants and own sources	1,500
A2	Develop relevant bodies and mechanism for ensuring a just transition in BiH	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, public power companies	International grants and own sources	1,000
A3	Develop state and industry-level just transition plans	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, public power companies	International grants and own sources	1,000

Ac. No	Activity	Institution responsible	Possible source for financing	Estimated investments (cost) in BAM (in thousands)
A4	Develop state-level decarbonization plans	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, public power companies	International grants and own sources	2,000
A5	Develop industry-level decarbonization plans	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, public power companies, intersectoral working groups	International grants and own sources	1,500
A6	Define gender responsive just transition principles in BiH and develop specific policies for a just transition	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, public power companies, intersectoral working groups	International grants and own sources	2,000
A7	Raise awareness about just transition and its implications	Ministry of Foreign Trade and Economic Relations, intersectoral working groups	International grants and own sources	10,000
A8	Ensured cooperation of all interested parties	Local governments, entity environmental funds; NGOs	International grants and own sources	2,500
A9	Develop firm-level just transition plans	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for industry and entrepreneurship and the environment	International grants and own sources	5,000
A10	Improve data gathering systems (carbon intensive industries)	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for industry and entrepreneurship	International grants and own sources	2,500

Ac. No	Activity	Institution responsible	Possible source for financing	Estimated investments (cost) in BAM (in thousands)
A11	Improve data gathering systems (green industries)	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for industry and entrepreneurship	International grants and own sources	2,500
A12	Develop lay off plans and provide assistance for worker reallocation	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for industry and entrepreneurship	International grants and own sources	12,500
A13	Implement new operating models in the energy sector	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	5,000
A14	Define green industries	Entity and cantonal ministries responsible for training; private training sector	International grants and own sources	2,000
A15	Raise awareness about green and low carbon activities	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	2,000
A16	Develop a Green Jobs Generator Hub	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	10,000
A17	Develop a dedicated Green Start Up facility	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	10,000
A18	Establish industry-level working groups	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	15,000
A19	Provide technical support for green and low carbon companies	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	15,000

Ac. No	Activity	Institution responsible	Possible source for financing	Estimated investments (cost) in BAM (in thousands)
A20	Provide financial support for green and low carbon companies	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	50,000
A21	Provide capacity building	Entity ministries responsible for industry, entrepreneurship, labour unions	International grants and own sources	10,000
A22	Develop the training infrastructure for educating people to do green jobs	Entity and cantonal ministries responsible for training and labour force; private training sector	International grants and own sources	25,000
A23	Increase the role of vulnerable groups in a just transition	All governmental actors	International grants and own sources	15,000
A24	Foster participation of women in decision-making	All governmental actors	International grants and own sources	21,000
A25	Pay due attention to older people in the workforce	All governmental actors	International grants and own sources	6,000
A26	Pay attention to informal workers in carbon intensive industries	All governmental actors	International grants and own sources	6,000
A27	Give marginalized groups employment opportunities	All governmental actors	International grants and own sources	6,000
A28	Implement measures to prevent gender-biased hiring practices	All governmental actors	International grants and own sources	5,000
A29	Implement measures to ensure women are given equal opportunities for career advancement	All governmental actors	International grants and own sources	5,000
A30	Implement measures to ensure women are paid equally as men	All governmental actors	International grants and own sources	5,000

Ac. No	Activity	Institution responsible	Possible source for financing	Estimated investments (cost) in BAM (in thousands)
A31	Inform just transition by gender impact assessments and gender mainstreamed throughout, including its financing	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, intersectoral working groups, labour unions	International grants and own sources	1,000
A32	Establish accountability procedures to ensure all relevant stakeholders are held accountable for operating in a gender-responsive manner to achieve set gender equality outcomes in the green job sectors	Ministry of Foreign Trade and Economic Relations, entity ministries responsible for energy and the environment, intersectoral working groups, labour unions	International grants and own sources	1,000
A33	Design employment and skills development policies for green job sectors which are gender responsive, well informed, coherent and broadly supported by all relevant stakeholders	Ministry of Foreign Trade and Economic Relations, Employers and Labour Organizations	International grants and own sources	5,000
A34	Assess skills required by men and women to equally participate and benefit from opportunities created in the green job sectors	Ministry of Foreign Trade and Economic Relations, Employers and Labour Organizations	International grants and own sources	4,000
A35	Training of women for non-traditional positions to prepare them to make a transition into male-dominated occupations in the green economy	Entity and cantonal ministries responsible for training and labour force; private training sector	International grants and own sources	6,000
TOTAL				274,000

Table 9: Action Plan and Financing Plan

Implementation timeline

Ac. no.	Activity	NOTES	Estimated investments (cost) in BAM (in thousands)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
A1	Develop and implement the regulatory framework needed for a just transition to a low carbon economy	Estimation is made just for training and capacity building of staff	1,500	750	750								
A2	Define just transition principles in BiH and develop specific policies for a just transition	Estimation is made just for training and capacity building of staff	1,000		500	500							
A3	Develop relevant bodies and mechanism for ensuring a just transition in BiH	Estimation is made just for training and capacity building of staff	1,000		500	500							
A4	Develop state- and industry-level just transition plans	Estimation is made just for training and capacity building of staff	2,000	500	1,000	500							
A5	Develop state-level decarbonization plans	Estimation is made just for training and capacity building of staff	1,500		750	750							

Ac. no.	Activity	NOTES	Estimated investments (cost) in BAM (in thousands)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
A6	Develop industry-level decarbonization plans	Estimation is made just for training and capacity building of staff	2,000		1,000	500	500						
A7	Raise awareness about just transition and its implications	Estimation is made just for training and capacity building of staff	10,000	2,500	2,500	2,500	2,500						
A8	Ensure cooperation of all interested parties	Estimation is made just for training and capacity building of staff	2,500	500	1,000	1,000							
A9	Develop firm-level just transition plans	Estimation is made just for training and capacity building of staff	5,000		1,000	3,000	1,000						
A10	Improve data gathering systems (carbon intensive industries)	Estimation is made just for training and capacity building of staff	2,500			500	1,000	1,000					
A11	Improve data gathering systems (green industries)	Estimation is made just for training and capacity building of staff	2,500			500	1,000	1,000					

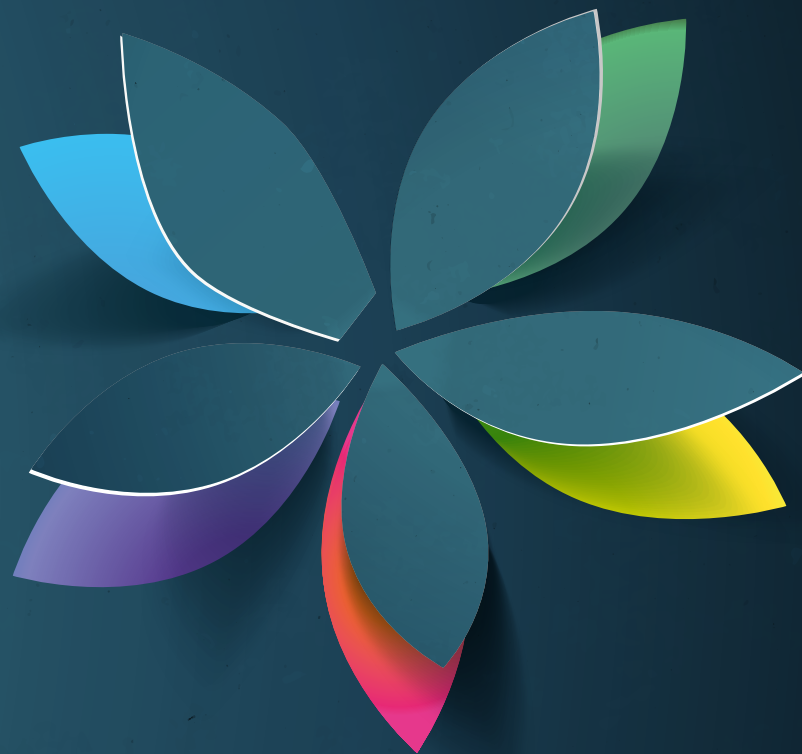
Ac. no.	Activity	NOTES	Estimated investments (cost) in BAM (in thousands)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
A12	Develop lay off plans and provide assistance for worker reallocation	Estimation is made for training and capacity building of staff and financial support for the reallocation	12,500				2,500	3,000	5,000	2,000			
A13	Implement new operating models in the energy sector	Estimation is made just for training and capacity building of staff	5,000		2,500	2,500							
A14	Define green industries	Estimation is made just for training and capacity building of staff	2,000		2,000								
A15	Raise awareness about green and low carbon activities	Estimation is made just for training and capacity building of staff	2,000	500	1,000	500							
A16	Develop a Green Jobs Generator Hub	Estimation is made just for training and capacity building of staff	10,000	2,000	5,000	3,000							
A17	Develop a dedicated Green Start Up facility	Estimation is made just for training and capacity building of staff	10,000		5,000	5,000							

Ac. no.	Activity	NOTES	Estimated investments (cost) in BAM (in thousands)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
A18	Establish industry-level working groups	Estimation is made just for training and capacity building of staff	15,000	2,000	4,000	4,000	5,000						
A19	Provide technical support for green and low carbon companies	Estimation is made just for training and capacity building of staff	15,000			2,500	2,500	5,000	5,000				
A20	Provide financial support for green and low carbon companies	Estimation is made just for training and capacity building of staff	50,000			10,000	10,000	10,000	10,000	10,000			
A21	Provide capacity building	Estimation is made just for training and capacity building of staff	10,000		2,000	2,000	1,500	1,500	1,500	1,500			
A22	Develop the training infrastructure for educating people to do green jobs	Estimation is made just for training and capacity building of staff	25,000		5,000	5,000	5,000	5,000	5,000				
A23	Increase the role of vulnerable groups in a just transition	Estimation is made just for training and capacity building of staff	15,000		5,000	5,000	5,000						

Ac. no.	Activity	NOTES	Estimated investments (cost) in BAM (in thousands)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
A24	Foster participation of women in decision-making	Estimation is made just for training and capacity building of staff	21,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000			
A25	Pay due attention to older people in the workforce	Estimation is made just for training and capacity building of staff	6,000		2,000	2,000	2,000						
A26	Pay attention to informal workers in carbon intensive industries	Estimation is made just for training and capacity building of staff	6,000			2,000	2,000	2,000					
A27	Give marginalized groups employment opportunities	Estimation is made just for training and capacity building of staff	6,000			2,000	2,000	2,000					
A28	Implement measures to prevent gender-biased hiring practices	Estimation is made just for training and capacity building of staff	5,000		2,500	2,500							
A29	Implement measures to ensure women are given equal opportunities for career advancement	Estimation is made just for training and capacity building of staff	5,000		2,500	2,500							

Ac. no.	Activity	NOTES	Estimated investments (cost) in BAM (in thousands)	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
A33	Design employment and skills development policies for green job sectors which are gender responsive, well informed, coherent and broadly supported by all relevant stakeholders	Estimation is made just for training and capacity building of staff	5,000		2,500	2,500							
A34	Assess skills required by men and women to equally participate and benefit from opportunities created in the green job sectors	Estimation is made just for training and capacity building of staff	4,000	2,000	2,000								
A35	Training of women for non-traditional positions to prepare them for transition into male-dominated occupations in the green economy	Estimation is made just for training and capacity building of staff	6,000	2,000	2,000	2,000							
SUM			274,000	16,250	58,000	71,250	49,000	33,500	29,500	16,500	0	0	0

Table 10: Implementation timeline



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BOSNIA AND HERZEGOVINA
Ministry of Foreign Trade and Economic
Relations of Bosnia and Herzegovina

