ENHANCED NDC

NDCS, RATIONALE

- According to the Intergovernmental Panel on Climate Change, human-caused pollution must be slashed by almost half from recent levels by 2030 and then reach net zero by early in the second half of the century to avoid the most dangerous and costly consequences of climate change.
- The current round of NDC updates plays a critical role in charting this course by setting the direction of travel over the next decade. Stronger NDCs can create the policy context to steer investments and attract climate finance.
- They can provide transparency and accountability through national and multilateral processes. Because countries have different circumstances, resources and abilities, the agreement was designed so each country defines their own pledges, in terms of targets and contributions to the universal agreement. These country pledges are the NDCs. Each country produced an NDC document outlining these contributions and how they will be achieved.

GREEN DEAL

- The Green Agenda for the Western Balkans, envisaged by the European Green Deal, and the connected Economic and Investment Plan for the Western Balkans adopted last October 6th, were endorsed by Prime ministers of the WB region in November 2020.
- The Economic and Investment Plan sets out a substantial investment package mobilising up to €9 billion of funding for the region. It will support sustainable connectivity, human capital, competitiveness and inclusive growth, and the twin green and digital transition.
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS An Economic and Investment Plan for the Western Balkans

GREEN DEAL FOR THE WB

- **Decarbonisation: climate, energy, mobility .....**
- **Circular economy .....**
- **Depollution: air, water and soil .....**
- **Sustainable food systems and rural areas .....**
- **Biodiversity: protection and restoration of ecosystems**

EUROPEAN GREEN DEAL

- Climate action is at the heart of the European Green Deal – an ambitious package of measures ranging from ambitiously cutting greenhouse gas emissions, to investing in cutting-edge research and innovation, to preserving Europe's natural environment. First climate action initiatives under the Green Deal include:
- European Climate Law to enshrine the 2050 climate-neutrality objective into EU law;
- European Climate Pact to engage citizens and all parts of society in climate action;
- 2030 Climate Target Plan to further reduce net greenhouse gas emissions by at least 55% by 2030.

NDC

- Energy: Reduction of 66% (mainly through deactivation of coal-fired power plants Oslomej in 2021 and Bitola by 2027)
- Industrial processes and use of products-IPPU: 45% increase
- Agriculture: 29% reduction
- Forestry and Land Use - FOLU: 95% removals increase
- Waste: 21% reduction
- In summary, the potential for reduction of greenhouse gas emissions in 2030 compared to 1990 is 51%, or expressed through net emissions - 82%.

INDC V.S NDC

NDC	INDC
End-year type of target (2030 emissions level compared to 1990 emissions level) Compatibility and comparability with EU target	Deviation from BAU type of target in 2030
Emissions coverage: Economy-wide target GHGs covered: CO_2, CH_4, N_2O	Energy supply Buildings Transport Emissions coverage: Emissions from fossil fuel combustion GHGs covered: CO_2

INDC V.S NDC

NDC	INDC
Economic and environmental evaluation of PAMs is conducted applying Marginal Abatement Cost **(MAC) Curve** tool Social aspects of the PAMs are addressed by calculation of the **newly created jobs**, introduction of the gender indictors in some of the PAMs with an aim to make them **gender-responsive**, as well as by organization of a virtual **youth** consultation on the enhanced NDC, designed to ensure that the voices of young people are expressed in the NDC and that there will be broad ownership for the enhanced NDC goals. **SDGs-enhanced NDC synergies and trade-offs** are identified and quantified in order to understand the contribution of the enhanced NDC to the national SD agenda. The benefits of **Circular Economy** on GHG emission reduction are analyzed	Economic and environmental evaluation of PAMs is conducted applying MAC Curve tool. Social aspects of the PAMs are addressed by calculation of the newly created jobs

MITIGATION PAMS IN THE INDUSTRY SUBSECTOR

1. Energy management in manufacturing industries

Main objective: Efficient management of manufacturing processes in industry aiming to increase production using the same energy consumption.

1. Introduction of efficient electric motors

Main objective: objective: Increase the competitiveness of industrial products through improvement of efficiency in the production process and reducing the resources.

1. Introduction of more advanced technologies

Main objective: Introduction of more advanced technologies in the industrial processes that will also enable use of more environmental friendly fuels.

ADDITIONAL PAMS ENABLES OF MITIGATION ACTION

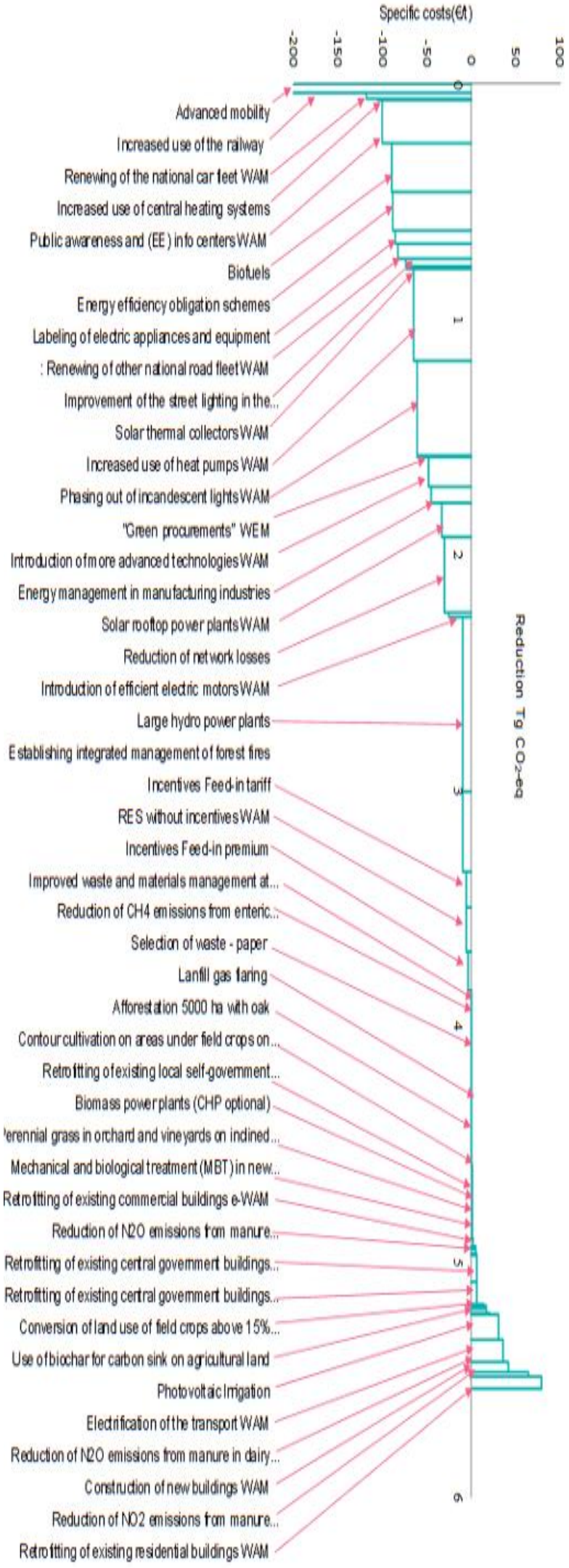
PAM	Additional PAM enablers of mitigation action	Description
48	Introduction of CO_2 tax	Incentivize lowering CO2 emissions
49	Program for just transition	Developing programs for socially responsible and just transition
50	Identification of the proper location for solar and wind power plants	Development of methodology for selection of the most appropriate location for solar and wind power plants
51	Smart communities	Develop pilots for smart communities
52	Construction of 400 kV electricity transmission interconnection North Macedonia-Albania (Bitola-Elbasan)	Improve the interconnectivity level
53	Develop natural gas cross-border infrastructure to diversify supply routes and increase market competitiveness	Develop natural gas cross-border infrastructure to diversify supply routes and increase market competitiveness.

ADDITIONAL PAMS ENABLES ON MITIGATION ACTION

54	**Develop gas transmission network**	**Increase the access to the transmission network**
55	Develop a gas distribution network	Diversification of the energy resources
56	Pursue regional electricity market integration	Increase the electricity price competitiveness and affordability.
57	Develop further distribution system network to integrate more RES, including prosumers and more electric vehicles (EVs), as well as continuously improve network reliability	Develop further distribution system network to integrate more RES, as well as continuously improve network reliability.
58	Price signal demand response	Introduce price signals to consumers in order to implement demand response
59	Adoption of annual program for vulnerable consumers	Protect vulnerable customers
60	Participation in development of energy transition technologies and measures	Streamline energy transition technologies and measures into national R&I priorities

ADDITIONAL PAMS TO ENABLE CLIMATE ACTION

61	**Increased level of education about sustainable energy needs**	**Adjust energy related curricula at all educational levels to make them responsive to energy transition trends**
62	Inter-sectoral and geographical mobility of researchers	Encourage inter-sectoral and geographical mobility of researchers
63	Increase the role of SME sector in energy transition	Encourage SME sector to diversify their portfolio of services and products in RES and EE


Specific costs(€/t)
-200
-150
-100
-50
0
50
100
Advanced mobility
Increased use of the railway
Renewing of the national car fleet WAM
Increased use of central heating systems
Public awareness and (EE) info centers WAM
Biofuels
Energy efficiency obligation schemes
Labeling of electric appliances and equipment
: Renewing of other national road fleet WAM
Improvement of the street lighting in the...
Solar thermal collectors WAM
Increased use of heat pumps WAM
Phasing out of incandescent lights WAM
"Green procurements" WEM
Introduction of more advanced technologies WAM
Energy management in manufacturing industries
Solar rooftop power plants WAM
Reduction of network losses
Introduction of efficient electric motors WAM
Large hydro power plants
Establishing integrated management of forest fires
Incentives Feed-in tariff
RES without incentives WAM
Incentives Feed-in premium
Improved waste and materials management at...
Reduction of CH4 emissions from enteric...
Selection of waste - paper
Lanfill gas flaring
Afforestation 5000 ha with oak
Contour cultivation on areas under field crops on...
Retrofitting of existing local self-government...
Biomass power plants (CHP optional)
'erennial grass in orchard and vineyards on inclined...
Mechanical and biological treatment (MBT) in new...
Retrofitting of existing commercial buildings e-WAM
Reduction of N2O emissions from manure...
Retrofitting of existing central government buildings...
Retrofitting of existing central government buildings...
Conversion of land use of field crops above 15%...
Use of biochar for carbon sink on agricultural land
Photovoltaic Irrigation
Electrification of the transport WAM
Reduction of N2O emissions from manure in dairy...
Construction of new buildings WAM
Reduction of NO2 emissions from manure...
Retrofitting of existing residential buildings WAM
0
1
2
3
4
5
6
Reduction Tg CO2-eq

CIRCULAR ECONOMY-EU

- **The European Commission has adopted a new Circular Economy Action Plan - one of the main blocks of the European Green Deal, Europe's new agenda for sustainable growth.**
- **The new Action Plan announces initiatives along the entire life cycle of products, targeting for example their design, promoting circular economy processes, fostering sustainable consumption, and aiming to ensure that the resources used are kept in the EU economy for as long as possible.**
- **It introduces legislative and non-legislative measures targeting areas where action at the EU level brings real added value.**
- **The new Circular Economy Action Plan presents measures to:**
- **Make sustainable products the norm in the EU;**
- **Empower consumers and public buyers;**
- **Focus on the sectors that use most resources and where the potential for circularity is high such as: electronics and ICT; batteries and vehicles; packaging; plastics; textiles; construction and buildings; food; water and nutrients;**
- **Ensure less waste;**
- **Make circularity work for people, regions and cities,**
- **Lead global efforts on circular economy.**

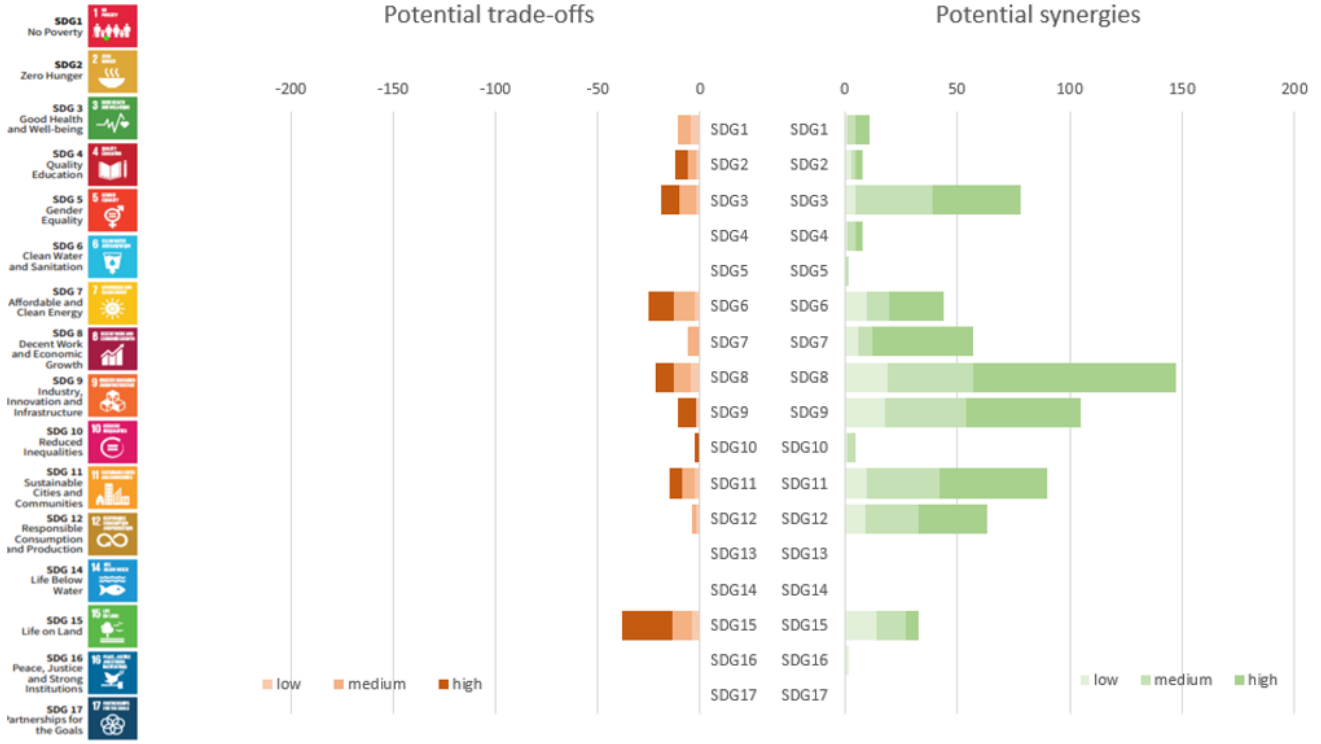
CIRCULAR ECONOMY- MK

- As part of the preparation of enhanced NDC, a rapid assessment of the benefits of circular economy to GHG mitigation was developed. It was demonstrated that applying circular practices to selected case studies and waste streams (Construction & Demolition Waste (C&D), Biowaste, Secondary Residual Fuels (SRF), E-Waste, End of Life Vehicles, Plastics) by 2030 can lead to:
-
- • 951 Gg CO_2eq/year GHGs savings compared to 2016
- • 2,740 new jobs
- • 47.17 million EUR of economic benefits
-
- Rapid assessment on circular economy benefits

RECOMMENDATIONS FOR CIRCULAR ECONOMY MK

- ***To set a vision, adequate governance structure and adequate information system on circular economy***
- To introduce Circular Economy as a main pillar for the state's policies in all levels, possibly through the development of a Strategy for Circular Economy with an Action Plan
- There is a need for vision and an agenda about Circular Economy that will impact all the thematic policies and ministries;
- To establish Information system in line with the suggestions made in the National Waste Management Plan 2020-2030. The concept on circular economy needs to be inserted into the new Plan on minimising Waste production (as proposed by the revised Law on Waste);
- To launch a Green Deal Circular Procurement for both the public and the private sector, including a free training programme and commitments from both public sector and companies. The focus should be given to the most important waste streams.

CONTRIBUTION TO THE SDG



- THANK YOU
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