

How to Design PPP Projects Aligned with the Sustainable Development Goals?



**Environmental
Sustainability and Resilience in
People-first PPP projects**

in the Context of Ukraine

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Introduction



- Preparing **Comprehensive Guidelines** on People-first PPP for the outcome of Environmental Sustainability and Resilience (ES&R).
 - **More depth** than that covered in the Evaluation Methodology.
 - **Comprehensive and practical steps** to improve ES&R in projects.
- **Comprehensive Guidelines will be for a general global audience.**
 - A supplementary note under preparation on **how they could be implemented in Ukraine** ([subject to correction/updating of this presentation](#)).
- Details pertaining to **Comprehensive Guidelines ES&R for People first PPPs** being presented here.

Coverage in ES&R Comprehensive Guidelines



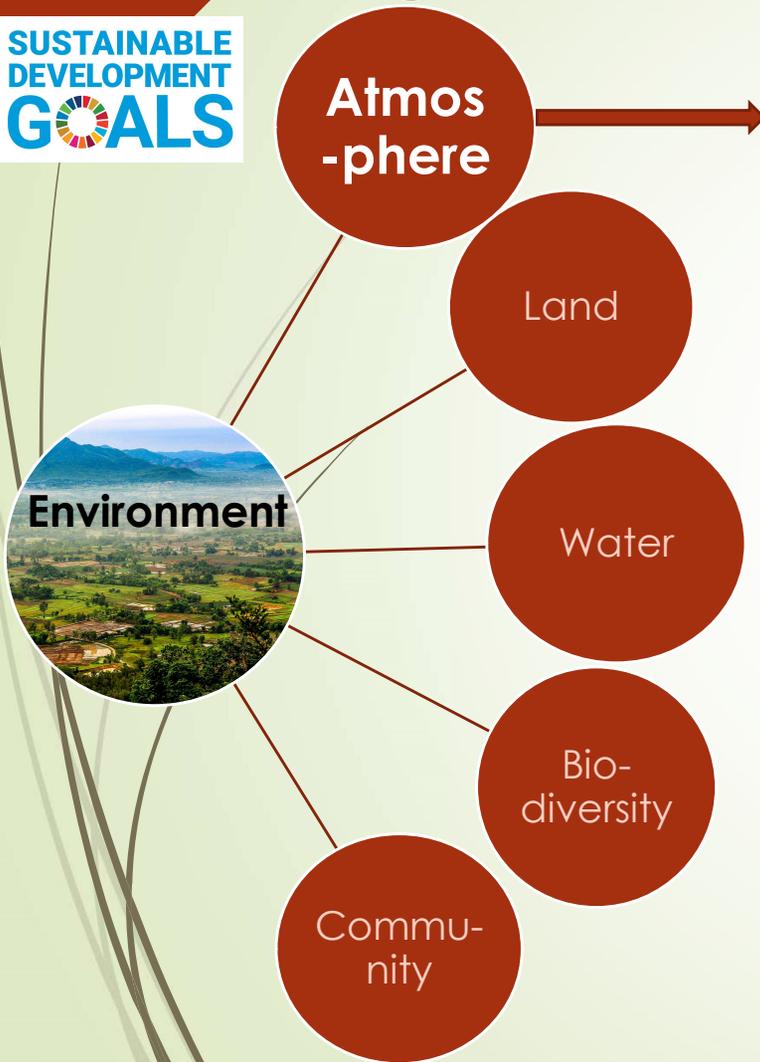
- Provide **practical guidance on “What?”** are the ES&R elements to be included in the design of the PPP projects, **beyond complying** with Environmental Standards, to align them with “People first” approach.
 - **Not meant to provide a more details on Evaluation Approach or Methodology.**
- Discuss **“How?” to align** the PPP projects with “People first” for ES&R outcome.
 - **Not intended for “How to?” aspects of EIA/EMP or PPPs.**
 - **Not intended to provide sector-wise detailing** of sources of pollution (quantification, impacts and mitigation measures), resources consumption and pollution norms per unit of production or service.
- **Aligned with UNECE PIERS** (People first Infrastructure Evaluation and Rating System).

ES&R Comprehensive Guidelines and PIERS



- Purpose: Guidelines **advise and provide recommendations** on the ES&R elements.
 - PIERS **measures performance** qualitatively through actions taken.
- Scope: Guidelines **covers only ES&R Outcome**.
 - PIERS cover **all five outcomes** of People first PPP projects.
- When to use: Guidelines can be use **from conceptual stage** of a PPP project starting from site identification and design approach.
 - For PIERS, projects have to be **advanced sufficiently in their design**, can be used during development, construction and implementation.
- In summary: Guidelines advises **“What should be done” to better align** with the SDGs and People first approach.
 - PIERS evaluates **“What has been done”** and gives pointers to **“What can be done Better”** to better align with the SDGs and People first approach.

Design Elements for Atmospheric Sustainability



- (i) Use of **clean fuels and renewable energy** (avoidance of GHG emissions).
How: Substitute the source of electricity derived from anthropogenic fuels by renewable energy.
[aligns with SDG 7.2]
- (ii) Increasing **energy efficiency** of all equipment and facilities (reduction of GHG emissions).
How: target reduction of use of energy (or fuel) for the same level of output or service.
[aligns with SDG 7.3]
- (iii) Developing **low carbon infrastructure** (reduction of GHG emissions).
How: increased resource-use efficiency, greater adoption of clean and environmentally sound technologies and processes in the project equipment and facilities, in buildings and using building material that are more energy efficient.
[aligns with SDG 9.4]

Actions for Atmospheric Environmental Sustainability



Use of clean fuels and renewable energy

RE share in electricity: target 11% (2020) up from 4.9% (2015).

- Energy Strategy of Ukraine up to 2035 “Security, energy efficiency, competitiveness” prepared in 2017.
- Ukraine’s 2050 Green Energy Transition Concept (Ukraine Green Deal) guides RE development.
- Project level actions to increase share of RE sources.

Increase energy efficiency

Marginal reduction in energy intensity to 0.269 kg (in 2018) of oil equivalent per US dollar (by PPP in 2011) from 0.282 (2015).

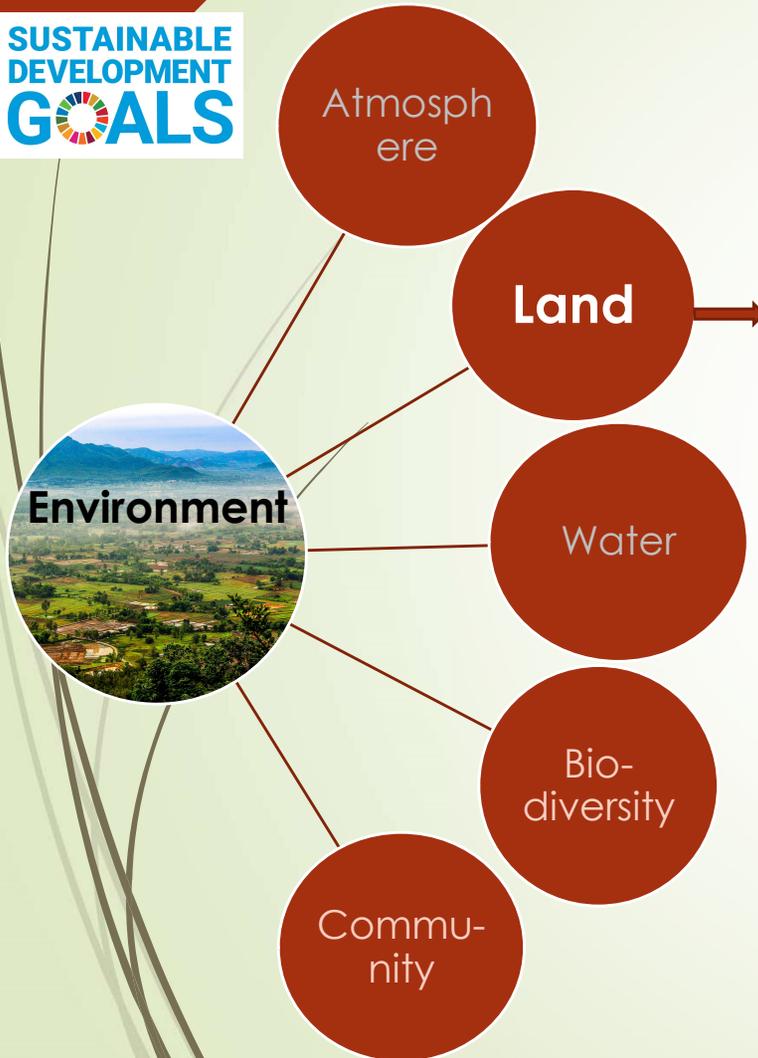
- Ukraine’s 2050 Green Energy Transition Concept (Ukraine Green Deal) guides energy efficiency increase.
- Sector level national data on energy efficiency per unit of output or service needs to be developed.
- Project need to aim for EU energy efficiency norms in different sectors.

Low carbon infrastructure

Significant overall reduction of >60% in GHG emissions as tCO₂-eq. compared to 1990 levels due to energy sector, but solid waste and wastewater treatment plant GHG emissions are rising (15.8 mn t CO₂-eq. in 2018 to 15.6 in 1990).

- Ukraine’s 2050 Green Energy Transition Concept (Ukraine Green Deal) a very positive step.
- Projects must aim to use low carbon infrastructure.

Design Elements for Land Sustainability

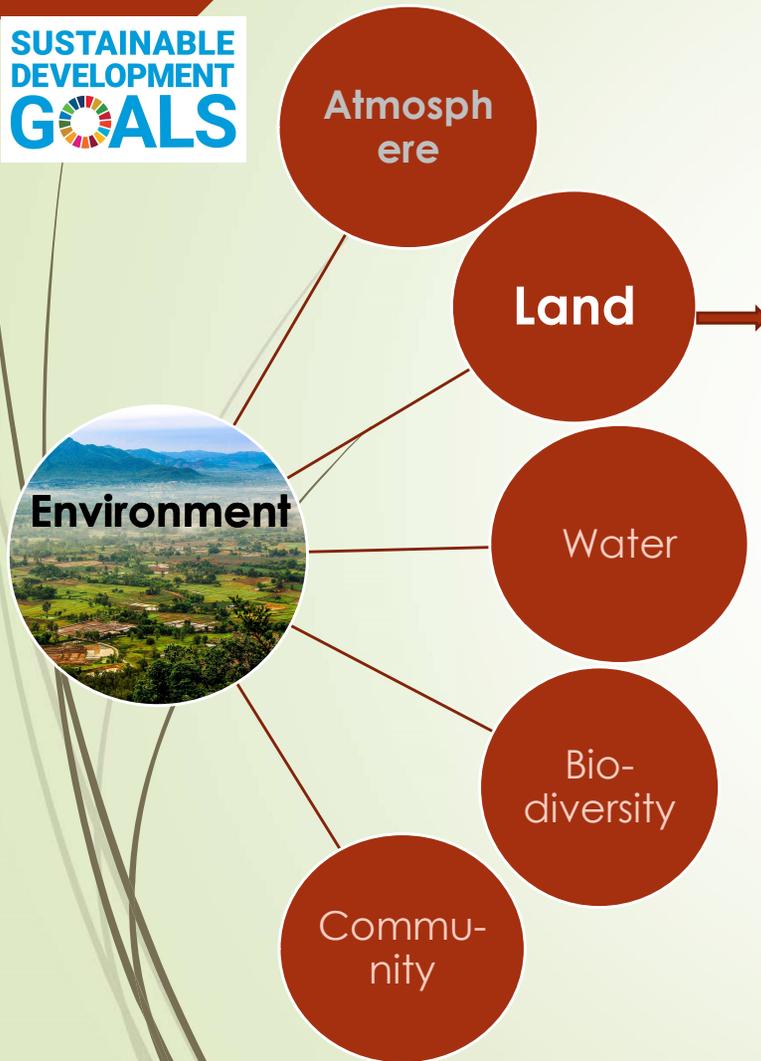


(i) **Sustainable consumption and production practices.**
How: project design **policy** must be guided by SCP practices described below.
[aligns with SDG 12.1]

(ii) **Efficient sustainable use** of terrestrial ecosystems and subterranean **natural resources.**
How: **reduce raw material input per service unit (MIPS)** compared to national/global norms over its life-cycle.
[aligns with SDG 12.2]

(iii) Environmentally sound management of chemicals and all wastes throughout their life cycle to **reduce land degradation.**
How: (a) **Avoid/substitute** hazardous material, (b) **reduce the generation** of hazardous waste **per unit of output or service**, in accordance with the industry norms or best practices, (c) safely **treat all** hazardous waste.
[aligns with SDG 12.4 and 11.6]

Land Sustainability... (contd.)



(iv) Adopting **circular economy** to reduce waste generation.

How: minimize waste generation, maximize reuse, or re-manufacture or, recycle (material or energy), only then dispose residual waste on land.

[aligns with SDG 12.5]

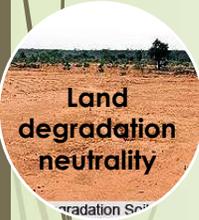
(v) Restoring degraded land - aim for **Land Degradation Neutrality**.

How: (a) Select land that is **not prime land**, (b) **Reduce demand** for land, (c) **Avoid/minimize degradation** of land, (d) **Restore degraded land** within the project area or on land elsewhere as a compensation.

The proportion of degraded land that is restored as a proportion of the total project land area is a **measure of the success** of achieving LDN.

[aligns with SDG 15.3]

Actions for Land Environmental Sustainability



SCP, Use of natural resources

Management of wastes

Circular economy

Restore degraded land

Absolute resource consumption per GDP not known, relatively marginal reduction from 2015 to 2018.

- Better management needed under “National Strategy of Waste Management in Ukraine until 2030” based on EU waste management procedures and practices.
- Project company must adopt SCP policies.
- Project level measurement of MIPS necessary to compare with EU sector norms.

No data available on SDG indicator, Lack of strategic planning of waste management, Increase in the GDP waste intensity from 2015 to 2018, unauthorized dumping grounds and overloaded landfill sites.

- Better management needed under the National Strategy of Waste Management.
- Project company must adopt environmentally sound solid and hazardous waste management practices including leachates as per EU standards.

Increase in the volume of waste generated by all economic activities per unit of GDP, kg per USD 1,000 (PPP in 2011) from 2015 to 2018.

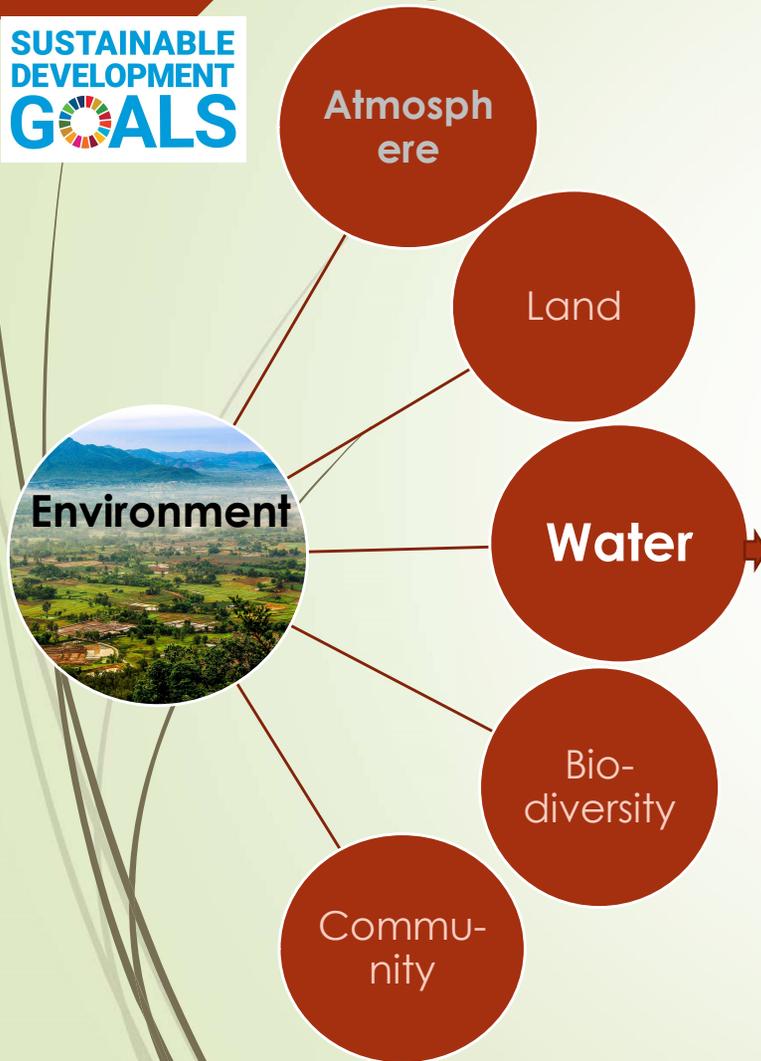
- Better management of circular economy provisions under the National Strategy of Waste Management needed, adopting EU Circular Economy Action Plan.
- Project company must explore all opportunities to minimize waste generation, maximize recycling and reuse as per EU standards.

Wind erosion (6 mn ha), dust storms (20 mn ha) and water erosion (13.3 mn ha) makes 65% of land degraded in the country.

- National Action Plan to Combat Land Degradation and Desertification for Land Degradation Neutrality (2014) implementation at 2010 baseline level underway.
- Project level actions must ensure minimization of land degradation, restoration of degraded land and achieve Land Degradation Neutrality.

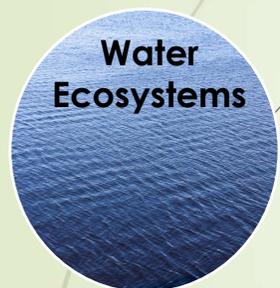
Source: Voluntary National Review of progress towards achievement of the Sustainable Development Goals in Ukraine (2019)

Design Elements for Water Sustainability



- (i) **Sustainable freshwater withdrawals.**
How: (a) minimize freshwater requirement for the same level of output (water-use efficiency per unit of output) by:
 - better/more efficient **technology** to reduce the demand,
 - use of the **non-conventional** water,
 - **recycle and reuse** of water for all project activities or supplying it to other users; and(b) **does not** adversely impact the availability of freshwater by creating a **water stress**.
[aligns with SDG 6.4 and SDG 15.1]
- (ii) Circular economy - **Reuse and Recycle** of treated wastewater
How: **Avoid, Reduce, Reuse, Recycle** and only then treated wastewater be discharged to the environment.
[aligns with SDG 6.3 and SDG 15.1]
- (iii) Avoiding **impacts of wastewater discharges** on water ecosystems.
How: **Control eutrophication** of lakes/coastal ecosystems resulting from **land-based nutrient input**, by monitoring the project's contribution and supporting restoration - to avoid socio-economic repercussions due to job losses.
[aligns with SDG 14.1]

Actions for Water Environmental Sustainability



Sustainable freshwater withdrawal

Circular economy

Impacts of wastewater

Significant improvement in water intensity of GDP, from 23.85 m³ of water used per UAH1,000 of GDP in 2015 to 10.30 in 2019, though it is one-third of the target of 3.20 in 2020.

- Sector level national data on water efficiency per unit of output or service needs to be developed.
- Data on water stress – across seasons and river basins – due to uncertain availability of freshwater to be developed.
- Project level actions require increasing water efficiency per unit of output or service as per EU sector practices.

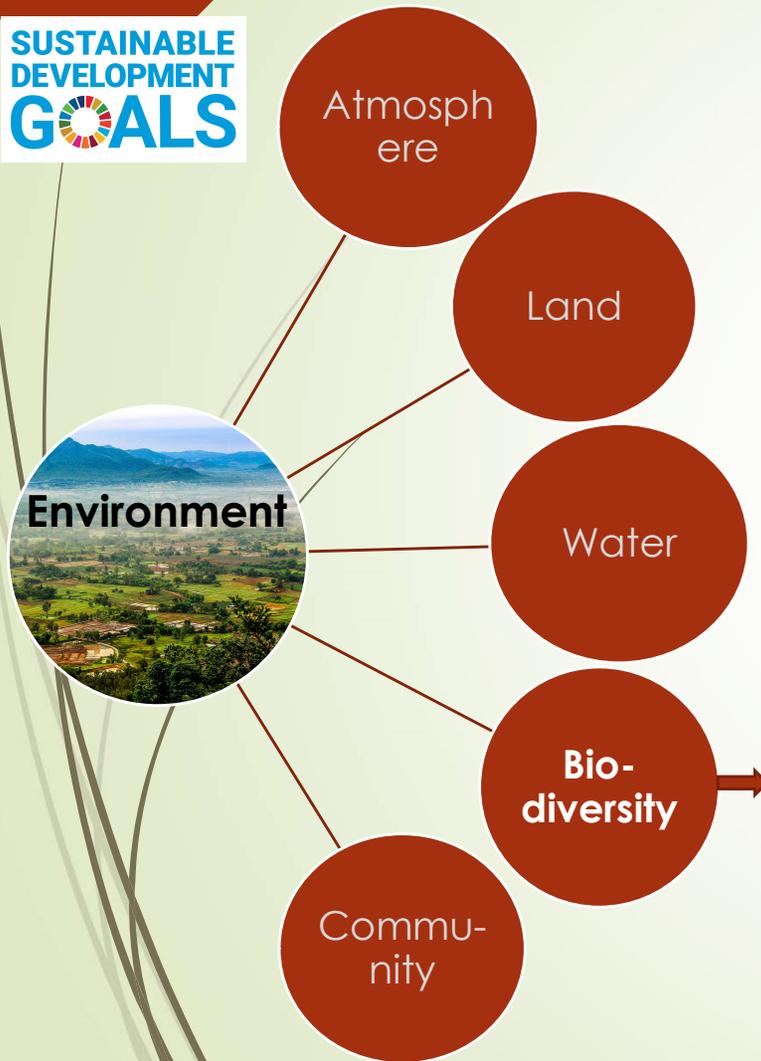
Share of safely treated water is 83.6% (2015) increasing to 86.28% (2018).

- National policy on recycling water and use of reconditioned water needed to reduce freshwater consumption in GDP by one-third.
- Project level actions require recycling and reuse of water.

Share of discharge of polluted wastewater into water bodies reduced from 16.38% (2015) to 13.72% (2018). Leachate management weak or absent.

- Modernization of existing treatment facilities, data on ambient water quality (impact of N, P) is needed.
- Project level actions require treatment of all wastewater.

Design for Biodiversity Sustainability



Approach to conservation of all the components of biodiversity is common – through **design of Biodiversity Offsets**.

How: Adopt **Mitigation Hierarchy** to achieve **No Net Loss (NNL)** or have a Net Gain of biodiversity by:

- **avoidance** of impacts;
- **minimization** of inevitable impacts;
- on-site **restoration**; and
- provision of **biodiversity offsets**, where feasible and necessary.

[aligns with SDGs 15.1, 15.2, 15.3, 15.4 and 15.5]

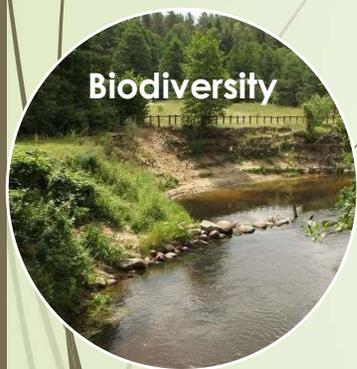
(i) Standard on Biodiversity Offsets: A tool to assess adherence to the BBOP Principles on Biodiversity Offset Design and Implementation, BBOP, Washington, D.C., 2012 available at:

https://www.forest-trends.org/wp-content/uploads/bbop/bbop_standard_on_biodiversity_offsets_1_feb_2013-pdf.pdf

(ii) Guidance Notes to the Standard on Biodiversity Offsets, BBOP, Washington, D.C., 2012, available at:

https://www.forest-trends.org/wp-content/uploads/bbop/bbop_standard_guidance_notes_20_mar_2012_final_web-pdf.pdf

Actions for Biodiversity Sustainability



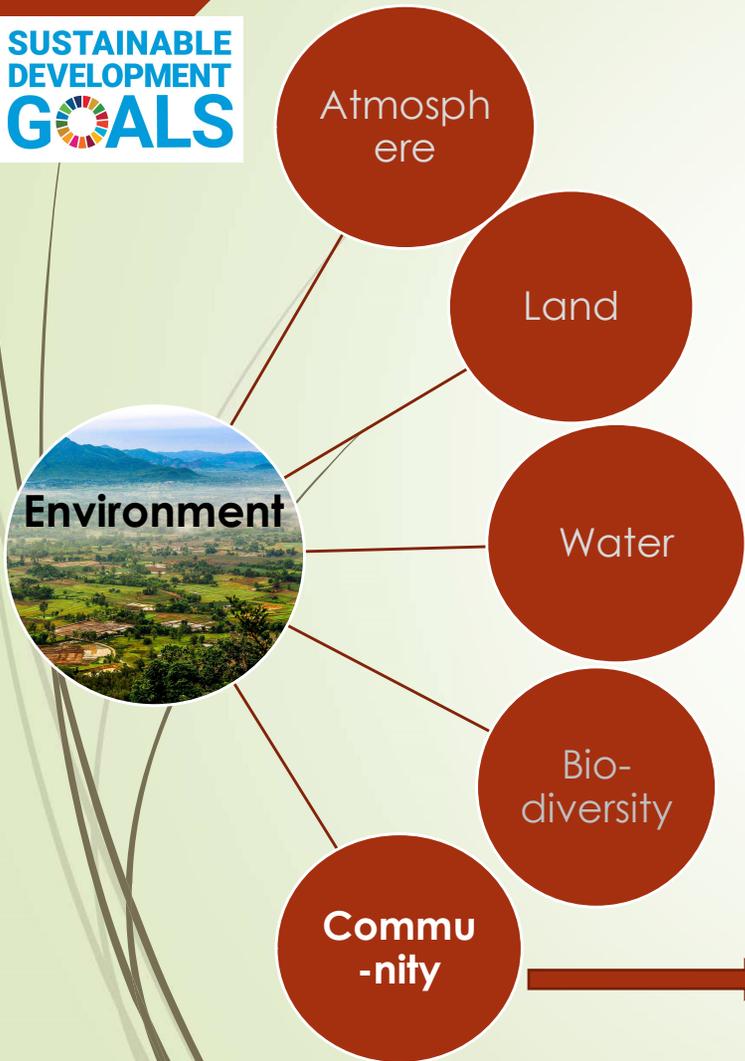
**Halt
biodiversity
loss**

Area of territories and objects of the natural reserve fund have remained almost unchanged at 4.1 mn ha (2019) far below the target of 6.2 mn ha, and same for mountainous regions at 0.68 mn ha (2019) below the target of 0.90 mn ha (together are 39% of total area of the country).

Strategy for climate change mitigation and adaptation for agriculture, forestry, hunting and fisheries industries was developed in 2019 through 2030.

- **Current Risks:**
 - (i) destruction and transformation of animal and plant habitats due to change of forests to agricultural land use,
 - (ii) impact on migration paths of many animal species,
 - (iii) climate change – yearly average temperature increase impacting forest species like pine.
- **National program of biodiversity preservation for 2005 – 2025 under implementation.**
- **Project level actions require avoiding protected land ecosystems and designing Biodiversity Offsets to compensate/recover degraded land.**

Community Sustainability and Resilience



“Value for People’ being the essential guiding criteria, the most important environmental component is Community in People first PPP projects.

(i) **Gender Equality** and **Women empowerment**.

How: The actions include (a) supporting **women-led companies** to bid for PPP projects (b) formulating **women’s empowerment policies** in the project company; (c) incorporating **gender elements** in the project design; and (d) providing additional **training and capacity development** to women.

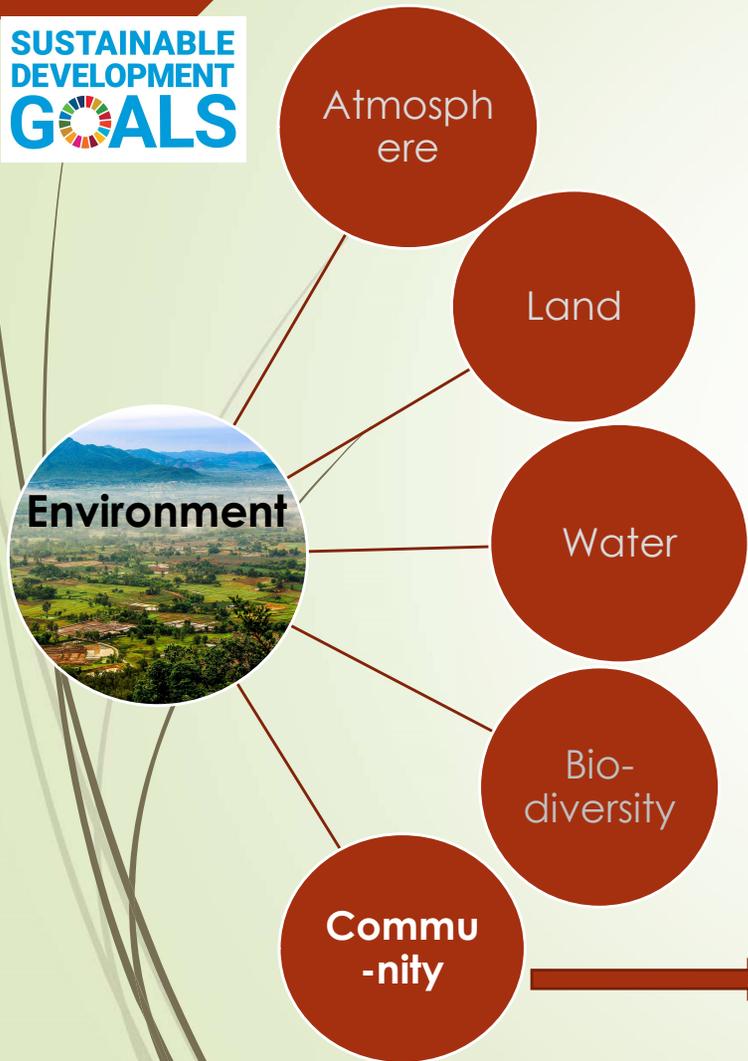
(ii) **Resilience** to climate change impacts.

How: (a)formulating **Disaster Management Strategies**; (b) developing **Community Driven Development Program**; (c) ensuring **Disaster Financial Inclusiveness**; and (d) Strengthening community and institutional **capacity** on Disaster Mitigation.

(iii) **Community participation / Stakeholder engagement**.

How: Proactively developing a **framework of participation** at different stages of the project.

Community Sustainability & Resilience contd...



(iv) **Sustainable procurement.**

How: Define **environmental, social and economic criteria** in procurement: design; material use; manufacture and production methods; logistics; service delivery; use; operation; maintenance; reuse; recycling options, disposal; and suppliers' capabilities to address these consequences throughout the supply chain.

(v) **Promote** effective public, public private and civil society **partnerships.**

How: The project company is encouraged to explore the opportunities of strengthening partnerships with other **civil society organizations and communities**, building on their experience and resourcing strategies.

[aligns with SDGs 5.5, 13.1, 13.2, 13.3 with 4.7 and 12.8, 12.7 and 17.17]

Actions for Community Sustainability



Gender Equality & Women Empowerment

Share of women in the Category A Civil Service Positions has decreased from 22.2% (2016) to 17.6% (2019); Between 2015 to 2020, Proportion of seats held by women in national parliaments (12% to 20%, target 30%) and local governments (25%, target 20%) increased.

- National legislation on Amendments to the Law of Ukraine, “On Ensuring Equal Rights and Opportunities of Women and Men” (2018) under implementation.
- Project level actions should support gender elements described.

Community participation

Public consultation provided in EIA Law.

- Project company must have a community & all stakeholder engagement plan for awareness, decision-making, management of project as well as developing resilience for climate change impacts thru community driven development.

Resilience to climate change impacts

Ukraine highly vulnerable to climate change and extreme weather phenomena – flood, droughts and wildfires. SDG indicator data for 13.1 not available. Disaster Risk reduction strategies are yet to be formulated.

- UNDP program has proposed Strengthening Disaster Risk Reduction (DRR) and Recovery Programme.
- Project company must adopt Disaster Risk Reduction strategies and Community Driven Development.

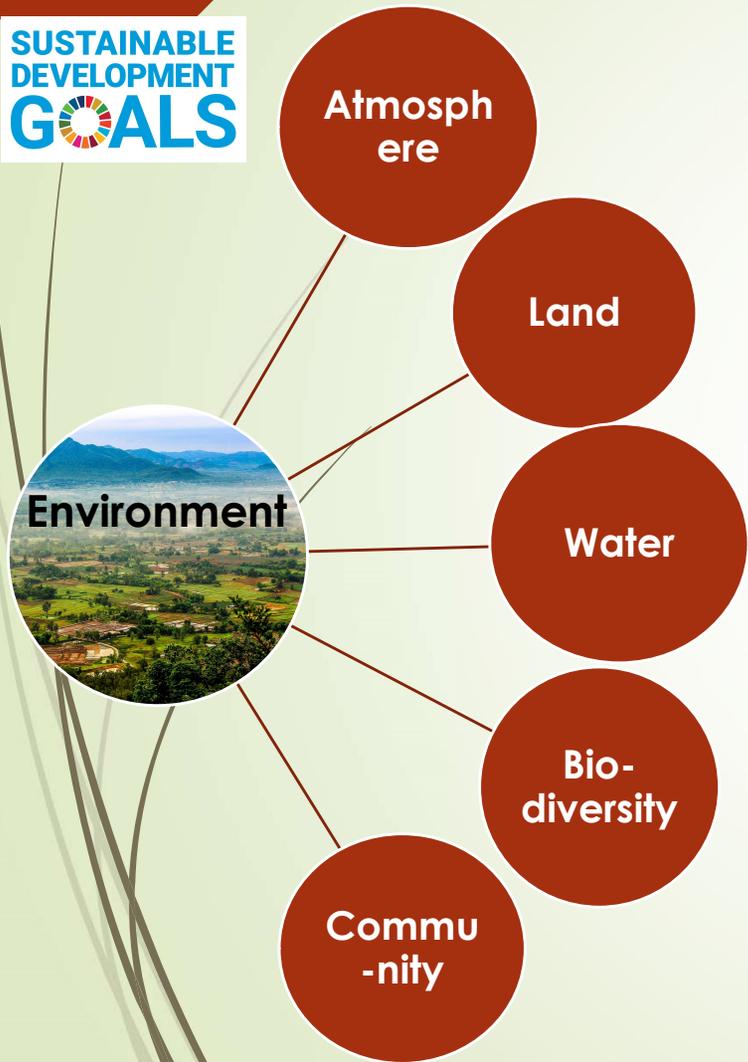
Sustainable Procurement

Sustainable Procurement covers energy & resource efficiency, environmental labelling, non-price criteria, life cycle costing, and enhanced social dimensions.

- Law of Ukraine "On Public Procurement" (2020), Law of Ukraine "On the Fundamental Principles (Strategy) of the State Environmental Policy till 2030".
- Project company and govt. must adopt sustainable procurement.

Source: Voluntary National Review of progress towards achievement of the Sustainable Development Goals in Ukraine (2019)

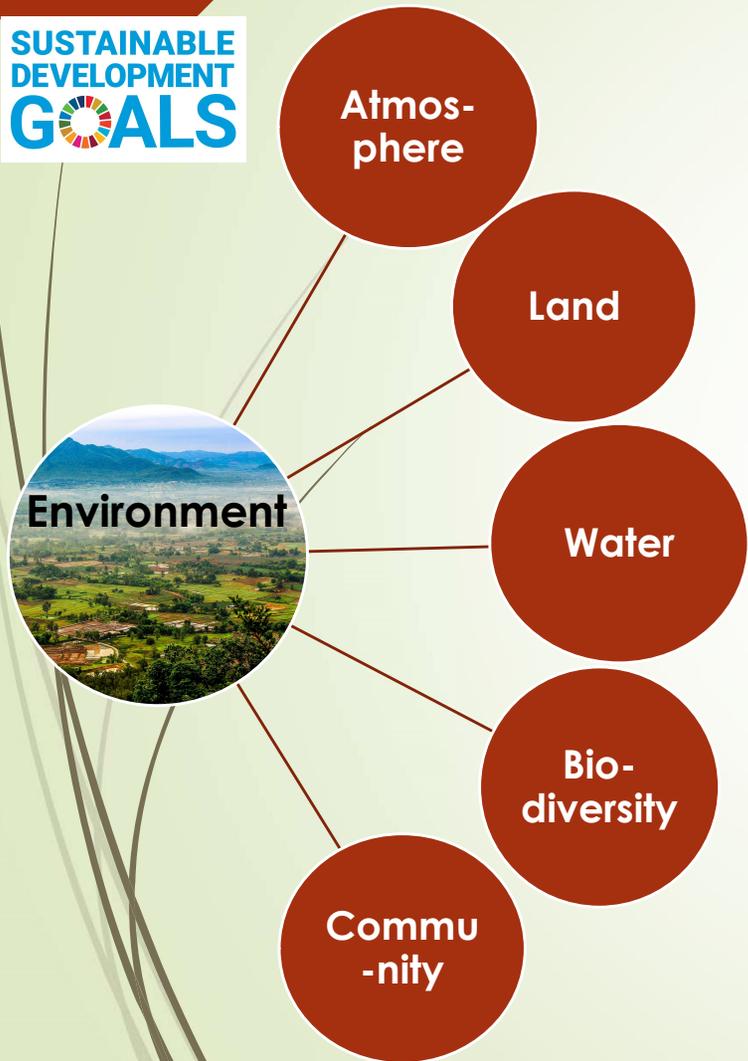
Overall Higher Level Impacts of All



Incorporating the additional design elements of People first principles and guidelines, **results in contributing directly and indirectly** to higher outcomes and impacts at a community, local, national and global level.

- (i) **Reducing poverty** due to provision of basic services (SDG 1.4).
- (ii) Building the **resilience of the poor and those in vulnerable situations** by reducing their exposure and vulnerability to climate-related extreme contributes significantly to the **reduction of poverty** (SDG 1.5).
- (iii) **Preventing water borne diseases** and illnesses contributes to the **achievement of healthy lives** and promote well-being for all (SDG 3.3).

Overall Higher Level Impacts of All Contd...



- (iv) **Reduction of the number of deaths and illnesses** from hazardous chemicals and air, water and soil pollution and contamination contribute to the **achievement of healthy lives** and promote well-being for all at all age (SDG 3.9).
- (v) Adopting **gender equality, providing equal employment opportunities and equal pay** for work of equal value **improves the well-being of the community** allowing them to be gainfully and productively employed (SDG 8.5).
- (vi) Ensuring **access to all** to adequate, safe and affordable **housing and basic services** and **upgrading slums** contributes to making cities and human settlements **inclusive, safe, resilient and sustainable** (SDG 11.1).



**Thank you
for your patient hearing**

Q & A