

## Developing SEA environmental and socioeconomic quality objectives, indicators, and targets

Environmental and social quality objectives (ESQOs) are widely used to ensure that the right level of consideration is achieved. An objective is a statement of what is intended, specifying a desired direction of change. For these Guidelines, a distinction needs to be made between three types of objectives:

- The **objectives of the PPP** in question: Government policies and guidance increasingly require these to be based on sustainability considerations, and the development of ESQOs for a SEA may help to promote ideas for making them more environmentally friendly and sustainable.
- **External objectives**: Other objectives to which the PPP proponent needs to have regard independently from the SEA process. They may include environmental protection objectives (which, if binding, must be covered in the SEA report), but they can also be economic or social. They may also include objectives of international conventions, treaties, and regional accords to which a country is a signatory, as well as the UN sustainable development goals (SDGs).
- **SEA ESQOs**: Devised to test the environmental and social effects of the PPP or to compare the effects of alternatives.

Objectives can be expressed so that they are measurable (e.g., an objective to reduce greenhouse gas emissions could be expressed as “reduce CO<sub>2</sub> emissions by 12.5% by 2010”). The achievement of objectives is normally measured by using indicators.

ESQOs can often be derived from environmental protection and social objectives identified in other PPPs or from a review of baseline information and environmental and social problems. Stakeholders may also suggest ESQOs for the SEA.

Some SEA ESQOs and indicators are shown in Table A8.1. They are derived from a much larger matrix of ESQOs and indicators developed during scoping for the ADB's Energy Transition Mechanism (ETM).

These objectives and indicators can be adapted (by addition, modification, or deletion) to take account of national circumstances, contexts, and concerns.

**Table A8.1: SESA environmental and socioeconomic quality objectives for key issues, suggested indicators, and related sustainable development goals and Just Transition principles**

Source: ADB, (2023)

| THEMES                                      |   | OBJECTIVE                                                                                            | RELATED SDGS | MDB JT PRINCIPLES | POTENTIAL INDICATOR(S)<br>(Affected areas = those affected by energy facilities and associated infrastructure under ETM)                                                                                                                                                                                                                                                                    |
|---------------------------------------------|---|------------------------------------------------------------------------------------------------------|--------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Environmental</b>                        |   |                                                                                                      |              |                   |                                                                                                                                                                                                                                                                                                                                                                                             |
| Climate change                              | 1 | Reduce emissions of GHGs from energy generation                                                      | 13           | 1,2               | <ul style="list-style-type: none"> <li>Pre-closure emissions of CO<sub>2</sub> from stacks (tonnes /yr) (to provide a measure of reduction when CFPP is closed)</li> <li>CH<sub>4</sub> emissions (e.g., from uncapped abandoned mine shafts and dams) (tonnes /yr) in ETM-affected areas</li> </ul>                                                                                        |
|                                             | 2 | Increase resilience of the country's overall energy <u>supply</u> to climate change impacts          | 13           | 1, 2              | <ul style="list-style-type: none"> <li>Vulnerability of energy supply to climate change impacts (low, medium, high)</li> </ul>                                                                                                                                                                                                                                                              |
| Habitats, biodiversity, and protected areas | 3 | Minimize loss of habitats, biodiversity, and ecosystem(s) integrity and services                     | 14,15        |                   | <ul style="list-style-type: none"> <li>Area of natural habitat and critical habitat (Ha) [as per IFC PS6 definitions (IFC 2012)] in ETM-affected areas</li> <li>Population of key indicator species (to be determined at national level) in ETM-affected areas (numbers) (to measure change compared with baseline data)</li> </ul>                                                         |
|                                             | 4 | Minimize deforestation                                                                               | 13,14        |                   | <ul style="list-style-type: none"> <li>Forest coverage in ETM-affected areas (Ha)</li> </ul>                                                                                                                                                                                                                                                                                                |
|                                             | 5 | Reduce encroachment and degradation of protected and sensitive areas                                 | 15           |                   | <ul style="list-style-type: none"> <li>No. of reported cases of illegal resource extraction (e.g., poaching, illegal fishing, illicit felling) in Pas</li> <li>Volume of seized illegal timber (cubic m) taken from protected and sensitive areas</li> </ul>                                                                                                                                |
| Air quality                                 | 6 | Reduce all forms of air pollution                                                                    | 3,14,15      |                   | <ul style="list-style-type: none"> <li>Ambient concentration of PM<sub>2.5</sub> at selected sites (µg/m<sup>3</sup>),</li> <li>Ambient concentration of NO<sub>2</sub>, at selected sites (µg/m<sup>3</sup>),</li> <li>Direct emissions of SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>2.5</sub>, CO, heavy metals, and volatile organic compounds (VOCs) (g/ kWh) at selected sites</li> </ul> |
| Surface water quality                       | 7 | Reduce all forms of water pollution (surface and groundwater)                                        | 3,6,14,15    |                   | <ul style="list-style-type: none"> <li>Water quality at selected sites (heavy metals, nitrate, phosphate, BOD) (mg/L)</li> <li>COD/TN/TPH/TSS/Temp/T bacteria</li> <li>Volume of discharge (m<sup>3</sup> / kWh)</li> </ul>                                                                                                                                                                 |
| Solid waste                                 | 8 | Reduce waste disposed to landfills (e.g., by increasing repurposing, recycling, and reuse of assets) | 3,15         |                   | <ul style="list-style-type: none"> <li>Volume waste disposed to dump sites by energy operators under ETM (tonnes)</li> <li>Percentage of waste diverted from landfills by energy operators under ETM (%)</li> </ul>                                                                                                                                                                         |

| THEMES              |    | OBJECTIVE                                                                                           | RELATED SDGS | MDB JT PRINCIPLES | POTENTIAL INDICATOR(S)<br>(Affected areas = those affected by energy facilities and associated infrastructure under ETM)                                                                                                                                                                                                                                                                                                                                                                                  |
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|                     | 9  | Improve safe handling, storage, and disposal of solid waste                                         | 3,15         |                   | <ul style="list-style-type: none"> <li>Capacity of recycling plants in country (tonnes/yr)</li> <li>Number of hazardous waste treatment facilities</li> <li>Capacity of hazardous waste treatment facilities</li> </ul>                                                                                                                                                                                                                                                                                   |
| Materials use       | 10 | Minimize use of non-renewable and toxic materials used in developing new assets                     | 3,6,15       |                   | <ul style="list-style-type: none"> <li>% of non-renewable resources used in constructing new renewable energy assets</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           |
| Land contamination  | 11 | Maintain soil and groundwater quality and reduce land contamination                                 | 6,15         |                   | <ul style="list-style-type: none"> <li>Number of pollution incidents linked to the continuing operation of CFPPs/mines (in the period up to retirement) and after retirement/closure, and to ETM funded renewable energy projects</li> </ul>                                                                                                                                                                                                                                                              |
| Noise and vibration | 12 | Minimize disturbance caused by noise and vibration                                                  | 3            |                   | <ul style="list-style-type: none"> <li>Number of hours in which noise at selected sites exceed a set standard (to be determined) (dBA) during both operation (whilst awaiting retirement) of CFPPs/mines and during retirement/closure process;</li> <li>Number of hours in which noise at selected sites exceed a set standard (to be determined) (dBA) during construction and operation of renewable energy projects</li> <li>Average day time noise at boundary of selected projects (dBA)</li> </ul> |
| Land degradation    | 13 | Minimize soil, river bank and sea bed erosion, and sedimentation of surface water                   | 14,15        |                   | <ul style="list-style-type: none"> <li>Extent of degraded land or impacted surface waters (Ha) in ETM-affected areas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           |
| Land use change     | 14 | Minimize loss and degradation of productive agricultural land, forests, grazing land, and fisheries | 15           |                   | <ul style="list-style-type: none"> <li>Extent of such lands lost/degraded (Ha) in ETM-affected areas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                           |
| Water use           | 15 | Minimize use of local water resources and ensure efficient use/reuse of water                       | 3,6,11       |                   | <ul style="list-style-type: none"> <li>Net volume of water used (m<sup>3</sup>/yr)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                             |
| Visual impacts      | 16 | Minimize extent of visual change to landscape and loss of aesthetic value                           | 3            |                   | <ul style="list-style-type: none"> <li>Number of complaints regarding a negative aesthetic impact</li> <li>Area subjected to a change in view (size of viewshed) (Ha)</li> </ul>                                                                                                                                                                                                                                                                                                                          |
| Health and safety   | 17 | Ensure population health, and safety of communities and workers                                     | 3,6,8        |                   | <ul style="list-style-type: none"> <li>Life expectancy (yrs)</li> <li>Incidence of specific diseases in affected areas (number of cases reported to clinics/hospitals) (if such data is available/accessible) in affected areas</li> <li>Number of accidents related to CFPPs/mines whilst awaiting retirement under ETM, and during retirement/closure process</li> <li>Number of accident related to construction and operation of renewable energy projects under ETM</li> </ul>                       |

| THEMES                        |    | OBJECTIVE                                                                                                     | RELATED SDGS | MDB JT PRINCIPLES | POTENTIAL INDICATOR(S)<br>(Affected areas = those affected by energy facilities and associated infrastructure under ETM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Socioeconomic</b>          |    |                                                                                                               |              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Economic growth               | 18 | Enhance economic development and diversification, and increase in economic growth (regionally and nationally) | 8            | 1,3               | <ul style="list-style-type: none"> <li>Per capita GDP</li> <li>Volume of coal exports (national) (metric tons)</li> <li>Inflation rate (%)</li> <li>Contribution of coal and renewable energy to GDP (%)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Employment and skills         | 19 | Enhance and maintain opportunities for employment and decent work for all, and maintain income levels         | 1,8,9        | 1,4               | <ul style="list-style-type: none"> <li>Number of people employed long-term (more than 1 year) in each type of energy project under ETM (coal power plants, mines, renewable energy projects)</li> <li>Number of workers losing income from ETM projects</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                               | 20 | Minimize loss of skilled workers                                                                              | 1,8,9        | 1,4               | <ul style="list-style-type: none"> <li>Number of skilled jobs lost</li> <li>Number of workers retrained/re-skilled</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Local economy and livelihoods | 21 | Minimize loss of livelihoods, including for vulnerable groups and indigenous peoples                          | 1,2,10       | 1,4               | <ul style="list-style-type: none"> <li>Number of small businesses closing due to implementation of ETM</li> <li>Number of people having reduced income due to ETM implementation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                               | 22 | Enhance equitable opportunities for new/improved and diversified and sustainable livelihoods                  | 1,2,10       | 1,4               | <ul style="list-style-type: none"> <li>Number of new jobs available in non-ETM businesses in ETM-affected areas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                               | 23 | Improve access to affordable and quality housing                                                              | 3,11         | 1,4               | <ul style="list-style-type: none"> <li>Average price of land and housing (rental and for sale)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                               | 24 | Minimize gender inequality and minimize vulnerable groups being disadvantaged                                 | 4,8,10       | 1,5               | <ul style="list-style-type: none"> <li>Number of social security entitlements, benefit, and/or (financial) support packages claimed under ETM, by sex, age, disability, and indigenous status</li> <li>Percentage of all job advertisements for ETM projects targeting women and vulnerable groups via positive / affirmative action</li> <li>Number employed in non-ETM businesses in ETM affected areas by sex, age, disability, and indigenous status</li> <li>Percentage of females employed in ETM facilities</li> <li>Number of females retrained/reskilled for other jobs following CFPP/mine closure under ETM</li> <li>Number of people from indigenous communities employed in ETM facilities</li> <li>Number of people from indigenous communities retrained/re-skilled following CFPP/mine closure under ETM</li> </ul> |

| THEMES                             |    | OBJECTIVE                                                                                                                                                           | RELATED SDGS | MDB JT PRINCIPLES | POTENTIAL INDICATOR(S)<br>(Affected areas = those affected by energy facilities and associated infrastructure under ETM)                                                                                                                                                                                                                                                                                                                                                                   |
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|                                    | 25 | Minimize competition by men for jobs in sectors dominated by women                                                                                                  | 4,8,10       | 1,5               | <ul style="list-style-type: none"> <li>Number of men in ETM-affected areas employed in women-dominated sectors</li> </ul>                                                                                                                                                                                                                                                                                                                                                                  |
| Food security and price            | 26 | Improve food security for all                                                                                                                                       | 2,3          | 1,4               | <ul style="list-style-type: none"> <li>Status of food security—as measured by availability of selected communities (e.g., in shops/markets) (plentiful/moderate/scarcely)</li> <li>Price of rice, corn, meat, and vegetables in selected communities</li> <li>Food quality in selected communities (good/moderate/poor)</li> <li>Rice production in selected communities (tons/yr)</li> <li>Nutritional level in selected communities (average Kcal/person/meal)</li> </ul>                |
| Physical and economic displacement | 27 | Minimize physical and economic displacement                                                                                                                         | 3,16         | 1,4               | <ul style="list-style-type: none"> <li>Number of households relocated due to ETM projects</li> <li>Number of households suffering lost land due to land acquisition for ETM projects</li> </ul>                                                                                                                                                                                                                                                                                            |
| Conflicts                          | 28 | Reduce conflicts (e.g., over-use of and access to land, between migrant workers and local population, between developers and local communities)                     | 16           | 1,4               | <ul style="list-style-type: none"> <li>Number of reported disputes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                              |
| Community cohesion and engagement  | 29 | Minimize disruption to household relationships                                                                                                                      | 11           | 1,4               | <ul style="list-style-type: none"> <li>Number of reported cases of domestic violence linked to CFPP/mine closure or development of renewable energy projects under ETM</li> <li>Number of divorces linked to CFPP/mine closure or development of renewable energy projects under ETM</li> </ul>                                                                                                                                                                                            |
|                                    | 30 | Enhance inclusive and transparent engagement by communities, interested parties, and affected parties (CIAPs) in the planning and implementation of ETM initiatives | 8,16         | 1,5               | <ul style="list-style-type: none"> <li>Number of public and private consultation events organized for ETM (overall and for individual projects?)</li> <li>Number of submissions/comments received for ETM (overall and for individual projects)</li> <li>Percentage of representatives from vulnerable groups attending meetings (overall and for individual projects) (%)</li> <li>Percentage of consultation events that provide for representation by NGOs/CSOs/trade unions</li> </ul> |

| THEMES                             |    | OBJECTIVE                                                                                                      | RELATED SDGS | MDB JT PRINCIPLES | POTENTIAL INDICATOR(S)<br>(Affected areas = those affected by energy facilities and associated infrastructure under ETM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Public services and infrastructure | 31 | Maintain and improve local public facilities and services                                                      | 9            | 1,4               | <ul style="list-style-type: none"> <li>Number of facilities by type in each ETM affected area</li> <li>Number of grievances (made through designated grievance mechanism) about adequacy of particular public services and infrastructure per month/year</li> <li>Number of doctors per 1000 head population in each ETM affected area</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Human rights                       | 32 | Avoid infringement of human rights of workers, communities, and vulnerable groups (including in supply chains) | 10,16        | 1,4 5             | <ul style="list-style-type: none"> <li>Reported cases of complaints about infringements of human rights linked to CFPP/mine closure under ETM</li> <li>Reported cases of complaints about infringements of human rights linked to renewable energy projects under ETM</li> <li>Number of children reported to be working on ETM projects falling into the category of child labor</li> <li>Number of reported cases of bonded laborers in renewable energy projects under ETM</li> <li>Number of workers recorded to be underpaid (less than legal minimum wage for normal working hours, less than statutory overtime pay for overtime hours) in renewable energy projects under ETM</li> <li>Number of persons reporting infringements on freedom of movement (passports withheld by renewable energy projects)</li> <li>Number of substandard contracts identified on ETM projects</li> </ul> |
| Migration                          | 33 | Minimize outmigration                                                                                          |              |                   | <ul style="list-style-type: none"> <li>Rate of migration out of communities where CFPP/mines closed under ETM (%)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                    | 34 | Minimize the number of unskilled immigrants competing local people for employment in ETM facilities            |              | 1,4               | <ul style="list-style-type: none"> <li>Number and percentage of unskilled, semi-skilled, and skilled workers by gender and origin (international, national, local, and project affected persons) per ETM facility</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Cultural heritage                  | 35 | Preserve heritage sites (historic buildings, archaeological, and cultural sites)                               | 3            |                   | <ul style="list-style-type: none"> <li>Number of cultural heritage sites impacted per ETM facility (including associated infrastructure)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

#### List of Sustainable Development Goals

- **No poverty:** End poverty in all its forms everywhere.
- **Zero hunger:** End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- **Good health and well-being:** Ensure healthy lives and promote well-being for all at all ages
- **Quality education:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- **Gender equality:** Achieve gender equality and empower all women and girls
- **Clean water and sanitation:** Ensure availability and sustainable management of water and sanitation for all
- **Affordable and clean energy:** Ensure access to affordable, reliable, sustainable, and modern energy for all
- **Decent work and economic growth:** Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
- **Industry, innovation and infrastructure:** Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
- **Reduced inequalities:** Reduce inequality within and among countries
- **Sustainable cities and communities:** Make cities and human settlements inclusive, safe, resilient, and sustainable
- **Responsible consumption and production:** Ensure sustainable production and consumption patterns
- **Climate action:** Take urgent action to combat climate change and its impacts
- **Life below water:** Conserve and sustainably use the oceans, seas, and marine resources for sustainable development
- **Life on the Land:** Protect, restore, and promote sustainable use of terrestrial ecosystems; sustainably manage forests; combat desertification; and halt and reverse land degradation and biodiversity loss
- **Peace, justice, and strong institutions:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels
- **Partnerships for the goals:** Strengthen the means of implementation and revitalize the global partnership for sustainable development.

#### MDB Just Transition Principles

- MDB support for a just transition aims to deliver climate objectives while enabling socioeconomic outcomes, accelerating progress towards both the Paris Agreement and the SDG.
- MDB support for a just transition focuses on **moving away from GHG emissions-intensive economic activities** through financing, policy engagement, technical advice, and knowledge sharing, in line with MDB mandates and strategies and country priorities, including NDCs and long-term strategies.
- MDBs will encourage support for a just transition by building on existing MDB policies and activities, mobilizing other sources of public and private finance, and enhancing coordination through strategic plans that aim to deliver **long-term, structural economic transformation**.
- MDB support for a just transition seeks to mitigate negative socioeconomic impacts and increase opportunities associated with the transition to a net zero economy, **supporting affected workers and communities**, and enhancing access to **sustainable, inclusive, and resilient livelihoods** for all.
- MDB support for a just transition encourages transparent and inclusive planning, implementation, and monitoring processes that **involve all relevant stakeholders and affected groups** and that further **inclusion and gender equality**.