

APPROVED by
Order of the Ministry of Communities,
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Methodological Recommendations on the Project Prioritisation for the Liquidation of the Consequences of Armed Aggression of the Russian Federation against Ukraine

1. These Methodological Recommendations set up the prioritisation methodology for projects for the liquidation of the consequences of Armed Aggression of the Russian Federation against Ukraine (hereinafter – the Prioritization Methodology) and were developed based on the World Bank’s Infrastructure Prioritization Framework.

2. The Prioritization Methodology combines social-environmental, and financial-economic information into two consolidated indices used to compare projects for the liquidation of the consequences of armed aggression of the Russian Federation against Ukraine (hereinafter – the projects) by using criteria and indicators, determines quantitative data and functions as a practical tool to support the process of evaluating and ranking projects submitted by applicants in applications by a number of parameters.

3. Indices, criteria, and indicators are presented in Annex 1 to the Methodological Recommendations.

4. Indicators evaluate projects’ potential feasibility from the economic, financial, environmental and social perspectives.

The indicators use the sectoral priorities aligned with the *Ukraine: Rapid Damage and Needs Assessment*, prepared by the World Bank, the EU and UN (Annex 2 to the Methodological Recommendations), and the sectors of activities, and eligible operation types considered universally aligned with the Paris Agreement’s Mitigation goals, ratified in accordance with the Law of Ukraine of 14.07.2016 # 1469-VIII “On Paris Agreement Ratification” (Annex 3 to the Methodological Recommendations).

Indicator(s) within a criterion will be excluded from a project prioritization if data for an indicator or indicators regarding all projects are not available or do not meet requirements of the indicator or indicators. Weight of such indicator within the criterion will be distributed in equal proportions to other indicators.

5. Steps of the project prioritization process include data preparation, calculation of the indices, project prioritization and presentation of prioritization results.

6. For purposes of prioritization step, the project applications are recommended to be submitted using the submission form for sites or measures proposed by financing by the Fund of the Liquidation of the Consequences of armed aggression, as is provided by Annex 5 to these Methodological Recommendations. All fields in the submission form are mandatory. Quality of data submitted in the submission form affects the total score of a project application. An applicant is solely responsible for the correctness, completeness, up-to-date and relevance of the provided data. Incomplete mandatory indicator-related question field is automatically scored 0.

7. The Prioritization Methodology takes into consideration solely the data provided by the applicant. Projects missing the information, which allows to identify the applicant and/or the project, will be disqualified from the prioritization process.

8. Data preparation consists of the following steps:

Consolidation of the submitted projects;

Review of the data fields;

Transformation of all qualitative data into quantitative form;

Ensuring that all the data follows the same logical order (i.e., the greater positive impact of a project among other projects, the greater is the number such project will be assigned within a certain indicator);

Standardization of the data.

9. All submitted project applications are consolidated into a single consolidated directory.

10. During the review step all submitted data related to indicators is verified for correctness of entry as is provided in Annex 1 to these Methodological recommendations, and all empty indicator-related data fields are automatically scored 0.

11. During the indices calculation step, for each indicator of an application, a standardised score is calculated.

12. All data under relevant indicators are standardised using the following formulas:

Standardized score from primary score is calculated as:

$$z_{ij} = \frac{x_{ij} - \mu_j}{\sigma_j}, \text{ where}$$

x – is the quantitative score under an indicator;

– is the sample mean calculated as follows:

$$\mu_j = \sum_i x_{ij} / k$$

i – project's number;

k – project quantity;

j – number of the variable;

– standard deviation of the variable j , calculated as follows:

$$\sigma_j = \sqrt{\sum_i (x_{ij} - \mu)^2 / k}$$

x – primary quantitative score under an indicator;

i – project's number;

j – variable number;

– sample mean;

k – project quantity.

13. Performance indices construction consists of:

Use of weights to calculate the Social-Environmental Index and Financial-Economic Index for each project application;

Rescaling of the values to generate scores between 0 and 100 for each project application; and ranking of the projects.

14. The principal component analysis is used to calculate weights. The principal component analysis is used to reduce the dimensionality of large data sets for each project by transforming a large set of variables for each indicator into a smaller one that still contains most of the information in the large set.

15. Weight is applied as it is provided by Annex 4 to these Methodological Recommendations to each project to calculate Social-Environmental Index (SEI) and Financial-Economic Index (FEI) under the following formulas:

$$SEI = w_1 Criterion_1 + w_2 Criterion_2 \dots + w_n Criterion_n,$$

Where weights, w_1 - w_9 , are associated with each standardized social-environmental index criterion and refer to weights as provided in Annex 4 to these Methodological Recommendations; Criterion₁ – Criterion₉ – is the total score by each of the nine criteria of the social and environmental index.

$$FEI = w_1 Criterion_1 + w_2 Criterion_2 \dots w_6 Criterion_6 ,$$

Where weights, w_1 - w_9 , are associated with each standardized financial-economic index criterion; Criterion₁ – Criterion₆ – is the total score by each of the six criteria of the financial and economic index.

16. After the application of weight, the score is rescaled into a range between 0 and 100 for each application using the following formula:

The rescaled z_i rescaling for variable z application i ,

$$Rescaled (z_i) = \frac{z_i - Z_{min}}{Z_{max} - Z_{min}} \times 100 ,$$

where Z_{min} is the minimum value for variable Z and Z_{max} is the maximum value;

and i is the project number.

These rescaled scores are used as the final SEI and FEI scores.

17. The resulting value is the final score assigned to the project as it's Social-Environmental Index and Financial-Economic Index Score, and this allows ranking of the applications from 0-100 (with 100 representing the project that scores the highest with regards to social-environmental and financial-economic considerations) on each of the indices.

18. The project prioritization step takes place after scoring is complete, when the projects are plotted on a graph, which is a key output of this process. The graph is based on project-level SEI and FEI scores, which are used to develop two axes. The scores are used as (x,y) coordinates to locate each project on a Cartesian plane, where FEI scores are on the x-axis and SEI scores are on the y-axis.

19. Thereafter, the budget limit for the respective cycle of projects in accordance with the requirements of the Budget law of Ukraine for the establishment of a limit within which the project prioritization will take place (hereinafter – the budget constraint) is overlaid perpendicular to each axis at the point where the budget would be exhausted if funding decisions were solely based on each separate index. As a result, the budget constraint sets quadrants on the Cartesian plane.

20. Projects that fall in the top right quadrant represent the projects that, relative to all the projects in the portfolio, score the highest on both SEI and FEI. Therefore, these projects are designated as the ‘high priority’ projects.

21. Projects in the bottom left quadrant are considered ‘lower priority’ projects as they score relatively the lowest on social, environmental, financial and economic considerations among the portfolio of projects.

22. The remaining two quadrants (i.e., the top-left and bottom-right) represent that projects that perform well on one of the two indices but not on both and are designated as ‘medium priority’ projects.

23. The prioritization results are presented in the form of the prioritized projects shortlist as it is provided by Annex 6 to these Methodological Recommendations, that will include, inter alia, the prioritized projects.

24. The Prioritization Methodology may be implemented using the Single Digital Integrated Information System to manage the process of reconstruction of immovable property, buildings and infrastructure.

25. Annex 7 to these Methodological Recommendations include advisory questions to the specific sectors, which help to inform the deliberations of the Inter-governmental Working Group over the consolidated project directory to prepare proposals for the Cabinet of Ministers of Ukraine to allocate funds from the Fund of the Liquidation of the Consequences of Armed Aggression (hereinafter the Inter-governmental Working Group). They are part of the submission form (Annex 5 to these Methodological Recommendations). The questions/indicators listed under “Informational Questions” in Annex 7 do not affect the scores gained by the application and are used only to provide additional data for the inter-governmental working group’s discussion.
