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United Nations Development Programme

Country/Region/Global: Ukraine

Initiation Plan

Project Title: **Strengthening evidence-based recovery in Ukraine**

Expected UNDAF/CP Outcome(s): Outcome 4. By 2022, communities, including vulnerable people and IDPs, are more resilient and equitably benefit from greater social cohesion, quality services and recovery support

Expected CPD Output(s): National and regional authorities have the knowledge and skills to engage communities in gender-responsive planning, coordination, delivery and monitoring of recovery efforts

Initiation Plan Start/End Dates: 1 November 2022 – 31 December 2023

Implementing Partner: **United Nations Development Programme in Ukraine**

Brief Description

UNDP will scale up its support for evidence-based recovery consisting of establishing of tools, methodologies and technical standards through a) producing building damage assessments, to be applied in all affected communities b) strengthening the government capacities to coordinate and lead damage assessments and c) building a repository of relevant baseline and GIS datasets, from damage assessments and open sources including the use of a number of digital tools for Secondary Data Review, machine learning, and natural language processing, to inform the recovery efforts.

The Project comprises two outputs:

- **Output 1**: Coverage of damage assessments is expanded to all Oblasts affected by the war in Ukraine to better inform reconstruction and recovery efforts
- **Output 2**: Knowledge management, research coordination and technical support to national

Programme Period:	01 Nov 2022 – 31 Dec 2023
Atlas Project Number:	00146644
Atlas Output ID:	00133617
Gender Marker:	GEN 2

Total resources required	**2,036,911**
Total allocated resources:	2,036,911
• UNDP	2,036,911
• Other:	
○ Donor	_____
○ Government	_____
Unfunded budget:	_____
In-kind Contributions	_____

Agreed by UNDP:

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I. PURPOSE AND EXPECTED OUTPUT

The ongoing war in Ukraine has resulted in significant loss of life, unprecedented displacement, internally and towards neighboring countries, and devastating destruction of infrastructure. As a result of indiscriminate shelling, 13,718 civilian casualties[1] were recorded, seven million Ukrainians are internally displaced and a similar number – 7.2 million – sought refuge outside the country[2] during the first six months of the conflict, while more than 800,000 residential units, 1,800 healthcare buildings, 581 education buildings and 25,000 km of roads were either damaged or destroyed within the first four months[3].

The Government of Ukraine has established a three-phased approach to the conflict. The first phase focuses on winning the war and responding to the humanitarian needs of the country, conducting post-disaster needs assessment (PDNA), developing projects for the next phase. The second phase centers on the recovery and reconstruction of physical infrastructure, human capital, businesses, economy and finance based on the principle of building back better and leaving no one behind. The third phase envisages a modernized government, global economic integration and a green, digitalized and sustainable development pathway for Ukraine, which should support twin transition and facilitate European integration of Ukraine.

One of the key elements of a comprehensive recovery plan is to obtain a holistic overview of damage and losses – not only of physical infrastructure, but also the human and social impact of the violent conflict. While several agencies have embarked on this in limited ways there is a need to strengthen the efforts to obtain a comprehensive picture of the complex situation. Meanwhile, a vast amount of information and data from national and international sources has been shared across various online and offline platforms. Main sources include official reports by Government and international partners, mainstream media, rapid remote assessments from various development and humanitarian actors, surveys, and projections based on baseline data and trends. Social media has also increasingly been used to document incidents and damages caused.

Under the framework of its comprehensive Resilience Building and Recovery Programme for Ukraine, UNDP is already engaged in a number of activities directly relevant to the work outlined in this concept. Namely, UNDP's assistance encompasses, but is not limited to, (i) the technical support availed to the Government to develop scope and methodology for the proposed national Recovery and Modernization Plan; and (ii) the work with the Cabinet of Ministers and line Ministries – including counterparts to be engaged here – on crisis coordination, debris/EO removal, various damage assessments, and recovery planning streams.

Within the context of the above and under pillar 1 of the UNDP Resilience Building and Recovery Programme for Ukraine (i.e., Government Capacities for Crisis Response & Management / National Recovery and Development Plan and war damage assessment) UNDP in Ukraine is piloting a dedicated Decision Support Unit (DSU) to drive and coordinate various assessments and data collection/analysis in a variety of areas, to inform future actions pertaining to the recovery efforts. At the moment, there is a emphasize on damage assessments, where the unit is exploring efficient and cost-effective damage assessment methodology; aims to consolidate, synthesize and share knowledge generated from assessments; and to build national capacity on damage assessment; and establishes an internal one-stop-shop for information and knowledge management.

Building on these efforts, under this project, **UNDP will scale up its support for evidence-based recovery consisting of establishing of tools, methodologies and technical standards through** a) producing building damage assessments, to be applied in all affected communities b) strengthening the government capacities to coordinate and lead damage assessments and c) building a repository of relevant baseline and GIS

[1] *OHCHR*

[2] *https://reliefweb.int/report/ukraine/ukraine-situation-report-7-sep-2022*

[3] *Ukraine Rapid Damage and Needs Assessment* (World Bank, 9 September 2022)

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datasets, from damage assessments and open sources including the use of a number of digital tools for Secondary Data Review, machine learning, and natural language processing, to inform the recovery efforts.

Proposed Interventions/Activities

Output 1: Coverage of damage assessments is expanded to all Oblasts affected by the war in Ukraine to better inform reconstruction and recovery efforts

UNDP is supporting the Ministry of Internal Affairs, Coordination Centre for Environmental Damage, State Emergency Service, the Ministry of Energy, and the Ministry of Communities and Territories Development (MinRegion) in the assessment of war damage and coordination of reconstruction and recovery efforts.

On building damage assessments and in partnership with UNOSAT, Kyiv School of Economics (KSE) Institute, and City University of New York (CUNY), UNDP piloted the use of remote sensing techniques/tools to map damage and destruction to buildings as follows:

- Regional - Damage Proxy Map (DPM): in cooperation with CUNY and NASA JPL, UNDP is piloting the use of synthetic aperture radar (SAR) data, to assess damage in urban and rural areas to support rapid analysis and provision of damage proxy maps for large areas.
- Buildings Damage assessment (BDA) (figure 1):
    - in cooperation with UNOSAT, UNDP has developed a preliminary tool for analysis of the number of buildings damaged/ destroyed, with the view of showing the severity of the damage, estimated number of floors and footprint per building, using high-resolution satellite imagery. This will be applied in large cities and inaccessible areas.
    - in cooperation with KSE Institute, UNDP is producing detailed analysis and classification of the affected buildings, including focusing on all impacted. Digital maps for 40 settlements (in GIS format) of the damaged and destroyed buildings were produced including address, the severity of the damages, type of building, number of floors, and building footprint area in sq. meters.

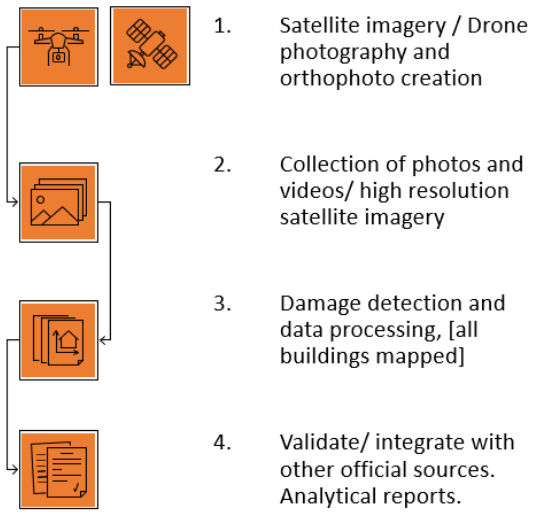


Figure 1: Building damage assessment methodology

At the request of MinRegion UNDP will expand the pilot buildings damage assessment to all war affected settlements in 12 Oblasts. UNDP will roll out the BDA in a phased approach, **covering five Oblasts under phase 1**, the remaining seven Oblasts will be covered under phase 2.

- **Phase 1**: Kyiv, Sumy, Chernihiv and Zhytomyr and Kharkiv (**prioritization** to be confirmed with MinRegion)
- **Phase 2:** Kherson, Luhansk, Donetsk, Zaporizhzhia, Mykolaiv, Odesa, Dnipropetrovska

The BDA will be conducted in cooperation with the Ministry for Communities and Territories Development of Ukraine (MinRegion) and concerned Oblasts Regional State Administration. The implementation will be done through the following modalities:

- **Responsible Party Agreement with Kyiv School of Economics (KSE) Institute** covering all affected settlements excluding Oblast centers (Large cities)
- **Agency to Agency agreement with UNOSAT** covering large cities (Oblast centers) and capacity development
- **UNDP Ukraine DSU** for quality assurance, internal analysis and technical support

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Using high-resolution MAXAR optical remote sensing data and drone imagery, the severity and extent of damage is assessed based on the IWG-SEM to classify affected building into one of five categories (Destroyed, severe damage, moderate damage, possible damage, or no damage). The output of the BDA includes the severity of the damage, building footprint (in sqm), building height, building typology (residential, commercial, school, hospital, etc…). In addition, estimated quantity of debris, in addition to the estimated damage costs calculated by KSE Institute.



Figure 2: BDA phase 1 and phase 2 coverage

To compile the damage assessment data and maps, UNDP will use the existing damage assessment data compiled by Oblast RSA - in various formats - based on inputs from local administration authorities, in addition to the data, whenever feasible collected by Ministry of Infrastructure, and self-reporting through the DiiA application, etc... MinRegion to facilitate sharing of the data.



Figure 3: sample from the pilot BDA map of Irpin city

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Proposed activities under Output 1:

- **Activity 1.1** Conduct building damage assessment in war affected settlements including detailed data on the destruction using drone and satellite imagery. (Phase 1: covering five Oblasts).
- **Activity 1.2** Compile available damage assessment data and convert to Geographic Information System (GIS), on best efforts basis.
- **Activity 1.3** Engage local/ regional institutions through grants in the damage assessment, data collection, verification, and analysis

Output 2: Knowledge management, research coordination and technical support to national partners are more effectively managed through an internal decision support unit (DSU)

Since the start of the conflict in Ukraine, a vast amount of information and data from national and international sources has been shared across various online and offline platforms. Main sources include official reports by Government and international partners, mainstream media, rapid remote assessments from various development and humanitarian actors, surveys, and projections based on baseline data and trends. Social media has also increasingly been used to document incidents and damages caused. UNDP stand ready to support the coordination efforts by availing support for increased information sharing of verified information among partners around recovery efforts in a concerted and systematic way. Building on ongoing efforts and utilizing adapted tools and existing capacities, UNDP will synthesize available information and data in a structured manner, through production and dissemination of daily/ weekly digests to share with the counterparts in the recovery process.

As an example, UNDP Ukraine has recently developed Ukraine's Public Pulse (UPP), which aims to identify and ranking the major topics of discussion in major cities of Ukraine, by the development of a Semantic Classification Engine, using Natural Language Processing and Machine Learning to automate the analysis and ranking of raw data from different sources based on bespoke classification and characteristics. The tool collects hundreds of random Tweets, every three hours, from 26 major cities in Ukraine and uses NLP/ML to classify them into 30 pre-defined thematic areas, such as agriculture, education, health, and poverty.

UNDP will scale up the pilot Decision Support Unit (DSU) to coordinate and technically support UNDP assessments including the Building Damage Assessment (BDA).

The unit will consolidate, synthesize and share knowledge generated from assessments; engage on capacity development of national capacity on damage assessment; and establish an internal one-stop-shop for assessments, analysis and data e.g., Oblast profiles. The activities include:

- Manage the day-to-day activities of the Building Damage Assessment (BDA) (**under Output 1**)
- Support UNDP existing and new projects on information management and GIS analysis e.g.
    - Analysis for debris management planning and implementation including the quantification of rubble removal activities and logistics requirements.
    - Environmental risks and impact assessments
- Secondary Data Review (SDR): using the DEEP tool and a modified analysis framework based on UNDP's Resilience Building and Recovery Programme.
- Digital tools
    - Use of Machine Learning and AI in information classification and initial analysis
    - Development of data collection tools
- Repository:
    - Map server: UNDP Ukraine is using the dedicated GIS server space, by UNDP GIS unit in HQ, to host the damage assessments maps. The results of the damage assessments will be uploaded to the map server for further analysis.
    - Develop/ adapt UNDP Platform: central platform (e.g on share point) for all related assessments, UNDP reach, humanitarian sector updates
- Products
    - SDR digest: a very concise regular update, providing the latest info

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  - SDR Baseline: a background reference document, presenting the information in a more comprehensive fashion
  - Oblast briefs
- Services
  - Ad-hoc briefs, backgrounders, situation reports
  - Data/Survey mapping
  - Deep-dive discussions
  - Visual products
  - Development of customized dashboards for data visualization

In addition, DSU will technically support the development of a comprehensive Geographic Information System (GIS) based system to enable government authorities monitor and update the damage assessments from local to central level as stipulated in CMU Decree #726 mandating MinRegion to develop a comprehensive system of monitoring the damage caused to the regions of Ukraine as a result of the military aggression of the Russian Federation, based on the geoinformation system. The system will use the damage assessment maps produced by UNDP, and it will enable government counterparts at local level lead and maintain the updates to the damage assessment information and to monitor the reconstruction implementation transparently at all levels.

Proposed activities under Output 2:

- **Activity 2.1** Management of the Decision Support Unit including the building damage assessment and liaising with government counterparts and project partners
- **Activity 2.2** Increase internal capacities for conducting research, producing knowledge products, and improving evidence-based planning and decision-making. Procurement of software and hardware
- **Activity 2.3** Produce analysis products and Information Management Services to support decision-making for UNDP and national partners
- **Activity 2.4** Setup and maintain a one-stop-shop Geo-portal/ dashboard
- **Activity 2.5** Improve information management analysis and dissemination through research, data collection and capacity development
- **Activity 2.6** Travel and in-country missions
- **Activity 2.7** Rent
- **Activity 2.8** Security

DocuSign Envelope ID: F3016DE0-EF13-4F10-9AA4-64D86AB27D1B

II. MANAGEMENT ARRANGEMENTS

UNDP Ukraine shall be responsible for the overall management of the project, primarily regarding the responsibility for the achievement of the outputs (results), impact and objectives.

The project will be implemented by the UNDP Ukraine Decision Support Unit in close coordination with the Team Leader under the Strategic Planning, Partnerships and RBM Unit. Project monitoring and evaluation will be provided within the RBM Team.

The DSU team will be running the project, consisting of the following team members:

- **Project Manager** (fulltime-**FTAP5**) will be responsible for achieving the objectives of the project and ensuring the co-operation and support from the project partners, as well as for managing the implementation of the project. This includes personnel, subcontracts, training, administrative support and financial reporting, and keeping UNDP aware of all relevant factors that could have an impact on the project implementation.
- **Liaison/ Reporting Officer** (fulltime – **NPSA9**) will be responsible to develop and contribute to the project communication and advocacy instruments and materials, including briefing materials, consolidation of analysis products e.g., weekly secondary data review analysis and digest as well as reporting project's results into UNDP Ukraine Integrated Monitoring and Reporting Platform and other project or corporate reporting lines and tools.
- **Project Associate** (50% – **NPSA6**) will be responsible for the smooth administrative management and implementation of the project activities in close collaboration with both the project team and the UNDP Country Office.
- **Geographic Information System (GIS) Analyst** (fulltime –**NPSA9**)) will be responsible of assessments planning including identification of available data, design of data collection tools, collection, and GIS data management and analysis for damage assessments mapping and updates, Debris management, environmental threats mapping, GIS data storage and satellite imagery and drone imagery analysis.
- **Geographic Information System (GIS) Officer** (fulltime **NPSA8**) will support the building damage assessment project including image analysis, geocoding of the damage assessment and relevant spatial data received from MinRegion, Oblast administration and others, and support on GIS analysis for UNDP, government counterparts and partners.
- **Graphics designer (visualization) Officer** (fulltime home based- **NPSA8**) - 6 months- will be responsible of conceptualize and develop data visualizations, both static and interactive, develop layout design and infographics through sourcing data and produce storyboards on selected issues, take part in the editing and quality control of the UNDP knowledge products to ensure accuracy and visual consistency.
- **Data Analyst - Information Platform Developer** (**NPSA8**) will be responsible to translate UNDP's business/information needs into a common content management system, design, develop and keep up to date the reporting dashboards, reports, data extracts and other business intelligence solutions such as Power BI, Power Apps and Flows linkages. Develop SharePoint Online solutions, including workflows, custom pages, forms, and portal.
- **Secondary Data Review (SDR) specialist** (fulltime home based- **NPSA8**) will supervise the SDR team and lead coordinate the workload, performance monitoring and tasking of the Information Management Associates. The SDR specialist will also identify, collect, and classify secondary data on the Recovery and Development of Ukraine using the DEEP platform. Participate in, and coordinate with, the secondary data analysis tagging team, and ensure the information is captured correctly.
- **Information Management Associate (IMA)** (fulltime home based- **2*NPSA6**) will identify, collect, and classify secondary data on the Recovery and Development of Ukraine using the DEEP platform. Participate in, and coordinate with, the secondary data analysis tagging team, and ensure the

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information is captured correctly. 80% of time dedicated to SDR and remaining for IM related activities.

The team will also supervise and work closely with the consultants to be engaged to organize and implement the project activities.

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III. MONITORING

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring plan:

Monitoring Activity	Purpose	Frequency	Expected Action
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs. The progress on the performance indicators will be regularly reported into UNDP Ukraine Integrated Monitoring and Reporting Platform	Regularly	Slower than expected progress will be addressed by project management
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards.	Regularly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	Regularly, At the project's operational closure	Relevant lessons are captured by the project team and used to inform management decisions. The concise lessons learned report will be prepared at the operational project of the project

DocuSign Envelope ID: F3016DE0-EF13-4F10-9AA4-64D86AB27D1B

IV. WORK PLAN

Period:

EXPECTED OUTPUTS *And baseline, indicators including annual targets*	PLANNED ACTIVITIES *List activity results and associated actions*	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	Amount
***Output 1**: Coverage of damage assessments is expanded to all Oblasts affected by the war in Ukraine to better inform reconstruction and recovery efforts* *Indicators:* *1.1. Number of settlements covered with Building Damage Assessment using satellite imagery/ remote sensing analysis* *Baseline: 61* *Target: 431*	**Activity 1.1** Conduct building damage assessment in war affected settlements including detailed data on the destruction using drone and satellite imagery. (Phase 1: covering five Oblasts)	X	X	X	X	Kyiv School of Economics (KSE) Institute	UNDP	Responsible Party Agreement	1,000,000
	Activity 1.2 Compile available damage assessment data and convert to Geographic Information System (GIS), on best efforts basis	X	X	X	X	Kyiv School of Economics (KSE) Institute	UNDP	Responsible Party Agreement	50,000
	Activity 1.3 Engage local/ regional institutions through grants in the damage assessment, data collection, verification, and analysis	X	X	X	X	Kyiv School of Economics (KSE) Institute	UNDP	Responsible Party Agreement	50,000
	Activity 1.4 HACT Assurance Activities	X	X	X	X	UNDP	UNDP	Professional Services	10,930
Output1: Subtotal									1,110,930

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Output 2: Knowledge management, research coordination and technical support to national partners are more effectively managed through an internal decision support unit (DSU) Indicators: *2.1. Number Of Oblasts covered with damage assessment* *Baseline: 0 > Target: 5* *2.2. Number of thematic SDR deep dive produced, with gender considerations incorporated as necessary* *Baseline: 0 > Target: 12* *2.3. Number of maps, visual and analytical products produced and shared internally and externally* *Baseline: 0 > Target: 12*	**Activity 2.1** Management of the Decision Support Unit including the building damage assessment and liaising with government counterparts and project partners	x	x	x	x	UNDP	UNDP	Staffing	403,863
	Activity 2.2 Increase internal capacities for conducting research, producing knowledge products, and improving evidence-based planning and decision-making. Procurement of software and hardware	x	x	x	x	UNDP	UNDP	Procurement of Equipment	10,000
	Activity 2.3 Produce analysis products and Information Management Services **to support decision-making for UNDP and national partners**	x	x	x	x	UNDP	UNDP	Contractual Services - Individ	182,715
	Activity 2.4 Setup and maintain a one-stop-shop Geo-portal/ dashboard	x	x	x	x	UNDP	UNDP	Contractual Services - Individ	33,245
	Activity 2.5 Improve information management analysis and dissemination through research, data collection and capacity development	x	x	x	x	UNDP	UNDP	Contractual Services Companies	20,000
	Activity 2.6 Travel and in country missions	x	x	x	x	UNDP	UNDP	Travel	20,000
	Activity 2.7 Rent	x	x	x	x	UNDP	UNDP	Rent	17,167
	Activity 2.8 Security	x	x	x	x	UNDP	UNDP	Security	15,570
Output2: Subtotal									**702,560**
4% DPC									72,540
8% GMS									150,882
GRAND TOTAL									**2,036,911**