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Report No: PAD3758

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US\$ 100 MILLION

TO

UKRAINE

FOR A

EASTERN UKRAINE: RECONNECT, RECOVER, REVITALIZE (3R) PROJECT

OCTOBER 15, 2020

Social Sustainability and Inclusion Global Practice  
Europe And Central Asia Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective August 31, 2020)

Currency Unit = Ukrainian Hryvnia (UAH)

UAH 27.5427 = US\$ 1

## FISCAL YEAR

January 1 - December 31

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## ABBREVIATIONS AND ACRONYMS

3R Project	Eastern Ukraine: Reconnect, Recover, Revitalize Project	IFI	International Financial Institution
3RY	3R Youth Leader	IFR	Interim Financial Report
AADT	Average Annual Daily Traffic	IRI	International Roughness Index
AOP	Annual Operational Plan	ISP	Implementation Support Plan
BFM	Beneficiary Feedback Mechanism	MOU	Memorandum of Understanding
CPF	Country Partnership Framework	MPTF	Multi-Partner Trust Fund
DA	Designated Account	MRTOT	Ministry for Reintegration of Temporarily Occupied Territories
DBOT	Design, Build, Operate, and Transfer	NGCA	Non-Government of Ukraine- Controlled Area
EBRD	European Bank for Reconstruction and Development	NPV	Net Present Value
EIB	European Investment Bank	O&M	Operations and Maintenance
EIRR	Economic Internal Rate of Return	PDO	Project Development Objective
ESCP	Environmental and Social Commitment Plan	PIU	Project Implementation Unit
ESF	Environmental and Social Framework	POM	Project Operations Manual
ESMF	Environmental and Social Management Framework	SEP	Stakeholder Engagement Plan
ESMP	Environmental and Social Management Plan	SME	Small- and Medium-Sized Enterprise
ESRS	Environmental and Social Review Summary	SCORE	Social Cohesion and Reconciliation
ESS	Environmental and Social Standard	TFP	Training and Facilitating Partner
EU	European Union	TOR	Terms of Reference
FAO	Food and Agriculture Organization of the United Nations	UAD	Ukravtodor
FCV	Fragility, Conflict, and Violence	UAH	Ukrainian Hryvnia
FM	Financial Management	UDI	State-Owned Enterprise Ukrdorinvest
GBV	Gender-Based Violence	UNDP	United Nations Development Programme
GCA	Government of Ukraine-Controlled Area	USAID	United States Agency for International Development
GDP	Gross Domestic Product	UXO	Unexploded Ordinance
GHG	Greenhouse Gas	VOC	Vehicle Operating Cost
GOU	Government of Ukraine	WIP	With Project
GRM	Grievance Redress Mechanism	WOP	Without Project
GRS	Grievance Redress Service	YoY	Year-Over-Year
HACCP	Hazard Analysis and Critical Control Point		
HDM-4	Highway Development and Management Model		
IA	Implementing Agency		
IBRD	International Bank for Reconstruction and Development		
IDP	Internally Displaced Person		



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## DATASHEET

**BASIC INFORMATION**

Country(ies)	Project Name	
Ukraine	Eastern Ukraine: Reconnect, Recover, Revitalize (3R) Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P172348	Investment Project Financing	Substantial

**Financing & Implementation Modalities**

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
06-Nov-2020	30-Nov-2025

Bank/IFC Collaboration

No

**Proposed Development Objective(s)**

To improve transport connectivity and promote agricultural sector recovery in project areas with the active engagement of conflict-affected communities.

**Components**

Component Name	Cost (US\$, millions)
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RECONNECT: Roads Investments to Link Rural Communities to Processing, Markets, and Services	65.00
RECOVER: Agricultural Investments to Support Sector Recovery and Modernization	32.00
REVITALIZE: Implementation Support Platform	3.00
CERC: Contingent Emergency Response Component	0.00

**Organizations**

Borrower:	Ukraine
Implementing Agency:	Ukravtodor Ministry for Reintegration of Temporarily Occupied Territories

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

Total Project Cost	100.00
Total Financing	100.00
of which IBRD/IDA	100.00
Financing Gap	0.00

**DETAILS****World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	100.00
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**Expected Disbursements (in US\$, Millions)**

WB Fiscal Year	2021	2022	2023	2024	2025	2026
Annual	4.66	12.13	20.73	23.58	21.23	17.68
Cumulative	4.66	16.79	37.52	61.10	82.32	100.00

**INSTITUTIONAL DATA**

Practice Area (Lead)	Contributing Practice Areas
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Social Sustainability & Inclusion

Agriculture and Food, Fragile, Conflict & Violence, Transport

### Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

### SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● High
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Substantial
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● Substantial
8. Stakeholders	● Moderate
9. Other	
10. Overall	● Substantial

### COMPLIANCE

#### Policy

Does the project depart from the CPF in content or in other significant respects?

☐ Yes ☒ No

Does the project require any waivers of Bank policies?

☐ Yes ☒ No



## Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

**NOTE:** For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

## Legal Covenants

### Sections and Description

Schedule 2. Section I. A. 1 (a) Not later than three months after the Effective Date, the Borrower, through the Ministry for Reintegration of Temporarily Occupied Territories (MRTOT), shall establish and thereafter maintain throughout the implementation of the Project, a Project Implementation Unit within MRTOT, with resources and staff in number and with qualifications acceptable to the Bank, responsible for day-to-day supervision of Project implementation for Parts 2, 3 and 4 of the Project and provision of support for Project implementation.

### Sections and Description

Schedule 2. Section I. A. 1 (b) Not later than three months after the Effective Date, the Borrower, through MRTOT, shall establish and thereafter maintain throughout the implementation of the Project, a Project Steering Committee, with functions and responsibilities set forth in the MRTOT POM and UAD POM, to provide overall guidance on Project implementation.





#### Sections and Description

Schedule 2. Section I. A. 4 (a) Before commencing any civil works under Part 2.1 of the Project, the Borrower, through MRTOT, shall enter into a memorandum of understanding with the Starobilsk City Council, under terms and conditions acceptable to the Bank, including, inter alia, Starobilsk City's role and responsibilities regarding the design and construction of the Agriculture Logistics and Service Hub.

#### Sections and Description

Schedule 2. Section I. A. 6 Upon completion of the construction of the Agriculture Logistics and Service Hub under Part 2.1 of the Project, the Borrower, through the MRTOT, shall enter into a separate management agreement with an entity which meets the eligibility criteria set forth in the MRTOT POM, under terms and conditions acceptable to the Bank, to provide for the operation and maintenance of said Agriculture Logistics and Service Hub in conformity with appropriate administrative, technical, financial, economic, environmental and social standards and practices.

#### Sections and Description

Schedule 2. Section I. A. 5 (a) Before commencing any civil works under Part 2.2 of the Project, the Borrower, through MRTOT, shall enter into a memorandum of understanding with the State Service of Ukraine on Food Safety and Consumer Protection, including, inter alia, the State Service of Ukraine on Food Safety and Consumer Protection's role and responsibilities regarding the design and construction of the regional agricultural testing and food safety laboratory; as well as the handover arrangements to transfer its operations and maintenance to the State Service of Ukraine on Food Safety and Consumer Protection upon its completion.

#### Sections and Description

Schedule 2. Section I. A. 7 Before commencing any activities under Part 2.3 of the Project, the Borrower, through MRTOT, shall hire a firm under terms and conditions acceptable to the Bank, including, inter alia, said firm's obligation to implement Part 2.3 of the Project in accordance to the provisions of the Legal Agreement, the MRTOT POM, the ESCP and the Anti-corruption Guidelines, including inter alia, the firm's obligation to: (i) select the beneficiaries of Part 2.3 of the Project in accordance with the eligibility criteria set forth in the MRTOT POM; and (ii) implement activities under Part 2.3 of the Project under terms and conditions acceptable to the Bank and as set forth in the MRTOT POM.

#### Sections and Description

Schedule 2. Section I. A. 2 The Borrower shall cause UAD to maintain throughout the implementation of the Project, a Project implementation unit, with resources and staff in number and with qualifications acceptable to the Bank, responsible for day-to-day supervision of Project implementation for Part 1 of the Project and provision of technical support for Project implementation.

#### Conditions

Type	Description
Effectiveness	Article V. 5.01 (a) The Subsidiary Agreement between the Borrower and Ukravtodor has been executed in a manner acceptable to the World Bank.
Type	Description
Effectiveness	Article V. 5.01 (b) The Loan Transfer Agreement between the Borrower and the Ministry for



	Reintegration of Temporarily Occupied Territories has been executed in a manner acceptable to the World Bank.
Type Effectiveness	<p>Description</p> <p>Article V. 5.01 (c) The Borrower, through the MRTOT, has entered into a memorandum of understanding with the Luhansk Oblast State Administration, under terms and conditions acceptable to the World Bank, including, inter alia, the Luhansk Oblast State Administration's role and responsibilities for Project implementation.</p>
Type Disbursement	<p>Description</p> <p>Schedule 2. Section III. B. 1 (b) No disbursements shall be made for Eligible Expenditures under Category (1) until the Ukravtodor Project Operations Manual has been adopted in a manner acceptable to the World Bank.</p>
Type Disbursement	<p>Description</p> <p>Schedule 2. Section III. B. 1 (c) No disbursements shall be made for Eligible Expenditures under Category (2) until the Ministry for Reintegration of Temporarily Occupied Territories Project Operations Manual has been adopted in a manner acceptable to the World Bank.</p>
Type Disbursement	<p>Description</p> <p>Schedule 2. Section III. B. 1 (d) No disbursements shall be made for Emergency Expenditures under Category (3), unless and until the World Bank is satisfied, and has notified the Borrower of its satisfaction, that all of the conditions outlined in the Loan Agreement have been met.</p>



## I. STRATEGIC CONTEXT

### A. Country Context

1. **Ukraine's economic growth has been uneven since the country's independence in 1991; this mainly reflects high levels of vulnerability to external shocks as well as significant structural challenges in the domestic economy that have limited growth.** During the 2000-2007 period, Ukraine sustained high annual growth rates of 7 percent on average. Capital inflows surged, and credit growth boomed, fueled by the external borrowing of commercial banks. This enabled an expansionary fiscal policy that resulted in the accumulation of a structural deficit. Growth was almost entirely driven by favorable external conditions but was not supported by structural reforms. With the onset of the global financial crisis, the Ukrainian economy suffered a sharp contraction of 15 percent in 2009. The subsequent recovery was cut short by the Maidan Revolution of 2013/2014, which together with the events in Crimea and Sevastopol in March 2014, and the armed conflict in the east of the country beginning in 2014, resulted in a prolonged severe recession. Between 2013-2015, the economy contracted by a cumulative 15.6 percent. The Government of Ukraine (GoU) subsequently undertook a series of macroeconomic, institutional and business environment-related reforms that helped stabilize the economy, with gross domestic product (GDP) growth resuming in 2016. However, the pace of economic recovery has been modest, with growth averaging just 2.8 percent annually between 2016-2019.

2. **Ukraine's reforms since 2017 helped strengthen Ukraine's resilience to the COVID-19 crisis but growth is expected to remain modest in light of the crisis.** The economic outlook at the beginning of the crisis was bleak, with the economy expected to contract by 7.8 percent, partially affected by a projected 50 percent decline in remittances. However, the lockdown lasted only from mid-March to early May 2020 and has been replaced by an adaptive quarantine that has enabled many services (except passenger transport) to return to normal functioning, thereby boosting domestic demand. Domestic demand has also been supported by a recovery in real wages, which grew by 4.8 percent Year-Over-Year (YoY) since June 2020 and by continued remittance inflows (remittances are down only 10 percent YoY). The economy is now expected to contract by 5.5 percent in 2020 as domestic demand recovers and reflecting a positive contribution from net exports. Growth is expected to remain modest at 1.5 percent in 2021, rising to about 3.7 percent by 2023. The outlook depends on the duration of the health crisis, as, despite the government's early and robust measures, the incidence of COVID-19 infections increased dramatically over the summer months, with new cases climbing from 1,250 per day in July 2020 to more than 3,000 by mid-September 2020, with total deaths nearing 3,500.

3. **Following the imposition of a full-scale lock-down and early travel restrictions, the GoU was in a position to implement various programs of support to address the crisis.** The authorities set up a COVID-19 stabilization fund, which has helped provide urgently needed resources for health and social protection activities. To address the plight of the 120,000 people who have submitted new unemployment claims (reflecting a 28 percent increase in the total number of unemployed), the floor for unemployment benefits has been increased for applicants whose employment history does not qualify them for a full benefit. The Government has also increased access to a number of social support programs, such as household utilities subsidies and aid to families with children. Further, the GoU introduced a one-off pension increase to low-income pensioners and a regular monthly pension top-up for retirees aged 80 years or more.

4. **Poverty rates vary across the country.** Moderate poverty (according to the World Bank's national methodology for Ukraine) declined from a peak of 27 percent during the crisis in 2015 to 20 percent in 2018 and an estimated 18 percent in 2019.<sup>1</sup> Despite the decline, it remains above the pre-crisis level of 14 percent in 2013, with the prospect of

<sup>1</sup> Figures for 2018-19 are projected based on Household Living Conditions Survey-2016 data, assuming equal growth for all parts of the



increases due to COVID-19. Moderate poverty remains higher in rural areas (28.5 percent versus 15.5 percent in urban areas in 2018), where local communities face challenges such as poor living conditions, outdated infrastructure, and limited public services provision.

5. **Prior to the COVID-19 crisis, the conflict in Eastern Ukraine had impacted the lives and livelihoods of over five million Ukrainians through damage to infrastructure, interruption of markets and services, restrictions of movement, loss of employment, and psychosocial impacts.** The total number of conflict-related casualties from April 14, 2014 through February 15, 2020 is estimated at 41,000 – 44,000, including 13,000 – 13,200 killed according to reporting by the Office of the United Nations High Commissioner for Human Rights.<sup>2</sup> As of May 18, 2020, 2.7 million persons have been displaced due to the conflict, including 1.4 million registered internally displaced persons (IDPs).<sup>3</sup> Despite the extension of the ceasefire agreement in February 2015 (Minsk II), the security situation remains volatile, with daily hostilities occurring along the contact line separating Government of Ukraine-Controlled Areas (GCAs) and Non-Government of Ukraine-Controlled areas (NGCAs) in Eastern Ukraine (see Figure 1).

6. **The conflict has severely impacted socioeconomic activity in Ukraine's eastern industrial heartland of Donetsk and Luhansk Oblasts.** Prior to the conflict, these areas (referred to in this Project Appraisal Document as “the Donbas”) accounted for 12.5 percent of Ukraine's population and generated 15.7 percent of the country's total GDP and a quarter of its exports. Because of the conflict, an estimated 70 percent of enterprises in the Donbas have reported decreased investment and revenues, disrupted trade relationships, lack of demand for products, and shrinking workforces.<sup>4</sup> Inflows of internally displaced persons due to the conflict have put an additional strain on local resources and services in host communities. A World Bank survey of the socioeconomic impacts of the conflict in 2017 highlighted the welfare and socioeconomic challenges facing IDPs, veterans, and host communities.<sup>5</sup>

7. **These vulnerabilities are now compounded by the impacts of the COVID-19 pandemic in Eastern Ukraine.** As of October 7, 2020, the number of COVID-19 cases in the Luhansk and Donetsk Oblast GCAs stands at 6,218, a relatively small portion of overall cases in Ukraine (239,337).<sup>6</sup> However, the three-month closure of entry and exits points along the contact line combined with quarantine measures has exacerbated underlying vulnerability and socio-economic

distribution.

<sup>2</sup> Office of the United Nations High Commissioner for Human Rights. *Report on the Human Rights Situation in Ukraine, 16 November 2019 to 15 February 2020*. [https://www.ohchr.org/Documents/Countries/UA/29thReportUkraine\\_EN.pdf](https://www.ohchr.org/Documents/Countries/UA/29thReportUkraine_EN.pdf). Retrieved 12 March 2020.

<sup>3</sup> Unified Information Database on IDPs. <https://www.msp.gov.ua/news/18668.html>.

<sup>4</sup> REACH. 2017. *Thematic Assessment of Livelihoods in Donbas*. <http://www.reachresourcecentre.info>.

<sup>5</sup> World Bank. 2017. *Ukraine: Socio-Economic Impacts of Internal Displacement and Veteran Return*.

<sup>6</sup> Ministry of Health of Ukraine, on the spread of coronavirus infection accessed October 7, 2020: 2019-nCoV <https://moz.gov.ua/article/news/operativna-informacija-pro-poshirennja-koronavirusnoi-infekcii-2019-ncov2>.

Figure 1: Government and Non-Government Controlled Areas



Source: UN Humanitarian Response Plan 2019.



challenges. The official pre-quarantine unemployment rate in the Luhansk and Donetsk Oblast GCAs was two times higher than the average for the country, and the lack of economic opportunity and resilience in the regional economy is further hampered by COVID-19 disruptions.<sup>7</sup> In Donetsk Oblast GCAs, 15,000 newly unemployed people were registered as of April 2020, 42 per cent higher than the same period in 2019. Almost one-third of businesses in Eastern Ukraine GCAs did not re-open after the easing of COVID-19-related restrictions in mid-May 2020.<sup>8</sup> Access to pensions, administrative and social services, and food security in the region have also been impacted by COVID-19 restrictions.<sup>9</sup>

8. **The Donbas economy was in decline before the onset of the conflict, characterized by inefficiencies in state-owned enterprises and lack of investment that required significant government subsidies to the region.** In 2013, total net subsidies to the Donbas was valued at US\$2.9 billion or 17 percent of the region's GDP. These subsidies have kept the region on life support but have delayed a transformation of the industrial economy towards new drivers of economic growth. The Donbas also suffers from macroeconomic vulnerabilities that are impacting the rest of the country, including high inflation and currency depreciation, a fragile banking system, poor access to credit, and business regulations unfavorable to investment. Levels of trust in local institutions, citizen perceptions of the accountability of government institutions, and support for reforms in the Donbas are also among the lowest in Ukraine.

9. **Since taking office in May 2019, Ukrainian President Volodymyr Zelenskyy has made outreach and development support to Eastern Ukraine a key policy priority, emphasizing socioeconomic integration of the region.** The Luhansk Oblast GCAs are proposed as the geographic focus for this initial World Bank investment in Eastern Ukraine because of the acute lack of connectivity and economic opportunities in the region compared to other conflict-affected areas. This investment will also complement and leverage other international partner funding for recovery efforts in Eastern Ukraine, including programs financed by the European Investment Bank (EIB), the German state-owned development bank (KfW), European Union (EU), United Nations (UN), the United States Agency for International Development (USAID), the Governments of France, the United Kingdom, Canada, Sweden and several other bilateral donors (see paragraph 58). The project also promotes economic recovery of the region that responds to the expressed needs of local populations and focuses on agricultural development in line with the Bank's broader support for Ukraine's land and agricultural sector reform agenda as a future engine of economic growth.<sup>10</sup>

## B. Sectoral and Institutional Context

10. **Economic impacts of the conflict have been among the most acute in Luhansk Oblast GCAs.** With the outbreak of conflict and the division of the oblast into GCAs and NGCAs, the Oblast's rural and agricultural north was separated from its industrialized and more urbanized south. Out of a pre-conflict population of 1.5 million people, the Luhansk Oblast GCAs now have an estimated population of 692,000 people. Twenty-two of the region's 34 cities, including Luhansk City as the oblast regional center, are now located in the NGCAs. An estimated 84 percent of the industrial capacity and 81 percent of all jobs in Luhansk Oblast have been left outside of the GCAs. Unemployment in the GCAs reached 17.5 percent among working age individuals in 2018, the highest of any oblast,<sup>11</sup> and the region has experienced

<sup>7</sup> United Nations Office for the Coordination of Humanitarian Affairs. *Ukraine Humanitarian Impact of COVID-19: Situation Report No. 3 as of May 11, 2020*.

<sup>8</sup> United Nations Office for the Coordination of Humanitarian Affairs. *Ukraine Humanitarian Impact of COVID-19: Situation Report No. 4 as of June 3, 2020*.

<sup>9</sup> REACH. *Ukraine Humanitarian Update*. September, 2020.

<sup>10</sup> Smits, Karlis, Edgardo M. Favaro, Anastasia Golovach, Faruk Khan, Donald F. Larson, Kateryna Goychuk Schroeder, Gabriela Schmidt, Oleg Nivievskyi, Eugeniu Osmochescu, Hanna Ponomarenko, Jesus Crespo Cuaresma, Harald Oberhofer, Yevhen Hrebenuk, and Colin Christopher Ek. 2019. *Ukraine Growth Study Final Document: Faster, Lasting and Kinder (English)*. Washington, DC: World Bank Group.

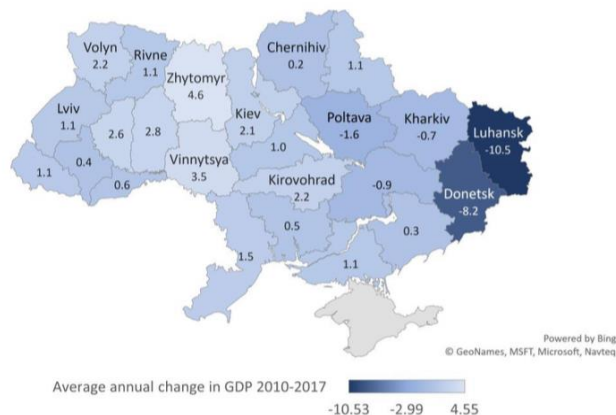
<sup>11</sup> ILO (International Labour Organization). *Unemployment Data by Region*, 2018.



the sharpest decline of any oblast in GDP between 2010-2017 (see Figure 2). While outmigration from Luhansk Oblast averaged 4,000 to 6,000 individuals per year during the 2008-2013 pre-conflict period, it has since increased to more than 13,000 people per year.<sup>12</sup>

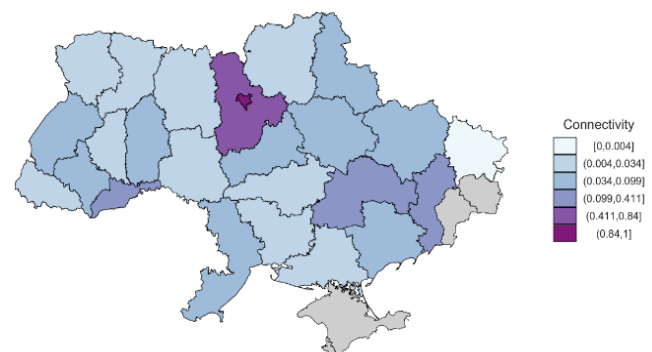
**11. Luhansk Oblast GCAs also face severe connectivity challenges and lack a quality transport system to serve as the backbone of the regional economy.** Before 2017, the financial and institutional arrangements in Ukraine's road sector created a large backlog of periodic maintenance and rehabilitation. The shortage of funding, combined with recorded cases of overweight trucks, has resulted in premature deterioration of the network. From 2011 to 2016, the share of national roads in poor condition (with an International Roughness Index (IRI) > 6) increased from 5 to 17 percent. Ukraine is also currently ranked 66<sup>th</sup> of a total of 160 countries in the World Bank's 2018 Logistics Performance Index<sup>13</sup> and lags behind the best performers in the region and all EU member states. For Luhansk Oblast, connectivity and logistical challenges are particularly acute. In a national comparison, the Luhansk Oblast GCAs ranked as having the lowest connectivity level, based on its low proportion of roads per square kilometer and the limited access of its cities to major national markets (see Figure 3). Major upgrading of the regional road network has not been undertaken since the 1980s. The transport system in Luhansk Oblast GCAs has also been severely impacted by the interruption of rail lines and road networks due to the conflict, resulting in an increase in trucks (possibly overweight) transporting products over long distances. The average IRI on the network in Luhansk Oblast GCAs in 2017 was approximately 6.54, well above the national average of 3.2.

Figure 2: Average Annual Change in GDP (2010-2017)



Source: World Bank. 2019. *Ukraine Growth Study*.

Figure 3: Connectivity Index - Ukraine



Note: Sum of connectivity indicators: road density and market accessibility. A higher value/darker color represents better connectivity. Source: Based on OpenStreetMap and Google API data. March 2020.

**12. The long-term industrial decline and the recent conflict have increased the prominence of the agricultural sector in the Luhansk Oblast GCA economy and its importance to rural livelihoods.** Before the conflict, the share of agriculture in the regional economy was about 10 percent and about 10 percent of the labor force was employed in the sector. Today, about 76 percent (or 1.5 million hectares) of the total agricultural land of the Donbas is located in the GCAs of Luhansk Oblast, with a growing percentage of workers employed in the agricultural sector.<sup>14</sup> In the majority of Luhansk Oblast GCA districts, agriculture is the leading economic activity and sector of employment. In 2018, 23 percent

<sup>12</sup> Ukraine State Statistics Agency. Accessed November 2019.

<sup>13</sup> <https://lpi.worldbank.org/international/global>.

<sup>14</sup> United Nations Food and Agriculture Organization. 2018. *The Agriculture Sector in Eastern Ukraine: Analysis and Recommendations*. Rome.

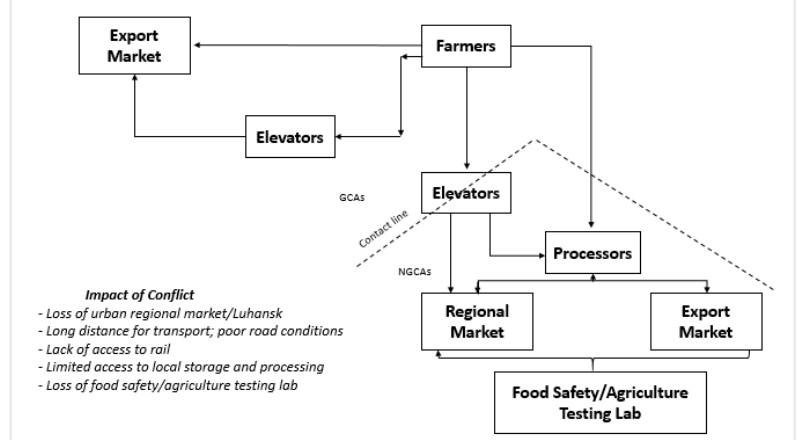




of new jobs created were in agriculture, more than any other sector.<sup>15</sup> As of 2018, a total of 964 agro-industrial enterprises and more than 45,200 officially registered private family farms were involved in agricultural production.<sup>16</sup> These family farms provide significant informal employment and support to rural livelihoods in the region. The sector remains critical because of its role as an employer of last resort and its importance for livelihoods for the rural population in the region. Luhansk Oblast's regional development strategy highlights agricultural development as a key objective, including increasing productivity and efficiency and facilitating processing and access to markets. The project's focus on agricultural development in Eastern Ukraine also aligns with the Bank's broader support for Ukraine's land and agricultural reform agenda as a future engine of Ukraine's economic growth and development. Finally, interventions in the agricultural sector, such as the provision of public services, the introduction of new technologies, and the development of value chains, are likely to be more efficient and cost effective for recovery than focusing on the restructuring or reconstruction of the former and now uncompetitive industrial sector.

13. **However, the conflict has resulted in significant negative impacts on agricultural supply and value chains in the region.** Cereal and oil seed production has remained by far the most important agricultural activity, with 57 percent of arable land cultivated with cereals and sunflowers. Prior to the conflict, Luhansk Oblast relied on the Luhansk-Valuyki railway and road connections for the transportation of agricultural goods. Commodity flows have now been reoriented westward towards the Kharkiv Oblast via longer, poorer quality road connections that have increased the required road haulage distance by an average of 65 kilometers. In 2018, transport costs for commodities increased by UAH 140-190 per ton of cargo, which has impacted profitability and income.<sup>17</sup> The resulting increased truck traffic has hastened the deterioration of the oblast's primary and secondary road network. In addition, many of the large-scale grain and oil storage (elevators), processing, and logistical facilities, and most of the food processing industry and modern laboratory testing facilities are now located in the NGCAs and are therefore inaccessible (see Figure 4). Production costs have also increased because of higher prices for the import and transportation of agricultural inputs, such as fuel and lubricants, seeds, and fertilizers.

Figure 4: Conflict Impacts on the Agriculture Sector in Luhansk Oblast



14. **Subsistence farming is widespread in the Luhansk Oblast GCAs and is critical in supporting basic livelihoods in rural areas.** However, due to the conflict, small and household-level farmers that produce vegetables, fruits, dairy products, and meat have lost access to traders and sellers that function as aggregators of products and to the urban markets of the Luhansk Oblast NGCAs, which accounted for over half of the oblast's pre-conflict population. These producers now also face challenges because of the lack of access and investments in on-farm innovation and technology;

<sup>15</sup> United Nations Peacebuilding and Reconstruction Program. 2018. *Comprehensive Analysis of the Regional Labor Market and the State Employment Service and Their Impact on the Vocational Education System in Luhansk Region*.

<sup>16</sup> Luhansk Oblast Regional Administration. 2016. *Regional Development Strategy for the Period Until 2020*. Severodonetsk. [https://www.ua.undp.org/content/dam/ukraine/docs/Donbas/RPP/Luhansk-reg-dev-strategy\\_ENG-14-06-2017.pdf](https://www.ua.undp.org/content/dam/ukraine/docs/Donbas/RPP/Luhansk-reg-dev-strategy_ENG-14-06-2017.pdf).

<sup>17</sup> USAID (United States Agency for International Development). November 2019. Economic Recovery Program/Luhansk Oblast.

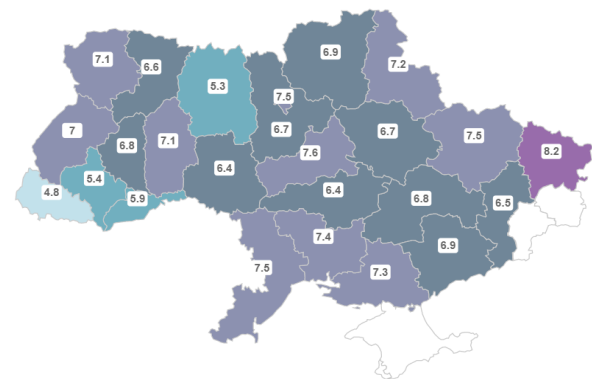


limited storage, laboratory services, and processing facilities; and poor access to financing programs in GCAs that would allow them to transition from subsistence level to more market-oriented production.

15. **The conflict has also isolated rural communities in the GCAs from service centers located in urban areas in the NGCAs, particularly Luhansk City.** For example, insecurity and curtailed access to referral hospitals and pharmacies have undermined the existing healthcare system's ability to cope with both new and preexisting healthcare needs, especially for people living in rural areas and along the contact line.<sup>18</sup> This is particularly relevant as health care systems are further stressed by COVID-19 response. Education services have also been impacted by the conflict, with distance, the poor quality and quantity of teaching staff, school fees, and overcrowded classes being of primary concern to current residents. Service delivery deficits contribute to high levels of outmigration and an inability to attract professionals to the oblast's hub communities and rural towns.<sup>19</sup>

16. **Levels of trust in local institutions and citizen perceptions of the accountability of government institutions in Luhansk Oblast GCAs are among the lowest in Ukraine and continue to decrease.** In 2019, surveys showed that only 21 percent of Luhansk Oblast GCA citizens thought local authorities were attentive to the needs of ordinary people; only 27 percent of respondents thought central and local authorities represented their concerns and views; and only 25 percent thought central authorities cared equally about all parts of Ukraine.<sup>20</sup> Support for Ukraine's national reform agenda is well below the national average, and Luhansk Oblast GCAs have the lowest level of satisfaction with infrastructure. The level of civic fatigue (disillusionment and disappointment), a key measure that correlates negatively with support for reforms, economic status, and openness to dialogue, is the highest in the country (see Figure 5). The geographic isolation of the Luhansk Oblast GCAs, the chronically low levels of government engagement and investment in recovery efforts since 2014, and the proximity to the ongoing conflict all contribute to the strong sense of vulnerability, isolation, and abandonment in the region.<sup>21</sup>

Figure 5: Civic Fatigue due to Conflict



Source: SeeD. SCORE 2019.

17. **The GoU's decentralization reforms seek to devolve service delivery and budgetary authority to the subnational level to promote local ownership and greater efficiency in spending, but decentralization in the Luhansk Oblast GCAs has proceeded more slowly than elsewhere in Ukraine.** New legislation in 2014 and 2015 enabled the amalgamation of adjoining villages within oblasts into new Amalgamated Territorial Communities.<sup>22</sup> Only nine areas in Luhansk Oblast GCAs have amalgamated, well behind the pace of decentralization elsewhere in the country. Factors such as the oblast's administration being occupied with managing the impacts of the conflict, insecurity near the contact

<sup>18</sup> UNHCR (Health Cluster). July 2019. *Exploring Access to Health Care in Ukraine*.

<sup>19</sup> REACH. 2018. *Multi-Sector Needs Assessment*.

<sup>20</sup> SeeD (Centre for Sustainable Peace and Democratic Development). Social Cohesion and Reconciliation (SCORE) Index frequency data for Donetsk and Luhansk (2019).

<sup>21</sup> This section drawn from SeeD's Ukraine survey work in 2018 and 2019. Survey data at [www.scoreforpeace.org](http://www.scoreforpeace.org).

<sup>22</sup> The primary problem that Ukraine's 2014 Concept for Local Government Reform sought to address was that the country's 12,000 villages, averaging 1,500 inhabitants each, were too small to provide proper public services and promote economic development, especially in rural areas.





line, and a general lack of trust in government institutions have undermined the voluntary amalgamation process and left communities with limited capacity for investment planning.

18. **Youth, IDPs, and veterans in Luhansk Oblast GCAs face particular development challenges.** Among the average of 13,000 individuals that migrate from the GCAs each year, 67 percent are under 28 years of age, driven by limited opportunities for civic engagement, limited prospects for well-paying employment, and concern over poor social infrastructure for young families.<sup>23</sup> Luhansk Oblast GCAs rank second to Donetsk Oblast GCAs in the number of IDPs per oblast, with over 270,000 people officially registered. Tensions with host communities are low, however, and IDPs are well represented among employees of public service institutions. Yet IDPs face difficulties in accessing land, obtaining satisfactory housing, and joining established agricultural networks within the GCAs of Luhansk Oblast. Most IDPs have skills in engineering, processing, and other mechanical or technical trades that they acquired in their home areas, which are now in NGCAs. Military veterans in Luhansk Oblast GCAs, as elsewhere, have to contend with unemployment and difficult transitions to civilian life, lack of psychosocial and rehabilitation support, long absences from farming and assets (if they were farmers previously), and difficulty accessing and securing their benefit entitlements.<sup>24</sup>

19. **The conflict has exacerbated gender gaps, particularly for rural women.** With men being predominantly engaged in military operations, women have taken on greater responsibilities for household affairs, with many becoming sole caregivers for their families, the elderly, and the disabled.<sup>25</sup> Female pensioners, women IDPs, and female-headed households with young children are particularly vulnerable to the conflict-induced social disruption prevalent throughout Luhansk Oblast GCAs.<sup>26</sup> Poor road conditions and the resulting longer commutes via personal vehicles as well as limited and neglected public transport systems also disproportionately disadvantages rural women's mobility in the region and their access to employment, healthcare, childcare, and other public services. Poor mobility also constrains women's access to more diverse employment opportunities and more lucrative markets.<sup>27</sup> Women face the twin disadvantages of added domestic responsibilities with constraints on professional and home-based income generation. Many women in rural Luhansk Oblast GCAs are engaged in agricultural production at a small-scale or household level. However, the supplementary income and food security gained from farming activities is limited by poor access to markets, limited productive inputs (both advisory and technological), and lack of access to information and skills development around value chain development and value-added production.<sup>28</sup>

20. **Eastern Ukraine also faces significant climactic risks that are exacerbated by the conflict.** Eastern Ukraine is particularly vulnerable to climate change,<sup>29</sup> and instability and insecurity limits the implementation of climate mitigation measures and adaptation. Climate change projections for Eastern Ukraine indicate an increase in extreme temperatures, extreme precipitation and flooding, droughts, heavy winds, and hazards such as biodiversity loss, soil and wind erosion, desertification, reduction of agricultural land, natural disasters, and increasing numbers of wildfires. These changes increase the risk of damage to road assets and more weather-related accidents, and pose a risk to certain crops, requiring investments in adaptation, i.e. irrigation technologies and temperature change resistant species. Ukraine has

<sup>23</sup> SCORE data (2019) for driver identification. See Ukraine State Statistics Agency for outmigration figures, 2018-2019.

<sup>24</sup> World Bank. 2017. *Ukraine: Socio-Economic Impacts of Internal Displacement and Veteran Return*.

<sup>25</sup> Spear, A., Kokanova, N., Magduyk, L., Dadalauri, N., Buzu., and Engvall, L. 2016. *Gender analysis of the EU AA/DCFTAs with Georgia, Moldova and Ukraine*. Sweden International Development Agency Publication. p. 60.

<sup>26</sup> Focus group discussions as part of a WB *Rapid Gender Assessment for Luhansk Oblast GCAs* during project preparation, February 2020.

<sup>27</sup> National official labor force participation rates reflect these realities. Employment among Ukrainian women (47%) is lower than among men (63%). UNDP. 2019. *Human Development Report*.

<sup>28</sup> United Nations Country Team – Gender Theme Group. 2018. *Leaving No One Behind: Rural Women and Girls*. <http://www.un.org.ua/images/documents/4302/FACTSHEET%20IWD%20ENG.pdf>.

<sup>29</sup> OSCE. 2016. *Climate Change and Security in Eastern Europe*. <https://www.osce.org/secretariat/355496?download=true>.



identified agriculture, water resources, energy, transportation, health, the urban environment and forests, and coastal zone management as key adaptation priorities.<sup>30</sup> The project will address adaptation priorities primarily through strengthening climate resilience of the road network infrastructure and, on a smaller scale, agricultural production through promoting more efficient resource use and climate-smart agricultural practices. The project will also result in a reduction of greenhouse gas emissions, contributing to climate change mitigation action, and supports Ukraine to meet its national commitments on climate change.<sup>31</sup>

### C. Relevance to Higher Level Objectives

#### Relationship to Borrower Strategy and Priorities

21. **The proposed Eastern Ukraine: Reconnect, Recover, Revitalize (3R) Project aligns with GoU priority efforts to support the socioeconomic development of Eastern Ukraine.** In October 2019, the Presidential Administration held an investment forum in Mariupol City, which gathered over 700 participants, including high-level representatives from the GoU, private sector, international financial institutions (IFIs), and development partners to call for investment, infrastructure development, and economic opportunity in conflict-affected regions. The Cabinet of Ministers of Ukraine - Action Program (October 2019) includes a focus on enhanced services, employment opportunities, and support to conflict-affected populations. The project also aligns with the Luhansk Regional Development Strategy through 2020<sup>32</sup> as well as local/rayon level plans through its focus on support for agricultural and transport sector development as drivers of economic opportunity and growth in the region.

#### Relationship to CPF and World Bank Portfolio

22. **The 3R Project is consistent with the World Bank's Country Partnership Framework (CPF) 2017-2021<sup>33</sup>, which focuses on supporting Ukraine to move forward its ambitious reform agenda to achieve economic recovery, development, and growth.** The project pursues an area-based approach that supports the CPF's Focus Area 3: Effective Services and Targeted Assistance/targeted support to conflict-affected populations. The project also contributes to achievement of CPF cross-cutting issues such as public administration reform and citizen engagement. The design of the project, including its focus on transport and agriculture, builds on the World Bank's national portfolio of investments (for example, Accelerating Private Investment in Agriculture Program (P166941) and Road Sector Development Project (P149322)) and sector knowledge, as well as the Bank's support for land reform and the opening of the land market. The 3R Project is also consistent with the World Bank Group Strategy for Fragility, Conflict, and Violence 2020–2025, which commits the WBG to “increase the effectiveness of its development support to both low- and middle-income countries that are dealing with diverse challenges across the FCV spectrum, including subnational conflict.”<sup>34</sup>

<sup>30</sup> World Bank Climate Change Knowledge Portal. 2020. Ukraine: <https://climateknowledgeportal.worldbank.org/country/ukraine>.

<sup>31</sup> National commitments on climate change are reflected in the “National Communication on Climate Change” and under the Paris Climate Agreement. Ukraine has also communicated its post-2020 climate actions through a National Determined Contribution. Under the National Determined Contribution, Ukraine has committed to not exceed 60% of 1990 greenhouse gas emissions level in 2030. The first TNA (Technological Needs Assessment) report from Ukraine, prioritizing technologies for climate change mitigation, was published in July 2019 and will influence the new National Determined Contribution to be revised in 2020.

<sup>32</sup> Luhansk Oblast Regional Administration. 2016. *Regional Development Strategy for the Period Until 2020*. Severodonetsk. [https://www.ua.undp.org/content/dam/ukraine/docs/Donbas/RPP/Luhansk-reg-dev-strategy\\_ENG-14-06-2017.pdf](https://www.ua.undp.org/content/dam/ukraine/docs/Donbas/RPP/Luhansk-reg-dev-strategy_ENG-14-06-2017.pdf).

<sup>33</sup> International Bank for Reconstruction and Development, International Finance Corporation, and Multilateral Investment Guarantee Agency. *Country Partnership Framework for Ukraine for the Period FY17-FY21*. June 20, 2017. Report No. 114516-UA.

<sup>34</sup> World Bank. 2020. *World Bank Group Strategy for Fragility, Conflict, and Violence 2020–2025 (Vol. 2): Executive Summary (English)*. Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/832821582824032543/Executive-Summary>.



23. **The project builds on the World Bank's support to the GoU since 2014 to diagnose socioeconomic impacts and promote development solutions to the conflict.** The Bank initiated its engagement as a coauthor, alongside the UN and the EU, of the Recovery and Peacebuilding Assessment for Eastern Ukraine (RPBA), which was co-led by the World Bank's Fragility, Conflict and Violence (FCV) Group and Social Development Global Practice, and was adopted by the GoU in August 2015. Based on RPBA results, the Bank launched the Conflict Response and Recovery Pilot and Capacity Building Project (US\$3.6 million) financed by the FCV Group's State- and Peace-building Fund and designed a World-Bank Administered Multi-Partner Trust Fund on Peacebuilding and Recovery (MPTF) (US\$2.07 million). Trust fund financing has supported analytics, technical assistance and capacity building support to a new national Ministry focused on reintegration and recovery efforts, and pilot programming in Eastern Ukraine to address the needs of IDPs, veterans, and host communities. In addition, the MPTF is supporting a current Study on Economic Recovery of Eastern Ukraine to generate evidence-based policies and recommendations to promote mid- to longer-term development and growth of the region; results of the study will inform priorities for future investments in the region.

#### Relationship to WBG's COVID-19 Response

24. **The Bank's program of assistance to Ukraine since the outbreak of the pandemic has been adjusted in line with the WBG COVID-19 Crisis Response Approach Paper, *Saving Lives, Scaling-up Impact and Getting Back on Track*.** The current CPF is being adjusted in two ways: first, to support the country in managing the ongoing health, social and economic crisis; and second, to strengthen the institutional foundations for an inclusive and sustainable longer-term recovery. This includes:

- (a) ***Saving lives threatened by the virus.*** Additional Financing for the Serving People, Improving Health Project (P170740; US\$135 million) includes US\$35 million for COVID-19 response. In addition, the original project (US\$215 million) was restructured to allocate a further US\$22 million to COVID-19 response. The project is financing COVID-19 care, laboratory equipment, testing and relevant technical assistance.
- (b) ***Protecting the poor and vulnerable.*** A second Additional Financing under the ongoing Social Safety Nets Modernization project (P170563; US\$150 million) is helping support Ukraine's emergency response, ensuring larger amounts and faster disbursement of cash transfers via the country's Guaranteed Minimum Income and Housing and Utilities Subsidy programs. The First Economic Recovery Development Policy Loan (ER-DPL) (P172597; US\$350 million) supports further strengthening of the social assistance programs to respond to needs exacerbated by the crisis. The proposed second Economic Recovery DPL under discussion could include prior actions designed to strengthen social protection targeting those most affected by the crisis. This DPL would, in turn, be expected to be further complemented by a second additional financing of the existing, well-performing Safety Nets project. Finally, this proposed 3R Project (P172348; US\$100 million) includes Ukraine's first Contingent Emergent Response Component (CERC) to provide a flexible mechanism that could support vulnerable populations, including in Eastern Ukraine, to respond to the crisis.
- (c) ***Ensuring sustainable business growth and job creation.*** Land reform will be foundational for Ukraine's economic recovery, and its success can add at least one percentage point to the growth rate over the medium term. Fiscal Year 2021 and 2022 (FY21/FY22) pipeline projects under preparation will be refined to boost business growth and job creation. For instance, two energy sector operations will aim to help strengthen the foundations for economic recovery, especially for the private sector, through improving energy security and system reliability. This proposed 3R Project will support local economic recovery in conflict-affected Eastern Ukraine through engagement of vulnerable rural households in agricultural activities, short-term job creation through construction works, and support for agricultural sector reforms to help safe resumption of market activity as



COVID-19 control measures are implemented. IFC will continue promoting crop receipts as pre-harvest financing instrument for small and medium-sized farmers. IFC, in cooperation with IBRD, also will further promote the development of financing instruments, inclusive of partial credit guarantees and risk sharing facilities, to create a market for added value agricultural products.

- (d) ***Strengthening policies, institutions, and investment for rebuilding better.*** To ensure sustained recovery, the Bank is deepening support to strengthening key economic institutions. Beyond institutions supporting a transparent, inclusive and efficient land market, the first ER-DPL reinforced policies to de-monopolize the gas sector and strengthen the concessions framework, to help increase private participation in infrastructure development. It supported key anti-corruption institutions, including the National Agency of Corruption Prevention, and helped restore liability for illicit enrichment. And it helped strengthen the pension system to improve the predictability and sustainability of pension benefits for those most at risk to be impacted by COVID-19. A higher education project in the pipeline for FY21 aims to deepen Ukraine's human capital investments by supporting improved education quality and financial stability, with design adjustments under discussion to improve system preparedness for remote/online learning as well as specific issues to respond to COVID-19, such as accelerated training of health professionals.

25. **The Government of Ukraine is closely coordinating its COVID-19 response with the Bank and other international partners.** There has also been strong coordination among Ukraine's international partners to ensure the consolidation of key structural reforms essential for economic recovery. In this context, in June 2020, the International Monetary Fund (IMF) Executive Board approved an 18-month US\$5 billion Stand-By Arrangement for Ukraine to help Ukraine to cope with COVID-19 pandemic challenges by providing balance of payments and budget support, while safeguarding achievements to date, including around anti-corruption institutions, and advancing a small set of key structural reforms. The Bank is coordinating closely with the IMF on policy actions and overall progress with supporting reforms in Ukraine. The European Commission, on behalf of the EU, has approved the disbursement of a EUR 500 million loan to Ukraine as part of its fourth macro-financial assistance (MFA) program. The Additional Financing for the Health project (P170740) will finance procurement of needed materials and equipment for the COVID-19 response through United Nations agencies. These contracts will also include essential capacity-building and communications assistance related to COVID-19 activities.

## **II. PROJECT DESCRIPTION**

### **A. Project Development Objective**

#### **Project Development Objective Statement**

The Project Development Objective (PDO) is to improve transport connectivity and promote agricultural sector recovery in project areas with the active engagement of conflict-affected communities.

#### **PDO Level Indicators**

- Enhanced mobility: travel time between rural areas and service centers/markets in Luhansk Oblast GCAs
- Percentage of beneficiaries of agri-hub and agricultural cluster investments reporting increased profits and/or improved access to new technologies due to project interventions (disaggregated by type and size of producer, women-headed enterprises)



- Cumulative number of users of agricultural testing and food safety services provided by the project (disaggregated by type of service provided, type and size of user)
- Percentage of target beneficiaries who report that the design/operation of infrastructure investments financed by the project reflect their inputs (disaggregated by gender)

## B. Project Cost and Financing

26. **The World Bank will provide a loan in the amount of US\$100 million to finance the 3R Project.** This will be complemented by a separate loan from the EIB in the amount of EUR 100 million for transport investments in the region. The EIB plans to bring its project to its Board of Directors for approval by November 2020. The GoU will also finance complementary transport investments in an amount no less than US\$20 million (see Table 1).

*Table 1: Summary of Investments (US\$, million)*

Project Component	3R Project	Complementary investments		Total
	WB*	EIB	GoU	
Component 1: RECONNECT - Road Investments to Link Rural Communities to Processing, Markets, and Services	65.0	120.0**	20.0	205.0
Component 2: RECOVER - Agriculture Investments to Support Sector Recovery and Modernization	32.0			32.0
Component 3: REVITALIZE - Implementation Support Platform	3.0			3.0
Component 4: Contingent Emergency Response Component (CERC)	0.0			0.0
Total	100.0*	120.0	20.0	240.0

\*The amounts indicated in Table 1 do not account for the front-end fee amounting to 0.25% of the Loan amount or US\$ 250,000, out of which US\$ 160,000 is allocated from Category 1 and US\$ 90,000 is allocated from Category 2 of Loan proceeds.

\*\*Estimated amount in USD based on March 2020 exchange rate; to be confirmed based on final approval of EIB's project.

## C. Project Components

27. **The 3R Project reinforces the GoU's national commitment to recovery and development of Eastern Ukraine and highlights the benefits of socioeconomic connectivity.** With industrial losses in the Donbas, the project's multisectoral investments aim to promote agricultural sector development in rural areas of Luhansk Oblast GCAs that will stimulate future growth and opportunity in the region, while promoting constructive opportunities for citizen and government engagement on local challenges. Project design reflects intensive stakeholder dialogues undertaken during project preparation with national, regional, and local officials, agro-industry representatives, diverse agricultural producers, agricultural communities, women, IDPs, veterans, and youth in project areas. The project includes activities across all project components to help build confidence in conflict-affected communities around national and local government action to support recovery efforts. In light of the 2019-2020 outbreak of the COVID-19 pandemic, as well as the continued conflict in Eastern Ukraine, the project also includes a contingent component that allows flexible and rapid access to project funds for emergency response, including to support vulnerable populations in Eastern Ukraine.

28. The 3R Project includes the following components and subcomponents:





29. **Component 1: RECONNECT - Road Investments to Link Rural Communities to Processing, Markets, and Services (US\$65 million, Ukravtodor).** Component 1 will provide support to: (a) rehabilitate roads in Luhansk Oblast GCAs in support of the agricultural sector; and (b) connect rural communities to urban service centers in Luhansk Oblast GCAs. Poor and deteriorating local roads have been a key bottleneck to agricultural logistics and supply chains and the broader development of the region. The component prioritizes support to road investments that link farmers to processors, markets, and service centers in Luhansk Oblast GCAs. The component will also include activities to improve government-community engagement around road use, road safety measures, and development of feeder roads to the network.

30. **Subcomponent 1A: Road rehabilitation of the target road network in Luhansk Oblast GCAs (US\$63 million).** This subcomponent will finance rehabilitation of key segments of the road network to integrate agricultural areas of Luhansk Oblast GCAs with the core national road network of Ukraine and the EU extended Trans-European Transport Network. The project has identified road rehabilitation investments in the agricultural and services triangle and nearby agricultural areas, which include Starobilsk rayon, the agricultural center of the Luhansk Oblast GCAs and home to their largest grain storage center; Svatove rayon, which hosts Luhansk Oblast GCAs' only remaining railway hub and serves as a transport point for agricultural goods and a gateway to markets in the rest of Ukraine and abroad; and Severodonetsk City, the primary service hub and de-facto capital of the Luhansk Oblast GCAs, with the potential for agro-industrial growth, and where the majority of IDPs in Luhansk Oblast GCAs are registered (see project map in Annex 1). Road investments will also extend to northern Troitske rayon, a key agricultural area in northern Luhansk Oblast GCAs, which has some of the oblast's most damaged roads.

31. The project will be selective and focus on key road sections in poor condition and points where road safety interventions are needed (see Subcomponent 1B). The project will rehabilitate approximately 40 kilometers of selected sections of the N-26, R-66, and T-13-02 roads in the agricultural and services triangle. The road will be built to a category 2-3 standard, which is a two-lane road with safety measures, including side crash barriers, where required. The project will finance all necessary road infrastructure, such as bridges, interchanges, and railway crossings; safety measures; site supervision of civil works; and equipment. Additionally, for protection of the investments, the project will include installation of weigh-in-motion stations and additional safety equipment. Such tools were recently piloted under an ongoing World Bank transport project, and legislation has been approved for extending the stations and safety equipment throughout Ukraine. These system network management tools will both raise additional revenue for the sector and protect the assets through promoting weight and speed limits. Alongside these network management tools, Ukravtodor (UAD), Ukraine's national road agency, will also support road safety measures (see Subcomponent 1B) to prevent an increase in accidents on rehabilitated roads where vehicular speeds will increase. Climate resilient design standards will also be considered, including specific measures for pavement construction to be resilient to the extreme temperature ranges experienced between summer and winter in Ukraine, including the potential for green, nature-based solutions. The risk of flooding and heavy snowfall on roads will also be mitigated through water drainage and snow protection measures included in design studies. Road construction activities will utilize local labor, ensuring necessary social and physical distancing measures, from project areas to create short-term employment opportunities for local communities, targeting IDPs and veterans where possible. This will have the added benefit of addressing possible unemployment impacts associated with COVID-19 in the region.

32. **Subcomponent 1B: Technical assistance, capacity building, and community engagement on road investments (US\$500,000).** This subcomponent will aim to increase communication and dialogue between Ukravtodor, local governments, and communities in project areas around how to better utilize, manage, and sustain the road investments under Subcomponent 1A. This subcomponent also aligns with Ukraine's decentralization agenda, which includes the



devolution of local road budgets, management, and maintenance to the local level, and will enhance community inputs to decision making and monitoring of transport investments in project areas.

33. This subcomponent will target the local administrations and communities in project areas through a series of community engagement, technical assistance, and awareness-building activities. This will include: (a) a series of rayon-level participatory needs identification and planning processes with 3R communities on their priorities for service access and safety in relation to road investments, such as sidewalks, street lighting, bus shelters, junction improvements, pedestrian crossings, and public transportation system improvements. Community engagement will be gender sensitive and ensure women's priorities around mobility and road safety are addressed through road investments; (b) technical assistance support to local administrations, agricultural enterprises, and small farmers in project areas on routine maintenance and emergency repairs to local roads in agricultural areas. This will include trainings, trainer-of-trainer programs, workshops, and development of a handbook on methods for periodic maintenance and repair of low category network roads (including gravel roads). Given that farms in the region are operating basic machinery (trucks, tractors, and excavators), this training could result in community-implemented activities to improve feeder roads and connectivity between farming facilities or villages. Technical assistance will also include information on how to prevent and respond to the adverse effect of climate change (heavy rain or snowfall) to improve climactic resistance of the network; and (c) awareness-raising activities with the private sector, communities, the local administration, and other stakeholders as part of the project's communications campaign described in Subcomponent 3C to promote appropriate, safe, and sustainable use of rehabilitated roads.

34. **Subcomponent 1C: Ukravtodor project management and implementation support (US\$1.5 million).** Subcomponent 1C will support project management expenses for UAD to implement Component 1. This subcomponent will finance activities necessary for the effective implementation of the project (including supervision, technical audits, safety audits, financial audits, design reviews, incremental operating costs, a Component 1 grievance redress mechanism (GRM) and consultancy services). It will also support feasibility studies, detailed designs, and bidding documents for priority road improvement schemes for the region to prepare a pipeline of high-quality projects for external financiers based on project experience.

35. **Component 2: RECOVER - Agriculture Investments to Support Sector Recovery and Modernization (US\$32 million, MRTOT).** Component 2 will complement the connectivity investments of Component 1 through agricultural investments that address some of the conflict's impacts on the agricultural sector in the Luhansk Oblast GCAs, and that contribute to regional economic recovery and development. Some of the key challenges to sector recovery and modernization include: (a) the lack of local agricultural hubs to stimulate growth and economic spillover effects; (b) the lack of access to agricultural storage and processing facilities and urban markets lost to the NGCAs; (c) the limited market presence and limited negotiation power of small- and medium-sized producers of agriculture commodities (grains and oil seeds); (d) the need for public capacity and service provision in agricultural product testing and food safety management since the regional laboratory that provides official certifications is located in the NGCAs and is now inaccessible; and (e) the small-scale and scattered backyard production of fruits, vegetables, and other products by semi-subsistence or subsistence producers that cannot access markets effectively because of limited scale, uneven quality, poor access to technology, and lack of information on consumer markets. The component will address these specific market failures through a public support approach that seeks to improve the enabling business environment and stimulate the self-development capacity of agricultural producers. It will also support the agricultural sector in the region to develop safe policies and practices for the resumption of market activity as COVID-19 control measures are implemented, inclusive of packaging, handling, infrastructure design amendments, and communications campaigns.



36. Agricultural investments will be implemented alongside road investments in the agricultural and services triangle of the Luhansk Oblast GCAs and involve partnerships between national, regional, and local administrations and beneficiary communities. Based on sector assessment and stakeholder dialogues with local administrations, communities, and farmers and agribusiness in the Luhansk Oblast GCAs held during project preparation, proposed support includes: (a) agriculture post-harvest storage, processing, and market infrastructure; (b) public support services in food and agricultural product safety monitoring and management; and (c) agricultural cluster development for small and household-level producers that suffer from various market failures. The investments are targeted to support the broad range of agricultural producers in the Luhansk Oblast GCAs, including grain and sunflower producers as well as small and household-level fruit, vegetable, dairy, and meat producers.

37. **Subcomponent 2A: Agricultural logistics and service hub (US\$12 million).** Subcomponent 2A will provide financing support for the design (including site selection), construction, and associated technical assistance and training to operate and manage an agricultural logistics and service hub (agri-hub) in or around Starobilsk City, a key agricultural center of the Luhansk Oblast GCAs and a key link in the agricultural and services triangle road investments. The agri-hub will be implemented by the Ministry for Reintegration of Temporarily Occupied Territories (MRTOT) in partnership with Luhansk Oblast State Administration and Starobilsk City, demonstrating improved national-local government capacity to implement a priority local economic development program. The investments will initially be of a public nature.

38. The agri-hub will include, depending on final feasibility and design studies: a grain and oil seed elevator, including loading, storage, and drying equipment; a small grain and oil seed quality testing facility; an office building for administration and business development support; an innovative online trading platform to link producers and traders; an agricultural services support area to attract and house a wide range of private service providers, such as for machinery repair, agricultural inputs, technical or advisory services, and technology demonstrations; and required ancillary infrastructure, including the rehabilitation and upgrading of the local access road, connections to electricity, water and waste water, alternative energy sources, fire safety measures, and communications. MRTOT will include provisions in the design study contract that potential hub locations that would require land acquisition or create significant social or environmental risks will not be considered. Climate change mitigation and adaptation awareness and disaster resilience with regards to rehabilitated facilities will be required in the facility design, i.e. energy efficiency measures, sustainable waste management, sustainable lighting, and emergency plans in case of fires or floods. Awareness-raising activities on climate change and climate resilient and sustainable agriculture practices would also be hosted at the agri-hub.

39. The subcomponent will be implemented in a sequenced manner. A detailed technical design study, including beneficiary and stakeholder consultations, will be prepared, based on which the final scale and scope of the agri-hub and its facilities and services will be determined. The study will also include an assessment of optimal management and operational arrangements for the agri-hub, including based on consultation with target small- and mid-sized agricultural producers in the region on their needs and preferences, and the potential of a cooperative management model. Through a focus on broad-based beneficiary dialogue and consultation during the design stage, the agreed management model will pay specific attention to the potential risk of elite capture and ensure that small and mid-size producer interests are well represented in final design and management arrangements.

40. **Subcomponent 2B: Regional agricultural testing and food safety laboratory (US\$10 million).** Subcomponent 2B will provide financing support to establish a regional agricultural testing and food safety laboratory in the Luhansk Oblast GCAs. The regional facility will fill a critical gap following the loss of the agricultural product testing and food safety management services to the Luhansk NGCAs. At present, laboratory testing requires the costly and lengthy shipment of samples to laboratories in Dnipro or Kharkiv Oblasts.





41. The laboratory facility will provide a range of the most salient and practical services for the local conditions, similar to those available in inter-rayon laboratories across Ukraine. The facility will provide laboratory capabilities for the timely testing of agricultural and food products and help ensure the comprehensive epidemiological monitoring of food-related public safety hazards. It will also provide the necessary testing of product samples to enable access to value chains and markets, particularly for products of animal origin. MRTOT will include provisions in the design study contract that facility locations that require land acquisition or create social or environmental risks will not be eligible for support. Climate mitigation and adaptation awareness and disaster resilience with regards to construction or rehabilitated facilities will be required as part of laboratory design, i.e. energy efficiency measures, including a reliance on renewable/clean energy where feasible, sustainable waste management, sustainable lighting, and emergency plans in case of fires or floods.

42. The subcomponent will first support the preparation of a detailed technical design study, that will include the identification of a suitable location for the lab in or around Severodonetsk City as the de facto regional center of the Luhansk Oblast GCAs. The study will also identify the range of services to be provided (informed by consultations with user groups), as well as the needed equipment, a business development plan, and operational and cost recovery arrangements. Ownership of the laboratory facilities will be transferred to the State Service of Ukraine on Food Safety and Consumer Protection upon completion.

43. **Subcomponent 2C: Agricultural cluster development (US\$10 million).** Subcomponent 2C will support rural development in the Luhansk Oblast GCAs through piloting productive smallholder farming and value chain development in order to increase the income of small and household-level producers. Specifically, Subcomponent 2C provides financing support for a design, build, operate, and transfer (DBOT) contract to implement a small number of innovative community-based agricultural development clusters. These clusters will be of a pilot nature and test the potential for smallholder-based agricultural value chain development.

44. The DBOT approach will support community clusters through an assessment of production potential and value chain to market linkages. Specifically, this support will include: (a) identification of suitable cluster locations in the Luhansk Oblast GCAs based on predefined selection criteria, such as, for example, the number of potential beneficiaries, vicinity to markets and roads, agro-ecological potential, availability of local agribusiness partners, potential to target women, veteran, and IDP beneficiaries; (b) ongoing consultation with target beneficiaries and local administrations to ensure local priorities, conflict and pandemic impacts, and other considerations inform technical assistance and investment recommendations; (c) identification of crops/products suitable for household-level production and commercialization (e.g. vegetables for local and regional markets), including climate-resilient crops; (d) social mobilization, consultations, and organization of farming households, including with support from the 3R Youth Leaders described in Component 3; (e) design and delivery of technology packages and equipment (greenhouses, integrated cropping-livestock models in support of circular agriculture systems, honey production and processing, etc.), as well as technical and business training tailored to household needs; (f) local sorting, drying, and storage equipment, processing, and value addition investments as identified in the assessment for value chain development; (g) market identification and support for traditional and innovative digital marketplaces, particularly if mobility restrictions from COVID-19 continue (to include product selection, partnerships, and direct marketing); and (h) management and technical support prior to handover to ensure sustainable and cooperatively managed clusters over time.

45. It is expected that between 5 to 10 such community clusters will be supported, each of which will include 100 to 150 small and household farmers. The clusters will aim to facilitate the transition from current subsistence production to better organized, modern technology-based, and market-oriented production. The cluster approach will offer



particular benefits to female farmers, given the current demographic profile of project areas, as well as specific support to young farmers, veterans, and IDPs engaged in the agricultural sector. A targeting strategy will be developed based on the initial design of the cluster approach and through a gender action plan included in the DBOT contract. The targeting approach and gender action plan will be included in the MRTOT Project Operations Manual (POM).

46. The DBOT approach aims to attract reputable international service providers with experience and know-how in community consultation, community mobilization, and smallholder cluster development relevant to the conditions in Eastern Ukraine. International service providers will be expected to partner with local institutions, including local authorities and the Luhansk National Agrarian University, to maximize transfer of knowledge during implementation.

47. **Component 3: REVITALIZE - Implementation Support Platform (US\$3 million, MRTOT)**. Component 3 will support development of an implementation support platform for project investments, recognizing the capacity constraints, deficits in state-citizen trust and communications, and requirements for national-regional-local cooperation in effective delivery of 3R Project activities. The component will support activities that reinforce the linkages between Components 1 and 2. It will also build private sector awareness around investment opportunities in the Luhansk Oblast GCAs. The component will be delivered in close cooperation with development partners, such as USAID and United Nations Development Programme (UNDP), active in the Luhansk Oblast GCAs that are providing complementary technical assistance and grant-financed activities to support recovery efforts. The platform will promote sustainability and possible future scale-up and expansion of World Bank investments to additional sectors and geographic areas in Eastern Ukraine.

48. **Subcomponent 3A: Project management (US\$1.7 million)**. Subcomponent 3A will finance the incremental costs of MRTOT to establish an overall implementation support platform for project investments as well as financial management (FM), procurement, and supervision costs for Components 2 and 3, including the establishment of a management information system for agriculture-related subprojects, implementation of the Environmental and Social Framework (ESF), and monitoring and evaluation (M&E).

49. This subcomponent will fund a project implementation unit (PIU) in the Kyiv MRTOT office with dedicated PIU team members based in the Luhansk Oblast GCAs. The PIU will include a project manager (or head of PIU) and technical experts in agricultural development, community engagement, procurement, FM, environmental and social risks, communications, and M&E. Subcomponent financing will cover PIU costs, essential equipment, and minor office repairs (where agreed), operating costs, and M&E activities to track and report on the progress and results of Components 2 and 3. The PIU will be required to prepare annual workplans and budgets and implement the project according to the MRTOT POM.

50. **Subcomponent 3B: Community, youth, and private sector engagement (US\$1 million)**. Subcomponent 3B activities will apply to both the transport and agricultural investments of Components 1 and 2 and will promote transparent state-citizen dialogue around 3R investments to help build community confidence and trust in national and local authorities' commitment to recovery efforts. The subcomponent will: (a) improve opportunities for investment in the Luhansk Oblast GCAs; (b) build the capacity of local residents, including young men and women, to play a role in promoting accountability; (c) create a mechanism for complaints and responses; and (d) feed into project monitoring processes through a transparent and structured process of community feedback and action. A training and facilitating partner (TFP) will be hired to support the capacity building of the 3R Project teams in Kyiv and in Luhansk Oblast GCAs, including training for Luhansk Oblast regional and local administrations around project management, community engagement, participatory monitoring and outreach activities to support project implementation. The TFP contract will



also include the hiring of 40 Luhansk GCA youth to serve as 3R Youth Leaders (3RYs). 3RYs (likely to be students and recent graduates from local universities, 50 percent women) will support the implementation of community, private sector engagement, and communications activities under Subcomponents 3B and 3C. Their mandate will also include organizing awareness-raising activities on climate change and sustainable agriculture, and assisting producers and local authorities to collaborate in adjusting markets and practices for COVID-19 restrictions and impacts as required.

51. The following activities are planned under Subcomponent 3B and will be detailed in the MRTOT POM:

- (e) MRTOT will design and conduct **regional public-private investment forums** in cooperation with relevant ministries, regional and local authorities, and international partners. These regional meetings will gather selected project beneficiaries, international and Ukrainian private sector representatives, international and domestic financial institutions, GoU representatives, and development partners to raise awareness and promote investment opportunities in the region, including but not limited to investments to promote further development of the agricultural and transport sectors in Luhansk Oblast based on implementation progress and lessons from the 3R Project. A minimum of three forums are envisioned over the life of the project.
- (f) For infrastructure investments under Components 1 and 2, beneficiary communities will be engaged through **annual beneficiary/user surveys** conducted for each infrastructure investment (for the road investments, the agri-hub, and the laboratory) including a baseline measuring the perception of communities regarding existing transport and agriculture infrastructure and services and then annual surveys to obtain feedback on project investments, including design implementation, budgeting, the construction process, infrastructure improvements, and facility management. Survey results will be presented by regional and local administrations and discussed in **community forums** in project/construction areas. Feedback and recommendations received will be incorporated into action plans that UAD, MRTOT, and local administrations will take forward to improve implementation and promote the sustainability of investments. Survey results will also inform 3R Project M&E activities. Detailed processes for the surveys and community forums will be detailed in the MRTOT POM.
- (g) A **3R Project beneficiary feedback mechanism (BFM), including a GRM** will be established by MRTOT to collect, manage, and respond to feedback related to the 3R Project. The design of the BFM will include a safeguards-related GRM process and allow for continuous feedback from beneficiaries to complement the user surveys and forums described above. The BFM will include options for entering beneficiary data into the MRTOT-housed Data Portal on Peacebuilding and Recovery (<https://portal.mtot.gov.ua/>), a web-based platform that can include geocoded photographic data from local communities (e.g. submitted from mobile phones) and spatial data to track progress on transport- and agriculture-related infrastructure. The BFM will also provide options for feedback via hotlines, WhatsApp, social media, the project website, verbal or written appeals received by staff, postal mail, and email. It will specify the systems and requirements for feedback uptake, sorting and processing, and acknowledgement and follow-up. MRTOT will coordinate closely with UAD, who will manage a separate GRM specifically for Component 1 road investments, so that any issues raised through the BFM regarding road investments will be referred and responded to by UAD or other relevant governmental bodies. 3RYs will receive training in order to support the implementation of the BFM.

52. **Subcomponent 3C: Communications (US\$300,000).** Subcomponent 3C will finance implementation of communications-related activities to inform and educate communities and other stakeholders in project areas on the objectives, purpose, procedures, and opportunities associated with the project and to emphasize the 3R Project as a national investment to support economic recovery in conflict-affected communities in Eastern Ukraine. The project communications and visibility activities will: (a) help manage expectations and mitigate against local political economy



risks of infrastructure investments; (b) contribute to the outreach to communities and help promote their engagement in project activities; (c) share results and disseminate project lessons with key audiences for broader impact; (d) encourage the responsible use of project investments (for example, roads); and (e) help disseminate pandemic-related policies and measures that have a bearing on the agricultural community and market access. Communications and visibility activities are also intended to communicate to the broader region information about the national government's financial contribution to support economic recovery in Eastern Ukraine and to promote the 3R Project's broader goals around national outreach, confidence and trust-building, and support to conflict-affected populations. Communications and outreach will utilize social and traditional media and leverage the local knowledge and participation of the MRTOT PIU team members in Luhansk Oblast, 3RYs, and Luhansk Oblast regional and local administrations. Communications efforts will include a 3R outreach campaign, printed materials and related multimedia communications tools, training of PIU staff, and monitoring of the results of communications activities.

53. **Component 4: Contingent Emergency Response Component (~US\$0).** The proposed operation will include a contingent component, which in the event of an urgent need for assistance in response to an eligible crisis or emergency, will enable the GoU to reallocate project funds to response efforts. In light of the COVID-19 outbreak and continued conflict and instability in Eastern Ukraine, this provisional zero component is designed as a mechanism that will allow for rapid access to project funds for Ukraine's response and recovery to a crisis. Activities would be targeted to mitigate and respond to the socioeconomic impacts of the crisis, including on conflict-affected populations. To trigger this component, the GoU would need to declare an emergency or provide a statement of facts justifying the request for activation of the use of the emergency funding. If the Bank agrees with the determination of an eligible emergency and associated response needs, financing from other project components could be reallocated to cover eligible expenditures. The contingent emergency response component would be implemented in accordance with the Bank's Policy on Investment Project Financing, Projects in Situations of Urgent Need of Assistance or Capacity Constraints. A specific annex to the MRTOT POM will apply to this component, detailing the FM, procurement, safeguards, eligible expenditures, and any other necessary implementation arrangements.

#### D. Project Beneficiaries

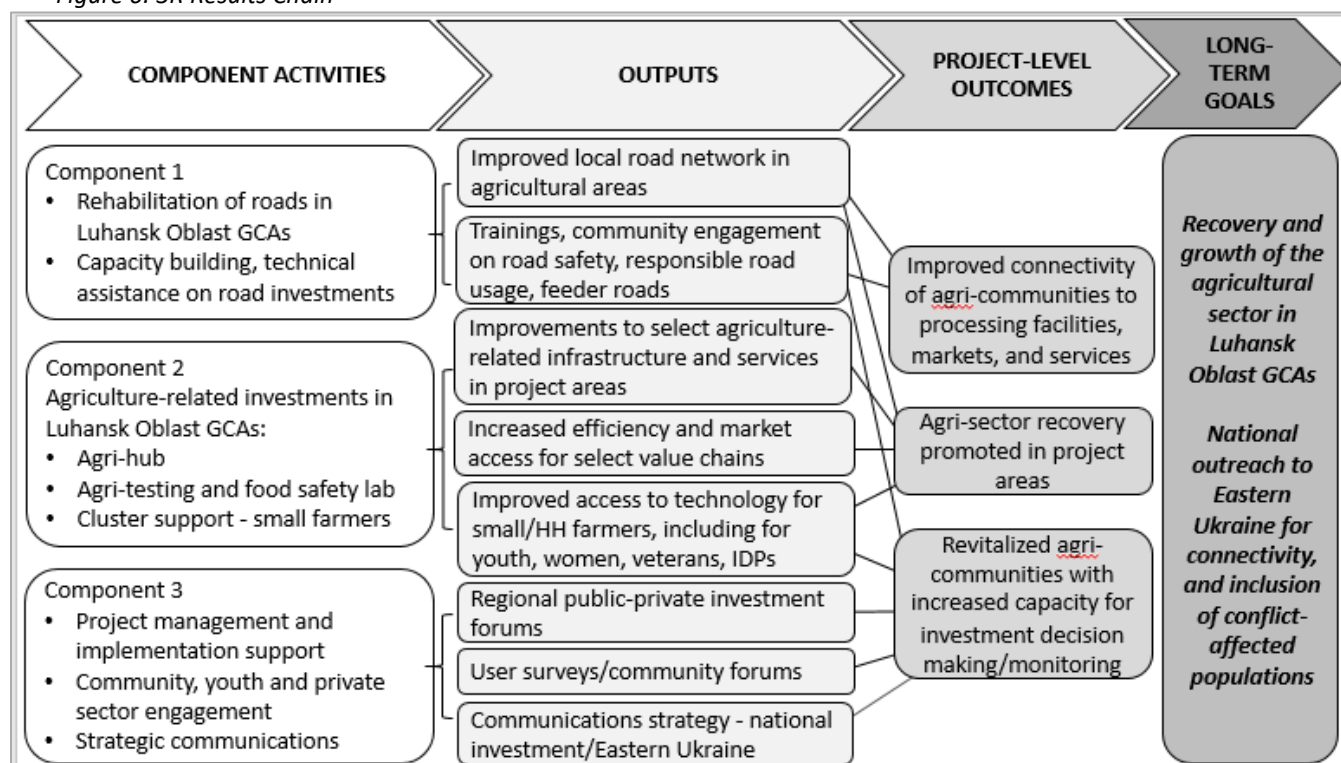
54. **The project's transport- and agriculture-related investments target infrastructure improvements for the over 670,000 people currently residing in the Luhansk Oblast GCAs.** More specifically, the *Component 1 road investments* in the agricultural and services triangle in Luhansk Oblast GCAs will link the agricultural communities of Starobilsk rayon and amalgamated communities (population: 43,690), Troitske rayon (population: 19,286), and Svatove rayon (population: 33,850) with the Luhansk Oblast GCA regional center of Severodonetsk City and surrounding population centers in Luhansk Oblast GCAs, including Lysychansk and Rubizhne Cities and Kreminna rayon (total population: 320,589). The *agricultural logistics and service hub (Subcomponent 2A)* will serve Starobilsk rayon's agro-industrial complex consisting of over 20 agriculture-related enterprises and 147 small and household-level farmers. The facility could also serve some of the over 280 SMEs active in Starobilsk rayon as well as agricultural producers accessing the hub from other parts of the region. The *regional agricultural testing and food safety laboratory (Subcomponent 2B)* will serve as the Luhansk Oblast GCAs' regional laboratory serving over 12,000 business entities in the oblast and will employ an estimated 100 people. The *agricultural cluster development subcomponent (Subcomponent 2C)* will support 5 to 10 clusters, each of which will include between 100 to 150 small and household-level farmers, with targeted outreach to women, veterans, and IDPs involved in the agricultural sector. Institutional beneficiaries of the 3R Project will include UAD, MRTOT, and regional and local administrations in project areas in Luhansk Oblast GCAs and target communities. Through community and private sector engagement as well as communications activities, the 3R Project will reach a broad range of beneficiaries and users of the transport and agricultural infrastructure investments in project areas.



## E. Results Chain

55. The results chain below (Figure 6) summarizes how the 3R Project's integrated package of transport and agricultural investments contribute to recovery efforts in the Luhansk Oblast GCAs. The project also aims to build toward the GoU administration's higher-level policy objective of national outreach and development support to Eastern Ukraine to promote confidence building, connectivity, and inclusion of conflict-affected populations, and to contribute to improving state-citizen relations in Luhansk Oblast GCAs. The use of participatory approaches will include measures to ensure that conflict-affected and vulnerable populations, such as women, veterans, and IDPs, participate in project decision-making processes and monitoring, and benefit from project investments.

Figure 6: 3R Results Chain



### Key Assumptions

- Continued strong GoU commitment to recovery and development of Eastern Ukraine.
- Communities, regional and local administrations, and private sector engage and support project implementation.
- No major escalation of conflict/expansion of active conflict zone to project areas.
- The GoU makes relevant investments to ensure the operation, maintenance, and sustainability of project-supported infrastructure.

## F. Rationale for Bank Involvement and Role of Partners

56. **The World Bank has been a trusted partner to the GoU in supporting national leadership to address the development impacts of the conflict.** The World Bank has been a partner to MRTOT and the Ministry of Temporarily Occupied Territories and Internally Displaced Persons (MRTOT's predecessor) since its establishment in 2016, and previously to the Donbas Investment Agency, providing a range of support tied to MRTOT's mandate as the national lead on policy and coordination of conflict-recovery efforts. The Bank supported the ministry in the development of the State Target Programme on Peacebuilding in the Eastern Regions and IDP Strategy (both passed by the Cabinet of Ministers of





Ukraine in December 2017). The SPF grant – Ukraine Conflict Response and Recovery Pilot and Capacity Building Project – included capacity building support as the new ministry was established and has financed 10 pilot subprojects in Eastern Ukraine as partnership activities between MRTOT and local authorities to support IDPs, veterans, and host communities. The World Bank-administered MPTF, established in 2017, is managed by a joint government-international Executive Board and has supported Government leadership and coordination support on recovery, the geocoded Data Portal on Peacebuilding and Recovery, the Study on Economic Recovery of Eastern Ukraine, and pilot programming on psychosocial support to conflict-affected populations. Building on a foundation of trust fund-financed activities and client and international partnerships on conflict-recovery efforts developed over the last five years, the Bank is well-positioned to deliver on an investment in Eastern Ukraine. The project also contributes to Ukraine's CPF 2017-2021, Focus Area 3: Effective Services and Targeted Assistance which includes a commitment to increase targeted assistance to conflict-affected communities to help the Government of Ukraine to address the development impacts of conflict and displacement including on services, infrastructure, and rural development.

**57. The investment builds on the World Bank's transport and agricultural sector portfolio and knowledge in Ukraine.** In addition to engagement on conflict-recovery efforts, the Bank has a strong foundation of analytics, partnerships, and investment programs in the transport and agricultural sectors in Ukraine, which has been applied in the design of the 3R Project. This includes the Road & Safety Improvement Project (P100580), the Second Road & Safety Improvement Project (P127156), and the Road Sector Development Project (P149322), the first of which UAD began implementing in 2009, as well as the Ukraine: Program-for-Results on Accelerating Private Investment in Agriculture (P166941). This sector knowledge has allowed the Bank to tailor the 3R project activities to the specific conditions in the Luhansk Oblast GCAs.

**58. Project focus areas and activities are designed to build on and leverage international partner activities in the Luhansk Oblast GCAs and complement recovery programming more broadly.** Significant recovery programming has already been financed by international partners in Eastern Ukraine since 2015. The largest recovery-focused loans include the EIB's Early Recovery Program and KfW's Promotion of Social Infrastructure Project, which primarily focus on small social infrastructure investments. A loan from the Government of France is supporting modernization of the water supply system in Mariupol City. The two largest grant-financed programs active in Luhansk and Donetsk Oblasts are USAID's Economic Resilience and Democratic Governance East initiatives and the UN's Recovery and Peacebuilding Program (supported by the EU and several bilateral donors), which focus on economic recovery, small infrastructure rehabilitation, local governance, and community security and social cohesion. Assessing the landscape of current international support to recovery in Eastern Ukraine, the 3R Project seeks to complement and leverage activities by:

- (a) Investing in *mid- to large-scale infrastructure in key sectors (transport and agriculture) where the World Bank is active throughout Ukraine*, and can complement the majority smaller-scale social infrastructure investments supported by international partners in conflict-affected areas.
- (b) Supporting a high-profile program of *national outreach and development support to Eastern Ukraine*, complementing many of the grant programs implemented in close cooperation with regional and local authorities, and emphasizing national government accountability and responsiveness to local priorities, especially during a time of renewed economic strain as a result of the COVID-19 pandemic.
- (c) *Working closely with related grant programs in designing and delivering 3R activities*, such as USAID's Economic Recovery Program, which has in-depth knowledge of the regional agricultural sector and supported the World Bank team in designing consultations throughout Luhansk Oblast GCAs and prioritizing infrastructure investments.
- (d) Investing in *mid- to longer-term connectivity, economic recovery, and transformation of the region through*



transport and agriculture investments. This complements many current economic recovery programs that focus on immediate needs, livelihoods development, and short-term job creation.

59. **During implementation, the 3R Project will continue to develop and expand partnerships towards a national platform for socioeconomic recovery and economic growth of the Donbas.** Under Component 1, the World Bank will be partnering with EIB on their complementary loan for road rehabilitation. Under Components 2 and 3, the World Bank will continue to coordinate closely with USAID, FAO, UNDP, and other grant-financed programs to combine technical assistance, SME development, and advisory support with the agricultural subprojects under Component 2 and community engagement activities under Component 3. Complementary funding to the project is being requested through the Ukraine MPTF and the Bank will also engage the MPTF Executive Board to support ongoing coordination. The Bank will promote strong partnerships during project implementation with the aim of supporting MRTOT with a national investment platform for Eastern Ukraine that could be expanded into different sectors and geographic areas in cooperation with development partners.

## G. Lessons Learned and Reflected in the Project Design

60. **The proposed project applies a conflict-sensitive design to multisectoral investments in Eastern Ukraine.** The 3R project design is consistent with the new WBG Strategy on FCV 2020-2025.<sup>35</sup> It responds to the recommendations of several recent global reports and evaluations on preventing and responding to FCV, including in MIC contexts,<sup>36</sup> and also reflects World Bank experience in applying conflict-sensitive measures in sectoral programming.<sup>37</sup> The project is consistent with the commitment of the Bank in the WBG Strategy on FCV to remain engaged during conflict and crisis situations to preserve development gains, protect institutions, build resilience, and support sustained recovery. The design of the project is informed by analytic work in Ukraine on conflict-recovery efforts undertaken by the World Bank since 2015, including: RPBA (2015); National Survey on Socio-Economic Impacts of Internal Displacement and Veteran Return (2017); Scoping Study - Conflict in Ukraine: Coordinating Peacebuilding, Recovery and Development Response (2018); Online Data Portal on Peacebuilding and Recovery (2019); and Stakeholder Dialogues undertaken in Luhansk Oblast GCAs as part of project preparation. This research and Bank experience globally points to the importance of programming that promotes inclusion of conflict-affected populations through creating socioeconomic opportunities, engaging communities, and building trust. Global research and experience also highlight the need to work through government institutions and promote cooperative dialogue at multiple levels of government, especially in MIC FCV settings (as the project does through national, regional, and local GoU partnerships in implementation). The project's conflict-sensitive design aims to not only promote improvements in transport- and agriculture-related infrastructure but also seeks to contribute to broader recovery and confidence-building in the Luhansk Oblast GCAs.

61. **The project includes a selected number of mid- to larger-size infrastructure investments to reduce implementation complexity and risk in the Ukraine context, while still promoting participatory approaches.** The

<sup>35</sup> World Bank. 2020. *World Bank Group Strategy for Fragility, Conflict, and Violence 2020–2025 (Vol. 2): Executive Summary (English)*. Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/832821582824032543/Executive-Summary>.

<sup>36</sup> This includes: World Bank. 2016. *World Bank Group Engagement in Situations of Fragility, Conflict, and Violence*. Independent Evaluation Group. Washington, DC: World Bank; United Nations; World Bank. 2018. *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict*. Washington, DC: World Bank. © World Bank. <https://openknowledge.worldbank.org/handle/10986/28337>. License: CC BY 3.0 IGO; World Bank. 2011 *World Development Report, Conflict, Security and Development*; Colletta, N. and B. Oppenheim. 2017. "Subnational Conflict: Dimensions, Trends, and Options for Prevention." Background paper for United Nations–World Bank Flagship Study. *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict*. World Bank. Washington, DC.

<sup>37</sup> Patrick Barron and Suh Yoon Kang. 2019. *A Review of the World Bank's Experiences Using Conflict Filters and Peace Lenses*. World Bank.



experience of the World Bank portfolio in Ukraine over the CPF 2017-2021 period is that complex operations involving many small-scale contracts have experienced significant implementation challenges, were slow to disburse, and faced transparency and accountability risks. Thus, while a more robust community-driven development approach to local infrastructure investments could have been considered for the conflict-affected areas in alignment with decentralization reforms, as has been the case in several conflict-affected settings in MICs globally (e.g. Philippines, Indonesia), the process and transaction-heavy approach is not well-matched to Ukraine's implementation context. In addition, several grant programs, such as the UN Recovery and Peacebuilding Program, and recovery loans, such as EIB's Early Recovery Program, have financed small infrastructure investments. The project therefore seeks to complement other partner investments by focusing on mid- to large-sized infrastructure in the Luhansk Oblast GCAs, which also promotes more rapid and simplified contracting to deliver quicker results to local populations. Alongside investments, the project employs community and private sector engagement mechanisms and communications activities.

62. **The design of transport investments under the project is consistent with the Ukraine Transport Sector Strategy of 2018.** The strategy envisions a multimodal transport system to promote development of Ukraine's agricultural and manufacturing industries. However, there is much to be done to realize the transport strategy's vision with limited resources. Successful implementation will require network management tools to both improve utilization of existing assets, including through improved operations, and maintain existing road investments. The GoU is now finalizing legislation to allow tolling of heavy vehicles, better enforcement of weight control, and automation of speed enforcement. Improving road safety is an overarching objective of the strategy. Road traffic fatalities have fallen over the last decade, from around 4,500 deaths per year in 2014 to just under 1,300 deaths in 2019.<sup>38</sup> However, improvements have stagnated and fatality rates are still four times those found in the better-performing European countries. The strategy includes measures for better management of road safety, stricter traffic enforcement, awareness building for road users, and faster emergency response when accidents do happen. Operations and maintenance (O&M) activities and safety features included in project design are consistent with the Transport Sector Strategy's key provisions.

63. **Transport investments also focus on sustainability based on lessons from World Bank transport sector experience.** Transport investments by the Bank and other IFIs in Ukraine have largely focused on road improvement works without sufficient attention to the maintenance and sustainability of transport projects. The Subcomponent 1B activities around capacity building, awareness raising, and community engagement on road safety, maintenance, and sustainable usage help address this critical gap. In addition, the installation of automated weighing and speed measures will help protect investments against the impacts of overweight vehicles. The importance of this aspect of the project is reinforced by Independent Evaluation Group's report<sup>39</sup> on the transport sector globally, which concluded that projects are more likely to be sustainable if they directly focus on maintaining transport infrastructure, address issues regarding the long-term financial viability of the sector, and strengthen institutional capability to sustain outcomes.

64. **The 3R Project promotes a focus on value chain to market development based on World Bank experience in smallholder agricultural development.** The key lessons in working on value chains and with small farmers have been that agriculture involves the production, processing, and selling of agricultural goods and requires an ecosystem of services, which can offer varied employment opportunities, and thereby have important economic spillover effects. Transparency, clear communication about programming, and targeted, demand-driven inputs often have powerful demonstration effects for entrepreneurial smallholder farmers that later persuade more reluctant actors to participate

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<sup>38</sup> Official statistics of the National Patrol police of Ukraine: <http://patrol.police.gov.ua/statystyka/>.

<sup>39</sup> Independent Evaluation Group. 2013. *Improving Institutional Capability and Financial Viability to Sustain Transport: An Evaluation of World Bank Group Support since 2002*.





in initiatives. Increasing profits while providing meaningful engagement in recovery activities often help to retain youth in the sector. Engagement over time, coupled with technical inputs, helps to overcome risk aversion among conflict-affected agriculturalists. The project envisions not only reducing input and market transactional costs with improved transport infrastructure, but also improved access to higher quality agricultural-related services through Component 2 investments.

65. **The project builds on global lessons in engaging women in the agricultural sector.** In Bosnia and Herzegovina, Jordan, Sri Lanka, Indonesia, Kenya, and Colombia, programs of demand-driven support to small-scale agriculture producers by the World Bank and others found that women were either overlooked in agricultural support programs or were reliable and innovative counterparts that often excelled once: (a) the availability and conditions of support were made clear over a series of community-level engagements; (b) ongoing, as opposed to one-off technical support and inputs, were provided; and (c) such inputs were coupled with market and value chain analyses that helped producers better understand the range of opportunities that support increased production. The project will utilize a targeted strategic communications campaign to ensure consistency of messaging about program activities in beneficiary communities; select initial cohorts of entrepreneurial farmers (inclusive of smallholder women producers) for early project activity; and engage a service provider to work with target communities to determine community priorities and deliver technical support and inputs over time to men and women agriculturalists in Component 2 clusters.

### III. IMPLEMENTATION ARRANGEMENTS

#### A. Institutional and Implementation Arrangements

66. **The proposed project is a multisectoral program of support for the socioeconomic recovery and growth of project areas in Luhansk Oblast GCAs.** The project therefore requires the involvement of government agencies responsible for recovery, IDPs, veterans, transport, agriculture, local infrastructure, and economic development, as well as regional and local officials in the Luhansk Oblast project areas. It thus requires an institutional structure at the national level, e.g. a central PIU that defines policies and standard operating procedures, assumes fiduciary responsibility, and coordinates activities alongside strong implementation and oversight functions in the Luhansk Oblast project areas. The project implementing arrangements will encourage opportunities for interaction and dialogue between national, regional and local levels of administration on project activities.

67. **3R Project coordination.** MRTOT will serve as the overall national-level focal point for the 3R Project based on its mandate as the national lead ministry for recovery and development strategy, coordination, mobilization of financing support, and monitoring for conflict-affected regions/Eastern Ukraine. A project steering committee will be established through a MRTOT special decree. The committee will be chaired by MRTOT and include the participation of relevant national-level agencies, such as the Ministry of Infrastructure, UAD, the Ministry for Development of Economy, Trade and Agriculture, the Ministry of Finance, and the Luhansk Oblast State Administration as well other relevant national and local authorities as required. It will provide overall strategic guidance and oversight to the project, and will support the overall alignment with the GoU's strategy for reintegration/recovery efforts, set the direction for program implementation, and leverage resources and drive synergies among various related national and regional programs in the transport, agricultural, and social sectors. The committee will also help guide the agenda and design of the regional public-private investment forums described under Component 3. MRTOT and UAD will also establish a 3R implementation support subcommittee that will be co-chaired by the project coordinators/heads of the PIUs within MRTOT and UAD, and include a representative from the Luhansk Oblast State Administration and other local administration representatives by invitation of the chairs. The subcommittee will meet at least quarterly (or more



frequently as necessary) to ensure ongoing operational-level coordination during project implementation. The subcommittee will also be responsible for preparing a joint 3R annual operational plan (3R AOP) to outline annual priorities, implementation plans, annual targets, and roles and responsibilities for shared tasks. The purpose of the subcommittee will be to: (a) promote the sharing of knowledge and experience during implementation; (b) track implementation progress and address any bottlenecks; (c) ensure ongoing dialogue and coordination, particularly on the community, private sector, and youth engagement and communications activities that apply to the road and agriculture-related investments; and (d) prepare agendas/raise any issues to the attention of the steering committee. The terms of reference (TOR) for the committee and subcommittee mechanisms (including an outline for the 3R AOP) will be included in the MRTOT and UAD POMs.

**68. UAD Project Implementation Unit – Component 1.** UAD will implement Component 1 through its central PIU and in coordination with the regional UAD office in Luhansk Oblast. Over the past 14 years, UAD and its PIU for externally-funded projects, state-owned enterprise Ukrdorinvest (UDI), have gained much experience in the execution of large externally-funded road projects (mostly by the Bank, the European Bank for Reconstruction and Development (EBRD), and EIB), and have staff experienced in project management, procurement, FM, and social and environmental safeguards. Under this arrangement, UAD, as the main implementing agency (IA), signs an annual contract with UDI to provide project management services, including procurement management, contract management, and M&E. However, all contract signatures, disbursements, and FM is done directly through UAD taking into account project-specific fiduciary mitigation measures described in the key risks section—no funds pass through UDI. UDI will also coordinate with the regional UAD office in Luhansk Oblast to support supervision activities and liaise with local authorities and communities. PIU activities will be guided by the engagement principles and procedures outlined in the UAD POM. Approval of the UAD POM by the World Bank will be a condition for the disbursement of funds under Component 1.

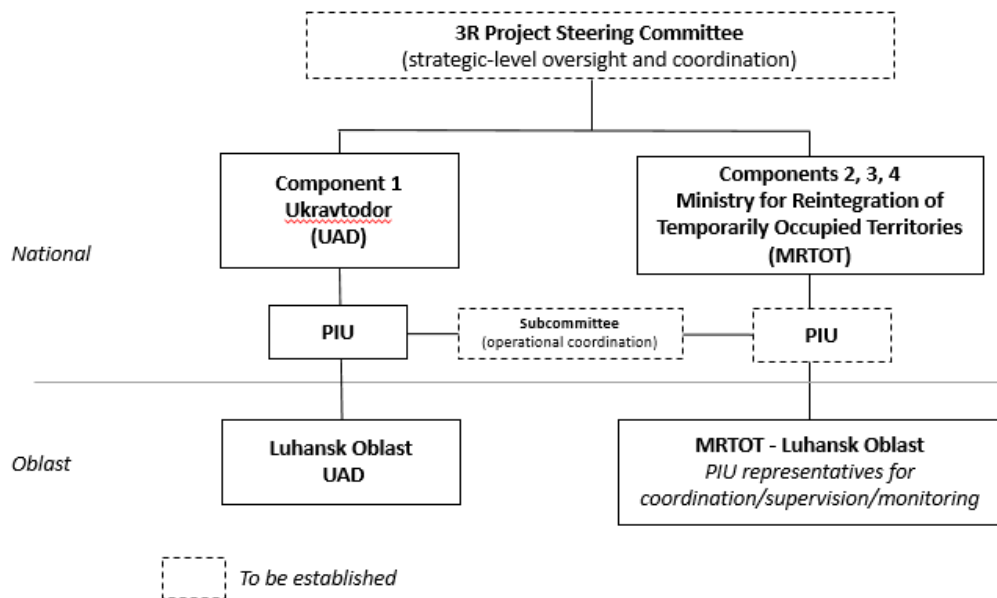
**69. MRTOT Project Implementation Unit – Components 2, 3, and 4.** MRTOT will implement Components 2, 3, and 4 (if triggered), drawing on its mandate for conflict-recovery efforts and the establishment of a broader implementation support platform for national investment in Eastern Ukraine. Since its establishment in 2016, the World Bank has provided capacity building support to the Ministry of Temporarily Occupied Territories and IDPs (MRTOT's predecessor). MRTOT will implement the project through a central PIU and place select PIU staff in Luhansk Oblast to carry out coordination, monitoring, communications, and oversight functions in close coordination with Luhansk Oblast GCA regional and local administrations. PIU activities will be guided by engagement principles and procedures outlined in the MRTOT POM. Approval of the MRTOT POM by the World Bank will be a condition for disbursement of funds under Component 2.

**70.** In order to support the capacity building; community, youth, and private sector engagement; and monitoring tools envisioned under Component 3, MRTOT will be supported by a TFP that will be hired by MRTOT through a competitive selection process. The TFP will have experience in project management, and a track record of implementing community engagement, capacity building, and monitoring and outreach activities in conflict-affected settings. The World Bank and MRTOT are also proposing complementary grant funding from the Ukraine MPTF on Peacebuilding and Recovery to promote more rapid implementation and accompany project investments with support for the design of TORs for the feasibility and design studies under Component 2 and capacity building and training support.

**71.** Project implementing arrangements are summarized in Figure 7.



Figure 7: 3R Implementation Arrangements



## B. Results Monitoring and Evaluation Arrangements

72. **Monitoring and evaluation is the joint responsibility of MRTOT and UAD M&E staff working closely with field-based team members in the Luhansk Oblast GCAs.** The outputs, indicators, and expected results are detailed in the results framework, with assigned responsibility to MRTOT or UAD for reporting. First, MRTOT and UAD will ensure the collection of information for regular project reporting. This will include the component output measures defined in the POMs, ESF instruments, and BFM/GRM reports, as well as those outlined in the 3R AOPs. The BFM will be linked to MRTOT's already established Data Portal on Peacebuilding and Recovery, which will include the potential for MRTOT to include satellite and other geocoded and visual data and for communities to post photographic evidence of the progress of infrastructure investments. Semiannual progress reports will be provided to the World Bank from MRTOT, including inputs from UAD (for Component 1) 45 days after the end of each reporting period and include updates on the results framework indicators. Where relevant, results framework indicators will be disaggregated by gender, youth, veteran, and IDP beneficiaries/users. MRTOT, with the support of the PIU team members based in Luhansk Oblast GCAs, the TFP, and 3RYs, will also facilitate the process of community monitoring through user surveys and community forums. This ongoing dialogue process will help inform project M&E. The project will include baseline, midline, and endline evaluations. The POMs will include an M&E section that defines the responsibility and methodology for the measurement of each indicator, and templates for regular reporting. The 3R subcommittee described in paragraph 67 will support coordination on 3R project monitoring, and monitoring progress and plans will also be included in the 3R AOPs.



## C. Sustainability

73. **The project promotes the sustainability of road investments under Component 1 by: (a) bringing significant roads in Luhansk Oblast GCAs to a technical condition in which they can be maintained; and (b) strengthening existing systems and capacity for planning and managing local road investments, including in cooperation with local communities.** Construction companies from Luhansk Oblast will gain experience in carrying out operations in line with international standards that will help to build their capacity for future roadworks in the oblast. During implementation of the project, UAD and MRTOT, including local office representatives, will conduct regular field visits to project sites to ensure compliance with technical and operational requirements. Under Component 2, MRTOT will ensure agricultural investments become fully operational and are supplemented with mitigation and adaptation measures to support climate action and enhance resilience to the anticipated adverse impacts of climate change. This will be monitored through technical checklists developed for the POMs and included in works and design supervision contracts. Component 2 investments will also include a robust O&M plan developed during the feasibility and design studies, and consulted on with users/beneficiaries. Upon completion, the infrastructure will be handed over to the relevant national/local institution/user group as described in the project description and memoranda of understanding. Agricultural investments are also designed to increase profitability for SMEs and farmers in the region as a result of improved access to agricultural services and infrastructure.

74. **The project promotes sustainability through community and private sector engagement and institutional capacity building.** Implementation arrangements under Components 1 and 2 are designed to build sustainable capacity in the PIUs at the national and regional/Luhansk GCA levels as well as partnerships between UAD and MRTOT and regional and local authorities. Through the community, youth engagement, and communications activities under Component 3, the project will enhance state-citizen engagement in project areas as well as the capacity of national-local partnerships to deliver investments in conflict-affected areas. Regional investment forums under the project will also support outreach to private sector actors to promote sustainable growth and development of the region, building on the project's transport and agricultural development investments.

## IV. PROJECT APPRAISAL SUMMARY

### A. Technical, Economic and Financial Analysis

#### (i) Technical Analysis

75. **The project will rehabilitate sections of the N-26, R-66, and T-13-02 roads between Starobilsk, Svatove, Severodonetsk, and Troitske in Luhansk Oblast GCAs to a two-lane road category "2" or "3" in accordance with Ukrainian design standards.** The typical rehabilitated road cross section will be 11.25 meters wide, comprising lanes of 7.5 meters wide and shoulders 3.75 meters wide. The project will also incorporate safety features, including improved pedestrian crossings, guardrails (where appropriate), road signs, pavement markings, and lighting at critical intersections and bus stops. Additionally, the project envisages the installation of a weigh-in-motion system to prevent overweight vehicles driving on newly rehabilitated road sections. The proposed project will use the same asphalt concrete pavement construction technology and design standards that have already been adopted on other Bank-funded projects in Ukraine. A representative pavement structure comprises a 10 mm asphalt concrete wearing course, a 160 mm open-graded asphalt leveling course, a 150 mm cement-treated base course, and a 240 mm subbase, which is appropriate for the expected traffic volume and type. The road traverses a flat to slightly rolling terrain. The road sections to be rehabilitated follow the existing alignment and no major bridge works are anticipated, thus, the



construction is not expected to be problematic. Independent supervision consultants will be appointed for site supervision.

**76. The project will bring substantial climate change co-benefits through climate-sensitive transport and agriculture-related investments.** The project has been screened for climate and disaster risks using the Bank's online screening tool at <https://climatescreeningtools.worldbank.org>. Identified climate change risks will be mitigated through careful design and implementation of project activities, and climate change mitigation activities have been added to support meeting Ukraine's national commitments on climate change.<sup>40</sup> Under Component 1, climate resilient design standards will be taken into account, including specific measures for pavement construction to be resilient to the extreme temperature ranges experienced in summer and winter in Ukraine. The risk of flooding and heavy snowfall will be mitigated through water drainage and snow protection measures included in the design studies. The technical assistance proposed by the project under Component 1 will impart knowledge on emergency repair and road protection in case of adverse effects of climate changes. For physical structures (e.g. agriculture-related processing and storage facilities), checks for seismic resilience and climate risks will be part of the standard rehabilitation process and oversight. As part of the upgrade of infrastructure under Component 2, energy efficiency measures, including potential renewable energy usage where feasible, sustainable waste management, and sustainable lighting will be implemented, and emergency plans in case of fires or floods will be prepared and made available. The agri-hub planned under Subcomponent 2A will be used for awareness-raising events on climate change and climate resilient and sustainable agriculture practices to help communities become more resilient. Under Component 3, the 3RYS' mandate will also include the organization of awareness-raising activities on climate action and sustainable agriculture practices.

## **(ii) Economic and Financial Analysis**

**77. The overall economic internal rate of return (EIRR) for investments under Components 1 and 2 has been estimated at 41.99 percent.**<sup>41</sup> The economic and financial analysis conducted for the Component 1 and 2 agricultural investments during preparation suggests that each of the proposed subprojects is economically viable at a social discount rate of 6 percent<sup>42</sup> over the 20-year lifetime used for the analysis.

**78.** The analysis employs a simplified cost-benefit methodology, where the direct cost and monetary value of selected benefits are compared, and net present value (NPV) and EIRR are presented.<sup>43</sup> Implementation costs and benefits, adjusted for inflation and the country's economic conditions, were estimated on the basis of existing empirical evidence to assess the initiatives' economic viability. The main hypothesis is that appropriate design and implementation of various investments will significantly increase the social and economic conditions of beneficiaries and, as a consequence, their communities, through both direct and indirect benefits, such as increased revenues and spillover benefits. In particular, the intended outcomes would be achieved by increasing productivity, trade, and market power through the rehabilitation of paved roads, innovation in technology, market and sector network access, and reduction

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<sup>40</sup> National commitments on climate change are reflected in the National Communication on Climate Change and under the Paris Climate Agreement. Ukraine has also communicated its post-2020 climate actions through a National Determined Contribution, under which it has committed to not exceed 60% of the 1990 greenhouse gas emission level in 2030. The first technological needs assessment report from Ukraine, prioritizing technologies for climate change mitigation, was published in July 2019 and will influence the new National Determined Contribution to be revised in 2020.

<sup>41</sup> The conclusion is conservative as each of the initiatives present far larger economic returns in terms of indirect social benefits (described in Annex 3), although not tangible or readily quantifiable.

<sup>42</sup> In accordance with World Bank guidelines on social discount rate.

<sup>43</sup> Bugnion, C. 1998. "Economic Rationalization of Humanitarian Aid: Use of cost and effectiveness indicators to evaluate ECHO funded humanitarian emergencies." European Community Humanitarian Office.



in waste due to sanitary issues. Each of the subprojects present a positive NPV at a 6 percent discount rate over a 20-year period and a high EIRR<sup>44</sup> (Table 2). A sensitivity analysis has been conducted to test the findings' robustness under changeable economic conditions. The project's proposed interventions remain economically viable under the scenarios examined (detailed in Annex 3).

Table 2: Cost-Benefit Analysis of Selected Development Subprojects

	Road Rehabilitation	Logistics & Service Hub	Testing & Food Safety Laboratory	Agricultural Clusters
<b>Investment</b>	US\$185,000,000*	US\$12,000,000	US\$10,000,000	US\$10,000,000
<b>NPV**</b>	US\$443,635,499	US\$21,302,148	US\$15,862,429	US\$15,732,911
<b>EIRR</b>	45.0%	21.97%	20.47%	20.37%
<b>OVERALL EIRR</b>				<b>41.99%</b>

\*EFA was conducted for road investments under the 3R Project (US\$ 65 million) and parallel EIB loan (estimated US\$ 120 million) as international IFI investments in the region; Government co-financing for road investments in the region was separately analyzed and justified according to Government procedures.

\*\*NPV at a 6% social discount rate over a 20-year period.

79. **Greenhouse gas accounting.** For road investments, the total gross carbon dioxide (CO<sub>2</sub>) emissions over the 20-year evaluation period under the “without-project” (WOP) scenario are estimated at 4,927,689 tons and under the “with-project” (WIP) scenario at 4,899,948 tons, resulting in a net decrease of CO<sub>2</sub> emissions of about 27,742 tons, or 1,387 tons per year. For the agriculture-related investments, the total gross CO<sub>2</sub> emissions over the 20-year evaluation period under the WOP scenario are estimated at 15,209,187 tons and under the WIP scenario at 12,541,738 tons, resulting in a net decrease of CO<sub>2</sub>-equivalent emissions of about 2,695,191, or 133,372 tons per year (See Annex 4).

## B. Fiduciary

### (i) Financial Management

80. **Financial management risk and capacity.** An FM assessment was carried out in February 2020 and covered both IAs — UAD and MRTOT. MRTOT and UAD will be responsible for their respective components of the project, including disbursement and flow of funds, and contract and payment management. The FM risk is **Substantial** given the multisectoral approach of the operation and large number of stakeholders, which requires close coordination, as well as the recent establishment of MRTOT and the need for continued capacity building efforts. FM arrangements will be acceptable subject to completion of agreed actions. UAD has qualified FM staff in place and has extensive experience in the implementation of World Bank projects. FM and disbursement systems are also in place. The FM function will be performed at the UAD and central PIU level, and no funds will flow to the regional office. Although MRTOT recently reorganized, some capacity has been retained from the implementation of previous World Bank grant-financed projects. The MRTOT PIU will hire a qualified FM specialist with experience in the implementation of World Bank operations. The FM function will be performed at the central PIU level of MRTOT, and no funds will flow to other agencies. Both the UAD and MRTOT POMS will include a section on FM and disbursements. Adoption of the POM by UAD will be a disbursement condition for Component 1, and adoption of the POM by MRTOT will be a disbursement condition for Component 2. Both UAD and MRTOT will be required to comply with the quarterly reporting and annual auditing requirements. Details on the FM arrangements are provided in Annex 2.

<sup>44</sup> Higher than cost of capital of 19.12 percent (World Bank WDI, 2020)





81. **Disbursement arrangements.** Funds will be disbursed in parallel by both MRTOT and UAD for their respective components. Funds will be used by MRTOT and UAD at the central level, and no funds will be channeled to other agencies or regional offices. Such parallel fiduciary arrangements will require opening separate segregated Designated Accounts (DAs) for MRTOT and UAD to simplify planning of project expenditures and their management. The project will use standard disbursement arrangements, including the use of direct payments, reimbursements, and advances, and will allow the use of letters of credit. Respective DA ceilings and minimum application size will be set in the Disbursement and Financial Information Letter. The DAs will be opened at Ukreximbank in USD, the currency of the loan, and DA reports will be submitted at the frequency required by the Disbursement and Financial Information Letter. The MRTOT and UAD will be responsible for quarterly interim unaudited financial reports (IFRs) prepared in accordance with the template agreed with the World Bank, and annual project financial statement audits, carried out by an eligible audit firm in accordance with the agreed TOR.

**(ii) Procurement**

82. **Procurement risk.** A procurement risk assessment was carried out in February 2020 and covered both IAs — UAD and MRTOT. The procurement risk of the proposed 3R Project is assessed by the Bank as **Substantial** given: (a) the decentralization of the project (which does not include fiduciary functions, but still requires coordination on technical aspects); (b) typical country delays in preparation of technical specifications, qualifications, and requirements; (c) systemic delays in evaluation processes and contract award recommendations; (d) potential delays in contract signing with successful bidders; (e) delays in implementation of signed contracts; and (f) the recent reorganization of MRTOT.

83. **Procurement capacity.** UAD is an experienced entity in IBRD, EBRD, and EIB-supported investment operations. UDI has been acting as the agency's PIU for multiple donor-funded projects with large civil works and consultancy contracts since its establishment in 2008. MRTOT does not have experience in implementing IBRD-supported investment operations but did gain some experience through implementation of the Ukraine Conflict Response and Recovery Pilot and Capacity Building Project grant since 2017, which included partnership with local councils in Eastern Ukraine for implementation. The Ministry is also managing two recovery-focused loans from the Government of France (US\$64 million) and the Government of Germany (US\$52.5 million) to support recovery efforts in Eastern Ukraine.

84. **Procurement arrangements.** Project-specific risk mitigation measures will include: (a) having all procurement and flow of funds managed centrally in MRTOT and UAD, in close cooperation with their regional team members in Luhansk Oblast GCAs; (b) use of direct payment of IBRD funds to contractors, suppliers, and service providers; (c) use of independent supervision engineers for supervision of works and contract management; (d) securing and use of experienced and qualified PIU consultants that have proven their satisfactory performance in ongoing IFI-financed activities; (e) selecting and employing additional specialized consultants to strengthen the fiduciary project implementation team as needed; and (f) conducting regular monitoring missions and capacity building workshops. The World Bank Procurement Regulations for Investment Project Financing Borrowers: Goods, Works, Non-Consulting and Consulting Services dated July 2016 (revised November 2017 and August 2018) (Procurement Regulations) will apply, as will the World Bank Standard Procurement Documents and the Latest Guidelines on Preventing and Combatting Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (Anti-Corruption Guidelines). Ukraine's e-procurement system, ProZorro, may be used as a tool for e-reverse auctions for any procurement method or new selection with a cost estimate below US\$1 million for goods and US\$5 million for works using Request for Quotation, National Request for Bid, or National Request for Proposal methods. Irrespective of the use of ProZorro as a tool for procurement or Bank standard procedures, all procurement-related notices will be published in ProZorro to enhance competition and transparency. The national procurement law in force meets the requirements of the Procurement



Regulations for national open competitive procurement, except the necessity to include the Bank's Anti-Corruption Guidelines, including the Bank's right to sanction and the Bank's inspection and audit rights, in the sample bidding documents.

### C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Note: Activities financed by this project will not use or risk polluting any international waterways, therefore OP 7.50 does not trigger.

### D. Environmental and Social

85. The environmental and social risk of the proposed project is assessed by the Bank as **Substantial**. The Environmental and Social Risk Classification is based on the project location (proximity to conflict areas) and baseline conditions, the potential environmental and social risks associated with project activities, overall scale of the project, possible cumulative impact, and anticipated challenges in environmental and social risk management supervision due to limited client capacity.

86. **Environmental risks.** Although the specific sites where physical works will take place are mostly existing roads and urbanized areas, key environmental issues will be related to: (a) waste management of removed road surfaces and construction spoils; (b) noise and air pollution with dust; (c) the presence and handling of hazardous materials such as bitumen, paint, oil containing materials; (d) the health and safety of the populations of the villages and towns along the roads and travelers during road rehabilitation phases, as well as the populations living near the agriculture-related investment construction sites; and (e) impacts on water, soil, and air quality in case of construction-related spills. These predictable impacts are expected to be temporary, reversible, moderate in magnitude, and site-specific. The 3R Project areas in Luhansk Oblast GCAs are limited to the areas outside of the United Nations-determined armored vehicle mandatory zone<sup>45</sup> and risks in terms of land mines/unexploded ordinance (UXO) are low. Eligibility criteria for the selection of the areas where civil works will be carried out will be set forth in the MRTOT and UAD POMs and any areas that would require demining/UXO removal will be excluded. MRTOT will coordinate: (i) an initial screening of land mine/UXO risks to inform feasibility and design studies for project investments; and (ii) subsequent to the screening, an on-site physical survey to confirm that the screened areas do not have any land mines/UXO. This process will be outlined in the MRTOT and UAD POMs. Adequate adoption of land/mine UXO awareness raising and occupational health and safety practices for workers during construction and maintenance operations will also be required. Also, the agricultural logistics and service hub is required to adopt HACCP (Hazard Analysis and Critical Control Point) and integrate it into its operational model.

87. **Social risks.** Social issues and potential risks identified include: (a) works to be financed under Components 1 and 2 and the associated Environmental and Social Standard (ESS) 5 impacts, particularly under the Component 1 road investments; (b) engagement with local communities and other relevant stakeholders (including with the most

<sup>45</sup> This is approximately 15 kilometers away from the contact line separating the GCAs and NGCAs of Ukraine. The United Nations Department of Safety and Security issues Standard Operating Procedures for the Eastern Conflict Area of Ukraine that define this boundary as part of regular security monitoring.





vulnerable and disadvantaged groups) and challenges in ensuring their genuine participation in the decision-making processes of the project; (c) the challenging social environment and baseline conditions in Eastern Ukraine due to conflict; and (d) the limited capacity of UAD and MRTOT in handling ESF requirements. In addition to these risks, the evolving situation around the COVID-19 pandemic may potentially impact project implementation, particularly given public health guidelines on physical distancing and quarantine. To mitigate this risk, the IAs prepared a draft Stakeholder Engagement Plan (SEP), which among others, suggests preliminary tools (such as virtual consultations) to ensure continuous community engagement. Consultation, communication, and feedback mechanisms in the design of the project will help to manage expectations, especially for large infrastructure projects, and orient investments in ways that address local priorities and strengthen transparency in resource allocation decisions.

**88. Environmental and Social Framework instruments.** Detailed analysis of the application of the World Bank's ESSs has been provided as part of the Environmental and Social Review Summary. The project applies ESSs 1-6, 8, and 10 as relevant at this stage of development and needed environmental and social measures will be implemented through the actions agreed in the respective Environmental and Social Commitment Plan prepared by UAD and MRTOT and submitted to the World Bank. The Environmental and Social Management Framework (ESMF) with a template Environmental and Social Management Plan (ESMP), a draft SEP, draft Resettlement Policy Framework, and Labor Management Procedure were developed and will be updated during project implementation as required. The project ESF instruments were consulted with project stakeholders and disclosed in-country on April 7, 2020, and disclosed on the World Bank external website on June 12, 2020. Once the project activity designs are finalized and environmental and social assessments completed, additional measures such as subproject-specific ESMPs, and other environmental and social management plans, will be prepared as required. A project-specific GRM will be established as outlined in the ESMF.

**89. Citizen engagement.** A key objective of the project is to support the GoU to engage conflict-affected communities to improve state-citizen relations and build trust around delivery of infrastructure investments. 3R project communities will be engaged in participatory needs identification and participatory planning mechanisms to identify safety problems and improvement measures in relation to the design and location of transport-related infrastructure investments (Component 1) and to inform the design studies for the agricultural subprojects (Component 2). For infrastructure investments under Components 1 and 2, beneficiary communities will also be engaged through annual beneficiary/user surveys conducted for each infrastructure investment (for the road investments, the agri-hub, and the laboratory) including a baseline measuring the perception of communities regarding existing transport and agricultural infrastructure and services, and then annual surveys to obtain feedback on the design implementation, budgeting, construction process, infrastructure improvements, and facility management. Survey results will be presented and discussed in community forums in project/construction areas, and feedback incorporated into action plans that UAD, MRTOT, and local administrations will take forward to improve implementation. Under Component 3, a well-advertised BFM (including a GRM), linked to MRTOT's online Data Portal on Peacebuilding and Recovery, will be established to collect and respond to complaints and other feedback. Young women and men will be engaged in leadership roles as 3RYs and trained to support these citizen engagement mechanisms in 3R target communities. In addition, three public-private investment forums will be conducted over the project period to engage national and local private sector actors on regional investment priorities and opportunities. Based on the evolving COVID-19 situation, proposed citizen engagement activities will also blend traditional and civic technology through the Data Portal; and utilize virtual formats for engagement.

**90. Gender.** The project focuses on closing two gender gaps: (a) the disproportionate disadvantage rural women face in mobility due to poor rural road infrastructure and public transport options; and (b) a gender gap in agricultural



productivity and empowered entrepreneurship for small or household-level women agricultural producers. Component 1 road rehabilitation will aim to improve mobility for rural communities, including for women beneficiaries. Improved roads are projected to increase public transport options (buses) in the region (including rural-urban connections), which are disproportionately used by women. In Component 2, women will be supported as part of the agricultural cluster development financed under Subcomponent 2C. Cluster development will support enhanced value chain to market productivity and entrepreneurship for the region's many small and household-level agricultural producers. Cluster participation will include a target of 35 percent women. The 3R communications and outreach campaign will ensure consistency of, and pro-gender equality messaging about, program activities in beneficiary communities to encourage women's participation in the clusters. Closing the gap will be measured by the percentage of women participating in the agricultural clusters reporting enhanced small farm productivity and/or profitability due to project interventions. Component 3 will also add a series of actions to promote participation of women in community engagement, social accountability, and project monitoring, including at least 50 percent 3RYs, gender-disaggregated data collection, and effective communications efforts to help elevate the public visibility of women's role in agriculture in the region. (See Annex 5 - Gender for additional details).

## V. GRIEVANCE REDRESS SERVICES

91. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project-affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## VI. KEY RISKS

92. **The overall risk of the project is assessed as Substantial given three major factors:** (a) political and governance-related risks due to the ongoing conflict, and therefore the politically uncertain and volatile development context; (b) institutional risks due to deep deficits in institutional capacity and citizen trust and engagement in the project areas of the Luhansk Oblast GCAs, and challenges in working cooperatively across different levels of government (national, regional, local); and (c) transport and agricultural sector strategy and policy risks due to the lack of awareness and momentum regarding ongoing reforms and conflict impacts on productivity, efficiency, and access to infrastructure and services. These are described in more detail below.

93. *Political and governance-related risks are rated as High due to the project's proximity to the conflict zone and uncertainty regarding a future political settlement. The potential socioeconomic impacts of the recent COVID-19 epidemic in Ukraine also heighten risks, particularly among vulnerable and elderly populations in Eastern Ukraine. Risks to the project's target communities in Luhansk Oblast GCAs associated with intensified violence along the contact line are limited, however, with the contact line having largely frozen in place for over 36 months. Negotiations in 2019-2020 also led to implementation of confidence-building measures, such as prisoner exchanges and disengagement zones.*



While cease-fire violations are a regular occurrence<sup>46</sup>, the overall level of fighting in 2019 was at its lowest since the onset of conflict in 2014, and is localized either on or near the Contact Line (within the armored vehicle mandatory zone). However, without a sustainable political settlement, the risk of an escalation of the conflict and changes in territorial control, while limited, remain possible with impacts on 3R project communities. The project will help mitigate these risks by: (a) limiting project activities to Luhansk Oblast GCAs in areas outside of the armored vehicle mandatory zone; (b) maintaining the broad-based involvement of national, regional, and local administrations in support of the project, including through the project steering committee and subcommittee; (c) focusing on outreach to, and engagement with, conflict-affected communities in project areas; and (d) including a contingency/emergency response component to allow the flexibility to reallocate project funds to respond to crises, including to adapt activities as needed in response to an escalation of the conflict which impacts target communities.

94. *Institutional risks are rated as Substantial* due to both the project's focus in Luhansk Oblast GCAs, which faces significant socioeconomic, institutional capacity, and human capital constraints due to the conflict, and because of the recent transitions and new institutional structure of MRTOT and its lack of experience with World Bank investment financing projects. The project also requires challenging coordination across different levels of government (national, regional, local). The project will help mitigate these risks through having cross-government representation on the project steering committee, closely coordinating project activities with regional and local officials, and investing in technology transfers, training, and capacity building for local officials and communities as well as engaging a TFP to support MRTOT and build on the capacity gained from MRTOT's experience with implementing World Bank grant-financed activities.

95. *Macroeconomic risks are assessed as Substantial* due to the high public debt servicing requirements that require IFI support, volatility in the banking sector, and volatility in the agricultural commodity markets that could impact project beneficiaries. These risks will be mitigated by focusing on targeted development support to increase growth of the agricultural sector/Luhansk Oblast GCAs, and targeting a range of beneficiaries, including large, medium, and small agricultural producers.

96. *The risks associated with sector policies and strategies are also assessed as Substantial*, mainly due to the project's focus on agricultural development and the lack of awareness and support for land reforms and opening of the land market in project areas, increasing climate volatility affecting agricultural output, as well as Ukraine's export market volatilities. These risks will be mitigated through outreach and community engagement activities throughout the project, targeted support for agricultural producers, and climate mitigation measures built into project activities under Components 1 and 2.

97. *Fiduciary risks are rated as Substantial*. Fiduciary risks will be mitigated by centralized fiduciary controls and application of clear and transparent roadmaps for implementation of project activities. FM and procurement will be centralized, but PIUs will also have team members based in Luhansk Oblast GCAs for supervision and monitoring. Past experience and assessments of the IAs' capacity suggest that project-specific mitigation measures will be necessary for implementation of IBRD-financed activities. These include: (a) having all procurement and flow of funds managed centrally in MRTOT and UAD, in close cooperation with PIU staff based in the Luhansk Oblast GCAs; (b) use of direct payment of IBRD funds to contractors, suppliers, and service providers; (c) use of independent supervision engineers for supervision of works and contract management; (d) securing and use of experienced and qualified PIU consultants that have proven their satisfactory performance in ongoing IFI-financed activities; (e) selecting and employing additional

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<sup>46</sup> See Daily and spot reports from the Organization for Security and Co-operation in Europe Special Monitoring Mission to Ukraine: <https://www.osce.org/ukraine-smm/reports>



specialized consultants to strengthen the fiduciary project implementation team as needed; and (f) conducting regular monitoring missions and capacity building workshops.

98. *The proposed project is expected to have Substantial environmental and social risks.* The environmental and social risk classification for the project is based on project location (proximity to conflict areas) and baseline conditions, overall scale of the project, possible cumulative impact, and anticipated challenges in environmental and social risk management supervision due to limited client capacity. Risks will be mitigated through the preparation, consultation, and continuous monitoring of environmental and social risk management instruments as described in paragraphs 85 – 88.



## VII. RESULTS FRAMEWORK AND MONITORING

### Results Framework

COUNTRY: Ukraine

Eastern Ukraine: Reconnect, Recover, Revitalize (3R) Project

#### Project Development Objectives(s)

To improve transport connectivity and promote agricultural sector recovery in project areas with the active engagement of conflict-affected communities.

#### Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Improved connectivity of agri-communities to processing facilities, markets, services				
Enhanced mobility: travel time between rural areas and service centers/markets in Luhansk Oblast GCAs (Minutes)		90.00	72.00	54.00
Agri-sector recovery promoted in project areas				
Percentage of beneficiaries of agri-hub and agricultural cluster investments reporting increased profits and/or improved access to new technologies due to project interventions (Percentage)		0.00	40.00	80.00
Cumulative number of users of agricultural testing and food safety services provided by the project (Number)		0.00	1,000.00	4,000.00
Revitalized agri-communities with increased capacity for investment decision making/monitoring				



Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Percentage of target beneficiaries who report that the design/operation of infrastructure investments financed by the Project reflect their inputs (Percentage)		0.00	40.00	70.00

### Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Component 1: RECONNECT				
Number of kilometers of roads rehabilitated in project areas (Kilometers)		0.00	20.00	50.00
Transport cost from farms/processing centers to main transport hubs/markets (UAH per ton/km) (Number)		1.60	1.50	1.25
Modernization of road network management: percent change in number of overweight trucks (Percentage)		90.00	40.00	10.00
Number of traffic accidents involving injury and fatalities on project rehabilitated roads (Number)		13.00	11.00	10.00
Number of 3R project community consultations and trainings held in target areas on road safety/'feeder road' development (Number)		0.00	5.00	10.00
Development of climate resilient maintenance guidelines for 3R roads investments (Yes/No)		No	Yes	Yes
Number of short-term jobs created in roads construction in project areas (Number)		0.00	750.00	1,000.00
Percentage beneficiary satisfaction with project-financed roads (Percentage)		0.00	50.00	80.00





Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Component 2: RECOVER				
Laboratory technical and design study completed with beneficiary consultations/risk-sensitive design (Yes/No)		No	Yes	Yes
Agri-hub constructed and operational (Yes/No)		No	Yes	Yes
Number of small/household farmers mobilized to participate in 3R agricultural clusters (Number)		0.00	400.00	875.00
Percentage of women participating in the agricultural clusters reporting increased profits and/or market access due to project interventions (Percentage)		0.00	20.00	70.00
Number of awareness building events on agricultural impacts of climate change under Component 2 (Number)		0.00	5.00	10.00
Component 3: REVITALIZE				
Number of new development investments planned for Eastern Ukraine following 3R project interventions (Number)		0.00	2.00	4.00
Number of action plans implemented based on user/beneficiary surveys and community forum feedback (Number)		0.00	4.00	9.00
Number of persons in project areas utilizing 3R BFM mechanism through multiple channels, including online data portal, on monthly basis (Number)		0.00	10.00	30.00
Number of youth and women employed as part of project accountability and outreach activities (Number)		0.00	20.00	40.00



**Monitoring & Evaluation Plan: PDO Indicators**

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Enhanced mobility: travel time between rural areas and service centers/markets in Luhansk Oblast GCAs	Measures whether roads investments have increased access to markets/services for agricultural communities. The indicator will measure average travel time (in minutes) on the road segments supported by the project (between Severodonetsk and Starobilsk; Starobilsk and Troitske; Starobilsk and Svatove; Svatove and Severodonetsk).	Baseline, Midline, Endline	UAD analysis	Average travel time will be measured by UAD using a passenger vehicle. Additionally, UAD will verify data on travel time through: (i) digital sources (Google and/or others); (ii) private transport companies; and (iii) NGO reporting.	UAD
Percentage of beneficiaries of agri-hub and agricultural cluster investments reporting increased profits and/or improved access to new technologies due to project interventions	Measures whether beneficiaries of agri-hub and agricultural clusters are reporting increased profits and/or enhanced access to new technologies as a result of project support (disaggregated by type and size of producer, women-headed enterprises). Survey methodology will be detailed in the POM.	Baseline, Midline, Endline	Beneficiary surveys conducted for users of agri-hub and participants in agricultural clusters	Beneficiary survey will be conducted of agricultural producers accessing agri-hub services or participating in the agricultural clusters with questions on whether project investments have increased profits and/or improved access to new technologies for project	MRTOT



				beneficiaries. The survey will also include questions on type/size of producer/enterprise and whether the producer/enterprise is female-headed.	
Cumulative number of users of agricultural testing and food safety services provided by the project	Measures the cumulative number of users accessing the project-supported laboratory's agricultural product and food safety testing services (disaggregated by type of service and type/size of producer). Since testing services have not been accessible in the region due to conflict, the indicator measures number of new users following project investments and the types and range of new services provided. This includes agricultural enterprises, public institutions, and individual producers.	Annual	Project monitoring reports	Project monitoring will include monthly reports on users of laboratory services. Reporting will include data collection on type/size of user and type of laboratory service accessed.	MRTOT
Percentage of target beneficiaries who report that the design/operation of infrastructure investments financed by the Project reflect their inputs	Measures whether project investments reflect results of stakeholder dialogue, engagement and participatory monitoring	Baseline, Midline, Endline	user surveys; BFM data; minutes from community forums	Surveys of beneficiaries of Component 1 and 2 investments; feedback collected during community forums and	MRTOT



	through a perception survey of beneficiaries on whether design/operation of infrastructure investments reflect their feedback and inputs (disaggregated by gender).			as part of beneficiary surveys. Survey design to be detailed in the POM.	
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#### Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of kilometers of roads rehabilitated in project areas	This indicator will measure the kilometers of distance of the N-26, R-66 and T-13-07 roads rehabilitated under the project.	Quarterly	Project Progress Reports	Physical measurements of sections completed based on reports provided by independent Supervision Engineer.	UAD
Transport cost from farms/processing centers to main transport hubs/markets (UAH per ton/km)	Measures whether roads investments result in decreased transport costs for agricultural producers. This analysis is based on rates for transportation of agricultural products such as grain, sunflower seeds and others, established by transport service companies. The unit measure is UAH per ton/km.	Baseline, Midline, Endline	UAD analysis	One month after the road sections (between Severodonetsk and Starobilsk; Svatove and Troitske; Svatove and Severodonetsk) are open for traffic without any restrictions, UAD will collect rates for transportation of agricultural products such as grains and	UAD



				<p>sunflower seeds from: (i) agricultural producers, (ii) state authorities and (iii) and local communities in Luhansk Oblast GCAs. Received numbers (actual) will be compared with the same period of time (+- 1 month) of previous calendar year (baseline). If the difference between the actual and baseline is around 22.1%, then, in accordance with results of modeling in HDM-4, designed economic effect has been achieved. NOTE: results should be adjusted accordingly to changes in fuel prices in respective periods of year.</p>	
Modernization of road network management: percent change in number of overweight trucks	<p>This indicator will measure progress in achieving the successful roll-out of a weigh-in-motion control system on road corridors N-26, R-66 and T-13-07. The</p>	Annually	Project Progress Reports	<p>Data to be collected from the weigh-in-motion control system. NOTE: Baseline, could be amended upon first measurements of the</p>	UAD



	measure will assess the percentage of overweight trucks per legal standards traveling project-supported road corridors.			system after installation.	
Number of traffic accidents involving injury and fatalities on project rehabilitated roads	This indicator will measure the number of road crashes injuries and fatalities along the N-26, R-66 and T-13-07 roads per year as a measure of road safety interventions.	Baseline, Midline, Endline	The data will be obtained from official state statistic resources and included in quarterly reports submitted by UAD.	Data should be collected in accordance with national regulation of Ukraine.	UAD
Number of 3R project community consultations and trainings held in target areas on road safety/'feeder road' development	Measures the number of consultations/workshops conducted under Subcomponent 1B on road safety, "feeder road" development and climate resilience of the local network.	Annually	Project Progress Reports	Review of Project Progress Reports; review of minutes of workshops and consultations held.	UAD
Development of climate resilient maintenance guidelines for 3R roads investments	Measures whether UAD has successfully developed a handbook with methodology for routine maintenance and emergency repairs of local network or feeder roads, that could be used by local communities and farmers.	Annually	Project Progress Reports	Reports of Consultant on completion of respective stage of the assignment.	UAD





Number of short-term jobs created in roads construction in project areas	Indicator will monitor how construction activities will contribute to level of employment in the region (disaggregated by veterans, IDPs). Short-term job includes part-time and full-time employment of less than one year or as defined in the POM.	Annually	Project Progress Reports	Reports of supervision Engineer, that will include composition of the team mobilized by Contractor.	UAD
Percentage beneficiary satisfaction with project-financed roads	This indicator measures the share of beneficiaries reporting their satisfaction during project design and implementation (disaggregated by gender, youth, IDPs).	Annual, starting from the second year of implementation	Beneficiary surveys; community forums	Review of data from user surveys; minutes from community forums.	UAD
Laboratory technical and design study completed with beneficiary consultations/risk-sensitive design	Indicator will monitor progress in development of feasibility study and design for Laboratory. "Risk-sensitive" design includes attention to climate resilience, social and environmental risks as identified during research and consultation.	Baseline, Midline, Endline	Project monitoring reports	Reports of Consultant on completion of respective stage of the assignment.	MRTOT
Agri-hub constructed and operational	Indicator will monitor progress in the construction and launch of the project-supported agricultural logistics and service hub.	Annually	Project Progress Reports; contractor reports	Reports of contractor on completion of respective stage of the assignment.	MRTOT



	Constructed means the facility has been completed according to technical design studies. Operational means agricultural producers are able to access agri-hub services.				
Number of small/household farmers mobilized to participate in 3R agricultural clusters	Indicator measures the number of small/household farmers participating in agricultural clusters mobilized through the project (disaggregated by gender, youth, veterans, IDPs).	Baseline, Midline, Endline	Project monitoring reports	Review of project monitoring reports.	MRTOT
Percentage of women participating in the agricultural clusters reporting increased profits and/or market access due to project interventions	Measures whether the gap in rural women's access to value chain to market support and entrepreneurship is being addressed through their participation in agricultural clusters supported by the project. Profits and market access will be based on results of a beneficiary survey to be detailed in the POM.	Baseline, Midline, Endline	Project monitoring reports; beneficiary surveys	Review of project monitoring reports/surveys; methodology for assessing increased profits and/or market access will be defined in the POM and Gender Action Plan developed to inform the design of the Agricultural Clusters.	MRTOT
Number of awareness building events on agricultural impacts of climate change under Component 2	Measures the number of events designed to improve awareness of climatic resilience supported by the project under Component	Baseline, Midline, Endline	Project monitoring reports	Review of project monitoring reports.	MRTOT



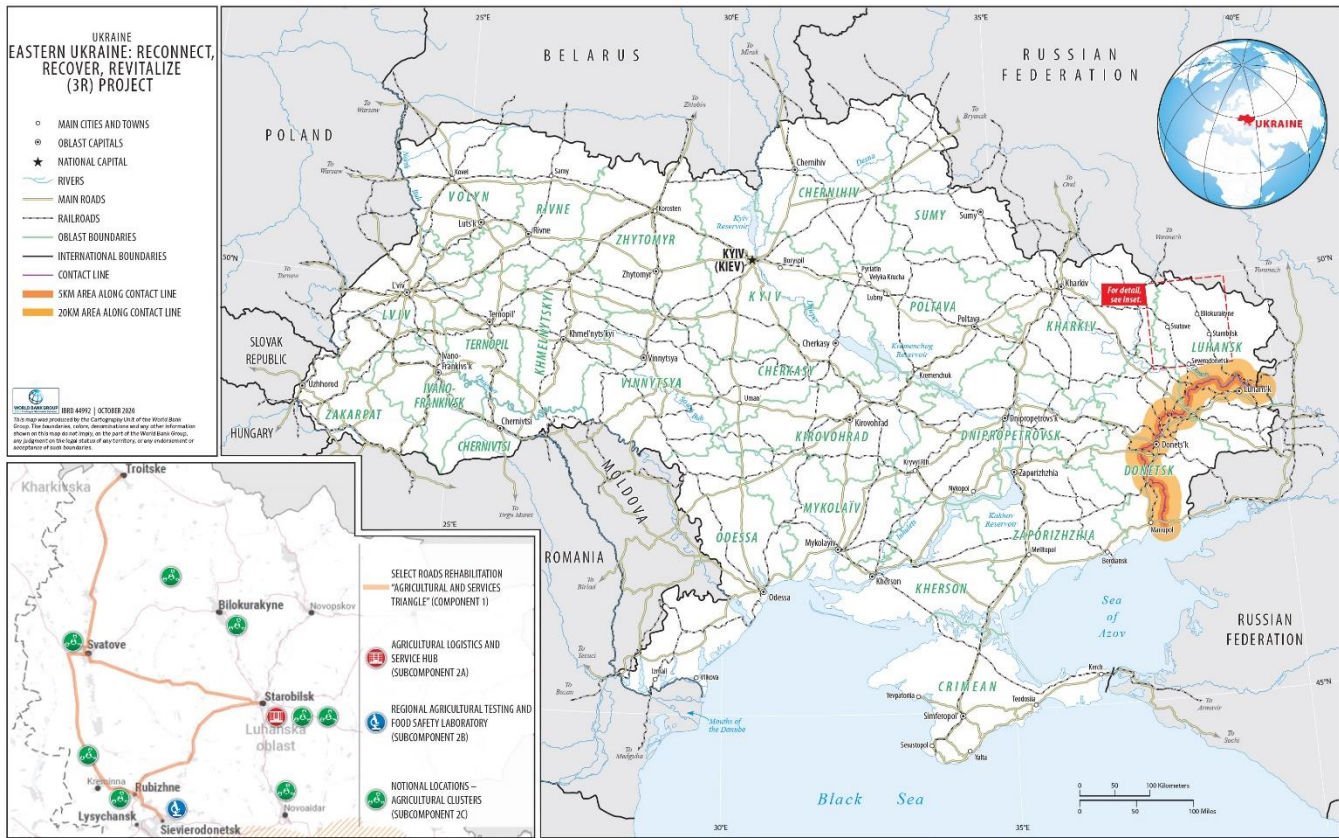
	2/as part of agricultural investments.				
Number of new development investments planned for Eastern Ukraine following 3R project interventions	Measures whether 3R project interventions are mobilizing additional investments in the region (investments could include: loans, grants, private sector investment) following 3R project activities/3R regional public-private investments forums.	Baseline, Midline, Endline	Project monitoring reports	Review of planned investments (grants, loans, private sector investment) for conflict-affected regions and potential links to 3R project activities/investment forums.	MRTOT
Number of action plans implemented based on user/beneficiary surveys and community forum feedback	Tracks whether annual beneficiary/user surveys and community forums are implemented for infrastructure investments (roads investments, agriculture logistics and services hub, and laboratory), including if results inform action plans for MRTOT, UAD and local administration partners to improve implementation and sustainability of infrastructure investments.	Annual	Project monitoring reports; user surveys; minutes from community forums	Review of results of user surveys; minutes from community forums; and project reporting on action plans developed.	MRTOT
Number of persons in project areas utilizing 3R BFM mechanism through multiple channels, including online data portal, on monthly basis	Measures whether BFM mechanism/Data Portal is being utilized in project areas/by types of beneficiary and what type of feedback channel is most	Annually	Project monitoring reports	Review of project monitoring reports.	MRTOT



	common. Measured through hits/usage of BFM/online portal.				
Number of youth and women employed as part of project accountability and outreach activities	Measures commitment to hire two cycles of 20 Luhansk GCA youth (at least 50 percent women; 40 total) from among students at local universities and recent graduates to serve as 3R Youth Leaders (3RYs).	Baseline, Midline, Endline	Project monitoring reports	Review of project monitoring reports.	MRTOT



ANNEX 1: PROJECT MAP





## ANNEX 2: IMPLEMENTATION ARRANGEMENTS AND SUPPORT PLAN

### (i) Detailed Implementation Arrangements – Components 1 and 2 Infrastructure Investments

1. The implementing arrangements for transport investments under Component 1 are as follows:
  - (a) **Subcomponent 1A - Road rehabilitation of the target road network in Luhansk Oblast GCAs** will be implemented by Ukravtodor (UAD), Ukraine's road agency. UAD has initiated feasibility and design studies for the target road network during project preparation to enable a rapid launch of the road works following declaration of project effectiveness during Year 1 of project implementation. Construction activities will utilize local labor from project areas to create short-term employment opportunities for local communities, targeting internally displaced persons (IDPs) and veterans where possible. Provisions regarding local employment will be included in works contracts. Project designs will also undergo road safety audits. Since works will be limited to road rehabilitation rather than greenfield construction, resettlement is not anticipated; however, UAD has prepared a Resettlement Policy Framework to address any risks that may emerge following design studies.
  - (b) **Subcomponent 1B - Technical assistance, capacity building, and community engagement on road investments** will be implemented by UAD, building on its national and local knowledge of roadworks, rehabilitation, and maintenance, in close cooperation with Luhansk Oblast regional and local authorities. In addition, the Ministry for Reintegration of Temporarily Occupied Territories (MRTOT), through Component 3, will support the proposed participatory needs identification and planning around priorities for mobility and safety related to road investments (as part of the design-stage user surveys described in Subcomponent 3B) and support awareness-building activities as part of the overall communications strategy (through Subcomponent 3C).
2. The implementing arrangements for agriculture investments under Component 2 are as follows:
  - (a) **Subcomponent 2A - Agricultural logistics and service hub** will be implemented by MRTOT in a sequenced manner. A detailed technical design study, including beneficiary and stakeholder consultations, will be prepared based on which the final scale and scope of the agri-hub and its facilities and services will be determined. The study will also include an assessment of, and consultation on, the optimal management and operational arrangements of the agri-hub, including a possible cooperative management model. World Bank approval of the design study will be required before proceeding to implementation. It is expected that a qualified international contractor can be procured early during the first year of project implementation, and construction works will commence in the second year of the project. MRTOT will enter into a memorandum of understanding (MoU) with the Starobilsk City Council that outlines roles and responsibilities regarding the design, construction, and operations and maintenance (O&M) of the facility. The MoU will also outline Government of Ukraine (GoU) requirements with regard to the provision of state-owned land for the facility and management of environmental and social risks in line with World Bank policies.
  - (b) **Subcomponent 2B - Regional agricultural testing and food safety laboratory** will be implemented by MRTOT. The subcomponent will first support the preparation of a detailed technical design study, that will include the identification of a suitable location for the lab in or around Severodonetsk City as the de facto regional center of the Luhansk Oblast GCAs. The study will also identify the range of services to be provided, (informed by consultations with user groups), as well as the needed equipment, a business development plan, and





operational and cost recovery arrangements. The subcomponent will be implemented in coordination with existing UN Food and Agriculture Organization (FAO) initiatives, which have already provided food safety laboratory equipment, and focus on the design and rehabilitation or construction of a laboratory facility in line with national and international standards. MRTOT will enter into a memorandum of understanding with the State Service of Ukraine on Food Safety and Consumer Protection that outlines roles and responsibilities regarding design standards and certifications (for a regional laboratory facility), and construction and O&M of the facility, and the handover arrangements at facility completion. The MoU will also outline GoU requirements with regard to the provision of state-owned land for the facility. Operational arrangements, institutional oversight, and operational cost arrangements of the food laboratory will be modeled after similar arrangements in other oblasts of Ukraine where such regional facilities are in operation.

- (c) **Subcomponent 2C: Agricultural cluster development** will be implemented by MRTOT. MRTOT will manage a design, build, operate, and transfer (DBOT) contract to implement community-based agricultural development clusters. Agricultural clusters will be supported to be self-sustaining and cooperatively and community managed so that they continue to grow membership following project-based support. The cluster approach will offer particular benefits to female farmers, given the current demographic profile of project areas, as well as specific support to young farmers, veterans, and IDPs engaged in the agricultural sector. A targeting strategy will be developed based on the initial design of the cluster approach and through a gender action plan included in the DBOT contract.

The DBOT approach aims to attract reputable international service providers with experience and know-how in community consultation, community mobilization, and smallholder cluster development relevant to the conditions in Eastern Ukraine. International service providers will be expected to partner with local institutions, including local authorities and the Luhansk National Agrarian University, to maximize transfer of knowledge during implementation. Agricultural clusters will include at least 35 percent women. Technology packages provided under the project will be household or community owned. Agricultural clusters developed under the project will be supported to become self-sustaining and self-managed and to continue to grow membership following project-based support.

## **(ii) Financial Management**

3. **Financial management risk.** A financial management (FM) assessment covering both implementing agencies (IAs), UAD and MRTOT, was carried out in February 2020. While the project requires coordination with and the involvement of various agencies and regional offices, fiduciary functions will be handled at the central UAD and MRTOT project implementation units (PIUs), which will be responsible for making all project-related payments. The FM risk is **Substantial** given the relative complexity of the proposed operation, large number of stakeholders, need for close coordination, and recent establishment of MRTOT; thus, there is a need for continued capacity building efforts. The FM assessment took into account the prior experience of both institutions in the implementation of World Bank projects and also aims to maximize the use of existing country systems. FM arrangements for this project will be acceptable subject to adoption of the project operations manual (POM) by UAD (disbursement condition for Component 1) and by MRTOT (disbursement condition for Components 2 and 3). Both of these POMs will need to be acceptable to the World Bank and will include sections on project FM and disbursement arrangements. Further, both POMs will include the division of responsibilities between UAD/MRTOT and other agencies and institutions that would be involved in implementation of the project, as well as respective staff responsibilities and internal controls.



4. **Flow of funds.** MRTOT and UAD will be responsible for their respective components of the project, including for the disbursement and flow of funds, and contract and payment management. Funds will be disbursed in parallel by both MRTOT and UAD for their respective contracts. Funds will be used by MRTOT and UAD at the central level, and no funds will be channeled to other agencies or regional offices. Such parallel fiduciary arrangements will require opening separate segregated Designated Accounts (DAs) for MRTOT and UAD to simplify planning of project expenditures and their management. The project will use standard disbursement arrangements, including the use of direct payments, reimbursements, and advances, and will allow the use of letters of credit. Respective DA ceilings and minimum application size will be set in the Disbursement and Financial Information Letter. The DAs will be opened at Ukreximbank in USD, the currency of the loan, and DA reports will be submitted at the frequency required by the Disbursement and Financial Information Letter.

5. **UAD FM capacity.** Given the generally positive track record and extensive experience of UAD, the assessment focused primarily on the agency's ability to take on additional tasks for the 3R Project. UAD has qualified staff in place and has extensive experience in the implementation of World Bank projects. FM and disbursement systems are also in place, including acceptable automated accounting and reporting IT systems, and internal controls, including segregation of duties, reconciliations, etc. FM and disbursement arrangements for the project will be described in the UAD POM and will specifically include the division of responsibilities between UAD's central PIU and the UAD regional office in Luhansk Oblast. The FM function will be performed at the central PIU level, and no funds will flow to the regional office. The UAD PIU will be responsible for quarterly interim unaudited financial reports (IFRs) prepared in accordance with the template agreed with the World Bank, and annual project financial statement audits, carried out by an eligible audit firm in accordance with the agreed terms of reference (TOR).

6. **MRTOT FM Capacity.** MRTOT is newly established but some of the capacity of MRTOT's predecessor ministry was partly retained from the implementation of previous World Bank financed projects. The MRTOT PIU will hire a qualified FM specialist with experience in implementation of World Bank operations, who will work with the existing financial staff of MRTOT. Project accounting and reporting will be carried out using an automated accounting software that is already available in MRTOT, with a separate set of accounts. MRTOT FM and disbursement arrangements for this project will be described in the MRTOT POM and will specifically include the division of responsibilities between MRTOT and other agencies that will be involved in the implementation of project components under MRTOT's responsibility, as well as staff responsibilities and internal controls. The FM function will be performed at the central PIU level of MRTOT, and no funds will flow to other agencies. The MRTOT PIU will be responsible for quarterly IFRs prepared in accordance with the template agreed with the World Bank, and annual project financial statement audits, carried out by an eligible audit firm in accordance with the agreed TOR.

### **(iii) Procurement**

7. **Procurement risk.** A procurement risk assessment was carried out in February 2020 and covered both IAs — UAD and MRTOT. The procurement risk of the proposed 3R Project is assessed by the Bank as **Substantial** given: (a) the decentralization of the project (which does not include fiduciary functions, but still requires coordination on technical aspects); (b) typical country delays in preparation of technical specifications, qualifications, and requirements; (c) systemic delays in evaluation processes and contract award recommendations; (d) potential delays in contract signing with successful bidders; (e) delays in implementation of signed contracts; and (f) the recent reorganization of MRTOT.

8. **UAD procurement capacity.** UAD is an experienced entity in IBRD, EBRD, and EIB-supported investment operations. Ukrdorinvest has been acting as the agency's PIU for multiple donor-funded projects with large civil works



and consultancy contracts since its establishment in 2008. UAD has adequate capacity in managing complex infrastructure projects, including in monitoring and supervising procurement processes. It has an existing clear system of accountability with defined responsibilities and delegation of authority with regard to who has control of procurement decisions. Procurement policies are documented and readily available.

9. **MRTOT procurement capacity.** MRTOT does not have experience in implementing IBRD-supported investment operations but its predecessor Ministry did gain some experience through implementation of the Ukraine Conflict Response and Recovery Pilot and Capacity Building Project grant since 2017, which included partnership with local councils in Eastern Ukraine for implementation. The ministry is also managing two recovery-focused loans from the Government of France (US\$64 million) to support water supply improvement in Mariupol City, and the Government of Germany (US\$52.5 million) to upgrade local infrastructure, including housing for IDPs, in Eastern Ukraine. The current MRTOT PIU and grant management team members possess the right skills and behaviors. The agency has a satisfactory track record in carrying out procurement activities, which have significantly improved over the last 10 months. MRTOT has an existing clear system of accountability with defined responsibilities and delegation of authority with regard to who has control of procurement decisions. Procurement policies are documented and readily available.

10. **Risk mitigation measures.** Past experience and assessments of the IAs' capacity suggest that project-specific mitigation measures will be necessary for implementation of IBRD-financed activities. These include features such as: (a) having all procurement and flow of funds managed centrally in MRTOT and UAD, in close cooperation with PIU staff based in the Luhansk Oblast GCAs; (b) use of direct payment of IBRD funds to contractors, suppliers, and service providers; (c) use of independent supervision engineers for supervision of works and contract management; (d) securing and use of experienced and qualified PIU consultants that have proven their satisfactory performance in ongoing IFI-financed activities; (e) selecting and employing additional specialized consultants to strengthen the fiduciary project implementation team as needed; and (f) conducting regular monitoring missions and capacity building workshops. UAD and MRTOT staff will receive relevant training on the Bank's new Procurement Framework and will hire experienced procurement consultants as needed. The World Bank will exercise its procurement oversight through a risk-based approach comprising ex-ante and ex-post procurement due diligence and independent procurement reviews, as appropriate. Procurement supervision visits will be carried out twice per year or as may be required. These will include special procurement supervision for ex-post review on procurement processes undertaken by MRTOT and UAD to determine whether they comply with the requirements of the Legal Agreement.

11. **Procurement procedures under the 3R Project.** The World Bank Procurement Regulations for Investment Project Financing Borrowers: Goods, Works, Non-Consulting and Consulting Services dated July 2016 (revised November 2017 and August 2018) (Procurement Regulations) will apply, as will the World Bank Standard Procurement Documents and the Latest Guidelines on Preventing and Combatting Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (Anti-Corruption Guidelines). Two Project Procurement Strategies for Development, which identify types of activities, address procurement complexity factors, and foresee mitigation measures aimed to increase effective competition were prepared for the respective MRTOT and UAD components during project preparation and approved by the World Bank. With regard to each contract financed by the IBRD loan, the various procurement methods, the estimated costs, and the respective implementation dates will be agreed by the Borrower and the World Bank in the Procurement Plan. STEP (Systematic Tracking of Exchanges in Procurement) will be used to prepare and update the Procurement Plan (for World Bank review and non-objection), and to conduct all procurement transactions for the project. Accordingly, all the procurement activities under the project will be entered, tracked, and monitored online through STEP. Once approved by the Bank, the Procurement Plan will be published on the Bank's and IAs' websites. Ukraine's e-procurement system, ProZorro, may be used as a tool for e-reverse auctions for any procurement method



or new selection with a cost estimate below US\$1 million for goods and US\$5 million for works using Request for Quotation, National Request for Bid, or National Request for Proposal methods. The decision will be taken on a case-by-case basis depending on the project procurement risk rating, other associated risks, and the Project Procurement Strategies for Development. The initial procurement packages may be submitted for prior review. Irrespective of the use of ProZorro as a tool for procurement or Bank standard procedures, all procurement-related notices will be published in ProZorro to enhance competition and transparency. The national procurement law in force meets the requirements of the Procurement Regulations for national open competitive procurement, except the necessity to include the Bank's Anti-Corruption Guidelines, including the Bank's right to sanction and the Bank's inspection and audit rights, in the sample bidding documents.

**(iv) Strategy and Approach for Implementation Support**

12. This Implementation Support Plan (ISP) for the 3R Project describes how the World Bank will assist the client in achieving the project development objective. In particular, the ISP places emphasis on accomplishing the following objectives: (a) providing necessary technical advice to the client and bringing international experience and good practices to promote successful implementation; (b) ensuring that project investments in transport connectivity and the agricultural sector meet World Bank technical standards; (c) providing implementation and capacity building support for community engagement and communication activities to promote state-citizen trust, and for the monitoring and outreach activities according to project design (this will also promote sustainability and possible future scale-up and expansion of project investments); and (d) ensuring that the required fiduciary, social, and environmental safeguards are put in place and implemented according to the Loan Agreement and other project documents.

13. The project will be implemented over a period of five years. This ISP also includes support to the IAs prior to project effectiveness to meet capacity building and project design goals.

14. **Technical implementation support.** The following will be key areas of technical supervision support during project implementation:

- Engagement of experienced *transport specialists* during the implementation of Component 1 investments in the rehabilitation of roads in Luhansk Oblast GCAs implemented by UAD. Activities will include oversight of the IA's detailed design plan and feasibility studies, review of TORs and tender procedures for firms involved in the rehabilitation of roads and maintenance, and quality review and monitoring. This will also include World Bank specialists' support to carry out random physical checks and audits during road rehabilitation to ensure the safety and quality of construction. Specialists will also support Subcomponent 1B activities around awareness and capacity building for local officials and communities on responsible and safe usage of roads, maintenance and monitoring, climate change resilience, and technical assistance for feeder road development.
- Engagement of experienced *agriculture specialists* during implementation of the Component 2 investments in the agricultural sector executed by MRTOT in coordination with the Ministry for Development of Economy, Trade and Agriculture. Specialists' involvement will include review of TORs and tender procedures for firms to execute feasibility studies, design plans, and construction/supply works; oversight of implementation in the field; monitoring of alignment with the current GoU-led land reforms and opening of the land market in project areas; and ensure agricultural activities are climate sensitive.
- Engagement of *experienced social development, gender, governance, citizen engagement, climate change adaptation/mitigation, and conflict specialists* during implementation of Components 2 and 3 to support the cycle of



community engagement, community monitoring, and governance capacity building at the national level and in Luhansk Oblast GCAs. This will include hands-on capacity building support for MRTOT based on the Bank's global experience in conflict-sensitive development, citizen engagement, and gender mainstreaming. Supervision will focus on supporting MRTOT to design and implement social accountability and capacity building activities; training and exchanges with national, regional, and global experts; and close supervision of the implementation progress at the national, regional, and local levels. This will also include support for introducing climate change adaptation and mitigation measures and awareness building across Components 1, 2, and 3.

15. Technical implementation support missions will be carried out four times a year during the first 18 months of project implementation, followed by semiannual supervision missions. The project team will carry out regular site visits to communities in Luhansk Oblast GCAs during implementation.

16. **FM implementation support.** This will include: (a) initial support to the IAs for development of parallel fiduciary arrangements for the project, and technical support and oversight of the IAs in detailing these procedures in the POMs; (b) desk reviews of the project's quarterly IFRs prepared in accordance with the template agreed with the World Bank, and analysis of the annual project financial statement audits; and (c) on-site supervision to review the continuous adequacy of the project's FM and disbursement arrangements, and monitor and manage FM risks. FM supervision visits will be carried out twice a year initially, and then frequency will be adjusted in line with the current risk profile of the project and in response to any issues that arise. Supervision will include monitoring and reviewing any agreed actions or issues identified by the auditors, review of randomly selected transactions, as well as other issues related to project accounting, reporting, budgeting, internal controls, and flow of funds.

17. **Procurement supervision and implementation support.** This will include initial support to the IAs for development of procurement arrangements for the project, and technical support and oversight of the IAs in detailing these procedures in the POMs. In addition to routine reviews, procurement supervision will be carried out during the team's missions. Procurement supervision visits will be carried out twice per year or as may be required.

18. **Environmental and social safeguards implementation support.** Prior to effectiveness, social and environmental safeguards specialists will support the IAs in developing social and environmental guidelines to include in the POMs, based on the environmental and social management framework. The social safeguards specialist will also support the IAs in developing a project-specific grievance redress mechanism (GRM). The team will have an experienced country consultant for just-in-time support. Environmental and social safeguards specialists will be requested to join implementation support missions to track compliance with safeguards policies and monitor activity under the GRM.

19. **Training and Facilitating Partner (TFP).** To support implementation, MRTOT will hire a TFP with skills in project management, community engagement, local administration, and capacity building in conflict-affected settings to support capacity building for the project teams and local administration partners in Luhansk Oblast and Kyiv. The TFP will hire two cycles of 20 youth from Luhansk government-controlled areas (GCAs) from among students at local universities and recent graduates to serve as 3R Youth Leaders to support community and private sector engagement, communications activities, and awareness-raising activities on climate change and sustainable agriculture patterns.

20. **Implementation Support Plan with budget.** The ISP for the proposed project is presented in the matrices below (Tables 2.1 and 2.2), including timeline, focus, skills needed, and estimates of available resources for supervision. Additional trust fund resources will also be sought for complementary capacity building activities, particularly around gender, conflict, and citizen engagement, and to support the targeting of women, IDPs, and veterans in project activities.



Table 2.1: Implementation Support Plan

Time	Focus	Skills Needed	Resource Estimate
<b>Pre-effectiveness</b>	Support IAs in the development of the POMs, TORs for design and feasibility studies; capacity building support for MRTOT; additional analytical support; support in developing communications strategy/action plan/design of materials; coordination with international partners ahead of project launch.	Task team	US\$75,000 Bank budget + complementary MPTF resources
<b>Years 1-2</b>	<p>Support and supervision on the capacity building of the IAs in establishing the PIU in the MRTOT Office/Kyiv and dedicated PIU team members based in Luhansk Oblast GCAs, including FM, procurement, safeguards, and technical supervision.</p> <p>Support for the establishment of the 3R project steering committee and subcommittee.</p> <p>Technical support and oversight for:</p> <ul style="list-style-type: none"> <li>• Feasibility and design studies for infrastructure investments, including community/beneficiary consultations (transport and agriculture)</li> <li>• Designing TORs for key contracts, including TFP and Agricultural Cluster DBOT</li> <li>• Support for climate-sensitive designs and awareness raising</li> <li>• Supervision of construction works (roads and agriculture-related infrastructure)</li> <li>• Monitoring development of agricultural clusters</li> <li>• Capacity building support for design of citizen engagement activities, national-regional-local cooperation in effective delivery of project activities</li> <li>• Monitoring GRM and Management Information System (MIS) functioning</li> </ul> <p>FM, procurement, environmental and social safeguards supervision and site visits, and trainings for communities and local officials as relevant.</p>	Task team	US\$200,000 annually (estimated Bank budget for supervision) + complementary MPTF resources
<b>Years 3-5</b>	<p>Monitoring and ongoing support and capacity building support to IAs in implementation activities, considering amendments to POMs if required, and FM, procurement, safeguards, and technical supervision.</p> <p>Technical support and oversight for:</p> <ul style="list-style-type: none"> <li>• Supervision of construction works (roads and agriculture-related infrastructure)</li> <li>• Monitoring activities for the local communities to promote appropriate and sustainable use of rehabilitated roads and maintenance</li> <li>• Monitoring of beneficiary scorecards and social audits for ongoing feedback on project design and implementation (project processes and outcomes) for infrastructure investments under Components 1 and 2</li> <li>• Supervision of the implementation of strategic communications plan activities, GRM, MIS, procurement and FM, Environmental and Social Framework implementation, and monitoring and evaluation</li> <li>• Supervision of citizen engagement approach to ensure youth, local communities, and private sector involvement, transparency, and accountability</li> </ul> <p>FM, procurement, and safeguards supervision and site visits, and trainings for communities and local officials as relevant. Monitoring of results of the</p>	Task team	US\$105,000 annually (estimated Bank budget for supervision)





Time	Focus	Skills Needed	Resource Estimate
	Communications Action Plan and supporting additional communications and outreach in communities on project implementation. Conducting mid-term review and Implementation Completion Report.		

Table 2.2: Skills Mix Required

Skills Needed	Number of Staff Weeks For 5 years	Number of Missions (intl)	Location (Indicative/Initial)
Task team leader (SSI)	50	14	ECA region-based staff
Co-Task team leader (Transport)	40	-	CO staff
Agriculture Specialist	25	10	ECA region-based staff
Social Development Specialist	25	-	CO staff/consultant
Social Accountability/Gender	11	3	International expert
Sector specialists	17	8	CO staff
Climate change expert	7	3	ECA region-based staff
Environmental Safeguards Specialist	15	8	CO staff
Environmental safeguards consultant	23	-	CO consultant
Social Safeguards Specialist	15	8	HQ staff
Social safeguards consultant	20	-	CO consultant
M&E Specialist	5	2	CO consultant
FM Specialist	11	-	CO staff
Procurement Specialist	15	-	CO staff
Communications Specialist	12	-	CO staff



### ANNEX 3: ECONOMIC AND FINANCIAL ANALYSIS

1. The project aims at strengthening transport connectivity and supporting agricultural sector recovery in the project areas in the Luhansk Government Controlled Areas (GCAs) of Eastern Ukraine in order to improve the socioeconomic level of local communities through higher economic outcomes and improved social capital. The main hypothesis is that the following will eventually improve the socioeconomic conditions of local communities: (a) reduction in transportation costs and time needed to travel from farms and processing centers to transport hubs, markets, and service centers within the Luhansk Oblast GCAs; (b) increased access to agricultural infrastructure such as logistics and service centers that would act as trade facilitators and networking hubs; and (c) access to a testing and food safety laboratory to reduce output losses and improve trade outcomes.
2. The economic benefits of the project will include in particular: (a) higher income in the areas of intervention, mainly from fiscal revenues; (b) improved employees' and small producers' livelihoods due to increased agricultural productivity, output, trade, and job creation; (c) higher economic returns from reduced output losses, higher agricultural land use, and better food safety testing; and (d) positive spillovers from these developments for downstream producers, linked enterprises, subcontractors, and supply companies, among others.
3. Indirect benefits include: (a) improved social capital due to high value-added service provision and technology-intensive agricultural processing; (b) substantial professional and technical capacity building in the project areas, particularly to the benefit of women and young entrepreneurs, with positive spillovers for their communities; and (c) training and technical support leading to increased productivity.
4. The economic analysis conducted for the project suggests that each of the proposed investments is economically viable at a social discount rate of 6 percent<sup>47</sup> over a 20-year expected lifetime. The overall economic internal rate of return (EIRR) of the project has been calculated at **41.99** percent. Such a conclusion is conservative considering that the calculations have not included indirect benefits or positive spillovers; nor have increased skills due to capacity building been factored in.
5. The analysis employs a simplified cost-benefit methodology, where investment costs and monetary value of selected benefits are compared, and net present value (NPV) and EIRR calculated.<sup>48</sup> Implementation costs and benefits, adjusted for inflation and the country's economic conditions, were estimated on the basis of existing empirical evidence to assess the initiatives' economic viability. Each investment also presents returns in terms of indirect social benefits which are currently not readily quantifiable. For this reason, they are not accounted for in the cost-benefit calculations.
6. The assessed interventions include four subprojects – road rehabilitation (3R Project transport investments and EIB's parallel loan), the creation of a regional agricultural logistics and service hub, the creation of an agricultural product testing and food safety laboratory, and the development of agricultural clusters to benefit small and household-level farmers. Both a positive NPV at a 6 percent social discount rate over a 20-year period and a high EIRR for each of the subprojects show they are economically viable (see Table 3.1).

<sup>47</sup> In accordance with World Bank guidelines on social discount rate.

<sup>48</sup> Bugnion, C. 1998. "Economic Rationalization of Humanitarian Aid: Use of cost and effectiveness indicators to evaluate ECHO funded humanitarian emergencies." European Community Humanitarian Office.



*Table 3.1: Cost-Benefit Analysis of Selected Development Subprojects*

	Road Rehabilitation	Logistics & Service Hub	Testing & Food Safety Laboratory	Agricultural Clusters
<b>Investment</b>	US\$185,000,000*	US\$12,000,000	US\$10,000,000	US\$10,000,000
<b>NPV**</b>	US\$443,635,499	US\$21,302,148	US\$15,862,429	US\$15,732,911
<b>EIRR</b>	45.0%	21.97%	20.47%	20.37%
<b>OVERALL EIRR</b>				<b>41.99%</b>

\*EFA was conducted for road investments under the 3R Project (US\$65 million) and parallel EIB loan (estimated US\$120 million) as international IFI investments in the region; Government co-financing for road investments in the region was separately analyzed and justified according to Government procedures.

\*\*NPV at a 6% social discount rate over a 20-year period.

### Component 1: Road Rehabilitation

7. **To ensure that the project generates sufficient economic benefits that warrant the investments**, a cost-benefit analysis was conducted for roads investments (under the 3R project and under the EIB's parallel loan) using the Highway Development and Management Model (HDM-4) that computes annual road agency and users' costs for each project alternative over the evaluation period, comparing the proposed investments with the conditions without such investments. The quantities of resources consumed and vehicle speeds were calculated first and then multiplied by unit costs to obtain total vehicle operating costs, travel time costs, and carbon dioxide (CO<sub>2</sub>) emissions. The resources consumed and vehicle speeds are related to traffic volume and composition, road surface type, geometric characteristics, and roughness. Normal traffic benefits consider a normal traffic growth.

8. **The quantified benefits computed by HDM-4** comprise vehicle operating costs, travel time costs, road maintenance costs due to road improvements, road safety costs, and CO<sub>2</sub> emission costs. The following assumptions were applied for the HDM-4 calculations:

- A discount rate of 6 percent and an evaluation period of 20 years.
- The average daily traffic annual increase rate is 3.0 percent per year for all vehicles over the evaluation period, based on estimated GDP growth projections<sup>49</sup> and an assumed elasticity of 1.1.
- Social cost of carbon of US\$41 per ton equivalent in 2021 increasing to US\$63 per ton equivalent in 2040, based on the low scenario for the social cost of carbon derived from the 2017 World Bank guidance note on the shadow price of carbon in economic analysis.<sup>50</sup>

9. **Table 3.2 presents the vehicle fleet economic unit costs, basic characteristics, and average traffic composition of the roads investments.** The economic costs reflect the costs net of duties and tax.

<sup>49</sup> GDP has grown on average at 2.8 percent per year from 2016 to 2019 in constant prices.

<sup>50</sup> The guidance note presents low and high scenarios of the social cost of carbon over time, from which the high scenario was used due to the positive net CO<sub>2</sub> emissions of the project.



*Table 3.2: Vehicle Fleet Economic Unit Costs (US\$) and Characteristics*

	Car	Pickup	Truck Light	Truck Medium	Truck Heavy	Truck Art.	Bus Small	Bus Heavy
New Vehicle Cost	\$18,005	\$18,005	\$14,404	\$25,207	\$32,409	\$25,207	\$18,005	\$43,212
New Tire Cost	\$180	\$180	\$180	\$180	\$180	\$180	\$180	\$180
Fuel Cost/liter	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
Lubricant Cost/liter	\$3	\$3	\$3	\$3	\$3	\$3	\$3	\$3
Maintenance Cost/hour	\$7	\$7	\$7	\$7	\$7	\$7	\$7	\$7
Crew Cost/hour	\$0	\$0	\$7	\$7	\$7	\$7	\$7	\$7
Overhead Cost/year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Rate (%)	6%	6%	6%	6%	6%	6%	6%	6%
Pass Work Time/hour	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5
Pass Non-Work Time/hour	\$1	\$1	\$1	\$1	\$1	\$1	\$1	\$1
Annual Utilization (km)	10,000	10,000	100,000	100,000	100,000	250,000	100,000	100,000
Annual Utilization (hours)	250	250	2500	2500	2500	6250	2500	2,500
Service Life (years)	12	12	12	12	12	12	12	12
Number Passengers (#)	1.5	1	0	0	0	0	24	40
Operating Weight (tons)	2	3	4	12	15	27	3	9
Traffic Composition (%)	46%	4%	5%	8%	20%	6%	6%	5%

10. **The economic evaluation was done for four sections of roads in the region.** This covers the total amount of roads being rehabilitated through the World Bank 3R Project and EIB complementary financing. The roads are paved roads in very poor condition, with an average roughness of 6.2 IRI (International Roughness Index), and carry on average around 4,472 vehicles per day, of which 39 percent are trucks.

11. **Table 3.3 presents the basic current road characteristics.**

*Table 3.3: Basic Road Characteristics*

Road No.	Road Name	Length (km)	Road Class	Width (m)	Terrain Type	Surface Class	Roughness (IRI)	Traffic (AADT)
1	H-26 136+000 to 148+000	12.0	II	9	Flat	Asphalt Concrete	5.0	5,439
2	P-66 16+600 to 86+600	70.0	III	8	Flat	Asphalt Concrete	7.0	4,252
3	P-66 93+400 to 145+075	51.7	III	8	Flat	Asphalt Concrete	5.0	4,132
4	T-13-02 71+900 to 121+400	49.5	III	8	Flat	Asphalt Concrete	6.5	4,905
Total		183.2					6.2	4,472



12. **The total financial capital costs for the roadworks were estimated for each road section.** Table 3.4 presents the roadworks evaluated per road section and the corresponding estimated financial costs. Economic costs, net of taxes, were estimated to be 83 percent of the financial costs.

*Table 3.4: Financial Costs of Roadworks*

Road Work Description	Total Cost (US\$ M)	Total Cost per Km (US\$/km)
Rehabilitation	\$10	\$792,222
Rehabilitation	\$55	\$792,222
Rehabilitation	\$41	\$791,762
Rehabilitation	\$34	\$685,283
<b>Total</b>	<b>\$140</b>	<b>\$763,198</b>

13. **Table 3.5 presents the resulting economic indicators.**

*Table 3.5: Economic Evaluation Results*

Road Section No.	EIRR (%)	NPV (US\$ M)	NPV/ Investment Ratio
<b>1</b>	26.20%	\$9.9	1.0
<b>2</b>	57.20%	\$270.5	4.9
<b>3</b>	28.60%	\$63.3	1.5
<b>4</b>	46.60%	\$99.9	2.9
<b>Total</b>	<b>45.00%</b>	<b>\$443.6</b>	<b>3.2</b>

14. **The EIRR of the road rehabilitation investments is 45.0 percent and the NPV is US\$443.6 million at a 6 percent discount rate, corresponding to an NPV/investment cost ratio of 3.2.**

15. **Vehicle operating cost benefits account on average for around 38 percent of the investment benefits and travel time benefits account for 62 percent.** Table 3.6 presents the distribution of the net project benefits.

*Table 3.6: Distribution of Net Benefits*

Road No.	Road Agency (US\$ M)	VOC (US\$ M)	Travel Time (US\$ M)	CO <sub>2</sub> Emissions (US\$ M)	Total (US\$ M)
<b>1</b>	-\$2.6	\$6.8	\$5.9	-\$0.2	\$9.9
<b>2</b>	-\$15.0	\$114.1	\$168.5	\$2.9	\$270.5
<b>3</b>	-\$11.1	\$22.5	\$52.8	-\$1.0	\$63.3
<b>4</b>	-\$6.3	\$37.9	\$69.7	-\$1.3	\$99.9
<b>Total</b>	<b>-\$35.0</b>	<b>\$181.3</b>	<b>\$296.9</b>	<b>\$0.4</b>	<b>\$443.6</b>



## Component 2: Agriculture

16. **Agricultural Logistics and Service Hub – Estimated Investment: US\$12,000,000.** The intervention aims at providing an average of 75 agricultural sector small- and medium-sized enterprises (SMEs) with access to markets and services with the objective of boosting economic activity through improved agricultural outcomes in the area of intervention. The proposed intervention's operations and maintenance (O&M) costs have been calculated at US\$612,085 per year, on average. The benefits due to the intervention have been assessed at US\$3,006,111, on average, accounting for job creation and an increase in the SMEs' profits, estimated at (inflation adjusted) US\$259 per SME per cultivated hectare per year, as per a 2013 report of Canada's Department of Foreign Affairs, Trade, and Development.<sup>51</sup> The subproject is expected to generate an estimated 788 new jobs, both full-time and seasonal in the agricultural sector in the area of intervention (Table 3.7).

Table 3.7: Direct and Indirect Benefits of the Logistics and Service Hub Subproject

Logistics and Service Hub		
Discount rate	6%	Indirect Benefits
Investment	US\$12,000,000	<ul style="list-style-type: none"> <li>- Local communities benefit from <b>increased and more reliable, consistent</b> employment opportunities.</li> <li>- Local labor force becomes more <b>skilled</b>, which benefits the community as a consequence.</li> <li>- Organized trade may help <b>level prices</b>, thus contributing to <b>reduced retail and wholesale prices</b>.</li> <li>- Local communities benefit from an <b>increased supply or diversity</b> of locally available logistics supplies and services.</li> <li>- Centralized processing facilitates can help <b>regulate and coordinate trade</b> to the benefit of participating suppliers, while contributing to their sustainability.</li> <li>- In <b>social terms</b>, increased job opportunities and improved labor skills may lead to improved <b>social cohesion</b>, and faster <b>social integration</b>.</li> </ul>
NPV	US\$21,302,148	
EIRR	21.97%	

17. **Testing and Food Safety Laboratory – Estimated Investment: US\$10,000,000.** The initiative is expected to generate US\$1,908,599 per year, on average, in fiscal revenues from an increase in personal income and increased sales due to reduced output losses vis-à-vis a US\$10,000,000 investment and O&M costs assessed at an average of US\$49,400 per year. Specifically, local SMEs are expected to recover approximately US\$2.4 million worth of output losses per year due to the initiative, which would eventually generate a revenue of US\$438,027 per year, on average, for the communities in the area of intervention (Table 3.8).

Table 3.8: Direct and Indirect Benefits of the Testing and Food Safety Laboratory Subproject

Testing and Food Safety Laboratory		
Discount rate	6%	Indirect Benefits
Investment	US\$10,000,000	<ul style="list-style-type: none"> <li>- Local community participation in the initiative improves <b>knowledge and skills</b>, which in turn increase the <b>social conditions</b> of interested communities.</li> </ul>

<sup>51</sup> Canada Department of Foreign Affairs, Trade, and Development. 2013. *The Ukraine Grain Storage and Marketing Cooperatives Project*.



Testing and Food Safety Laboratory		
NPV	US\$15,862,429	<ul style="list-style-type: none"> <li>- <b>Female participation</b> in the initiative is set to substantially increase the professional skills of women, improving their <b>livelihoods, independence, and social status</b> in their communities.</li> <li>- Increased social and professional interactions among young professionals and entrepreneurs have an overall <b>positive impact on social capital</b> at the local and national levels.</li> </ul>
EIRR	20.47%	

18. **Agricultural Clusters – Estimated Investment: US\$10,000,000.** The development of agricultural clusters is expected to cost US\$10,000,000 in capital costs and an average of US\$765,943 in O&M costs. In terms of benefits, the total estimated returns are calculated at US\$2,615,832 per year, on average, mainly due to higher profits for small and household-level producers, increased personal incomes, and increased proceeds due to higher land use as a consequence of the initiative. Small and household-level producer profits are expected to amount to an average of US\$1,468,677 per year. The estimated 3,800 new jobs due to the intervention are expected to generate revenue of US\$552,485 per year, on average, in personal income taxes, and the production from increased land use, calculated at 114 hectares per SME is estimated to generate an additional profit of US\$2,622 per small producer per year, on average, which would amount to US\$594,670 in fiscal revenues considering an 18 percent sales tax rate and an estimated 1,260 SMEs participating in the initiative (Table 3.9).

Table 3.9: Direct and Indirect Benefits of the Agricultural Cluster Subproject

Agricultural Clusters		
Discount rate	6%	Indirect Benefits
Investment	US\$10,000,000	<ul style="list-style-type: none"> <li>- Support and network participation increase <b>knowledge and professional skills</b> of female and young entrepreneurs, contributing to improved <b>social capital</b>.</li> <li>- Small producers increase their <b>negotiating power</b> by participating in the proposed initiative.</li> <li>- Increased number of <b>linked small producers</b>, and as a consequence, the initiative improves the economic outcomes of communities.</li> </ul>
NPV	US\$15,732,911	
EIRR	20.37%	

### Sensitivity Analysis – Roads and Agricultural Investments

19. A sensitivity analysis has been conducted to control for effects of possible variations in benefits and costs as a consequence of potential changes in economic outcomes in Ukraine, at the moment not predictable, on the economic feasibility of the four interventions, over the analysis' time period. All results confirm the economic viability of each of the proposed initiatives – namely the rehabilitation of paved roads in the Luhansk Oblast GCAs implementation of a logistics and service facility in Starobilsk, creation of a regional agricultural testing and food safety laboratory in the Luhansk Oblast GCAs, and the development of agricultural clusters in the areas of intervention – under any circumstances. In particular, even with an increase in costs by 20 percent or a decrease in the total estimated benefits by 20 percent, each of the subprojects still present a positive NPV at a 6 percent social discount rate over a 20-year period. Moreover, a third scenario that contemplates a 20 percent increase in costs combined with a 20 percent decrease in benefits still presents a positive NPV for each of the proposed initiatives. In conclusion, the project's interventions remain economically viable under any possible circumstances (Table 3.10).





*Table 3.10: Sensitivity Analysis: Costs and Benefits of Selected Development Subprojects Under Expected and Unfavorable Conditions*

	Road Rehabilitation	Logistics & Service Hub	Testing & Food Safety Laboratory	Agricultural Clusters
<b>Investment</b>	US\$185,000,000	US\$12,000,000	US\$10,000,000	US\$10,000,000
<b>EIRR*</b>	<b>45.00%</b>	<b>21.97%</b>	<b>20.47%</b>	<b>20.37%</b>
<b>COSTS +20% SCENARIO</b>				
<b>NPV**</b>	US\$422,180,645	US\$17,199,266	US\$13,724,993	US\$11,601,977
<b>BENEFITS -20% SCENARIO</b>				
<b>NPV**</b>	US\$351,817,204	US\$12,938,836	US\$10,552,508	US\$8,455,395
<b>COSTS +20% AND BENEFITS -20% SCENARIO</b>				
<b>NPV**</b>	US\$338,126,580	US\$8,835,953	US\$8,415,072	US\$4,324,462

\*Ukraine's cost of capital is 19.12 percent (World Bank).

\*\*NPV at a 6% social discount rate over a 20-year period.



## ANNEX 4: GREENHOUSE GAS ACCOUNTING

1. **Rationale.** The World Bank has a corporate mandate to conduct greenhouse gas (GHG) emissions accounting for investment lending. The ex-ante quantification of GHG emissions is a beneficial practice and an important step in managing and ultimately reducing GHG emissions.
2. **Methodology.** To estimate the impact of investment lending on GHG emission reduction, the Ex-Ante Carbon-balance Tool (EX-ACT), developed by the FAO, was used to account for agriculture-related investment and the Highway Development and Management Model (HDM-4) tool for transport-related investments. HDM-4 computes annual road agency and users' costs for each investment alternative over the evaluation period. EX-ACT allows the assessment of a project's net carbon balance from activities such as crop production, input investments, land use changes, and on-farm management. Both methods allow for the assessment of the net balance of CO<sub>2</sub> equivalent GHG emitted or sequestered as a result of project implementation "with project" (WIP) compared to a "without project" (WOP) scenario.
3. **Project boundary and key assumptions.** The project area has a cool temperate moist climate. The dominant land type is high activity clay soil. The project's period is assumed to be 20 years, divided into a two-year implementation phase and 18-year capitalization phase.
4. **Data sources.** The data used for the analysis was obtained from existing studies related to the project area recently conducted by third-party organizations and international donors.
5. **Transport infrastructure works:** The GHG analysis of the transport infrastructure works was done using the HDM-4 model that computes annual road agency and users' costs for each project alternative over the evaluation period, comparing the proposed investments with the conditions without such investments. The quantities of resources consumed and vehicle speeds are calculated first and then multiplied by unit costs to obtain total vehicle operating costs, travel time costs, and CO<sub>2</sub> emissions under WIP and WOP scenarios. The resources consumed, such as the fuel consumption that affects CO<sub>2</sub> emissions and vehicle speeds are related to traffic volume and composition, road surface type, geometric characteristics, and roughness. For every year of the evaluation period, HDM-4 estimates the vehicles speeds on the target roads, WIP and WOP, that are used to estimate the fuel consumption of each vehicle of the vehicle fleet during the year. The resulting CO<sub>2</sub> emissions, in tons per year, are then calculated as a function of the fuel consumption.
6. **GHG Accounting – Transport Investments.** The total gross CO<sub>2</sub>-equivalent emissions over the 20-year evaluation period under the WOP scenario are estimated at 4,927,689 tons and under the WIP scenario at 4,899,948 tons, resulting in a net decrease of CO<sub>2</sub>-equivalent emissions of about -27,742, or - 1,387 tons per year (Table 4.1).

*Table 4.1: Transport Investments CO<sub>2</sub> Emissions Over Evaluation Period*

Road No.	Road Name	Without Project (tons)	With Project (tons)	Net (tons)
1	H-26 136+000 to 148+000	379,537	385,123	5,586
2	P-66 16+600 to 86+600	1,936,451	1,811,310	-125,141
3	P-66 93+400 to 145+075	1,220,626	1,258,398	37,771
4	T-13-02 71+900 to 121+400	1,391,076	1,445,117	54,042
Total		4,927,689	4,899,948	-27,742



7. **Greenhouse Gas Accounting - Agriculture Investments.** Agriculture investments are expected to increase land use for crop production by 15 percent, from 57,000 hectares to 65,550 hectares. This expansion of crop area will not lead to use of or risk polluting waters in international waterways. All else equal, a conservative assumption estimates an increase in grain production by 15 percent. Specifically, grain production WOP, before land increase, is calculated at 1,038,393 tons per hectare per year (tons/ha/year) and WIP, is expected to amount to 1,194,152 tons/ha/year, on average. In terms of inputs used, the proposed interventions are expected to reduce both urea, a nitrogen-based fertilizer (N fertilizer) and pesticides, as intensive agriculture practices due to limited availability of land are expected to decrease due to increased availability of land and agriculture-associated resources. Specifically, the use of urea is expected to decrease from 78,842 tons per year in the WOP scenario to 67,016 tons per year in the WIP scenario. Likewise, pesticides are expected to decrease from 11,334 tons per year to 9,855 tons per year WIP (Table 4.2).

*Table 4.2: Indicative Changes of Production Areas and Usage of Inputs*

Crop			
	WOP (tons/ha/year)	WIP (tons/ha/year)	Remarks/Assumptions
Grain	1,038,393	1,194,152	<ul style="list-style-type: none"> <li>- Land increase by 15% due to subproject interventions.</li> <li>- Improved management of land use through improved agronomics, land nutrition, no residue/biomass burning, and water and manure management.</li> </ul>
Fertilizer/Pesticides			
	WOP (tons per year)	WIP (tons per year)	Remarks/Assumptions
Urea (N-fertilizer)	78,842	67,016	<ul style="list-style-type: none"> <li>- Fertilizer and pesticide use is assumed to decrease as land use increases due to substantial reduction in intensive agriculture practices associated with limited availability of land and other agricultural resources.</li> <li>- Urea contains 46.7% of nitrogen.</li> </ul>
Herbicides	11,334	9,855	

8. The total gross CO<sub>2</sub>-equivalent emissions over the 20-year evaluation period under the WOP scenario are estimated at 15,209,187 tons and under the WIP scenario at 12,541,738 tons, resulting in a net decrease of CO<sub>2</sub>-equivalent emissions of about 2,667,449, or 133,372 tons per year (Table 4.3).

*Table 4.3: CO<sub>2</sub>-equivalent Emissions Over Evaluation Period (20 years)*

Components of the project	Gross Fluxes		
	WOP	WIP	Balance
	All GHG in tons of CO <sub>2</sub> -equivalent		
Land Use Changes	-7,626,410	-8,770,372	-1,143,962
Agriculture	-2,958,626	-3,402,420	-443,794
Inputs	25,794,223	24,714,530	-1,079,693



Components of the project	Gross Fluxes		
	WOP	WIP	Balance
	All GHG in tons of CO <sub>2</sub> -equivalent		
<b>Total</b>	15,209,187	12,541,738	<b>-2,667,449</b>

9. **Greenhouse Gas Accounting – Total Investments.** The table below show the GHG analysis results of the total transport and agricultural investments. The total gross CO<sub>2</sub>-equivalent emissions over the 20-year evaluation period under the WOP scenario are estimated at 20,136,876 tons and under the WIP scenario at 17,441,686 tons, resulting in a net decrease of CO<sub>2</sub>-equivalent emissions of about 2,695,191, or 134,760 tons per year.

*Table 4.4: Total CO<sub>2</sub> Emissions Over Evaluation Period*

	WOP (tons)	WIP (tons)	Net (tons)
Transport Investments	4,927,689	4,899,948	-27,742
Agricultural Investments	15,209,187	12,541,738	-2,667,449
<b>Total Investments</b>	<b>20,136,876</b>	<b>17,441,686</b>	<b>-2,695,191</b>



## ANNEX 5: GENDER

1. As transport network connectivity and the agricultural sector play a pivotal role in Luhansk Oblast's regional development, the 3R Project focuses on closing two gender gaps: (a) the disproportionate disadvantage rural women face in mobility due to poor rural road infrastructure and public transport options; and (b) a gender gap in agricultural productivity and empowered entrepreneurship for small or household-level women agricultural producers. Each project component promotes inclusion and participation of women (including youth and internally displaced persons (IDPs) in community engagement, social accountability, and project monitoring activities.

2. A wide body of evidence contends that the protracted conflict has only exacerbated existing gender gaps and adverse livelihoods conditions for women in Ukraine. Women living near the conflict line and in rural areas are particularly affected. Due to the prevailing male involvement in combat, many women have become the sole caregivers and providers for their families, the elderly, and the disabled.<sup>52</sup> These realities disproportionately impact women's livelihoods and restrict their freedom of movement.<sup>53</sup> Local stakeholder focus groups confirm that women, particularly female pensioners, IDPs, and female-headed households with young children are among the most vulnerable populations in the Luhansk Oblast Government Controlled-Areas (GCAs). The employment rates among IDP women living in villages is 17 percent lower than among their peers in larger cities.<sup>54</sup> Moreover, 36 percent of IDP rural women represent single-headed households who are more reliant on pensions (42 percent) and social assistance (32 percent).<sup>55</sup> Women face the twin disadvantages of added domestic responsibilities with constraints on professional and home-based income generation. Among women that do find professional employment, many are the first to be laid off in favor of men.<sup>56</sup> Although gender-based violence (GBV) has not been widely used as a weapon of war in Ukraine, it is observed that women are substantially at a higher risk of GBV following the conflict.<sup>57</sup>

3. **Gender and transport/mobility.** Poor road conditions, dependency on public transport, and longer commutes especially disadvantage women living in rural areas by constraining access to employment, markets, agricultural support services, healthcare, childcare, and other public services. Poor road infrastructure additionally limits women farmers and small entrepreneurs who provide supplementary income for their financially strained households. Component 1 will contribute to improved mobility and access to services through enhancement of roads and associated infrastructure. It is anticipated that travel times will be reduced and the quality, frequency, and diversity of public transportation options will increase. With the Luhansk Oblast GCAs being predominantly rural, the targeted road investments will also help to bridge the connectivity gap between urban and rural areas. Associated upgrades to street lighting and social infrastructure (e.g. bus stops, pedestrian crossings) will add to public safety and discourage sexual harassment and other offenses targeting women.

<sup>52</sup> Spear, A., Kokanova, N., Magduyk, L., Dadalauri, N., Buzu., and Engvall, L. 2016. *Gender analysis of the EU AA/DCFTAs with Georgia, Moldova and Ukraine*. Swedish International Development Agency Publication. p.60.

<sup>53</sup> OSCE. 2016. *Conflict-related Displacement in Ukraine: Increased Vulnerabilities of Affected Populations and Triggers of Tension within Communities*. Retrieved from <http://www.osce.org/ukraine-smm/261176>. p.14.

<sup>54</sup> Of the 1.7 million IDPs in Ukraine, 66% are reportedly women. UNHCR. 2015. *International Protection Considerations Related to the Developments in Ukraine – Update II*. January 15, 2015. p. 5; Ukrainian Centre for Social Reforms. 2016. *Analytical report: Gender-Based Violence in The Conflict-Affected Regions of Ukraine*. United Nations Population Fund (UNFPA). pp. 6-7.

<sup>55</sup> UN Country Team – Gender Theme Group. 2018. *Leaving No One Behind: Rural Women and Girls*.

<http://www.un.org.ua/images/documents/4302/FACTSHEET%20IWD%20ENG.pdf>. January 1, 2016.[http://database.ukrcensus.gov.ua/Pxweb2007/ukr/publ\\_new1/2016/dem\\_total\\_2016.pdf](http://database.ukrcensus.gov.ua/Pxweb2007/ukr/publ_new1/2016/dem_total_2016.pdf).

<sup>56</sup> On-site stakeholder consultations with Starobilsk City Council, Starobilsk cattle, dairy, and wheat producers, Biloukrainsky and Polovinkine rayons, and a local selection of stakeholders, Luhansk Agricultural College –February 18-20, 2020.

<sup>57</sup> Spear et. al. 2016.



4. Specifically, Component 1 activities will address the first gender gap by improving mobility for rural women beneficiaries. The Component 1 implementing agency, Ukravtodor, will also implement appropriate measures to prevent sexual exploitation, GBV, and sexually transmitted diseases in the case of temporary construction camps during road construction, and a robust grievance redress mechanism will be put in place to ensure that any complaints arising related to the project will be properly and timely addressed. The number of grievances filed and resolved for both men and women will be systematically reported.

5. **Gender and agriculture.** Local stakeholders uniformly maintain that women's role in the agricultural sector in Luhansk Oblast GCAs is essential for the sustainability of regional economic development since women are overrepresented in small and household-level farming. Small and household-level producers are also critical to maintaining livelihoods in the region and supporting households to weather economic shocks. Other employment opportunities in agriculture are limited due to the separation and closure of agriculture-related storage, processing, and testing facilities as well as cultural norms that limit women taking up professional roles in agricultural mechanization services and medium to large-size agribusinesses.<sup>58</sup> Gender gaps in pay additionally suggest that average monthly salaries in agriculture, fishing, and forestry among women are equal to 85.5 percent of those of men,<sup>59</sup> and the number of registered female-headed agribusinesses in the Luhansk Oblast GCAs is disproportionately low.<sup>60</sup> The supplementary income and food security gained from small farming activities<sup>61</sup> among rural women is constrained by poor access to markets and productive inputs (both advisory and technological), and lack of access to information and skills development around value chain development and value-added production.<sup>62</sup>

6. To address these constraints, women will be targeted and supported as part of the agricultural cluster development financed under Subcomponent 2C. Poor access to expanded markets or support for improved yields for women engaged in household farming as well as a lack of access to technical support for value chain opportunities place a ceiling on income and productivity for small farms. This can be addressed by the inclusion of women in agricultural clusters which support enhanced value chain to market productivity and entrepreneurship for the region's many small and household-level producers. The terms of reference for the service provider supporting cluster development under Subcomponent 2C will include required targets and a gender action plan to ensure women's participation. The 3R communications and outreach campaign will also ensure consistency of, and pro-gender equality messaging about, program activities in beneficiary communities. Through technology inputs, value chain development, small on-farm investments, and increased market access, the cluster development is expected to increase the productivity and profitability of small and household-level farms, including female-headed and co-owned farms, in the Luhansk Oblast GCAs. The project sets a 35 percent participation rate for women in agricultural clusters. Closing the gap in women's increased productivity and profitability from small farming will be measured by the percentage of women participating in the agricultural clusters reporting enhanced small farm productivity and/or profitability as a result of project interventions.

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<sup>58</sup> On-site stakeholder consultations with Starobilsk City Council, Starobilsk cattle, dairy, and wheat producers, Biloukrainsky and Polovinkine rayons, and a local selection of stakeholders, Luhansk Agricultural College – February 18-20, 2020.

<sup>59</sup> UN Country Team – Gender Theme Group. 2018. *Leaving No One Behind: Rural Women and Girls*. <http://www.un.org.ua/images/documents/4302/FACTSHEET%20IWD%20ENG.pdf>.

<sup>60</sup> Key informant interview with Gender Focal Point and Starobilsk City Council Deputy – Ms. Svitlana Barabash, February 19, 2020, Starobilsk City Administration, Eastern Ukraine.

<sup>61</sup> Women's contribution to the sustainability of family-run, smallholder farms in rural areas is known to be significant. UN Country Team – Gender Theme Group. 2018. *Leaving No One Behind: Rural Women and Girls*. <http://www.un.org.ua/images/documents/4302/FACTSHEET%20IWD%20ENG.pdf>.

<sup>62</sup> National official labor force participation rates reflect these realities, where employment among Ukrainian women (47%) is lower than among men (63%). UNDP. 2019. *Human Development Report*.



7. Lastly, Component 3 will incorporate a series of actions to develop greater participation of women and vulnerable groups (IDPs, veterans) in community engagement, social accountability, and project monitoring through: (a) the use of participatory instruments such as user surveys and social audits; (b) gender-sensitive project-related data collection, its analysis, and integration in local authorities' datasets (e.g. Starobilsk City Council's Gender Committee) as well as its public dissemination to heighten public awareness and visibility of women's role in agriculture; (c) introduction of beneficiary feedback and grievance redress measures to address gender-related issues that arise over the course of the project; and (d) the hiring of 40 3R Youth Leaders, 50 percent women, to support project implementation.