

ANNUAL PROGRAM STATEMENT

USAID/UKRAINE HARVEST ACTIVITY

Annual Program Statement (APS)-2024-001

Issuance Date: July 5,2024

Re-Issuance Date: August 6, 2024

Dear Applicant:

The USAID-funded Harvest Activity (hereafter Harvest), implemented by Chemonics International, is seeking concept papers for implementing initiatives to improve agricultural productivity, enhance food security, and promote sustainable farming practices in Ukraine. Awards under this APS will be made and implemented in accordance with USAID and US Government regulations governing grants under contracts and Harvest internal grant management policies.

The project will publish a video record to support application process on July 26th, 2024 at 5:00pm Kyiv time. This video record will support the applications to understand the requirements how to develop the concept note form. The video can be viewed under the [link](#) Harvest will gather questions through ukraineharvestSIF@harvestukraine.com e-mail address and all questions and answers will be distributed to all potential applicants on 26th of each month. The video record and questions sessions will allow eligible and interested applicants the chance to ask questions about APS and receive guidance on how to complete the concept paper form.

Harvest Activity and Chemonics-Washington employees may not ask for, and applicants are prohibited from offering, any money, fee, commission, credit, gift, gratuity, thing of value, or compensation to obtain or reward improper favorable treatment regarding this solicitation. Any improper request from a project employee should be reported to the chief of party or BusinessConduct@chemonics.com.

The following Annexes are included with this APS:

- **Annex A** – Eligible Initiatives
- **Annex B** – Concept Note (5 Page Maximum in Ukrainian and English)
- **Annex C** – Concept Note Budget Form
- **Annex D** – Required Certifications
- **Annex E** – Mandatory and Required as Applicable Standard Provisions:
 - Standard Provisions for U.S. and Non-U.S. Nongovernmental organizations receiving a fixed amount award can be accessed through the following URL:
<https://www.usaid.gov/about-us/agency-policy/series-300/references-chapter/303mat>
 - Standard Provisions for Non-U.S., Nongovernmental recipients receiving all other types of grants can be accessed through the following URL:
<https://www.usaid.gov/about-us/agency-policy/series-300/references-chapter/303mab>

SECTION I. PROGRAM DESCRIPTION

IA. OBJECTIVE

The purpose of this Annual Program Statement (APS) is to solicit applications for funding to improve agricultural productivity, enhance food security, and promote sustainable farming practices in the target regions of Ukraine. The APS aims to support innovative approaches to achieving its objectives using a co-creation process with the private sector that can be scaled and replicated to maximize impact. The results of this APS and the co-creation process may include the award of single- or multi-year renewable grants; issuance of related standalone requests for proposals; requests for quotes, or other tenders determined appropriate for the form of assistance to the Ukrainian agriculture sector.

IB. BACKGROUND

Before February 2022, Ukraine was the fifth-largest wheat exporter, third-largest corn and barley exporter, and top sunflower exporter (40% share) worldwide. Russia's full-scale invasion has caused more than \$40.2 billion in losses to the agriculture sector (as of a February 2023 official assessment) and loss of access to 25% of Ukraine's land, bringing significant challenges for grain and oilseed producers. However, agriculture remains a critical sector contributing significantly to livelihoods and economic stability. Despite its importance, the sector faces numerous challenges, including low productivity, poor access to markets, and climate change impacts. Previous USAID initiatives have laid the groundwork for substantial improvements, yet gaps remain.

In April 2024, USAID launched the Harvest Activity, hereinafter Harvest. Harvest builds on USAID's previous projects in Ukraine and lessons learned by USAID/Ukraine, Ukrainian partners, and other donors.

Harvest aims to enable supported male and female grain and oilseed farmers, including those from marginalized and underserved groups, to return production and income for target commodities to at least pre-war levels while improving production efficiency and profitability and will position farmers to market their crops more successfully and profitably in the war-affected context. Harvest's target commodities are barley, corn, soybean, sunflower, and wheat. Harvest has three objectives and expected results and indicators. The three objectives are: 1) Profitable, Climate-Smart, Market-Oriented Production Expanded, 2) Farmers' Access to Profitable Markets Improved, and 3) Market System Efficiency and Inclusiveness Improved.

In addition to technical assistance and training, Harvest includes a Strategic Investment Fund (SIF), which includes focused grants and subcontracts aimed at achieving the three objectives and related indicator targets. Harvest will issue APSs, requests for applications (RFAs), requests for proposals (RFPs), or other engagement instruments related to the three objectives over the course its existence. The focus of this Annual Program statement is *Objective 1: Profitable, Climate-Smart, Market-Oriented Production Expanded*.

| Target Beneficiaries | |
|----------------------|--|
| ➤ | 5-500 ha farms, smaller farms selling exclusively to domestic buyers; quality and yield varies greatly by farm. |
| ➤ | 500-1,000 ha farms, mid-size farms selling to domestic and some international buyers. |
| ➤ | 1,000-2,000 ha farms, larger holdings often with their own post-harvest and logistics infrastructure and selling to domestic and international buyers. |

IC. PROGRAM DESCRIPTION

Harvest will partner with market actors from the public and private sectors to achieve the associated results through this APS:

- 1.1. *Use of improved practices increased.*
- 1.2. *Uptake of improved seed varieties increased.*
- 1.3. *Use of Crop Protection Products (CPP) increased.*
- 1.4. *Use of long-term, sustainable irrigation and/or drainage expanded.*
- 1.5. *Support soil decontamination and recultivation supported.*

Annex A provides an illustrative list of examples of initiatives that are eligible for funding and reflect Harvest's current priorities; however, this list is not exhaustive. Applicants are encouraged to propose activities consistent both with the Harvest objectives listed above, as well as their own organizational objectives. Harvest encourages engagement with the private sector to participate in its co-design process to develop innovative initiatives to achieve meaningful impact in Ukraine and on its indicator targets.

Harvest recognizes that some grantees may need technical assistance to more effectively carry out the proposed activity. Consequently, applicants are encouraged to specify their needs for technical assistance and/or training in their concept note and/or application; this may include the provision of consultant expertise, training and capacity building, or procurement of certain goods and services.

Geographic Focus

Under this APS, Harvest anticipates supporting activities throughout Ukraine, excluding temporarily occupied areas. Priority consideration will be given to proposed activities addressing needs in eastern and southern oblasts.

Expected Results

Harvest funds grants that will achieve specific high-level outcomes, and therefore applicants should keep these objectives in mind when designing grant activities. Although not all the indicators below can be achieved through the efforts of a single grant activity, each applicant should also propose target indicators from several of the following:

Program Indicators

| | |
|---|----------------------|
| Percentage change in aggregate output of target commodities | 35% |
| Number of individuals participating in U.S. government food security programs (EG.3-2). Participants must be registered producers (including legal entities and individual entrepreneurs) of target commodities with farms between five and 2,000 ha. | 50,000 |
| Number of Hectares Under Improved Management Practices or Technologies (EG.3.2-25). Number of hectares, bringing modern/efficient practices and technologies that expand the use of long-term, sustainable irrigation and/or drainage approaches. | 10,000 ha |
| Value of private sector investment leveraged. | \$500 million |
| Percent change of volume (in metric tons) of product sold by targeted producers. | 30% |
| Value of finance accessed by target commodities producers and related businesses. | \$250 million |

Percentage of assisted organizations with improved performance.

80%

Concept notes and applications showing the most significant contributions to these program-level indicators will receive greater consideration during the selection process.

ID. AUTHORITY/GOVERNING REGULATIONS

Harvest grant awards are made under the authority of the U.S. Foreign Affairs Act and USAID's Automated Directive System (ADS) 302.3.5.6, "Grants Under Contracts." Awards will adhere to guidance provided under [ADS Chapter 303](#), "Grants and Cooperative Agreements to Non-Governmental Organizations" and will be within the terms of the USAID Standard Provisions as linked in the annexes, as well as the Harvest grants procedures.

ADS 303 references an additional regulatory documents issued by the U.S. Government's Office of Management and Budget (OMB) and the U.S. Agency for International Development:

- 2 CFR 200 [Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, Subpart E](#) (U.S. applicants are subject to 2 CFR 200 in its entirety)

Full text of 2 CFR 200 can be found at http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl and 2 CFR 700 at <http://www.ecfr.gov/cgi-bin/text-idx?SID=531ffcc47b660d86ca8bbc5a64eed128&mc=true&node=pt2.1.700&rgn=div5>. Harvest is required to ensure that all organizations receiving USAID grant funds comply with the guidance found in these circulars, as applicable to the respective terms and conditions of their grant awards.

Under the Harvest grant program, USAID retains the right at all times to terminate, in whole or in part, Harvest grant-making authorities.

SECTION II. AWARD INFORMATION

Harvest anticipates awarding up to approximately UAH 1,584,000,000 through 20 to 50 anticipated grant awards. It is anticipated that each grant award may range from UAH 3,960,000 to UAH 198,000,000, but the final amount will be dependent upon grant activities and final negotiation and may be lower or higher than that range. The duration of any grant award under this solicitation is expected to be no more than 4 years. The estimated start date of grants awarded under this solicitation is **September 1, 2024**. Type and length of grants will be determined during the negotiation process. Some grants issued under this APS may be renewal awards, which will provide support for an initial set of programmatic activities and milestones during a specified period of time with the possibility of a subsequent award to provide additional support for the project for succeeding periods, activities, or milestones. For renewal awards issued under this APS, the initial period of performance will be 12 months, with up to 3 12-month renewal periods for a total period of performance of up to 4 years. Grantees with renewal awards will be required to submit a request for renewal 3 months before the end of the implementation period. Requests for renewal must include the following:

- Renewal application
- Renewal period budget
- Renewal period implementation timeline (in Gantt format)

Harvest will evaluate renewal applications by the following criteria:

- Does the application build off of demonstrated progress towards grant objectives to date?
- Are the proposed activities still relevant to Harvest’s objectives?
- Will the renewal support either the same work, or work that is within the programmatic activities of the current award or is closely related to the current programmatic activities?
- Will the renewal support the same long-term goals with new specific targets, milestones, outputs, or indicators?

Harvest will follow all other pre-award requirements, including requesting a new set of certifications, assurances, representations, and other statements, prior to executing the renewal, though a formal pre-award risk assessment may not be necessary depending on the nature of the renewal.

The funding of any renewal period or expansion of activities is contingent upon the following:

- Availability of funds;
- Satisfactory progress towards meeting the award objectives;
- Submittal of required reports; and
- Compliance with the terms and conditions of the award, including the conditions for renewal

SECTION III. ELIGIBILITY

IIIA. ELIGIBLE RECIPIENTS

Applicants must be a registered, formally constituted and recognized by and in good standing with appropriate Ukrainian authorities, and compliant with all applicable civil and fiscal regulations.

- I. Private sector business or organization;
 - II. Farmer cooperative and producer group;
 - III. Non-governmental organization (NGO); or
 - IV. University, research and educational institution,
- Applicants must demonstrate the capacity to implement climate-smart and market-oriented agricultural practices.
 - Applicants are strongly encouraged to propose co-financing, and Harvest will give priority consideration to concepts demonstrating higher levels of co-financing. If awarded a grant, an applicant shall provide documents confirming its contribution. Grantee contribution is a way to encourage successful completion of activities under this award. Applicant’s contribution may include monetary or in-kind financing of activity costs received beyond Harvest’s grant support and provided by the applicant or other donor organizations, such as international NGOs, foreign governments, local and international organizations, private organizations and/or individuals. The grantee’s contribution shall not include funding received under other USAID projects.
 - Applicants may only submit one application per organization under this APS.
 - Applicants must display sound management in the form of financial, administrative, and technical policies and procedures and present a system of internal controls that safeguard assets; protect against fraud, waste, and abuse; and support the achievement of program goals and objectives. Harvest will assess this capability prior to awarding a grant.

- Applicants must sign certain required certifications prior to receiving a grant. The certifications are attached to this solicitation (Annex C) and Harvest will review them with applicants.
- Governmental organizations, including foreign government-owned parastatal organizations, determined in ADS 302.3.3, are not eligible to apply for grants under this APS.
- For any grant award(s) resulting from this solicitation that is other than in-kind, equivalent to \$25,000 USD or more, and has no anticipated subawards, grantees will be required to provide a Unique Entity Identifier (UEI) at the time of award. If the applicant already has a UEI number it should be included in their application. Otherwise, applicants will be expected to get a UEI number before an award is made. Harvest will assist successful applicants with this process. More information on UEIs can be found [here](#).
- The project will work with the successful grantee to draft a marking and branding plan which will be annexed to the grant agreement.
- Faith-based and community groups will receive equal opportunity for funding in accordance with the mandated guidelines laid out in ADS 303.3.28 except for faith-based organizations whose objectives are for discriminatory and religious purposes, and whose main objective of the grant is of a religious nature.

SECTION IV. APPLICATION AND SUBMISSION INFORMATION

IVA. INSTRUCTIONS TO APPLICANTS

Applicants must propose strategies for the implementation of the program description described above, introducing innovations that are appropriate to their organizational strengths.

IVB. GRANT APPLICATION

This is a two-stage application process. The first stage is for the applicant to submit a concept paper. Concept paper forms (Annex B) will be evaluated against the merit review criteria listed in Section V below. If the applicant successfully meets or exceeds the merit review criteria, they will be invited to submit a full application, which may involve a co-design process, depending on need and the proposed activities. Only those applicants who meet or exceed the merit review criteria at the concept paper stage, will be invited to submit a full grant application. Applications will be reviewed on a rolling basis.

The template to be used when developing the concept paper is provided in Annex B. Applicants shall present their technical application and budget in the formats provided and shall follow the instructions and guidelines listed in these annexes.

All grant activity costs must be within the normal operating practices of the Applicant and in accordance with its written policies and procedures. For applicants without an audited indirect cost rate, the budget may include direct costs that will be incurred by the Applicant to provide identifiable administrative and management costs that can be directly attributable to supporting the grant objective.

The concept paper must be signed by an authorized agent of the Applicant.

IVC. PRE-AWARD RISK ASSESSMENT

All organizations selected for award are subject to a pre-award risk assessment conducted by Harvest, to ascertain whether the organization has the minimum management capabilities required to handle US government funds.

IVD. INELIGIBLE EXPENSES

Harvest grant funds may not be utilized for the following:

- Construction or infrastructure activities of any kind.
- Demining activities of any kind.
- Ceremonies, parties, celebrations, or “representation” expenses.
- Purchases of restricted goods, such as: restricted agricultural commodities, fertilizers, motor vehicles including motorcycles, pharmaceuticals, medical equipment, contraceptive products, used equipment without the previous approval of Harvest, or prohibited goods, prohibited goods under USAID regulations, including but not limited to the following: abortion equipment and services, luxury goods, etc.
- Covered telecommunication and video surveillance equipment or services – per the standard provision entitled “Prohibition on Certain Telecommunication and Video Surveillance Services or Equipment”, grant funds including direct and indirect costs, cost share and program income may not be used to (1) procure or obtain; (2) extend or renew a contract to procure or obtain; or (3) enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that use covered telecommunications equipment or services (“CTES”) as a substantial or essential component of any system, or as critical technology as part of any system. This prohibition covers certain telecommunications equipment and services, including, but not limited to, phones, internet, video surveillance, and cloud servers, produced or provided by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities) unless Harvest has determined that there is no available alternate eligible source for the CTES. For fixed amount awards, this restriction is only applicable if any of the milestones are for telecommunication or video surveillance services or equipment.
- Alcoholic beverages.
- Purchases of goods or services restricted or prohibited under the prevailing USAID source/nationality (Cuba, Iran, North Korea, and Syria).
- Any purchase or activity, which has already been made.
- Purchases or activities unnecessary to accomplish grant purposes as determined by Harvest.
- Prior obligations of and/or, debts, fines, and penalties imposed on the Grantee.
- Creation of endowments.

IVE. SUBMISSION INFORMATION

Concept papers shall be submitted in English and Ukrainian and may not be more than 5 pages.

Concept papers (including the budget and supporting documentation) should be submitted electronically to ukraineharvestSIF@harvestukraine.com, and the subject line should follow: “**APS-2024-001_[organization name]_Concept Paper**”. Concept papers will be reviewed on a first come, first serve basis until funds are no longer available. Harvest will begin reviewing submitted concept papers on August 8, 2024, and will continue to accept concept papers on a rolling basis through **July 4, 2025**, or until funds are no longer available. Late or unresponsive applications will not be considered.

In addition to concept note applicants should submit the following to Harvest:

- Budget (see example in Annex C)
- Organization description and registration information
- A copy of the Applicant’s valid legal registration
- A copy of their latest audited financial statements

Please submit all questions concerning this solicitation to the attention of *Harun Birlik, Grants Specialist*, via email to ukraineharvestSIF@harvestukraine.com with the subject line “**APS-2024-001_ Questions**” Questions for the first round of concept note submissions are due on **July 22, 2024**. Afterwards, questions will be answered on a rolling basis. Harvest will assist applicants in understanding the application process, and can provide coaching in application development at the request of applicants.

SECTION V. APPLICATION MERIT REVIEW CRITERIA

As described above, applications will be evaluated in a two-step evaluation process:

- The first step is for applicants to submit a concept paper.
- If the concept paper is accepted, you will be contacted to discuss next steps, which may include submission of a full application.

All concept papers and applications will be reviewed by an internal review panel comprised of Harvest technical implementation staff, and recommendations may be vetted by a larger group. Concept papers will be evaluated against the criteria below.

- 1) **Activity and Approach:** Includes feasible, innovative, forward-thinking ideas that allow USAID and Harvest to work with the private sector more collaboratively, differently, and/or with greater agility. Approaches should have a viable business case or model.
- 2) **Relevance:** Addresses the objectives and expected results described in the APS, as well as illustrative activities identified in Annex A. Applicants are encouraged to make sure that concepts align with the above.
- 3) **Scale of Impact:** Achieves significant impact and contributes to Harvest achieving its indicator targets noted in IC above.
- 4) **Private Sector and Local Engagement:** Demonstrates interest of the private sector, as well as relevant local stakeholders. Priority will be given to concepts demonstrating higher levels of private sector commitment and co-investment/co-financing.

Full applications will be evaluated against the merit review criteria in the table below.

| Merit Review Category | Rating (Points) |
|--|------------------------|
| Feasibility Design & Technical Approach | 45 |
| a. Effective integration of strategies and programming that addresses Gender Equality and Social Inclusion (GESI) considerations | 10 |
| Management and Programmatic Capacity | 30 |
| Cost Effectiveness and Co-Financing | 25 |
| | |
| Overall Rating (out of 100 points) | 100 |

These merit review criteria elements are described more fully below.

A. Feasibility of Design & Technical Approach. The quality and feasibility of the application in terms of the viability of the proposed technical approach, (i.e., the proposed technical approach can reasonably be expected to produce the intended outcomes), appropriateness of the proposed methodology, innovativeness, and the work plan for achieving project objectives to offer significant impacts. The technical approach must directly contribute to the achievement of Harvest's expected results and performance under the activity, and must be measurable under one or more of the Harvest's indicators. Evaluation of approaches may either include approaches proven to be effective or new untried approaches with promise. Proposed mechanisms for monitoring and evaluation with objectively measurable indicators will also be appraised. Additionally, the extent to which the proposed activity demonstrates a strong commitment to GESI considerations to positively impact women, men, youth, IDPs, veterans, and other underrepresented populations will be evaluated and assigned a weighting of **10 points** of the total assigned for this criterion. **45 points**

B. Management and Programmatic Capacity. Evidence of the Applicant's capability to accomplish proposed activities. The application should demonstrate the organization's effectiveness in terms of internal structure, technical capacity, and key personnel, in meeting economic development goals. Please submit CVs of candidates nominated for the key personnel positions for evaluation. Harvest will assess whether candidates meet APS requirements. In addition, the organization must demonstrate adequate financial management capability. The evaluation will be based principally on the background, qualifications, reputation, appropriateness and skills of its key personnel; and the "track record," reputation, and achievements (including development of self-sufficient, sustainable activities) of the organization. **30 points**

C. Cost effectiveness. The degree to which budgeting is clear and reasonable and reflects the best use of organizational and grant resources. The ratio of the grantee's contribution (if proposed) to Harvest's share of the grant budget will also be evaluated, as well as sources of funding, justification, completeness, and appropriateness of costs. The project budget should contain a detailed estimate and explanation of costs for each category. **25 points**

SECTION VI. AWARD AND ADMINISTRATION INFORMATION

All grants will be negotiated, denominated and funded in Ukrainian hryvnia (UAH).

All costs funded by the grant must be allowable, allocable and reasonable. Grant applications must be supported by a detailed and realistic budget as described in Section IV.

Issuance of this APS and assistance with application development do not constitute an award or commitment on the part of Harvest, nor does it commit Harvest to pay for costs incurred in the preparation and submission of an application. Further, Harvest reserves the right to accept or reject any or all applications received and reserves the right to ask further clarifications from the offerors. Applicants will be informed in writing of the decision made regarding their application.

Annex A. Eligible Initiatives

The following types of initiatives are eligible for funding and represent current priorities, but this is not an exhaustive list. Harvest encourages engagement with the private sector to participate in its co-design process to develop innovative initiatives to achieve meaningful impact in Ukraine and on its indicator targets.

1.1. Improved production practices increased

- Deploying climate-smart and yield-maximizing practices.
- Promoting regenerative agriculture (cover cropping, crop rotation, no-till practices).
- Implementing "lean farming" practices and "4R" nutrient stewardship models.
- Promoting bee pollination for sunflower and soybean production.
- Reducing post-harvest losses through improved storage and drying equipment.
- Supporting digitization in farming through remote sensors and GPS technology.
- Piloting energy-efficient and innovative solutions (e.g., solar panels, food waste processing).
- Supporting access to modern and efficient equipment/machinery and/or farm machinery services for agricultural production

Examples

- a. *Interventions that increase the uptake of climate-smart and yield-maximizing practices designed.*
 - i. Deploying modern machinery for agricultural production adopted and availability of production related services increased. This includes specialized equipment for climate-smart agriculture production, including the use of drones.

1.2. Uptake of improved seed varieties increased

- Co-investing in seed production and extension centers.
- Supporting seed input supply and demonstration plots.

Examples

- a. *Cultivation of Durum Wheat increased.*
 - i. Based on demand for durum wheat seed and related agronomic assistance, procure durum wheat, ensuring adequate availability and quality, and ability to distribute.
- b. *Seed replication through extension centers expanded.*
 - i. To reduce the cost of production and increase marginal profits for producers, Harvest will co-design initiatives with firms such as Euralis and MAS Seeds for seed replication and the planned Ukrainian Agri Council seed extension centers in Rivne, Sumy, Cherkasy, Mykolaiv, and Dnipro.
- c. *Additional seed promotion interventions.*

1.3. Crop protection product use increased

- Facilitating access to affordable CPP.
- Supporting domestic CPP production.
- Implementing input finance models and bulk input buying.

Examples

a. *international input supply sources improved.*

- i. interventions to provide needs-based voucher distribution systems or other models where farmers receive CPPs and pay in produced wheat later in the year.

b. *Domestic CPP production supported.* Harvest will investigate increasing the capacity of facilities in Cherkasy and Rivne for making saltpeter and lime nitrate through co-investing in machinery capacity expansion.

c. *Agricultural finance systems for crop protection developed.* Possible solutions to system-level constraints, such as input finance models and bulk purchasing, will be explored in FY2024 to be included in the FY2025 work plan.

1.4. Use of long-term, sustainable irrigation and/or drainage expanded

- Upgrading and expanding irrigation infrastructure.
- Coordinating with local and international engineering firms for design and oversight.
- Co-investing in installation and training farmers in operation and maintenance.

Examples

a. *Hardest-hit oblasts where irrigation and drainage improvements have the potential to increase productivity targeted.*

- i. Program for engaging Water User Organizations' (WUOs) to strengthen management capacity and improve infrastructure through equipment procurement, construction, dredging canals, etc.

b. Program for developing *plans for improving and restoring irrigation and drainage systems designed.*

- i. develop a four-year program for improving and restoring irrigation and drainage systems together with partners and stakeholders. Planning should include stakeholder analysis, evaluating and ranking organizational capacity levels and designing interventions to ensure responsiveness and resilience of recently created WUOs. The program should be coordinated with the State Water and Fisheries Agency, support farmers to leverage additional private capital and state funds from MAPF, and demonstrate partnerships with local providers. This may include together or separately with agronomic support to enhance soil productivity and perform systems maintenance.

1.5. Soil decontamination and recultivation supported

- Investing in research for soil decontamination methods.
- Strengthening capacity for soil testing and fertility assessment.

- Documenting and disseminating best practices for soil decontamination.

Examples

a. *Cost effective and efficient soil decontamination methods analysis conducted including menu of options with associated costs and benefits.*

- i. catalog cost effective and efficient soil decontamination methods in the Ukrainian context while identifying best (price/quality) decontamination methods, notional priority production zones and types of producers for soil testing, and financing solutions, documenting best practices for effective decontamination to encourage further uptake among producers.
- ii. design interventions that increase producers' capacity to assess soil safety and co-invest with farmers in soil testing to evaluate the presence of heavy metals such as arsenic or lead, and measure fertility (i.e., presence of nutrients such as potassium and nitrogen) to increase available land for safe, productive cultivation.

b. *Capacity of farmers in soil testing to assess soil safety strengthened.*

- i. produce catalog of soil testing facilities and services throughout Ukraine and assist Harvest to co-design viable business models for expanding services to achieve this result. This may include upgrading testing facility equipment and expanding education services through various channels over the next three years.