

Preliminary Mid-Term Evaluation

Resilient Agriculture, Value Chain Development, and Innovation Program in Jordan (ARDI)

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Introduction

The **Resilient Agriculture, Value Chain Development, and Innovation Program (ARDI)** represents one of the most important national initiatives launched by the Jordanian government within the framework of the **National Sustainable Agriculture Plan 2022-2025**. The project was designed to implement the plan developed by the government through consultations with various national stakeholders, with the aim of strengthening the climate resilience of the agricultural sector, improving the competitiveness of value chains, and enhancing innovation in agricultural practices.

The program is jointly financed by the **World Bank** through a mix of grants and loans amounting to **USD 125 million**, and it adopts the **Program-for-Results (P4R)** model, whereby financial disbursement is linked to progress achieved against clear, measurable indicators.

The program operates within Jordan's complex economic and environmental context, characterized by water scarcity, declining land productivity, the vulnerability of farming communities to climate change, and the growing need to adopt more sustainable agricultural technologies. Accordingly, the program focuses on developing rainwater harvesting practices, improving water-use efficiency, strengthening infrastructure and support services for value chains, and expanding the participation of marginalized groups such as women, youth, and refugees in value-added agricultural activities. It also seeks to build the capacities of relevant government institutions by modernizing their administrative systems, upgrading technical tools, and improving coordination among them to ensure a comprehensive and integrated approach.

In this context, the **Phenix Center for Economic and Informatics Studies**, in partnership with members of the **Arab Watch Coalition (AWC) in Jordan** namely *Dibeen Association for Environmental Development* and *Rased Center for Political and Social Studies* conducted an independent **mid-term evaluation** of the ARDI program. The evaluation aimed to analyze the level of progress, the effectiveness of institutional arrangements, the social and economic impact, and the degree of compliance with the World Bank's environmental and social standards in areas where their application is required. This evaluation builds on the Phenix Center's extensive experience in public policy analysis, program evaluation, and promoting sustainable development in Jordan and the region, enabling it to provide a balanced and comprehensive assessment based on internationally recognized evaluation standards.

The evaluation relies on criteria partially aligned with the **OECD-DAC evaluation framework**¹, where relevant, including: relevance, coherence, effectiveness, efficiency, impact, and sustainability. It also incorporates the **World Bank's Environmental and Social Framework (ESF)**² standards, covering risk management, working conditions, occupational health and safety, resource efficiency, and impacts on local communities and the natural environment.

The mid-term evaluation of the ARDI program aims to provide a focused analytical review of program performance from its launch in 2023 until the second half of 2025, with emphasis on

¹ [OECD-DAC Criteria - AR](#)

² [World Bank. \(2017\). Environmental and Social Framework \(ESF\).](#)

progress made relative to the strategic objectives of the National Sustainable Agriculture Plan. Special attention is given to priority components, particularly rainwater harvesting interventions, capacity-building for target groups, and the development of agricultural value chains.

The evaluation also examines the effectiveness of institutional arrangements adopted for program implementation, including the level of coordination among partner government agencies, the private sector, and local actors, and the extent to which these arrangements contribute to strengthening the implementation capacities of ministries and institutions. It further assesses the degree to which social inclusion considerations are integrated into the design and execution of activities, particularly in targeting vulnerable groups with limited opportunities.

The evaluation includes a review of the application of the World Bank's environmental and social requirements, limited to aspects directly related to the actual implementation of activities. It focuses on environmental and social risk management, enforcement of labor and occupational health and safety standards at implementation sites, and mechanisms for beneficiary engagement and grievance redress. The evaluation does not aim to conduct a full audit of the ESF framework but rather to identify practical implementation gaps that affect execution quality and developmental impact.

The evaluation concludes with a set of practical observations and actionable recommendations designed to improve the pace and quality of implementation during the remaining program period and to strengthen its ability to deliver tangible and sustainable results for the agricultural sector and target groups.

The scope of the evaluation is limited to reviewing the design, implementation, and monitoring of the core components of the ARDI program, and analyzing the adopted performance indicators particularly those linked to results achievement and financial disbursement—without expanding into long-term impact assessment or conducting in-depth economic studies beyond the mid-term evaluation framework. It also covers an examination of the level of social participation of target groups, their representation in program activities, and their access to services, training, and employment opportunities.

The evaluation further extends to environmental and social auditing in line with the World Bank's **Environmental and Social Framework (ESF)**, including risk management, working conditions, resource-use efficiency, mechanisms for protecting trainees, workers, and community members, and potential environmental impacts on biodiversity and natural resources. It also focuses on analyzing the sustainability of interventions after program completion and the ability of beneficiary institutions to continue operating independently and effectively.

The evaluation methodology combined desk review and in-depth interviews to provide an analysis that integrates official data with stakeholder perspectives. It began with a desk review that included analysis of program documents, progress reports, and monitoring data on program activities. This stage aimed to build an analytical picture of the program's structure, indicators, expected results, and to identify gaps and areas requiring further investigation.

This was followed by qualitative data collection through a series of in-depth interviews with beneficiaries, farmers, local communities, government officials, and technical and administrative

staff working within the program. These interviews helped assess implementation quality, the extent of benefits for vulnerable groups, and identify existing challenges and potential opportunities. Several field visits were also conducted to program activity sites.

The collected data was then analyzed against the aforementioned criteria to provide a comprehensive assessment covering technical performance, operational efficiency, social impact, and environmental compliance. The evaluation took into account several limitations that may affect the scope of analysis, most notably reliance on qualitative data without conducting a wide-scale quantitative survey, varying levels of progress across different components, and the potential influence of climatic and economic variables on implementation. The evaluation also faced time constraints related to scheduling interviews.

Program Overview

The **Resilient Agriculture, Value Chain Development, and Innovation Program (ARDI)** is one of the most prominent national interventions aimed at strengthening the climate resilience of Jordan's agricultural sector. It operates within the framework of the **National Sustainable Agriculture Plan 2022-2025**, in alignment with the priorities of the **Economic Modernization Vision** related to food security and resource sustainability. The program comes at a time when Jordan faces acute challenges such as water scarcity, declining agricultural productivity, and increasing vulnerability of rural livelihoods—making the development of climate-smart agricultural technologies and improved natural resource management a pressing national priority.

The program is financed by the **World Bank**, having been approved in **September 2022**, and is implemented under the leadership of the Jordanian government, represented by the **Ministry of Agriculture**, with the participation of key institutions such as the **National Agricultural Research Center (NARC)**, the **Agricultural Credit Corporation (ACC)**, the **Jordan Enterprise Development Corporation (JEDCO)**, and other relevant technical institutions. The **Delivery Unit** within the Ministry of Agriculture plays a pivotal role in coordinating efforts, accelerating decision-making, and ensuring the integration of environmental and social standards into implementation activities.

ARDI features a **hybrid financing structure** that combines a **Program-for-Results (P4R)**³ component with an **Investment Project Financing (IPF)**⁴ component, within a total financial package of **USD 125 million** comprising a loan of **USD 119.5 million** and a grant of **USD 5.5 million**⁵. The P4R component aims to link disbursement of funds to measurable results in areas such as developing rainwater harvesting infrastructure, adopting climate-smart agricultural practices, and improving the efficiency of services provided to farmers. The IPF component focuses on capacity-building, institutional system development, enhancement of environmental

³ PforR-Program for Results.

⁴ IPF- Investment Project Financing.

⁵ [World Bank. \(2022–2025\). Agriculture Resilience, Value Chain Development, and Innovation Program \(ARDI\).](#)

and social monitoring tools, support for the production of drought-resistant seedlings, and provision of technical assistance to strengthen government institutional capacity⁶.

The program relies on a set of **Disbursement-Linked Indicators (DLIs)**⁷, which form the basis for World Bank financing. These indicators include, for example, the increased adoption rate of climate-smart agricultural technologies. In terms of the implementation timeline, ARDI follows a multi-year framework: beginning with institutional preparation and the establishment of technical systems and protocols, moving into the gradual implementation of infrastructure and institutional support, and later expanding into results achievement linked to disbursement⁸. Data shows that the program has transitioned from the foundational stage to the initial achievement stage, particularly in relation to the adoption of climate-smart technologies and the development of institutional structures⁹.

ARDI Program Objectives (Six Strategic Pillars)¹⁰

1. **Strengthen the agricultural sector's capacity to adapt to climate change** and ensure the sustainable use of natural resources, with a particular focus on improving water management efficiency.
2. **Support and develop selected agricultural value chains** to enhance competitiveness, increase agricultural exports, and improve the enabling environment for job creation.
3. **Establish and strengthen administrative, financial, procurement, and environmental/social safeguard systems** within implementing agencies, ensuring effective execution and high-quality delivery of the National Sustainable Agriculture Plan.
4. **Develop formal coordination mechanisms among relevant ministries**, ensuring effective and sustainable participation of the private sector, civil society, and all stakeholders—including the most vulnerable groups.
5. **Build the capacities of implementing agency staff** through specialized training programs, accelerate the execution of investments and preparatory activities such as IT systems, and modernize veterinary centers to support rapid and effective program implementation.
6. **Provide a ready mechanism for rapid response to emergency and unforeseen needs** in cases of disasters and crises, under clear and well-defined procedures and safeguards.

⁶ [World Bank. \(2022–2025\). Agriculture Resilience, Value Chain Development, and Innovation Program \(ARDI\).](#)

⁷ DLIs-Disbursement-Linked Indicators

⁸ [World Bank. \(2022–2025\). Agriculture Resilience, Value Chain Development, and Innovation Program \(ARDI\).](#)

⁹ [World Bank. \(2025\). Disclosable Version of the ISR – Agriculture Resilience, Value Chain Development and Innovation \(ARDI\) Program – P167946 – Sequence No. 04 \(English\). World Bank Group.](#)

¹⁰ [World Bank. \(2022–2025\). Agriculture Resilience, Value Chain Development, and Innovation Program \(ARDI\).](#)

Project Technical Design

The technical design of the **Resilient Agriculture, Value Chain Development, and Innovation Program (ARDI)** is based on a clear national vision derived from Jordan's priorities in developing the agricultural sector and strengthening its resilience to climate change. This section aims to analyze the program's alignment with national policies, the clarity of performance indicators used to measure progress, and its ability to respond to the actual needs of the sector. The analysis highlights the program's nature as a nationally owned tool with international financing, and identifies strengths and gaps in the monitoring and measurement system helping to understand the effectiveness of the technical design and opportunities for improvement during the remaining implementation period.

1. Alignment of Project Objectives with National Policy Priorities and Strengthening Jordanian Ownership

At its core, ARDI is a direct response to the **National Sustainable Agriculture Plan 2022–2025** launched by the Jordanian government, which gives the program a clear character of national and intellectual ownership. The program was not designed as a ready-made concept from the World Bank, but rather as an executive tool supporting priorities already defined by Jordanian national policies. In other words, the program translates a pre-existing Jordanian vision for the future of agriculture and natural resource management, rather than imposing an external agenda.

World Bank documents and Implementation Status Reports (ISRs)¹¹ confirm that ARDI's objectives are directly linked to the pillars of the National Sustainable Agriculture Plan, such as: improving water-use efficiency, developing rainwater harvesting systems, enhancing the productivity of small farms, and strengthening the resilience of agricultural value chains to climate change. Thus, the program's technical design does not create a parallel agenda to Jordan's agricultural policy, but rather operates within it—accelerating implementation by providing financing, technical expertise, and monitoring and evaluation tools.

National ownership is reflected in several core dimensions of the technical design:

- The identification of key challenges addressed by the program such as water scarcity, weak rainwater harvesting infrastructure, vulnerability of agricultural labor, and the need to modernize extension services stems from a national diagnosis embedded in the National Sustainable Agriculture Plan and related government policy documents.
- The Ministry of Agriculture is the lead implementing agency, through a **Delivery Unit** operating within the national institutional framework, coordinating with the **National Agricultural Research Center (NARC)** and the **Agricultural Credit Corporation (ACC)**. This reinforces the program's integration into Jordan's policy and institutional system, rather than functioning as a parallel project.
- The program is linked to the broader perspective of the **Economic Modernization Vision** and food security, and is regarded as a practical tool to support a structural agricultural

¹¹ ISRs- Implementation Status and Results Reports

transformation in Jordan toward more efficient and sustainable production patterns, rather than relying on partial reforms or scattered projects.

From this perspective, ARDI can be considered a “**national program with international financing**” rather than an “international program implemented in Jordan.” The National Sustainable Agriculture Plan serves as its guiding reference, while Jordanian institutions define its sectoral and geographic priorities. World Bank financing and tools act as enablers of implementation capacity, not substitutes for national vision or state ownership of policies.

Therefore, alignment with national policies is not measured solely by textual consistency between project documents and the national plan, but also by the degree of integration into Jordan’s agricultural decision-making cycle, and by the institutional capacity-building it enables within Jordanian administrative bodies. Tools and methodologies developed such as rainwater harvesting plans, environmental and social monitoring protocols, and climate extension and training systems remain embedded within national institutions.

2. Clarity of Performance Indicators

Technical documents and monitoring reports for ARDI show that the performance indicator system was designed to be clear and consistent with the **Program-for-Results (PforR)** methodology, which links financing to measurable outputs. While core indicators are clearly defined and aligned with the program’s overall objectives, the system still suffers from significant gaps related to data classification, weak measurability of certain outputs, and the absence of a fully developed monitoring and evaluation plan, as evidenced in follow-up reports.

Clarity of Disbursement-Linked Indicators (DLIs)

The DLIs are the clearest elements of the system, as they are designed according to the World Bank’s PforR mechanism, whereby financial disbursements are contingent upon specific achievements. Examples include:

- Number of farmers adopting climate-smart technologies.
- Progress in developing and implementing environmental and social monitoring protocols.
- Advancement in rainwater harvesting infrastructure (e.g., construction of reservoirs and ponds).
- Implementation of training programs for key government staff.

Clarity of General Key Performance Indicators (KPIs)

The performance framework also includes indicators not directly tied to disbursements, such as:

- Number of beneficiaries receiving training.
- Development of training and extension systems.
- Number of nurseries producing drought-resistant seedlings.



- Development of site-level environmental and social monitoring systems.

Although these indicators are clearly articulated in project documents and ISRs, a major gap appears in achievement reports: the absence of **baseline-endline comparative data**, and the lack of disaggregated data by gender, age, and refugee status. This makes it impossible to accurately assess the level of change achieved. The indicators are clearly worded, but the data provided is insufficient for measurement. The mid-term evaluation explicitly noted that the absence of disaggregated data limits the ability to analyze the real impact.

Gaps in Measuring Value Chain Results

Although strengthening agricultural value chains is one of the program’s objectives, World Bank progress reports do not include measurements of productivity increases, income improvements, market access, or indicators of integration into value chains. Reports state that value chain results are “not yet assessable” due to the absence of field monitoring data and the lack of quantitative results reports as of September 2024 (World Bank, 2024)¹². This points to a gap in either the design of value chain indicators or the application of monitoring tools.

Overall, the program benefits from a clearly written indicator framework particularly the DLIs, which are the strongest performance elements due to their direct link to financing. The core KPIs are also clear in design. However, clarity in wording does not translate into clarity in measurement, due to weak baselines, insufficient disaggregated data, and uneven progress in applying environmental and social monitoring tools.

Evaluation of Executive and Institutional Performance of the ARDI Program

The success of the **Resilient Agriculture, Value Chain Development, and Innovation Program (ARDI)** through both its **Program-for-Results (PforR)** and **Investment Project Financing (IPF)** components depends on the strength of its institutional framework, the effectiveness of coordination among governmental and non-governmental actors, and the program’s ability to respond to accumulated implementation challenges in an agricultural sector characterized by weak governance, scarce resources, and the marginalization of the most vulnerable groups. This section illustrates how these elements have materialized in practice, through analysis of the role of the Ministry of Agriculture and the Delivery Unit, the level of participation of government partners, mechanisms of inter-ministerial coordination, consultations with civil society and beneficiaries, and the main implementation challenges and responses.

1. Capacity of the Ministry of Agriculture and the Delivery Unit in Coordination and Planning

By design, the Ministry of Agriculture was assigned full responsibility for leading program implementation, with the establishment of a **Delivery Unit** to provide “coordinated management” within the ministry, linking program components to the National Sustainable

¹² [World Bank. \(2025\). Disclosable Version of the ISR – Agriculture Resilience, Value Chain Development and Innovation \(ARDI\) Program – P167946 – Sequence No. 04 \(English\). World Bank Group.](#)

Agriculture Plan. The Delivery Unit's tasks include improving strategic planning, strengthening financial management, procurement, monitoring and evaluation systems, and building the ministry's capacity in risk management and environmental and social safeguards.

Desk review shows that the Delivery Unit has been a key institutional strength, providing a clear organizational framework for communication with the **National Agricultural Research Center (NARC)**, the **Agricultural Credit Corporation (ACC)**, and the **Jordan Enterprise Development Corporation (JEDCO)**. It has contributed to advancing work on rainwater harvesting, nursery modernization, and development of some administrative systems¹³.

However, field interviews reveal a significant gap between design and practice. Many provincial agricultural directorates, which lead daily implementation (especially water harvesting grants), were not clearly informed that the program is financed by the World Bank, and many staff are unaware of the environmental and social standards required for compliance. Moreover, the World Bank team did not sufficiently build the ministry's capacity in environmental and social aspects, despite one program component being specifically designed to strengthen compliance with these standards.

Thus, while the Ministry of Agriculture and the Delivery Unit possess a clear organizational framework for coordination and planning, their ability to translate this framework into coherent practices at the provincial level particularly regarding social and environmental safeguards and financial transparency remains limited. Additional institutional investment and systematic, continuous training are required.

2. Participation of Other Institutions

A major strength of the program's institutional design is its reliance on multi-institutional partnerships:

Agricultural Credit Corporation (ACC)

Within ARDI's objective of modernizing agricultural institutions and supporting the transition to climate-smart agriculture, part of the fast-track activities was allocated to developing an **Enterprise Resource Planning (ERP)** system at ACC. This intervention is considered pivotal for transforming the institution's administrative, financial, and operational systems. The underlying assumption is that modernizing internal systems will improve institutional efficiency, service quality, governance, and transparency, while enhancing ACC's capacity to manage grants and loans for climate-smart agricultural investments—particularly in water-saving and irrigation efficiency technologies.

The mid-term evaluation indicates tangible progress in digital transformation. Program grants were used to develop a modern ERP system aimed at digitizing lending procedures, enabling farmers to apply electronically, reducing transaction time, and improving service quality. The system has entered the pilot launch phase, with full implementation planned for early next year. This reflects strong institutional readiness for adopting an integrated digital operating model,

¹³ [World Bank \(2025\). *Disclosable Version of the ISR – Agriculture Resilience, Value Chain Development and Innovation \(ARDI\) Program – P167946 – Sequence No. 04*. Washington, DC: World Bank.](#)

consolidating financial, administrative, and credit data into a centralized database to support planning and decision-making.

Monitoring results show that the ERP system is enabling structural improvements in operational efficiency, accelerating loan cycles, reducing reliance on manual procedures, improving data quality and integration, and strengthening internal audit and control mechanisms. It also allows ACC to develop more effective tools to track the impact of loans and grants on agricultural productivity, water-use efficiency, and environmental sustainability—enhancing the program’s ability to measure developmental impact and link financing to climate and environmental indicators.

In parallel, the program supported technical capacity-building for ACC staff, training agricultural engineers on climate-smart agriculture and water-use efficiency, and developing their skills in advising farmers on modern irrigation and water- and energy-saving technologies. The evaluation shows this gradually redefines ACC’s role not only as a financing institution but also as a technical and developmental actor supporting sustainable agricultural practices and farmer resilience to climate and economic risks.

This intervention was implemented within active institutional partnerships involving the Ministry of Agriculture and the Delivery Unit for technical coordination, the World Bank through regular quarterly reviews, and collaboration with international organizations, NGOs, and specialized companies in training and capacity-building. Institutional feedback indicates improved coordination in recent years, reflecting positive progress in partnership management and role distribution, though uneven readiness among some partners still limits integrated execution and leaves gaps in support services.

The Deputy Director of ACC emphasized that the corporation is the sole national entity responsible for financing water-saving and climate-smart technologies under ARDI, given its role as a specialized agricultural bank with financial and administrative independence. This underscores ACC’s pivotal position as the primary financing arm for sustainable agricultural investments, aligned with the National Sustainable Agriculture Plan and the Economic Modernization Vision.

Nevertheless, the mid-term evaluation highlights challenges affecting implementation pace and financing targets, including weak promotion activities in the early project stages, which limited uptake compared to the annual target of about two million Jordanian dinars. Delays in transferring government allocations from the Ministry of Finance, despite their availability in approved budgets, caused fluctuations in financial flows and disrupted planning. Limited demand also points to the need for stronger farmer outreach, improved awareness campaigns, and clearer incentives linking financing to the added value of investing in water- and energy-saving technologies.

The evaluation concludes that ERP development at ACC represents promising institutional progress within ARDI, laying the foundation for structural improvements in governance, data quality, and financing efficiency. However, achieving annual financing targets and maximizing climate finance impact requires addressing operational and organizational challenges related to



promotion, financial flow stability, and partner readiness ensuring smooth transition from pilot to full-scale implementation and optimal utilization of the new system.

National Agricultural Research Center (NARC)

NARC plays a pivotal role in modernizing technical infrastructure supporting agricultural value chains, particularly in food safety and input quality. Support included upgrading food safety laboratories, renewing seed labs, and leading nursery modernization for drought-resistant seedlings, such as Hussein Nursery in Baqaa and Faisal Nursery in Jerash. This support increased Hussein Nursery's production capacity from about 50,000 seedlings to nearly 150,000, and enabled Faisal Nursery to potentially produce millions of olive cuttings annually at full operation—strengthening readiness for climate-adapted seedling production.

Institutional evaluation highlights NARC as a core technical and scientific pillar of ARDI, underpinning objectives related to resilience, value chain development, and climate-smart innovation. NARC is viewed as the research and technical arm bridging scientific knowledge with field applications, playing a central role in translating strategic goals into evidence-based, implementable interventions.

Its contribution focuses on providing scientific knowledge for designing and guiding climate-smart interventions, particularly in water-use efficiency, crop and livestock development, and sustainable resource management. NARC also helped define national agricultural research priorities aligned with ARDI, and adapt technologies to Jordan's environmental and climatic conditions, enhancing farmer adoption and success.

NARC also plays an executive role in agricultural extension and knowledge transfer, serving as a training and awareness platform for farmers and agricultural workers, in coordination with Ministry of Agriculture directorates. It disseminates sustainable practices and water- and energy-saving technologies through field days and training programs, bridging the gap between research and practice, and enabling tangible results at farm level.

In capacity-building, NARC is a technical reference for developing professional skills in the agricultural sector, through specialized training programs and collaboration with local and international partners for knowledge exchange. This strengthens scientific approaches in policy design and evaluation of sustainable practices, ensuring medium- and long-term program impact.

NARC also documents agricultural and research data, publishing study results and applied experiments, supporting ARDI's push for agricultural information systems and digitization, and improving data quality for planning and policymaking. This role is essential for evidence-based governance, linking agricultural investments to productivity and environmental indicators.

The evaluation concludes that NARC is a strategic partner for ARDI at both scientific and technical levels, with its contribution forming a cornerstone of agricultural innovation, climate-smart practices, and technology transfer. Maximizing this impact requires continued investment in institutional capacity and stronger integration with financing, extension, and rural development pathways led by other partners, ensuring effective linkage between research, financing, and field implementation.



Jordan Enterprise Development Corporation (JEDCO)

JEDCO plays an executive and strategic role in supporting the investment environment and developing value chains under ARDI, in partnership with national stakeholders and financiers. It acts as an intermediary between public and private sectors, designing and implementing interventions to strengthen agricultural projects, link them to markets, and stimulate local and foreign investment in value-added agricultural and food activities.

Evaluation shows JEDCO's key roles include improving the agricultural business environment by supporting measures that enhance competitiveness of agricultural goods, facilitating market entry through advisory services, value chain diagnostics, and business model design to improve efficiency, reduce losses, and increase value-added. It also supports promotion of national agricultural products and their integration into supply and export chains, aligned with ARDI's priority of boosting export competitiveness.

JEDCO has also contributed to attracting investment and encouraging private sector participation in agricultural and food projects, consistent with ARDI's objectives of job creation and increasing value chain contributions to GDP, while fostering a favorable environment for private investment in agriculture and agribusiness.

This role is closely tied to the program's targeted results, which include:

- Developing support services for value chains.
- Strengthening the export environment.
- Improving efficiency in the use of natural resources.
- Supporting policies and institutions that encourage sustainable agricultural investment.

Program documents note that improving the development environment for value chains involves efforts to enhance public services related to agriculture, including market information systems, post-harvest services, improved access to incentive-based financing, and better regulatory frameworks for value chains.

Despite progress in implementing these roles, the evaluation identifies several practical challenges faced by JEDCO during its interventions:

- **Uneven readiness of targeted value chains** and weak institutional organization among farmers and producers in some sectors, which slowed the formation of sustainable production and trade partnerships. This requires additional effort in coordination and trust-building with local actors.
- **Difficulty promoting modern agribusiness models** among traditional producers, necessitating more support in awareness and training on full value chain economics.
- **Administrative delays and coordination challenges** among national institutions, which affected the pace of project implementation and alignment with expected results within the program's timeframe.

The evaluation concludes that JEDCO is an essential part of ARDI's implementation environment, driving progress toward developmental goals by enriching the agricultural business ecosystem, stimulating private sector participation in value chain development, and contributing to sustainable economic opportunities. However, maximizing the impact of these roles requires addressing structural and coordination issues, strengthening participant readiness, and tailoring support tools to actual market practices to ensure sustainability of results in the long term.

3. Coordination Among Ministries and Government Institutions

ARDI dedicates an integrated institutional component to strengthening coordination among ministries and government institutions and engaging stakeholders. This stems from recognition that Jordan's agricultural challenges such as water scarcity, climate change, weak value chain integration, and limited decent rural employment—are multidimensional and cannot be addressed through isolated sectoral interventions.

This component was designed to provide a framework for joint action between the Ministry of Agriculture and other key ministries: **Planning and International Cooperation, Water and Irrigation, Environment, and Labor**, along with executive and technical institutions such as ACC, NARC, JEDCO, and other partners.

The program's philosophy is to act as a comprehensive reform and investment initiative, building an institutional bridge between the National Sustainable Agriculture Plan and the Economic Modernization Vision on one side, and practical implementation of interventions on the ground on the other. According to program documents, one of ARDI's core objectives is to strengthen **horizontal coordination** among ministries responsible for agriculture, water, environment, labor, and economic development—ensuring policy coherence and integration of financial, technical, and regulatory tools to support transformation toward a more resilient, sustainable, and job-generating agricultural sector.

Data collected during the evaluation indicates growing institutional awareness of the importance of technical coordination among ministries, particularly on cross-sectoral issues such as water-use efficiency, development of agri-food value chains, promotion of decent rural employment, and reduction of child labor in agriculture. Official statements also show clear intent to establish regular institutional dialogue mechanisms, including periodic meetings, joint technical committees, and coordination frameworks linking strategic planning with implementation, monitoring, and evaluation.

However, the mid-term evaluation finds that this approach is still in the **formative stage**. Regular coordination mechanisms have not yet reached full maturity or systematic institutionalization. To date, there are no fully established and publicly documented frameworks for managing regular inter-ministerial dialogue particularly with the Ministry of Labor regarding integration of decent work standards into program interventions, or with the Ministry of Environment on climate adaptation and the agricultural sector's environmental footprint. Coordination with the Ministry of Water and Irrigation remains focused on general technical aspects and has not yet translated into clear, joint operational programs at the governorate or watershed levels.

Institutional coordination also suffers from **uneven commitment and engagement** among government entities. The evaluation shows that some institutions still perceive ARDI primarily as a Ministry of Agriculture World Bank initiative, rather than a comprehensive national framework requiring active and continuous involvement of all sectoral partners. This has limited the effective participation of certain entities in coordinated implementation with the Delivery Unit.

As a result, while there is growing recognition of the importance of inter-ministerial coordination, the mechanisms remain **fragmented and underdeveloped**. The evaluation highlights the need for:

- Establishing **formalized and documented frameworks** for regular dialogue among ministries.
- Strengthening collaboration with the Ministry of Labor to integrate **decent work standards** into program interventions.
- Deepening coordination with the Ministry of Environment on **climate adaptation and environmental footprint issues**.
- Expanding cooperation with the Ministry of Water and Irrigation to move beyond general technical discussions toward **joint operational programs** at the governorate and watershed levels.

Without these steps, the program risks continuing to operate in silos, limiting its ability to address the multidimensional challenges of Jordan's agricultural sector in a holistic and sustainable manner.

4. Consultations with Civil Society and Beneficiaries

The program design emphasizes stakeholder engagement, including consultations with civil society organizations, farmer associations, and local communities¹⁴. However, the evaluation finds that actual practice has been **uneven and inconsistent**.

- In some governorates, civil society organizations reported being consulted during the early design stages, but their involvement in ongoing monitoring and feedback mechanisms has been limited.
- Beneficiaries, particularly smallholder farmers and vulnerable groups (women, youth, refugees), often lack clear channels to voice concerns or provide input into program activities.
- Grievance redress mechanisms exist on paper but are not widely known or accessible to local communities, reducing their effectiveness in ensuring accountability and responsiveness.

¹⁴ [Ministry of Agriculture, Stakeholders Engagement Plan \(SEP\), 2023, Jordan.](#)

The evaluation concludes that while the program recognizes the importance of participatory approaches, **systematic and inclusive consultation practices** remain underdeveloped. Strengthening these mechanisms is essential to ensure that program interventions are responsive to local needs and that vulnerable groups are meaningfully included.

5. Key Implementation Challenges

The mid-term evaluation identifies several recurring challenges affecting program execution:

- **Capacity gaps at the local level:** Provincial directorates often lack adequate training and resources to implement environmental and social safeguards effectively.
- **Financial flow disruptions:** Delays in transferring government allocations have caused interruptions in program activities and planning.
- **Weak promotion and outreach:** Limited awareness campaigns have reduced farmer uptake of financing and climate-smart technologies.
- **Fragmented coordination:** Ministries and institutions have yet to fully operationalize joint frameworks for integrated implementation.
- **Data and monitoring gaps:** Absence of disaggregated baseline and endline data limits the ability to measure real impact, particularly on vulnerable groups and value chain performance.

Compliance with the World Bank's Environmental and Social Framework (ESF)

The World Bank applies three main financing instruments for development projects and programs, each with clear requirements regarding the Environmental and Social Framework (ESF):

- **Investment Project Financing (IPF):** This is the traditional form of project financing, and ESF standards are applied directly and comprehensively. Under this instrument, a package of documents must be prepared, including:
 - Environmental and Social Commitment Plan (ESCP).
 - Environmental and Social Management Plans (ESMPs).
 - Stakeholder Engagement Plan (SEP).
 - Labor Management Procedures (LMP) In addition, clear and effective grievance mechanisms must be activated for workers and communities affected by the project.
- **Program-for-Results (PforR):** This instrument links disbursement of financing to measurable results through **Disbursement-Linked Indicators (DLIs)**. In this format, the

World Bank focuses on strengthening existing national systems rather than creating parallel ones. Therefore, it requires an **Environmental and Social Systems Assessment (ESSA)** to review the extent to which national legal and institutional frameworks are aligned at least at a minimum with the core principles of the ESF.

- **Development Policy Financing (DPF):** This instrument supports reforms and policies at the macro level. Environmental and social assessments are conducted at the level of public policies rather than individual projects¹⁵.

Within this framework, the **ARDI program** is classified as a **hybrid program** combining more than one financing instrument. On one hand, it includes a **PforR component** linked to results and disbursement indicators, which represents the larger share. On the other hand, it includes an **IPF component** directed toward enabling investment activities, such as nursery modernization, development of enterprise resource planning (ERP) systems at the Agricultural Credit Corporation, and institutional capacity-building at the Ministry of Agriculture and partner agencies.

In theory, this design requires the IPF component to comply directly with ESF standards by applying all relevant tools and effective grievance mechanisms, while the PforR component relies on system assessments to identify gaps in national frameworks and propose clear measures to strengthen them, integrating these into program design and result indicators.

However, a careful review of field practices and institutional data shows that translating these principles into binding national standards systematically applied across all program activities remains limited. To date, ARDI has not succeeded in fully transforming ESF requirements into a set of mandatory rules and procedures consistently applied particularly in areas related to working conditions, occupational health and safety, activation of grievance mechanisms for beneficiaries and workers, and engagement of local communities and civil society organizations in the design, implementation, and monitoring of interventions.

Application of Environmental and Social Safeguards and Linkage to Actual Implementation

Although ARDI includes, at the documentary level, a set of tools aligned with the World Bank's ESF, the gap between written provisions and field practices remains wide. The program incorporated an **Environmental and Social Systems Assessment (ESSA)** for the PforR component, which identified strengths and weaknesses in national systems. It also included a comprehensive **Stakeholder Engagement Plan (SEP)** committing to involve farmers, cooperatives, and civil society throughout design, implementation, and monitoring; a **Labor Management Procedure (LMP)**;

¹⁵ [World Bank. \(2017\). Environmental and Social Framework \(ESF\). Washington, DC: World Bank.](#)

and environmental and social management plans within the IPF component, in addition to an **Environmental and Social Commitment Plan (ESCP)** intended to serve as a binding reference.

Yet evidence from interviews and field visits clearly indicates weak activation of these tools:

- Provincial agricultural directorates lack sufficient knowledge of World Bank documents and standards, or of ESF requirements that must be observed during implementation of water harvesting projects or nursery modernization.
- Worker conditions at water harvesting sites reveal significant shortcomings: many laborers are employed on a daily-wage basis without social protection, health insurance, or occupational health and safety measures—directly contradicting ESF standards on working conditions.
- Sensitive social tools, such as child labor action plans or procedures related to refugees and migrant workers, remain in preparatory stages or face significant delays in implementation, despite their importance in an agricultural context where social vulnerability intersects with seasonal labor practices.

All these indicators lead to a fundamental conclusion: the mere existence of documents such as the ESSA, SEP, LMP, or ESCP does not necessarily mean they have been transformed into binding national operational standards. The absence of specialized training and the lack of mainstreaming these requirements across directorates and technical committees limit the ESF's ability to protect workers and communities and to meaningfully influence implementation quality.

Grievance Mechanisms

At the theoretical level, ARDI program documents stipulate the existence of a unified grievance mechanism covering both the investment and results-based components. This mechanism is intended to allow beneficiaries, workers, and local communities to submit complaints and receive timely responses. However, field data clearly reveal a wide gap between the design of the mechanism and its practical application.

The first requirement of any effective grievance mechanism is that beneficiaries are aware of its existence something not achieved in ARDI's case. Because the loan and grant are disbursed through the general treasury without disclosure on the ground that activities are financed by the World Bank, beneficiaries and workers are unaware that there is an independent grievance channel linked to World Bank standards. This unintended concealment of the funding source effectively disables the mechanism's use.

In practice, grievance channels rely on traditional administrative pathways such as agricultural directorates, governorate councils, or direct communication with staff. These channels do not align with ESF standards, which require mechanisms that are easily accessible, independent, and responsive. Although the Stakeholder Engagement Plan commits to informing beneficiaries about available mechanisms, field interviews indicate this remains very limited.

For workers especially daily-wage laborers engaged in water harvesting or well construction the absence of a clear grievance mechanism is a serious gap. Without social protection, health insurance, or occupational safety standards effectively applied, grievance mechanisms are among the few tools workers could use to defend their rights. Yet, due to lack of awareness and absence of training for directorates, the mechanism remains practically non-functional.

In summary, ARDI's grievance mechanism exists on paper but does not operate effectively in practice according to ESF standards. It is unknown to local communities, not easily accessible, lacks documented follow-up steps, and provides no assurance to vulnerable groups that their complaints will be raised or addressed through fair and transparent channels. Without effective activation, the ESF's impact is limited, weakening its ability to protect rights, reduce risks, and ensure accountability in program implementation.

Community Participation and Responsiveness to Needs

Community engagement is a core part of the ESF, with **ESS10** serving as one of the most important tools to ensure inclusiveness, fairness, and effectiveness of programs. ARDI's Stakeholder Engagement Plan emphasizes key principles: early engagement, two-way communication, tailored mechanisms for vulnerable groups such as women, youth, and refugees, and linking this process to an effective grievance mechanism that allows communities to express concerns and receive appropriate responses.

Field reality, however, reveals a clear gap between documentation and actual implementation. Organized consultations with civil society organizations, agricultural cooperatives, or local groups are not consistently part of planning or monitoring processes in agricultural directorates. Communication often remains limited to traditional administrative channels, such as governorate councils, without genuine participatory mechanisms involving beneficiaries in decision-making.

Management of water harvesting grants relies on waiting lists that do not include social or economic criteria such as income level or vulnerability. This creates a gap between those receiving support and those most in need, contradicting the principle of social equity emphasized by the ESF.

Moreover, the shift to electronic application systems for water harvesting grants risks excluding farmers with limited digital capacity, potentially marginalizing weaker groups. Interviews revealed that some beneficiaries resorted to private offices to complete application forms for a fee, reflecting unequal access to grants. Long delays in approvals—sometimes a year or more—and lack of responses to some applications undermine community trust and weaken the program's responsiveness, despite high demand indicating urgent need for support.

Ultimately, ARDI addresses real needs in farming communities, but its participation and targeting mechanisms fall short of ESF standards in terms of transparency, active participation, and ensuring access for the most vulnerable groups. Strengthening community participation is not only an environmental and social obligation but also a prerequisite for improving implementation quality and enhancing community ownership of the program and its outcomes.



Interventions for Women, Youth, and Refugees

ARDI places clear emphasis on vulnerable groups such as women, youth, and refugees, in line with ESF principles of equity, non-discrimination, and ensuring that disadvantaged groups benefit from funded projects. Design documents identify these groups as primary targets for training, grants, and climate-smart agriculture activities. Performance reports indicate that a significant proportion of capacity-building participants are women and refugees, and that the program seeks to gradually integrate them into agricultural value chains through concessional financing tools provided by the Agricultural Credit Corporation.

Despite this stated framework, practical implementation still suffers from gaps that hinder assessment of whether ESF social equity principles are being achieved. The absence of disaggregated data by gender, age, and legal/refugee status makes it difficult to measure the actual impact of interventions on these groups. Even with extensive training activities, there is no evidence of how these trainings translate into improved income, job creation, or enhanced economic stability for women, youth, and refugees.

Additionally, these groups are not systematically engaged in institutional dialogue. No structured consultations have been recorded with women's organizations, youth associations, or refugee representative bodies channels essential to ensuring interventions address their specific challenges. As a result, their role in the program is closer to passive recipients of training services rather than active partners shaping program direction or intervention priorities.

On Balance, there is a clear gap between the program's documented design and its practical implementation. While references exist to vulnerable groups, translation into measurable interventions remains limited. To achieve genuine ESF compliance, ARDI must develop a disaggregated monitoring system, social and economic impact indicators, and participatory mechanisms enabling women, youth, and refugees to actively contribute to program design and implementation.

Protection of Natural Resources and Biodiversity

Safeguarding natural resources and biodiversity is a core component of the ESF, particularly under standards related to resource management and ecosystems. In this context, ARDI includes interventions broadly aligned with these standards and demonstrates positive direction toward enhancing sustainability of agricultural systems in Jordan.

Key strengths include:

- **Investment in rainwater harvesting** and development of water infrastructure at farm and land levels, contributing to more sustainable management of Jordan's scarce water resources.
- **Modernization of agricultural nurseries** in key locations such as Baqaa and Jerash, increasing production capacity to hundreds of thousands of drought-resistant seedlings—directly strengthening resilience of agricultural ecosystems under climate change.



- **Development of pesticide monitoring mechanisms**, including dosage control, pre-harvest interval monitoring, and systems for collection and disposal of empty containers—helping reduce chemical pollution and protect soil and water health.

Despite these efforts, they have not yet been fully translated into a comprehensive environmental monitoring system in line with ESF requirements. Available reports lack clear quantitative indicators or regular data to measure impacts on biodiversity, soil health, or groundwater and surface water quality.

Furthermore, the significant expansion of nursery capacity faces sustainability risks if fundamental challenges are not addressed, such as water salinity, shortage of technical staff, lack of renewable energy, and limited specialized training. Without integrated management of these challenges, increased production could place new pressures on natural resources rather than alleviating them.

Overall, ARDI is moving in the right direction in terms of environmental intentions and approaches, but it has not yet reached the level of establishing a comprehensive environmental monitoring system with interconnected impact indicators. This is required by the ESF to ensure long-term protection of biodiversity and sustainability of natural resources.

Project Impact on Target Groups

Improving livelihoods, strengthening food security, and building capacities are core elements in achieving the developmental impact of the **ARDI program**. The program aims to empower farmers and rural communities to adapt to growing climate and economic challenges. Implemented interventions show that the program has contributed—at varying levels—to providing more sustainable water sources, reducing production costs, and improving access to high-quality agricultural inputs. It has also offered multi-level training and capacity-building opportunities, though institutional and data gaps continue to limit the ability to measure impact accurately, especially on the most vulnerable groups. These three pillars provide a framework for analyzing the program’s actual contribution to enhancing the welfare and sustainability of farming communities.

1. Improving Livelihood Opportunities

Enhancing livelihoods for farmers and value chain workers is a central pillar of ARDI’s design. It focuses on strengthening farmers’ productive capacity, reducing operating costs, and providing tools that help rural communities withstand climate challenges and water scarcity. Analytical review of interventions implemented so far shows that the program has had both direct and indirect effects on income stability and improved economic conditions, though the absence of disaggregated data and quantitative indicators limits precise measurement of this impact.

One of the most notable interventions affecting livelihoods is support for the construction of rainwater harvesting wells and reservoirs. Beneficiaries reported greater ability to secure stable irrigation sources, reduced reliance on purchasing water from tankers, expansion of cultivated

areas, and a shift toward higher-value crops. This improvement increased productivity, reduced drought-related losses, and enhanced long-term agricultural planning capacity. However, the impact remains limited to those who actually received grants, while thousands of others wait for long periods, reducing inclusiveness of benefits.

Nursery development such as Hussein and Faisal nurseries—has increased production capacity and provided drought-resistant seedlings of high quality at affordable prices. This reduces production costs, improves farming success rates, and creates jobs in nurseries and supply chains. Yet challenges related to energy, shortage of technical staff, and reliance on temporary labor threaten the sustainability of these gains and their impact on income.

The program also provided technical and climate-related training for farmers and workers, covering pesticide management, modern irrigation techniques, and climate-smart agriculture. Such training improves agricultural practices, reduces costs, and minimizes losses. However, the absence of a monitoring system to measure actual changes in beneficiaries' income or productivity makes the impact difficult to quantify.

Despite positive aspects, several gaps limit broader livelihood impact:

- Lack of a disaggregated database (by gender, age, poverty, refugee status) prevents analysis of effects on vulnerable groups.
- Long waiting times for grants sometimes a year or more restrict farmers' ability to benefit in a timely manner.
- Pre-financing requirements for well construction effectively exclude poorer farmers unable to cover upfront costs.
- Many workers engaged in water harvesting activities lack social or health protection, reducing the program's impact on improving labor conditions and worker welfare.

2. Strengthening Food Security and Community Resilience

Food security and community resilience are central to ARDI, given the structural challenges facing Jordanian agriculture chief among them water scarcity, high production costs, and increasing climate risks. Through its interventions, the program contributes to improving rural communities' ability to produce and sustain food, whether by providing additional water sources or by improving agricultural inputs and productivity.

Investment in rainwater harvesting is a key element in strengthening food security. It provides farmers with a stable water source to withstand drought periods, reduces reliance on costly purchased water, and enhances seasonal agricultural planning. This directly stabilizes agricultural production, increases households' ability to expand cultivated areas, and supports adoption of higher-value crops. High demand for water harvesting grants underscores the real need for such interventions and their role in strengthening food security, though delays in approvals and lack of clear social criteria reduce inclusiveness for the most vulnerable groups.

Supporting nurseries is another important step in strengthening local food production by providing high-quality seedlings at affordable prices and offering drought-resistant varieties that help the sector adapt to climate change. Development of Hussein and Faisal nurseries significantly increased production capacity, benefiting farmers and agricultural value chains. Sustaining this impact, however, requires addressing challenges related to energy, water quality, and shortage of technical staff to ensure that increased production does not become an added burden on natural resources.

The program also enhances resilience by promoting climate-smart practices and training farmers and engineers in improved irrigation, pesticide use, and crop management. Training is a major strength of the program's design, but the absence of monitoring systems to measure its impact on productivity or food stability limits the ability to evaluate actual changes in practices or reductions in climate-related losses.

The program's impact extends to food value chains by improving product quality, supporting small projects, and linking them to markets—enhancing local income and rural communities' ability to meet food needs. However, this aspect remains insufficiently documented, with no quantitative data on changes in production, prices, or value chain resilience to shocks.

Taken together, ARDI is moving in the right direction by increasing water availability, improving inputs, and supporting sustainable practices all essential for strengthening food security in Jordan. Yet the absence of clear indicators to measure actual impact and persistent gaps in targeting, monitoring, and evaluation make improvements partial and difficult to measure accurately. A comprehensive system is needed to assess the program's impact on food security and community resilience at household and regional levels.

3. Building and Strengthening Capacities

Training and capacity-building are core pillars of ARDI, intended to drive real transformation in agricultural practices, enhance resource-use efficiency especially water—and enable target groups to adopt climate-smart agriculture. The program's design reflects clear recognition of the importance of upgrading technical skills among farmers, engineers, and government staff as a prerequisite for sustainable impact. However, practical implementation reveals variation in training quality and its ability to generate tangible change.

On the positive side, the program succeeded in developing a multi-level training system:

- Training ACC engineers on water-use efficiency.
- Strengthening Ministry of Agriculture teams' capacity to manage nurseries.
- Providing courses for farmers on modern irrigation and crop management.

This multi-level approach is a strength, ensuring knowledge transfer from institutions to the field. Yet the absence of a systematic monitoring framework to measure training outcomes makes it difficult to assess whether knowledge has translated into practical changes.

In terms of content, training covers important topics such as climate adaptation, water management, and modern agricultural practices. However, feedback from farmers and nursery

staff indicates that some courses remain theoretical or short-term, without follow-up at the field level. Continuous specialized training for technical staff operating modern systems such as greenhouses, irrigation systems, or digital equipment is lacking, creating a gap between technical upgrades provided by the program and staff capacity to use them effectively.

Participation of women, youth, and refugees in training programs also requires improvement. Project documents indicate their participation at reasonable levels, but absence of disaggregated data by age, gender, and legal status prevents assessment of training quality for these groups and its relevance to their needs. Without such monitoring, it is difficult to determine whether women's training actually increases income opportunities, whether youth training translates into employment, or whether refugee training addresses their specific legal and practical challenges.

Another gap is the absence of formal training programs based on actual community needs. There is no clear mechanism for collecting training requirements from the field, nor are civil society organizations or agricultural cooperatives involved in designing training programs, despite their proximity to farmers and ability to identify real knowledge gaps. As a result, some training remains general and non-specialized, not always aligned with farmers' specific challenges.

Shortage of technical staff in production stations, such as Hussein and Faisal nurseries, also limits effective use of training. Field experience shows that providing longer-term specialized training accompanied by operational support significantly increases agricultural institutions' ability to maximize benefits from modern equipment and infrastructure.

In Summary, evaluation of ARDI's training and capacity-building reveals a well-designed training structure in terms of objectives, but incomplete in practice. Training exists, but lack of follow-up, weak specialization, absence of disaggregated data, and lack of systematic mechanisms to measure change constrain its actual impact. To achieve intended results, the program needs to:

- Link training to measurable performance indicators.
- Strengthen practical and field-based training.
- Develop tailored programs for vulnerable groups.
- Leverage local community expertise to ensure sustainability and accumulation of knowledge.



Conclusion

The mid-term evaluation of the **Resilient Agriculture, Value Chain Development, and Innovation Program (ARDI)** provides an assessment of program performance during the period 2023 second half of 2025, within a highly complex national context characterized by water scarcity, intensifying climate change impacts, and increasing vulnerability of farmers' livelihoods particularly small producers. The program is rooted in the **National Sustainable Agriculture Plan (2022–2025)** and the **Economic Modernization Vision**, implemented under the leadership of the Ministry of Agriculture through a specialized Delivery Unit, and in partnership with key institutions such as the **National Agricultural Research Center (NARC)**, the **Agricultural Credit Corporation (ACC)**, and the **Jordan Enterprise Development Corporation (JEDCO)**, among others. It is financed through a hybrid World Bank package (loan and grant totaling USD 125 million), combining a **Program-for-Results (PforR)** model with **Investment Project Financing (IPF)** for specific projects imposing high requirements in terms of governance, measurement, and results achievement.

From the perspective of **relevance and policy coherence**, ARDI stands out as a nationally owned tool with international financing, rather than an externally imposed project. It translates existing Jordanian priorities related to rainwater harvesting, improved water-use efficiency, development of agricultural value chains, and strengthening sector resilience to climate shocks. World Bank documents and monitoring reports confirm alignment of program objectives with the national framework, while the leadership structure reflects the Ministry of Agriculture and the Delivery Unit as the central hub for guidance and coordination indicating an acceptable level of “national ownership.” However, this policy-level coherence has not yet sufficiently translated into regular, institutionalized operational coordination among partner ministries. Despite the program dedicating a full component to coordination and stakeholder engagement, effective coordination remains in a formative stage. There are still no fully developed and documented mechanisms for regular dialogue particularly with the Ministry of Labor on decent work and child labor issues, and with environmental and water institutions at the governorate level. Variations in commitment and engagement among official entities persist, alongside weak involvement of civil society organizations in coordination and implementation arrangements.

At the level of **design, monitoring, and evaluation**, the assessment reveals gaps affecting the ability to document the program's social and economic impact accurately. While operational indicators track progress, the indicator system remains limited in measuring actual impact on income, productivity, and resilience. The absence of disaggregated data by gender, age, and refugee status restricts evaluation of benefits for women, youth, and refugees. Results related to value chains, exports, and agricultural income improvement are also insufficiently documented, weakening the logic of “results-based financing” and limiting the ability to guide interventions based on measurable evidence.

At the level of **institutional implementation**, the evaluation records tangible progress in certain physical and technical interventions, including nursery modernization, laboratory renewal, expansion of drought-resistant seedling production, initiation of rainwater harvesting interventions, and digital transformation at ACC. The Delivery Unit within the Ministry of Agriculture is credited with managing partner relations and tracking progress. However, a clear

disparity emerges between central and provincial levels: agricultural directorates lead daily implementation but lack sufficient awareness of financing details, PforR mechanisms, and ESF standards. Their capacities in areas such as decent work and environmental/social risk management remain limited, affecting the quality and consistency of field-level application.

From the perspective of the **World Bank's Environmental and Social Framework (ESF)**, the evaluation notes that the program possesses, on paper, a comprehensive set of tools (ESSA, SEP, LMP, ESMPs, ESCP). Yet practical application remains partial and uneven. Gaps are particularly evident in protecting daily-wage laborers engaged in field implementation (e.g., rainwater harvesting wells) in terms of occupational health and safety and basic rights. Beneficiaries are insufficiently informed about grievance mechanisms and procedures, and disclosure of complaint channels linked to the World Bank and funding source remains limited—reducing the effectiveness of social accountability.

In terms of **impact on livelihoods and food security**, qualitative indicators suggest the program has contributed to improved water access, reduced some production costs, and provision of drought-adapted seedlings supporting productivity and resilience. However, this impact remains difficult to measure quantitatively due to weak monitoring systems. Targeting inequities also persist, such as waiting lists that do not consistently reflect vulnerability and poverty criteria, and financing conditions that exclude the poorest farmers unable to meet procedural requirements limiting the program's expected social impact.

Regarding **training and capacity-building**, the evaluation shows that the program delivered extensive training packages for farmers, engineers, and institutional staff. Yet it lacks a systematic monitoring framework linking training to measurable changes in practices, production, or income. Civil society involvement in designing and implementing training programs remains limited, reducing opportunities for localizing knowledge and sustaining its impact.

Overall, ARDI is moving in the right direction in terms of vision, climate and environmental ambition, and strengthening infrastructure to support the sector. However, in the remaining period of its lifecycle, it must deepen its social and economic impact and transform its ambitious design into regular institutional practice. This requires, in particular:

- Strengthening field-level application of the ESF, including decent work conditions and worker protection.
- Developing a disaggregated, measurable monitoring system capturing impact on income, productivity, and resilience.
- Improving equity in targeting and expanding access for the most vulnerable groups.
- Activating inter-ministerial coordination at both central and governorate levels, with broader community engagement.

These steps are essential to enhance the quality, sustainability, and effectiveness of interventions through to the program's completion.



Recommendations

Equity in Targeting and Design of Water Harvesting Grants

1. Add a clear **social criterion** for targeting alongside technical ones (income/vulnerability/landholding size/household dependence on agriculture), and document it in a procedures manual to be circulated to agricultural directorates.
2. Revise the financing mechanism that requires upfront payment so that it does not exclude the poorest: adopt an option for **advance payment/loan** or **staged payments** linked to verified completion milestones, with technical and oversight controls.
3. Abolish the rule that cancels applications after one year and replace it with a **multi-year waiting list** updated regularly, with published criteria, to ensure fairness and reduce the cost of reapplication.

Bridging the Gap Between Central and Provincial Levels

4. Implement a mandatory training program for agricultural directorates on the nature of financing (PforR/IPF), disbursement-linked indicators, and ESF basics, including practical training on monitoring and field documentation templates.
5. Assign/designate an **ESF focal point** in each agricultural directorate (with clear job description) responsible for applying occupational health and safety requirements, grievance mechanisms, and stakeholder engagement within the directorate's scope.

Operationalizing the Environmental and Social Framework (ESF)

6. Require a minimum set of **decent work standards** in contracts/implementation of water harvesting wells: safety equipment, short safety training before work, accident log, and proof of inclusion/insurance in line with national laws.
7. Organize regular **on-site occupational health and safety inspections** (monthly visits during implementation seasons) and document results in concise reports submitted to the Delivery Unit.
8. Activate the **child labor prevention plan** in practice by: issuing clear messages to contractors and beneficiaries, including contractual clauses prohibiting child labor, and establishing a rapid reporting mechanism in directorates.

Grievance Mechanisms, Disclosure, and Transparency

9. Provide clear and direct disclosure to beneficiaries about the funding source (World Bank) at all implementation sites and in outreach materials, linking this to their grievance rights.
10. Launch a unified, accessible grievance channel (phone/WhatsApp/paper form at directorates) with a reference number for each complaint, a fixed response timeframe, and a monthly summary of complaints and actions taken.



11. Inform daily-wage workers of a **dedicated grievance mechanism for laborers** (separate from beneficiary complaints) to ensure protection in cases of work injuries or disputes.

Engagement of Civil Society, Cooperatives, and Beneficiaries

12. Establish a quarterly consultation mechanism at the governorate level involving cooperatives, unions, associations, relevant civil society organizations, and representatives of women and youth, with written outputs feeding into implementation plans.
13. Accelerate the planned 2026 survey of cooperatives/associations and link it directly to the design of training interventions, promotion of financing, and expansion of consultation scope.

Digital Transformation Without Excluding Vulnerable Groups

14. Adopt a **dual pathway** for water harvesting grant applications (electronic + paper) during a transitional period, with free assistance points in directorates to avoid reliance on paid offices.
15. Measure the impact of digital transformation on equity using two simple indicators: percentage of applications submitted by vulnerable groups, and percentage of applications rejected due to technical errors/difficulties.

Sustainability of Nursery and Laboratory Investments

16. Develop an immediate **operation and sustainability plan** for nurseries including: staffing needs (clear numbers), operational training program, and secured allocations for essential operations (maintenance/energy/water).
17. Integrate **renewable energy solutions** or energy cost-reduction measures in high-cost nurseries, linking this to operational indicators (greenhouse operating hours/percentage of losses).
18. Address **water salinity risks** through practical technical options (source mixing/limited desalination/irrigation management) and document them within an environmental and operational management plan.

Enhancing Training and Capacity-Building Impact

19. Link each training activity to a **measurable outcome** (adoption of a specific practice/reduced water use/improved productivity) and assess it after defined intervals using follow-up samples.
20. Convert part of the training into mandatory **field-based training** (farm/nursery/processing facility) rather than relying solely on theoretical content, and include this as a quality criterion.



21. Develop tailored training tracks for target groups (women/youth/refugees) with content adapted to their actual constraints, linking them to income/employment or financing pathways.

Accelerating Inter-Ministerial Coordination and Defining Responsibilities

22. Form a small **operational coordination committee** (Agriculture, Water, Environment, Labor, Planning) with fixed monthly meetings and short minutes, with a set agenda covering: water, decent work, ESF, and value chains.
23. Issue an updated **“Roles and Responsibilities Memorandum”** clarifying who does what at the governorate level, requiring partner institutions to designate authorized focal points to reduce procedural delays.

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