SALAAM DEVELOPMENT CENTER

Activity Report on Drip Irrigation in the Joint Resilience Program (JRP), Galdogob District.

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Introduction

Salaam Development Center (SDC), a cooperating partner (CP) of the World Food Programme (WFP), has been implementing the Joint Resilience Program (JRP) with the aim of enhancing food security and livelihoods in vulnerable farming communities. This project, fully funded by WFP, focuses on improving water management and agricultural productivity through innovative irrigation techniques and infrastructure, including drip irrigation systems. The Ministry of Agriculture and Irrigation (MOAI) has been an active collaborator in the project, providing technical support and facilitating the involvement of local authorities in both Galdogob and Bursalah districts.

The scarcity of water has long been a critical issue in these regions, with farms struggling to maintain productivity due to the lack of proper irrigation systems. To address this, the JRP has introduced modern drip irrigation systems. The collaboration with MOAI has ensured that the distribution process is well-coordinated and that the farming communities are equipped with the necessary knowledge and tools to maintain these systems. This report details the distribution activities, focusing on both drip irrigation systems and highlights the impact of these interventions in Galdogob and Bursalah.

Background

Water scarcity in the semi-arid regions of Galdogob and Bursalah has been a long-standing challenge for farmers. The lack of adequate water sources and irrigation systems has contributed to low crop yields, directly affecting the livelihoods of these communities. Traditional irrigation methods, often inefficient and wasteful, exacerbate the issue, leading to the depletion of already scarce water resources.

To combat this, the JRP has focused on introducing drip irrigation, which are designed to optimize water use, ensuring that water is delivered directly to the roots of plants. Drip irrigation systems have been shown to reduce water wastage by up to 70%, making them an ideal solution for regions facing water scarcity.

Through collaboration with WFP and MOAI, the JRP has been able to support farmers in both districts by distributing these essential tools, ultimately improving agricultural productivity and resilience in the face of climate-related challenges.

Objectives

- To enhance and promote efficient irrigation.
- To improve agricultural yield by adopting modern drip irrigation methods.
- To increase the resilience of farming communities in Galdogob and Bursalah by ensuring sustainable water management practices.

Community Mobilization and Sensitization

Community engagement has been at the heart of this distribution process. Prior to the implementation of the distribution, the project team held a series of meetings with farmers' committees in both Galdogob and Bursalah. These committees, representing the interests of local farmers, played an active role in the assessment and selection processes. By involving the committees, the project ensured that decisions regarding farm selection and resource allocation were transparent and reflective of the community's needs.

During the selection phase, the committees helped identify farms most in need of the drip irrigation systems based on criteria such as water access, farm size, and community impact. These consultations ensured that the distribution would have the maximum benefit for the farming communities. Farmers' committee members were also instrumental in providing feedback on how the systems could be optimized for local conditions, ensuring that the project aligned with their specific challenges and needs.

Now, during the actual distribution phase, these committees continue to play a pivotal role, facilitating communication between the farmers and the project team. Their involvement has not only empowered the local farming community but also fostered a sense of ownership and responsibility toward the success of the project.

Distribution Overview

The distribution under the JRP project involved drip irrigation systems and other climate-friendly agricultural materials.

Drip Irrigation Systems

- **Total Distributed**: 10
- **Sizes**: 6 systems (50m x 50m) and 4 systems (100m x 50m)
- **Distribution**: 6 in Galdogob, 4 in Bursalah
  these systems are designed to deliver water efficiently to plant roots, minimizing wastage and ensuring that crops receive a steady supply of water, even in water-scarce environments.

Implementation Strategy

Each step of the implementation was carefully planned to ensure efficiency and fairness.

- **Farm Selection**: Farms were selected based on several criteria, including the availability of a water source, farm size, and proximity to water extension points. This ensured that the most vulnerable farms benefited from the intervention.
- **Collaboration with Local Authorities**: The involvement of MOAI and local authorities was crucial in verifying farm eligibility and ensuring that the distribution process was transparent. Their role also ensured that the project aligned with broader regional agricultural policies.
- **Training and Capacity Building**: Prior to distribution, farmers were trained on how to install and maintain the drip irrigation systems and HDPE pipes. On-site demonstrations were provided to ensure that farmers could operate the systems effectively.
- **Monitoring and Support**: After the distribution, the project team will continue to monitor the use of the systems and provide technical support to farmers as needed.

Challenges

The distribution process encountered several challenges that need to be addressed to ensure the sustainability and effectiveness of the interventions.

- **High Demand for Drip Irrigation**: Despite the distribution of 10 drip irrigation systems, there was an overwhelming demand from all 35 farms in the JRP project for this technology. Many farmers have realized the benefits of drip irrigation in reducing water wastage and enhancing crop productivity, which has led to increased interest. However, limited resources meant that only a fraction of the farms could be covered, leaving a significant number without access to this critical resource.
- **Water Scarcity**: Although the HDPE pipes extend access to water sources, some regions still face significant water shortages, especially during dry seasons. In areas where water is scarce, even the most advanced irrigation systems cannot function effectively without a sufficient water supply. This scarcity limits the overall impact of the drip irrigation systems and poses a long-term challenge to agricultural productivity in these regions.
- **Logistical Challenges**: The geographical spread of the farms, some located in remote and hard-to-reach areas, presented logistical difficulties in transporting the HDPE pipes and drip irrigation systems. The rugged terrain in parts of Galdogob and Bursalah made it difficult for the transportation teams to deliver materials efficiently, resulting in delays and additional costs. This logistical issue also affected the timely installation of the systems.
- **Maintenance and Repair**: Many farmers expressed concerns about the long-term maintenance of the drip irrigation systems. While initial training was provided, some farmers lack the technical skills necessary for regular maintenance and repairs. This gap in knowledge could lead to system failures over time, potentially reducing the effectiveness of the interventions. Without proper follow-up support, there is a risk that the systems may not be fully utilized or maintained properly.

Recommendations

To address the challenges encountered and improve the outcomes of the JRP project, the following recommendations are made:

- **Increase Distribution of Drip Irrigation Systems**: Additional resources should be allocated to meet the high demand for drip irrigation across all 35 farms involved in the JRP. Expanding the distribution will ensure that more farms can benefit from efficient water usage, leading to higher crop yields and improved livelihoods for farming communities.
- **Expand Water Access through Infrastructure**: In areas where water scarcity remains a major concern, investments should be made to increase water access. This could include constructing more boreholes, extending water pipelines, or implementing water storage solutions. Ensuring a stable water supply is critical to the success of the drip irrigation systems and the overall resilience of farms in these regions.
- **Ongoing Training and Capacity Building**: Continuous training programs should be established to equip farmers with the necessary skills for maintaining and repairing the irrigation systems. By building local capacity, farmers will be better able to manage the systems independently, reducing reliance on external support and ensuring the sustainability of the project in the long run.
- **Strengthen Technical Support and Monitoring**: It is recommended to establish a dedicated technical support team that can provide on-the-ground assistance to farmers. Regular monitoring and evaluation should be conducted to assess the effectiveness of the systems and to troubleshoot any issues that arise. This support will help ensure that farmers can use the systems to their full potential.

Conclusion

The Joint Resilience Program (JRP), in collaboration with WFP and MOAI, has made significant strides in addressing water management challenges in Galdogob and Bursalah. The distribution of drip irrigation systems has provided farmers with critical tools to enhance their agricultural productivity and manage water more efficiently. These interventions have demonstrated their

potential to improve crop yields, reduce water wastage, and ultimately, strengthen the resilience of farming communities in these semi-arid regions. However, the high demand for these systems and the persistent challenge of water scarcity indicate that more efforts are needed to scale the project's impact.

Going forward, it is clear that addressing water scarcity will be a key priority, such as boreholes and storage facilities, will be essential to ensure that all farmers have reliable access to water. Moreover, the success of the drip irrigation systems depends on ongoing capacity building and technical support. By investing in local training and providing continuous support to farmers, the project can ensure the long-term sustainability of these interventions. The commitment of all stakeholders, including WFP, MOAI, local authorities, and the farming communities themselves, will be crucial in expanding the program's reach and ensuring that all 35 farms benefit from these innovations in water management.

In conclusion, while the distribution under the JRP project has been a step forward, the journey toward achieving water security and agricultural resilience in these regions is ongoing. With the right resources, collaboration, and support, the program can continue to enhance the livelihoods of farmers and contribute to broader food security objectives. Continued investment in irrigation technologies, water infrastructure, and capacity-building initiatives will be essential to realizing the full potential of this project and making lasting improvements in the communities of Galdogob and Bursalah Districts.

ANNEXES; Distribution pictures.

Figure 1; SDC staff distributing and assessment of drip irrigation.

Figure 2; SDC Staff distributing pipes to the selected BNF and complete installation of drip irrigation system.

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Figure 3; SDC staff distributing and monitoring Drip irrigation system in Bursalax.

Figure 4; installed and planted drip irrigation

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Signed Drip irrigation Beneficiary List

Serial number	Beneficiary Name	Location/Site	Size of the system	Status	Beneficiary Signature
JRP-Drip 7	Ahmed Warsame il-fur	Galdogob	50*50m	Installed	
JRP-DRIP 1	Jamac Ahmed Mahamed	Is-qambuus	100*50m	Installed	
JRP-Drip 5	Abdikarem ismaacil daa'uud	Galdogob	50*50m	Installed	
JRP-Drip 3	Abdiqafaar sh ibraahim	Galdogob	100*50m	Installed	
JRP-Drip 6	Abdulahi Yusuf Maxamuud	Galdogob	50*50m	Installed	
JRP-Drip 10	Abdulaahi Faarax Ali	Daarusalaam	50*50m	Installed	
JRP-Drip 4	Ali sheikh osmaan	Bursaalax	100*50m	Installed	
JRP-Drip 9	Abdisalaam Xiif cali	Bursaalax	50*50m	Installed	
JRP-Drip 8	Maryan Khelif Abdi	Bursaalax	50*50m	Installed	
JRP-DRIP 2	Bishaar Abdi shire	Bursaalax	100*50m	Installed	

Figure 5;Signed drip irrigation beneficiary list.