

**Water Benchmark Project (WBM) &**

**Water and Livelihood Initiative (WLI) in Egypt**

**Farm Household and Socio-economic Survey Questionnaire**

**(Summer 2011 and Winter 2010/2011 and Fruit Trees)**

* **Name of Interviewer/Enumerator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:**  / /2011.
* **Name of Field Supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:**  / /2011.
* **Name of Data Entry Clerk: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:**  / /2011.
* **Name of Supervisor (Data Entry): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:**  / /2011.

**Interview Background**

* **Date of interview (DD/MM/YY)**
* **Name of Governorate: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Name of District: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Name of Village: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Name of Respondent (Head of Household): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Holding category of Respondent (Head of Household): 🗆** graduate **🗆** small farmer/beneficiary **🗆** small investor **🗆** other (specify)**\_\_\_\_\_\_\_**
* **The location of Respondent's land on the *mesqa*: 🗆** at the head **🗆** in the middle **🗆** at the tail
* **Notes: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**First Part: Agricultural Activities (Plant & Animal) and Costs of Production in Summer 2011, Winter 2010/2011 & Fruit Trees**

**1.1. Plant Production: What are the crops (or trees) and the varieties you cultivated in each of your land plots? And what was the area cultivated by each?**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Summer crops** | | | | **Winter crops** | | | | **Trees** | | | | |
| **Plot No.** | **Cultivated Area** | | **Crop and variety** | **Plot No.** | **Cultivated Area** | | **Crop and variety** | **Plot No.** | **Cultivated Area** | | **Crop** | **Variety** |
| **One Ha** | **Carat** | **One Ha** | **Carat** |  | **One Ha** | **Carat** |  |  |
| **1** |  |  |  | **1** |  |  |  | **1** |  |  |  |  |
| **2** |  |  |  | **2** |  |  |  | **2** |  |  |  |  |

**1.1.1. Input/Output Data for the cultivated area in Summer 2011, Winter 2010/2011 & Fruit Trees**

**(if the farmer cultivated more than two crops/trees in one season, you concentrate on the two crops/trees that were the most relatively important in terms of area)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | **Units** | **Summer crops** | | | | | | **Winter crops** | | | | | |
| **Plot #: \_\_** | **Crop**: **\_\_\_\_** | **Plot #: \_\_** | **Crop**: **\_\_\_\_** | **Plot #: \_\_** | **Crop**: **\_\_\_\_** | **Plot #: \_\_** | **Crop**: **\_\_\_\_** | **Plot #: \_\_** | **Crop**: **\_\_\_\_** | **Plot #: \_\_** | **Crop**: **\_\_\_\_** |
| **Cultivated Area** | | **Cultivated Area** | | **Cultivated Area** | | **Cultivated Area** | | **Cultivated Area** | | **Cultivated Area** | |
| **One Ha: \_\_** | **Carat: \_\_\_\_** | **One Ha: \_\_** | **Carat: \_\_\_\_** | **One Ha: \_\_** | **Carat: \_\_\_\_** | **One Ha: \_\_** | **Carat: \_\_\_\_** | **One Ha: \_\_** | **Carat: \_\_\_\_** | **One Ha: \_\_** | **Carat: \_\_\_\_** |
| **Quantity** | **Price (LE/unit)** | **Quantity** | **Price (LE/unit)** | **Quantity** | **Price (LE/unit)** | **Quantity** | **Price (LE/unit)** | **Quantity** | **Price (LE/unit)** | **Quantity** | **Price (LE/unit)** |
| **I. Outputs:** | | | | | | | | | | | | | |
| 1- Main Product |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2- Bi-product |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **II. Inputs:** | | | | | | | | | | | | | |
| 1- Seed/Seedlings | kg/no. |  |  |  |  |  |  |  |  |  |  |  |  |
| 2- Organic Fertilizer | CM |  |  |  |  |  |  |  |  |  |  |  |  |
| 3- Chemical Fertilizer | kg |  |  |  |  |  |  |  |  |  |  |  |  |
| - Urea | kg |  |  |  |  |  |  |  |  |  |  |  |  |
| - Phosphate | kg |  |  |  |  |  |  |  |  |  |  |  |  |
| - Potash | kg |  |  |  |  |  |  |  |  |  |  |  |  |
| - Other (specify) **\_** | kg |  |  |  |  |  |  |  |  |  |  |  |  |
| 4- Containers | No. |  |  |  |  |  |  |  |  |  |  |  |  |
| 5- Pesticides | L.E/liter |  |  |  |  |  |  |  |  |  |  |  |  |
| 6- Transportation | L.E. |  |  |  |  |  |  |  |  |  |  |  |  |
| 7- Land Rent | L.E. |  |  |  |  |  |  |  |  |  |  |  |  |
| 8- Tax | L.E. |  |  |  |  |  |  |  |  |  |  |  |  |
| 9- Other (specify)**\_\_\_** |  |  |  |  |  |  |  |  |  |  |  |  |  |

**1.1.2. Costs of human labour/animal labour/machinery according to farm operations for the cultivated area in Summer 2011, Winter 2010/2011 & Fruit Trees (if the farmer cultivated more than two crops/trees in one season, you concentrate on the two crops/trees that were the most relatively important in terms of area)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Summer** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Winter** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

**1.1.2. Costs of human labour/animal labour/machinery according to farm operations for the cultivated area in Summer 2011, Winter 2010/2011 & Fruit Trees (if the farmer cultivated more than two crops/trees in one season, you concentrate on the two crops/trees that were the most relatively important in terms of area)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Summer** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Winter** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

**1.1.2. Costs of human labour/animal labour/machinery according to farm operations for the cultivated area in Summer 2011, Winter 2010/2011 & Fruit Trees (if the farmer cultivated more than two crops/trees in one season, you concentrate on the two crops/trees that were the most relatively important in terms of area)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Summer** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Winter** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

**Cont’d. Costs of human labour/animal labour/machinery according to farm operations for the cultivated area in Summer 2011, Winter 2010/2011 & Fruit Trees**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Trees** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Animal days of work** | | **Machine hours of work** | | **Family-labour days of work** | | | **Hired-labour days of work** | | | | | | **Crop**: | **Plot #: \_** | | **Trees** |
| Boy/Girl | | Woman | | Man | | **Cultivated Area** | | | |
| Costs (L.E/day) | No. | Costs (L.E/hour) | No. | # of Boy/Girl | # of Woman | # of Man | Costs (L.E/day) | No. | Costs (L.E/day) | No. | Costs (L.E/day) | No. | **Carat:**  **\_\_\_\_\_\_** | | **One Ha: \_\_\_\_\_\_** | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Manuring | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land preparation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Adding agricultural gypsum | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Land leveling | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Planting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Irrigation | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Fertilizing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Weeding/Hoeing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Replanting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Pest control | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Harvesting | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Threshing and winnowing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Residuals removing | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Transportation | | | |

**1.1.3. Costs of irrigation for the cultivated area in Summer 2011, Winter 2010/2011 and Fruit Trees**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crops** | **Plot No.** | **Selected Plot No.** | **Establishment of irrigation network Costs (L.E/area)** | **Specifications of irrigation pumps** | | | | **Diesel & oil (L.E/fed.)** | **Maintenance & replacement (L.E/fed.)** | **Other (specify)\_\_\_** |
| **Type & Model** | **Discharge capacity (Liter/sec.)** | **Power (HP)** | **Price (L.E)** |
| **Summer:** | | |  |  |  |  |  |  | | |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Winter:** | | |  | | |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Trees:** | | |  | | |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

* **Did you follow maintenance practices for your irrigation system in Summer 2011, Winter 2010/2011 and Fruit Trees?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

1. **For diesel pumps:**

**- Which maintenance practices did you follow for your irrigation system in Summer 2011, Winter 2010/2011 and Fruit Trees? (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

1= Cleaning the outer body of the pump 2= Changing oil regularly 3= Changing air and oil filters 4= Other (specify)\_\_\_

**- What were the annual costs of following these maintenance practices in Summer 2011, Winter 2010/2011 and Fruit Trees? L.E. (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

1. **For electric pumps:**

**- Which maintenance practices did you follow for your irrigation system in Summer 2011, Winter 2010/2011 and Fruit Trees? (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

1= Cleaning the outer body of the pump 2= Changing the cables and power cords if damaged 3= Other (specify)**\_\_\_**

**- What were the annual costs of following these maintenance practices in Summer 2011, Winter 2010/2011 and Fruit Trees? L.E. (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

1. **For sprinkler or drip irrigation networks:**

**- How many times did you change the hoses or sprinklers for your irrigation network in Summer 2011, Winter 2010/2011 and Fruit Trees? (\_\_\_) times**

**- Which maintenance practices did you follow for your irrigation system in Summer 2011, Winter 2010/2011 and Fruit Trees? (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

1= Changing the filters 2= Changing the filter media 3= Cleaning the distribution pipes 4= Changing the gaskets

5= Changing the valves 6= Injection of irrigation network with acids 7= Washing irrigation network by opening the ends of the lines

8= Changing the clogged drippers 9= Other (specify)**\_\_\_**

**- What were the costs of following these maintenance practices in Summer 2011? L.E. (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

**- What were the costs of following these maintenance practices in Winter 2010/2011? L.E. (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

**- What were the costs of following these maintenance practices for Fruit Trees? L.E. (\_\_\_\_\_\_\_\_\_\_\_\_\_)**

**1.1.4. Data on irrigation for the cultivated area in Summer 2011, Winter 2010/2011 & Fruit Trees**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crops** | **Varieties** | **Plot No.** | **Cultivated Area** | | **Source of irrigation (1)** | **Irrigation system (2)** | **No. of irrigations (irrigation/one Ha)** | | | | **Average time**  **of an irrigation (hour/irrigation)** | **Irrigation schedule (3)** |
| **One Ha** | **Carat** | Fresh water  (surface Nile water) | Groundwater | Drainage water | Mixed water |
| **Summer:** | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Winter:** | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Trees:** | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

**Codes:**

(1) **Source of irrigation:**  1= Fresh water (surface Nile water)2= Groundwater 3= Drainage water 4= Mixed water 5= other (specify) **\_\_\_\_\_\_\_**

(2) **Irrigation system:** 1= Flood irrigation 2= Sprinkler irrigation3= Drip irrigation

(3) **Irrigation schedule:**  1= Early in the morning 2= At noon3= In the afternoon 4= At night

* **What is the system of water flow in the canal that serves your land?** (**\_\_**) 1= continuous flow 2= rotational flow (irrigation rotation)
* **If the answer is "rotational flow": What is the scheme of irrigation rotation in the canal that serves your land?** (\_\_\_\_\_) days wet (on days) and (\_\_\_\_\_) days dry (off days).
* **What is the type of *mesqa*s that serve your land?** (**\_\_**) 1= improved 2= non- improved 3= other (specify) **\_\_\_\_\_\_\_**
* **If the answer is "improved": What type of improvement?** (**\_\_**) 1= lined canals 2= buried pipes 3= other (specify) **\_\_\_\_\_\_\_**
* **Is there a drainage system serving your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": What type is the drainage system that serves your land?** (**\_\_**) 1= tile drainage 2= surface drainage
* **Do you think water available in the *mesqa*s that serve your land was adequate enough to irrigate summer crops?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": Why not?**

🗆 high water level at the *mesqa* head 🗆 long irrigation rotation at the *mesqa* head 🗆 short distance between the *mesqa* head and the main canal 🗆 other (specify)

* **If the answer is "No":**

**- What are the months during which you face water shortage?**

🗆 Jan. 🗆 Feb. 🗆 Mar. 🗆 Apr. 🗆 May 🗆 Jun. 🗆 Jul. 🗆 Aug. 🗆 Sept. 🗆 Oct. 🗆 Nov. 🗆 Dec.

**- Why not? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- How do you overcome water shortage? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **Do you think farms located at the *mesqa* head overuse water?** (**\_\_**) 1= Yes 2= No
* **What do you do to improve water use efficiency in your farm?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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* **Do you think there will be problems related to water quantity or quality in the near future?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- What are these problems?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**- Do you think these problems can be solved? How?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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* **Do you usually depend on night irrigation?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- How many times do you usually depend on night irrigation?** (\_\_\_\_\_\_\_\_\_\_\_\_) times in summer and (\_\_\_\_\_\_\_\_\_\_\_\_) times in winter.

**- Why do you usually depend on night irrigation? (\_\_\_\_\_\_\_)**

🗆 due to the irrigation rotation  🗆 due to water shortage occurring in daytime

🗆 due to the suitability of night irrigation for summer crops I cultivate 🗆 other (specify)

**1.2. Animal Production:**

**1.2.1. Structure of animal production**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | **Unit** | **Cow** | **Buffalo** | **Sheep** | **Goat** | **Other** (specify) | **Poultry** | **No** | **Value (L.E.)** |
| **Total no. of animals** | Heads |  |  |  |  |  | **Chicken** |  |  |
| **No. of milk animals** | Heads |  |  |  |  |  | **Duck** |  |  |
| **Average market value of owned animals** | L.E. |  |  |  |  |  | **Goose** |  |  |
| **Quantity of produced milk** | Kg/day |  |  |  |  |  | **Turkey** |  |  |
| **Quantity of sold milk** | Kg/day |  |  |  |  |  | **Dove** |  |  |
| **Average price of milk (in the community)** | L.E/Kg |  |  |  |  |  | **Rabbit** |  |  |
| **No. of sold animals** | Head |  |  |  |  |  | **Other (specify)** |  |  |
| **Average price of sold animals (in the community)** | L.E/head |  |  |  |  |  |  | | |
| **No. of animals slaughtered and consumed by a household** | Heads |  |  |  |  |  |
| **Average market value of slaughtered animals** | L.E/head |  |  |  |  |  |

**1.2.2. Costs of animal inputs of production during last year**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Inputs** | **Unit** | **Quantity or number** | **Price/unit (L.E.)** | **Notes** |
| **I. Labour:** | | | | |
| 1- Hired labour | | | | |
| - Man | Man/day |  |  |  |
| - Woman | Woman/day |  |  |  |
| - Boy/Girl | Boy/day |  |  |  |
| 2- Family labour | | | | |
| - Man | Man/day |  |  |  |
| - Woman | Woman/day |  |  |  |
| - Boy/Girl | Boy/day |  |  |  |
| **II. Feeding stuffs:** | | | | |
| - Concentrates | Ton |  |  |  |
| - Bran | Ton |  |  |  |
| - Cerials | Ton |  |  |  |
| - Clover | Carat/cut |  |  |  |
| - Forage Maize (Darawa) | Carat/cut |  |  |  |
| - Hay | Ton |  |  |  |
| - Straw | Heap |  |  |  |
| - Other (specify) |  |  |  |  |
| **III. Veterinary services** | L.E. |  |  |  |
| **IV. Other (specify)** |  |  |  |  |

**Second Part: Output and Revenue of Plant Production in Summer 2011, Winter 2010/2011 & Fruit Trees**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Plot #:** | **Crops** | **Produced quantity** | | | | **Sold quantity** | | | | **Stored quantity** | | | |
| **Main product** | **Unit (1)** | **Bi-product** | **Unit (1)** | **Main product** | | **Bi-product** | | **Main product** | | **Bi-product** | |
| **Quantity** | **Price/unit (L.E.)** | **Quantity** | **Price/unit (L.E.)** | **Sold** | **Consumed** | **Sold** | **Consumed** |
| **Summer:** | | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Winter:** | | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Trees:** | | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Codes:**

(1) **Unit:**  1= Ton2= Ardab3= Kentar 4= Cuts

**Third Part: Institutional Framework**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Institution / Association** | **Are there any institutions or associations working in the community? (1)** | **If the answer is "Yes":** | | |
| **Are they effective? (2)** | **Are you a member in any? (3)** | **Since when are you a member in any?** |
| **Agricultural Co-operatives** |  |  |  |  |
| **Water User Associations (WUAs)** |  |  |  |  |
| **Agricultural Marketing Associations** |  |  |  |  |
| **NGOs e.g. Community Development Associations (CDAs)** |  |  |  |  |
| **Other (specify)** |  |  |  |  |

**Codes:**

(1) **Are there any institutions or associations working in the community?**  1= Yes2= No 3= I'm not sure

(2) **Are they effective?**  1= effective2= fairly effective 3= ineffective

(3) **Are you a member in any?**  1= Yes2= No

**A question for farmers located in the salt-affected site:**

* **Why hasn't irrigation improvement activated even though WUAs have been established in the community? (\_\_\_\_\_\_\_)**

🗆 inadequate administrative procedures by Ministry of Water Resources and Irrigation (MWRI)🗆 lack of interest to develop irrigation in the community by MWRI

🗆 shortage of funds provided by MWRI 🗆 lack of hydraulic gates at the heads of main canals

🗆 difficulty to provide a continuous flow of water in the community 🗆 fish farms are widely spread in the community

🗆 low awareness of irrigation improvement among farmers 🗆 unwillingness of some/all farmers to activate irrigation improvement

🗆 high costs of irrigation improvement 🗆 water shortage 🗆 other (specify)

**Fourth Part: Sustainable Water-saving and Soil-conserving Practices**

**4.1. Practice 1: Laser Leveling:**

* **Did you hear about laser leveling?** (**\_\_**) 1= Yes 2= No
* **If the answer is "No": Which practice do you usually use for land leveling? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **If the answer is "Yes": What is the source(s) of your information about laser leveling?** (**\_\_**) 1= agricultural extension 2= neighbors 3= media 4= other (specify)
* **Did you use laser leveling in your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- Which plot numbers did you use laser leveling in?** (**\_\_**)**,** (**\_\_**)**,** (**\_\_**) **and** (**\_\_**)**. And what was the area of each plot?** (**\_\_\_\_**)**,** (**\_\_\_\_**)**,** (**\_\_\_\_**) **and** (**\_\_\_\_**) one Has**.**

**- When did you use laser leveling in your land for the first time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- After how many years do you intend to use laser leveling in the same plots again in the future? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Which authority has done laser leveling in your land? (\_\_\_\_\_\_\_)**

🗆 Ministry of Agriculture (service stations) / Agricultural extension 🗆 Agricultural co-operatives 🗆 private companies 🗆 I'm not sure 🗆 other (specify)

**- Do you think that laser leveling is useful?** (**\_\_**) 1= Yes 2= No

**- What is the degree of importance for laser leveling?** (**\_\_**) 1= high 2= moderate 3= fair

**- Why do you use laser leveling in your land? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- What are the effects of laser leveling on the following aspects?** (**\_\_**) 1= effective 2= ineffective 3= neutral

🗆 Regulating irrigation (**\_\_**) 🗆 Saving water (**\_\_**) 🗆 Reducing costs of irrigation (**\_\_**) 🗆 Reducing costs of production (**\_\_**)

🗆 Reducing irrigation time (**\_\_**) 🗆 Saving inputs (**\_\_**) 🗆 improving yields (**\_\_**) 🗆 Increasing income (**\_\_**)

🗆 Making crop service easier (**\_\_**) 🗆 Increasing cultivated area (**\_\_**) 🗆 good plant distribution (**\_\_**) 🗆 improving seed germination rate (**\_\_**)

🗆 Maintaining soil fertility (**\_\_**) 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_** (**\_\_**)

**- What are the problems/obstacles you faced while using laser leveling in your land?**

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**- What are your suggestions to overcome these problems/obstacles?**

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* **If the answer is "No":**

**- Why didn't you use laser leveling in your land?**

🗆 Because it is the responsibility of land owners 🗆 Because it isn't necessary right now 🗆 Because I don't know how to use it 🗆 Because I can't afford

🗆 Because it needs large areas 🗆 Because it isn't suitable for my land 🗆 To maintain soil fertility 🗆 other (specify) **\_\_\_\_\_\_**

**- What are the problems/obstacles you faced and didn't let you use laser leveling in your land?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**- What are your suggestions to overcome these problems/obstacles?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**- Do you want to use laser leveling in the future?** (**\_\_**) 1= Yes 2= No

* **If the answer is "Yes":**

**- Which authority do you prefer to do laser leveling in your land? (\_\_\_\_\_\_\_)**

🗆 Ministry of Agriculture / Agricultural extension 🗆 Agricultural co-operatives 🗆 private companies 🗆 I don't know

🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **If the answer is "No":**

**- Why not?**

🗆 Because I rent the land for a short period of time 🗆 Because it my land leveling is good

🗆 Because I prefer traditional land leveling 🗆 Because the benefits I get from laser leveling is less than what paid to use it

🗆 Because my land is too small to use it 🗆 Because It's expensive 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**4.2. Practice 2: Dry Planting for Clover:**

* **Did you hear about dry planting for clover?** (**\_\_**)

1= Yes 2= No

* **If the answer is "Yes": What is the source(s) of your information about dry planting for clover?** (**\_\_**)

1= agricultural extension 2= neighbors 3= media 4= other (specify)

* **Did you use dry planting for clover in your land?** (**\_\_**)

1= Yes 2= No

* **If the answer is "Yes":**

**- When did you use dry planting for clover in your land for the first time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Which plot numbers did you use dry planting for clover in for the last time?**

(**\_\_**) **and** (**\_\_**) **in the year** (**\_\_\_**)**. And what was the area of each plot?** (**\_\_**) **and** (**\_\_**)fedd**.**

**- What was the total cultivated area you used dry planting for clover in it in the same year?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**

**- Do you think that dry planting for clover is useful?** (**\_\_**)

1= Yes 2= No

**- What are the effects of dry planting for clover on the following aspects?** (**\_\_**)

1= effective 2= ineffective 3= neutral

🗆 Improving water use efficiency (**\_\_**) 🗆 Saving water (**\_\_**) 🗆 Reducing costs of irrigation (**\_\_**) 🗆 Reducing costs of production (**\_\_**)

🗆 Reducing irrigation time (**\_\_**) 🗆 Saving inputs (**\_\_**) 🗆 improving yields (**\_\_**) 🗆 Increasing income (**\_\_**)

🗆 Improving quality of agricultural environment (**\_\_**) 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_** (**\_\_**)

**- What are the problems/obstacles you faced while using dry planting for clover in your land?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**- What are your suggestions to overcome these problems/obstacles?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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* **If the answer is "No":**

**- Why didn't you use dry planting for clover in your land?**

🗆 Because I don't know how to use it 🗆 Because it isn't suitable for my land 🗆 To maintain soil fertility 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_**

**- Do you want to use dry planting for clover in the future?** (**\_\_**)

1= Yes 2= No

**4.3. Practice 3: Cultivating Wheat by Planters:**

* **Did you hear about planting wheat by planters?** (**\_\_**)

1= Yes 2= No

* **If the answer is "Yes": What is the source(s) of your information about planting wheat by planters?** (**\_\_**)

1= agricultural extension 2= neighbors 3= media 4= other (specify)

* **Did you use planting wheat by planters in your land?** (**\_\_**)

1= Yes 2= No

* **If the answer is "Yes":**

**- When did you use planting wheat by planters in your land for the first time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Which plot numbers did you use planting wheat by planters in for the last time?** (**\_\_**) **and** (**\_\_**) **in the year** (**\_\_\_**)**.**

**And what was the area of each plot?** (**\_\_**) **and** (**\_\_**)fedd**.**

**- What was the total cultivated area you used planting wheat by planters in it in the same year?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**

**- Do you think that planting wheat by planters is useful?** (**\_\_**) 1= Yes 2= No

**- What are the effects of planting wheat by planters on the following aspects?** (**\_\_**) 1= effective 2= ineffective 3= neutral

🗆 Saving water (**\_\_**) 🗆 Reducing costs of labour (**\_\_**) 🗆 Reducing costs of production i.e. labour (**\_\_**) 🗆 Saving inputs i.e. seeds (**\_\_**)

🗆 Saving time and efforts (**\_\_**) 🗆 improving yields (**\_\_**) 🗆 improving seed germination rate (**\_\_**)

🗆 Making weed control easier (**\_\_**) 🗆 good seed distribution (**\_\_**) 🗆 Making wheat harvesting easier by combines (**\_\_**) 🗆 other (specify) **\_\_\_\_\_\_** (**\_\_**)

**- What are the problems/obstacles you faced while using planting wheat by planters in your land?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**- What are your suggestions to overcome these problems/obstacles?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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* **If the answer is "No":**

**- Why didn't you use planting wheat by planters in your land?**

🗆 Because I don't know how to use it 🗆 Because it isn't suitable for my land 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_**

**- Do you want to use planting wheat by planters in the future?** (**\_\_**) 1= Yes 2= No

**4.4. Practice 4: Transplanting Rice by Machines:**

* **Did you hear about transplanting rice by machines?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": What is the source(s) of your information on transplanting rice by machines?** (**\_\_**) 1= agricultural extension 2= neighbors 3= media 4= other (specify)
* **Did you use transplanting rice by machines in your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- When did you use transplanting rice by machines in your land for the first time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Which plot numbers did you use transplanting rice by machines in for the last time?** (**\_\_**) **and** (**\_\_**) **in the year** (**\_**)**.**

**And what was the area of each plot?** (**\_\_**) **and** (**\_\_**)fed**.**

**- What was the total cultivated area you used transplanting rice by machines in it in the same year?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**

**- Do you think that transplanting rice by machines is useful?** (**\_\_**)

1= Yes 2= No

**- What are the effects of transplanting rice by machines on the following aspects?** (**\_\_**) 1= effective 2= ineffective 3= neutral

🗆 Saving water (**\_\_**) 🗆 Reducing crop losses (**\_\_**) 🗆 Reducing costs of production i.e. labour (**\_\_**) 🗆 Saving inputs i.e. seeds (**\_\_**)

🗆 Saving time (**\_\_**) 🗆 improving yields (**\_\_**) 🗆 Saving efforts (**\_\_**) 🗆 other (specify) **\_\_\_\_\_\_\_\_\_** (**\_\_**)

**- What are the problems/obstacles you faced while using transplanting rice by machines in your land?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**- What are your suggestions to overcome these problems/obstacles?**

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* **If the answer is "No":**

**- Why didn't you use transplanting rice by machines in your land?**

🗆 Because I don't know how to use it 🗆 Because it isn't suitable for my land 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_**

**- Do you want to use transplanting rice by machines in the future?** (**\_\_**)

1= Yes 2= No

**4.5. Practice 5: Manure Composting:** (Manure compost is an organic matter that has been decomposed and recycled as a fertilizer and soil amendment.)

* **Did you hear about using manure compost?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": What is the source(s) of your information about manure compost?** (**\_\_**) 1= agricultural extension 2= neighbors 3= media 4=other
* **Did you use manure compost in your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- What is the annual amount of manure compost you produce per one Ha?** (**\_\_\_\_\_\_\_\_\_**)CM.

**- What is the annual amount of manure compost you consume per one Ha?** (**\_\_\_\_\_\_\_\_\_**)CM.

**- When did you use manure compost in your land for the first time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Which plot numbers did you use manure compost in for last summer?** (**\_\_**) **and** (**\_\_**)**.**

**- What was the total cultivated area you used manure compost in it in for last summer?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**

**- Which plot numbers did you use manure compost in for last winter?** (**\_\_**) **and** (**\_\_**)**.**

**- What was the total cultivated area you used manure compost in it in for last winter?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**

**- Do you think that manure compost is useful?** (**\_\_**) 1= Yes 2= No

**- What are the effects of using manure compost on the following aspects?** (**\_\_**) 1= effective 2= ineffective 3= neutral

🗆 Easy to use (**\_\_**) 🗆 Rationalizing the use of chemical fertilizers (**\_\_**) 🗆 Reducing costs of production (**\_\_**)

🗆 Increasing income (**\_\_**) 🗆 improving soil chemical and physical properties (**\_\_**)

🗆 Providing a clean growing environment for plants (**\_\_**) 🗆 Safe disposal of agricultural residuals (**\_\_**) 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_** (**\_\_**)

**- What are the problems/obstacles you faced while using manure compost in your land?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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**- What are your suggestions to overcome these problems/obstacles?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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* **If the answer is "No":**

**- Why didn't you use manure compost in your land?**

🗆 Because I don't know how to use it 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_**

**- Do you want to use manure compost in the future?** (**\_\_**) 1= Yes 2= No

**4.6. Practice 6: Adding Agricultural Gypsum:**

* **Did you hear about adding agricultural gypsum?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": What is the source(s) of your information about agricultural gypsum?** (**\_\_**) 1= agricultural extension 2= neighbors 3= media 4= other (specify)
* **Did you add agricultural gypsum to your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- What is the annual amount of agricultural gypsum you add per one Ha?** (**\_\_\_\_\_\_\_\_\_**)ton.

**- What is the annual cost of agricultural gypsum you add per one Ha?** (**\_\_\_\_\_\_\_\_\_**)L.E./ton.

**- When did you add agricultural gypsum to your land for the first time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Which plot numbers did you add agricultural gypsum to for last summer?** (**\_\_**) **and** (**\_\_**)**.**

**- What was the total cultivated area you used manure compost in it in for last summer?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**

**- Which plot numbers did you add agricultural gypsum to for last winter?** (**\_\_**) **and** (**\_\_**)**.**

**- What was the total cultivated area you used manure compost in it in for last winter?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**

**- Do you think that adding agricultural gypsum is useful?** (**\_\_**) 1= Yes 2= No

**- What is the most suitable time for adding agricultural gypsum on the following aspects?** (**\_\_\_\_\_\_\_\_\_**) in summer and(**\_\_\_\_\_\_\_\_\_**) in winter.

**- What is the most suitable method for adding agricultural gypsum on the following aspects?** (**\_\_**) 1= manually 2= mechanically

**- What are the effects of adding agricultural gypsum on the following aspects?** (**\_\_**) 1= effective 2= ineffective 3= neutral

🗆 Easy to use (**\_\_**) 🗆 Reducing soil alkalinity and salt content (**\_\_**) 🗆 Low costs (**\_\_**)

🗆 improving yields (**\_\_**) 🗆 improving soil physical properties (**\_\_**) 🗆 Allow cultivating some other crops (**\_\_**) 🗆 other (specify) **\_\_\_\_\_\_\_\_\_** (**\_\_**)

**- What are the problems/obstacles you faced while adding agricultural gypsum in your land?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- What are your suggestions to overcome these problems/obstacles?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **If the answer is "No":**

**- Why didn't you add agricultural gypsum to your land?**

🗆 Because I don't know how to use it 🗆 Because it isn't suitable for my land 🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_**

**- Do you want to add agricultural gypsum in the future?** (**\_\_**) 1= Yes 2= No

**4.7. Practice 7: Planting Improved Varieties:**

* **Did you hear about using improved varieties?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": What is the source(s) of your information on using improved varieties?** (**\_\_**) 1= agricultural extension 2= neighbors 3= media 4= other (specify)
* **Did you use improved varieties in your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- What are the improved varieties you cultivate in your land?**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Plot #: \_\_\_\_** | **Cultivated Area** | | **Crop** | **Improved variety** | **When did you use it for the first time? (year)** | **Where did you get it from?** | **Why do you prefer this variety? (1)** |
| **One Ha** | **Carat** |
| **Summer:** | | | | | | | |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Winter:** | | | | | | | |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Trees:** | | | | | | | |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Codes:**

(1) **Why do you prefer this variety?**  1= early maturity2= needs less inputs3= disease-resistant 4= high yield 5= high quality 6= other (specify)

**- Do you think that using improved varieties is useful?** (**\_\_**) 1= Yes 2= No

**- Why not? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- What are the effects of using improved varieties on the following aspects?** (**\_\_**) 1= effective 2= ineffective 3= neutral

🗆 Saving water (**\_\_**) 🗆 Early maturity (**\_\_**) 🗆 Reducing costs of production (**\_\_**) 🗆 Saving inputs (**\_\_**)

🗆 Increasing income (**\_\_**) 🗆 improving yields (**\_\_**) 🗆 disease-resistance (**\_\_**) 🗆 other (specify) **\_\_\_\_\_\_\_\_\_** (**\_\_**)

**- What are the problems/obstacles you faced while using improved varieties in your land? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- What are your suggestions to overcome these problems/obstacles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **If the answer is "No":**

**- Why didn't you use improved varieties in your land?**

🗆 Because the traditional varieties I use are good 🗆 Because the yields of some improved varieties are less i.e. wheat and maize

🗆 other (specify) **\_\_\_\_\_\_\_\_\_\_\_\_** 🗆 Because I don't know where I can get it from

**- Do you want to use improved varieties in the future?** (**\_\_**) 1= Yes 2= No

**Fifth Part: using Recommended water-saving Technologies:** (Recommended water management technologies are new methods targeting to rationalize water used for irrigation and improve water use efficiency.)

* **Did you use any of the recommended water-saving technologies in your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Recommended Technology** | **When did you use it for the first time? (year)** | **Which plot numbers did you use it in? (#)** | **Cultivated Area** | | **Crops** | **Source(s) of information** **(1)** | **Main benefits** |
| **One Ha** | **Carat** |
| **Raised bed** |  |  |  |  |  |  |  |
| **Deficit irrigation** |  |  |  |  |  |  |  |
| **Adding organic manure** |  |  |  |  |  |  |  |
| **Deep tilling** |  |  |  |  |  |  |  |
| **Laser leveling** |  |  |  |  |  |  |  |
| **Lining canals** |  |  |  |  |  |  |  |
| **Using buried pipes** |  |  |  |  |  |  |  |
| **Sprinkler irrigation** |  |  |  |  |  |  |  |
| **Drip irrigation** |  |  |  |  |  |  |  |
| **other (specify) \_\_\_\_\_\_** |  |  |  |  |  |  |  |

**Codes:**

(1) **Source(s) of your information:**  1= agricultural extension 2= neighbors 3= media 4= other (specify)

**Sixth Part: Support and Extension Services**

* **Are there any projects or programs implemented in the community targeting to rationalize water used for irrigation or maintain soil fertility?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- What are these projects or programs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- What are the funding agencies for these projects or programs? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **Did you ever participate in any activities of these projects or programs?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": In what activities did you participate in? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **If the answer is "No": Why not? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Did you ever get information from these projects or programs about water rationalization or soil conservation?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- What is this information? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Did you ever make use of this information?** (**\_\_**) 1= Yes 2= No

* **If the answer is "Yes": How? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Did you get advice or received guidance from the extension agents last year?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": Which extension agents?** (**\_\_**) 1= Agricultural Extension Sector 2= Agricultural Research Station 3= NGOs 4= other (specify)

**Seventh Part: The most Important Problems Facing Farmers**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **7.1. Irrigation problems facing farmers:** | **Degree of severity** | | | **What do you do to solve this problem?** |
| Severe | Weak | No Problem |
| **Water shortage, especially in summer** |  |  |  |  |
| **Irrigation water doesn’t reach the *mesqa* tail, especially in summer** |  |  |  |  |
| **Spread of weeds that hinder the water flow** |  |  |  |  |
| **using agricultural drainage water in irrigation** |  |  |  |  |
| **Inadequate scheme of irrigation rotation** |  |  |  |  |
| **Irregular irrigation rotation** |  |  |  |  |
| **High costs of energy i.e. electricity and diesel** |  |  |  |  |
| **High costs of cleaning the *mesqa*** |  |  |  |  |
| **Long distance between my land and the main canal** |  |  |  |  |
| **Pollution of irrigation water** |  |  |  |  |
| **Narrow path across the *mesqa*** |  |  |  |  |
| **Inability to cultivate some crops due to water shortage i.e. vegetables** |  |  |  |  |
| **Unsuitable width of the *mesqa* for irrigation due to collapse of its bridges** |  |  |  |  |
| **Absence of drainage system even surface or tile** |  |  |  |  |
| **Frequent blockage of sprayers** |  |  |  |  |
| **Frequent electricity cut off** |  |  |  |  |
| **Frequent interruption of irrigation water** |  |  |  |  |
| **Disable hydraulic lifting gates** |  |  |  |  |
| **other (specify) \_\_\_\_\_\_** |  |  |  |  |
| **other (specify) \_\_\_\_\_\_** |  |  |  |  |
| **other (specify) \_\_\_\_\_\_** |  |  |  |  |
| **other (specify) \_\_\_\_\_\_** |  |  |  |  |
| **7.2. Soil problems facing farmers:** | **Degree of severity** | | | **What do you do to solve this problem?** |
| **High water table due to absence of drainage system** |  |  |  |  |
| **Poor nutrients** |  |  |  |  |
| **High level of soil salinity** |  |  |  |  |
| **Inability to cultivate some crops due to poor soil fertility** |  |  |  |  |
| **Spread of weeds** |  |  |  |  |
| **Spread of diseases i.e. root rot** |  |  |  |  |
| **Spread of pests i.e. nematodes** |  |  |  |  |
| **other (specify) \_\_\_\_\_\_** |  |  |  |  |
| **7.3. Plant production problems facing farmers:** | **Degree of severity** | | | **What do you do to solve this problem?** |
| Severe | Weak | No Problem |
| **High price of inputs and labour** |  |  |  |  |
| **High prices of chemical fertilizers offered by agricultural co-operatives** |  |  |  |  |
| **Unavailability of inputs (seeds - pesticides)** |  |  |  |  |
| **Inadequate supply of chemical fertilizers** |  |  |  |  |
| **Unavailability of improved varieties** |  |  |  |  |
| **Agricultural co-operatives enforce farmers to buy undesired types of chemical fertilizers** |  |  |  |  |
| **Associating the provision of agricultural inputs by agricultural co-operatives with the collection of installments** |  |  |  |  |
| **Decision of cultivating crops is determined according to the availability of irrigation water and soil fertility regardless market needs** |  |  |  |  |
| **Spread of pests i.e. scale insects and fruit flies** |  |  |  |  |
| **Low crop price** |  |  |  |  |
| **Low crop yield** |  |  |  |  |
| **Poor role of agricultural extension** |  |  |  |  |
| **7.4. Animal production problems facing farmers:** | **Degree of severity** | | | **What do you do to solve this problem?** |
| **Lack green fodders** |  |  |  |  |
| **High prices of live animals** |  |  |  |  |
| **High prices of veterinary drugs** |  |  |  |  |
| **Unavailability of concentrates and dry fodders** |  |  |  |  |
| **Lack of veterinary services** |  |  |  |  |
| **Far distance between site of production and markets** |  |  |  |  |
| **Lack of finance** |  |  |  |  |
| **7.5. Credit problems facing farmers:** | **Degree of severity** | | | **What do you do to solve this problem?** |
| **High interest rate** |  |  |  |  |
| **Short grace period** |  |  |  |  |
| **Complicated banking procedures and required documents** |  |  |  |  |
| **Guarantee difficulties** |  |  |  |  |
| **7.6. Marketing problems facing farmers:** | **Degree of severity** | | | **What do you do to solve this problem?** |
| **Far distance between site of production and markets** |  |  |  |  |
| **High costs of transportation** |  |  |  |  |
| **Unavailability of co-operative marketing** |  |  |  |  |
| **Unavailability of marketing channels rather than the village merchant** |  |  |  |  |
| **Unavailability of co-operative storages** |  |  |  |  |
| **Low crop price** |  |  |  |  |

**Eighth Part: Household Characterization**

**8.1. General Characterization:**

**8.1.1. Household composition (start with head of household) and off-farm income**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID No** | **Sex (1)** | **Age** | **Relation**  **to Head of Household (2)** | **Education level**  **(3)** | **Marital status (4)** | **Main profession (5)** | **Annual off-farm work** | | | | |
| **Agricultural work in other farms** | | **Non-agricultural work** | | |
| Working days | Annual income (L.E./year) | Working days | Activities | Annual income (L.E./year) |
| 1 |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |  |

**Codes:**

(1) **Sex:**  1= male2= female

(2) **Relation to Head of HH:** 1= self 2= wife3= son 4= daughter 5= grandson 6= granddaughter 7= father 8= mother9= other (specify)

(3) **Education level:**  1= illiterate2= can read and write3= primary 4= preparatory (prep.) 5= agricultural technical prep. 6= other technical prep.

7= high school 8= agricultural technical high school 9= other technical high school 10= technicalinstitute11= college 12= child (1-6yrs)

(4) **Marital status:**  1= single 2= married3= widow 4= divorced 5= child (<16 yrs) 6= other (specify) **\_\_\_\_\_\_\_**

(5) **Main profession:**  1= None 2= crop farming 3= animal husbandry 4= technician 5= trade 6= off-farm employment

7= student 8= housekeeping 9= other (specify) **\_\_\_\_\_\_\_**

**8.1.2. Existing income-generating activities**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activities** | **No. of units** | **% of women sharing** | **Year of establishment** | **Investment costs per unit (L.E.)** | **Fixed costs (L.E.)** | | **Operating costs per month (L.E.)** | | | | | **Revenue per month (L.E.)** | | |
| **Rent** | **Others** | **Electricity** | **Water** | **Raw materials** | **Labour** | **Others** | **production** | **unit** | **Price/unit (L.E.)** |
| **Honey production** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Rabbit breeding** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Textile production** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Pottery production** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Leather production** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fish farming** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **other (specify)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

* **Do you want to conduct other income-generating activities?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

**- What are these activities? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- What are the problems/obstacles you faced and didn't let you conduct these activates? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- What are your suggestions to overcome these problems/obstacles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **Head of Household's number of farming years of experience:** (**\_\_\_\_\_\_\_\_\_**)years**.**

**A question for farmers located in the salt-affected site:**

* **Do you have a fish farm in your land?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes": What was the total area of this fish farm?** (**\_\_\_\_\_\_\_\_\_**)one Has**.**
* **If the answer is "No":**

**- Why not? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**- Are you interested in conducting fish farming in your land? Why? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**8.2. Household Assets:**

**8.2.1. House and storing capacity**

* **Ownership of the house:** 🗆 owned 🗆 rented 🗆 other (specify) **\_\_\_\_\_\_\_**
* **Wall material of the house:** 🗆 concrete 🗆 bricks and cement 🗆 bricks only 🗆 other (specify) **\_\_\_\_\_\_\_**
* **Total number of floors:** (**\_\_**)
* **Total number of rooms:** (**\_\_**)
* **Do you have stores?** (**\_\_**) 1= Yes 2= No
* **If the answer is "Yes":**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type** | **No.** | **Area (m2)** | **Ownership (1)** | **If owned: what is its present value? (L.E.)** | **If rented: what is its annual rent? (L.E.)** |
| **Grain store** |  |  |  |  |  |
| **Store** |  |  |  |  |  |
| **Traditional silo** |  |  |  |  |  |

**Codes:** (1) **Ownership:**  1= owned2= rented3= shared 4= other (specify) **\_\_\_\_\_\_\_**

**8.2.2. Land**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Plot #: \_\_\_\_** | **Area** | | **Land tenure (1)** | **If the land (including its buildings) is for sale, what one can pay to purchase it? (L.E.)** | **Annual tax (L.E.)** | **Annual rent (L.E.)** |
| **One Ha** | **Carat** |
| **1** |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  |

**Codes:** (1) **Land tenure:**  1= owns the land and exploits it2= owns the land and leases it to others3= shares the land with others 4= other (specify) **\_\_\_\_\_\_\_**

* **Do you think that bad exploitation of land leads to soil problems?** (**\_\_**) 1= Yes 2= No 3= I'm not sure
* **If the answer is "Yes": Can we solve these problems? How? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Do you think that the over-use of chemicals (fertilizers & pesticides) in agriculture leads to environmental and health problems?** (**\_\_**) 1= Yes 2= No 3= I'm not sure
* **If the answer is "Yes": Can we solve these problems? How? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**8.2.3. Land rental value / price of the land according to the level of soil salinity**

* **How do you describe the level of soil salinity in your land?** 🗆 low 🗆 moderate 🗆 high
* **What is the average rental value of your land?** (**\_\_\_\_\_\_\_\_\_**)L.E./one Ha**.**
* **How far is water table in your land?** 🗆 low 🗆 moderate 🗆 high **"**about (**\_\_**)m**"**
* **How far is your land to the nearest urban centre?** (**\_\_\_\_\_\_\_\_\_**)Km**.**

**8.2.4. Machines & equipment of production and home appliances**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Machine/equipment** | **Tractor** | **Plow** | **Irrigation pumps** | **Irrigation wheel** | **Harvesting machine** | **Threshing machine** | **Motorized sprayer** | **Trailer** | **Pickup** | **Cart** | **Refrigerator** | **Washing machine** | **T.V. set** | **other (specify)** |
| **No.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Ownership (1)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Market value (L.E.)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Codes:** (1) **Ownership:**  1= owned2= rented3= shared (% of sharing)

**8.2.5. sources of credit**

* **Did you borrow from any of the following sources of credit during last 12 months?** (**\_\_**)1= Yes 2= No
* **If the answer is "Yes":**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Source of loan** | **The purpose of the loan** | **Loan sum (L.E.)** | **Loan duration (month)** | **Annual interest rate %** | **Guarantee** | **Method of repayment** | **% of repayment until now** |
| **Relatives** |  |  |  |  |  |  |  |
| **Village merchant** |  |  |  |  |  |  |  |
| **Banks** |  |  |  |  |  |  |  |
| **ngos** |  |  |  |  |  |  |  |
| **other (specify)** |  |  |  |  |  |  |  |