

RESEARCH IN ALTERNATIVE LIVELIHOOD FUND (RALF)

Project Title:

**Introduction Evaluation and
Promotion of Appropriate Crop
Legume and Vegetables for
Eastern Afghanistan (CLVEA)**

Implementing Agencies

Project Leader:

Relief International, USA

Collaborating Institutions:

- 1-Asian Vegetable Research and Development Center (AVRDC), Taiwan**
- 2-University of Nangarhar, Jalalabad**
- 3-International Development Enterprises, USA**

Project Area

- **One Model Research Plot, NU, Jalalabad**
- **23 Research and Demonstration plots in ten district of southern belt of Nangarhar Province:**
 - 1- Surkhrod
 - 2- Sherzad
 - 3- Khogyani
 - 4- Shinwar
 - 5- Rodat
 - 6- Achin
 - 7- Besud
 - 8- Torgarh
 - 9- Kot
 - 10- Chaparhar

Project Goal

- 1-To determine the economic and livelihood impact of a range of vegetable and crop legume projects, enhanced by drip irrigation, on poppy farmers in Nangarhar Province,**
- 2- Scale up those projects that demonstrate the most significant rate of return, in order to develop sustainable, legal alternatives to poppy cultivation as a livelihood strategy.**

Project Purpose

- To ascertain the most viable alternative legal economic activities through evidence-based applied research.
- To utilize a holistic and participatory research methodology and project design that looks at the rural economy, and its effects on farmer's incomes,
- To focus on vegetable and legume crop production, enhanced by low cost drip irrigation systems,
- Scaling-up successful projects that demonstrate a significant rate of return
- Establishment of a model research plot at Nangarhar University to create baseline data
- To build the capacity of the Faculty of Agriculture, NU

EXPECTED OUTPUT

- **24 Operational Research Plot of following Crops: Moongbean, Cowpea, Onion, Tomato, Chili, Garlic and Carrot**
- **Test the low cost drip irrigation**
- **Training of 38 lead farmers as extension agents**
- **Production and dissemination of information**
- **NU develop the capacity to design, manage and report on livelihood development projects.**

Accomplishments

- Project workshop and formal Interaction with farmers, researchers and implementing partners
- Research and extension training (Faculty training) to NU staff
- Lead farmers training
- Research trial design
- Establishment of model research plot at NU
- Establishment of plots on farmers field in ten districts
- Baseline economic and livelihood survey

Workshop of IPs



Workshop of IPs



Faculty Training



Faculty Training



Lead Farmers Training



Drip Irrigation Training



Lead Farmers Training



Demonstration of M.O. pump



Drip Set Layout Training



Drip Set Installation Training



Interaction with Farmers



Interaction with farmers



Model Research Plot, NU



Model Research Plot, NU



Model Research Plot, NU



Carrot Trial

Manzilianow carrot variety (Local Variety) was tested for :

- **Four seed rates 1.60 Kg., 2.80 Kg., 3.10 Kg. and 4.12 Kg. per hectare.**
- **Two fertilizer rates, farmers' level at 250 Kg. urea and 200 Kg. DAP per hectare and higher level at 300 Kg. urea and 250 Kg. DAP per hectare.**

The experiment was conducted in Randomized Complete Block Design (RCBD) with three replications. Carrots have been harvested and data has been taken for complete analysis.





Garlic Variety Trial

- **Four garlic varieties are under trial:**

1-Watani (local) 2- China Kabuli 3- China Pakistani 4- Red

- **Trials are laid with farmers' level fertilizer application at 150 Kg. DAP and 200 Kg. urea per hectare are planted in three replications for variety performance comparison. Two varieties are performing better than the other two.**

Garlic Variety Trials



Garlic Variety Trial



Onion Variety Trial

- Total seven onion varieties are under Trial.
- Six collected from local and Pakistani sources .
Red Local Mazina, Supreme Stone commercial, Supper Swat 1 commercial, Nasik Red commercial, Red Brown F-1 commercial, N-53 commercial
- Two onion varieties were procured from AVRDC (World Vegetable Center), were planted in the nursery for a study to compare the adaptation, performance and production of these varieties in Eastern Afghanistan. One of the two varieties failed to germinate. One varieties has produced seedlings and transplanted in three replications in RCBD.

Most of the seedlings have established and their performance looks promising.

Onion Variety Trial







DR 6
1/6

Tomato Variety Trial

- **17 tomato varieties were collected from markets in Jalalabad and Peshawar of Pakistan and planted in nursery to produce transplants for a study to compare the adaptation, performance and production of these varieties in the Eastern Afghanistan situation.**
- **12 Varieties successfully produced transplants and these are under experiment in a Randomized Complete Block Design with three replications.**

Tomato Variety Trials



Eggplant Variety Trial

- **Twelve eggplant varieties were collected from markets in Jalalabad and Peshawar of Pakistan and planted in nursery to produce seedlings for a study to compare the adaptation, performance and production of these varieties in the Eastern Afghanistan situation.**
- **Only one variety failed to produce transplantable seedlings. All the other 11 varieties have been transplanted in three replications in RCBD.**

Eggplant Variety Trial



Pepper Variety Trials

- **Fourteen varieties of pepper were collected from markets in Jalalabad and Peshawar, Pakistan and planted in nursery to produce transplants for a study to compare the adaptation, performance and production of these varieties in the Eastern Afghanistan situation.**
- **Out of the 14 varieties, 11 successfully produced seedlings to be transplanted in three replications in RCBD.**

Pepper Variety Trials



Vegetable Research and Demonstration Farms in Districts

- **23 farmers have been identified to conduct research and demonstrate on onions, garlic, tomato, eggplant, pepper, cucumber, okra Cowpea and Moongbean in 10 districts of Nangarhar Province.**
- **The varieties are either local or imported and have shown adaptation to most of the Eastern parts of Afghanistan.**

Field Research & Demo. Plot



Drip Irrigation Demonstration



Vegetables in the Green House with Drip Irrigation



Tomato crop in Green House



Field Training



Vegetables in the Green House







THANKS