Tackling Poverty in Niger

Launching The Dov Pasternak Horticultural Training Center
For 15 years Eliminate Poverty NOW (EPN) has been empowering Africa’s extreme poor, especially women and girls, to lift themselves out of poverty.

In rural areas, maximizing farmer income is the key. Increased income improves family diets, clothing, and housing; increases access to education and healthcare; and upgrades overall quality of life.
No country on earth poses greater challenges to reducing extreme poverty than Niger.

Niger ranks dead last on the UN 2020 Human Development Index:

- 80% of Nigeriens are subsistence farmers growing rainfed crops
- 65% of Nigeriens are illiterate
- 40% of Nigerien children suffer from malnutrition

UNICEF labeled Niger “the world’s most underfunded humanitarian crisis”

While Niger is an extreme example, the Sahel has tens of millions of subsistence farmers struggling to survive.
It’s hard to climb the ladder of economic opportunity when you can’t reach the first rung!

Improved yields of rainfed crops is a critical first step

*But for sustained change...*

Farmers need the ability to generate meaningful income and break the cycle of poverty

- Generational Change
- Access to higher education
- Access to primary education
- Upgrade living conditions
- Access to healthcare
- Improve family diet
- Basic food security
In the Sahel, irrigation is key to unlocking economic potential.

These two photos were taken from the identical spot, one looking back towards a local village in Niger, the other facing the village’s irrigated vegetable garden.
Many development programs improve food security but generate minimal/modest income gains. Our “Farmers of the Future” model creates income that changes lives.

<table>
<thead>
<tr>
<th>Project</th>
<th>Principal Crop(s)</th>
<th>Percent or Absolute Increase in Yield</th>
<th>Annual Income Increase per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Acre Fund</td>
<td>Maize</td>
<td>+274–490 kg/acre</td>
<td>$30–91</td>
</tr>
<tr>
<td>Nuru Int’l Kenya</td>
<td>Mixed grains and Dairy</td>
<td>98%</td>
<td>$235–400</td>
</tr>
<tr>
<td>Millennium Villages Project</td>
<td>Maize</td>
<td>187%</td>
<td>minimal</td>
</tr>
<tr>
<td><strong>Farmers of the Future - Izawitan</strong></td>
<td>6–10 vegetable varieties</td>
<td>New activity</td>
<td>$755</td>
</tr>
<tr>
<td><strong>Farmers of the Future - Sadoré</strong></td>
<td>Fruit trees</td>
<td>New Activity</td>
<td>$2,000+</td>
</tr>
</tbody>
</table>

Data Sources:
1. One Acre Fund randomized control study results in Kenya: Chwele District 2009, Busia District 2014, Teso District 2017
3. Harvests of Development in Rural Africa: The Millennium Villages Project After Three Years
Farming for income requires major change

Different Goals
Grow crops for sale that maximize income

Different Methods
Irrigate to utilize the land year-round

Different Crops
6–10 high value crops vs 1–2 rainfed grains
Completing 1 cycle of year-round agriculture takes 12 months.

Our Farmers of the Future model provides farmers 3+ years of intensive training and supervision to master new concepts and techniques.

A multi-year commitment to intensive training is the critical missing ingredient to agricultural transformation in Niger.

But the technicians to conduct this training are in desperately short supply.

The greater the change, the more training required.
Introducing The Dov Center

Niger’s first ever Center of Excellence devoted to Horticulture

Teaching farming methods that generate $1,000 per year of income, double the average income of Niger.

Building on Professor Dov Pasternak’s z”l 15 years of experience improving livelihoods in Niger and 50 years of global experience in dryland agriculture.

Dov literally wrote the book on *Agricultural Prosperity in Dry Africa.*
Niger's first ever training center devoted to horticulture

Teaching concepts and techniques to dramatically increase farmer income

Drawing on innovation from:

• Israeli technology and experience,
• 15 years research on preferred income-generating crops specific to the Sahel, and
• 10 years experience creating a practical, proven model for rural economic transformation.

The Dov Center brings important firsts to Niger

The training gardens at The Dov Center are already operational.
The Dov Center will “train the trainers” to teach concepts and techniques that dramatically increase income.

The Center features a rigorous, hands-on training program for technicians including:

• Best practices in horticulture,
• Creative strategies to maximize income,
• Principles of running effective for-profit cooperatives, and
• Tools and techniques to transfer knowledge to largely illiterate farmers.

The Center will also offer seminars and consulting services to funders and practitioners of development projects.
Projected Impact: The multiplier effect of training the trainers.

- Center will graduate 40 technicians per year
  - Students will be recruited from 50,000 high school graduates
  - Job placement with NGOs, the private sector, government, etc. upon graduation

- One technician can impact 1,500 lives
  - 1 technician can support 5 villages
  - An average village cooperative has 50 farmers
  - The average household size in Niger is 6

- In 5 years, The Dov Center can improve 300,000 lives
  - In 5 years of full operation, The Dov Center will graduate 200 technicians
  - 200 technicians x 1,500 family members
  - The income generated will change the lives of this generation and the next
Measuring Success

Student Recruitment
Recruitment and graduation of students, with a goal of 40 per year completing the two-year training program.

Technician Placement
Rate of placement and employment of graduates in jobs which enable them to use their skills and knowledge.

Villages and Farmers Served
Numbers of villages and smallholder farmers reached and results of these engagements over a three-year period.
Scaling the Impact

Committed Partners will take us to scale in Niger

ICRISAT (International Crops Research in the Semi-Arid Tropics), Niger
Songhai Center, Benin
Volcani International Partners, Israel
University of Niamey Agronomy Department, Niger

Becomes self-funding in 5 years so its impact continues to grow

4 income streams:
- Student tuition
- Seminar fees
- Farm produce
- Consulting services

Additional sources being developed

Long Term Impacts

Beyond Year 5, the Center will train hundreds of additional technicians improving hundreds of thousands more lives.
The model can be replicated in other countries throughout the Sahel.
The EPN International Team

John Craig  
President  
Eliminate Poverty NOW  
USA

Robin Mednick  
President  
Pencils 4 Kids  
Canada

Hamani Djibo  
President  
ONG LIBO  
Niger

Issaka Housseini  
Technical Director  
ONG LIBO  
Niger

Joanne Moore  
EPN Board of Directors  
Israel
## Budget and Financing
*(in US dollars)*

<table>
<thead>
<tr>
<th>The Budget: $1.5M</th>
<th>In $000’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land, Site Prep, Utilities</td>
<td>$250</td>
</tr>
<tr>
<td>Academic/Administrative Hall</td>
<td>260</td>
</tr>
<tr>
<td>Cafeteria</td>
<td>70</td>
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<tr>
<td>Dormitory</td>
<td>160</td>
</tr>
<tr>
<td>Furniture &amp; Equipment</td>
<td>115</td>
</tr>
<tr>
<td>Training Gardens</td>
<td>70</td>
</tr>
<tr>
<td>Seminar Room</td>
<td>50</td>
</tr>
<tr>
<td><strong>Operating Costs:</strong></td>
<td></td>
</tr>
<tr>
<td>Scholarships</td>
<td>150</td>
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<tr>
<td>Cumulative Operating Deficit</td>
<td>175</td>
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<tr>
<td>Administrative Costs</td>
<td>125</td>
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<tr>
<td>Other Misc.</td>
<td>75</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,500</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financing: $900K raised to date</th>
<th>In $000’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>$200</td>
</tr>
<tr>
<td>Family Foundations</td>
<td>450</td>
</tr>
<tr>
<td>EPN Board</td>
<td>250</td>
</tr>
<tr>
<td>Funds to be Raised</td>
<td>600</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$1,500</strong></td>
</tr>
</tbody>
</table>
More About Professor Dov Pasternak (1940–2018)

- World expert in dryland agriculture
- Awarded World Chair in Desertification from UNESCO and Lifetime Achievement Award from Society for International Development, Israel
- 30 years at Ben Gurion University; 20 years heading BGU’s Institute for Agricultural and Applied Biology
- Consulted in 24 countries
- Wrote or co-authored hundreds of research papers
- 18 years working and consulting in the African Sahel; 10 years in Niger as Chief Scientist for Crop and Technology Diversification at ICRISAT (International Crop Research in the Semi-Arid Tropics)
- Visionary and leader of the Farmers of the Future project for rural economic transformation
- Author of *Agricultural Prosperity in Dry Africa*
More About
Farmers of the Future - a Model for Rural Economic Transformation

Goal: Enable women farmers to earn up to $1,000/year — twice the average income of Niger

Financial structure: Upfront subsidy transitioning to financially self-supporting businesses

The Model:
- Organize women into local cooperatives
- Design gardens/nurseries to achieve desired economies of scale collectively and individually
- Provide free of charge: Infrastructure, initial agricultural inputs, 3+ years training and supervision
- Initiate forced savings program (cooperative dues) with the first harvest
- Teach intensive, market-based farming techniques:
  - Grow crops 12 months of the year
  - Identify 6-10 high value vegetables and fruits
  - Grow counter-seasonally and store post-harvest for maximum income

Current Implementation: 10 villages in Niger
A traditional rural village and first FOF pilot site

In 2007, 35 women were organized into a cooperative; given a small tree nursery, vegetable garden, and intensive training

Results from an FOF internal study 6 years later:

• 32 women remained in the cooperative
• Coop tree nursery had expanded to 20,000 trees (commercial value of $40,000)
• Each member also had a private tree nursery at home

**Estimated income per member: $2,000+ (4X Niger’s average annual income)**

Use of funds:

• All homes improved; many electrified
• 100 children attended secondary school (none prior)
• 7 students enrolled in university
• Women were well dressed; most wearing jewelry; many with cell phones