

Global Development For Humanity

GDfH

Our World, Our Responsibility

Sustainable Economic Uplifting

Through

Agriculture & Irrigation

Country: Afghanistan

Year: 2025

Agenda

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Project Background and Timeline

Project Background
Shakardara, Kabul, Afghanistan – Key Facts/Challenges

Climate Change & Poverty: With a GDP per capita of just US$ 405, Afghanistan ranks among the poorest countries in the world and is also one of the most severely affected by climate change. Around 30 million (75%) of the population of the country depend on agriculture (crops & livestock). Severe droughts now occur almost every year, leading to more than 50–80% loss in farmers' income. Over 20 million (50%) people are acutely food-insecure, highlighting extreme vulnerability to price fluctuations. Drought-induced crop failures drive price increases of **30–40%.**

Child Malnutrition: Approximately 3.5 million children—more than 50%—under five suffer from acute malnutrition, while 33% suffer from chronic malnutrition.

The primary drivers of poverty and malnutrition in the country include climate change, inadequate agricultural infrastructure, lack of storage and processing facilities, four decades of armed conflict, and reduction in aid in recent years.

Global Development For Humanity (GDfH) empowers self-reliance in communities through sustainable income-generating and production-enhancing projects, with proceeds partially reinvested in effective social development programs.





Project Background
Project Concept and Objectives

This greenhouse pilot project in **Shakardarh Distrikt**, **Kabul, Afghanistan** was designed and continues to:

- Enhance economic development through production and income generation
- Strengthen the capacity of the local community through know-how transfer and technical advisory
- Promote environmental protection and sustainable irrigation practices

The greenhouse was built on land with a total area of 400 sqm. Global Development for Humanity (GDfH) provided the farmer with high-quality agricultural inputs—including paulownia rootstocks, fertilizers, pesticides, and water-supply equipment—together with ongoing training, technical advisory services, and supervision. The total project budget amounted to US$ 4,230, fully financed by GDfH.

The project supported the shown sustainable development goals defined by the United Nations.





Project Timeline and Activity Plan

#	Pilot Project Timeline	March				April				Mai				June				July					August			
		10	11	12	13	14	15	16	17	18	19	20	22	23	24	25	26	27	28	29	30	31	32	33	34	35
	Key Implementation Milestones (March to August 2025)																									
1	Greenhouse selection, ground preparaton, and foundation laying																									
2	Installation of frame and structural supports																									
3	Application of plastic film for light and insulation																									
4	Set up drip irrigation system for watering plants																									
5	Planting of paulownia rootstocks inside the grenhouse.																									
6	Adaptation of cuttings to the environment; early root and shoot development																									
7	Monitoring and controlling stem growth under greenhouse conditions																									
8	Managing the growth phase, with paulownia plants reaching 3-4 meters of height and strong development																									

Implementation Phases

Phase 1: Stakeholder Meeting and Survey of the Land

Stakeholder Engagement

To ensure inclusiveness of the community, a series of focus group discussions and consultation sessions with the local community members and farmers were carried out to select appropriate greenhouse sites.

Land Survey

A land survey was carried out to assess the suitability for planting paulownia trees in the greenhouse. The total greenhouse area was measured and marked to facilitate proper leveling and construction.









Phase 2: Laying of Slabs for Construction of the Greenhouse

Consultation with Professional Firms

For the feasibility of planting/cultivating paulownia trees under the local conditions and resources a series of consultations were held with local experts and the professional agricultural company *Almas Sabz*.

Construction of the Base

Steel slabs with concrete were placed to form a solid, durable foundation, ensuring the greenhouse's structural stability and long-term sustainability.









Phase 3: Land Leveling and Preparation for Planting

Land Preparation

A combination of tractor work and manual labor was used to level and prepare the land for planting, with machinery ensuring efficiency and precision in soil grading.






Phase 4: Construction Phase

Assembly of Structure

The steel frame and support pillars were assembled and secured by skilled craftsmen, then reinforced and aligned to ensure stability. In the final stage, protective plastic sheeting was installed, completing the greenhouse and establishing a controlled environment for successful planting and cultivation.





Technical Advisory

Ongoing supervision and guidance were provided to workers during the construction of the greenhouse.



Phase 5: Soil Beds, Irrigation, and Sprouting

Soil Preparation and Irrigation

The soil beds were carefully prepared and shaped into neat rows, creating the right conditions for planting and efficient irrigation.

Irrigation pipes were laid between the rows, completing the setup and making the greenhouse ready for cultivation.

Germination and Sprouting

A total of 3,200 Paulownia rootstocks were planted, of which approximately 3,000 healthy plants sprouted evenly along the irrigated rows. This initial outcome marks the first clear evidence of project success and sustainable growth.









Phase 6: Growth and Development

Growth Phase

The plants developed into dense, healthy vegetation, demonstrating the effectiveness of the controlled environment. Their vigorous leaf structure and uniform coverage reflected strong growth progress.

Supervision

Throughout the project, continuous supervision and technical guidance were provided to mitigate potential issues and ensure the successful implementation of the greenhouse initiative.









Project’s Impact on Production, Employment, and Income

Total Production, Revenue and Partnership Model



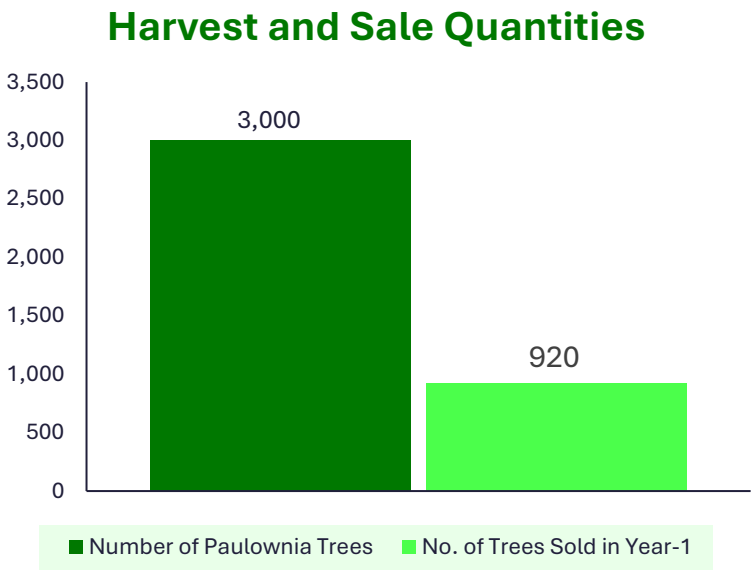
During Year 1, approximately 3,000–3,200 paulownia saplings were grown. Due to technical and climatic reasons, the output in the first year was lower than expected. A total of 920 saplings were successfully sold at 40 AFN per sapling. This generated Year 1 revenue of approximately US$566.

The project was agreed between **GDfH** and the farmer, **Mr. Zahoor**, under the following partnership model:

I. For the first five years, GDfH will receive 25% of the total annual revenues which will be reinvested into other sustainable development projects. From year six onwards, the entire revenue will belong to Mr. Zahoor.

II. If necessary, GDfH will allocate* 15-35% of the revenue collected from the project annually for maintenance costs over a five-year period to ensure the project operates smoothly.

III. The farmer is responsible for the operation management of the greenhouse.

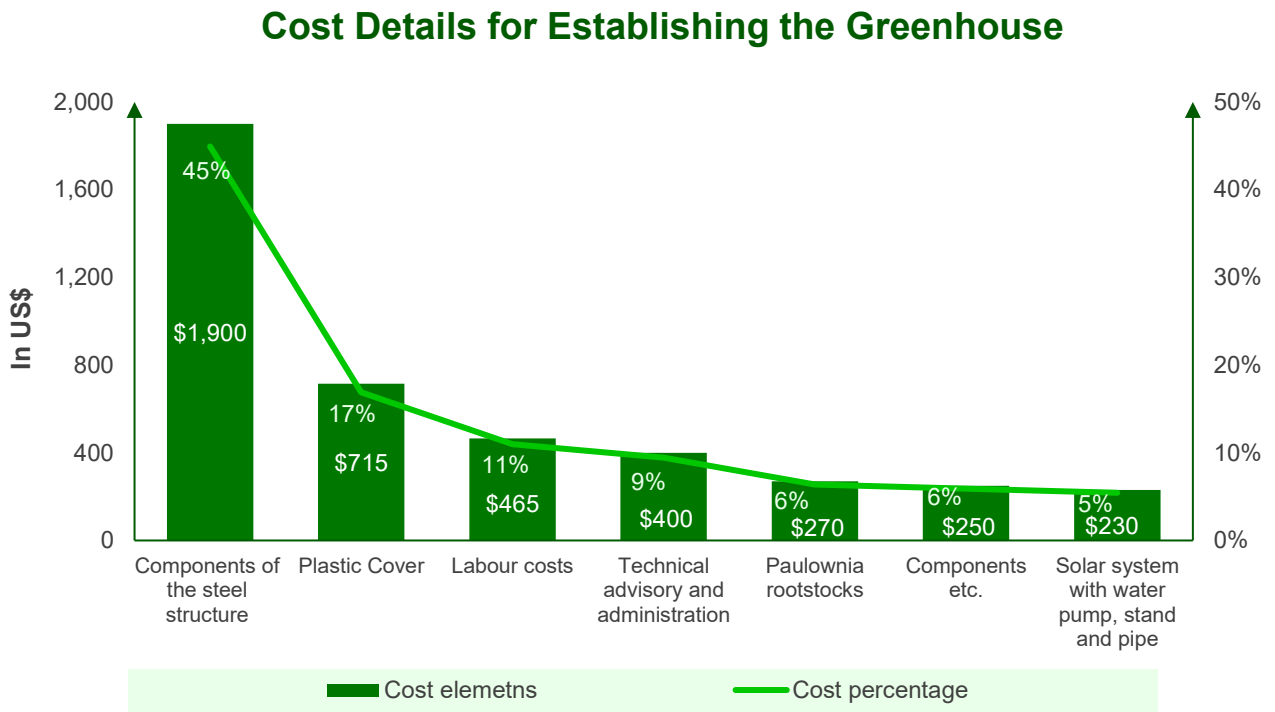


* Actual Year-1 operating costs amounted to approximately US$86 and were covered directly by GDfH. Future maintenance support will be provided as required during the five-year partnership period.

Total Project Costs

The total project cost amounted to US$ 4,230.

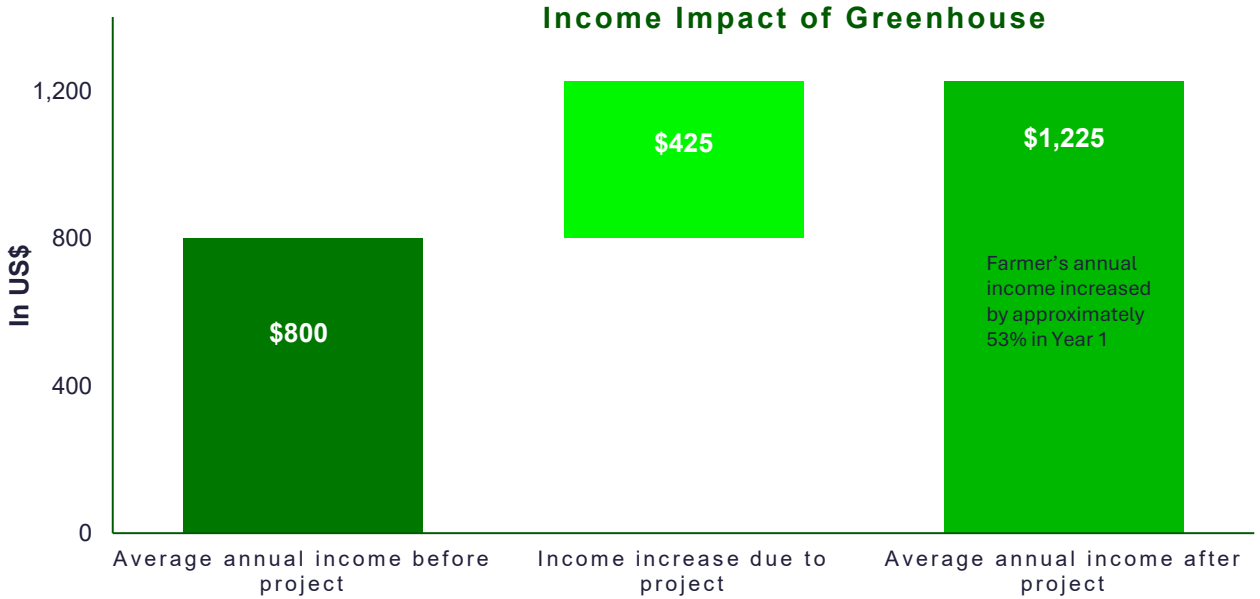
The largest cost component was the steel structure, which accounted for US$ 1,900 (45%) of the total costs.



Total Generated Net Income and Assets

Prior to the pilot project, the farmer's average annual income was US$800. Actual Year-1 project income retained by the farmer amounted to approximately US$425, increasing total annual income to approximately US$1,225, equivalent to a 53% increase.

Net Income Impact	US$
Year-1 project revenue	566
GDfH 25% revenue share	-142
Year-1 operating costs paid by GDfH	86
Year-1 project net income	**425**



From year six onward, assuming Year-1 revenue and operating-cost levels continue, the farmer would retain approximately US$480 in annual project income, increasing total annual income to approximately US$1,280.

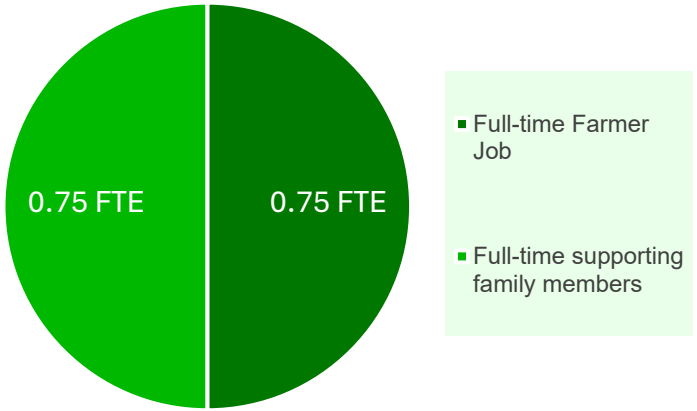
Total Employment Impact

The project created a total of 3.5 full-time jobs during its implementation phase, which included 2 craftsmen and 1.5 farmers.

The **long-term employment impact** amounts to **1.5 full-time equivalent (FTE) jobs**, comprising:

- **0.75 FTE** (30 hours/week) for the farmer, and
- **0.75 FTE** for supporting family members.

Long-Term Jobs Created



Overall Project Achievements

Approximately 3,000 paulownia plants grew successfully in the greenhouse

Paulownia trees have the potential to sequester approximately 20–30 kg of CO_2 per tree annually.

Sustainable irrigation applied, know-how transferred, and 1.5 full-time jobs created

Tested a scalable and sustainable model for economic and social development

The potential for economic improvement is significant. Actual Year-1 project income increased the farmer's annual income by US$425, or about 53%.

The project supported the following key sustainable development goals defined by the United Nations.



Contact

Join the Mission of Global Development For Humanity

Together, we can create a progressive world we can be proud of

Support

Contribute to our projects
to expand our impact

Partner

Collaborate with us to
promote a progressive world

Advocate

Spread the message to
increase awareness

Get in Touch

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Thank You!

We Sincerely Appreciate Your Attention and Interest in Our Operations

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