



# Productive Use of Renewable Energies [PURE] in Badakhshan, NE-Afghanistan

GTZ Renewable Energy Supply for Rural Areas (ESRA)

By Oliver J. Haas





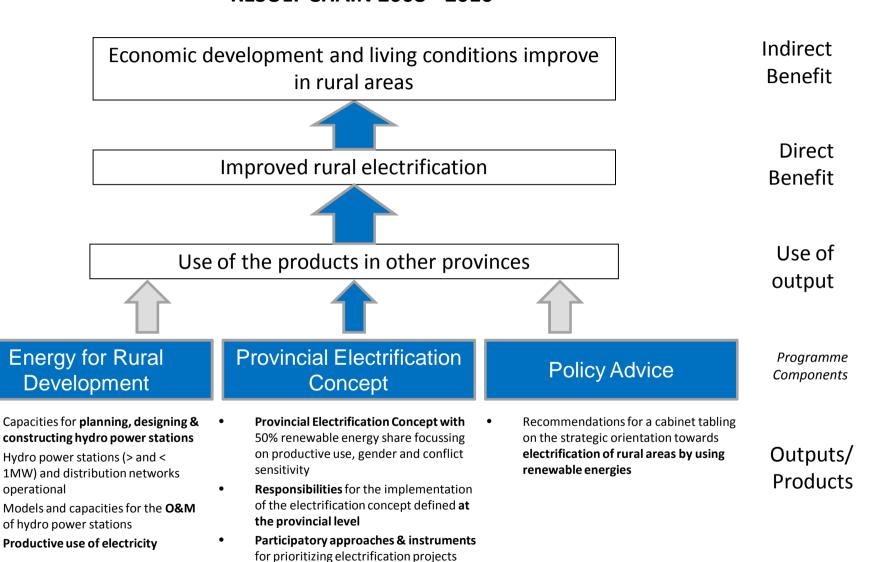
## **Topics**



- Background to the programme
- What is PURE and why we do PURE promotion?
- Experiences and lessons learnt 2008 2010
- The new approach and new challenges

# GTZ Energy Programme Afghanistan - Renewable Energy Supply for Rural Areas (ESRA) RESULT CHAIN 2008 - 2010

Capacities for implementing participatory planning processes





## **Developed Products 1: Power stations**







## **Developed Products 2: Power station + Operator**





## **Developed Products 3: PURE**







### What is PURE?



 Utilizing (electric) energy from local renewable sources for employment and income generation.

#### **How works PURE?**

- It **increases the use** (benefit / impact) of rural electrification at the target group level through enhanced economic activities.
- It increases the sustainability of off-grid power systems through higher income of both user and power producers.
- It's mean and end of rural electrification coming along with multiple benefits in terms of health, education, information etc.; In short: rural development.

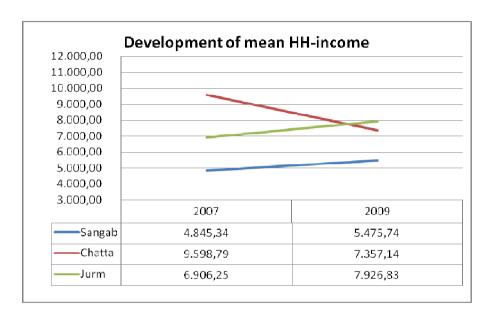


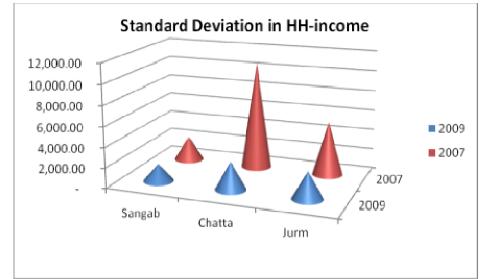


# Why PURE? –







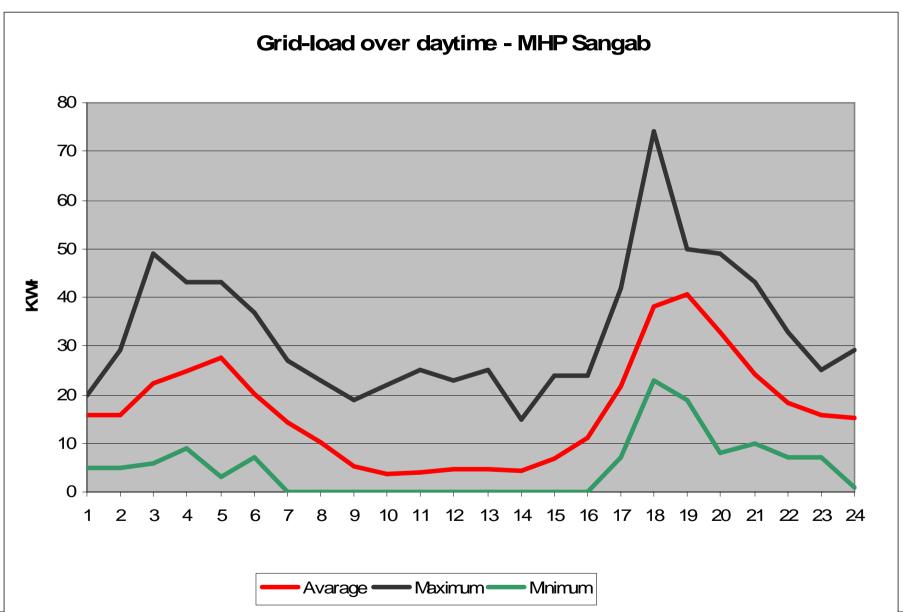






# Why PURE ? – 2. To increase the plant factor







## **Early experiences**



#### Creating awareness and capacities

- Gatherings and information exchange / distribution
- CEFE business trainings
- Consultancy and exposure trips
- Innovative pilot start-ups





## Awareness creation, Business development services



Gathering and Information



Business trainings



- Counseling and
- Monitoring







## **Example: Promotion of the oil-press Sangab**











### What were our experiences?



- We initiated successful business creations but it <u>absorbed</u> a relatively large share of <u>our own capacities</u>.
- We were sometimes not at the <u>right place</u>.
- Our approach <u>did often not address the practical needs</u> of the peoples.
  - » Practical questions were not systematically addressed.
  - » Too less attention to long term agribusiness development.
- As an energy project, our mission is broad and inclusive rural development by the means of rural electrification.
- The "corporate culture" of our partners (electricity utilities, Ministry for Energy and Water, power producers) is focused on technical solutions.



#### What did we learn?



#### Focusing on the mandate

- Rural electrification as a catalyst to rural development
  - » Where are potentials?
  - » Sustainable Outreach counts: Means-end analysis of promotion activates
  - "Push" on energy "pull" on markets

#### Understanding the users

- Basic capacity development needs shall be addressed first:
  - » Safe and efficient use promotion
  - » Focus on typical micro-businesses
  - » Agribusinesses (irrigation, cold-stroage, drying etc.)

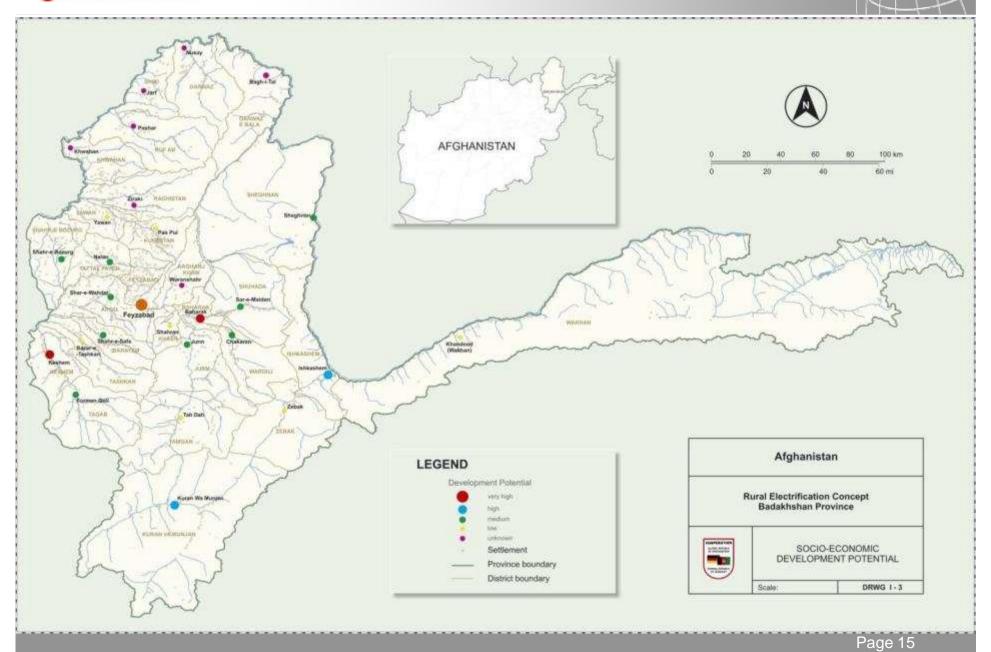
#### Using corporate cultures

- Resources for technical solutions for micro business are available at your partners level.
- Find new partners for more larger or more complex promotion activities





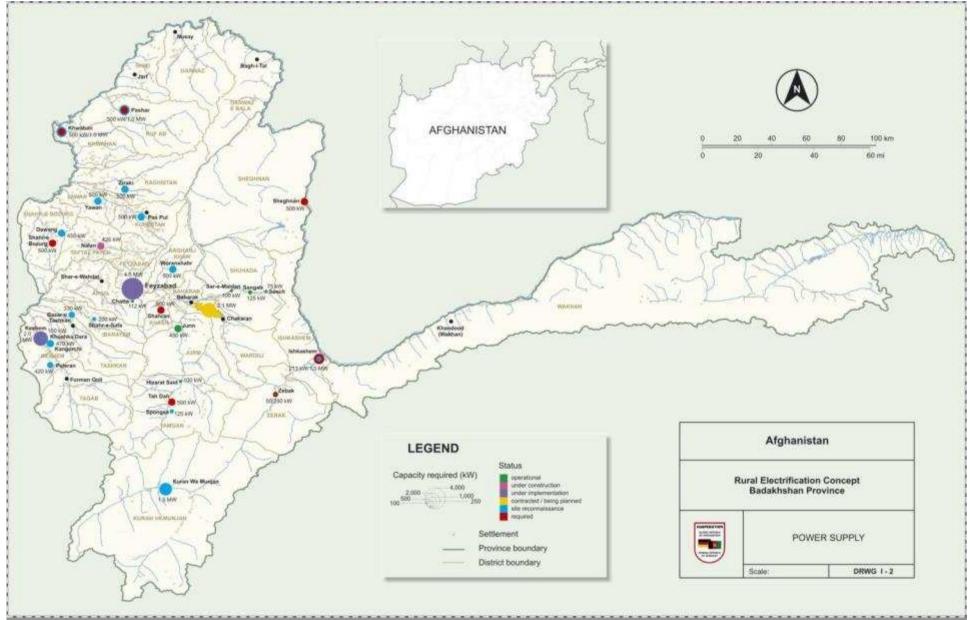
## **Energy Planning: Socio-economic potentials**



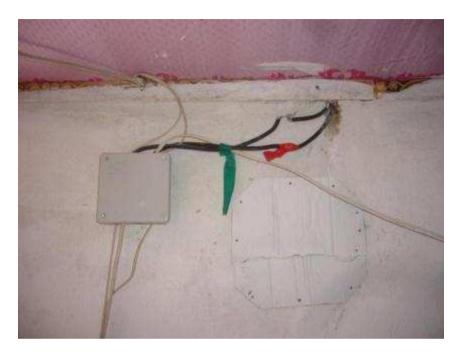


## **Energy Planning: Prioritised sites**





## Needs / essential shortages of the capacity of consumers











## ToT for operators, training for users etc.













# Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH Substitution of Gen-Sets













#### **Gen-set substitution**





- Standards installations for typical businesses (meters, starter, sockets)
- Advise and assistance in the installation (fixing, belts etc.) of the motor





## **Learning with micro enterprises**







## **Electrification of micro businesses**











# Innovation of new businesses – PURE enterprise creation



Gathering and Information



Business trainings



- Counseling and
- Monitoring







### **Enhancement of services**











# Finding value add options in agri-businesses and cooperating with new partners











### **PURE** is an holistic approach



#### Holistic approach

- 1. Energy planning based on productive demands
- 2. Implementation of quality electricity supply systems with the participation of the local economy
- 3. Using an operation model providing the right incentives
- 4. Addressing the basic needs of consumers
- 5. Addressing the **basic needs of micro businesses** in cooperation with the operators
- 6. Cooperation with other Ministries, promotion programmes in order to promote value chains and larger agri-businesses

» Stay close to the core processes!





#### Contact to GTZ ESRA / INTEGRATION e&e



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