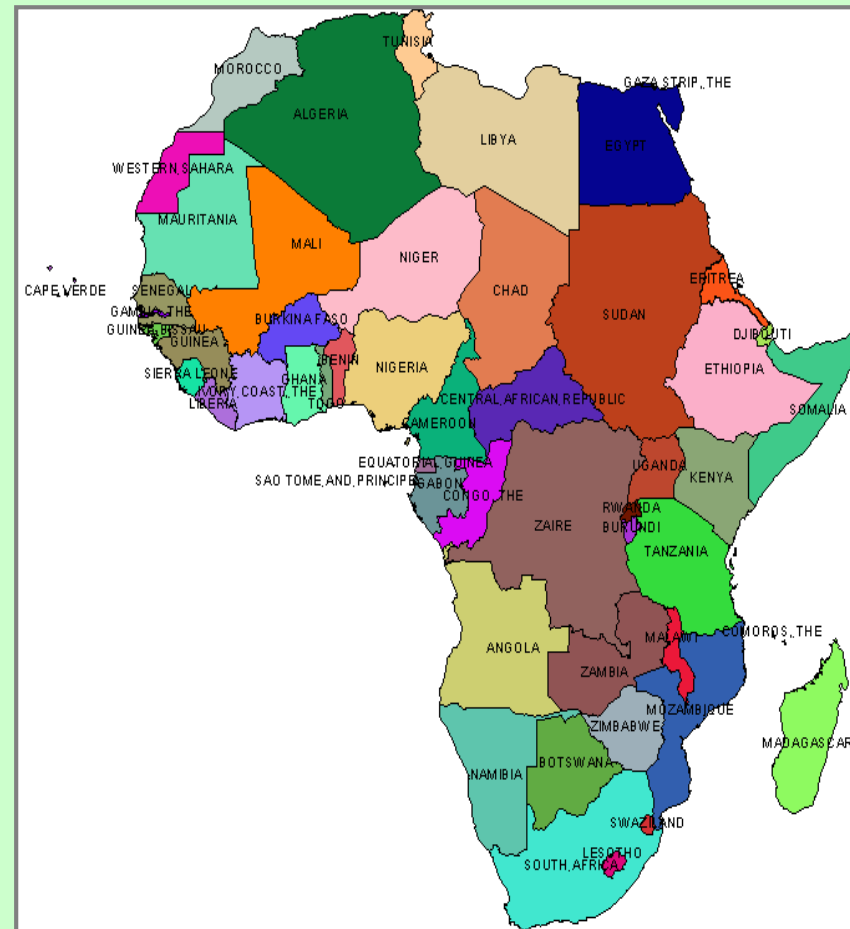


BIOGAS AND SANITATION INITIATIVE FOR AFRICA

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1 Efforts, Success and Failure Factors?



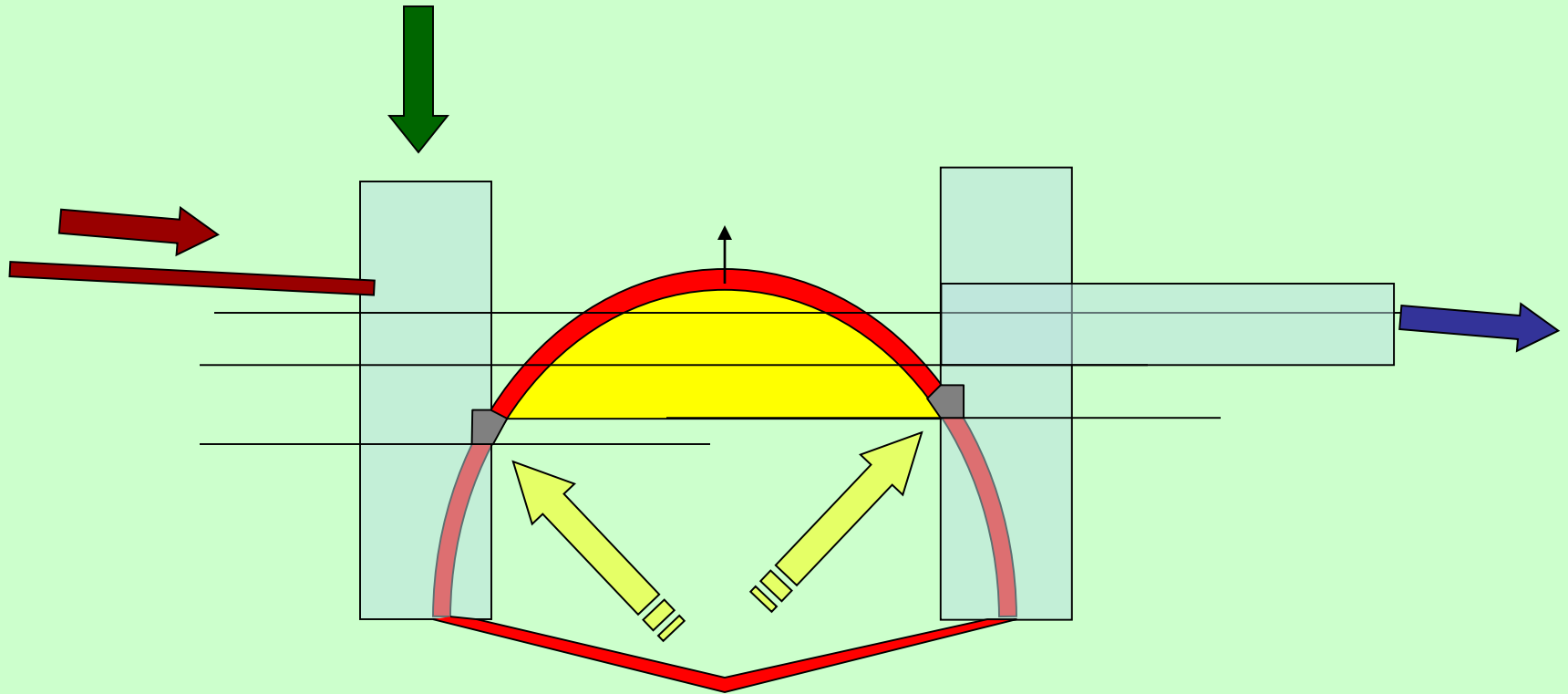
Efforts

- 1.1 50ies and 60ies single private initiatives (Hatchinson, Kenya)
- 1.2 70ies: South –South Cooperation, Chinese and Indian experts
- 1.3 Governmental orgnizations, and Universities picked up from there, but gave up after a while
(Tanzania (AATP), Botswana (RIIC), Ghana, Kenya)
- 1.4 First GTZ initiatives in Kameran and Sudan
- 1.5 80ies, GATE/GTZ Extension Programme and Special energy Programme: Burkina Faso, Burundi, Mali, Kenya, Tanzania
- 1.6 Late 80ies: Morocco, Tunesia

Success Factors

- Adaptation, Fine-tuning and Standardization of Technology
- Interdisciplinary approach
- One technology (fixed dome)
- Capacitate Private Sector
- Thorough Training and Follow up
- Biogas Unit Approach (Stable connection and slurry utilization are part of the package)
- Concentration on suited Areas (0-grazing)
- Demand creation – Demand orientation

Biodigester for Wastewater Treatment



Failure Factors

- South – South cooperation was technical, supply approach (Technology was understood as simple)
- Large role in the hand of Government
- Supply side approach
- Subsidies given without long term commitment for financial support
- Low cost energy (still) available
- Programmes too short
- Weak communication among projects in different countries

2 What and where is the technical and/or market potential of biogas in Africa?

- 0-grazing
- Heifer Projects
- Periurban Areas
- High population density
- Sewage disposal (where sewage is a problem)
- High cost on energy

3 Which conditions need to be fulfilled for the successful introduction of large-scale biogas programs in Africa?

- Clear role definition
(Government, NGOs, Private Sector)
- Financial support
- Define two pilot countries
- Holistic approach
- Networking
- International training course to be established (Frankophone and Anglophone)

4 Which necessary actions are required (by whom) to set-up and implement programs on domestic biogas in Africa?

- Long term subsidy strategy
- Commitment of Governments
- Request from Government to donor community for support
- Intensive and regular networking
- Government not as implementer
- Holistic approach
- Capacitating of masons and companies

Warum greifen DGIS und SNV Biogas in Afrika wieder auf?

- Toller Erfolg mit Haushaltsbiogasanlagen in Nepal.
- Nachfrage anderer asiatischer Laender
- Nachfrage aus afrikanischen Laendern: Ruanda, Ethiopia, Senegal, Tanzania
- Zielsetzung: Energie fuer 10 mio Menschen in laendlichen Gebieten

Erster Schritt

- Biogas and Sanitation Initiative for Africa
- DGIS Entscheidungstraeger
- Implementierungsorganisationen
- Consultants
- Local capacities

2 Tage (in Amsterdam)

1. Austausch
2. Analyse
3. Schlussfolgerungen
4. Diskussion der weiteren Vorgehensweise

- Identifizierung der *guiding principles*
(*based on lessons learned*)
- *Action for the Initiative (Biogas for Africa)*

Criteria, where to conduct a feasibility study

Red question marks indicate differences to the practices in 1983-1991 GTZ Projects

Short term potential for 10- 20 000 biogas plants...a target that can be reached within 5 years (?)

- Where clusters of 20 to 25 digesters can be built (?)
- Existence of strong national demand/commitment (Governments blessing)

Guiding Principles

- Opportunity (start with best conditions)
- Identify first phase countries
- Countries decide by being asked the right questions
- Donor money is seed money.
- In the long run dissemination will continue in a market driven form.

GUIDING PRINCIPLES

1. **Social Factors**

- Ensure participation of women on all levels
- Established rural household with some cash income are target group
- Consider ownership/land rights on land and household
- Consider improvement of environment and health
- Favourable social/ cultural factors
- Improve agricultural production

2. Market condition

- High prices on fuel wood (?)
- High prices of alternative cooking fuels
- Effective private sector (?)
- Demand for the services delivered by the technology (energy, hygiene, health, fertilizer)
- Develop a marketing and awareness creation strategy (?)

3. Financial/Economic

- Transparent and direct subsidy (as directly as possible to the end-user and linked to quality control) (?)
- Equity (contribution from own funds in cash and/or kind/ initial investment by household) about 10% (?)
- Credit availability (at affordable rates, with or without collateral through MFI) (?)

4. Technical Resource Factor

- Single, standardised design with different sizes (that meet the local needs and condition) - fixed dome design
- Availability of biogas system components (valves, stoves, lamps...at low cost)
- Availability of after sale service

4. Institutional Factors

1. Effective institutional framework in the country:
 - who is going to house the initiative (Govt., NGO, private sector) ?

2. Product related:
 - Effective agric. extension system (incl. NGOs, private sector + Govt.)
 - Credit institutions
 - Private sector

5. Political Factors

- Endorsement by relevant government agency (not for feasibility but in preparation for implementation)
- Linking up with existing policy framework in energy, health, agriculture and sanitation

(?)

6. Additional Remarks

- Scope for Institutional biogas plants
- Monitoring and evaluation of national programs
- Involvement of organized women groups in country preparations (?)
- Establishment of BANG (Biogas Action Network Group) (?)

TIMELINE

1. Desk study – TOR feasibility study
10 days
2. Feasibility study – report, draft Lol
- outline budget
125 days
20 000 Eur
3. Formulation implementation plan
– Implementation plan – MoU
120 days
120 days partners
20 000 Eur

PROPOSED ACTIONS BY GROUP MEMBERS

E&CO

Enterprise development

PA (Practical Action) Country preparations

- Botswana
- Kenya
- Lesotho
- Mozambique
- Swaziland
- Tanzania
- Uganda
- Zambia
- Zimbabwe

PROPOSED ACTIONS BY GROUP MEMBERS

Kai Sonder

- Consolidation of paper by Felix
- Country specific datasets for feasibility studies
- ILRI/IITA research outputs for integration of BIOGAS
e.g. feed resources, soil fertility, livestock breeds

IRG

- Micro-enterprises development
- Partnering with USAID activities
- Support to program development

PROPOSED ACTIONS BY GROUP MEMBERS

WINROCK

- Country preparations
- Kenya, Tanzania, Uganda, Nigeria, Ghana
- General support to the INITIATIVE

UEMOA

- Feasibility study by consultant on domestic and
- Institutional biogas plants in 8 countries (Frankophone)

BSP Nepal

- Sharing knowledge, field visits
- Technology transfer

PROPOSED ACTIONS BY GROUP MEMBERS

DGIS

- Organisation of current workshop
- Formalization of initiative, facilitation to attract additional sponsors, to create political support

SNV

- Disclosing knowledge and experience from ASIA Regional programme
- Implementation of BIOGAS programs **Rwanda** and **Ethiopia**
- Country preparations in 1-3 additional countries
- Active role in Knowledge network

PROPOSED ACTIONS BY GROUP MEMBERS

- KfW and GTZ have not been represented in this brainstorming exercise.

Medium Term Actions of the Initiative, (Brainstorming)

- Suggested Name **Biogas for better Life**
- Establish Website (layout Logo links Content)
- Identify *Ambassador*: Shek Mohbu Diuvia, Mali, (NASA)
- Knowledge Brokering, SNV Biogas Asia
- Press release on the Initiative
- Rwanda Feasibility falls under this initiative
- Formulate the initiative
- Next Meeting May 2007 in East Africa

Medium Term Actions of the Initiative (Brainstorming)

- Light coordination by Wim van Nes, Biogas Asia
- Some documents to be completed by May 2007: lessons learned,
- Innovative ToR for feasibility
- Proposal to Dutch Government when new Minister is in place
- Fund raising by DGIS
- CDM as one funding option – go for it from the onset
- Funding: US MDG funding, Gates foundation, Rockefeller, Rotary, Gas companies
- Flexible fund not via bilateral aid
- Form independent board of 3 people