SNV KENYA

Kenya Market-led Dairy Programme

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SMART DEVELOPMENT WORKS

SNV Kenya Market-led Dairy Programme (KMDP)

Funded by the Embassy of the Kingdom of the Netherlands

Implemented by SNV Kenya

Phase I: July 2012 – December 2016
Phase II: October 2016 – June 2019

SNV works with teams of local and international experts

Agricultural Contracting
&
Commercial Fodder Supply Services

Sharing insights from SNV KMDP supported business models

KMDP – 3R Project Partnership

SNV Kenya Market-led Dairy Programme (KMDP)

Fodder Interventions

a) **SH, MSF and LSF on-farm establishment and preservation of energy and protein rich fodder crops.**

b) **Promotion of ensiling of maize, oats, fodder sorghums, grass**

c) **SH, MSF, LSF pasture management (rotational grazing, cut & carry)**

d) **Commercial Fodder Producers (Hay, Lucerne, Packaged/baled silages: maize, but also scope for grass, fodder sorghum, others**

e) **Agricultural Contracting Services for Dairy Farms (SPEN, Maize & Grass Train)**

Commercial Fodder Supply/Services

- Commercial Fodder Producers
- Agricultural Contracting Services

International expertise:

PUM, Bles Dairies Consultancy, Dejirine Ltd, FIT Ltd, Nundoroto

SPE: Youth-led Service Provider Enterprises

SERVICES PROVIDER ENTERPRISES – SPEs

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SPE: Youth-led Service Provider Enterprises

- **Specialised silage services for the SH farmer**
- **More milk, higher productivity, lower cost price, more profit**
- **Reduced seasonal fluctuations**
- **Linked to Dairy Societies**
- **To date: 29 active SPEs in 6 Counties (160 local youths)**
- **In 2016 12,000 tons silage made worth US$ 50,000**
- **Business is growing and SPE model is being upscaled/replicated**

Cost comparison*:*

1 kg DM maize silage (SPE): KES 16 **(KES 5.3 per kg fresh product)**

1 kg DM hay grass: KES 28 **(1 bale 12 kg @ KES 300)**

1 kg DM dairy meal: KES 33-38

SPE: Youth-led Service Provider Enterprises

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Mechanized Maize & Grass Trains in North Rift

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Maize and Grass Train (1-6 row harvesters)

- **Specialised fodder production & preservation (ensiling) services for SH, MSF, LSFs (KES 13,000/acre; KES 3.0-4.0/kg fresh product; KES 12 per kg DM)**
- **More milk, higher productivity, lower cost price, more profit**
- **Reduced seasonal fluctuations**
- **To date: 3,000 acres ensiled by Nundoroto, Simam, Dejirene Ltd**
- **Turnover US $ 390,000. Worth US$ 1.2 million in ensiled maize**
- **Supply can not any more catch up with demand**

Impact of good silage:

1 Good silage (nutritious value) gives 30 % more milk than poor silage

2 Good silage (palatability) gives 28 % higher DM intake than poor silage

1 + 2 = 43 % more milk

Grass Train

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Multi-Baler for Silages of Maize, Grass, Sorghum

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Baler Solutions: Commercializing Silages

- Production of Highest Quality Fodders for the Market (50 kg – 350 kg) for the SHs, MSFs, LSFs
- No losses, high compaction, long shelf life (Strategic Fodder Reserve !)
- More milk, higher productivity, lower cost price, more profit
- Reduced seasonal fluctuations in fodder and milk supply
- 2015: Pilot Gogar Farm (50 kg bales), 2017: Pilot Agventure Group (50 kgs fodder sorghum), 2017/18: Pilot F.I.T. Ltd Agronic Multi Baler (350 kgs). The larger the bales the better compaction and quality
- Proof of concept (feasibility study shows commercial viability for both 50 and 350 kg bales)

Baler Solutions: Commercializing Silages

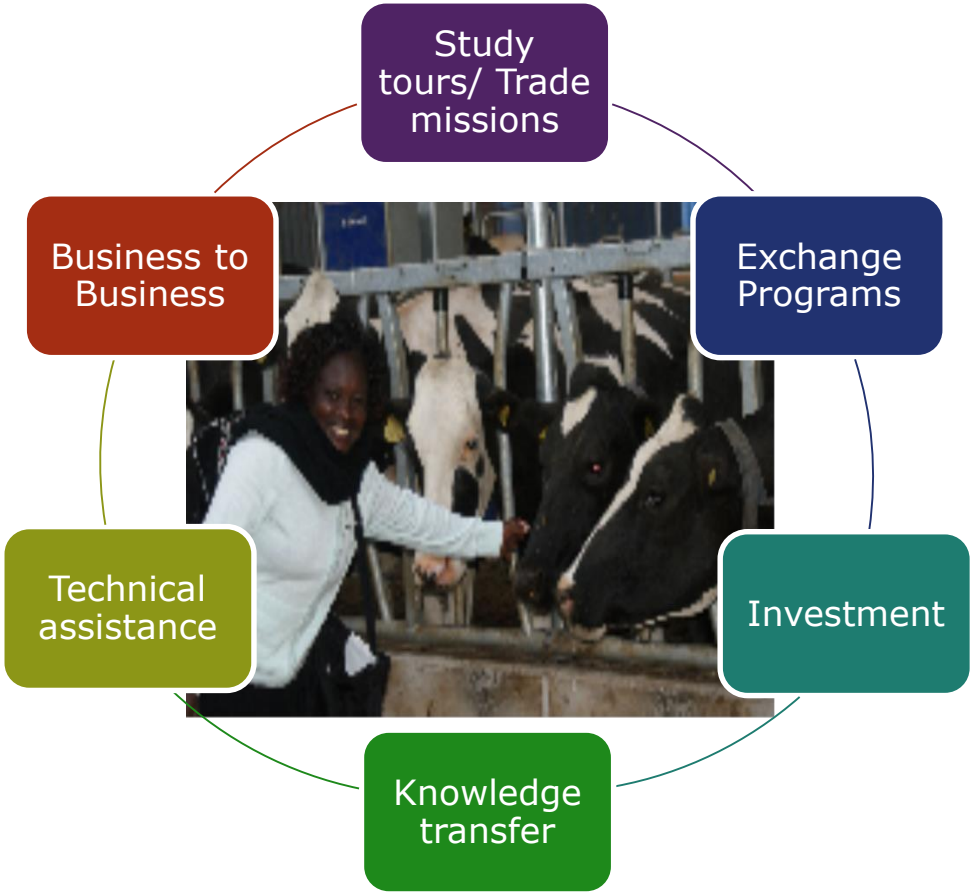
- Price Baled Maize silage KES 10-12 per kg fresh = KES 30-36/kg DM
- Approx OMd: 70-80% - Metabolic Energy 11 MJ – Net Energy 6.3 MJ

- Price Hay 1 kg DM (14 kgs bale/KES 300) = KES 27
- Price Hay 1 kg DM (14 kgs bale/KES 400) = KES 40
- Approx OMd: 50-60% - Metabolic Energy 7.0 MJ – Net Energy 4.0 MJ

- Price Dairy Meal 1 kg DM = KES 33-38
- Approx OMd: 80-85% - Metabolic Energy 12 MJ – Net Energy 7 MJ

Conclusion: With good quality maize (sorghum, grass) silages to replace hay in the total ration, the farmer can significantly reduce the share of dairy meal in the ration and therefore the cost per litre of milk.
This even applies for baled silages that cost 2-2.5 times more per kg DM than silage from a bunker (SPE, Maize Train)

KMDP: International Linkages & Partnerships for Innovation



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