Review of the ADGGG Project Logic

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Background Terminologies

• Activities:
  - Actions, processes, techniques, tools, events, and technologies of the program.
    - Described with an action word (provide, facilitate, deliver, organize)

• Outputs:
  - The products and services provided that are directly under the control of implementing organization.
    - Outputs are typically expressed as completed (trained, participated, used, funded etc.)

• Results:
  - Outcomes:
    - Short to medium term effects (~ 6 months to 2 years) on the beneficiary populations (targets) resulting from project outputs.
      - Include changes in attitudes, knowledge and skills
      - Indicate observable changes (increased, improved, reduced)
  - Higher-level outcomes/impacts:
    - Long term project goals usually related to overall living standards
      - Typically not under project full control
At the Core of theory of why it will work

Problem: Farmers in Africa not extracting optimum benefits and profits from dairy cows

Output: Process animal data capture are developed and tested

Outcome: DPRCs implement processes for on-farm data capture

Outcome: Dairy farmer recording and Information Centers (DPRCs) operating in Tanzania and Ethiopia, reaching 12,000 farmers in each country by project completion

Development outcome:
- Reduced poverty
- Better household nutrition

Assumptions: Why do you think the change will happen?
Key Project Objectives

- **Objective 1**: Establish National Dairy performance Centers (NDPRs)

- **Objective 2**: Establishing an on-farm information and communication (ICT; digital) platform to capture data and deliver management information to farmers

- **Objective 3**: Identification and certification of crossbred bulls for artificial insemination and on-farm breeding of crossbred cows
1.1.1: Most appropriate institutions and individuals to develop and operate DPRCs in each country are identified.

1.2.1: Process for data and animal data capture are developed and tested.

1.2.2: Processes for generic analysis and ranking of bulls and cows are developed and tested.

1.2.3: Information and training modules to be provided to farmers through digital platforms are developed and packaged.

1.3.1: Enumerators and field staff trained to capture data and assist farmers in each country.

1.4.1: DPRC staff are trained and mentored to operate data capture, quality processing and analysis.

1.5.1: Sustainable business models are developed with DPRCs for each country.
Objective 2: Establishing an on-farm information and communication (ICT; digital) platform to capture data and deliver management information to farmers

Primary Outcomes

Immediate Outcomes

2.1: Business models for the full data capture and farmer information systems demonstrated and models ready to implement for expansion of systems to national scale.

2.2: GDT's iCow and other service providers adopt use of information gathered by the DPRCs to deliver improved information systems to farmers.

2.3: Business models for the full data capture and farmer information systems demonstrated and models ready to implement for expansion of systems to national scale.

Outputs

2.1.1: Starting from existing iCow model, enhanced information capture and feedback to farmer is developed and tested.

2.2.1: Farmer feedback system is adapted to utilise information gathered by the DPRCs to deliver improved feedback systems to farmers.

2.2.3: Farmers are trained or otherwise facilitated to access and benefit from the feedback system.

2.3.1: Value of feedback to farmers demonstrated through farmer adoption and objective assessment of improved productivity.

2.3.2: Financial models of cost and income sharing, including use of government funding where required, and income generation through bundled service delivery, evaluated.
### Objective 3: Identification and certification of crossbred bulls for artificial insemination and on-farm breeding of crossbred cows

#### 3: Genetic improvement programs
Based on selected superior crossbred bulls for planned natural mating and AI demonstrated in pilot scale and ready to expand to national scale in Tanzania and Ethiopia.

#### Immediate Outcomes

**3.1: Business models for certification of natural mating bulls ready for large-scale application**

- 3.1.1: Low-density SNP assay(s) developed and tested for estimating breed composition and pedigree assignment
- 3.1.2: Field trials of natural mating bull certification based on breed composition, including outreach with farmers and evaluation of adoption.

**3.2: Systems for generating estimated breeding values and for selection of crossbred bulls to enter AI programs are tested and ready to apply**

- 3.2.1: Data capture and quality assessment procedures developed and tested
- 3.2.2: Genetic structure of the sampled populations is assessed and implications for genetic improvement programs in near term is determined.
- 3.2.3: Pilot draft of young bulls into AI stations and delivery of their semen through AI

- 3.2.4: The achieved accuracy for different models of pedigree, phenotype and genotype data collection is assessed

**3.3: Short, medium and longer-term options for sustainable genetic improvement programs most relevant to smallholders are assessed and recommendations available.**

- 3.3.1: Based on existing information, alternative models of testing and selection of crossbred and bulls developed and tested.
- 3.3.2: Based on results available from the project, models refined and recommendations made for cost-effective systems.
Group Work Questions

1. Is it clear what these outputs are?
2. Do we still think they are achievable?
3. Are there gaps, if yes, what are they?