Generating carbon credits through dairy productivity gains

A concept for a pilot project

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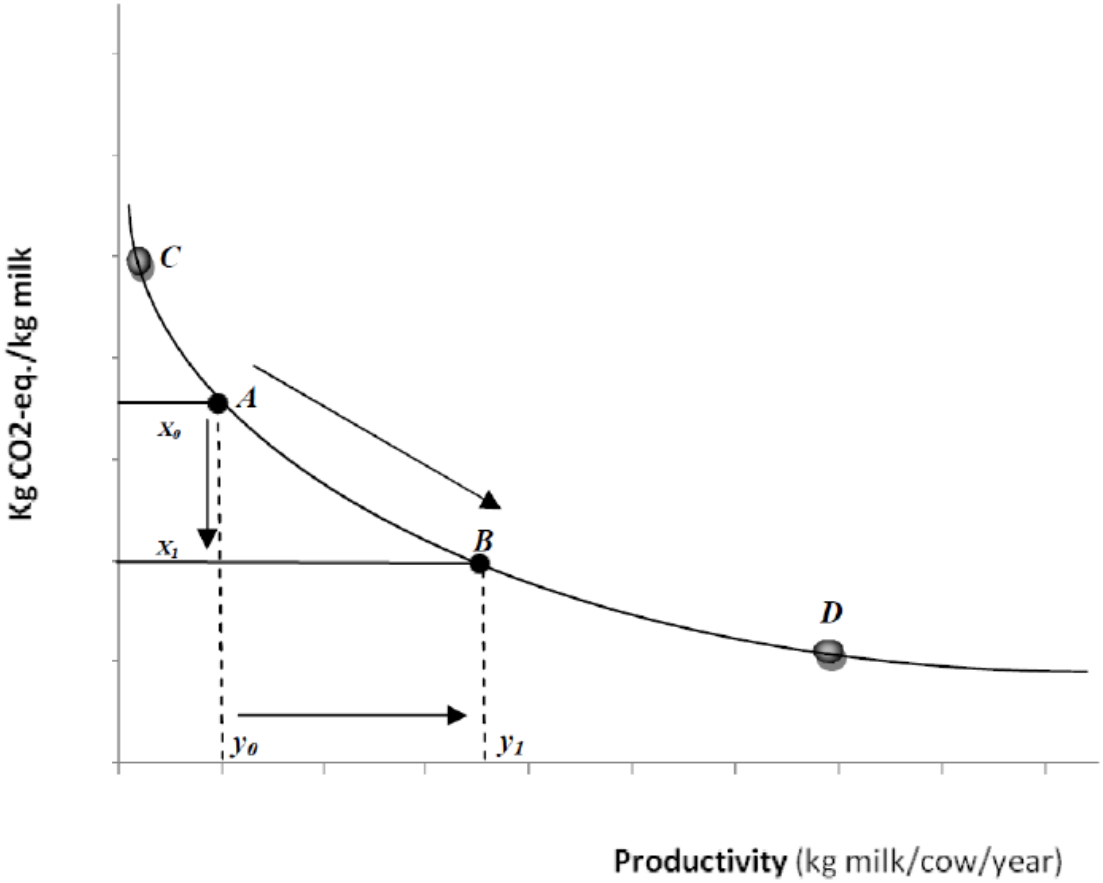
The underlying Concept



Move from A to B: improve productivity and generate Carbon credits

Objective

- Test and demonstrate the potential for linking reductions in emission intensity in dairy production achieved through productivity gains to carbon credit mechanisms

What, where, why, how

What (focus)

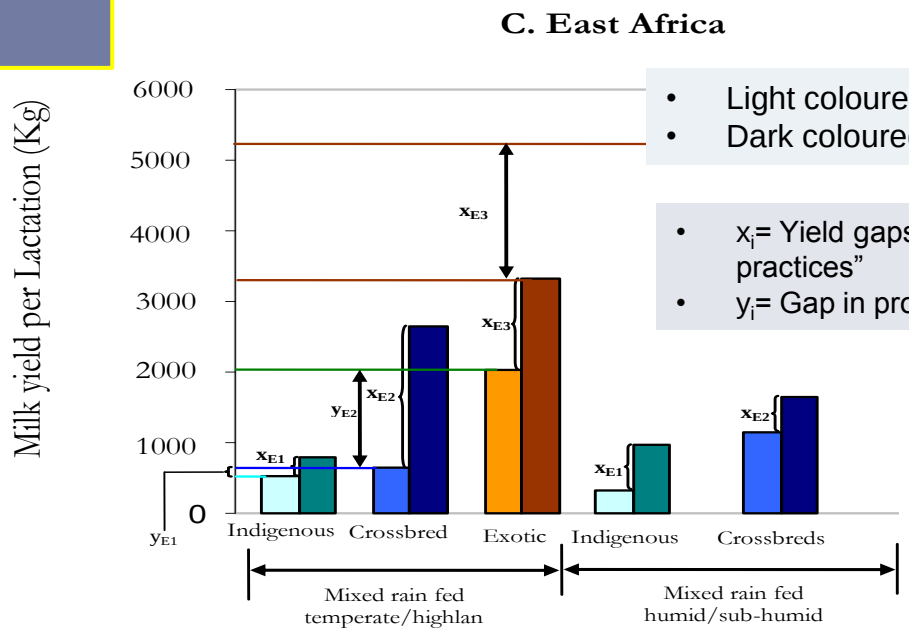
•Development of **certified methodology** to link productivity gains to reductions in GHG emission intensity
• Development of **financing mechanism** to fund technical interventions – carbon credit

Where

• Focus: smallholder dairy production
• Targeting: Producers within a range of 500-2500kg milk/year
• Site pre-selection - Kenya

Why

•Yield gap to exploit



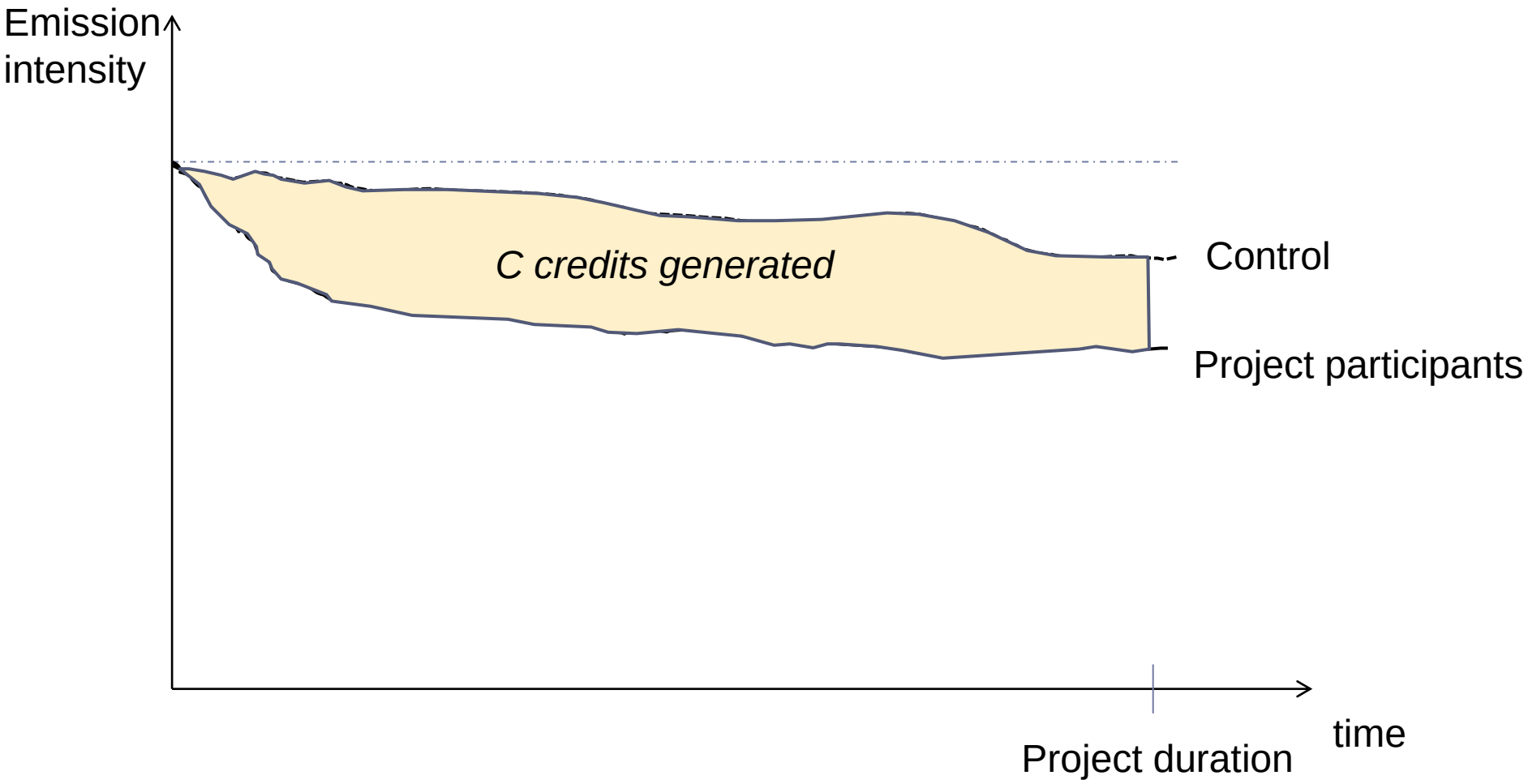
- Light coloured bars = Minimum production
- Dark coloured bars = Maximum production

- x_i= Yield gaps due to "animal husbandry practices"
- y_i= Gap in productivity due to "genotype"

How

• Facilitating transfer of existing technology/know-how
• Speed-up adoption through carbon finance mechanisms

Design


Emission intensity
C credits generated
Control
Project participants
time
Project duration

Carbon credit scenario-possible CC revenue

Assumptions:

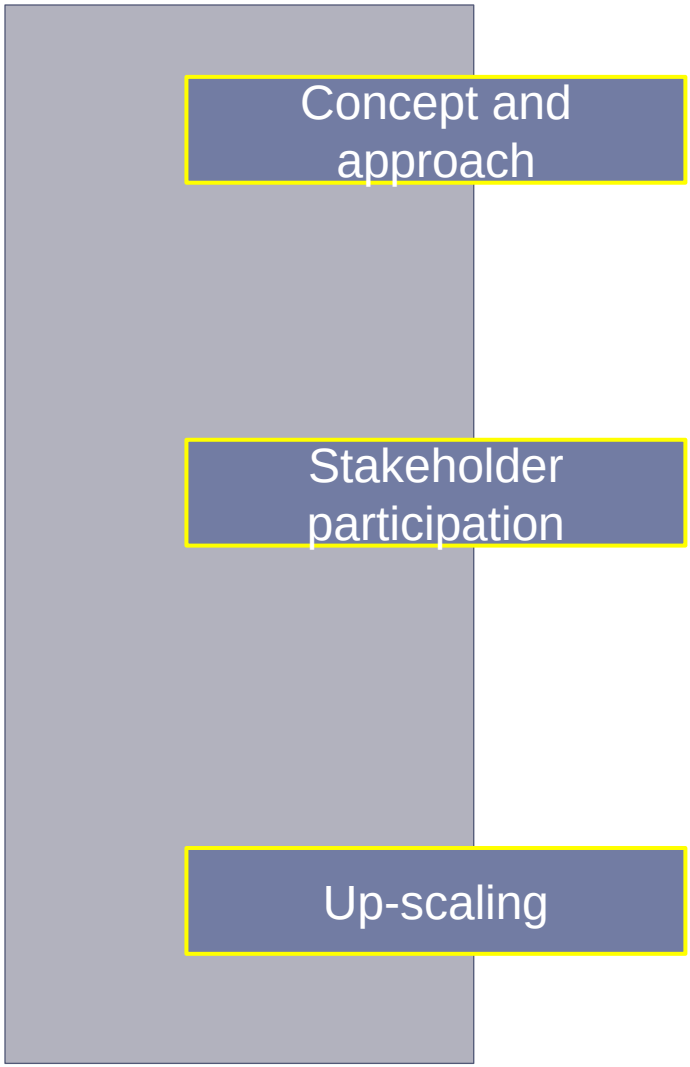
Target volume:
10, 000 ton CO_2e/kg/year

Milk per cow:
1000 litres

Price of credits:
7 US$/ tCO_2e
(conservative)

Emission intensity reduction scenarios	2.5	2.0
Milk volume (liters per year)	4,000,000	5,000,000
Payment US$/year	70,000	70,000
Payment per HH (US$/5 cattle/10 years)	875.0	700.0
Milk income per site (@ .3USD/l)	1,200,000	1,500,000
C credit as % of milk income	5.8%	4.7%

Linkages to Global Agenda of Action



• Thematic area 1: closing the efficiency gap
• Supports the piloting of new concept and generation of knowledge

Broad stakeholder participation

- **Government**: Ministry of livestock development
- **Producer groups**: dairy farmers groups and dairy cooperatives
- **(international) private sector**: Investor and co-designer **Research**: ILRI, Kenyan Agriculture Research Institute
- **International organization**: FAO

• Replication and scalability
• Project based or embedded in National mitigation strategies (NAMA)

Conclusion

- Speed-up technology adoption through financing of mitigation packages
- Benefits to producer accruing from productivity gains: income, food security
- Co-benefits, financing the transition: cc mitigation
- Knowledge generation through “proof of concept” approach