



sustainable
sanitation
design

Value chain components including Secondary Treatment Unit (2nd TU)

1st phase – Business models for scale up in Uganda

The centerpiece of the Sustainable Sanitation Design concept
- Turning human excreta into safe agricultural inputs assuring farmer income

Why sanitation and how do we think?

Sanitation is key in creating better cities and a dignified, healthy life in urban areas.

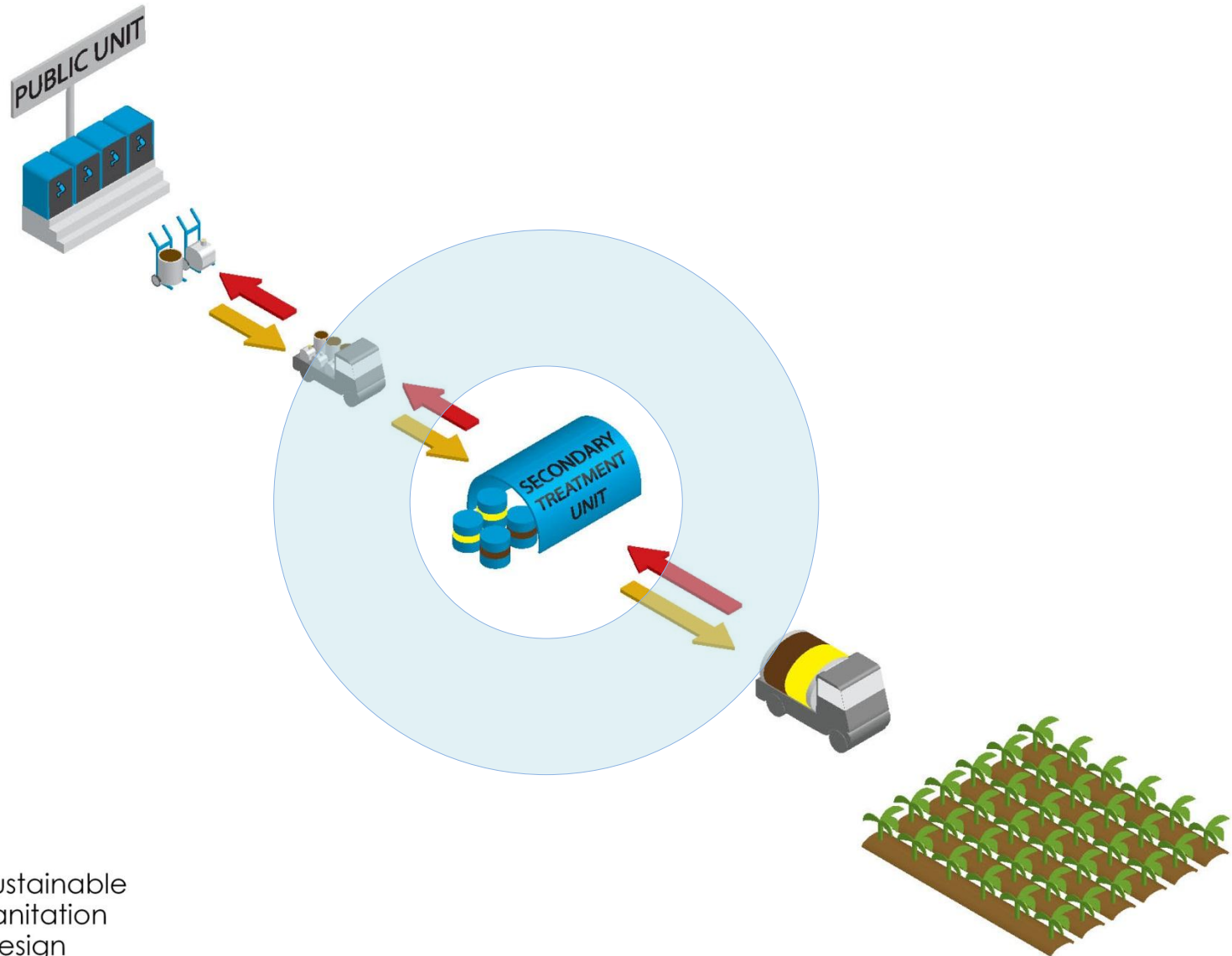
Water volumes add cost to system both in terms of investment cost and running cost.

To create low cost quality sanitation options value chains need to be developed to secure income from the system.

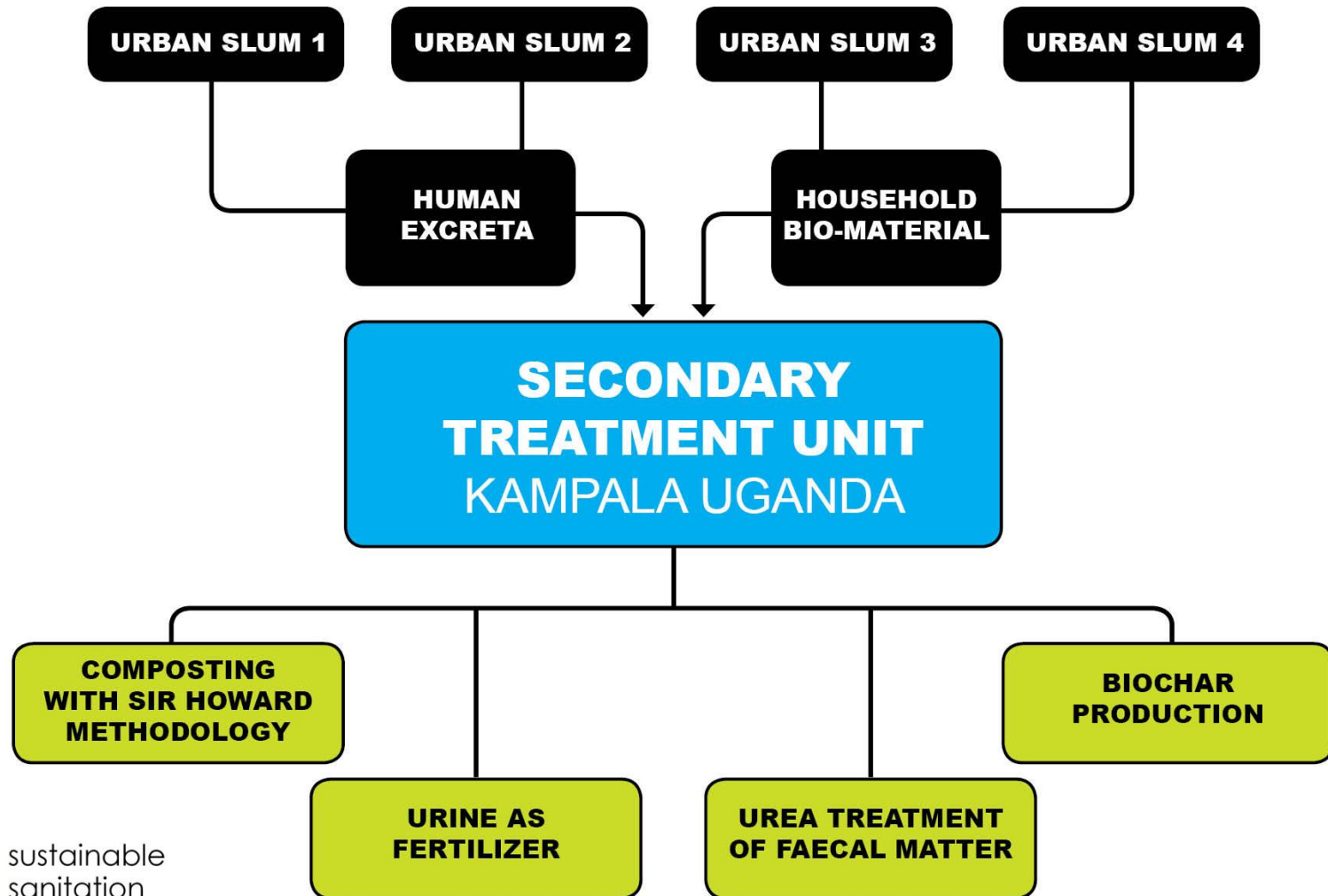
Toilet services, maintenance, collection of bio materials and treatment should be converted to valuable agricultural inputs that can be sold to commercial agriculture



Focus in sub project



Partnership set-up in Kampala



EcoSan and safe use is the future of sanitation, not a step towards water based solutions

*** SuSan Design is a business minded foundation focusing on go to scale solutions**

Advantages for small cities across Uganda if they go directly to productive sanitation

- Incentive based approach for improved management
- Low technical complexity – standard set up of units for low prices & high production quality
- If system is designed correctly - Easy and hygienic logistics all the way from household to farmer
- Income from fertilizer and soil improvement products will help the cities create sanitation for all
- Income generated will finance maintenance, motivate investment and roll out
- Urban areas a comparative advantage with lower collection costs (logistics)
(Rural areas should have other types of sustainable toilets with local treatment on farm level)
- Franchise business or cooperatives assures training, flow of products and the quality assurance
- Will create employment, pride, health and dignity within the community
- Slum upgrade can only be successful after the sanitation issue is dealt with

Economics of an Urban Sanitation Business

Products for small cities	Unit price	Collection cost	Income potential
Uni-sex urinal w/jerry can	10 USD	Market study done for Kampala	Positive
Urban Public and school units run as business for urban poor	Micro Finance	Can be run as a business by farmers	Positive
Treatment cost sludge	30-40 USD m3	Analysis needed	Break even
Agricultural implementation		Analysis needed	Positive

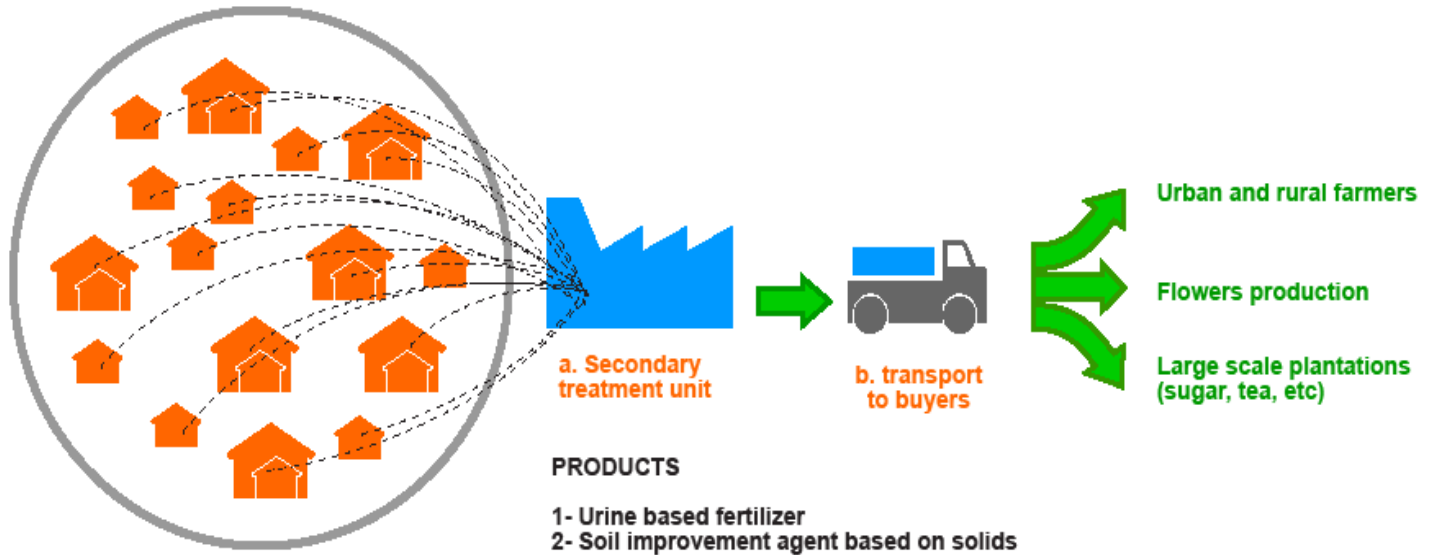
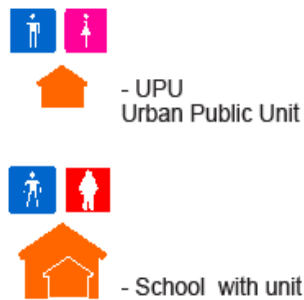
Other income streams: Sanitation services – water distribution – sale of hygiene products

Important that some of the public sector gives incentives for this to function as businesses

Smart subsidies should be put in place so a fraction of the public savings in health etc. are brought back to the sanitation providers so quality services can be delivered.

EcoSan flow chart

Urban Public Unit



Delivery Options

- + On site to farmer own storage space
- + Full scale introduction to soil by treatment company
- + Competing delivery firms buying from treatment company