



gtz supported ecosan projects in India

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ecosan program, division 44 – environment and infrastructure

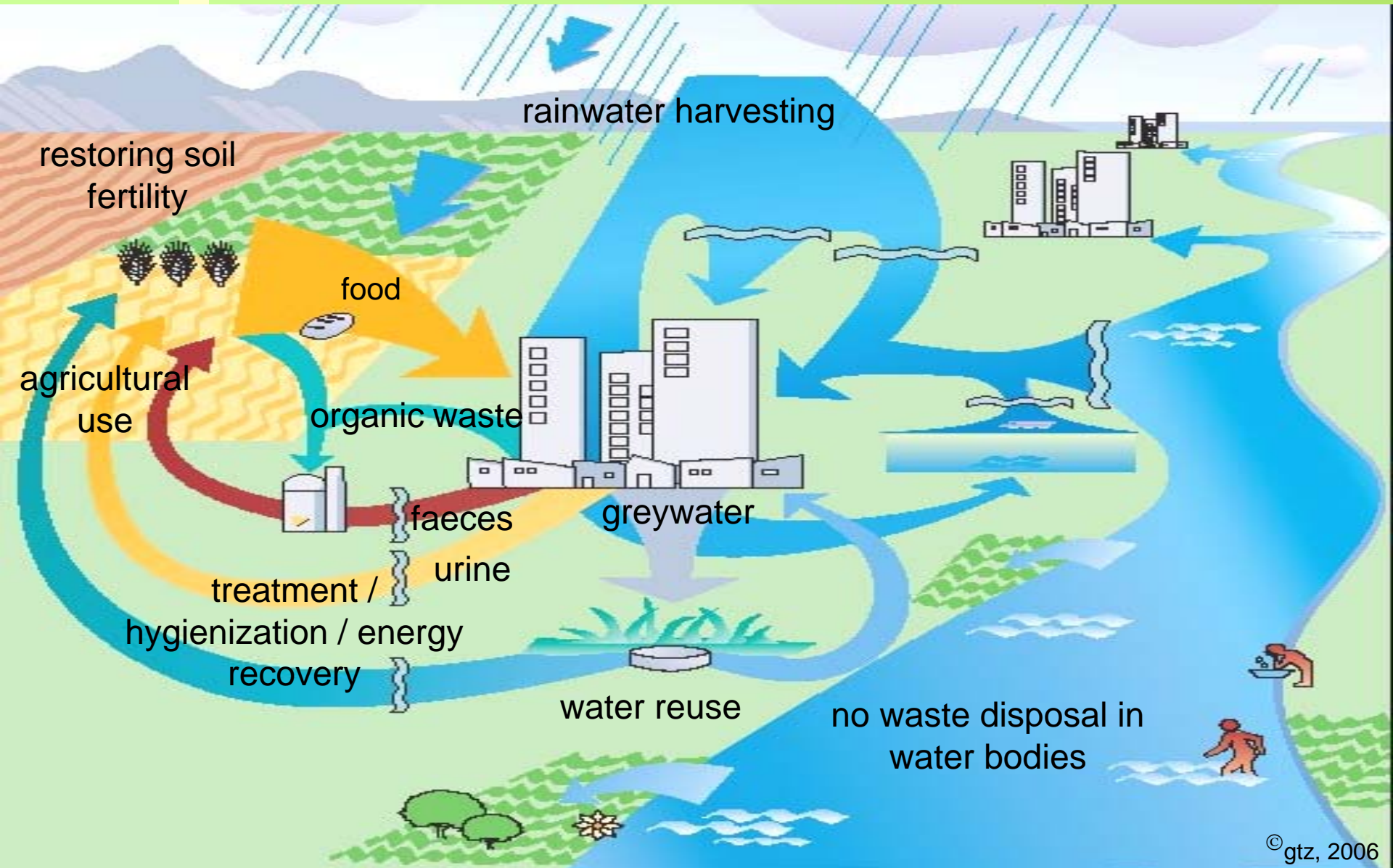


commissioned by



Federal Ministry
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and Development

closing the loop



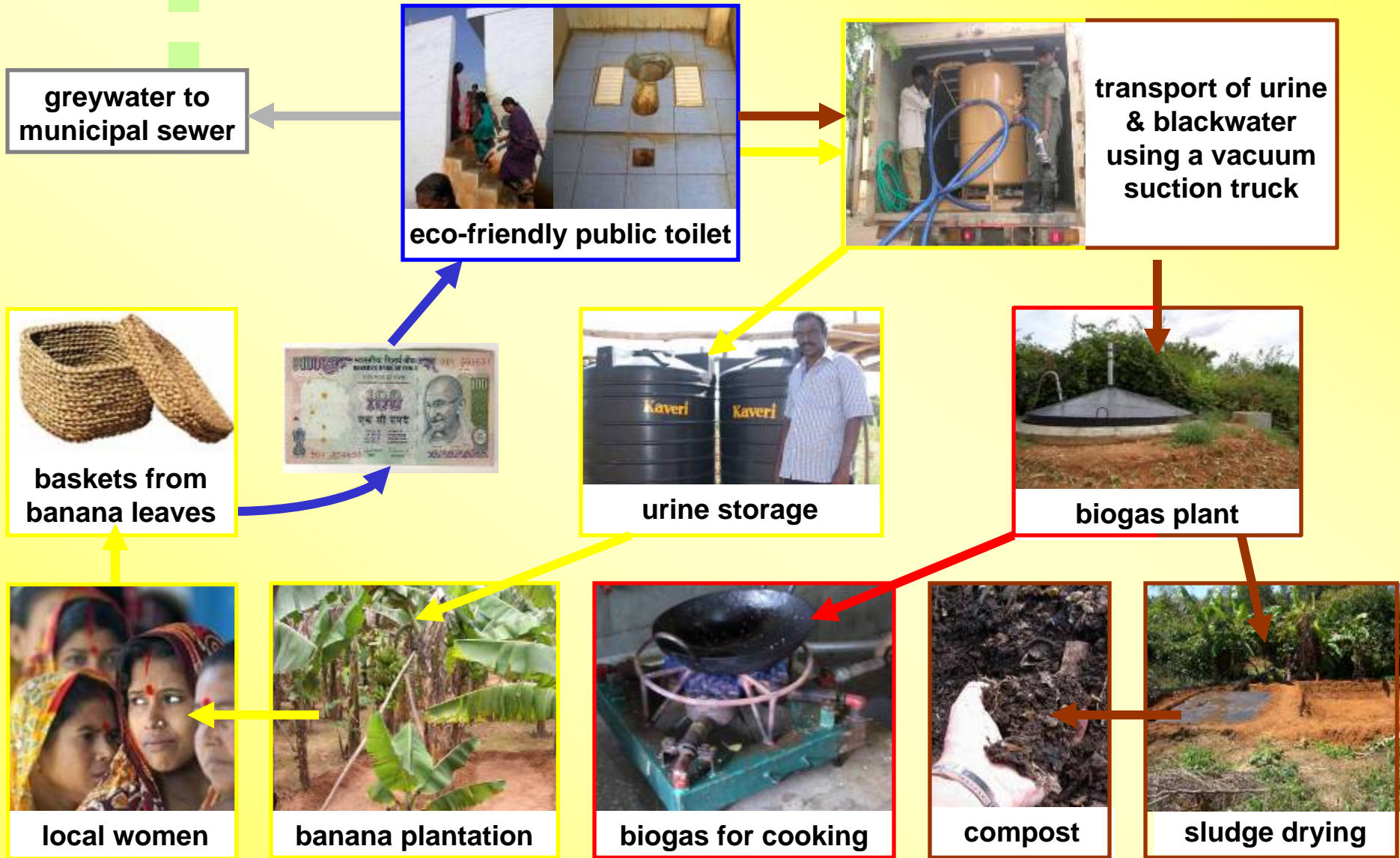
ACTS Eco-friendly Public Toilet Centre, Bangalore

Rajendra Nagar Slum

- 12,000 to 15,000 inhabitants
- 1,500 - 1,600 households
- existing toilets (in 2000): 44



ACTS Eco-friendly Public Toilet Centre, Bangalore



location:

Badlapur town, Maharashtra's Thane district, India

implementation period:

2006/2007



toilet center under construction



there are about 11'000 college students

proposed ecosan system for Badlapur



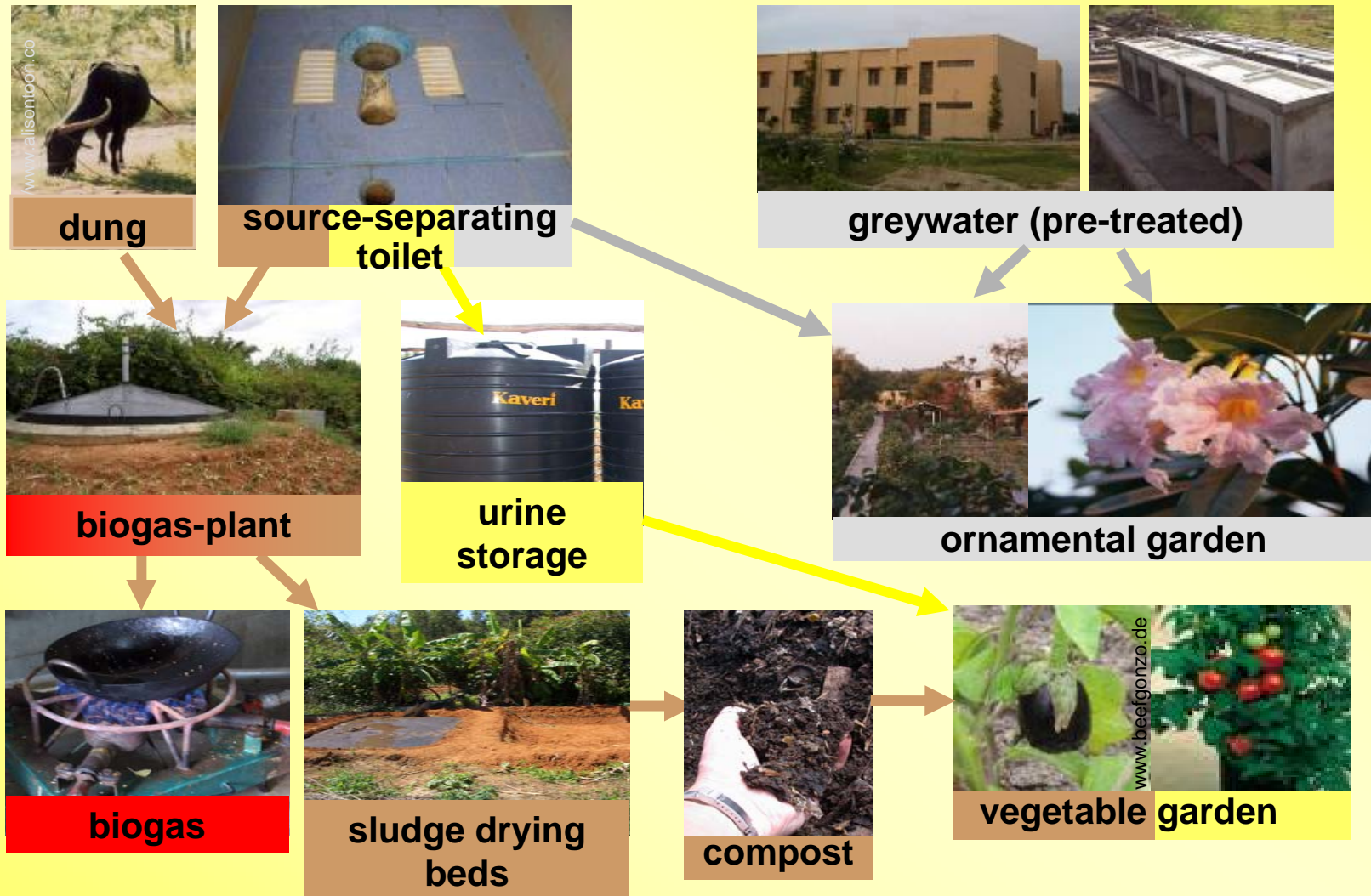
Navsarjan “Dalit Shakti Kendra“ in Gujarat, India (supported by SDC and GTZ)

- Upgrading of a vocational training institute
- start of construction 02/2005
- 250 resident students



Navsarjan Trust ecosan pilot project – DSK

proposed system for the DSK Campus





toilet block with biogas plant,
almost finished, Feb. 2007



UDD as “emergency toilets“



ladies urinal

location:

Dhandhuka Taluka, Karjan Taluka, Limbdi Taluka and Sami Taluka

implementation period:

2005/2006



Navsarjan primary school in Gujarat



school sanitation block

ecosan projects Navsarjan Trust ecosan pilot project – primary schools, India

collection, storage and reuse of urine



urinals



hygienization tank



kitchen garden

collection, treatment and reuse of faecal matter



(source: Martin Wafler)



(source: Martin Wafler)



(source: esf)

urine diversion squatting pan

processing chamber

kitchen garden

ecosan projects Navsarjan Trust ecosan pilot project – primary schools, India

greywater collection, filtering and reuse for irrigation purpose



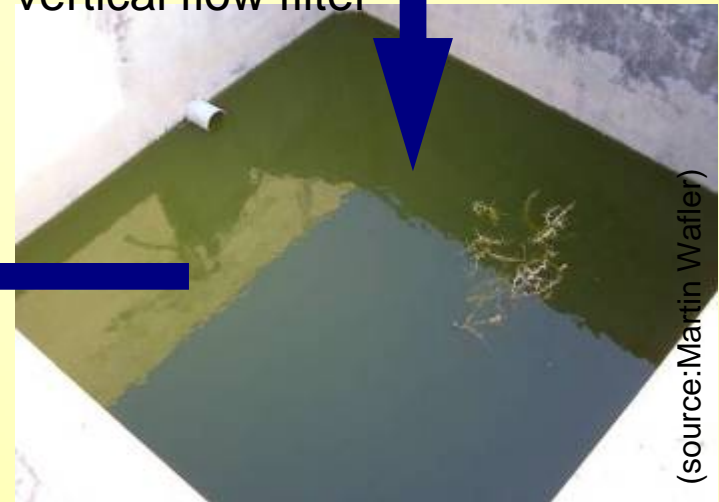
bathrooms, washbasins, laundry facility



vertical flow filter



kitchen garden



collection tank

ecosan projects

Navsarjan Trust ecosan pilot project – primary schools, India



hand washing



waterless urinals



rear view of dehydration chambers



infiltration of anal cleansing water



storage of treated greywater

Week 1: module “ecosan for you”

- ecosan concept & technological options
- social & institutional aspects
- reuse & health
- economics
- best practice examples, site visits

Week 2: module “ecosan – exercises & case studies”

- UDD toilets and urine management
- biogas sanitation
- greywater management
- reuse options
- vacuum systems
- development of own case study

Week 3: module “ecosan – on the job”

- practical hands on, on the job training in ongoing ecosan projects

- The first ecosan training course started in India in March 2007 and got a tremendous response from the participants.
- The ecosan training courses will be conducted every three to four months. The participation in the course costs approximately 150 Euro including board and lodging.
- The training course can be adapted to other countries

**The next ecosan training course in India will be held from
3rd to 14th September 2007.**



Course materials include

- course folder with handouts of all lectures, group works and case studies
- technical manuals for UDD toilets and urine management, biogas sanitation and greywater management
- “ecosan curriculum 2.0” on CD with dozens of tailor made lectures, tutorials and scientific articles on ecosan
- “capacity building for ecological sanitation” published by gtz and UNESCO
- Information material about projects and technologies



Thank you!

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