

The end to all-mains sewerage ?

[NEW VERSION]

⇒ **ECOSAN**

AH ...
BUT I LOVE THINGS
AS THEY ARE ...



ALL-TRASH-IN-THE-GARBAGE



SELECTIVE WASTE COLLECTION



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Grey water

- laundry
- bath / shower
- dishwashing
- cleaning



soaps & detergents



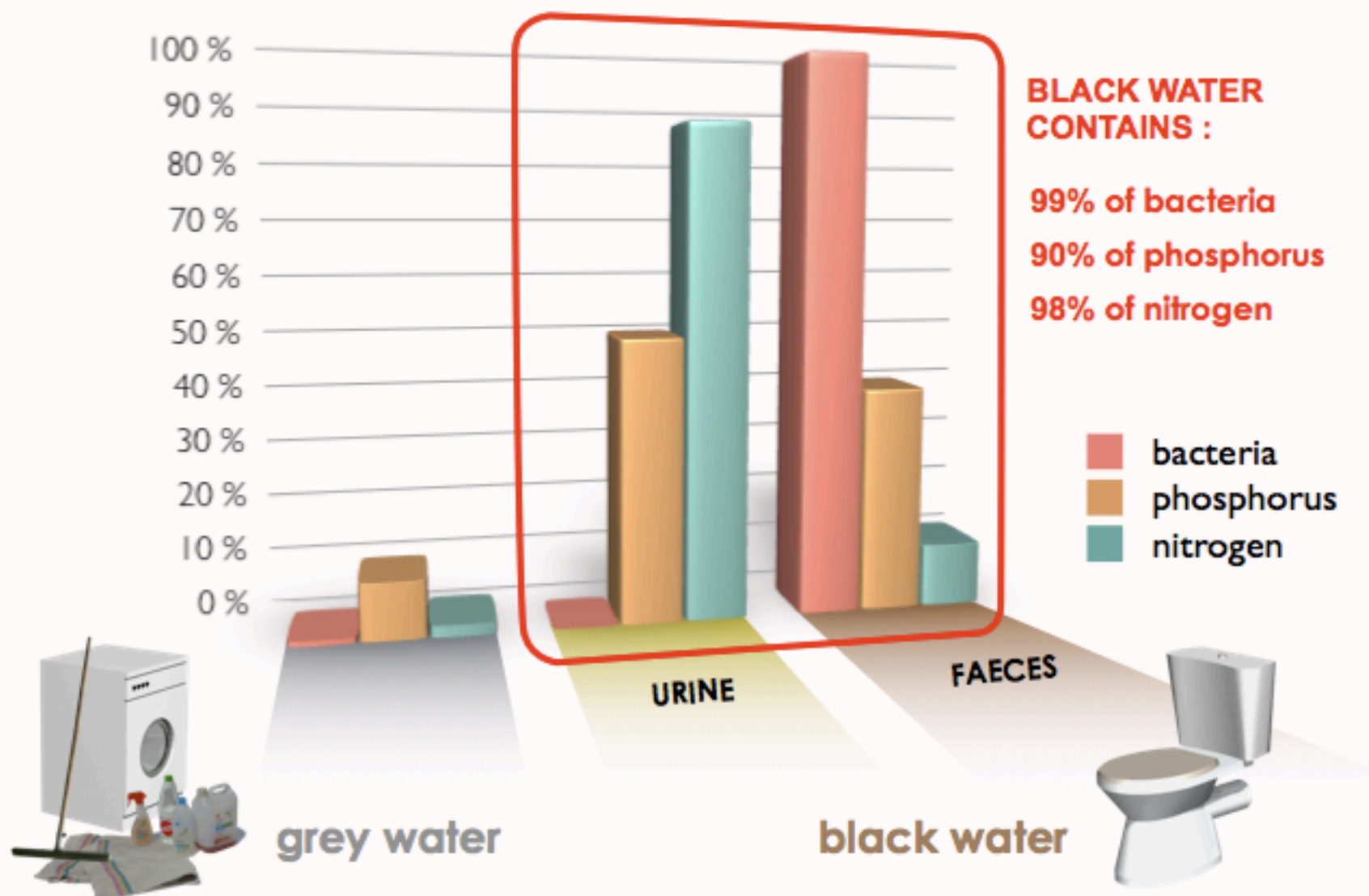
Black water

- faecal matter
- urine

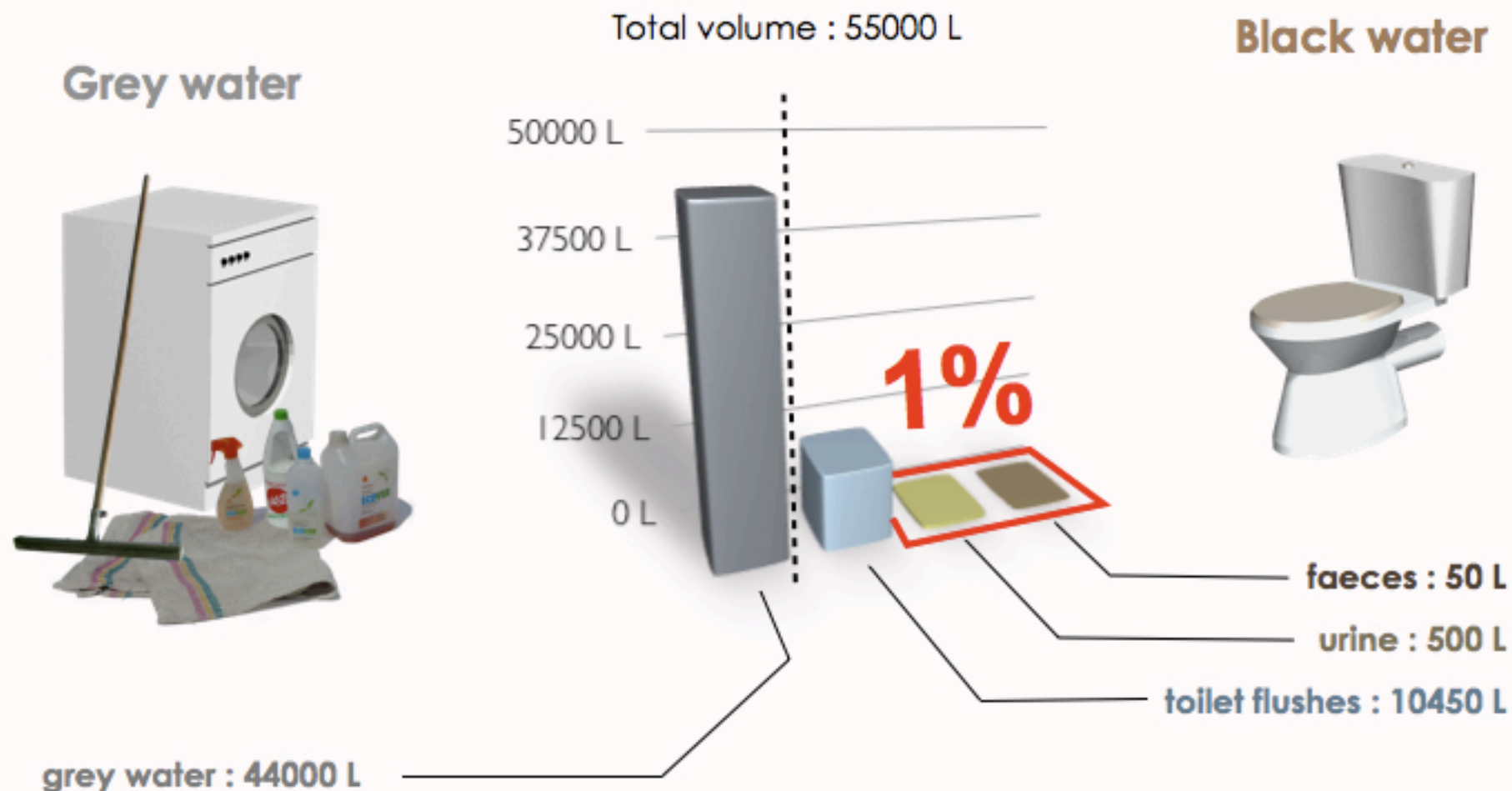


organic matter & bacteria

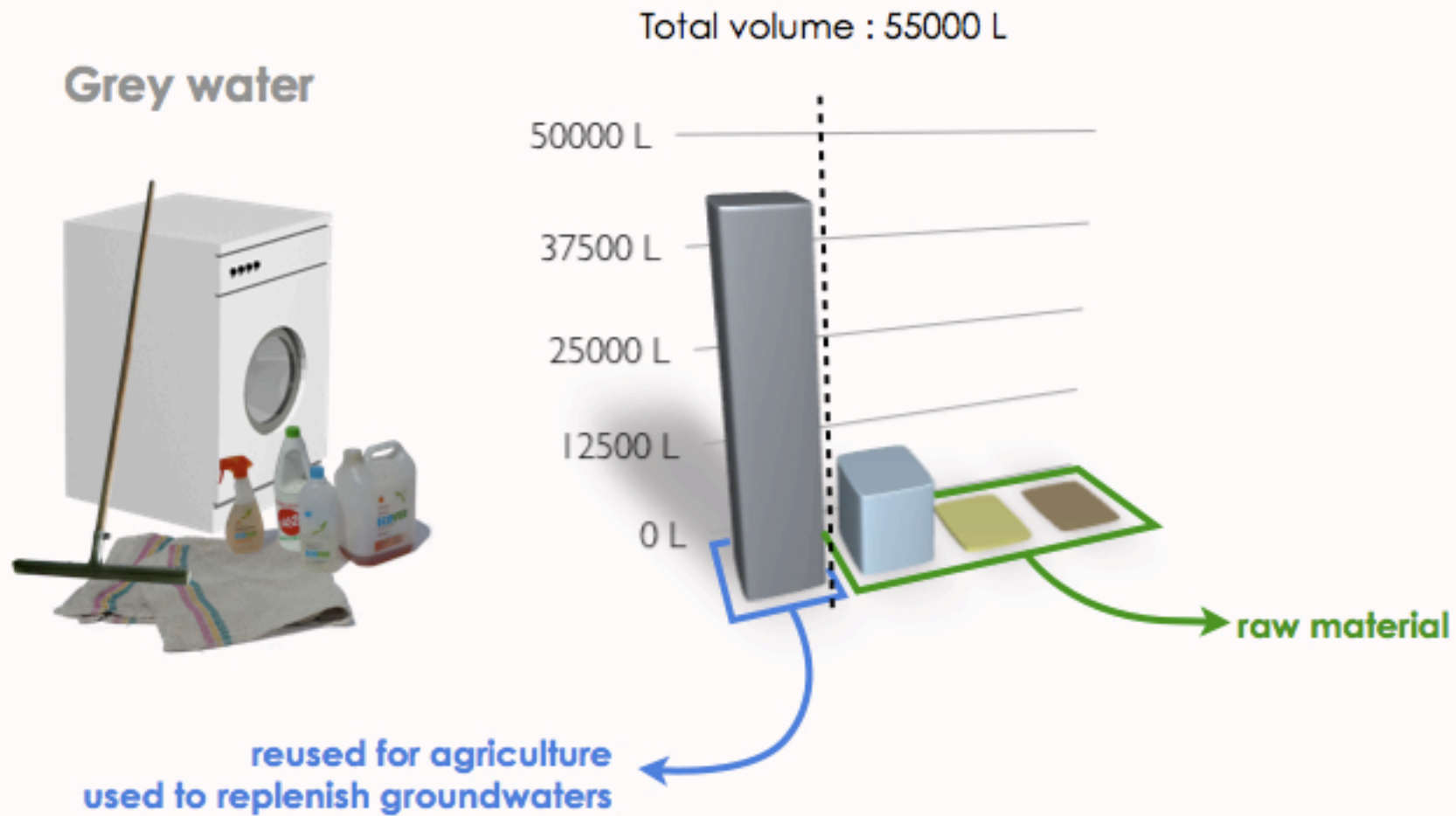
POLLUTANT CONTENT OF DOMESTIC WASTEWATER



WASTEWATER VOLUME



WASTEWATER VOLUME





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- sustainable water management
- sustainable food production

Abandon all-mains sewerage

CURRENT SITUATION

WORLD FOOD PRODUCTION

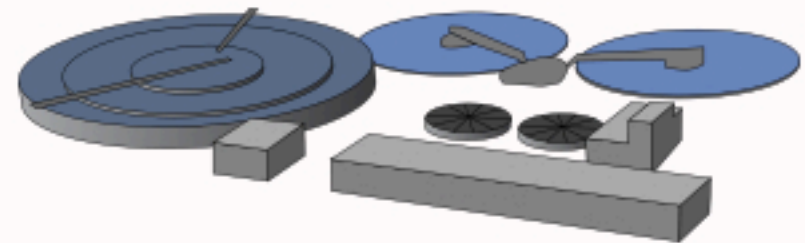


crops



livestock

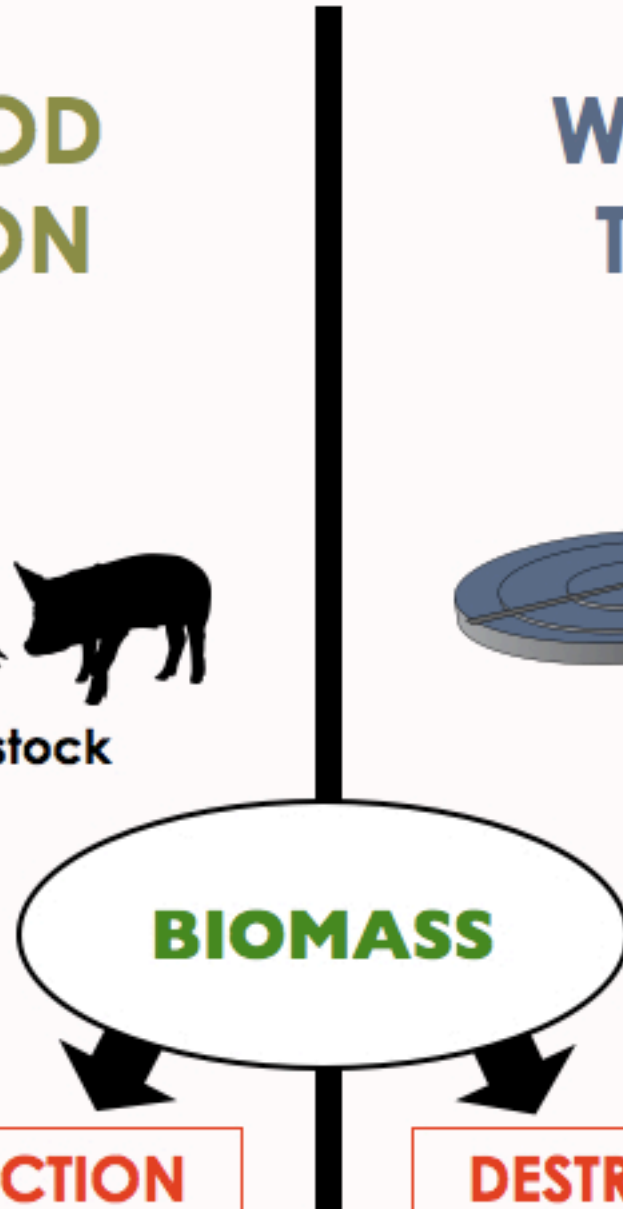
WASTEWATER TREATMENT



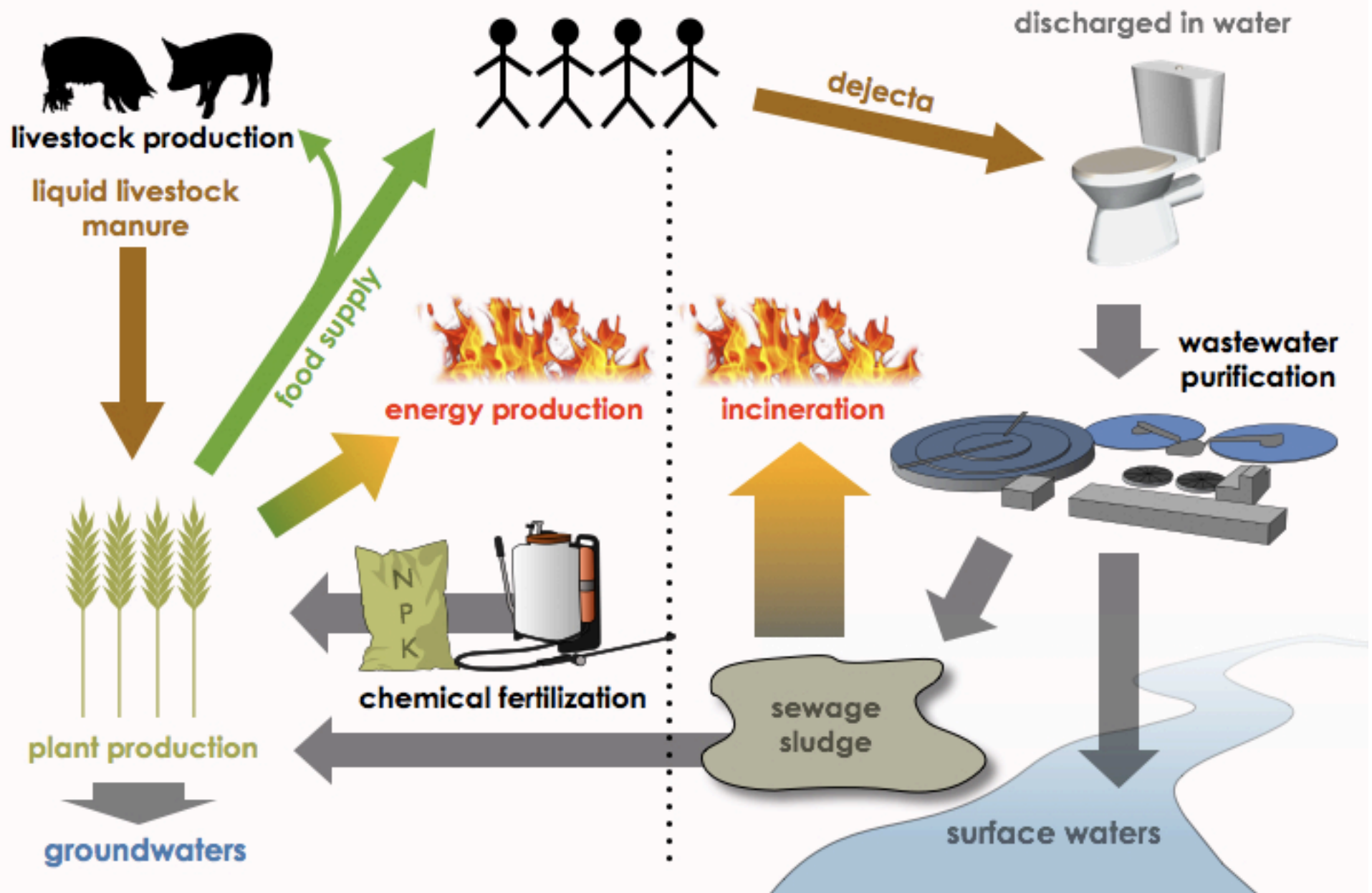
BIOMASS

DESTRUCTION

DESTRUCTION

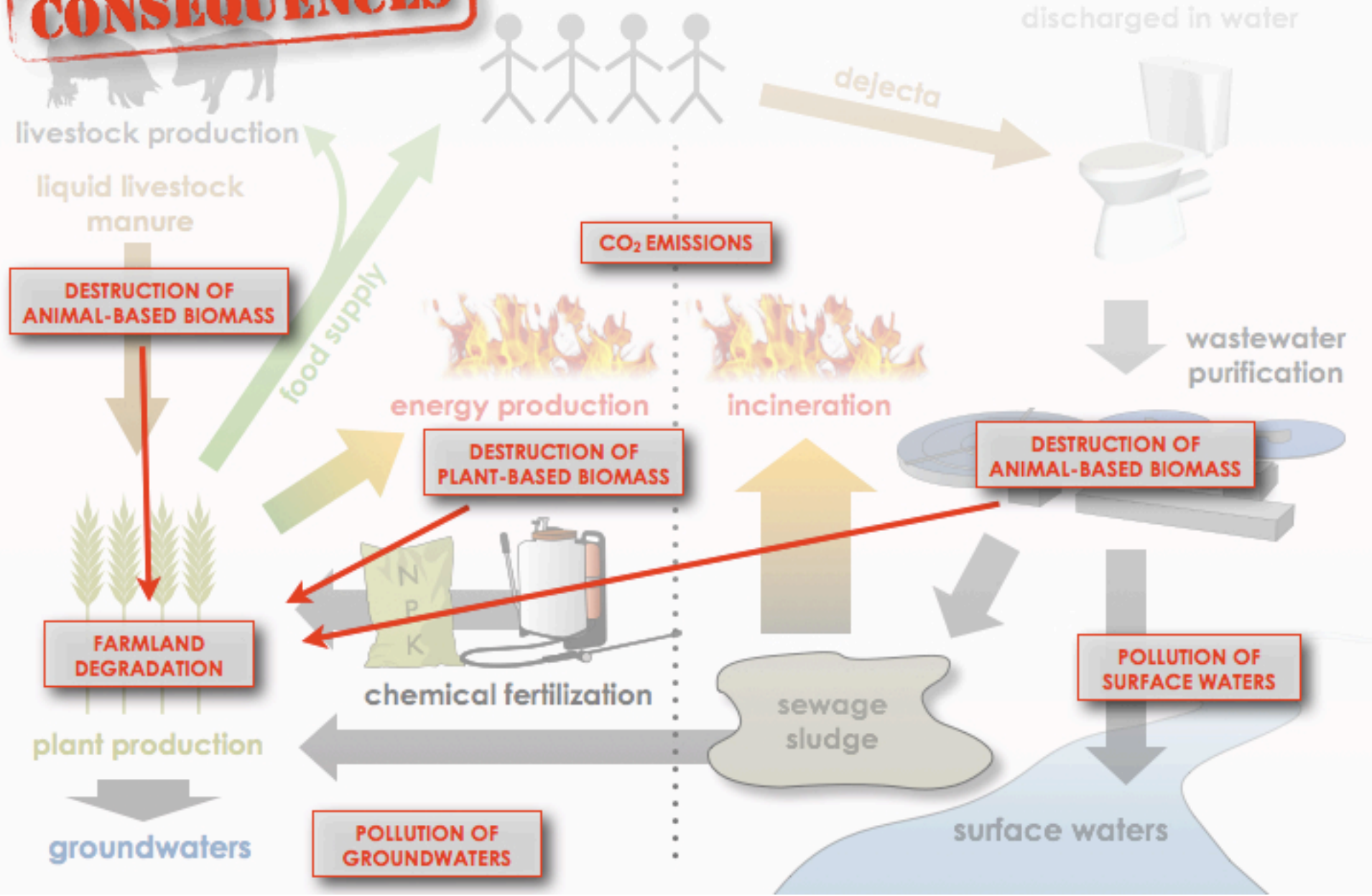


CURRENT SITUATION

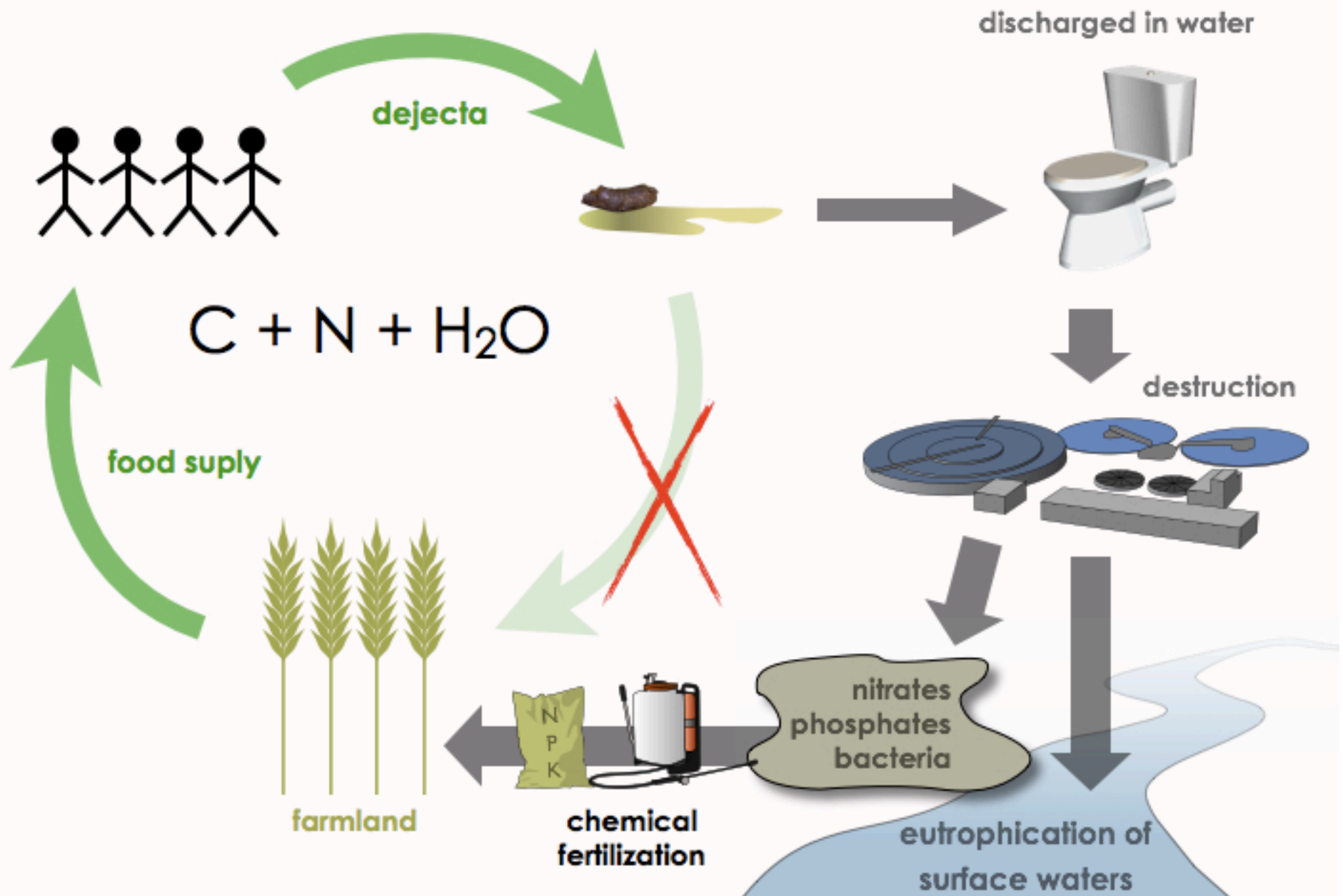


CURRENT SITUATION

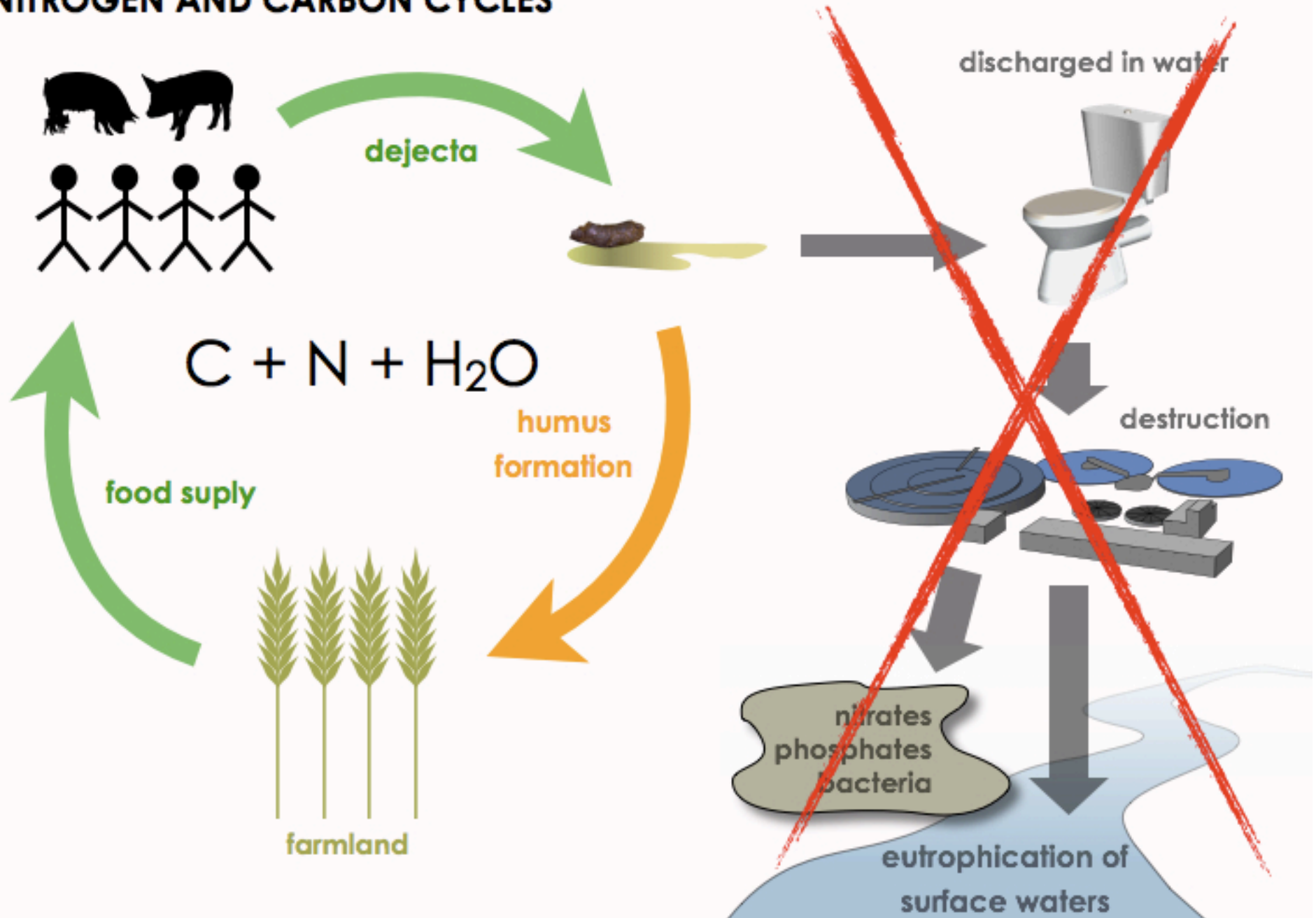
CONSEQUENCES



NITROGEN AND CARBON CYCLES



NITROGEN AND CARBON CYCLES



GREY WATER PURIFICATION



Grey water

- laundry
- bath / shower
- dishwashing
- cleaning

soaps & detergents

**DISCHARGED IN
SURFACE WATERS**



- ▶ LASTING POLLUTION
- ▶ DANGER TO AQUATIC LIFE

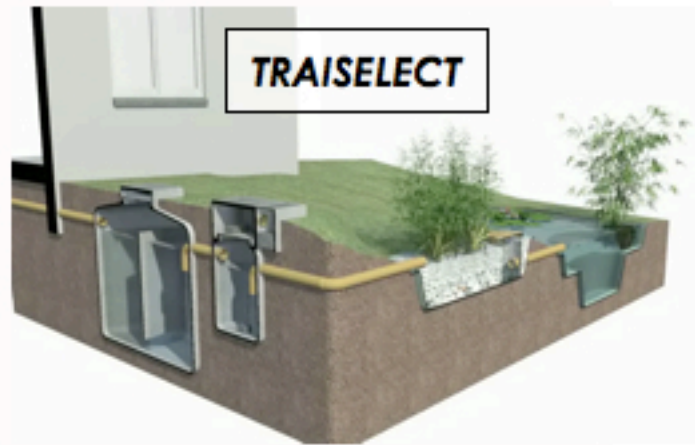
**INFILTRATED
IN THE SOIL**



**DESTRUCTION OF POLLUTANTS
BY BACTERIA**

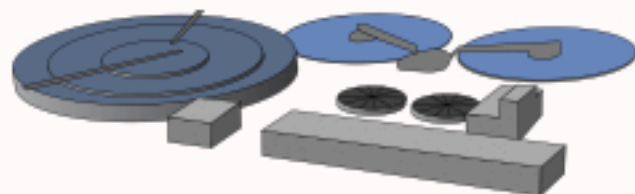
A SUSTAINABLE SANITATION OUTLOOK

➔ **Technical solutions already available**



A SUSTAINABLE SANITATION OUTLOOK

➔ Adapt technical solutions to EAUTARCIE's ECOSAN



▶ simplified sanitation plants



▶ composting of sludge

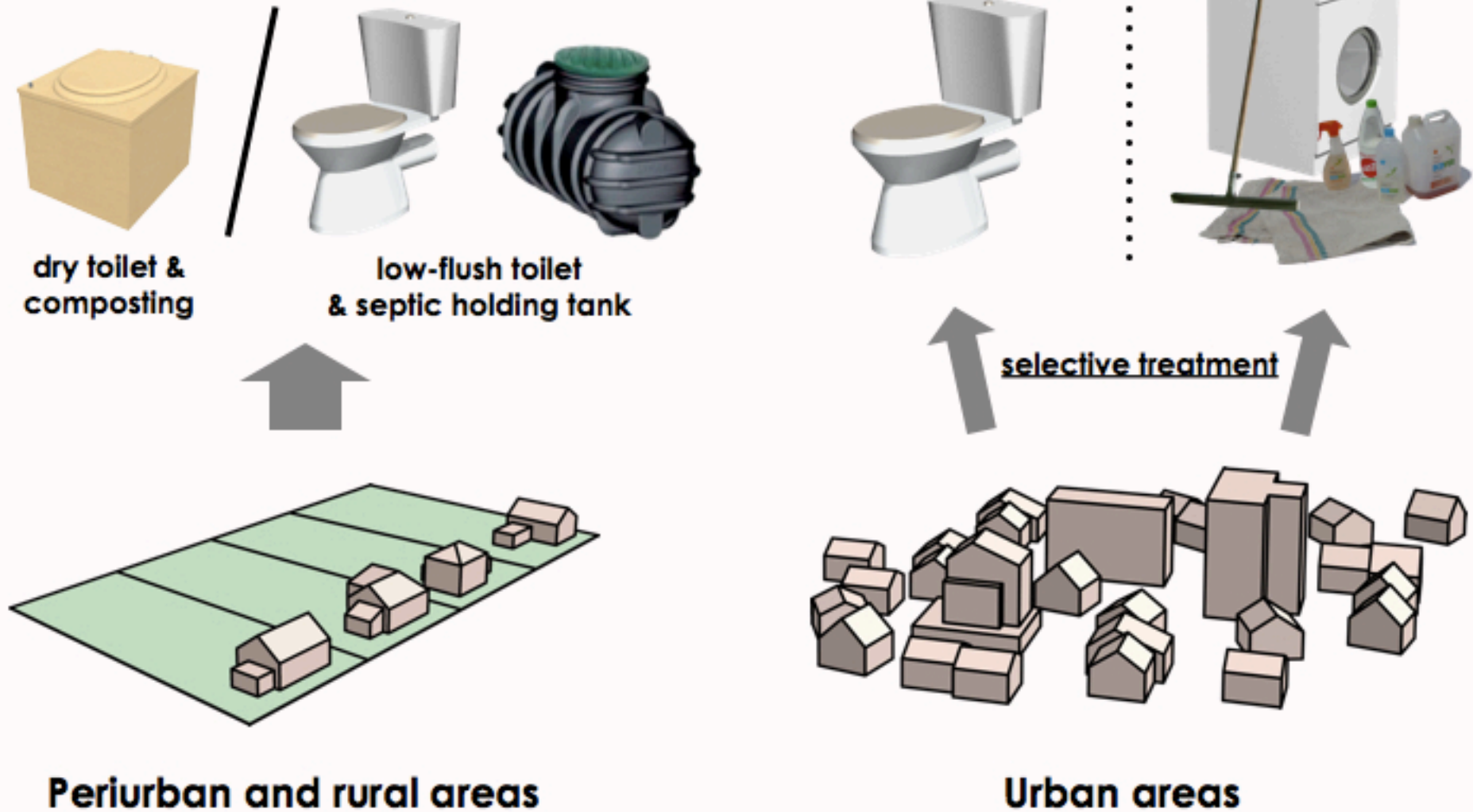


▶ adapting standards & classification for households cleaning products

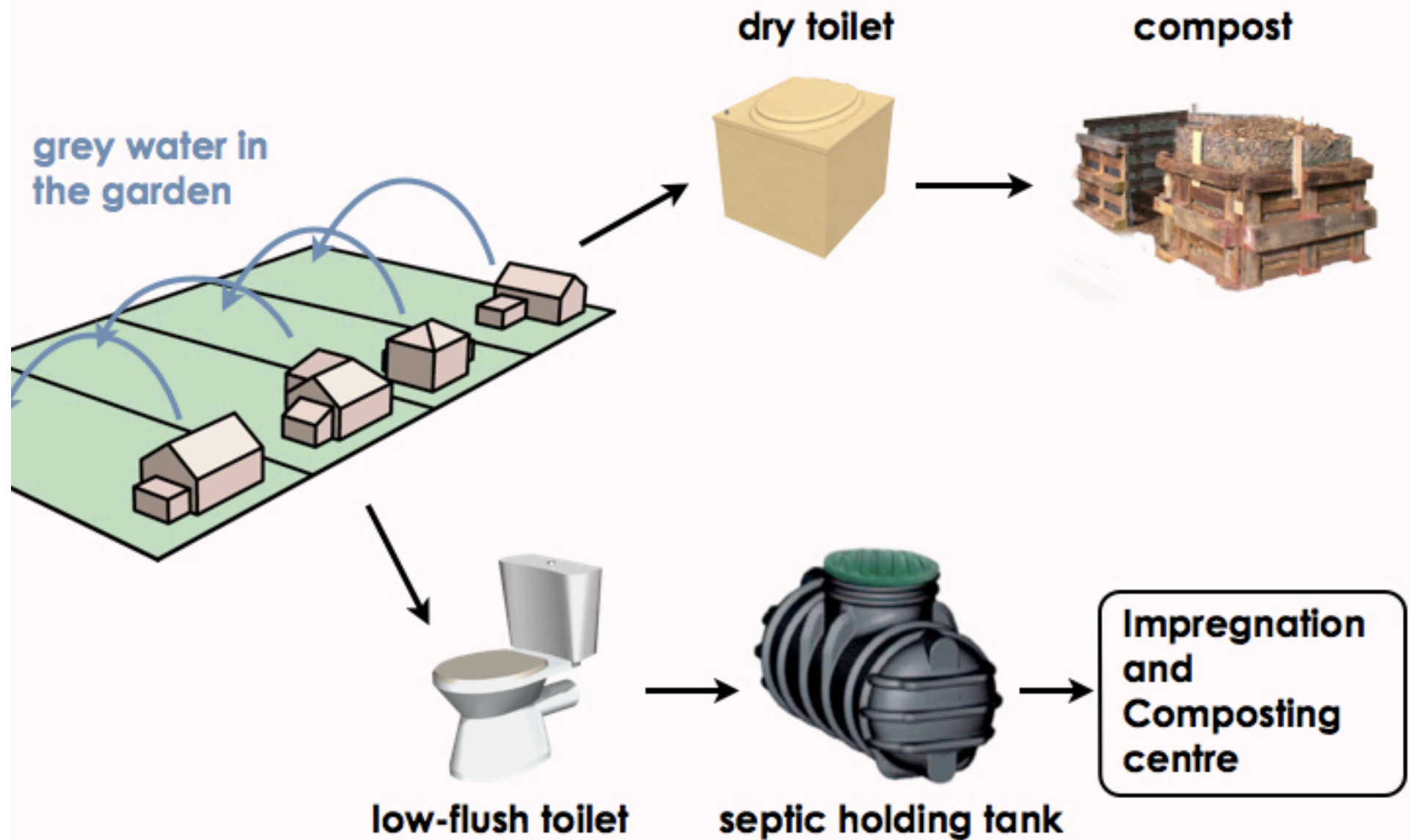


▶ reduction of environmental impact

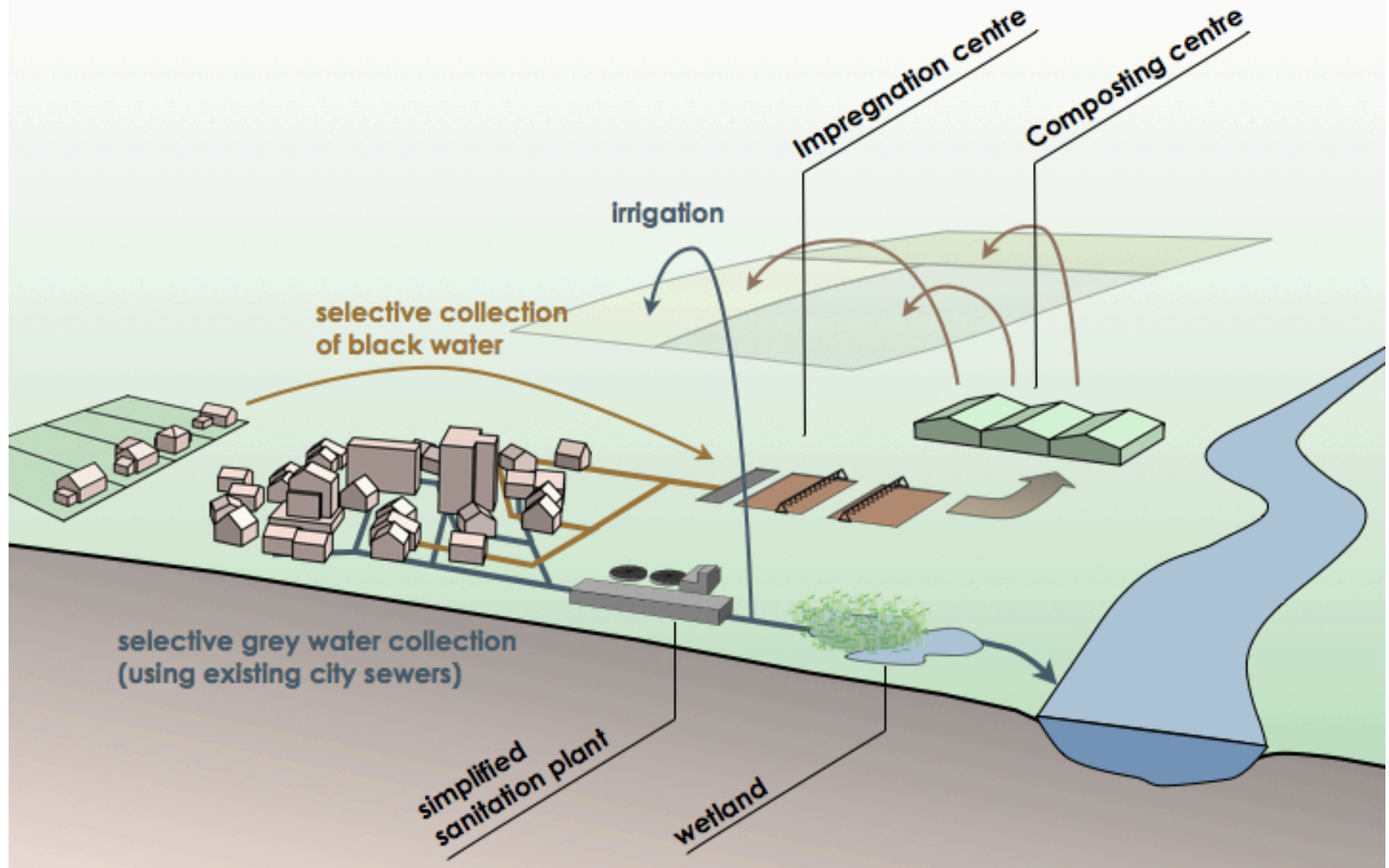
ALTERNATIVE TO ALL-MAINS SEWERAGE



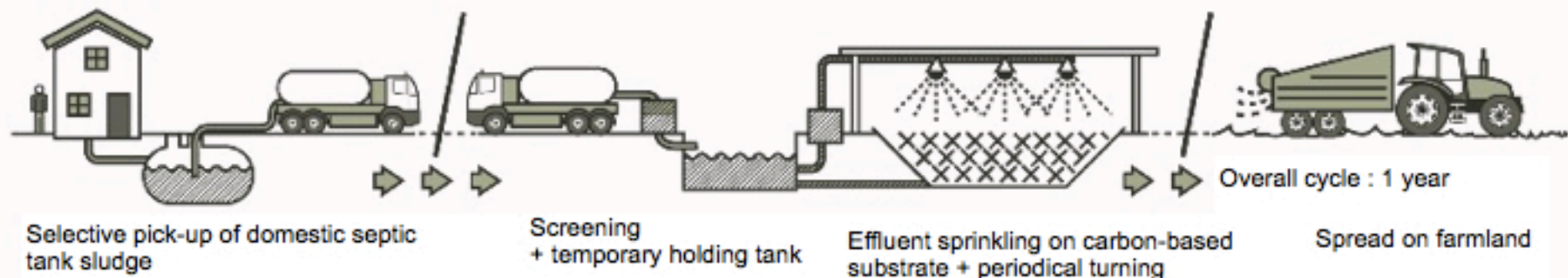
PERIURBAN AND RURAL AREAS



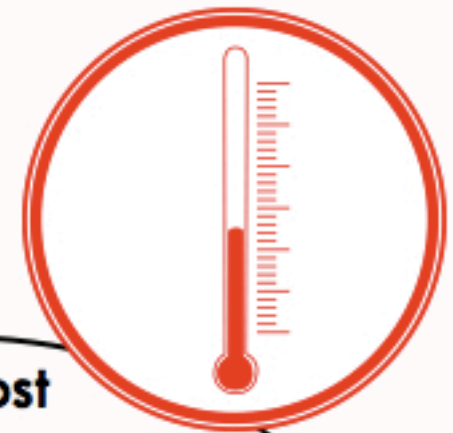
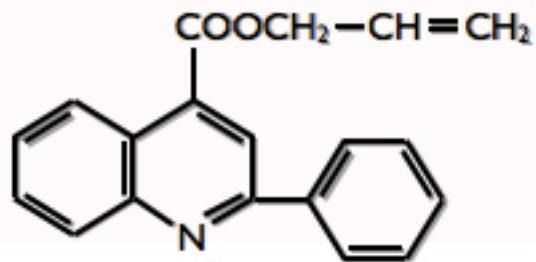
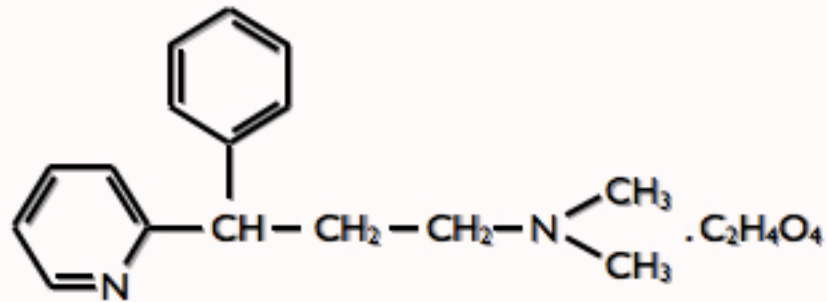
URBAN AREAS



IMPREGNATION & COMPOSTING (or BIOMASS TREATMENT) CENTRE



PHARMACEUTICAL DRUGS



compost





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