



Municipal Waste Management in China:

Analysis of Operation of Yuhuan Municipal Solids Processing Facility

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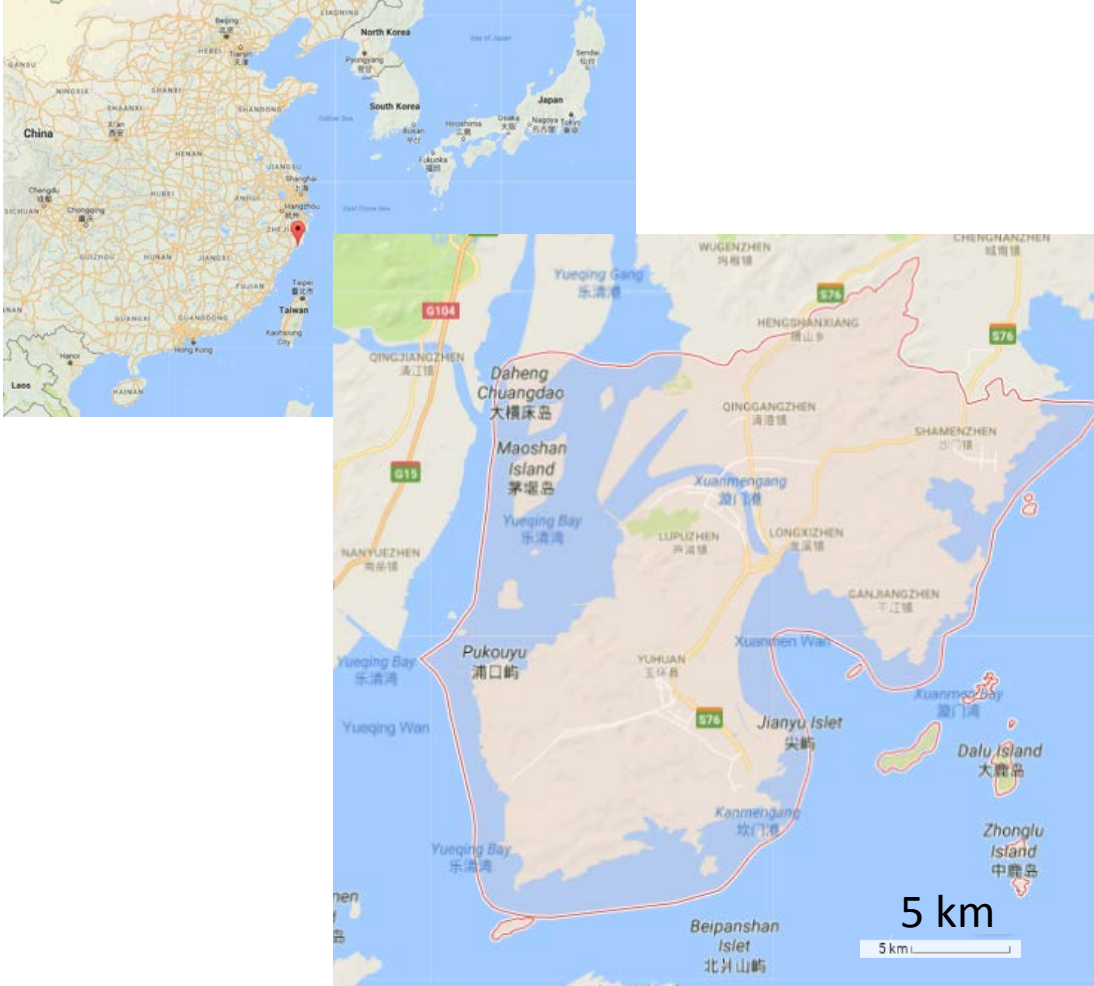
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Yuhuan Waste Treatment Facility

玉环垃圾焚烧发电项目



- privately owned and operated



浙江伟明环保股份有限公司

ZHEJIANG WEIMING ENVIRONMENT PROTECTION CO., LTD.

- 18.800 tons of waste per month
- truck transportation: 5 – 25 km
 - average 12.5 km

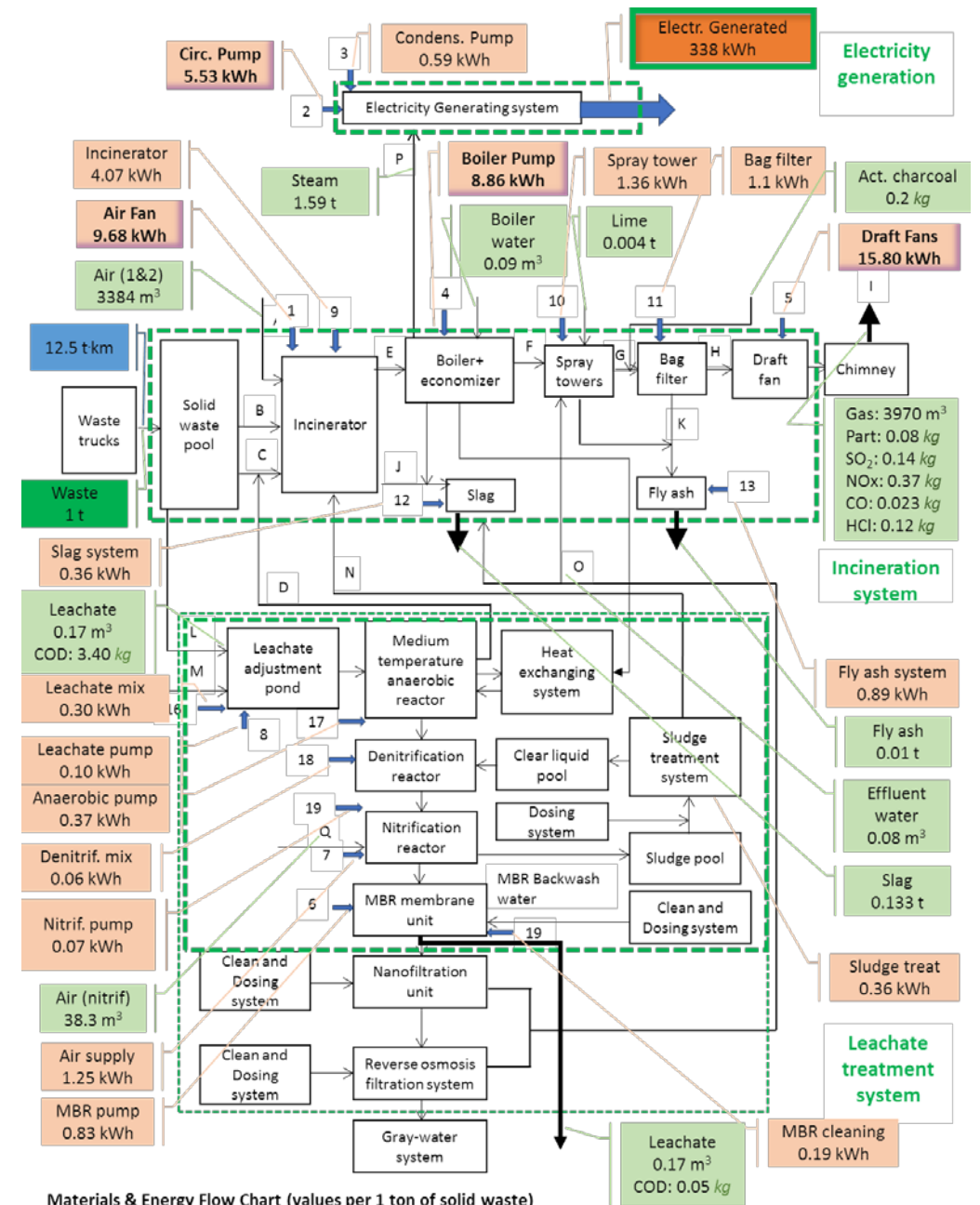


Facility



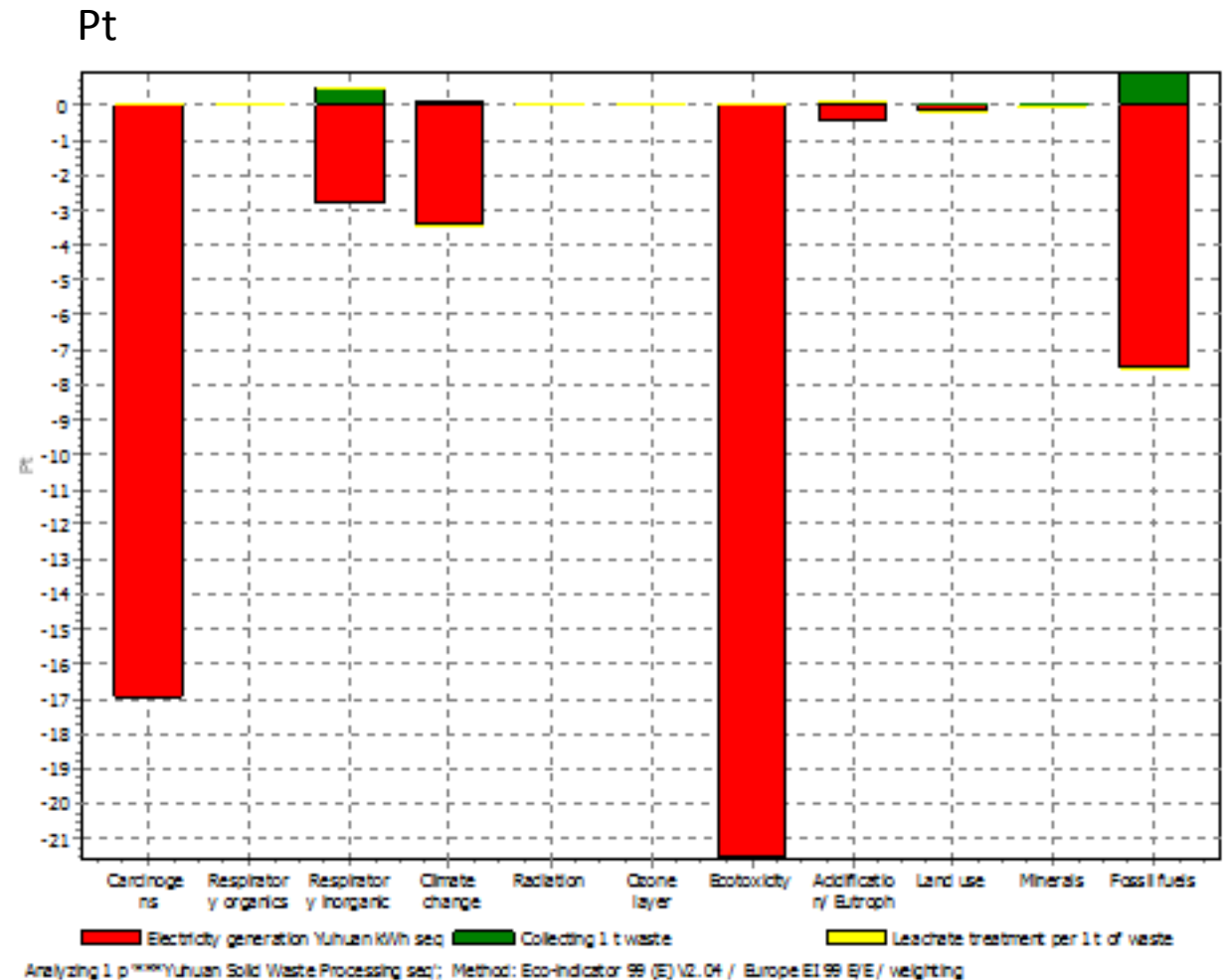
Technology

- collection
- incineration
- boiler + turbine + electr generator
- spray tower + bag filter
- leachate collection & treatment
 - anaerobic digestion
 - denitrification
 - nitrification
 - MBR
 - *nanofiltration*
 - *RO*



LCA mid-points

- existing operation
 - waste collection
 - electricity generation 338 kWh
 - leachate treatment 170 L/ton
- *SimaPro7 – Eco-indicator 99*
- *Ecoinvent 1.3*
- *electricity mix adjusted*
- *truck emissions*



egalitarian perspective

Conclusions

- net benefits - 51.3 Pt/ton
 - major:
 - avoided landfilling
 - electricity generation
 - minor:
 - avoidance of organics discharge
- impacts
 - waste collection +1.7 Pt

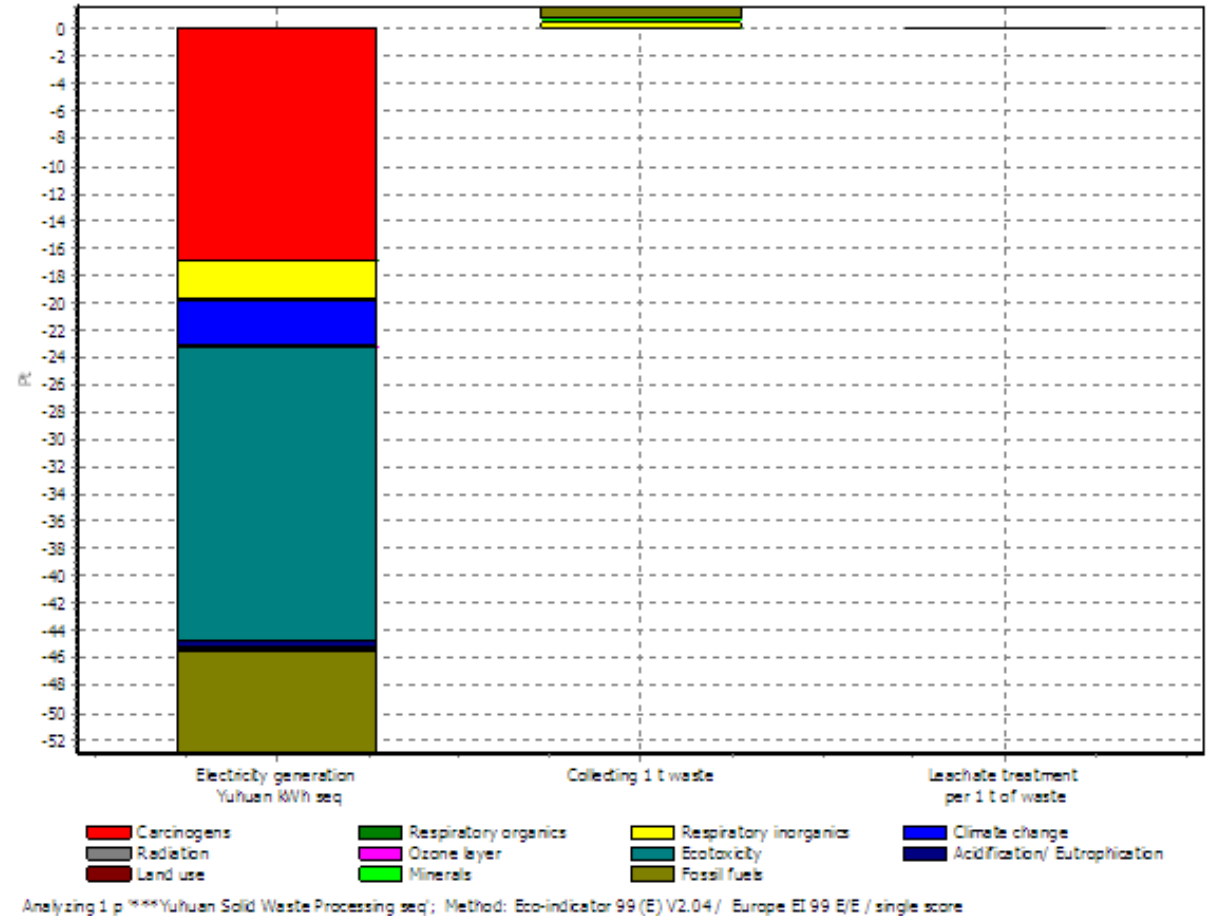


Figure 1 Egalitarian perspective by operational categories