

TEG Taxonomy – Workshop 27 March 2019  
– subgroup on Water, Sewerage and Waste

Transcript

**Introduction**

[redacted]: presentation of process

**Tour de table**

- TEG [redacted]: [redacted] - KfW
- EIB: [redacted]
- EIB: [redacted] – [redacted]
- DG CLIMA: [redacted]
- DG ENV: [redacted]
- DG FISMA: [redacted]
- JRC: [redacted]
- ZeroWaste Europe: [redacted]
- [redacted] – Consultant, invited by [redacted]
- ACR+ sustainable cities and regions
- [redacted] – UBA, sustainable finance, also part of DNSH, ears open for waste.
- EEA
- CBI – [redacted]
- Federation Environmental Service Companies

**Presentation of slides by [redacted]**

**Presentation by [redacted] EIB**

- Role of EIB, tracking, two divisions (banking and projects)
- Water has potential for GHG emissions, but parked
- Water treatment and sludge treatment – included because tools to calculate GHG emissions, cf. IPCC guidance
- Criteria should be applicable internationally applicable (e.g. sludge treatment in Zambia)
  - [redacted]: a nice to have
  - [redacted]: would need data e.g. buildings energy efficiency
- In many cases, difficult to put a threshold
- Two activities: Centralised wastewater treatment and Sewage sludge. Sometimes done together, but EIB experience shows financing of two activities separately. IPCC splits them as well.
- [redacted]: cross-sectoral emissions reduction potential? Cf. KfW's climate fund
  - Findings: 10-fold difference between waste and sewerage

**Presentation on waste by [redacted]**

- Hazardous waste not included – not because of lack of mitigation potential, but lack of data

- Collection of non-hazardous waste – mostly greening by (triggers more recycling and thus substitution of raw materials by recycled materials)
- Recovery of sorted materials – mostly greening by

**Presentation by [REDACTED], EIB**

- Missing activities?
  - Role of EIB is waste in context of climate action: MDB-IDFC guidelines for climate mitigation and adaptation tracking (last published 2015)
  - In waste sector, includes projects that go beyond these five activities. Most important activity missing from draft TEG list is incineration with energy recovery
    - Controversial
    - EIB view: room for debate, type of waste, energy recovery type (electricity only, or also heat), ...
  - Also, recovery of fuels (e.g. cement kilns)
- Currently included:
  - Anaerobic digestion of bio-waste
  - Composting of bio-waste – controversial, but useful for waste streams high in lignins.
- Material recovery element – i.e. greening by
- For AD, also energy recovery
- Remediation activities: of old landfills or dumpsites. “old” = no longer receive waste, are an environmental liability of the past, methane emissions. Remediation

**Discussion on incineration with energy recovery**

- CBI: had a similar discussion, looked at the GHG emissions potential
  - Even if 50-60% of waste recycled / composted / AD, are we comfortable with having the waste ending up in landfill?
  - CBI thought incineration with energy recovery should be recognised
- [REDACTED] ZeroWaste
  - Need to respect democratic processes
  - EU Cohesion funds
  - From working with municipalities: even if 70% of waste is recycled, still 60% of the residual waste is recyclable
- [REDACTED] (JRC): a substantial proportion of waste going to WtE is recyclable, unrecyclable fraction is small in comparison. Should we increase capacity? EU waste production is going down.
- [REDACTED]: could we introduce a threshold e.g. if 60% of waste is recycled
- EIB: does not promote waste incineration, strict defenders of waste hierarchy, promoting activities at the top of the waste hierarchy.
  - Cites European Commission document on WtE.
  - In some MS, WtE over-capacity but even within EU, other MS don't even have 100% of waste collection coverage. Lack of political will, but also affordability limits
  - Outside EU (although not primary focus of Taxonomy), might leave behind other countries, where landfill is already an advance.
- [REDACTED]: depends on composition of the waste. Even in very advanced countries, a lot of the residual waste is recyclable

- [redacted] - Consultant: waste treatment is a system, need to have the whole system fit together. Labelling NACE codes as green or non-green will not help.
- [redacted]: open to identifying relationships between activity codes. But not developing criteria for systems. Setting the boundaries, can look at some upstream considerations, but not going downstream.

### Issues activity 1: sewage sludge treatment - [redacted]

- 20 years ago, sludge treated as waste
- Today, 3 possibilities:
  - Methane capture – GWP is 28x that of CO<sub>2</sub> (more if shorter-time period is considered).
  - Re-use the methane: heat used in the system or transport to neighbouring industrial plants or electricity
  - Treated sewage sludge used as fertiliser, recovery of phosphorus, nitrogen
- Biogas as a necessary condition for climate change mitigation
- Treated sludge used – substitute for mineral fertilizers, so climate mitigation contribution. Perhaps DNSH for circular economy. Economically, ridiculous not to do it.
- [redacted]:
  - Why not label AD directly?
    - [redacted]: additional technologies appearing, would be silly not to capture it
  - Use of word “fertiliser”. Spreading of sewerage sludge on agricultural lands – harm to other environmental objective.
    - [redacted]: Agree, potential harm, also other uses of treated sludge
    - E.g. Germany – 60% of sludge is incinerated, after recovery of phosphorus. Also in Nordic countries.
    - Huge differences in terms of sewage sludge use
- JRC: “sterilized” sludge could be by thermal treatment.
  - Agree on use of “digested sludge”
- “Consistency of the activity with national/regional/local WW management plans”
  - Yes part of the permit – company will find it easy to demonstrate it.
  - Useful for DNSH
- [redacted] DG CLIMA: connecting with energy group – overall threshold. For biogas, no threshold applies, because would avoid emissions.
- Stakeholder: Energy Efficiency (WW) in Wastewater Treatment Plants (WWTP)?
  - [redacted]: EIB position is to look at the EE equipment investment
  - [redacted]: TEG approach is to include the activity as EE, if time allows. Greening of contribution
  - [redacted]: minor contribution compared to biogas aspect – could be dealt with in round 3
- CBI:
  - Giving signals on EE to reach best in class?
    - [redacted]: could add 2-3 more elements to reflect the best things
    - [redacted]: trade-off with investment universe size, and cost for investor to verify criteria

- [redacted]: depends on purpose of WWTP, e.g. microplastic treatment would use more energy, and should not be penalised. Broad threshold for the whole sector may not make sense.
  - Stakeholder: pumps and processes
- Emission leakages?
  - [redacted]: residual emissions, but tiny compared to the emissions without the project.
  - [redacted]: difficult to tell in advance the rate of methane leakage (sometimes leakages up to 10%)
- [redacted]: have to assume these are taken care of
- CBI: guidance to verifiers would still be useful.
- [redacted]: but would not be a necessary condition.
- ZeroWaste Europe: part of national plan?

### **Issues Activity 5: centralized WWT systems**

- Collection and treatment (without sewer network cannot work)
- 40% threshold
- Centralisation reduces GHG emissions through methane capture (compared to septic tanks), cf. IPCC
- Alternatives: 40% net reduction or no threshold
- WWTP for micro-plastics
  - [redacted]: Trade-off – micro-pollutants at the expense of more energy used.
  - Stakeholder: but this is what WWT is about – using energy to prevent water pollution.
  - [redacted]n: at this stage, treating micro-pollutants is not a legal requirement. Still, net GHG savings are still positive compared to alternative. CO2 from energy consumption is insignificant compared to avoided methane emissions in terms of GHG potential.
- CBI: Periodic monitoring?
  - EIB: can check after installation is complete, 3 years later, but not whole lifetime, we do not have the control
- [redacted] DG CLIMA:
  - Decentralised plants should be eligible if aerobic conditions (no methane)
    - [redacted]: would become more granular
  - Metric: substitution criteria is removed. How do you ensure that renovation is not counted? Should not be counted.
    - [redacted]: New construction or extension

### **Remediation of old landfills / dumpsites after final closure – [redacted]**

- [redacted]: necessarily publicly funded?
- [redacted]: if carbon market, can be a cash cow
- [redacted]: landfill mining?
- [redacted]: very costly, not economically viable, “dirty business”, dubious whether it would contribute to GHG reductions
- [redacted]: in EU, legal obligation to

- [REDACTED]: In the past, there wasn't such an obligation. For where closed landfills still exist, remediation should be counted. Installation rather than operation of gas capture system.
- [REDACTED]: should it be labelled green? I don't think so, not coherent with approach for avoiding landfilling.
- ZeroWasteEurope: not in favour of landfilling, but understand the need to
- [REDACTED]:
- [REDACTED]: may be difficult for DNSH, but needs to be assessed with counterfactual – landfill stays (with leachage)
- [REDACTED]: giving the signal that landfilling is an opportunity
- CBI:
  - Don't see this as encouraging new landfills. Similar to retrofitting old cars to make them less polluting. Angle to be included in rationale.
  - May encourage landfill operators to close the landfill since remediation gives them another source of revenue.
    - [REDACTED]
  - Thresholds should be set.
- [REDACTED]: no flaring, no threshold.
- CBI: first bullet under metrics should be deleted
- [REDACTED]: second bullet to be deleted too – “proper management in line with standard xy”
- CBI: should be kept
- [REDACTED] relevant for DNSH
- CBI: preferential treatment means what we are discussing today has an impact on economic viability of activities

### ***Non-hazardous waste collection and transport***

- No threshold because collection and transport
- [REDACTED]: what is a “separate” collection scheme? Is separating paper sufficient?
- [REDACTED]: agree, but how do we formulate the criteria? Municipal, households, commercial, industrial. Separate collection
- [REDACTED]: could have **transparency** of sorting system as a qualitative requirement
  - [REDACTED]: not sure this would fit within Taxonomy framework
  - [REDACTED] Like the idea, will discuss with [REDACTED]
  - [REDACTED]: disclosure could incentivise this
- CBI: need to ensure this actually delivers GHG emission reductions. If low sorting and high emissions from transport, may not lead to net GHG emissions reduction.
- Discussion on whether the net GHG emissions reduction needs to be *demonstrated*
  - Agreement that it does not (presumption from segregation)
- [REDACTED]: facts on GHG emissions reduction in solid waste sector
  - Globally, can contribute to 15% reduction, even though its impact is only about 3-5%, of which 10% from transport and 90% from operation of installation.
  - Thus, transport can only be counted if it is for sorted materials.
- CBI: but this is something on which companies can report – they have this data. From the perspective of the investor, easy win

- DG CLIMA: if transport included, alternative or cumulative criteria? E.g. can a company qualify if it replaces its truck fleet with electric trucks?
- [redacted] potential too low. Use-of-proceeds green bonds could work, but cannot count the whole activity as green.
- [redacted]: so many ways in which household waste can be achieved, cannot list all these opportunities here
  - E.g. region where only 3% of the waste ends up in landfill
  - Would suggest adding a criterion on whether alternatives have been considered?
- [redacted]: could ask the collector to make an analysis of the morphology of their waste.
- [...]
- CBI: if contamination is the reason for separate collection, we should ask collector to demonstrate that this is avoided.

### Material recovery from waste

- If on-site material recovery, it is not a waste
- Material recovery from *separately collected* waste – required? Yes.
- Are we upcycling or downcycling? Can this be captured by the criteria? “replacement of virgin primary materials” is difficult to prove because of lack of data.

### Anaerobic digestion (AD)

- [...]
- [redacted]: technology is not commercially viable
- [redacted] bio-waste should exclude materials that could be used for animal feed
- [redacted] More reasoning to be done on

### Composting of bio-waste

- [redacted]: two problems – not clear about substantial contribution to climate change mitigation, at least within the EU – since landfilling of bio-waste is not an option.
- [redacted]: question of baseline
- [redacted]: lock-in?
- [redacted] No, in Germany started with composting plants, then switched to AD plants when they realised they made more money – installations could be upgraded.

### Next steps

- [redacted] to update table based on discussions
- Experts to prepare templates and refine wording
- Lead authors are kept

**TEG Taxonomy – Workshop 26 March 2019**  
**Waste and wastewater sector – DNSH points raised**

**Notes**

**E37 – Sewerage – Activity: Sewerage sludge treatment**

- “Digested sludge used e.g. as a natural fertilizer/soil conditioner displacing mineral NPK fertiliser”
  - This was part of the climate mitigation principle and criteria in the draft template for this activity.
  - This displacement contributes to climate mitigation through avoiding emissions from mining and production of NPK fertiliser.
  - However, this contribution is small compared to the biogas (methane) production and use (the other way in which sewerage sludge treatment contributes to climate mitigation).
  - On the other hand, once the sewerage sludge treatment is in place, not using the digested sludge does not make economic sense.
  - This means that unused digested sludge could be considered significant harm to the circular economy objective (since using it represents no additional costs and actually brings in revenue).
  - Hence, it was suggested that the requirement relating to the use of the digested sludge could be placed under DNSH, circular economy objective.
- “Compliance of the activity with national/regional/local wastewater management plans”
  - Again, this was initially in the climate mitigation criteria.
  - However, compliance with these management plans is more important for the water or pollution objective, so could be placed in DNSH.
  - Note that such compliance is a requirement for issuance of permits by authorities, so the operator of the activity is able to demonstrate compliance to the investor very easily.

**E39 Remediation activities and other waste management services - Activity: remediation of old landfills / dumpsites after final closure**

- (From a climate mitigation perspective, there discussion around how to ensure that inclusion of this activity does not incentivise landfilling or give the wrong signal. Limiting the activity to old landfills and dumpsites after final closure ensures this is about clearing up legacies of the past.)
- One of the mitigation criteria initially was “proper management according to standard xy”.
- Again, this was considered more relevant for the DNSH.
- However, it was questioned whether this was needed at all, since the alternative to landfill remediation is that the landfill stays. Thus, it was argued that the remediation cannot harm the environmental objectives, it can only improve on them.
- On the other hand, the aim may be to encourage only the cleaner forms of remediation.