



Sustainable Development Goals in Education

Pernilla Berglund | NTI | Uppsala | Sweden

Ecosystem services in city and school

Why are plant walls in city and school **blossoming**?

More than half of the world's population lives in urban areas. On 25th September 2015, UN member states adopted Agenda 2030. The agenda contains 17 sustainable development goals (SDGs). Goal number 11 focus on sustainable cities. **Ecosystem services*** and **nature-based solutions**** provide environmental, social and economic benefits and help build resilience to climate change in cities.

* *Ecosystem services* are services provided by ecosystems that contribute to human well-being.

** *Nature based solutions* are solutions inspired by nature that ensure ecosystem services

The aim in this learning scenario is to explore ecosystem services in city and school (figure 1 and 2)



Figure 1. Plant wall, Uppsala city



Figure 2. Plant wall, NTI gymnasiet Uppsala

Explore ecosystem services in city

- ✓ Reduce carbon emission, remove air pollutants and attenuate rain water
- ✓ Reduce ambient noise and temperature
- ✓ Increase well-being and support ecosystem services (pollination etc.)

Explore ecosystem services in school

- ✓ 3D print material, add plants and nutrients
- ✓ Program UV-light and water supply
- ✓ Measure pH, CO₂, temperature in real time by using PASCO

Conclusion: The project is **blossoming** since it contributes to future citizens and 21st skills:

Communication, Critical thinking, Creativity, Collaboration