Energy efficiency & education
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Norwegian Society for the Conservation of Nature
- Established 1914.
- 100 local and regional groups.
- 18,344 members.
- Biodiversity and climate.
- Awareness raising, information and policy.

School project SPARE on environment, energy & climate
- 16 countries, 3,000 schools.
- Coordinated by local env. NGOs.
- Teacher training & materials.
- International competition.
- Practical approach (learn-do-tell).
- Initiate real efficiency measures.

We need energy service – not energy
We use:
Light, heat, cooling, moving, electronic, chemical processes.

We do not use:
Oil, coal, electricity, gas, wind…

Energy consumption in buildings

Why is energy efficiency so difficult?
- It is not visible (but you can feel it).
- It is not a product, but a feature.
- It is delivered in small amounts.
- Many stakeholders are involved.
- Is confused with saving?
Energy education

• Understanding of energy, energy services.
• Understanding of link between energy and environment.
• Change attitude and behaviour.

Schools responsibility?

• Theoretical education on energy and environment.
• Awareness and responsibility as citizens.
• Practical energy measures.
• Spread knowledge to local community.

Practical energy measures I

• Investigation of class/schools energy consumption/need for energy services.
• Monitoring/energy patrols (awareness save 10-15%)
• From service to source – track energy path.

Windows in poor condition, high infiltration. Main energy loss in most schools.

To repair is simple, cheap and quick. Indoor temperature increases 3-8 C. Why is it not happening?

Spread knowledge to local community

• Information on school: Lessons for younger pupils, school posters, exhibitions.
• Meetings/performances for parents.
• Petitions to local decision makers.
• Performances/exhibitions in public space.
• Information posters in neighbourhood.
• Etc!
Thank you for the attention!

WWW.SPAREWORLD.ORG

NORFILES NATURLVERNFORBUND FRIENDS OF THE EARTH NORWAY

Emission reduction promises

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Necessary reductions

<table>
<thead>
<tr>
<th></th>
<th>Global</th>
<th>Annex I</th>
<th>Non-Annex I</th>
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</thead>
<tbody>
<tr>
<td><strong>2020</strong></td>
<td>Peak within 2000-2015</td>
<td>25-40% reduction from 1990-level</td>
<td>Substantial lower growth than business as normal in Latin America, Middle East, Asia centralplage Area</td>
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<tr>
<td><strong>2050</strong></td>
<td>50-85% reduction from 2000-level</td>
<td>80-95% reduction from 1990-level</td>
<td>Substantial lower growth in all regions</td>
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Stabilizing on 450 ppm CO2e. Source: IPCC AR4 WGIII)