
State of Scotland's Environment 2006

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State of Scotland's Environment 2006

- State of Scotland's Environment Conference
 - Monday 2nd October 2006
 - Edinburgh International Conference Centre
 - Scottish Environment Protection Agency (SEPA)
- Theme of the Conference
 - Change Tomorrow Today
- Purpose of the Conference
- Launch of SEPA's "State of Scotland's Environment Report"



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- Why produce such a report?
 - 10 years since SEPA came into being
 - 10 years since first SSE. Report
 - SEPA have a duty to report on the Environment
- Just an overview
 - Collation of already published material
 - Is it of any real value?
- Judgment of the State of Scotland's Environment
- Why should SEPA be the judge?
- The report provides an overview of:
 - Social impacts of the environment
 - Economic aspects of the environment



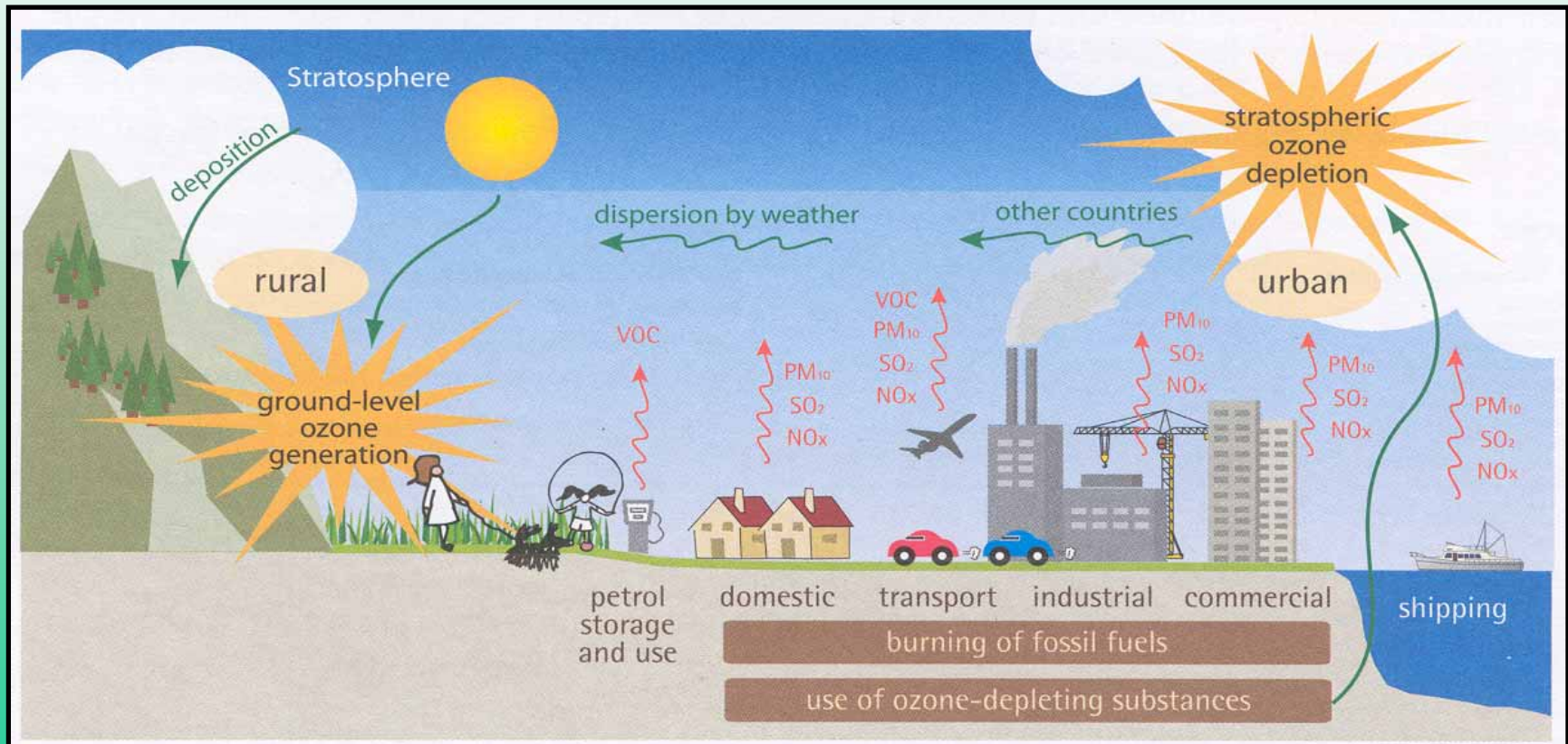
State of Scotland's Environment 2006

- Overall Findings
 - Air
 - Land
 - Water
- Environmental Issues
 - Waste
 - Radioactivity
 - Hazardous Chemicals
 - Nutrient Enrichment
 - Acidification
- Major Environmental Challenges
 - Human Health
 - Biodiversity
 - Climate Change



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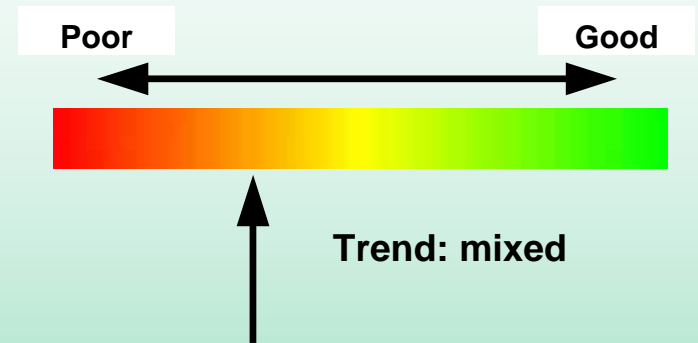
Overall Findings – Air, Land & Water



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Air

- Air Quality
 - Generally Good
 - Improving
 - Over 10 years has seen significant reductions in emissions
- Local Problems
 - Urban Traffic pollution is increasing
 - Increased ground level ozone in rural areas
 - Decline in stratospheric ozone
- Air pollution closely connected to human health



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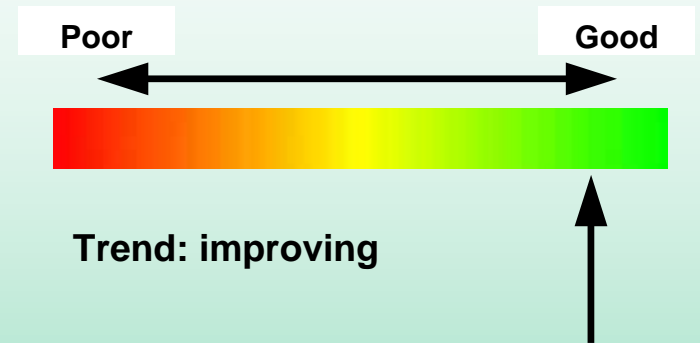
Land

- State of the Land
 - Generally Good
 - Contaminated land is being restored
 - New policies are encouraging conservation of soil organic matter
- Problems
 - Soil erosion is a continuing problem
 - Concerns about loss of soil organic matter
 - Soil sealing by impermeable surfaces
- There are significant knowledge gaps about soils



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Water



- Water Quality
 - Good and improving
 - Reduction in end-of-pipe discharges
 - Decrease in pollution of rivers and estuaries
 - Dramatic reduction in pollution of bathing waters since 2000
- Problems
 - Increased demand is likely to put pressure on water levels
 - Changes in river flow patterns may increase flooding and shortages
 - Diffuse pollution from farmland and roads is the largest cause of pollution



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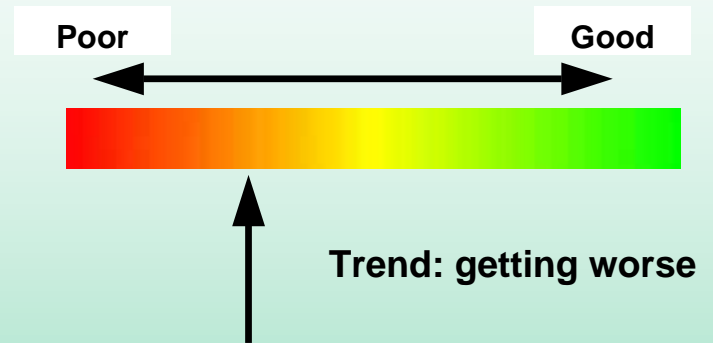
The Environmental Issues



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Waste and Resources

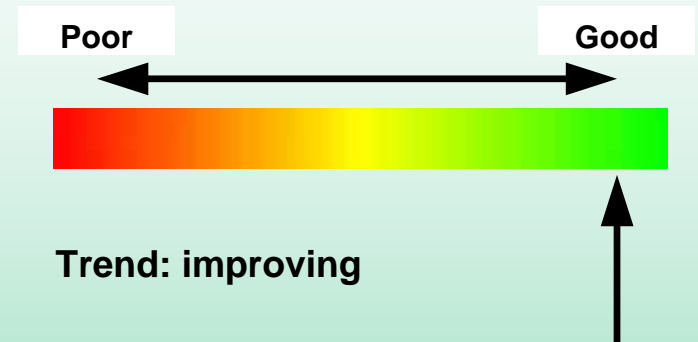
- Waste
 - 20 million tonnes of waste produced each year.
 - Reduction in the amount of waste going to landfill
 - Improvements in waste recovery and recycling
 - Stricter controls on landfill operations
- Problems
 - Household waste increasing
 - Fly tipping remains a problem
 - Litter is a very visible blight



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Radioactivity

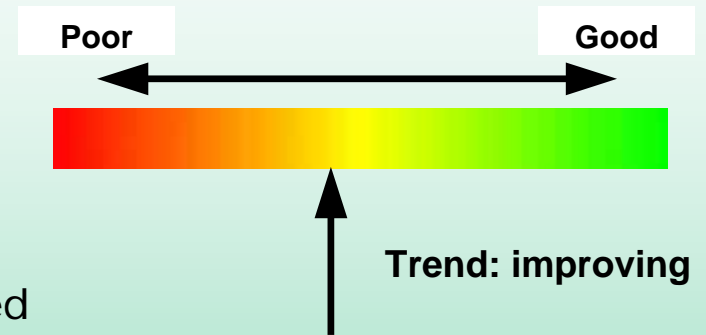
- Radioactivity Levels
 - Levels well below limits set for human health
 - Concentrations in drinking water remain well below the limit
 - Averaged exposure man-made sources less than 1/5 of natural radiation
 - Exposure from radioactive emissions less than 0.1%
 - Emissions from nuclear installations have fallen since 1996
- Problems
 - Some localised areas of contamination remain



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Hazardous Chemicals

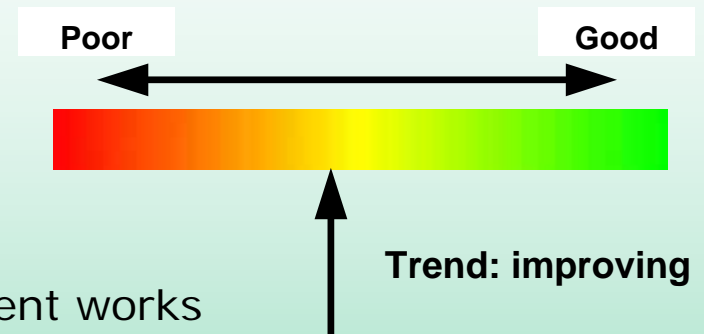
- Use of Hazardous Chemicals
 - The use of hazardous chemicals has reduced
 - The long term effects are still unclear
 - Reduction in problems caused by heavy metals
 - Reduction in problems of persistent organic chemicals
- Problems
 - Hazardous substances in run-off from urban areas
 - Rising concentrations of newly identified chemicals
 - Subtle impacts such as food chain contamination
 - Accumulation of persistent chemicals



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Nutrient Enrichment

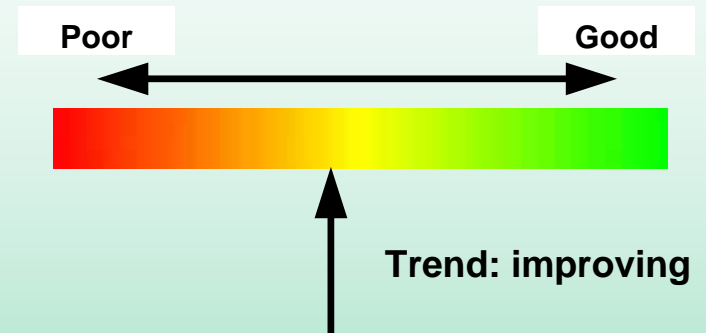
- Nutrient Enrichment
 - Reduction in nutrients from sewage treatment works
 - Better targeting and supply of nutrients in fertilisers
 - Emissions of nitrogen oxides to air show a downward trend
- Problems
 - Encourages algal growth in rivers, lochs and groundwater
 - Smothers other life in water bodies destroying ecosystems
 - Damage to specific habitats remains high
 - Algal blooms toxic to humans and animals
 - Ammonia emissions remain a major problem



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Acidification

- Acidification
 - Reduction in deposition of sulphur dioxide
 - Reduction nitrogen oxides
 - Decrease of impacts on vegetation, soil and water habitats
 - Evidence that some soils are becoming less acidic
- Problems
 - Galloway
 - Cairngorms
 - Western and central Highlands
 - Some watercourses devoid of acid-sensitive plants and animals
 - Climate change may slow down or halt recovery



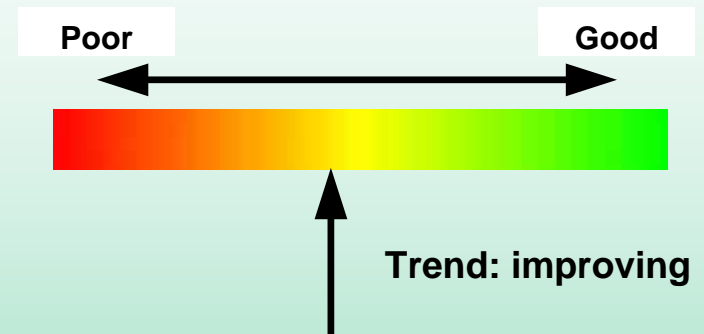
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The Effects of the Environment on Human Health

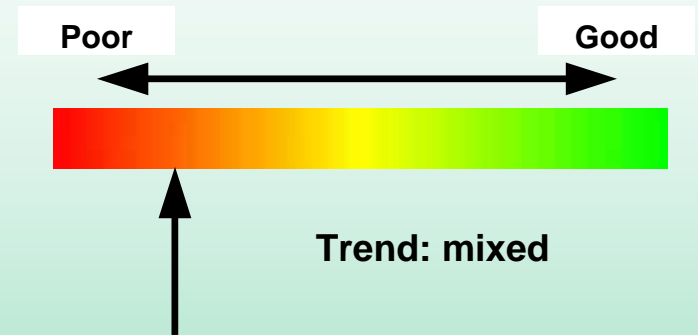
- Plays a significant part in:
 - Health
 - Quality of life of individuals and communities
- Relationship complex and uncertain
- Further work required to investigate the impacts
- Air pollutants make respiratory and cardiovascular illnesses worse and can hasten death in vulnerable people
 - Nitrogen dioxide
 - Sulphur dioxide
 - Small particles



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Biodiversity

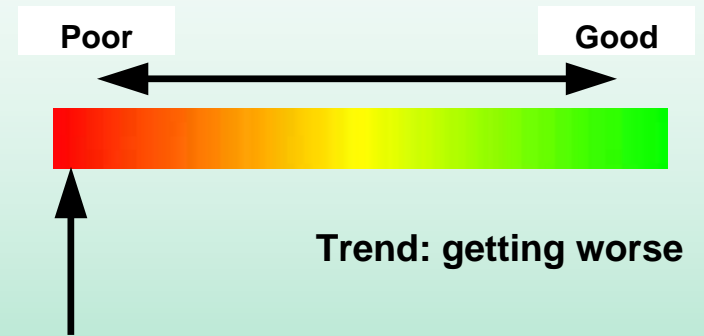
- UK Biodiversity Action Plan (2005)
 - 32% of habitats declining
 - 18% of species declining
 - 32% of habitats stable or showing signs of recovery
 - 39% of species stable or showing signs of recovery
- Climate Change
 - The range of some species is being reduced
 - Some species food chains are being disrupted
- EU targets to halt loss of biodiversity will be challenging
- Active Management will be necessary to maintain many habitats & Species in Scotland



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Climate Change

- Impacts on Scotland
 - Changes in growing, breeding and migration seasons
 - Shifts in species abundance and diversity
 - Changing weather patterns
 - Potential for more floods and droughts
- Climate Change will have Significant Impacts
 - Environment
 - Economy
 - Society
- Scotland Needs to Take Action to Prepare for the Inevitable Impacts



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- Positives
 - Scotland's Environment is generally of good quality
 - Reduction in emissions from industrial sources
 - Air quality quality standards are met most of the time
 - The freshwater environments are good
 - The landscape provides a backdrop for high quality of life
 - Basis for a successful tourism industry and vibrant economy
- Negatives
 - Localised air pollution
 - Reduction in stratospheric ozone
 - Risks to water quality from diffuse pollution
 - Increase in amount of waste being produced
 - Potential ecological damage from nutrient enrichment
 - Potential ecological damage from acidification
 - Loss of biodiversity



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Any Questions

The full "State of Scotland's Environment Report 2006 can be downloaded from the SEPA website at:

<http://www.sepa.org.uk/changetomorrowtoday/report/index.html>

