

science summary



Environment
Agency

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Urban environment research theme management

Introduction

In the area of urban environment research, the best way for the Environment Agency to work is in partnership with other UK regulators and stakeholders. The Agency contributed to a Scotland and Northern Ireland Forum for Environmental Research (SNIFFER) initiative, co-funding it from June 2003 to May 2005. This initiative identified appropriate areas of research and co-ordinated that work to provide relevant information and advice for the programme's sponsors. It included:

- securing funding for research;
- commissioning and managing research;
- forum activities.

Key outcomes

This approach identified more than 70 topics requiring new work. Several of these research needs have been taken forward by SNIFFER and partners. In particular, a forum for sharing information on progress with other (non-research) actions has been created. This has helped to set research and development (R&D) in the context of policy development and practice, thereby increasing awareness and opportunities for funding. SNIFFER has collaborated with more than 200 people in more than 60 organisations to do this. In addition, it has funded a number of projects, held a major seminar and developed a proposal for an Urban European Research Area Network (ERA-NET)

Research approach

SNIFFER has initiated a series of research clusters – networks of research funders that establish strong ongoing links with stakeholders. These groups work as virtual teams to try to avoid duplicating research, increase the impact of findings and make the findings more relevant to more people. Seven urban environment clusters already underway are: pollution; greenspace; environmental justice; biodiversity; economy and environment; sustainable urban water management, and planning and infrastructure. The findings of the cluster workshops and related research were summarised at a major seminar in December 2004. To download a copy of the proceedings of the event ('Symposium – An emerging agenda for urban environmental research' click [here](#) or search the urban pages of the SNIFFER website www.sniffer.org.uk for project UET(04)03.

SNIFFER has also commissioned or collaborated in a number of initiatives:

Outcomes

Commissioned research completed during the contract

- UE4(03)01: **Investigating environmental justice in Scotland.** This project uses the Scottish Indices of Deprivation. It compares socio-economic data with the distributions of a wide range of environmental quality parameters. These include Integrated Pollution Prevention and Control (IPPC) sites, air quality, river water quality, greenspace, woodland, quarries, landfills and derelict land. The final report was published in May 2005. It demonstrates that, for most of the environmental quality parameters considered, the most socio-economically deprived communities in Scotland experience the worst environments.
- UET(04)02: **Urban ERA-NET proposal.** SNIFFER is coordinating a proposal for European Commission (EC) funding for a European network for urban research and good practice (URBAN-NET) under the FP6 ERA-NET scheme. This has included representatives of the Office of the Deputy Prime Minister (ODPM), Office for Science and Technology (OST), Natural Environment Research Council (NERC), Environment and Physical Sciences Research Council (EPSRC), Scottish Executive, Environment Agency, Scottish Environment Protection Agency (SEPA), English Nature, Forestry Commission, Scottish Natural Heritage (SNH), and local authorities. The aim is to identify and fill gaps in knowledge. The network will also help improve good practice by sharing existing research. Participants in the proposal include 18 partners from 15 different countries. The bid (available in draft) will be submitted in October 2005. If successful, this could provide up to €3 million to support networking activities for up to five years.

- UE2b(04)GR5: **Scoping study for a database of greenspace and quality of life research and case studies.** The final report for this short project has now been produced by Greenspace Scotland and OPENspace.
- SUDS01: **Social perspectives of SUDS.** (Agency reference P2-261/16/TS.) The final report for this project includes valuable case studies comparing how public and professional stakeholders in Glasgow, London and Athens perceive stormwater management practices.
- **PUR: Pollutants in the Urban Environment.** SNIFFER is the non-academic champion for a
- £2 million research programme funded by EPSRC under the Sustainable Urban Environment Programme. This project aims to develop a decision-support tool linked to a variety of GIS-enabled datasets. This tool will help end-users (regulators, industry, researchers) assess different urban scenarios and predict the impacts of pollution. The Environment Agency is represented directly on the project steering group.
<http://www.surrey.ac.uk/eng/ces/pubs/poster4.pdf>

Ongoing research commissioning

During the reporting period, progress was made with developing the following proposals and projects:

- **UE3(05)UW5: Retrofitting sustainable urban water solutions.** A SNIFFER-led proposal has gained BOC Foundation (related to a separate Environment Agency project number SC030157).
- UE2b(05)GR5 – **Greenspace research and case study database.** SNIFFER is developing this project in partnership with the following organisations: SNH; Greenspace Scotland; Communities Scotland and Office of the Deputy Prime Minister.
- UE2a(05)UB1b: **Biodiversity in Urban Gardens.** SNIFFER is investigating the possibility of extending this University of Sheffield research programme (funded by a range of partners including Defra, NERC, and English Nature) to include a Scottish case study.
- EJ8/9: **Investigating methods to include community perceptions of environmental impacts in policy making and regulation.** SNIFFER and SEPA hope to undertake this research in partnership with the Environment Agency and Department of the Environment Northern Ireland.

Who should be aware of this initiative?

Research and policy managers working on chemicals, sustainable development, conservation and recreation, air quality and the urban environment.

Background to research

Urban areas account for 90 per cent of the UK population and 91 per cent of economic output. Cities can all too often, though, be dirty, noisy and threatening places.

In England, the sustainable communities programme and the urban white paper promote a vision of better urban developments for the benefit of all. In Scotland, the government has given major undertakings to achieve environmental justice. It is essential that urban regeneration be sustainable. Poorly planned development (green or brownfield) and the process of urbanisation, though, pose serious threats to the environment. Threats include pollution from diffuse sources, flooding and the loss of biodiversity. These challenges cannot be addressed by single organisations working in isolation.

A particular challenge is for government, planners and other stakeholders to develop integrated and holistic approaches to delivering sustainable communities. They can do this by sharing knowledge and learning from each other's experiences. A number of organisations and sectors will benefit from a greater coordination of research and development activities. Ultimately, this will help society achieve the goal of sustainable development.

Keywords:

Urban environment, stormwater management, SUDS, river management, pollution, public perception, public involvement, environmental justice, planning, community engagement, green space, open space

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