


**Ecosystem  
Services and  
Sustainable Cities**



**ESPA's research programme spans the globe, from the small scale to the large, and despite a huge and diverse portfolio of projects, they all aim to do one key thing – generate research to ensure we manage ecosystems in the best way to help improve the lives of the world's poor.**

**We do this by bringing together the world's best researchers from a range of sciences, both local and international, to provide multi-disciplinary insights into four key areas - Sustainable Landscapes; Equity & Justice; Urbanisation and Climate Change.**

**This leaflet focuses on our urban work. For further information about these and other projects please visit: [www.espa.ac.uk](http://www.espa.ac.uk)**

## Urbanisation

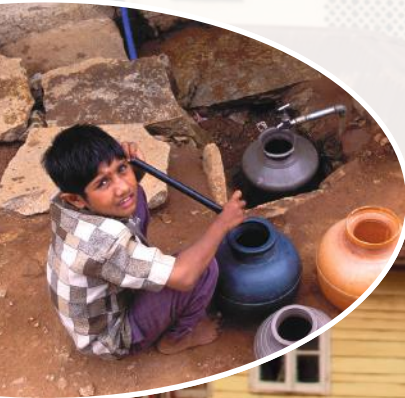
Urbanisation creates new opportunities for many, but it can also result in a dramatic increase in the concentration of poverty and environmental degradation. This poses huge challenges for the health and livelihoods of an increasing number of disenfranchised, poor and marginalised citizens, and for sustainable urban development.

## Ongoing Projects

### **The Political Economy of Water Security, Ecosystem Services and Livelihoods in the Western Himalayas<sup>1</sup>**

This project studied the ways in which small towns in the hill and mountain regions of South Asia depend on springs, streams and rivers for the supply of water. Current infrastructure planning processes tend to focus on the needs of large urban settlements, neglecting the needs of small towns (defined as populations below 100,000 people) which have grown so rapidly and are so important in India and Nepal.

The team undertook an assessment of the hydrological dependence and waterflows from the surrounding areas of small towns in two Indian states (Himachal Pradesh and Uttarakhand), and in the hill regions of Nepal. This led to an understanding of the synergies and trade-offs associated with managing these areas to secure water







supply, and led to the demarcation of 'Critical Water Zones' (CWZ) to safeguard supply. Project teams also helped negotiate equitable transactions and benefit sharing over these ecosystem services through reciprocal water access agreements (RCA) between the municipal authorities and the communities in and around these CWZs.

The study is also exploring the possibility of avoiding damage caused by urbanisation by using systematic housing schemes suited to the geography of the hilly terrain, plantation and water conservation techniques to retain groundwater, and recharging of identified CWZs and community participation.

### **Risks and Responses to Urban Futures: integrating peri-urban/urban synergies into urban development planning for enhanced ecosystem service benefits<sup>2</sup>**

This research is looking at the interactions and trade-offs between ecosystem services, and poverty in peri-urban areas of Hyderabad, Bangalore, Varanasi, Kathmandu and Dhaka and Delhi. The project is facilitating community-led mapping of the ecosystem experiences to develop scenarios of the likely impacts of current and future policies on ecosystem services. Through this, the team has highlighted alternative pathways through which urbanisation-induced environmental impact could be better managed and mitigated through policy responses.

### **Institutions for Urban Poor's Access to Ecosystem Services: A Comparison of Green and Water Structures in Bangladesh and Tanzania<sup>3</sup>**

Bangladesh and Tanzania are rapidly urbanising with populations living in low-income settlements relying on two key ecosystems – urban green and water structures – to provide shelter, fuel, food, safe drinking water, drainage, and flood/pollution prevention. However, they are also the source of 'disservices' such as harmful bacteria which can lead to chronic ill-health.

ESPA has shown that in places like this where state authority is limited in its reach, co-production (providing public services through collaboration between state agencies and citizen groups) and community collective action are essential in helping the poor.

For example, In Dar es Salaam the impact from the wave of floods and disease that have hit the area in the last five years could have been mitigated through proper co-ordination between the communities and the distant policy makers. Urgent measures such as digging drainage ditches, building small embankments, and constructing walled areas for solid waste storage could have prevented some of the frequent tragedies suffered there.

As well as bringing together a team of leading Bangladeshi, Tanzanian and UK researchers, this project also trained 20 promising young local researchers to increase capacity in the region.



# ESPA in numbers

## ESPA's research community

**105** projects in **52** countries

**913** researchers from **368** institutions

**50%** of ESPA researchers are from **developing countries**

## Global perspectives

**53** projects in **Africa**

**33** projects in **Asia**

**19** projects in **South America**

## Making a contribution

**£41M**

of development investment  
has been informed by  
**ESPA research**

**£41M**

of new research projects  
informed by  
**ESPA research**

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