



IUCN – The World Conservation Union

Water Law Series – Issue 7

Environmental Flows

What are environmental flows?

There is no universally agreed definition of environmental flows. The following definition has been adopted in the soon to be released IUCN publication '*Environmental Flows – The Essentials*':

'An 'environmental flow' is the provision of water within rivers and groundwater systems to maintain downstream ecosystems and their benefits; where the river or groundwater system is subject to competing water uses and flow regulation. Since regulation of flow can occur through direct infrastructure (like on-stream dams) as well as through diversions of water from the system (for example by pumping water away), there are different ways in which environmental flows can be provided.'

Why provide for environmental flows?

Environmental flows are vital for healthy functioning river systems, which in turn is critical for attracting investment, achieving long term economic prosperity and the conservation of biodiversity. Environmental flows work for people and much as for plants and animals.

Water resource managers are coming to terms with the need to look after the resource and the systems it maintains in order to ensure long-term economic viability. Environmental flows are also about integrated catchment management: environmental flows alone do not make a healthy river. Environmental flows need to be provided in the context of other issues like managing salinity and other pollutants, and protecting and restoring habitat.

Is there a global convention on environmental flows?

No, there is no global convention or soft law instrument that deals specifically with environmental flows. There are however many examples of international instruments dealing with other issues where environmental flows are addressed.

The concept of environmental flows is part of the broader concept of taking an ecosystem approach to water resources management. As such, the relevant international instruments are not only those directly dealing with water resources, but also those that have a primary focus on the protection of nature and ecosystems (ie the Ramsar and Biodiversity Conventions).

So called 'soft law' instruments like Agenda 21 and the WSSD Plan of Implementation also address environmental flows as did the World Commission on Dams Report: Dams and Development.

Are there any regional conventions on environmental flows?

No, there is no regional convention that deals specifically with environmental flows. However there are treaties, such as the Mekong River Agreement, which sets up the framework for co-operation between riparian States in all fields of the basin's sustainable development, that specifically requires minimum stream flows for the protection of ecosystems. Sub national agreements, such as the Murray Darling Basin Initiative in Australia, have made provision for environmental flows within the framework of the Agreement that created the Initiative.

Have any countries legislated for environmental flows?

Yes. There are a number of examples of national and sub national legislation. Some deal with the issue directly and others more indirectly. Examples include legislation that requires minimum flow requirements, declares wild and scenic rivers, requires statutory management plans setting aside environmental flow requirements, or requires the creation of a 'reserve'. The best recent examples of good legislation are from Australia and South Africa.

Is there such a thing as model legislation for environmental flows?

Legislators make laws to address issues of public concern within their own jurisdiction and answer to their own electorates. Model legislation is not developed through engaging local communities, nor through drawing upon the wisdom of locally elected officials. Further, it is not drafted in the context of local conditions. Model legislation is perhaps an interesting academic exercise, but reality indicates that there is no "quick fix" to developing a legislative framework to effectively control water pollution and allocate enough water for ecological needs. However, it is possible to elicit (from much of the work that has been carried out at the international level, and from successful and not-so-successful case studies), guidelines or key principles, that can guide the development of policy, as well as the institutional and regulatory frameworks.

Where do I go for further assistance?

The IUCN Environmental Law Programme: see below for contact details. The soon to be released IUCN publication '*Environmental Flows – The Essentials*' will be an invaluable source of information and guidance.

IUCN Environmental Law Centre for the IUCN Environmental Law Programme

Contact the IUCN Environmental Law Centre at: waterlaw@elc.iucn.org

Visit the IUCN Environmental Law Programme Website at: www.iucn.org/themes/law