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IUCN is the world's largest environmental knowledge network and has helped over 75 countries to prepare and implement national conservation and biodiversity strategies. IUCN is a multicultural, multilingual organization with 1000 staff located in 62 countries. Its headquarters are in Gland, Switzerland.

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NEWS RELEASE – FOR IMMEDIATE RELEASE

## A CURE FOR OUR INSATIABLE THIRST ENVIRONMENTAL FLOWS METHODOLOGY ENSURES HEALTHY RIVERS, FAIR WATER SHARING AND REDUCES POVERTY

**Stockholm, Sweden and Adelaide, Australia, 13 August (IUCN) –** IUCN today releases the guide *“Flow – The Essentials of Environmental Flows”* that sets out the way to ensure the long-term prosperity and health of river basins throughout the world.

*“Many rivers and underground reserves are empty because of the wasteful way we use water. It is estimated that already 1.4 billion people live in river basins where water abstractions are equal to or more than the available water and thus lead to serious social and environmental damage”,* says Dr. Ger Bergkamp, co-editor of the report.

The implementation of ‘environmental flows’ in the river basins of the world can repair the damage done and help avoid future conflicts.

*“Environmental flows are vital for healthy river systems, which in turn are critical for attracting investment, achieving long-term economic prosperity and the conservation of biodiversity. Environmental flows work for people as much as for plants and animals”,* says John Scanlon, co-editor.

‘Environmental flows’ is an easy concept. It means enough water is left in our rivers and is managed to ensure downstream environmental, social and economic benefits. It includes planned releases of water from dams and other infrastructure. Releases of a minimal amount of water are alternated with larger amounts to cause rising water levels in the river and limited floods downstream. The goal is to maintain the river in a healthy state as agreed between the many water users in the basin.

Environmental flows requires integration of a range of disciplines, including engineering, law, ecology, economy, hydrology, political science and communication. It also requires negotiations between stakeholders to bridge the different interests that compete for the use of water, especially in those basins where competition is already fierce.

*“In the Sabie river in South Africa, the natural river flow is 594 million cubic meters. Of that water, 170 million cubic meters is reserved to have water in the river in the dry season and flood the fertile floodplains in the wet season. This protects the river ecosystem and the livelihoods of downstream users”,* says Ms. Megan Dyson, lead editor.

*“Flow – The Essentials of Environmental Flows”* gathers the major lessons from the pioneering work of South Africa, the United States and Australia in a practical guide for the implementation of environmental flows.

The publication helps all the different interest groups to implement environmental flows and make rivers healthy again. It explains the



Water & Nature Initiative

technical methods as well as how to change laws, negotiate with stakeholders, and find the means of financing.

An illustration of the importance of environmental flows comes from the Lesotho Highlands Water Project, which constructs several dams on the Senqu River System in Lesotho. Releases keep the river alive for the benefit of the poorest: downstream, 5,098 households catch an annual average of 22.7 kg of smallmouth yellowfish, rock catfish and rainbow trout per household. The approximate market value is US\$ 31.78 per household.

Over 13,000 households gather on average US\$ 44.40 of wild vegetables each. Reeds, thatch grasses and the craft grass *leloli* within the riparian zone are harvested by 20,172 households. Medicinal plants are collected by 6,391 households, with a mean market value of approximately US\$ 6.60 annually per household.

In a country where 53.9% of the rural population is below the poverty line, these natural resources (worth over US\$ 80 in total) are of extreme importance. The implementation of environmental flows in Lesotho means that water is released from reservoirs to create artificial floods. These ensure that vital resources remain available to the 155,000 people downstream. Without environmental flows, these people would have lost a substantial part of their livelihood.

Environmental flows also have great benefits to biodiversity. In the Murray-Darling Basin in Australia, in 2000/2001 a 1-in-5 year flood event in the Barmah-Millewa Forest was enhanced through releases made from a major storage. Following these releases, the great egret bred in the forest for the first time since 1979, as did nine species of frog and a variety of native fish.

The case of the Indus river shows that, from an economic perspective, the benefits of environmental flows far outweigh the costs. The yearly benefits of natural resources from the river are valued at US\$ 120 million, which excludes the unquantifiable value of environmental aspects such as biodiversity, habitat provision and coastal protection. In comparison, releasing 25% of the Tarbela Dam water for floods, thus making it unavailable for irrigation or power generation, would cost US\$ 38 million.

*“Environmental flows is an essential component of modern water management. This guide gives every country access to the tools that are needed to address our insatiable thirst for water”,* says Bergkamp.

#### **More information**

“Flow – The Essentials of Environmental Flows” is presented today in Stockholm, Sweden, at the Stockholm Water Week, and in Adelaide, Australia. The book is available from IUCN’s Bookstore (<http://www.iucn.org/bookstore/>) or from <http://www.waterandnature.org>.

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