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## CLIMATE CHANGE WILL WORSEN WATER CONFLICT ACROSS BORDERS

### *Pacific Institute Research for United Nations Cites Strategies for Reducing Risk of Tensions over Shared Water Resources*

**January 11, 2010 – Oakland, Calif:** Global climate change will increase the risk of conflict over shared international freshwater resources. Treaties and other cross-border agreements can help reduce those risks, but existing agreements are inadequate for dealing with the impacts of climate change. A new Pacific Institute analysis for the United Nations, [\*Understanding and Reducing the Risks of Climate Change for Transboundary Waters\*](#), identifies these growing risks and proposes methods for reducing them.

“Climate changes will inevitably affect water resources around the world, altering water availability, quality, and the management of infrastructure,” said Peter Gleick, president of the Pacific Institute. “New disputes are already arising in transboundary watersheds and are likely to become more common. The existing agreements and international principles for sharing water will not adequately handle the strain of future pressures, particularly those caused by climate change.”

The world’s freshwater resources are unevenly and irregularly distributed, with some regions of the world extremely short of water, and political borders and boundaries rarely coincide with borders of watersheds. Water disputes are generally resolved diplomatically, and shared water resources are often a source of cooperation and negotiation. An estimated 300 agreements have been developed between States that border a shared river. But there is also a long history of violence associated with transboundary waters that highlights the challenges associated with managing shared water resources. The Pacific Institute’s [\*Water and Conflict Chronology\*](#), updated in December with interactive maps and timeline, shows a growing incidence of disputes over water allocations leading to conflict across local borders, ethnic boundaries, or between economic groups, as well as in international conflicts. Climate change will only make these problems worse.

With most of the available freshwater of the Earth crossing political borders and 40% of the world’s population relying on these shared resources, transboundary agreements are needed now more than ever. But the new analysis suggests that new forms and international arrangements are needed and old agreements may need to be renegotiated in the context of a changing climate.

“As climate changes alter the form, intensity, and timing of water demand, precipitation, and runoff, past climate conditions are no longer an adequate predictor of the future,” said Heather Cooley, senior research associate and coauthor. “Yet climate change is rarely discussed in transboundary water agreements. Most existing treaties and agreements are based on the outdated assumption that future water supply and quality will not change. Adapting to climate change is going to require changes in the institutions and policies that have been put in place under international treaties.”

(more)

The new study, available in full at [http://www.pacinst.org/reports/transboundary\\_waters/index.htm](http://www.pacinst.org/reports/transboundary_waters/index.htm), also presents some specific case studies of regions where climate change, water, and international politics collide, including the Mekong River in southeastern Asia, the Colorado River, the Guarani Aquifer in South America, and the Nile River in northeastern Africa. Each of these watersheds is shared by two or more nations, each will experience significant impacts of climate change, and each is governed by a weak or inadequate international agreement.

[\*Understanding and Reducing the Risks of Climate Change for Transboundary Waters\*](#) also offers solutions to these problems, including:

- establishing agreements in transboundary basins;
- enforcing an effective international legal framework, the UN Convention on the Law of the Non-Navigational Uses of International Watercourses
- expanding the scope of existing agreements;
- evaluating existing treaties and agreements to assess flexibility in light of changing conditions;
- amending existing treaties to improve flexibility;
- establishing joint monitoring programs;
- conducting climate impact, vulnerability, and adaptation assessments.

“It is important that new institutional arrangements be put in place to reduce the risks that climate change poses to transboundary water resources,” said Gleick. “Without new thinking, unavoidable climate change will lead to unavoidable conflicts over water.”

Based in Oakland, California, the Pacific Institute is a nonpartisan research institute that works to create a healthier planet and sustainable communities. Through interdisciplinary research and partnering with stakeholders, the Institute produces solutions that advance environmental protection, economic development, and social equity – in California, nationally, and internationally. [www.pacinst.org](http://www.pacinst.org).

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