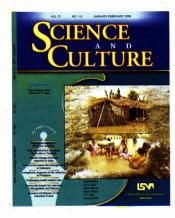
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## MANAGING FLOOD DISASTER RISKS



Ploods may be welcome, a nuisance, or a disaster, depending on where you live and how you make a living and how unusual the flood. Interventions in rivers and their flood plains, through embankments and diversions, whether intended for that purpose or not, alter speed, debris flows and which areas get inundated. They may drastically shift the

risks of damage, morbidity and death. Communities which are well informed and prepared ahead of time may cope much better with floods than those that are not or which do not have the capacity, skills or resources to respond. Early warning systems may reach some groups much earlier and with more accurate information than others. Social and physical factors jointly determine vulnerabilities to floods and the risks of flood-related disasters.

This makes decisions about how to reduce the risks of disaster, as well as how to manage, regular seasonal floods and droughts, less straightforward than a purely technical exercise in monitoring water levels, modeling flood potential and planning based on this information. Institutions and decision-making processes shape how risks are distributed. For this reason, the transparency and accountability of decision-making about flood management is important. Negotiation and compensation procedures need to be fair not just economically efficient.

The global picture is worrisome on two fronts. Firstly, despite the better understanding of disasters, losses of life and property from flood disasters remain unacceptably high and are increasing. Secondly, climate change is likely to result in significantly more intense rainfall events which, depending on trends in other factors affecting run-off and river flows, will result in more extreme flood events in some places. Clearly, it would be highly desirable to have more systematic methods for assessing institutional influences

on key vulnerabilities, and consequently, on the risks of flood-related disasters.

Issues of institutional design could make a large difference to both overall risks of disaster as well as outcomes for the most vulnerable groups. Who decides who and what will be at greatest risk? Are there some institutional arrangements which are much more effective at coordinating preparedness, emergency and rehabilitation efforts, than others?

In this special issue of Science and Culture we look closely at the management of floods and flood-related disaster risks through an institutional lens. The initial impetus for this collection came from a set of case studies of flood disaster risk management in Vietnam, Thailand, Japan and Russia funded by the Asia-Pacific Network for Global Change Research. These and the other studies in this special issue cut across examples from particular organizational and socio-economic settings, policies on flood disasters, and practices before and around specific flood events. Most papers focus on the formal institutions created by states to deal with flood-related disasters and how these interact with local, often informal, institutions. A common theme is that the interplay of institutions not only defines what and who is to be at risk but also shape the way flood disasters are defined, perceived and acted upon.

Our initial goals were to compares and explain major success and failures in performance of floods risk reduction institutions and identify common and specific problems across countries. Ultimately we would like to see distil the lessons learned about good designs and practices and share these with responsible agencies and publics. Such an analysis is particularly timely as many governments in Asia are forging, experimenting with, or seeking new institutional structures and policies to reduce the risks of flood disasters.

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