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THE RIVER BASIN AS AN IDEA: THE SOCIAL LIFE OF A MANAGEMENT UNIT

Dr. Saurabh Singhal
Department of Geography, DSM Degree College, Kanth, Moradabad 244001, Uttar Pradesh, India

Abstract

The river basin is so firmly established as the natural unit for managing water that its status is rarely questioned. This paper questions it. It argues that the basin, far from being a self-evident given handed down by nature, is a concept with a social and political history, adopted for particular reasons and carrying particular consequences, and that treating it as the obvious container for water management obscures as much as it reveals. Drawing on the critical scholarship that traces the social life of the river-basin idea, the paper shows how the basin came to be enshrined as the organizing unit of integrated water management, why its hydrological logic is more ambiguous than it appears, and how the choice of the basin as the unit of management privileges some actors, scales, and problems while marginalizing others. It does not argue that the basin should be abandoned, but that it should be recognised as a choice rather than a fact, one whose merits must be weighed against its costs in each setting rather than assumed. Seeing the basin as a constructed unit, the paper concludes, is a precondition for using it wisely.

Keywords: *river basin; scale; integrated water resources management; water governance; hydro social*

1. Introduction

Ask a water professional what the natural unit for managing water is, and the answer will almost certainly be the river basin, the area of land that drains to a common river mouth. The basin seems the obvious container: water respects watersheds, not administrative boundaries, so surely water should be managed at the scale of the watershed. This logic is so widely accepted that the basin has become the Organising principle of modern water doctrine. Yet the very obviousness of the basin should give pause, for ideas that seem natural are often the ones most in need of examination. This paper examines the river basin not as a given but as a concept with a history, and asks what adopting it as the unit of management does, for good and ill.

The paper first describes the enthronement of the basin in water doctrine, then questions the hydrological logic that is supposed to justify it, then considers the political consequences of the

choice, and finally argues for treating the basin as a deliberate and revisable choice. The treatment is conceptual, engaging a body of critical scholarship rather than reporting new measurement.

2. The enthronement of the basin

The elevation of the river basin to the status of the natural management unit is a central feature of the integrated approach to water that came to dominate the field. The doctrine of integrated water resources management prescribes that water be managed in a coordinated way across sectors and interests, and it locates that coordination at the scale of the basin, on the reasoning that the basin is the area within which water uses are hydrologically connected and must therefore be balanced together (Global Water Partnership, 2000). To manage water by the basin is, on this view, simply to manage it at the scale at which it actually interacts, and basin organisations, basin plans, and basin authorities have accordingly proliferated as the institutional expression of the integrated ideal.

3. The ambiguity of the hydrological logic

The critical scholarship on the river basin has shown, however, that the hydrological logic supposed to make the basin the natural unit is more ambiguous than it appears (Molle, 2009). The surface watershed does define the area draining to a river, but water does not confine itself to surface drainage: groundwater moves across watershed divides, water is transferred between basins by canal and pipe, and the atmospheric moisture that feeds a basin originates far outside it. The basin is thus not a hydrologically closed system but one boundary among several that could be drawn, chosen because it is convenient and intuitive rather than because nature insists upon it. Moreover, the problems that water management must address, pollution, allocation, flooding, do not always align with the basin: a city's water problem may be driven by demand and institutions that have nothing to do with its basin, and an aquifer's depletion may span several basins. The claim that the basin is the natural unit, in short, rests on a selective reading of hydrology that treats surface drainage as decisive and ignores the many ways in which water, and water problems, cross basin lines (Molle, 2009).

4. The politics of the unit

If the basin is a chosen rather than a given unit, then the choice has consequences, and the critical scholarship draws them out. To manage water at the basin scale is to create basin-scale institutions, and those institutions privilege the actors and the knowledge that operate at that scale, typically the state agencies and technical experts who can speak for the basin as a whole, while marginalizing the local users and the sub-basin communities whose concerns are finer-grained. The basin frame tends to render water a technical matter of balancing supply and demand across a hydrological unit, and in doing so it can obscure the political questions of who gets water and on what terms, questions that are not resolved by hydrological accounting (Molle, 2009). The very comprehensiveness that makes the basin attractive to the integrated ideal is thus also what makes it prone to the gap, noted in the reassessment of that ideal, between an elegant plan at the scale of the whole and a fragmented, contested reality on the ground (Biswas, 2004).

The choice of the basin as the unit, in other words, is not politically neutral: it shapes who governs water and whose claims are heard.

5. The basin as a choice

None of this means that the river basin should be discarded. For many problems of water allocation and river management, the basin remains a sensible and useful frame, and the connectedness of upstream and downstream within a basin is real and important. The argument is rather that the basin should be recognised for what it is, a choice of scale and boundary made for particular purposes, with particular advantages and particular costs, rather than an incontestable fact of nature. Recognizing this has practical consequences. It invites the question, for any given water problem, whether the basin is in fact the right scale at which to address it, or whether the problem lives at the scale of the village, the city, the aquifer, or the nation, and it guards against the reflexive creation of basin institutions for problems the basin does not fit. It also keeps in view the political content that the basin frame can obscure, prompting attention to who is served and who is marginalised by managing at that scale (Molle, 2009; Biswas, 2004). The basin, used knowingly as one option among several, is a valuable tool; mistaken for a natural necessity, it becomes a source of misdirected effort.

6. Conclusion

The river basin has acquired the status of the natural unit for water management, but that status does not survive examination. The basin is a concept with a social history, adopted as the organizing scale of the integrated water ideal, justified by a hydrological logic that is more selective than it seems, and carrying political consequences for who governs water and whose claims are heard. To see the basin as a constructed and revisable choice rather than a given is not to reject it but to use it wisely, weighing its merits against its costs for each problem rather than assuming it. The social life of the basin concept is a reminder that the units through which we manage the world are made, not found, and that the making deserves as much scrutiny as the managing.

References

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