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BOOK REVIEW

Kibaroglu, A.; Scheumann, V. and Kramer, A. (Eds). 2011. Turkey's water policy – National frameworks and international cooperation. Springer. ISBN: 978-3-642-19635-5. 407 pp. €129.95

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Some books are published at the right time. This book was published during turbulent times in the Middle East. In particular, some of the riparian states, including Turkey, that share international river basins, have been in a state of unrest and/or civil war. How does such a situation affect the domestic water policy of Turkey (the upstream riparian)? How does Turkey's national water policy affect its cooperation with other riparian states, as the title of this book suggests? These and many other questions are addressed in a very interestingly structured book on a fascinating country and its complex water resources.

A couple of special points first. The book is divided into two parts: (I) National framework and (II) International cooperation on international water. However, a careful reader would find that the book is actually divided into three parts: (I) National Framework, (II) Interaction between national policies and international cooperation, and (III) International cooperation. Many of the water scholars have already raised the question of whether or not there is an interaction between domestic policies and management of international rivers. This book provides a clear answer and identifies that link. Since Turkey shares rivers with eight other countries, most of which are border-creating rivers, the reader will find a set of cooperation structures that could be used for comparison with other basins. The book provides a useful compilation (in an annex) of all major bilateral water treaties between Turkey and its riparian neighbours since 1934, which is an important part of such a book.

Another special point that deserves (and got) attention is the relationship between Turkey and the European Union (EU), and its impact on the revision of water policy in Turkey over time. While Turkey has not yet been accepted to the EU, still the fruits of the pre-accession efforts can be recognised in recent water policy in Turkey. The Turkey-EU interactions over water policy affect the way Turkey handles its internal water affairs, and this book also suggests that Turkey's transboundary water management approaches are an important aspect in its accession negotiations with the EU.

With all the above in mind it is useful to describe some of the chapters of the book in more detail. In a short but very powerful introductory chapter the editors provide a unique approach of introducing the book through lenses of historical, political and developmental issues. This background explains the trajectories of water policy in Turkey since WWII. Reading this chapter puts things in perspective and helps the reader to realise how and why policies were developed. This chapter not only touches upon the major issues that have affected Turkey's water policy but also addresses them. These issues include

the priorities set in the water development era; the political changes in the state that also affected water policy and pushed towards decentralisation; the EU requirements and how they affected both the domestic and international water policies of Turkey; and finally, Turkey's international water policies, as it has different cooperation policies with its different riparian neighbours.

The first part of the book, focusing on a national framework, consists of nine chapters each of which and all together provide an impressive coverage of the policy issues faced by Turkey. Naturally, the chapter describing and analysing *Turkey's Water Policy Framework* sets the necessary basis for the rest of the book. This chapter takes a multi-disciplinary approach to describe and explain the policy, starting with the legal framework, how it has been modified over time, and the administrative framework that handles Turkey's water, including planning units, monitoring units, public works units, urban and rural water supply units, and water quality monitoring units.

The second chapter in Part I, *Strategic Role of Water Resources for Turkey*, provides rich information on water availability and use in Turkey, and development of water projects in various parts of the country. Sectoral and regional water consumptions are presented and discussed, although not in too much detail. More on sectoral uses of water can be found in other chapters. Water is described as a strategic resource in Turkey with special emphasis on the water from the Euphrates-Tigris that feeds the famous South Eastern Anatolia Project (GAP). Since its tremendous role in Turkey's financial stability and international relations, additional analysis on the GAP is provided in the case study on the *Euphrates-Tigris Rivers System*.

The third chapter in Part I, *Challenges for Turkey to Implement the EU Water Framework Directive (WFD)*, serves as a game changer in the development of water policy in Turkey. Domestically, it can be observed that WFD led to much more environmental considerations in the policy making in Turkey, including more effective water pollution reduction activities, monitoring and data collection, Integrated Water Resources Management, public consultation, introducing economic incentives and cost recovery. In addition, the EU-WFD also instructed Turkey to address its international water policy and establish appropriate coordination in parts of the basins that extend beyond the territory of the EU. The authors claim that while efforts are present, the institutionalisation of cooperative dialogues with all riparian neighbours is lacking. Eventually, Turkey has a good reason to extend efforts for increased cooperation and coordination on its international rivers.

The next four chapters in Part I of the book can be seen as sectoral chapters and will be described in aggregate. *Water for Energy* (chapter 4), *Liberalization of Turkey's Hydroelectricity Sector* (chapter 5), *Water for Agriculture* (chapter 6), and *Combating Water Pollution* (chapter 7) review policy features of the major water consuming sectors in the country (omitting the residential sector). Both hydropower and agriculture sectors consume the lion's share of the available water resources of the country. Both sectors are also seen as drivers for development of the economy. As such, making the hydropower and irrigation sectors more efficient may result in a much more cost-effective water system. However, as we are told, while the hydropower sector has been reformed successfully as part of Turkey's national energy policy reform, although with some remaining issues, the agricultural sector still has a long way to go. Remaining issues in irrigated agriculture include reducing irrigation subsidies, enhancing rural infrastructure, adopting more efficient management practices and irrigation technologies, and enhancing water allocation institutions. Hydropower and agricultural sectors are also affecting the cleanliness of waterways, water reservoirs, and groundwater, either by directly polluting them or by affecting water use by availability and quality of water. Thus, with climate change impact on water supply looming on Turkey, assimilative capacity of rivers and higher concentrations of agricultural residuals will become a big problem unless properly addressed. Environmental policies to combat water pollution are needed to address such potential problems. The *Combating Water Pollution* chapter suggests that a mixed policy that includes both incentives and a legal framework (standards and fines) would be more effective.

Environmental Impact Assessment in Dam Planning, the eighth chapter in the book is a critical chapter. Given that the hydropower production potential in Turkey is high, it is most likely that investment in hydropower production would be attractive to private electricity producing companies, especially after the implementation of the liberalisation in the hydropower sector (chapter 5). In such a situation the state has to protect, through Environmental Impact Assessments (EIAs) of each facility, the environment and ensure that new hydropower facilities comply with environmental regulation and minimise negative externalities. Another good reason for having protective EIAs is that they are required by the EU-WFD. This chapter reviews the EIA practices in Turkey and the various disadvantages associated with their design and implementation.

The policy picture painted in the book is not complete without introducing the role of Non-Governmental Organisations (NGOs) in both promoting certain government projects and objecting to their existence. Chapter 8 also addressed the role of NGOs in requiring more stringent EIAs. Chapter 9, *NGOs Promote Integrated River Basin Management in Turkey* describes the case of the Konya basin. The main aspects addressed in this chapter include the role of the NGOs in setting the stage for conflict resolution among competing demands for wetlands, arable cultivation, and grazing. While the case of a close interaction between the various stakeholders in the Konya basin may be unique and not representative, still it demonstrates how government agencies and local stakeholders may work towards a common objective of saving a basin.

The second part of the book is dedicated to address Turkey's cooperation policy on rivers it shares with its neighbours. This part of the book includes nine chapters, three of which describe and analyse various aspects of the policy and six chapters, which provide a first ever attempt to analyse the important transboundary basins of Turkey, Meric, Coruh, Kura-Aras, Euphrates-Tigris, and Orontes, using a similar structure.

The first chapter in Part II of the book addresses the *Water Dimension in Turkish Foreign Policy*. On a first read, it could look surprising that water plays such an important role in the foreign policy of a country. However, given the hegemony of Turkey in many of its transboundary river basins, the relative advancement of Turkey in water technology and infrastructural development compared to its downstream neighbours, and Turkey's long-standing view that a thirsty neighbour is not conducive to regional prosperity, inclusion of water dimension in Turkey's foreign policy is self-explanatory. The chapter reviews various activities undertaken by Turkey with various riparian neighbours. Such activities include joint development of the basins, capacity-building of technical staff in neighbouring countries, buying water from rivers shared with some of its neighbours, linking water with other issues that were subject to conflict in the various shared basins, and even considering the sale of water to countries that do not share rivers with Turkey (e.g. Northern Cyprus, Israel). While some of these transactions did not take place, the idea of having water transported by tankers or floating devices was seen as revolutionary in the 1990s.

The second chapter in Part II of the book, *Turkey's Position towards International Water Law*, is an attempt to argue against the perceived notion that Turkey is reluctant to develop cooperative arrangements on its transboundary rivers. Using examples from various global water conventions (UN Water Course Convention, UN Economic Commission for Europe), and various regional agreements (Black Sea, Mediterranean Sea) and other wetlands and biodiversity conventions, it is argued in the chapter that Turkey's diplomacy and foreign relations policy demonstrate the importance Turkey places on collaborative approaches toward management of transboundary water.

Chapters 3 through 8 offer a unique set of five transboundary basin case studies (Meric, Coruh, Kura-Aras, Euphrates-Tigris, and Orontes). What attracted me the most was the similarity in the structure of the case studies and the extensive coverage of issues in each case study, which cannot be discussed here for want of space. However, each and all of them are of great interest and can be used as

background material in courses on international water. The cases are different, but similarities can be drawn to support some of the statements about the Turkish policy on transboundary water.

The last chapter in the book, *Cooperation on Turkey's Transboundary Waters: Analysis and Recommendations*, provides a coherent conclusion to Part II of the book and, to some extent, reconnects between Part I (domestic issues) and Part II (transboundary issues). The chapter summarises the various case studies and provides additional aspects that can be added to the already existing sets of cooperative arrangements of the various river basins reviewed earlier. Indeed cooperation is described in the book as a dynamic process that benefits from constant modifications as conditions change.

To conclude, this is a fascinating book, rich with information, comprehensive in terms of the analyses and disciplines included, and uncovering new facts that would attract many readers.

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