

# ***State Making and Environmental Cooperation: Linking Domestic and International Politics in Central Asia***

By Erika Weinthal

Cambridge, MA: MIT Press, 2002. 274 pages.

## ***Reviewed by Shannon O'Lear***

**S**tate Making and Environmental Cooperation, the latest in a series of books from MIT on sustainability and institutional innovation, investigates the unexpected cooperation and institutionalization of shared water management among Central Asian states in the Aral Sea basin. The physical water system of Central Asia and the related infrastructure—previously integrated under Moscow's central authority—suddenly came under fragmented ownership when these states became newly independent in 1991. These states also had to contend with the severe environmental disaster left by Moscow's promotion of regional cotton monoculture, which spurred a massive diversion of rivers and degradation of the Aral Sea and its surroundings.

*State Making and Environmental Cooperation* focuses on the particular aspects of the situation in Central Asia before and after the Soviet collapse. The book is aimed at an audience of scholars of Central Asia and other regions of the former Soviet Union as well as those interested in case studies of international aid and state development.

Weinthal wants to investigate issues such as how states in flux engage in regional cooperation and how states with limited institutional capacity deal with complex issues of political and environmental situations. To move beyond the territorial trap (Agnew, 1994) of approaching states as isolated

“containers” of activity, Weinthal examines two-level games and considers the influential role of third-party actors—international organizations, bilateral aid organizations, and nongovernmental organizations—in the development of regional relationships and state building. The relative political stability related to resource issues she finds in the Central Asian region contradicts predictions in environmental security literature that weak states and scarce resources would normally set the stage for interstate conflict.

Following a general overview, *State Making and Environmental Cooperation* presents several reasons why Central Asian states would have seemed unlikely to collaborate on water issues. First, the potential for cooperation is low when one state can use its disproportionate advantage over another state to leverage a desired outcome. The division of the Amu Darya and Syr Darya water basins separated Central Asian states into upstream versus downstream users, leaving a fundamentally asymmetrical situation. Second, a general uncertainty accompanied each of these states' political, economic, and social re-configurations, dulling the potential for regional collaboration. Finally, Weinthal notes that, as these states sought to distance themselves from Moscow, they reached out to international organizations as a means both to build domestic and international legitimacy as well as to fill the void created by

the Soviet collapse. And as each state pursued unilateral relations with external agents that would lead to independent decision-making, the likelihood of regional collaboration over water management and use declined.

But Weinthal makes the essential point that each of the Central Asian states also made sovereignty bargains (Litfin, 1997) by working with each other and with third-party actors that could bring experience, finances, and technology to their situations. In particular, Weinthal considers the role of side payments to be critical. International organizations made these payments—awards of financial and material benefits—to constituencies in each state that were negatively affected by the shift away from socialism and toward participation with other states. Specific effects of side payments included strengthening sovereignty in the newly independent states, equalizing asymmetries in power between upstream and downstream states, and enabling states to distance themselves financially and ideologically from the previous colonial power.

Weinthal then steps back to explore the significance of Central Asia's cotton monoculture system as a form of social control by the Soviet center. This system led to patronage networks that controlled prestigious political and economic posts within the republics, while Moscow's provision of social protection and employment ensured public compliance with central policies. The system engendered and encouraged (a) corruption; (b) falsified reports of cotton production; and (c) environmental degradation throughout the region, further exacerbating the growing economic crisis in the Soviet Union.

Next, Weinthal examines conditions in Central Asia following Gorbachev's reforms and the Soviet collapse. She specifically focuses on (a) the devastation of the Aral Sea as a point of conflict between the Central Asian states and the Soviet center; and (b) events of eco-nationalism in which Central Asian states sought greater autonomy from the center and increased access to hard currency from cotton sales. *Glasnost* created opportunities for grassroots activism and increased contact with international organizations and western NGOs.

Shortly after independence, Central Asian

states chose inertia over reconstruction of Soviet institutions, but tensions over water in the Amu Darya and Syr Darya river basins as well as in the Ferghana Valley motivated leaders of these states to work together to ensure regional stability. In 1992, the states negotiated an interim water-sharing agreement that enabled water distribution and planting to continue as usual, but the states soon realized they had neither the financial nor technical capacity to enforce this agreement in the long run. Quality of life for citizens regionwide was also steadily decreasing through this period.

***State Making and Environmental Cooperation* investigates the continued legacy of the Soviet system of control and power that was expressed in the dominance of cotton monoculture.**

*State Making and Environmental Cooperation* then elaborates on ways in which specific agencies engaged with Central Asian states to promote collaboration and ease the process of independence. Weinthal provides a well-researched examination of how western countries and aid agencies viewed the Aral Sea crisis, prioritized Central Asian stability, and placed conditions on aid to the Central Asian states.

For example, although Central Asian states enthusiastically promoted saving the Aral Sea by diverting Siberian rivers or water from the Caspian Sea, the World Bank favored mitigating the effects of damage already incurred, and encouraged decreased regional dependence on agriculture. Weinthal uses this example and others to demonstrate how international aid agencies were able to influence the definition of and solution to problems pertaining to environmental and human damage in the Aral Sea and its tributary watersheds.

Other factors related to water concerns and negotiations that Weinthal documents here include: issues of titular nationalities<sup>1</sup> and their role in negotiating regional agreements; the location of scientific and newly-created institutional offices; and the use of domestic

side-payments and small-scale projects to appease local groups and environmental movements. One of the features most critical to water negotiations is the predominance of the region's long-standing cotton monoculture.

Regional leaders sought to maintain the cotton economy, which entailed well-established systems of political and social control (not to mention the control of physical resources). Efforts to maintain these systems of control led to the selection of secondary or least-best options in negotiations to address problems of the Aral Sea. Weinthal considers three possible strategies that could have been pursued in Central Asia: (1) a focus on water only; (2) a focus on water and energy; (3) or a focus on water, energy, and agriculture. The book's thorough discussion of the advantages and disadvantages of each strategy testifies to Weinthal's extensive empirical work in this area. She concludes that, although the international aid community favored a strategy that included water, energy, and agricultural sectors as the best route to addressing environmental concerns, donors yielded to Central Asian desires to maintain the social and economic structure of its cotton monoculture at the expense of better environmental solutions for the Aral Sea. International aid agencies recognized the value of maintaining political stability in the region and opted to support a solution framed by the water and energy sectors.

The book concludes by summarizing how international aid helped to consolidate Central Asian state sovereignty—internally, by helping states create a myth of statehood and nationhood; and externally, by enhancing their ability to cooperate with other states in the region and to comply with international

values. More than addressing interstate cooperation and the Aral Sea crisis, however, *State Making and Environmental Cooperation* investigates the continued legacy of the Soviet system of control and power that was expressed in cotton monoculture. Weinthal argues that remnants of that system are likely to challenge a smooth implementation of Western ideals attached to aid brought by third-party actors.

A shortcoming of this book—perhaps attributable to the general international relations approach of this book series—is the definition of the region in question. Weinthal acknowledges (page 22) that the upper watershed for the Amu Darya River, a river of primary concern throughout the book, is located in Afghanistan and Iran. Yet she defines her research area as based on former-Soviet boundaries and state entities rather than on the watershed boundaries that would seem key to the environment problems discussed in the book. The question of what would happen if Afghanistan decided to claim the headwaters of the Amu Darya in the interest of reconstruction or economic development is critical in the consideration of political cooperation or conflict in this watershed.<sup>2</sup>

Although this aspect of environmental management and institutional relations remains unexplored in *State Making and Environmental Cooperation*, the book nonetheless provides a useful documentation of the changing role of international agencies and the emerging nature of statehood and sovereignty in Central Asia. **W**

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## Notes

<sup>1</sup> A titular nationality is that ethnic group after which a state is named (e.g., the Turkmen people for Turkmenistan).

<sup>2</sup> See the report from “Water, Climate, and Development Issues in the Amu Darya Basin—Informal Planning Meeting” at <http://www.esig.ucar.edu/centralasia/summary.html>.

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## ***Human Security and the Environment: International Comparisons***

Edward A. Page & Michael Redclift (Eds.)  
Cheltenham, UK: Edward Elgar, 2002. 257 pages.

### ***Reviewed by Ted Gaulin***

Renowned social scientist Clifford Geertz argued back in the 1970s that many scholarly disciplines progress by refining their debates, not by developing consensus around a set of ideas. Intellectual progress in a discipline, Geertz suggested, takes place when that discipline's arguments become more precise and when the key points of its disputes come more clearly into focus (Geertz, 1974, page 29).

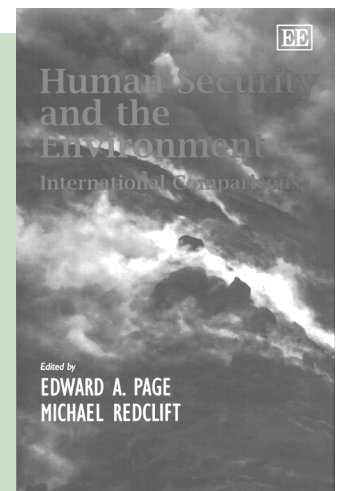
One could argue that the field of environmental security has progressed through just such an intellectual refinement—through works that have presented coherent and compelling arguments about the causes and consequences of environment change. For example, Thomas Homer-Dixon's contention that there are important links between natural-resource scarcity and acute conflict has become sharper over the years as he has responded to his critics (Homer-Dixon, 1999; Homer Dixon & Blitt, 1998). At the same time, Nils Petter Gleditsch and the members of the Oslo School have refined their argument about the potential for environmental change to produce cooperative outcomes (Gleditsch, 1997; Diehl & Gleditsch, 2001). Other scholars such as Nancy Peluso and Michael Watts have elaborated the critique originally articulated by Simon Dalby about the dangerous implications of the language used by researchers in the field (Peluso & Watts, 2001; Dalby, 1999).

More recently, Ken Conca and Geoffrey Dabelko as well as Richard Matthew and Mark Halle have clarified the role that sustainability and conservation practices play

in reducing violent conflict (Conca & Dabelko, 2002; Matthew & Halle, 2002). Finally, the South's perspective on environmental security has become more compelling with work of scholars like Nauman Naqvi, who argues that concerns about environmental security are inextricably linked with issues of social justice (Naqvi, 1996). In summary, the edited volumes that have contributed most have taken one of the key branches of the field and elaborated it in detail.

It is in this respect that Edward Page and Michael Redclift's new volume *Human Security and the Environment* falls short. The book fails to articulate a coherent vision that advances our thinking on environmental security. Instead, it is a hodgepodge of chapters that seem only loosely related. The editors declare at the outset that the book examines "the meaning of 'security' and the 'environment' in the post-Cold War era, and the ways in which the activities of human societies are shifting the balance with nature" (page 1), but the book does not examine any of these areas particularly well.

Indeed, Page and Redclift do not even attempt to define one of their key concepts: human security. The best they can say is that human security is complex and contested—an assertion both true and unenlightening. In fact, the complexity of the term "human security" is well described in a solid chapter here by Steve Lonergan and his colleagues ("Global Environmental Change and Human Security: What Do the Indicators Indicate?"). However, without at least some attempt to



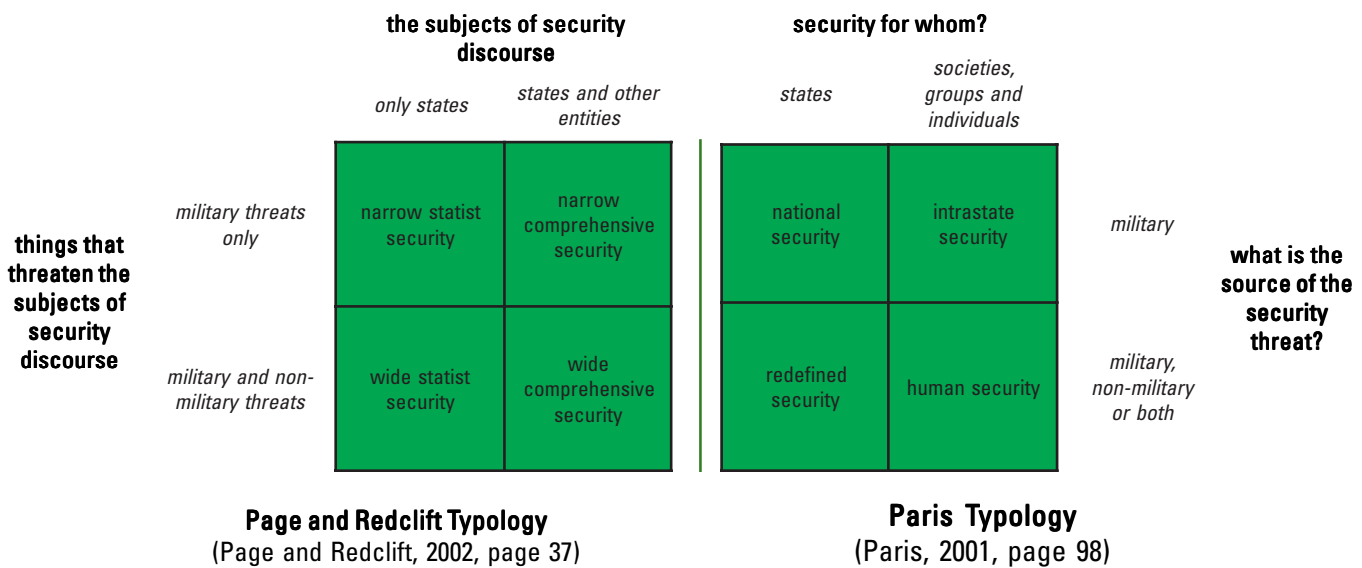
come to grips with their key terms, the editors of *Human Security and the Environment* blunt the impact of the essays that follow. Likewise, without some sort of analytical framework, readers of the book are left to find the connections between these disparate chapters on their own.

Despite this lack of conceptual framing, some of the book's chapters are excellent. For example, in "Democracy and the Environment," Gleditsch and Bjørn Otto Sverdrup present new data to support Gleditsch's long-standing assertion that democracies are more environmentally benign than non-democracies. Gleditsch and Sverdrup argue that, despite the environmentally harmful development policies democracies often pursue, democracies (regardless of their level of economic development) are also more likely to mobilize counter-forces that mitigate these environmental problems. Democracy, according to their analysis, has a palliative effect on deforestation, water quality, biodiversity, and population growth; it also enhances a state's commitment to international environmental agreements. One caveat: the authors obtain mixed results for the effect democracy has on greenhouse gas emissions, leaving open the question as to whether democratic openness can help us solve one of the world's most pressing environmental issues.

Another highlight of *Human Security and the Environment* is Colin Sage's chapter "Food Security." Drawing on research conducted by the UN, Sage notes that 800 million people across the globe—including as many as 30 million in the developed world—suffer from chronic food insecurity. Sage demonstrates: (a) how food security relates to other dimensions of human security; (b) how food security and the environment interact at different geographic scales; and (c) how recent international food security interventions have had only limited success because they were inconsistent with local understandings and beliefs about food security. This is the single best piece on food security I have read.

It is also interesting to juxtapose Richard Matthew's chapter here on environmental security in North America ("Human Security and the Environment: A North American Perspective") with John Vogler's chapter on how the concept has taken shape in Europe ("The European Union and the 'Securitisation' of the Environment"). In North America, environmental security has tended to be framed along traditional security lines: that is, with an explicit focus on environmental change as a source of conflict and a problem to be studied towards the safeguarding of national security. In Europe, by contrast, the concept has been interpreted much more broadly. Environmental security

**Figure 1. Comparison of Page and Redclift Typology with Paris Typology**



there is less explicitly focused on conflict and more explicitly linked to the notion of sustainable development. The contrast highlights key differences in how these two cultures frame security problems such as Iraq.

Not all the chapters in the book, however, are as compelling. One chapter that disappoints is Page's introductory piece, "Human Security and the Environment," which lays out a typology of the field (see Figure 1).

This typology is worth considering in some detail for a number of reasons. It is virtually identical to a typology employed by Roland Paris in a recent article in the journal *International Security* (Paris, 2001). This similarity may be purely coincidental—the result of two scholars coming to the same conclusion independently. However, Paris gets a lot more mileage out of the same typology than Page. Page uses his typology to compare the views of Richard Ullman to those of Norman Myers, but that is as far as his analysis goes. One wonders where other key figures in the field—Homer-Dixon, Dalby, Miriam Lowi—would be placed in the matrix. Paris uses the same typology to draw lines of distinction between John Mearsheimer and Jessica Mathews, between Mathews and Homer-Dixon, and between Homer-Dixon and Dalby. Page simply hasn't pushed the analysis far enough. Page's typology also fails to situate the essays that follow.

Johannes Stripple's chapter ("Climate Change as a Security Issue") also leaves readers wanting more. Stripple takes a social constructivist approach to climate change, and while constructivism is a useful way to draw attention to the importance of culture, norms, ideas, and assumptions in social scientific analysis, it does not succeed very well here. Stripple presents three rather hackneyed findings. He first contends that security is subjective—that one cannot tell who or what is being secured based on the threat alone. Second, Stripple maintains that what is being secured in the climate change discourse is human health and Western patterns of production and consumption. Third, he argues

that the impacts of climate change are likely to vary not just between states but also within states, with the poor and the marginalized bearing the brunt of the burden. These are hardly novel insights. Any reader moderately familiar with post-structuralism and global

**Colin Sage's chapter is the single best piece on food security I have read.**

climate change would reach the same conclusions.

A number of other chapters fare equally poorly. For example, Oscar Forero and Graham Woodgate's essay ("The Semantics of Human Security in North-west Amazonia") purports to examine how human security in Colombia is undermined by U.S. foreign policy. But their narrow focus on "the semantics" and "the discourse" of the situation to the exclusion of concrete policy analysis prevents them from establishing a clear connection between U.S. actions and the precarious position of people in the Amazon. Another chapter that promises more than it delivers is Kwasi Nsiah-Gyabaah's piece on human and environmental security in sub-Saharan Africa—essentially a journalistic account of the multifarious and inveterate problems facing the region. Nsiah-Gyabaah presents scant systematic analysis of these problems, and the chapter tells us little that is not common knowledge.

The larger problem with *Human Security and the Environment*, however, is an overall lack of coherence. Page and Redclift do not provide readers an analytical framework with which to stitch this patchwork of essays together. This editorial oversight deadens the impact of the book's good chapters and undermines its contribution to the field. **W**

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## ***Global Water Outlook to 2025: Averting an Impending Crisis***

By Mark Rosegrant, Ximing Cai, & Sarah Cline

Washington, DC and Colombo, Sri Lanka: IFPRI and International Water Management Institute, 2002. 36 pages.

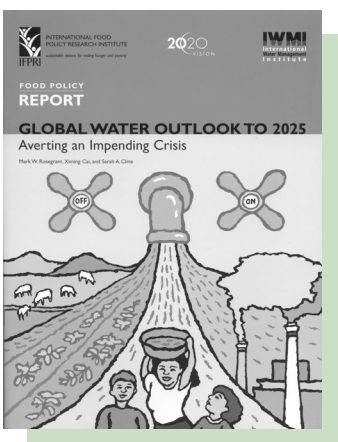
### ***Reviewed by Paul Simon***

**G**lobal Water Outlook to 2025: Averting an Impending Crisis is a solid analysis of the world we will face if we do not confront our global water quality and equity problems. If anything, the report understates these problems. The authors observe: "Further inattention to water-related investments and policies will produce a severe water crisis" (page v). But *Global Water Outlook* does not go as far as the CIA and other U.S. intelligence agencies in predicting regional wars over water if we do not address global water issues.

The report details in plain language and statistics what is happening with water worldwide. For example, it states that global "withdrawals for domestic and industrial uses quadrupled between 1950 and 1995" (page 2) and projects that "all non-irrigation uses will

increase...by 62 percent from 1995 to 2025" (page 5). And as domestic and industrial demand grows, water for irrigation will become increasingly scarce, "with actual consumption of irrigation water worldwide projected to grow more slowly than potential consumption, increasing only 4 percent between 1995 and 2025" (page 7).

Properly framed statistical analyses such as those in *Global Water Outlook* can help broaden the impact of the message about water's importance as an international issue. But like most such reports, *Global Water Outlook* does not include the stories of real people and the problems they encounter. While such faceless reports buttress the need for policymakers to address global water, the public will not be aroused until they see these problems in terms of real people.



For example, the U.S. State Department asked me to meet with leaders in Jordan and Syria to discuss the possibility of a regional Middle East approach to water. No country in that region—with the possible exception of Lebanon—can solve its water problems alone. When I explain the situation to U.S. audiences, I mention that in Amman—Jordan’s capital and a city of one million people—people are permitted to turn the tap on only one day a week, and that Jordan’s population will grow by approximately one-third in the next 10 years. That grabs attention.

Or another statistic: UNICEF estimates that 14,000 people a day die because of poor-quality water—9,500 of them children. That figure—9,500—is 630 times as many as were killed at Columbine High School in Colorado. We were stunned by that high school tragedy, but each day 630 times that many die because of poor quality water and we hardly pay attention to it. That is also three times as many as were killed in the World Trade Center on September 11.

*Global Water Outlook* also predicts in the years ahead “steady or declining real prices for cereals” (page 4)—a highly questionable conclusion. Nine pages later, the authors predict increases of 40 to 80 percent, which is probably a much more accurate projection.

### **Privatization**

The authors properly advocate much more efficient use of water and recognize that increases in pricing are the major keys to such efficiency. However, they do not touch the hot button issue of government versus private ownership of water utilities.

My own conclusion about water privatization is that public ownership is preferable if the government entity can operate efficiently, will invest in maintenance of lines and water sources, and has the courage to raise prices to a realistic level. But in some cases, both in the United States and other nations, local governing bodies do not have the courage to charge more for water both to discourage excessive use and to generate adequate funds for maintenance. In these cases, private ownership is the better answer.

However, there are dangers in either approach. In South Africa, many water systems have been sold to private companies,

primarily for the revenue from the sale. But privatization in South Africa has effectively cut off people who cannot afford to pay their water bills, and cholera from the resulting use of untreated water is on the rise. In the United States, Atlanta’s water problems have worsened with privatization. Some cities are asking private companies to manage their water systems, not purchase them. This controversy will grow as water becomes more scarce. Dogmatic answers on either side are wrong.

## **Our indifference on global water issues is comfortable but dangerous.**

### **Desalination**

The huge gap in *Global Water Outlook* is that the report does not mention what must become the major long-term answer to global water problems: desalination. Desalination is clearly the answer in the Middle East and will increasingly become the answer elsewhere. Ninety-seven percent of the earth’s water is salt water; and of the remaining three percent, two-thirds is tied up in icebergs and snow. So we are living on one percent of the earth’s water. Saudi Arabia, which has cheap energy, has the greatest use of desalinated water, and that nation has moved from growing eight percent of its own food to becoming a food exporter!

Tampa is building the largest desalination plant in the United States and has plans for another. City officials there believe the plants will provide water at less expense than traditional freshwater sources. When properly done, desalinating *sea* water has no adverse environmental problems (unlike desalinating *interior* underground waters, which present serious environmental difficulties).

In the meantime, the transportation of water from areas of surplus to areas of scarcity will grow. Such transport is expensive, but unless and until we have scientific desalination breakthroughs, some nations will have no choice. Until its desalination plants come on line, Cyprus is paying for 5.6 million-gallon bags of water that are hauled from Norway. Israel, the Palestinians, and Jordan are soon likely to have to purchase desalinated water from Turkey until the situation in the Middle East stabilizes enough for desalination plants



to be built there. However, it takes approximately three years to move from the planning stage of desalination to actual utilization.

Energy for these endeavors initially will come largely from surplus energy now wasted at utility plants—except for wealthy nations like Saudi Arabia, with its oil resources. Solar energy is also in use, and its utilization will grow dramatically. Most areas with water shortages have a great deal of sunshine. But even areas in less warm climates have enough sunlight to make solar power significant. The Chicago public schools, for example, use solar power in eight schools, saving substantial energy costs—and improving the environment at the same time. Nuclear energy for desalination may also be part of the answer, and a few experiments are taking place.

Research by the United States and other nations on desalination and solar energy should receive a much greater emphasis. My

guess is that there will not be dramatic breakthroughs on desalination, but a series of incremental steps that will make it more and more the primary water source after this decade.

In the meantime, we need clarion calls that warn us of the global water dangers ahead. *Global Water Outlook* is such a call. The report is muffled enough by its statistical approach to limit its impact with the general public, but it is also something I hope at least a scattering of policymakers will read.

Our indifference on this issue is comfortable but dangerous. **W**

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