

Water Sector Reforms: A Progress Report¹

I. Objectives of the Study

1. The study aims to assist the Asian Development Bank and its Developing Member Countries (DMCs) to implement appropriate reforms and organizational changes in the water sector. It is in two stages, the first of which reviews the current status of reform in the region. The next stage will consider the factors that help or hinder the process of reform. This progress report:

- a. provides an overview of the status of the water sector and sector reforms in the region,
- b. identifies the factors that appear to influence the process of reform, and
- c. considers some implications of the work for water sector apex bodies.

II. Data Collection

2. The Water Sector Committee of the ADB recently carried out an *Interim Review of ADB's Water Policy Implementation*. The Committee examined the extent to which 40 policy actions that are included in the ADB Water Policy have been included in recent ADB operations. To maintain consistency with the *Interim Review*, I have used a similar approach, but have considered the water sector as a whole in each country, rather than just ADB operations. I have reworded the 40 policy actions considered by the Water Sector Committee into 41 "outcomes" or results. Using a questionnaire format, progress on each of the 41 outcomes has been ranked (on a four-class scale), for selected countries in the region.

3. The "policy actions" are not all, strictly speaking, outcomes or results that are achieved by the water sector. Many of them are actions, inputs, or outputs, the difference between which can best be shown by examples from the ADB Water Policy:

- a. an action: "initiate monitoring and benchmarking exercises for irrigation and drainage service providers to track value and performance parameters";
- b. an input: "understanding of the effects of periodic El Niño and La Niña events on climatic patterns";
- c. an output: "the establishment of regulatory systems";
- d. an outcome or result: "reduced economic losses from floods and rapidly restored economic infrastructure and social services after such disasters".

4. Water resource managers aim to achieve results; the others are "means to an end".

5. I selected a sample of 17 DMCs for analysis. Selection was quasi-random (i.e., countries were not chosen because of any preconceived ideas about their likely progress in introducing sector reform). Using a wide range of ADB, World Bank and other documents, and interviews with ADB officers, progress on the 41 outcomes has been appraised for the

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17 countries. I did this for 10 countries, and ADB officers provided appraisals for 7 countries. Around 30 participants in ADB Water Week 2004 provided supplementary information, by completing questionnaires, and these were included in the database, which was assembled in an Excel spreadsheet.

6. Data quality and coverage are somewhat variable because of the different sources of data. For the 8 countries for which I did not personally prepare the questionnaire, I cross-checked data against available documents, to assure the best possible comparability. Separate questionnaires prepared by 7 different people for a single country, Vietnam, indicate the likely consistency of the procedure. A comparison of the 7 questionnaires shows that within-country variability is inevitable, when assessing the progress of sector reform. There are differences between water sub-sectors, differences in the perceptions of individual observers, and probably an unavoidable degree of uncertainty in making an assessment.

III. Analysis: Region-Wide Progress on Individual Elements

7. I have used the indicator “proportion of countries achieving good to excellent progress in adoption” (classes C plus D in the questionnaire) to obtain a region-wide overview of progress in adopting the 41 policy elements. The elements can be arranged in order of progress in adoption (Table 1). Progress ranges from 94% of countries in classes (C+D) for the element “water-related policies adopted by the government”, down to 7% of countries in classes (C+D) for “O&M costs of public irrigation and drainage (I&D) systems are wholly paid by beneficiaries” (Figure 1a, 1d). Progress in establishing river basin organisations and coordination mechanisms such as apex bodies is intermediate (Figure 1b, 1c).

8. There is a tendency for the seven policy groups in the ADB Water Policy to have different levels of progress. The group “national policies and reforms” has a mean score for (C+D) of 69%, whereas the group “improving water services” has a mean score of 31% (Table 2). Within each policy group, however, there is a wide range in progress (Figure 2). In summary:

- a. greatest progress has been made with the “foundational” elements such as sector reviews and development of national policy frameworks
- b. weakest progress has been made in the area of improved service delivery
- c. several of the “weak progress” elements seem to be associated with a transfer of responsibility from the traditional lead government agencies to other stakeholders
- d. it appears that developing and adopting new policies is easier than implementing them.

9. In general, it is encouraging, and reasonable, that progress is being made with the foundations of water sector governance, particularly since region-wide efforts to introduce reform are quite recent. Implementation of new policies and practices inevitably must build on good foundations, and will take more time.

Table 1. Progress in adopting policy reform and institutional change. Policy elements have been ranked in terms of (C+D), the combined proportion of countries in classes C and D (“good to excellent progress”) of the questionnaire for each element

Policy element	Policy group	(C+D)
1. Water-related policies adopted by the government	1	0.94
2. Recent sector review	1	0.87
8. Community aspirations/support	2	0.83
9. Environmental/Social impact procedures	2	0.80
29A. Poor enabled to participate	4	0.74
28. Cost recovery	4	0.72
10. Effects of HEP projects managed	2	0.72
15. Flood response measures	2	0.71
3. Coordination mechanisms	1	0.65
5. Information on water resources	2	0.64
35. International arrangements for shared waters	5	0.63
18. Flood management projects pro-poor	2	0.57
32. Awareness and understanding	5	0.56
11. Management of water quality	2	0.54
21. Service delivery	3	0.53
27. Tariff structures and efficiency	4	0.50
30. Regulatory systems	4	0.49
7. Water allocation mechanisms	2	0.48
37. Participation of civil society	6	0.48
22. Urban WSS service levels	3	0.46
14. Wetland protection	2	0.45
13. Forestland protection	2	0.45
17. Structural/non-structural flood mitigation	2	0.42
39. Capacity building	7	0.42
16. Climate variability effects	2	0.40
36. Partnerships	6	0.39
29B. Subsidies	4	0.38
38. Gender-related elements	6	0.37
20. Public-private partnerships	3	0.36
6. River basin/aquifer organizations	2	0.35
19. Water service providers autonomous/accountable	3	0.30
4. Legislation adopted	1	0.28
12. Wastewater discharge permits/effluent charges	2	0.28
34. Collaborative frameworks	5	0.26
26. Performance monitoring and evaluation	3	0.26
23. Private sector investment	3	0.26
33. Joint projects and engagement	5	0.25
25. Rights and responsibilities of stakeholders	3	0.23
31. Users' education	4	0.20
40. Networking	7	0.19
24. O&M costs	3	0.07
Average		0.47

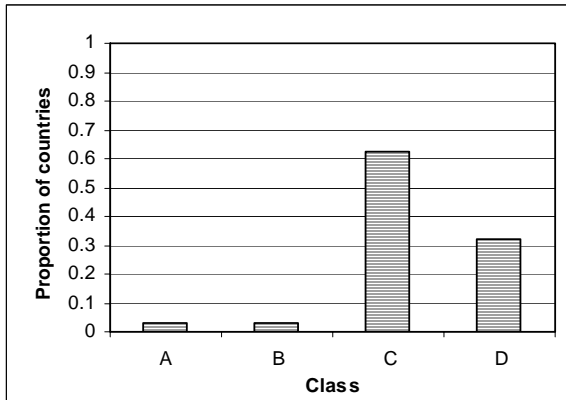


Figure 1a. Water-related **policies** have been adopted by the government. (C+D) = 0.97.

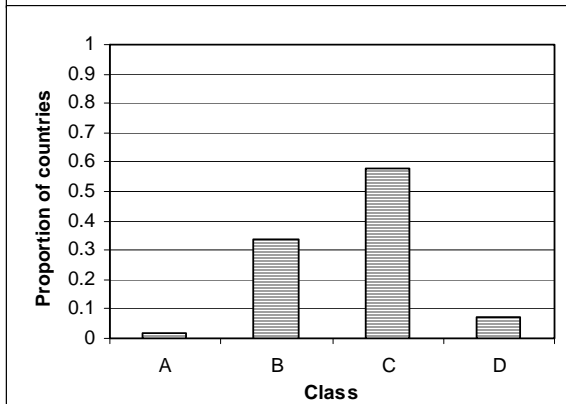


Figure 1b. **Coordination mechanisms** (e.g. a sector “apex body”) exist to facilitate cross-sectoral activity and oversee sector reform. (C+D) = 0.65.

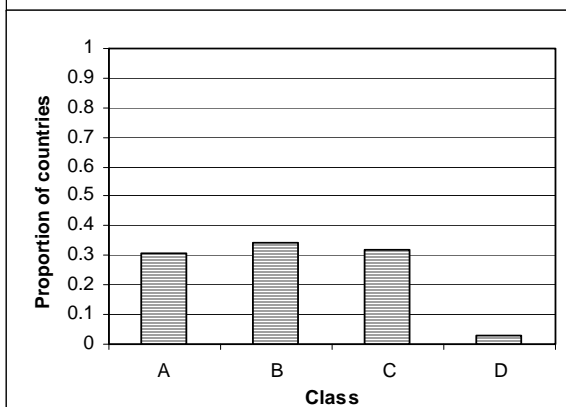


Figure 1c. River **basin organisations** (RBO) are functional. (C+D) = 0.35.

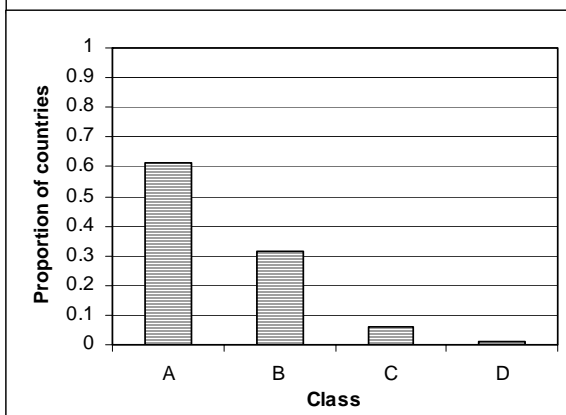


Figure 1d. **O&M costs** of public irrigation and drainage (I&D) systems are wholly paid by beneficiaries.

Table 2. Average values of (C+D) – good to excellent progress” – for elements in each policy group of the ADB Water Policy.

Policy group	Group number	Mean for (C+D)
National policies and reforms	1	0.69
Water resources management	2	0.54
Improving water services	3	0.31
Conserving water	4	0.51
Promoting regional cooperation	5	0.41
Fostering participation	6	0.42
Capacity building and networking*	7	0.31

* Group 7 is designated “Improving governance” in the *Interim review of ADB’s water policy implementation*, but the two policy elements relate essentially to capacity building and networking.

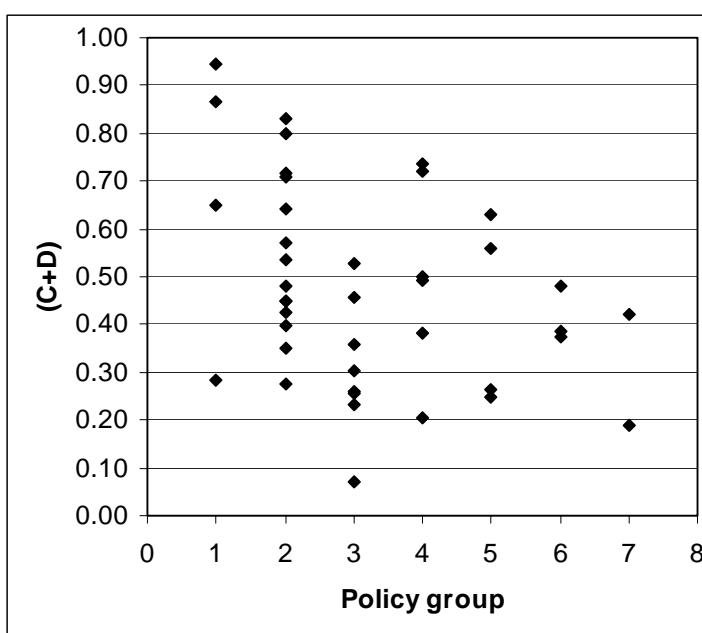


Figure 2. Range of values of (C+D) – “good to excellent progress” – for elements in each policy group of the ADB Water Policy. Note that the seven policy groups do not have a sequential relationship; the apparent declining trend from left to right on the plot is fortuitous.

IV. Factors Influencing the Progress of Reform

10. There is a substantial literature on the water sector in the Asia-Pacific region, notably the ADB’s *Towards effective water policy in the Asian and Pacific region* (1996, 3 volumes). However, I have not found any formal analysis of the extent to which “good practice” policies and management measures have been implemented in the region. At the scale of the whole national/federal public sector and government, several authoritative analyses of reform recently have been published. They provide insights and recommendations for implementing reform that are highly relevant to the water sector. All but a few (specifically water-related) elements of the ADB Water Policy are common to other sectors and the public sector as a whole.

11. After an extensive literature review, I examined in detail three recent studies of policy reform and institutional change, to see if they could provide analytical frameworks for the water sector. I refer to the three studies as the “regression model approach”, the “force-response model approach”, and the “organizational change approach” to reform. Taken

together, their results indicate that an analysis of reform in the water sector should consider a number of key factors that are likely to influence the successful introduction of reforms:

- a. the political environment,
- b. ESA activities,
- c. engagement of “elite” decision-makers,
- d. the socio-economic environment,
- e. crisis events,
- f. the nature of performance/output gaps,
- g. the approaches used to policy reform,
- h. the stage and trajectory of reform,
- i. the results that flow from reform and change, including most importantly the outcomes and impacts on society

12. The last point above, the results, is important both as a determinant of successful reform (beneficial results encourage further reform), but also is – rather obviously – the very reason for reform.

13. In a little more detail, the key factors are:

- a. Elements of the **political environment** that provide either incentives or impediments to change. This includes, in particular, policy and institutional reforms that are being carried out in the public service and governmental sectors at large, and that provide a context within which the water sector must respond. For instance, devolution of responsibility to sub-national levels of government, or the corporatization or privatization of formerly public services, are common elements of an overall pro-reform climate that is favorable to sectoral reform. Such trends within the water sector of a given country are likely to be driven by government-wide change.
- b. **ESA activities**, such as the World Bank’s assistance to prepare Poverty Reduction Strategies and Programmes, or the ADB’s assistance to carry out water sector reviews. These are serving to disseminate to many countries a substantially common approach to analysis of issues, although it may be too early to determine if they have contributed to their resolution.
- c. The **engagement of “the elite”** – the senior elected representatives and public servants who provide political and administrative leadership, and who determine, through their support or opposition, whether or not a particular reform initiative will proceed. The role of the lower echelons of the public service also cannot be overlooked, since it is they that actually implement change. Their degree of exposure to change (e.g. through overseas training and experience) may influence acceptance of change, and the availability of adequate numbers of capable staff certainly does. The influence of public/voter opinion on the elite and public servants also should be considered.
- d. Elements of the **socio-economic environment** that provide either incentives or impediments to change. In the water sector, these may include national or regional water stress (an imbalance between water availability and demand), the incidence of water-related diseases, or the level of education of the beneficiaries of water supply or irrigation services. Nationally, the level of engagement of the private sector in provision of public services (not just water-related services), e.g. via management contracts or BOOT arrangements, is a significant indicator.
- e. Particular **“crisis” events** that prompt change, such as a massive flood, or activity by another riparian state in a shared river basin that is perceived to pose a threat.

- f. The nature of the **performance/output gaps**, if any, that have prompted reform and institutional change in the water sector.
- g. The nature of **the approach used** to policy reform and organizational change: the level of intervention (the higher the better), use of information to measure performance and monitor progress, means of engaging all stakeholders (from villagers to the decision-making ‘elite’), changes in organizational structure and type, use of phased change and experimentation, etc.
- h. The **stage** that reform and change have reached: the position along the particular **trajectory of change** that the country is following. Few countries are at the same stage and to that extent are not comparable; furthermore, planned reforms rarely are brought to a conclusion before modifications are introduced, or reform even is reversed, so the trajectory itself may not be constant.
- i. The **results** that flow from the reform and change – operational, process, system/institutional capacity, realization of a vision and, perhaps most importantly, outcomes/impacts desired by the community.

V. Ongoing Performance Monitoring and Benchmarking

14. This study was intended to provide a “snapshot” at a single point in time, to describe and analyze progress to date. However, it is very important that progress should be continually monitored and analyzed, so that – if necessary – changes can be made to the way in which policies are being implemented. Ongoing monitoring and analysis would contribute to a sustainable approach to water sector reform and institutional change, because of the need to continually respond to changing conditions.

15. Comparisons can be against nationally defined objectives (e.g. the Millennium Development Goals), internationally accepted yardsticks or goals (e.g. National Quality Award Criteria), or comparable “benchmark” institutions. The criteria must be carefully selected, to provide an objective basis for comparison that is relevant to the needs of each country. Some criteria may address issues such as the administrative processes that are used, the extent of community participation, or operational matters related to service delivery. In particular, though, some criteria should refer to the outcomes or results that are desired by the community as a whole, as well as by water resource managers and administrators. In general, policy development seeks to address:

- a. Efficiency of resource use: ensuring that the water resource provides the greatest possible net social benefit
- b. Equity of resource use: ensuring that the water resource is allocated among the different groups of users in a way that is fair and does not favor one group to the disadvantage of others
- c. Sustainability of resource use: ensuring that the water resource will continue to be available in an undiminished condition for future generations and the natural environment.

IV. Conclusions

16. The study shows that, region-wide, good progress is being made in the “foundational” elements of policy reform and organizational change in the water sector. Progress in other areas is slower and, in some particular aspects, very limited. This is particularly the case with regard to service delivery, and to specific issues such as charging beneficiaries for the

costs of operation and maintenance of irrigation systems – a politically sensitive issue throughout the world.

17. Carefully interpreted, the results indicate areas in which progress is likely to be easiest, or most difficult. This can help to focus effort onto matters where the greatest return can be achieved with the smallest investment of effort. Other studies show that sectoral reforms often are most successful when rapid initial progress is made in some limited areas. This early progress builds confidence and commitment, and reforms can then be extended progressively to other areas, including those which are most sensitive and difficult.

18. Most people that I consulted during this study considered that progress in water sector reform is closely linked to progress with reform of the public sector and governance as a whole. This is implicit in more broadly-based studies of public sector/governance reform, and the data compiled for this study support the idea. Thus, for example, private sector investment in the water sector is likely only when it is permitted in the wider public service, and suitable laws have been passed to provide legal mechanisms and safeguards.

19. I have not discussed the results of my preliminary comparison of progress in different countries, but they do suggest differences in the extent to which reforms have been introduced. There is a growing body of experience related to water sector reforms in the region, from which everyone could benefit. The transfer of water-related KIT – Knowledge, Information and Technology – is a major concern of many agencies, including the Asian Development Bank, UNESCO, and WMO, and organisations like the Global Water Partnership, the International Network of Basin Organisations, and their regional bodies. This study has indicated that the transfer of KIT is an area in which progress has been slowest, so there appears to be scope for further developments here.

20. A particular aspect of the transfer of KIT is that of ongoing monitoring of performance. This can be particularly successful when performance is compared with that of other organisations, via benchmarking against industry standards or reference to national criteria like National Quality Award Criteria. Steps already are being taken in Asia and the Pacific to establish effective benchmarking in the water sector, and this study suggests that this is another area in which further valuable progress could be made. It is important to select at least some criteria that focus on the outcomes and results to be achieved, as well as the procedures and organizational arrangements that are used.