

# **The Conception, Design and Implementation of IMT in Pakistan's Punjab: A Public Policy Reflection<sup>1</sup>**

**By  
Mehmood Ul Hassan<sup>2</sup>**

## **ABSTRACT**

Pakistan has been undertaking reform of its large-scale irrigation and drainage sector since 1997 on the advice and push of international donors. The paper briefly examines the reform design and implementation experience in Pakistan's biggest province. The paper analyzes the reform experience through the public policy concepts of "lessons drawing", "voluntary" and "coercive" "policy transfer", and "policy irritant", and argues that irrigation management transfer proved to be a policy irritant, because Bank adopted a coercive approach to lesson drawing and policy transfer. The policy transfer was un-informed, incomplete, and inappropriate, and therefore, the partial success was inherent in the design of the approach to policy transfer. The paper asserts that the development donors should pay more attention to learning lessons themselves from the public policy research and practice to improve their lesson drawing exercises and policy transfer processes.

**Key Words:** Irrigation Management Transfer, Lesson Drawing, Policy Transfer, Public Policy, Development Practice, Pakistan

## **1. INTRODUCTION**

The water resource projects carried out in Pakistan over the past sixty years have contributed much to its agricultural development. The construction of several small and large dams have also made it possible for the nation to have access to hydro-electricity, that had derived its pertinent textile and other industry, and boosted employment and foreign exchange earnings. At the same time, however, water resource development has also displaced hundreds of thousands of families, mobilized salts, caused water logging in some areas, and depleted precious groundwater aquifers in others. Besides, various segments of population have not benefited equitably from water resource development. Therefore, the water scene of Pakistan has been, and remains, a contested arena for several actors, including the agents representing various hierarchical levels of federal and provincial governments, farmers and rural communities, NGOs and researchers, as well as international development agencies.

The developments have not only been in infrastructure, but also in policies, laws, and institutional arrangements, to cater to the needs of emerging landscape and new realities. Most often, such changes have been coincidental to the development projects, and contributed to the perceptions amongst the population and civil society that the development donors push the policy changes. Since the macroeconomic reforms pushed by the International Financial Institutions (IFIs) have generally affected the poorest segments more adversely, it has become a natural tendency for the public to oppose and resist any advice that can be seen to come from IFIs. The mass media and civil society organizations in general and the staunch critiques, such as Bosshard (2007), tend to even blame the development cooperation between the government and IFIs to pursue high-risk strategies, that have instead triggered conflict, reinforced the deadlock in Pakistan's water sector, and wasted valuable time and financial resources.

The latest water policy was drafted in 2004 (GOP, 2004), but still awaits its implementation in full. The policy draws heavily on the mainstream principles of Integrated Water Resources Management (IWRM)<sup>3</sup>,

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<sup>2</sup> Senior Researcher (Innovation Systems), Center for Development Research, Rheinische Friedrich-Wilhelms-Universität Bonn, Walter-Flex-Straße 3, D-53113 Bonn, Germany

<sup>3</sup> The IWRM inspired guiding principles of Pakistan's water policy can be summarized as a) holistic development, planning and management of water resources; b) decentralization of development, management, planning and service provision; c) separation of regulatory and service provision functions; d) autonomy of service providers organizations and ability to recover full cost of the service from consumers; e) use of incentives for inducing efficiency, conservation and environmental protection; and e) inclusiveness, accountability, and transparency amongst the service delivery organizations.

the contemporary and perhaps the most influential water resource management paradigm. The IFIs aggressively advocate the IWRM paradigm in water development cooperation. Pakistan's new water policy refers to it as the main source of inspiration. Some elements of the new water policy, such as statements on full cost pricing of water, increasing the storage potential, and devolving the management of irrigation systems to farmer's organizations and private sector have potential to trigger further controversies amongst various segments of society, and can be seen as the "sticking points" of the policy.

Irrigation sub-sector is by far the largest water user, and the current water policy document confirms to expand and further deepen the on-going reform in irrigation-drainage sub-sector. This paper therefore examines the emergence and implementation of water policy related to Irrigation Management Transfer (IMT), which had been a bone of contention amongst various actors in water policy arena. The paper restricts itself in large parts to the IMT experience in the most populous Punjab province, which forms the major part of Pakistan's irrigated area, and remains the biggest user of water diverted for agricultural use.

Section 2 of the paper briefly introduces the conception of IMT in Pakistan; section 3 presents a few key design features of IMT and its implementation. Section 4 of the paper examines Punjab's IMT experience through the prism of key concepts in public policy research and concludes the discussion.

## **2. THE CONCEPTION OF IMT IN PAKISTAN**

In the 1990s, on the advice of the World Bank, Pakistan's government embarked on major institutional reforms in irrigation management. The original reform proposal by the World Bank, devised through a detailed analysis of the situation (World Bank, 1994) was too revolutionary. It proposed: a) to treat water as a tradable commodity rather than a public good; b) to create private water markets by giving farmers water property rights disconnected from land; c) to divide the four Provincial Irrigation Departments into 43 autonomous Public Utilities (PUs, one each for 43 canal commands) and to create Farmers Organizations (one for each distributary); and d) PUs should have company style management and be registered with the Corporate Law Authority under the Companies Act.

The Pakistani government sought comments from provincial governments on the proposal, who dismissed the analysis, and provided highly critical comments. All the provincial governments reacted that the Banks' proposals were too much divorced from reality, and the ideas did not match the prevalent socio-economic conditions. The federal government initiated discussions with the Bank for improving the reform model. The discussions and debates continued for another three years, when finally the World Bank and the federal government agreed on a revised reform model. The Bank rigorously pursued the reform through an 800 Million Dollar loan to the government under its National Drainage Program (NDP). The federal government pushed the provincial governments to accept the reform through attaching the further disbursement of NDP funds with the progress with the passage of legislation. Consequently, all the four Provincial Assemblies passed Provincial Irrigation and Drainage Authority (PIDA) Acts in 1997.

The revised model envisaged a three-tier irrigation and drainage management structure. The Farmer Organization (FO), established through the representation of watercourse level water users, was to supply water to irrigators, be responsible for operation and maintenance (O&M) of secondary irrigation canals, to levy and collect water charges, and to make payments to the canal level Area Water Board (AWB) for cost of supplying bulk water to the FO. The operating public utility would be the AWB, with an average command area of a million hectares (ha) who would manage and distribute irrigation water, through formal volume-based contracts with FOs, and trade water with other utilities. The Provincial Irrigation and Drainage Authorities (PIDAs) would be responsible for such functions as province-wide water delivery, system maintenance, and development, and sales of water beyond amounts contracted with AWBs.

The reform, however, remained quite controversial throughout the implementation of the NDP (1994-2003), and both the donors and the governmental staff were uncertain whether its progress would be realized smoothly or not (Dinar, et. al, 2004).

### **3. THE DESIGN AND IMPLEMENTATION OF IMT POLICY**

This section presents some of the key design features and implementation of IMT in the Punjab Province of Pakistan.

#### **3.1 Objectives of IMTs**

Global experience shows that either a serious breakdown in services, or an environmental failure, which affects large numbers of people, or a fiscal crisis, which makes the status quo untenable, or a combination of some of these, usually drive IMTs. Vermillion and Sagardoy (1999) in their global analysis of IMTs have reported objectives that drove IMTs in various countries. The irrigation and drainage sector of Pakistan has gone through profound changes in recent decades, and was found to be trapped into the vicious cycle of “poor funding, poor maintenance, poor infrastructure condition, poor supply, poor productivity, poor recovery and poor funding” (World Bank, 1994). The water management and use habits resulted into lack of trust, anarchy, inequity, and lack of transparency, which evolved over time and have, at some time, fitted the particular prevalent economic, social, and environmental circumstances. The Bank’s analysis identified these as the symptoms of deep-rooted problems of poor accountability (Dinar, et. al., 2004).

The formal irrigation and water supply services in Pakistan have been managed as exclusive monopolies of government agencies, which did not provide services to many – especially the poor and tail-enders – and provided poor quality services to those who had access. Merry (1997) associates the lack of accountability to the scale of irrigation systems and management by bureaucracies. The overall situation in Pakistan has been that the public irrigation supplying monopolies faced no competition, and the accountability was only upwards (Dinar, et. al, 2004). The status quo of unclear entitlements, discretion, and lack of transparency suited important groups in society. The essence of the reforms would be to reduce monopoly power, and introduce transparency, thus greatly reducing the space for discretion and corruption. The reforms had to be introduced with the explicit objectives of re-designing irrigation management institutions from a government monopoly to a public utility that would be responsible for sustainability of its assets, provision of quality irrigation and drainage services to its clients, and that would discharge its responsibilities in a business-like fashion, and would be accountable to the clients.

However, Punjab’s reform legislation overlooked the essence of accountability. The preamble of PIDA Acts of 1997 (Government of Punjab, 1997) conceived four key objectives of reform:

- a) to implement the strategy of the Government for streamlining the irrigation and drainage system;
- b) to replace the existing administrative setup and procedures with more responsive, efficient and transparent arrangements;
- c) to achieve economical and effective operation and maintenance of the irrigation, drainage and flood control system in the Province; and
- d) to make the irrigation and drainage network sustainable on a long-term basis and introduce participation of beneficiaries in the operation and management”.

A discourse analysis of the statements would reveal that while references to responsiveness, transparency and efficiency were implicitly related to accountability, there was no explicit reference to making the bureaucracies accountable to users, thus defying the essence of reforms at the outset of reforms.

#### **3.2 Lack of political will and resistance from stakeholders**

The media picked up the proposed reform and various stakeholders engaged themselves in a hot debate, questioning the rationale, modalities, as well as the perceived outcomes. For example, it was reported in the newspapers that the government was going to sell the irrigation canals to the World Bank (Nakashima, 2005), and the farmers had the perception that the World Bank would charge much higher rates for irrigation water, and in advance (Bandaragoda, et. al. 1997).

People did not like, above all, the idea of a utility company, which would disconnect a water supply just because water charges were not paid properly (Nakashima, 2005). There was strong resistance to the

proposed reform program by all the key stakeholders. The Provincial Irrigation Department feared to lose authority to distribute water and maintain irrigation systems. Big landlords and influential farmers feared to lose extra water than authorized and poor farmers feared water rates would go up and influential farmers would exploit them.

While the federal government agreed to the need for reform by signing the loan agreement with the bank after some degree of resistance, the provincial governments did not share the same feeling equally. The federal government also gave mixed signals initially, for example by delaying the acceptance of offer from Asian Development Banks for formulating water sector strategy, which offered support to develop comprehensive national and provincial institutional and policy reforms and infrastructure development plans for all water sub-sectors. " The Government's perceived lack of interest" led to a delay in its execution by almost 3 years and "only after a drought raised awareness of water issues, only then "the follow-up missions of ADB could convince the Government of the need for the TA", and then the Government supported the TA" (ADB, 2005).

The staff of provincial irrigation departments (PIDs) not only opposed the reform, but resisted and felt as if the reform were being pushed onto them and feared that they would entail dissolution of their service, and a breakdown in existing rent relationships (Shafique, et. al. 2004). Another disincentive for the PID staff was that of leaving the relative security of service with the government, for more novel contractual work with more transparent and accountable institutions (World Bank, 2005). The PID staff obstructed the reform initially by delaying the passage of legislation till the donors threatened to withdraw the loan (van der Velde and Tirmizi, 2001). Once the legislation was in place, there was no option to not test the reform. PID happened to choose one of the most challenging irrigation systems in Punjab to pilot the reform.

Equally, those segments of the farmers who were benefiting from the status quo had opposed the reform (Nakashima, 2005). Larger landowners were the most opposed to change, since they had been gaming the system for decades. Clearly, they exercised political influence, and benefited most from the deinstitutionalized politics that were in vogue. Many accounts of reform in earlier years (for example by Nakashima, 2005; Shafique et. al., 2001; van der Velde and Tirmizi, 2001) indicated that the reforms were felt to be failing because of inadequate top level support, technical support to the farmers and vested interests of bureaucracy and big farmers. However, such opposition to reform was not unique to Pakistan, as Mollinga, et. al. (2001) reported similar experiences in India's Andhra Pradesh.

### **3.3 Legal pluralism and the resultant controversies**

According to Pakistan's Constitution, water is largely a provincial subject, but the federal government has also to perform functions and responsibilities relating to inter-provincial matters. There are a myriad of legislative acts that govern irrigation and drainage systems in Pakistan, namely:

- a) Provincial Irrigation and Drainage Acts of 1873
- b) Water and Power Development Authority Acts of 1958
- c) Indus River System Authority Act of 1992
- d) Environmental Protection Act of 1997
- e) The Punjab Soil Reclamation Act, 1952,
- f) Water Users Association (WUA) Ordinance, 1981
- g) The Provincial Water Accord, 1991
- h) Provincial Irrigation and Drainage Authority Act of 1997

Enactment of reform legislation was perceived as the major success of PIDA. Besides introducing the PIDA Act of 1997, a number of other legal regulations were prepared, approved and translated to local language. These range from devising rules of business for PIDA, AWB and FOs to election rules for FOs, and guidelines for system operation and maintenance, etc. However, formalizing everything endangered the flexibility, innovativeness, and dynamism especially amongst FOs.

Besides, there are contradicting, overlapping and overriding provisions in the laws mentioned above, which in certain cases cause confusions, misunderstanding and remain susceptible to misinterpretations

(Government of Pakistan, 2004). There are clear tensions between the main irrigation and drainage legislations of provinces.

For example, the Irrigation and Drainage Acts do not foresee farmer's role beyond the tertiary canals and any interference by farmers in the main system management would be a legal offence, whereas PIDA acts require farmer organizations to manage secondary canals. The former would require farmers to report any interference by other farmers to irrigation departments, whereas the latter would require them to settle it themselves. The PIDA Act provide no hint about a legal course to be taken if its provisions contradicted earlier legislation.

Besides, PIDA act specifies that, “[a]ll employees of the Irrigation Wing of the Provincial Irrigation and Power Department except such employees as may be specified by the Government in this behalf shall, subject to any other provisions contained herein, on coming in force of this Act, become the employees of the Authority” and “the Area Water Boards have to become financially self-sufficient in 7-10 years from the passage of this act”.

As of 2008, the irrigation wing of the PID still operates as it used to operate during the past century in canal systems other than the one where AWB operates. Even the pilot AWBs have not been made financially self-sufficient, as these have failed to generate enough revenue to finance their operations. One can argue that the lack of progress in converting the governmental monopolies into efficient public utilities was a rather deliberate attempt, as the PIDs “kept on debating modalities rather than focusing on instituting arrangements for transition management” (World Bank, 2005). Any smart lawyer could take the government to a court for violating the law.

### **3.4 IMT implementation**

The Punjab became the first province to present its PIDA legislation in its provincial parliament and got it passed, albeit in a hurry through a single “stroke of pen” (World Bank, 2005) and without much debate and understanding amongst the legislators. The reason given by the then chief minister at the time for speedy passage of PIDA Act was not the felt need for reform; rather fear of cancellation of loan by the Bank. Other provinces had just waited for Punjab to pioneer, and then followed suit. Even after passage of the legislation, the political support for reform was mixed, indicated by the frequent changes of the leadership of Punjab PIDA. The first leadership had provided a championing discourse in early years of reform, and the reforms slowed down and changed course after his replacement. The Punjab government replaced the leadership of the PID to speed the reforms up once the World Bank again threatened to exclude Punjab from the future investments.

Then the PIDs recruited its own social mobilizers and quickly organized farmers into FOs within a span of one year, but these FOs proved to be rather symbolic and lacked enthusiasm for managing the irrigation and drainage systems. Blaming their willingness and capacity, the PID assigned simpler, but socially negative roles of reporting offenders to FOs and called it “the Punjab Model of Reforms”. Since 2003, the PIDA has installed an AWB and formed 85 farmer organizations in the Lower Chenab Canal (LCC) East. PIDA did not attempt until 2007 to ensure farmer's representation in the AWB, and the AWB played only an advisory role.

The current reform design only guarantees greater participation of farmers in the system management, but achievement of all other stated objectives of transparency and efficiency are not guaranteed. The entire focus of reforms remained on the establishment of FOs, and to some degree on establishing the AWBs. The contractual arrangements between FOs and AWBs remained one sided and top down, where FOs were accountable to AWBs and PIDAs, but not the other way around. The PIDA and AWB's rights to water remained unchallenged, while its obligations to deliver water to WUAs were rarely legally binding (World Bank, 2005).

PIDAs still retain a number of discretionary powers, for example to cancel the contract, to declare some canal commands exempted from water payments, etc. For the emerging AWBs and PIDAs to be accountable and transparent to their respective clients, it would require a clear contract between the AWBs and the FOs, which would define the rights and responsibilities for water and for payments of both parties as well as sanctions for non-fulfillment of obligations and responsibilities. The absence of

such contracts is one of the major reasons why the PIDAs and AWBs still act as monopoly-providers, as they remain unaccountable to users, and information sharing remains so poor and opaque.

The later assessments of the Bank showed that “the reform effort failed to address the realities of political economy embedded in the profound changes the reforms sought” and that the overall performance of the effort “remained unsatisfactory” (World Bank, 2005), due to following reasons:

- a) The reforms focused too much on organizations and organizational designs, but completely ignored the instruments and incentives;
- b) Lack of a detailed strategy for implementing the key elements of the reforms; the PIDA Acts envisaged a “stroke of the pen” conversion of PIDs into PIDAs but lacked important details for implementing the reform strategy. The reform legislation did not address the fundamental issues of legalizing water markets, or clarifying communal and individual water rights.
- c) The donor’s underlying assumption that transition plans, severance packages and change management arrangements would be defined and developed during implementation did not materialize due to constant distraction by other implementation issues and battles of turf and jurisdiction among the various participating agencies. Similarly, the naïve expectations that AWBs and PIDAs would introduce transparent volumetric measurements, bulk water sales, and water charges based on volume during implementation also did not materialize as they received far lower priority by the implementers than the easier to implement rehabilitation works.
- g) From 1999 onwards, the prevailing drought and resulting water shortages dominated the water sector debate in Pakistan and the issues surrounding new storage proposals distracted Government’s attention away from drainage and institutional reform issues. The assessments also concluded that an infrastructure rehabilitation project covering all the provinces and envisaging a major civil works component was not the right vehicle for implementing reforms that sought to focus on improving irrigation service delivery through participatory management, a system of property rights and incentives. A more focused irrigation project would probably have been a more appropriate vehicle.

Apart from Bank’s own assessment above, major implementation issues resulted from lack of political will. For example, passage of enabling legislation for reforms was strategically delayed, and so were the arrangements for establishment of FOs and AWBs. Frequent leadership changes within PIDAs kept on frustrating the direction and momentum of reform. At the initial stages the reform was interpreted by PIDAs as a usual infrastructure project as enough funds were allocated for civil works and the provisions for capacity development and institutional change for farmer organizations and the provincial irrigation departments, which were rather new activities under the reform program, received much lower funds. Since PIDAs deliberately wanted to frustrate reform, non-infrastructure developments would only take place when the Bank would threaten to withdraw funds. The half-hearted progress by PIDAs on institutional aspects resulted into major focus on organizational designs, rules, and regulations, and complete oversight on reform instruments such as incentives and accountability. One could even argue that the PIDAs deliberately avoided or significantly delayed commissioning studies on framing transition strategy for irrigation departments to shift to the new management paradigm. PIDAs also avoided addressing the details of issues such as staff displacement, staff reporting, financial flows and sustainability, or improved management and system operations during the post-transfer period.

#### **4. DISCUSSION AND CONCLUSIONS<sup>4</sup>**

There is a growing tendency amongst IFIs, development donors, and technical cooperation agencies to undertake “lesson drawing<sup>5</sup>” (see Rose, 1991 for a detailed account of the concept) from policy initiatives and practices of various sectors by looking at the potential for innovation by cross-national learning, and then carrying out “policy transfers”. “Policy transfer” refers to the process in which knowledge about policies, administrative arrangements, institutions etc in one time and/ or place is used in the development of policies, institutional arrangements, and institutions in another time and/or place (Dolowitz and Marsh, 2000). The earlier or contemporary reform efforts sponsored by the IFIs in Chile,

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<sup>4</sup> The paper deliberately does not provide references to the statements made by officials for the sake of respect for anonymity of information sources.

<sup>5</sup> James and Lodge (2003) opine that the concept is limited from the public policy research perspective

Mexico, Turkey, and Egypt inspired the IMT policy in Pakistan to a large extent, and thus provide an interesting case of application of the above concepts.

The lesson drawing exercises are useful in that these identify both, the symptoms and the root causes of the existing policy failure, as these base themselves on a detailed analysis of the existing contextual setting, as was the case with the World Bank's analysis of the situation in Pakistan. While in Bank's interpretation, the anarchy, chaos, and deterioration, etc. were all the symptoms, the core of the problem was related to monopolistic nature of irrigation institutions, that lacked transparency in their operations and accountability to the clients (World Bank, 2005). Therefore, it tried to argue for a reform model that does not only treat symptoms, but also the core problem of inducing accountability to clients. However, the Banks' own assessments indicate that the reforms have failed to address the fundamental issues (ibid).

It is argued that a number of problems that have frustrated the reform effort could have been avoided, if the Bank itself would have learned from the "lessons" of public policy research.

Firstly, as is clear from the above analysis, the IMT policy in Pakistan was largely seen as a "policy irritant" (Tuber, 1998), at least by the PIDs, as the Bank tried to transfer a policy based on its experience in countries having little to do with the prevalent socio-economic context in Pakistan. The World Bank's, and other donor's, style of carrying out "lesson drawing" exercises contributes much to such perceptions. A team of pertinent international and local consultants is engaged to carry out such exercises, generally comprising disciplinary sectoral experts, socio-economic experts, environmental experts, and the like. The local consultants are usually highly knowledgeable and highly experienced people about the local situation and its evolution, and the current challenges and issues facing the particular sector, whereas the international experts bring knowledge about similar situations elsewhere. However, the staff of organizations under study sees the consultants as "outsiders". For example in case of carrying out a diagnostic analysis of irrigation service, a local consultant from federal government's Water and Power Development Authority, a university, or a research institute not affiliated with PIDs would always an "outsider". Thus, the PID staff would regard his/ her contributions to the analysis of situation as "partial and biased" and based on "half reality". Besides, the international experts role is associated with connotations of not contributing anything substantial, rather crunching the old information provided by the organization in a new fashion. Commenting on World Bank's proposal of 1994, a high-level technocrat in Pakistan, for example, characterized the consultant in 1997 as, "a person, who borrows your watch, looks at it, tells you the time, and charges a very high fee for his service, and the Bank pays it in the name of service to our country". Therefore, the first reaction from the key PID staff to the critical recommendations and suggestions coming from such a team would be met by statements like, "it will not work in our conditions", "Pakistan is not Mexico or Turkey", "the recommendations suit more to the Banks wishes rather than our reality", etc. These perceptions reflect how the key decision makers from the recipient country receive the lessons from the "lesson drawing" exercises carried out in usual World Bank style. One way of avoiding such perceptions would be to ensure that institutionalized arrangements exist for inclusion of the perspective of the recipient organizations in the "lesson drawing" exercises.

Secondly, the adoption of IMT policies in Pakistan represents a case of a "coercive policy adoption" as opposed to a "voluntary policy adoption" (Dolowitz and Marsh, 1996) at all levels. State bureaucracies are a key to the success of the reform in countries with large irrigation and drainage infrastructure like Pakistan (Scheumann, 2002). The perceived lack of political will and support by state bureaucracies can be attributed to the coercive nature of the reform. The Bank forced the federal government to adopt IMT policy by attaching conditionality to further loan disbursement, and the federal government pursued the same strategies for ensuring compliance by the PIDs. One can argue that the partial success of IMTs was very much inherent in the coercive approach followed by the Bank, who tried to push its design against the willingness of the recipients. Dolowitz (2000) identifies three main reasons for policy failure in "policy transfer" cases, a) uninformed transfer, b) incomplete transfer; and c) inappropriate transfer. In case of Pakistan, it appears that all the three reasons were quite evident when the debate started. The staff of the federal as well as provincial water administrations had little or no knowledge of how to transform governmental monopolies into accountable corporate style PUs beyond enactment of legislation. The IMT policy simply ignored the crucial elements of the PUs, such as accountability-based contractual arrangements, and detached property rights to water. Since the policy transfer was coerced, the PIDs focused more on relatively "harmless" elements of the policy lessons, i.e., organizational designs and arrangements of FOs and AWBs (World Bank, 2005); to demonstrate compliance with loan conditionality,

but completely ignored devising and introducing reform instruments that could reduce its monopoly power. The PIDs ignored attending to a) assignment of clear water rights for FOs, b) making AWBs accountable to FOs, and c) putting in place strategies for capacity building of FOs, AWBs, and PIDAs to undertake their jobs in the new fashion.

Thirdly, as pointed out by the classical literature on organizational theory (see for example, Deutsch, 1963), the Bank and the government should have considered the initial opposition and resistance from the bureaucracy and farmers alike, as a proxy indicator that the policy learning by the implementing PIDs would be rather overly backward and conservative. PIDs would never transform unless their current path dependencies (Pierson, 2000) were altered before the reforms.

Finally, and perhaps more importantly, a governmental bureaucracy, that has its roots in the colonial system of administration, and is imbued with its imperialistic pride of “owning” the massive Indus Basin irrigation system as the “Royal Irrigation Department” lacks capacity and will to reform itself. A reform design expecting a bureaucracy to reform itself would be too naïve to attain the targeted service-oriented PU that is accountable to its users. It might require a facilitated in-depth problem analysis, but together with various groups of providers and users of the service. Such a problem analysis should focus on yielding a joint action plan for addressing and eliminating both the symptoms and deep-rooted causes of under performance, and then putting in place transparent mechanisms to undertake proposed actions. The implementation of such actions should be jointly monitored and evaluated by all stakeholders; the criteria and indicators should address both the quantity and quality aspects of performance.

## REFERENCES

Asian Development Bank. 2005. Technical Assistance Completion Report: 3130-PAK-Water Resources Strategy Study. Asian Development Bank, Islamabad.

Bandaragoda, D. J. , M. Ul-Hassan, M. A. Cheema, Z. I. Mirza, and Waheed-Uz-Zmana. 1997. Organizing water users for distributary management: Preliminary results from a pilot study in the Hakra 4-R distributary of the Eastern Sadiqia Canal System of Pakistan's Punjab Province. Research Report No. R-25, Pakistan National Program, International Irrigation Management Institute. Lahore.

Bosshard, P. 2007. The World Bank and Pakistan's Water Sector: A recipe for conflict and deadlock. [http://www.weltwirtschaft-und-entwicklung.org/cms\\_en/wearchiv/53168697580b82701.php](http://www.weltwirtschaft-und-entwicklung.org/cms_en/wearchiv/53168697580b82701.php). Accessed [09/08]

Deutsch, K. 1963. *The Nerves of Government: Modles of Political Political Communication and Control*. New York: Free Press.

Dinar, A., T. K. Balakrishnan, and J. K. Wambia. 2004. Politics of institutional reforms in the water and drainage sector of Pakistan. *Environment and Development Economics*. 9(2004):409-445. doi:10.1017/S1355770X0300127X

Dolowitz, D. 2000. 'Introduction', *Governance* . 13(1), 1-4.

Dolowitz, D. and D. Marsh. 2000. Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making, *Governance*. 13(1), 5-24

Dolowitz, D. and D., Marsh. 1996. Who Learns What from Whom: A Review of Policy Policy Transfer Literature. *Political Studies*., 44, 343-57.

Government of Pakistan. 2004. National Water Policy (draft). Ministry of Water and Power, Islamabad. <http://www.waterinfo.net.pk/pdf/NationalWaterPolicy.PDF>. Accessed [09/08]

Government of Punjab. 1997. Punjab Irrigation and Drainage Act, 1997. Provincial Gazette. Punjab Printing Press. Lahore, Pakistan.

- James, O. and M. Lodge. 2003. The limitations of "Policy Transfer" and "Lesson Drawing" for Public Policy Research. *Political Studies Review*. 2003 (1):179-193.
- Merry, D. J. 1996. Institutional design principles for accountability in large irrigation systems. Research Report 8. Colombo, Sri Lanka: International Water Management Institute.
- Mollinga, P. P., R. Doraiswamy, and K Engbersen. 2001. The implementation of participatory irrigation management in Andhra Pradesh, India. *International Journal of Water (IJW)*, 1(3/4), 2001
- Mosse, D. 2003. *The Rule of Water: Statecraft, Ecology and Collective Action in South India*. London, UK., Oxford University Press
- Nakashima, M. 2005. Pakistan's Institutional Reform of Irrigation Management: Initial Conditions and Issues for the Reform. *Hiroshima Journal of Irrigation Sciences*. Available at [www.intl.hiroshima-cu.ac.jp/~nakashim/Nakashima/PakHJIS.pdf](http://www.intl.hiroshima-cu.ac.jp/~nakashim/Nakashima/PakHJIS.pdf). Accessed [09/08]
- Pierson, P. 2000. Increasing Returns, Path Dependencies, and the Study of Politics. *American Political Science Review*. 94(2):251-267
- Rose, R. 1991. What is Lesson Drawing?. *Journal of Public Policy*. 11(1):3-30
- Scheumann, W. 2002. Institutional Reform in the Irrigation Sector: The Cases of Turkey and Pakistan. German Development Institute, Bonn, Germany.
- Shafique, M. S., W. Clyma, and M. A. Gill. 2001. Institutional Reforms in the Agricultural Sector. Paper number 012054, 2001 ASAE Annual Meeting. @2001 available at <http://asae.frymulti.com/abstract.asp?aid=7311&t=2> accessed [09/08]
- Teubner, G. 1998. Legal Irritants: Good Faith in British Law or How Unifying Law Ends Up In New Divergences. *Modern Law Review*, 61(1), 11-32
- Van der Velde, E and J. Tirmizi. 2001. Irrigation Policy Reforms in Pakistan: Who's Getting the Process Right?. Chapter 7. In Mollinga, P. and A. Bolding (Eds). 2001. *The politics of irrigation reforms: Contested policy formulation and implementation in Asia, Africa and Latin America*. Ashgate Publications.
- Vermillion, D. ; Sagardoy, J.A. 1999. Transfer of irrigation management services: Guidelines. FAO Irrigation and Drainage Paper 58. Rome: Italy: Food and Agriculture Organization of the United Nations
- World Bank. 1994. *Pakistan Irrigation and Drainage: Issues and Options*, Report. No.1184-PAK. Agriculture and Rural Development Unit. South Asia Region. International Bank for Reconstruction and Development. New York.
- World Bank. 2005. *Pakistan Country Water Resources Assistance Strategy*. Report No. 34081PK . Agriculture and Rural Development Unit. South Asia Region. International Bank for Reconstruction and Development. New York.