

NATIONAL DRAINAGE PROGRAM AND RESTRUCTURING OF IRRIGATION DEPARTMENT INTO BIDA

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INTRODUCTION

This article is about the National Drainage Program (NDP) and restructuring of Irrigation Department into Balochistan Irrigation and Drainage Authority (BIDA). It, first, describes the strategy of the NDP, throws light on its objectives and discusses how these objectives can be achieved. It then, mentions the major components of the NDP, highlights, the main causes of the implementation delay of NDP, establishes linkage between NDP and BIDA, and provides implementation structure of NDP in hierarchical jurisdiction. It, then, gives the detail of the role of different entities (BIDA, AWB and FOs,) under NDP, enlists the condition for sponsoring projects for FOs, explains project approval cycle, illustrates guidelines for screening projects, depicts FO's share in these projects, represents maximum upper limit of the expenditures of the projects for these different entities and, finally, it summarizes the benefits of farmer's participation to the government and to the farmers. This article heavily draws from the (World's Banks' Staff Appraisal Report NDP's PC-1).



NDP - STRATEGY

- It takes a comprehensive approach to River Basin Management (RBM);
- Seeks to enhance the knowledge base to adopt sound technical solutions to drainage; and
- seeks to reduce fiscal dependency especially for on-fami drainage.

The strategy consists of the following inter-linked parts:

- (i) restructuring the Provincial Irrigation Departments (PIDAs) to form Public Utilities (PUs) around canal commands;
- (ii) actively promoting formation and development of Farmer Organizations (FOs);
- (iii) strengthening federal agencies, notably the Water and Power Development Authority's (WAPDA's) Water Wing, to better implement their federal responsibilities; and
- (iv) formalizing water markets and individual water property rights.

OBJECTIVES OF NDP

The goal of the project is :

- to implement the NDP in 25-year
- to minimize saline drainable surplus

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- to facilitate the eventual evacuation of all saline drainable surplus from the Indus Basin to the Arabian Sea, and
- to restore environmentally-sound irrigated agriculture in Pakistan.

How Would Be These Achieved?

The objectives of the project are to improve the efficiency of the irrigation and drainage systems in Pakistan, and ensure its sustainability, through:

- establishing an appropriate policy environment and institutional framework,
- strengthening capacity of sector institutions,
- improving sector policies and planning
- strengthening the technical foundations of and knowledge base on irrigation and drainage,
- improving the irrigation and drainage infrastructure network,
- institutional reforms to decentralize the irrigation and drainage system,
- capacity building of key irrigation and drainage institutions (WAPDA, PIDAs, AWBs and FOs),
- policies to improve the efficiency of water allocation,
- modernization of canal system management,
- improvement of irrigation systems and watercourses (e.g. to reduce seepage),
- ensuring proper O&M of canals and drains so that they can function as designed.

MAJOR COMPONENTS OF NDP

NDP consists of the following three complementary components, with estimated total cost of US \$ 785 million:

Sector Planning and research component	US \$	25.7 million
Institutional reforms component	US \$	57.7 million
Investment component	US \$	653.1 million

Implementation Delays of NDP

The main risk to the project during its implementation phase is slow implementation due to the following factors:

- poor coordination,
- weak supervision,
- delays in preparation of Investment Projects,
- delay in approval of contracts and investment projects, and
- failure of PAs to meet eligibility criteria on schedule.

Linkage of NDP with BIDA

The Borrower (COP) and IDA anticipate that if NDP is successfully implemented:

- it would be followed by the proposed National Irrigation Program (NIP) which is under preparation,
- and by a series of NDP's and other associated investments in the water sector
- the project includes funds to prepare a pipeline of major drainage projects to be implemented from the second half of this project,
- and for the preparation of NDP II.

On the other hand;

If the pace of reforms is slow due to lack of government commitment, implementation constraints, or resistance/lack of commitment by WAPDA, PIDAs of AWBs for real change, the Borrower and IDA have agreed and understand that:

- the incremental financing commitments for irrigation and drainage investments under NDP would be scaled back

or

- canceled altogether after the MTR or 2-3 years, and
- this factor would be taken into account in determining IDA's financing for additional investments in the water sector notably NIP and the proposed Fourth On-Farm Water Management IV Project.

NDP IMPLEMENTATIONAL STRUCTURE AND JURISDICTION

Components of Implementation

- Institutional reforms for WAPDA's Water Wing and PIDs of
- Redefining roles and functions;
- Decentralizing roles and responsibilities;
- Streamlining;
- Transferring management responsibility for those functions which should be managed by other entities which will succeed PIDs; and capacity building for WAPDA and the new public and private institutions.

ROLE OF DIFFERENT INSTITUTIONS AND QUALIFYING CAPACITY UNDER NDP .

BIDA's Responsibilities :

- Subject to the provisions of the Indus Water Treaty, 1960 and the Water Apportionment Accord, 1991 to receive irrigation supplies at the barrages falling within the Province and/or from the inter-provincial/link canals and deliver the same in agreed quantities to the various AWBs in the Province at the relevant canal headworks.
- Shall receive drainage effluent at designated points on canal command boundaries and convey the same to the inter-provincial outfall drains.
- To exercise all the powers under the Balochistan Canal and Drainage Ordinance, 1980 and Balochistan Groundwater Rights Administration Ordinance, 1978.
- To fix the rate in consultation with the Provincial Government at which it will supply irrigation water at its disposal to its various constituent Area Water Boards other entities as provided under BIDA Act 1997 as also the Drainage Cess payable by the AWBs or any other entity for the conveyance/disposal of the effluent through the relevant drains.
- The Authority may levy appropriate surcharge for late payments and recover arrears from defaulters under the Balochistan Land Revenue Act 1967.

Provided that in case the Government declares a remission, water, rescheduling or suspension of payment of any of the dues of the Authority, the same shall be the account of the Government who shall simultaneously notify how the Authority shall be compensated for the loss thereby caused to the Authority and/or other entity established under BIDA Act 1997

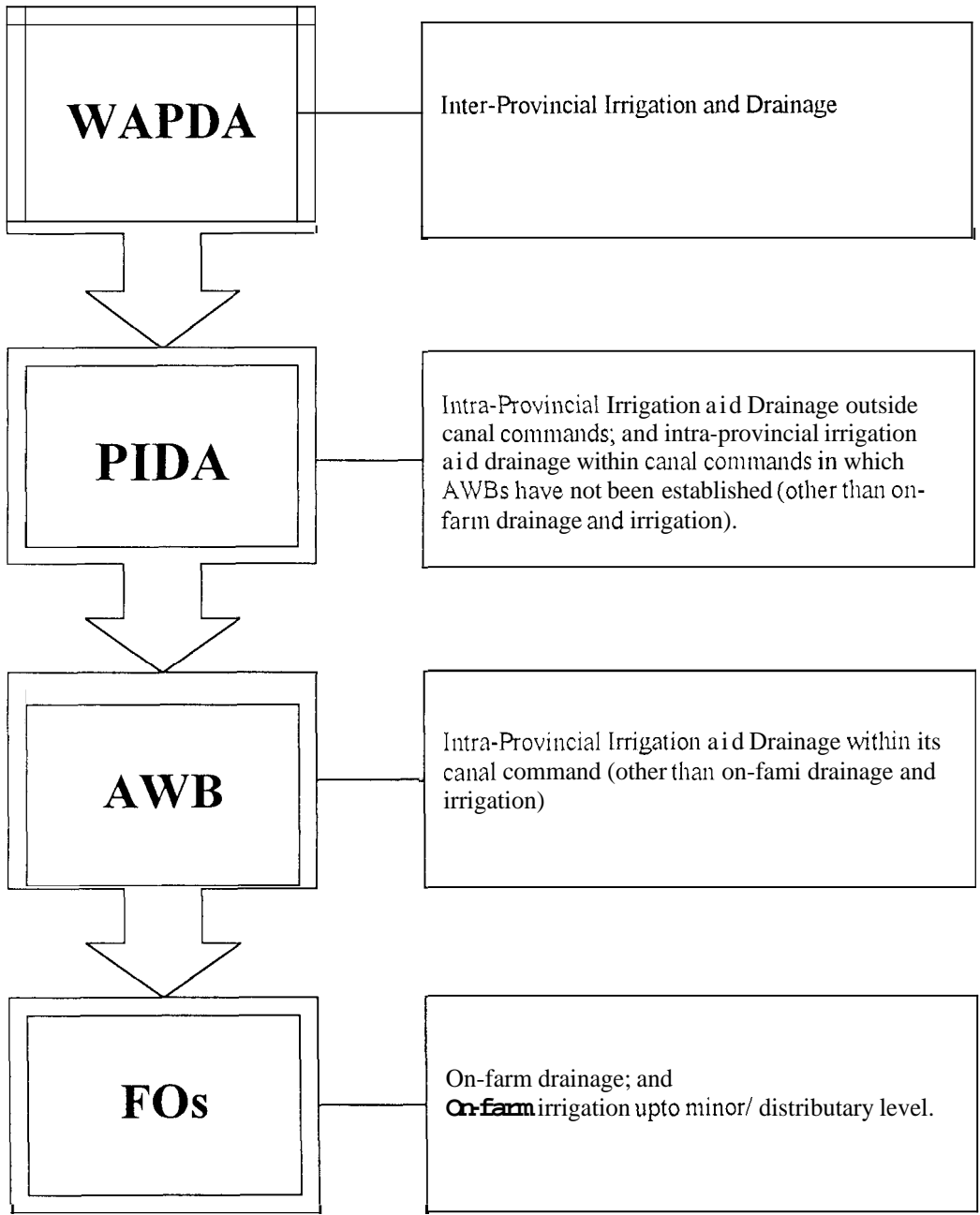
- To formulate and implement policies in the water resources sector with a view to continuously improve and achieve effective, economical and efficient utilization,

preservation and improvement of such water resources by the Water Users of Province on a financially and environmentally sustainable basis.

- To formulate and implement policy guidelines/procedures for the proper and efficient exercise of powers available under BIDA Act 1997 by the various entities and their directors, employees and to prescribe training requirements and programs which may be conducted by the various entities under this BIDA Act 1997 in ths behalf.
- To conduct any inquiries and hear any complaints and adjudicate on any disputes and/or any individual in accordance with the principles of natural justice relevant there-to and to implement such decisions as per the letter and spirit thereof.
- To prescribe and adhere to the procedures for the filing of documentation regarding water allocation in the Province and all concessions, licenses and leases granted by any entity under BIDA Act 1997 and to ensure availability thereof to the general public for inspection and taking copies thereof.
- To establish criteria and procedures for granting modifying, reassigning, renewing suspending or revoking any concessions, licenses, subleases granted by the Authority to any other entity or person and/or for the management of the infrastructure in the event of suspension or revocation of a concessions, licenses or subleases granted by the Authority to any other entity or person.
- To operate and maintain the irrigation, drainage, storage reservoirs and flood control infrastructure in the Province including hill torrent control and development works for irrigation of adjoining lands including watershed management practices in catchment areas.
- To plan, design, construct and improve the irrigation drainage, storage reservoirs and flood control system with a view to ensure optimal utilization of the water resources of the Province on an equitable and efficient basis.
- To undertake anti erosion operations including conservation of forests and reforestation and with a view to achieve this purpose, to restrict or prohibit by general or special order the clearing or breaking up of land in the catchment areas of any rivers, hill torrents and/or other streams.
- To undertake any work, incur any expenditure, procure machinery, plant and stores required for use by the Authority and to negotiate, execute and adopt ratify all such contracts as may be considered necessary or expedient with the approval of the Government.
- To formulate, adopt and implement policies aimed at promoting formation, growth and development of Area Water Boards/Farmer Organizations, and compilation/faithful monitoring of the results thereof as per the requirements prescribed under BIDA Act 1997 ant to ensure orderly and systematic induction thereof into the operations of the Authority.

Area Water Board's Responsibilities:

- To formulate and implement policies with a view to achieve and continuously improve effective, economical and efficient utilization of irrigation water at its disposal and to ensure that within a period not exceeding 07 to 10 years from the date of its constitution, it becomes fully operative as a self-supporting and financially self-sustaining entity.
- To plan, design, construct, operate and maintain the irrigation, drainage and flood control infrastructure located within its territorial jurisdiction.
- To adopt and implement policies aimed at promoting formation, growth and development of Farmer Organizations including pilot projects for Farmer Organizations and faithful monitoring of the results thereof.
- To perform any other functions assigned by the Authority (**BIDA Act, 1997**).



Farmers Organizations' Responsibilities:

- To operate, manage and improve the irrigation and drainage infrastructure comprising of minors, distributaries and drains together with any structures thereon located within the Area relevant to the Farmer Organization concerned.
- To obtain irrigation water from the Authority or Area Water Board concerned at the head of the minor or the distributary and to supply the same to their members and other water users, if any.
- To receive the drainage effluent from their water users and to convey the same through field/collector drains to the designated nodal points to the drainage system.
- To collect the agreed water charges, other dues, if any from its water users and to pay the agreed consideration for supply of irrigation water and conveyance and/or disposal of drainage effluent to the Authority or Area Water Board concerned.
- To engage, hire or employ any consultants, advisors and employees as may be deemed necessary or be otherwise reasonably required for the due and effective performance of various powers and functions on such terms and conditions relevant to the conclusion or premature determination of such engagement etc. of any consultants, advisors, employees, as the case may be (BIDA Act, 1997).

FOs Would Ideally Sponsor Investment Projects That Are:

- for the purpose of improving FOs' ability to obtain or receive water from distributaries or minors for delivery to Water Users Associations (WUAs) at minors or watercourses;
- for the purpose of improving the FOs' ability to obtain or receive drainage effluent from WUAs or Drainage Beneficiary Groups (DGGs) at outfalls for delivery to drains or outfalls maintained and operated by AWBs;
- part of the FOs' paid responsibility on behalf of the AWBs for flood control or flood damage rehabilitation;
- Contracted under a "Construction, Partnership and Hand over Agreement" with client on terms satisfactory to IDA; and
- For replacement of saline SCARP tubewells with tile drains;
- For replacement of GGW SCARP tubewells with community tubewells;
- For improvements of watercourses in saline groundwater areas; and
- Estimated to cost no less than \$0.1 million equivalent.

The Investment Project Approval Cycle

- A feasibility report would be prepared for each Investment Project
- Endorsed by NDP Engineering Design and Supervision Consultants
- Meets selection criteria
- Appraisal by an independent Panel of Experts
- Approved by the NDP Coordination Cell or Provincial NDP Cell
- Reviewed by IDA retroactively

GUIDELINES FOR SCREENING INVESTMENT PROJECTS

- (a) beneficiary participation and consultation plan in case of tertiary drainage or private tile drainage Investment Projects;
- (b) Environmental Assessment with mitigation measures incorporated into Investment Project design;
- (c) Resettlement Action Plan with social rehabilitation dimensions;
- (d) Adequate provision and budget for post-completion operations and maintenance;

- (e) Community ownership and cost-sharing arrangements;
- (f) Basin strategy;
- (g) Hand-over arrangements, where applicable; and
- (h) Awareness campaign directed at beneficiaries.

FINANCIAL CONTRIBUTION OF FOS IN THE PROJECTS

Type of Investment Project	
Off-fami Surface Drains	0 %
SGW Tubewells	0 %
Watercourses	40 % of cost of civil works materials (Plus all the skilled and unskilled labor)
Tile Drains	10% (Plus land required)
On-fami Surface Drains	10% (Plus skilled and unskilled labor, and any land required)
FGW Tubewells - Transfer of existing tubewells - Transfer of existing tubewells with modification - Installation of new tubewells (with centrifugal pumps operated by diesel engine)	Rs. 10,000 Balance cost of civil works if any after considering grant of Rs. 20,000 from Provinces. Balance cost of civil works if any, after considering grant of Rs. 30,000 from Provinces.
Irrigation Systems Rehabilitation - If carried out by an FO - If carried out by a PIDA or an AWB	10% of cost of civil works 20% of cost of civil works
Institutional Program	0 %

Upper Monetary Limit of Expenditure

WAPDA	\$ 5 Million
PIDAs	\$ 3 Million
AWBs	\$ 1 Million
FOs	\$ 0.1 Million

Benefits to the Government

- Transparent financial management.
- Reduction in Government expenditure
- Reduction in Government staff
- Better assessment and collection of Abiana
- Reduced workload on the Irrigation staff
- Increase in productivity.

Benefits to the Farmers

- Social Control
- General awareness
- Better use of resources
- Reach to the agricultural/irrigation science and technology
- Equitable distribution of water
- Operation and Maintenance of Canal/Distributaries at low cost
- Instant decisions.

REFERENCES

- 1) Balochistan Irrigation and Drainage Authority Act, 1997
- 2) Islamic Republic of Pakistan and Water and Power Development Authority WAPDA (1997) National Drainage Program NDP PC-1 Program
- 3) World Bank Staff appraisal report National Drainage Program