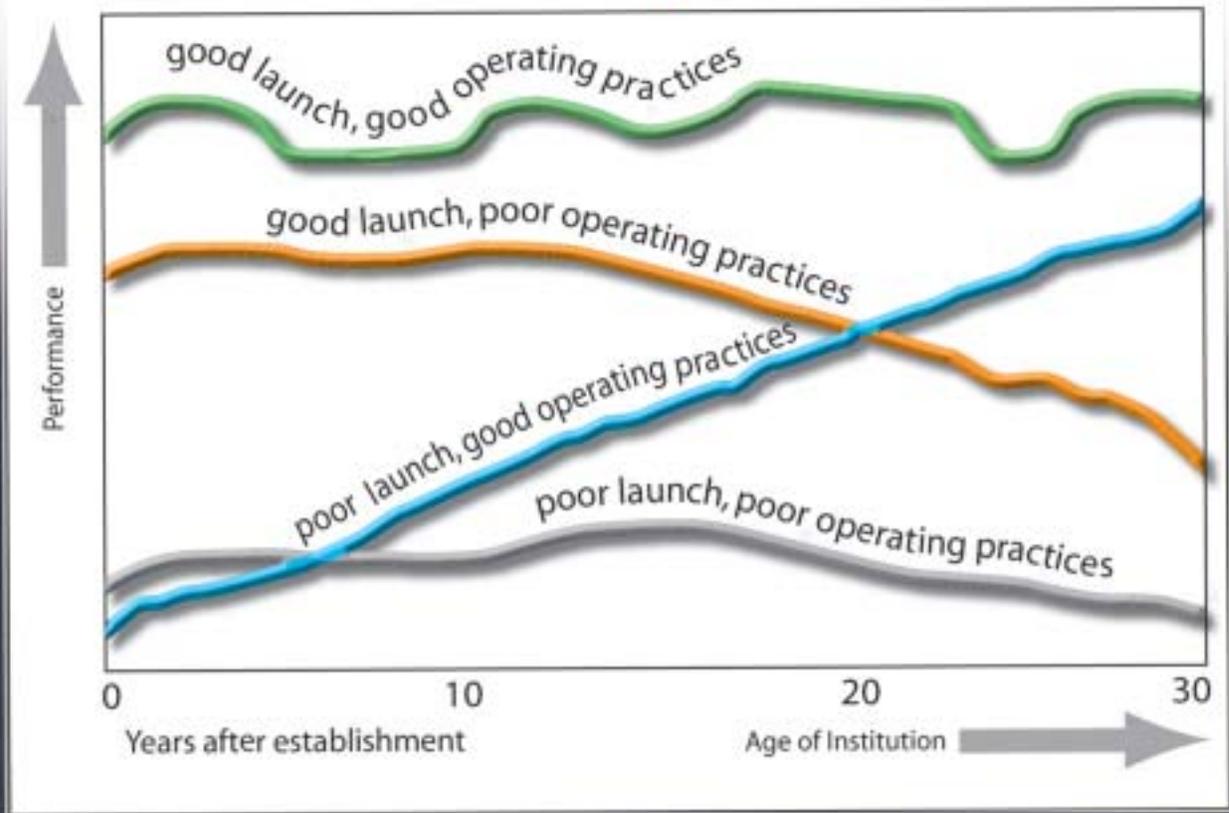


Water Policy Briefing

Issue 5

IWMI-Tata Water Policy Program

Putting research knowledge into action



Building High-Performance Knowledge Institutions for Water Management

Many Indian water management institutions are failing to live up to their original promise. By allowing these institutions to stagnate, we risk the loss of a vitally important tool for research and policy making. Recent research has identified traits that set high-performance institutions apart from those failing to deliver. By applying these concepts to lower performance institutions, India can make good its initial investments and create world-class institutions for research, policy formation and development.

Building High-Performance Water Management Institutions

Societies need forward-thinking knowledge institutions in the water sector to help them deal with the opportunities and crises that will arise in the future. India has some leading, high-performance knowledge institutions. But it also has many more that no longer deliver high-value thinking, insights or perspectives. Can these under-achieving institutions be transformed? How can the government, NGOs and international organizations design, build and maintain successful, high-potential institutions?

Practical answers have been found in a recent review of 30 diverse Indian institutions. The review—part of an effort to improve institution-building in the water sector—found many traits that set the “winning” institutions apart from the poor performers. First, it is the quality of an institution’s design and launch that determines its ability to lead and to be recognized as a leader in the future. Second, good operative practices—with regard to human resources, fund-raising policy, management style and core products and services—ensure an environment where innovative thinkers can excel.

The research argues that a) both these aspects are vital if an institute with high potential is to flourish and b) capital investment is necessary—but not sufficient—to achieve success. Finally, the study recommends a complete relaunch of under-achieving institutions, with new NGO staff and a fresh mandate.

Research and academic institutions have a special place in our society. They are a force for positive change because they have the time, resources and mandates to examine tomorrow’s questions and issues today. They help shape and update the thinking of society’s leaders and policy makers, and so set the country’s future directions. This is the theory.

In practice, many institutions have become outdated. Or, due to a lack of focus and the wrong combination of professional skills, they no longer deliver useful perspectives or insights. Unfortunately, very few of today’s organizations are “high-performance” knowledge institutions with reputations



for creative research, innovation or advancing the frontiers of knowledge. Fewer still think “ahead of the curve,” and make plans to exploit future opportunities or cope with future problems—this issue is critical in the water sector.

Research from many developing countries confirms that the root

High-performance water management institutions have strong resource-generation strategies.

cause of their water problems is a scarcity of institutional innovative capacity—in equal measure with a scarcity of water for irrigation. The result, fortunately, is investment in specialized research and capacity-building institutions of quality and excellence. But, as India’s experience shows, more than just financial capital is needed.

During the 1970s and the 1980s, the World Bank and USAID invested heavily in creating more than a dozen State-Level Water and Land Management Institutes (WALMIs). Infrastructure and facilities were superb, and things ran smoothly until their funding ended. Many WALMIs were then taken over by state irrigation departments, and received core funding fully, or mostly from state governments.

But these governments are increasingly short of funds. This is unfortunate for the WALMIs, and other

This issue of *Water Policy Briefing* is based on research presented in the paper *Launching Knowledge Institutions of Excellence: Learning from 50 years of Indian Experience in Institution Building*: Tushaar Shah with Research Support from Mahendra Singh. Readers interested in the details of this research are invited to read the full text of the paper at www.iwmi.org/iwmi-tata or request a copy at the address given below. Questions and comments on this issue may be directed to Dr. Tushaar Shah c/o IWMI, Elecon, Anand-Sojitra Road, Vallabh Vidyanagar 388 001, Gujarat, India or iwmi-tata@cgjar.org.

departmentally controlled institutions, such as the Irrigation Management Training Institutes (IMTs) and the State Institutes of Rural Developments (SIRDs). Training and research institutions in the government sector are generally the first to suffer budget cuts.

When resources decline, barely covering salaries and overheads, core infrastructure, such as the library, computers and labs, is sacrificed. Dejected professionals leave. New ones cannot be attracted. The institution is left with clerks and ministerial staff. This is a common pathology of decline. The result? A low-performance knowledge institution.

So, if it is not simply to become part of a government department, a new institution needs to be designed to stand on its own feet from the start.

A good design/launch and good operative practices constitute the winning combination when building high-performance knowledge institutions (figure 1).

Research has identified six parts of the design/launch process critical to building high-performance knowledge institutions (figure 2, outer circle), and the best operative practices found in these high fliers (figure 2, inner circle).

Design and Launch of High-Performance Knowledge Institutions

Governments, NGOs and international organizations should consider six critical areas when designing or relaunching knowledge institutions.

1. Managing the Design and Launch

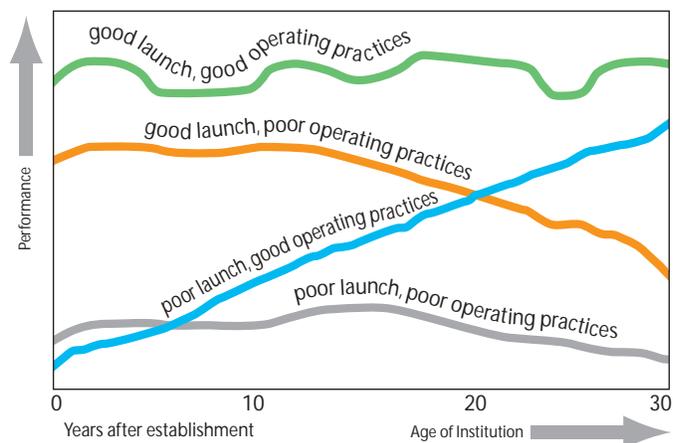
Design and launch are critical because they shape public perceptions of the institution and its relevance. These determine what researchers and funding an institution attracts. Put simply, the way an institution is perceived in 15 years' time depends on how it projects itself at its launch. Traditions are then created which, years later, are sources of vitality in high-performance knowledge institutions, and of decay in mediocre ones.

So, first-class management is essential from the very beginning.

2. Concept—the Founding Vision

Institutions of excellence begin with bold concepts and great purposes. These inspire the staff long after founders move on. The Tata Institute of Fundamental Research (TIFR), for example, was created as “a center

Figure 1. Design/launch and operative practices affect institutional performance



A poor launch and poor operative practices contribute to the underachievement of many of the 30 Indian institutions assessed. And although a good launch can ensure success in the short and medium term, poor operative practices commonly cause a decline in performance later on. Institutional performance was rated “high” if an institution a) had survived for a long period without compromising its missions and goals, b) was perceived as having intrinsic value/usefulness by professionals in the field and by interested members of the public, and c) sets the standards for, and leads in, its particular field.

for research that would radiate to the rest of the country standards as high as any to be encountered anywhere.”

So, the mandate of institutions should not be limited to dealing only with problems relevant at the time of their launch. Their concepts should be “ageless,” adapting to the new challenges to society, as they arise.

3. Governance—the Role of the Board

The Boards of high-performance knowledge institutions have key traits in common. They are autonomous and their members are interested, well-respected and regularly renewed. Members are selected from a cross-section of stakeholder groups, and often include persons eminent in their field. Such Boards are active. Meeting regularly, they shepherd and oversee the activities of the institution and step in swiftly when there is any threat to the institute.

Boards that consist entirely of staff seconded from government departments, who often have little interest in their role, are unlikely to shape a high-performance knowledge institution (WALMIs and IMTIs suffer this problem).

4. Critical Linkages—Relationships with Other Organizations

Constructive relationships with the government are vital. High-flying, autonomous institutions benefit from having one or two key government members on the Board. Other successful institutes are government-sponsored, but have a dynamic, fully autonomous Board and some financial independence (e.g., Center for Environment Education (CEE), which gains much funding from projects and publications).

Also, links with internationally recognized organizations benefit some high-performance knowledge institutions in terms of staff training. The Indian Institute of Management (IIMA), Ahmedabad, for example, is linked to the Harvard Business School.

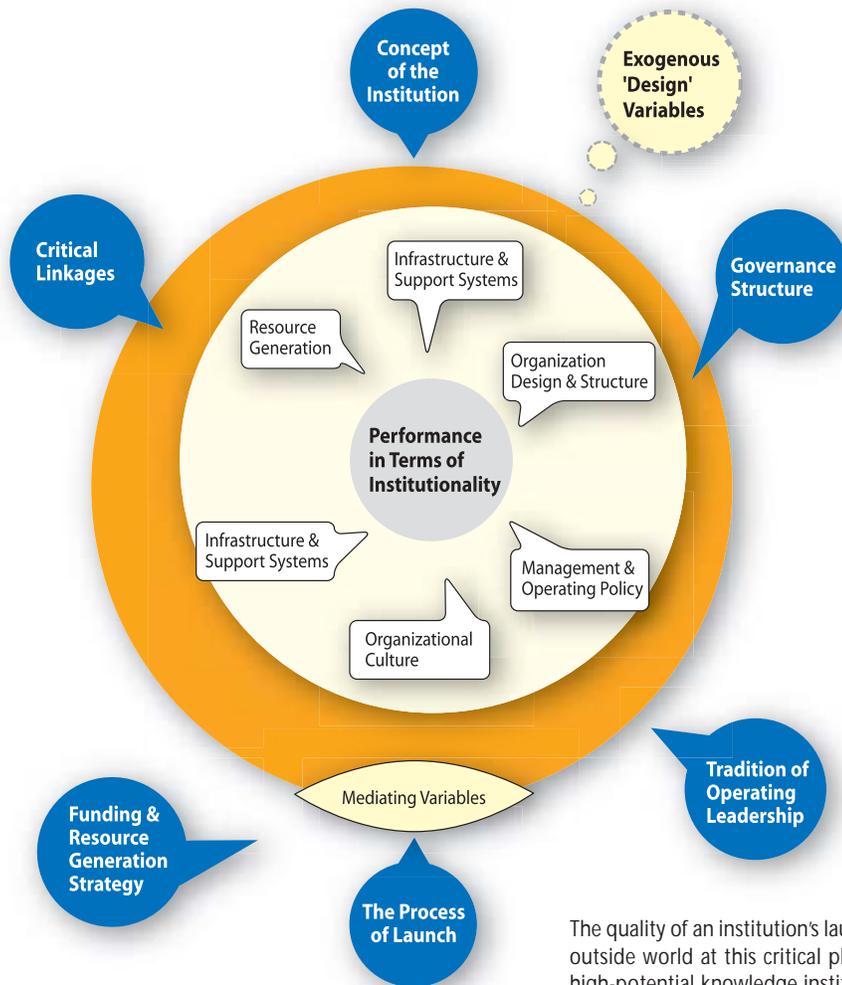
5. Effective Leadership—Directors

Good directors are selected by the Board. Long-term tenure and operational freedom are crucial here. In the formative years, these leaders establish norms of self-regulation, standards of individual and institutional performance, and collective leadership cultures. These prepare an institution for leadership changes.

Model directors generally view their leadership role as a lifetime's work. They reflect on successes and failures, have great "entrepreneurial energy," and nurture many productive linkages.

If a directorship is held as an additional duty (as in many SIRDs and the Gandhi Labour Institute), or if there is a high turnover of directors (WALMI, Gujarat,

Figure 2. Hallmark areas of high-performance knowledge institutions



The quality of an institution's launch and the vision projected to the outside world at this critical phase is a common characteristic of high-potential knowledge institutions.

had 15 directors in 12 years) leadership becomes ineffective.

6. Funding and Resource-Generation Strategies

High-performance knowledge institutions have strong resource-generation strategies. Institutions need to be designed to be self-supporting from the very beginning. Fee charging is critical then, even if funding is available during the early years.

Lessons can be learned from successful non-government-funded organizations outside India (see box). An innovative, successful model is provided by the Institute of Rural Management, (IRMA) Anand. There, grants from donors have established infrastructure and covered staff development, while five years of core funding from the National Dairy

High-performing knowledge institutions recruit the best talent available.

Successful and Self-Sufficient

Two model institutions show that it is possible for research institutions to be self-funding and produce a nonstop stream of quality research products. UK's Institute for Development Studies (IDS) and Overseas Development Institute (ODI) use innovative, output-driven systems.

Systems revolve around the "Researcher Work Day," which is charged for at a rate that includes the salary of the researcher and support staff, plus overheads. Researchers/research groups have to bring in funding equivalent to a minimum number of these Work Days per year. This ensures that support staff are kept to a minimum, providing high-quality support to the researchers who earn their salaries.

Senior researchers command high daily rates (e.g., US \$750/day), but they must demonstrate that they can deliver quality research/training products on time. This promotes excellence.

Yet, the researchers working within these institutes do not require strong financial incentives. Researchers' pay often follows standard UK university scales. Their annual increments and growth prospects are also similar. Why then are researchers willing to work so hard for relatively little financial rewards?



Development Board (NDDB) has ensured a solid launch. A generous endowment from the NDDB gave IRMA autonomy and security. Interest from the endowment covered 50-60% of operating costs, but service fees and project grants generated the rest of the budget.

One reason is that institutions make a positive effort to allow their faculty to do work that is meaningful and exciting, whilst still covering their costs. The researchers get their professional kicks from undertaking what interesting and relevant research is available to them.

Best Operative Practices

Operative practices that set high-performing institutions apart from low-performers are summarized in table 1. The following are some examples of innovative, effective practices used by high-performance institutions in India.

1. Faculty Selection and Development

High-performing knowledge institutions recruit the best talent available. They realize that members of their professional staff (whose quality, productivity, creativity and commitment determine the impact of the institution) are their prime capital. So, they use Visiting Fellow programs—to attract young scholars.

- High-salaried senior-professor cadres—to attract senior academics
- Masters' programs with scholarships—to attract bright students

2. Core Portfolio of Products and Services

Portfolios include educational programs, training products, research and other knowledge products. Examples of such prestige products include

- a renowned Training-of-Trainers program
- high-impact annual environmental reports
- a popular fortnightly magazine

3. Organizational Design

Effective designs already implemented include

- rotation of program leadership between junior and senior staff members
- encouraging cross-disciplinary work and information flows
- farming out support services to allow high ratios of professionals to support staff

Operative Practices in High- and Low-Performing Institutions

Area	Operative Practices in HPKI Class	Operative Practices in the Rest of the Institutions
1a. Faculty Selection Procedure	Open search; merit and suitability-based;	Deputation from Departments; heavy reliance on guest faculty
1.b Accent on Faculty Competence Development	High and continuous	Low and/or initially temporary
1.c Reward Structure and Growth	Competitive in academia; merit and time-scale-based growth; substantial non-pecuniary rewards	Linked to govt; time-scale-based; little or no linkage between performance and rewards; uncompetitive and limited range of rewards
2. Portfolio of Products and Services	Well-defined core portfolio creates powerful synergy; recurring feature; involve all staff who share responsibility for its quality and relevance; prestige-products; represents the core competencies of the Institution; draw out the best in the Institution; institutional excellence identified with quality of the portfolio	Commonly, core portfolio of recurring products/services with joint ownership by all staff missing; institutional output is equal to (or less than) the sum of individual outputs; if a core product portfolio does exist, its indifferent quality becomes the bane of the institution
3. Organizational Design	Relatively flat, nonhierarchical, matrix-type; power with professionals; promote multi-disciplinarity; performance-oriented	Hierarchical; bureaucratic and authority-oriented; power with administrators; unable to adapt to performance needs
4. Infrastructure and Support Services	Good or excellent; well-used, well-maintained, adapted to changing needs	Poor, Good or Excellent; often underutilized and poorly maintained
5a. Pattern of Resource Generation	Resource generation without goal-displacement; core grants, project grants and fees	Mostly core grants; <i>projectitis</i> : goal-compromise
5b. Level of Resource Availability	Moderate to plentiful	Inadequate, moderate or plentiful.
6. Organizational Culture	Democratic; stress on self-regulation, creativity, excellence & internality of locus of control	Authoritarian, restrictive, discouraging creativity and innovation; externality of focus of control
7. Management and Operations	Systems oriented towards Organizational Performance and Impact; high activity-level; sensitive to client feedback; strategic approach	Rule-bound, target-oriented, low activity level; insensitive to final impact of its work, to client feedback

This research shows that the critical differences between high-performance knowledge institutions (HPKI) and others hinges on *operative practices* in seven distinct areas. The areas are things that high performance institutions do *differently* from the rest. Members of this class seem to adopt a uniform or coherent set of *operative practices* in all these areas. Other institutions use best *operative practices* in some but not all areas. In low-performing institutions, *operative practices* in most or all areas are problematic and different from those found in HPKI class.

High-quality institutions attract funds, but they do not allow donations to compromise their principles.

4. Infrastructure

Infrastructure may be modest, but it is efficiently used. This enhances the impact of the institution's work.

5. Funding and Resource Generation

High-quality institutions attract funds, but they do not allow donations to compromise their principles. They strike a balance between too much core funding (causing complacency and inertia) and too little (causing "projectitis," as staff work to acquire short-term funds). They charge "nontrivial"/high prices for services and products. This promotes quality and excellence.

6. Organizational Culture

Pride and teamwork are fostered by

- monthly meetings of the entire group where all staff (technical and nontechnical) share innovative ideas and present their work-in-progress
- participatory decision making, to allocate work and projects to staff members

7. Management and Operations

High-performance institutions maintain traditions of faculty governance, freedom, group work, peer-review and rigor by

- nonthreatening individual and group assessments
- acting on feedback
- rigorous reviews of publications
- strategic planning by committees
- external reviews and evaluations

CASE STUDY: WALMI Gujarat From Bureaucracy to Institution?

Investment has given WALMI a high-quality infrastructure. Yet it has still not achieved its full potential. A government-commissioned study identified three ways to reorganize WALMI into a first-rate knowledge institution:

- Alternative 1: Marginal Changes
- Alternative 2: Restructuring
- Alternative 3: Relaunching

Making changes to WALMI's staffing policy (alternative 1) is the simplest option. It would provide the center with a little more autonomy, but would provide fewer outputs and prove more expensive in the long term. Papering to cover the cracks, which have appeared in WALMI's institutional structure, is not really a solution.

WALMI actually needs to be relaunched, with a new mandate and with considerably more autonomy. This is viable, if phased in and properly managed. Over three years, alternative 2 could be used as a stepping stone to smooth the eventual relaunch. This phase would include

- introducing 6-7 eminent, nongovernmental Board members
- electing the Board's Vice Chairman from among its nongovernmental members
- progressively decreasing governmental funding
- gradually disengaging from the Irrigation Department

Relaunched, the new WALMI's objectives would be considerably broadened, to address 15 years of change in water-policy needs. Its mandate would include groundwater irrigation and domestic and industrial supply, as well as canal irrigation. Also, the movement towards nongovernmental autonomy would continue.

WALMI's fee-paying client base would expand to include NGOs, industry, municipalities and aid agencies as well as the Irrigation Department and the state government. And WALMI would emerge as a self-financing, nongovernmental, academic institution of excellence.

This approach is an example of how to transform a bureaucracy into an institution. Immediate privatization or bringing in a high-level professional leader and new operative practices is not enough. There is a need to wipe the slate clean—from Board to management. Removing government staff, creating a new Board with a nongovernmental official as Chair, and requiring that the Board recreates itself every three years are vital. Finally, a diversified funding plan is essential.

Water Policy Briefing Series

The Water Policy Briefing Series translates the findings of research in water resources management into useful information for Indian policy makers. The Series is put out by the International Water Management Institute (IWMI) in collaboration with national and State research organizations. It is made possible by a grant from the Sir Ratan Tata Trust.

Each Briefing is supported by detailed research documentation, available on the Institute's website (www.iwmi.org/iwmi-tata) or by direct request (iwmi-tata@cgiar.org).

The editors of the Series welcome comments and questions. Please send correspondence to:

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IWMI-Tata Water Policy Program

The IWMI-Tata Water Policy Program was launched in 2000. This is a new initiative supported by the Sir Ratan Tata Trust. The program presents new perspectives and practical solutions derived from the wealth of research done in India on water resources management. Its objective is to help policy makers at the central, State and local levels address their water challenges—in areas such as sustainable groundwater management, water scarcity, and rural poverty—by translating research findings into practical policy recommendations.

Through this program, IWMI collaborates with a range of partners across India to identify, analyze and document relevant water-management approaches and current practices. These practices are assessed and synthesized for maximum policy impact in the *Water Policy Briefing Series*.

The Policy Program's website (www.iwmi.org/iwmi-tata) promotes the exchange of knowledge on water-resources management, within the research community and between researchers and policy makers in India.

IWMI in India

Over the past decade, researchers from IWMI have been collaborating with Indian scientists and development organizations in the areas of irrigation performance; satellite remote sensing; irrigation management transfer; analysis of gender, water and poverty; and malaria control.

In January 2001, a field office was established in Anand, Gujarat to work with Indian partners on groundwater management and governance. In October 2001, IWMI established its India Regional Office in Patancheru, Hyderabad, Andhra Pradesh. IWMI's research and cooperation in India focus on three key areas: river basin water productivity, water and land management in watersheds, and groundwater management.

IWMI's principal partners and collaborators for its work in India are the Indian Council of Agricultural Research (ICAR), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and a host of state irrigation departments, agricultural universities and nongovernmental organizations.

For further information, see www.iwmi.org/india or write to iwmi-india@cgiar.org

About IWMI

IWMI is one of the 16 Future Harvest Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

The research program of IWMI centers around five core themes:

- Integrated Water Resources Management for Agriculture
- Sustainable Smallholder Water & Land Management Systems
- Sustainable Groundwater Management
- Water, Health and Environment
- Water Resources Institutions and Policy

The Institute fields a team of some 50 senior researchers with significant international experience, supported by national research staff and a corps of some 20 postdoctoral scientists, mostly from developing countries. IWMI is headquartered in Sri Lanka with regional offices in India, South Africa and Thailand.

All IWMI research is done with local partners (universities, government agencies, NGOs, research centers, etc.). The Institute's outputs are public goods that are freely available for use by all actors in water management and development. The IWMI Research Reports, data and other publications can be downloaded from the IWMI website or received free of charge from the IWMI publications office. A series of tools for improved water management is also available.

For further information, see www.iwmi.org or write to m.devlin@cgiar.org