

STRATEGY 2014 2018

International Water Management Institute



Solutions for a
water-secure world





HAMISH JOHN APPLEBY/IWMI

STRATEGY 2014-2018

Solutions for a water-secure world



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Key messages

Strategy 2014-2018

- 1) IWMI is committed to the aims of reforms made by CGIAR (a global research partnership for a food secure future). As leader of the CGIAR Research Program on Water, Land and Ecosystems (WLE), and active contributor to several other CGIAR Research Programs, **IWMI will work in partnership to deliver solutions** to complex development challenges.
- 2) Through a **broadened vision of a water-secure world**, IWMI will capitalize on, and enhance its contributions to, the aims of the CGIAR Research Programs and the CGIAR Consortium, which are reducing rural poverty, increasing food security, improving human nutrition and health, and sustainable management of natural resources.
- 3) Positioning IWMI's agricultural water management research agenda within the context of water security **highlights inter-sectoral dependencies and synergies**. It opens new opportunities for research, partnerships, and finding solutions to complex development challenges in rural and urban settings as well as at river basin scale.
- 4) IWMI's *Strategy 2014-2018* outlines the rationale for the Institute's vision, together with the key actions it will take to achieve this vision through its roles as a:
 - **think tank** driving innovative research and ideas for solutions;
 - **provider of science-based products** and tools; and
 - **facilitator of learning**, strengthening capacity and achieving uptake of research findings.

Vision

A water-secure world

Mission

To provide evidence-based solutions to sustainably manage water and land resources for food security, people's livelihoods and the environment

Core values

- Excellence • Objectivity • Integrity • Knowledge sharing • Impact orientation
- Partnerships and teamwork • Respect for diversity

Message from the Board Chair and Director General

Strategy 2014-2018

Over the past five years, the CGIAR Consortium, of which the International Water Management Institute (IWMI) is one of 15 centers, has undergone significant reforms. Central to these changes has been the introduction of new research programs that require an innovative, collaborative approach to tackling complex development issues. Drivers outside of CGIAR are likewise changing the landscape in which we operate. Discussions around the evolving United Nations Sustainable Development Goals (SDGs), which will follow the Millennium Development Goals (MDGs) after 2015, are placing greater emphasis on water resources and wastewater management. Such water management issues are, in turn, being influenced by global pressures, including climate change, urbanization and demographic change. These new contexts present us with an important opportunity to reflect on IWMI's work over the past strategy period (2009-2013); revisit the Institute's niche, vision and research agenda; and adjust our future strategic directions accordingly.

We have devoted considerable effort to shaping IWMI's *Strategy 2014-2018*, presented here. The report builds on a Center-Commissioned External Review of IWMI's science quality and relevance, discussion papers on regional development priorities, and a set of commissioned studies. The studies examined the water-food institutional landscape; experiences from the IWMI-Tata Water Policy Research Program, and the CGIAR Challenge Program on Water and Food (CPWF) in fostering research-for-development partnerships; IWMI's product line; and opportunities for engaging with the private sector. Consultations with IWMI's partners

have further shaped this strategy, as have considerable contributions and feedback from the Institute's staff and Board of Governors.

The CGIAR reforms have already changed the way in which IWMI works. At the heart of the Consortium's new approach lie 16 new CGIAR Research Programs, aimed at resolving increasingly complex issues of global climate change, agriculture, food security and rural poverty. The programs have introduced a focus on development outcomes and led to greater integration across CGIAR centers, through their goals of boosting yields and returns to farmers, intensifying agriculture sustainably, plus increasing resilience and helping the planet adapt to climate change.

IWMI's *Strategy 2014-2018* clearly lays out our research agenda for the coming years, as shaped by the CGIAR reforms, the emerging SDGs, and the global biophysical and socioeconomic landscape

The CGIAR Research Programs now shape IWMI's overall agricultural water and land management research agenda. We are committed to their successful implementation within the framework of this new strategy. We currently contribute to five of the research programs, taking the lead on the Water, Land and Ecosystems (WLE) program.

WLE aims to increase water and land productivity in a sustainable manner, which secures the provision of ecosystem services, improves food security, reduces poverty, and promotes gender and social equity. In implementing the CGIAR Research Programs, IWMI will continue to work closely with non-CGIAR partners, both on research activities and in promoting uptake of the results at policy, management and operational levels.

Global drivers are also influencing how IWMI works. Increasing pressures on the world's water resources from climate change, urbanization and demographic change present new challenges, as well as opportunities, for managing water effectively. Solutions require interdisciplinary approaches and cross-sectoral partnerships. We consider this shift an opportunity for IWMI to position its research within the wider vision of 'a water-secure world'. While agricultural water and land management will remain

IWMI's core business, we have identified a discrete set of strategic opportunities that will enable us to enhance our research, product line and uptake. Embracing these opportunities will help IWMI to address complex water resources management challenges going forward, while contributing effectively to the CGIAR Research Programs.

IWMI's *Strategy 2014-2018* clearly lays out our research agenda for the coming years, as shaped by the CGIAR reforms, the emerging SDGs, and the global biophysical and socioeconomic landscape. We aim for it to chart a clear path for the Institute's future and for achieving its vision of 'a water-secure world'. Ultimately, through this new strategy and together with the CGIAR Research Programs and our partners, we aim to provide sustainable water and land management solutions that improve food security, enhance people's livelihoods, and support a healthy and productive environment.



A handwritten signature in black ink, appearing to read 'Donald Blackmore'.

Donald Blackmore
Chair, IWMI Board of Governors



A handwritten signature in black ink, appearing to read 'Jeremy Bird'.

Jeremy Bird
Director General

Shifting global context steers IWMI's vision and mission

Strategy 2014-2018

Vision: A water-secure world¹

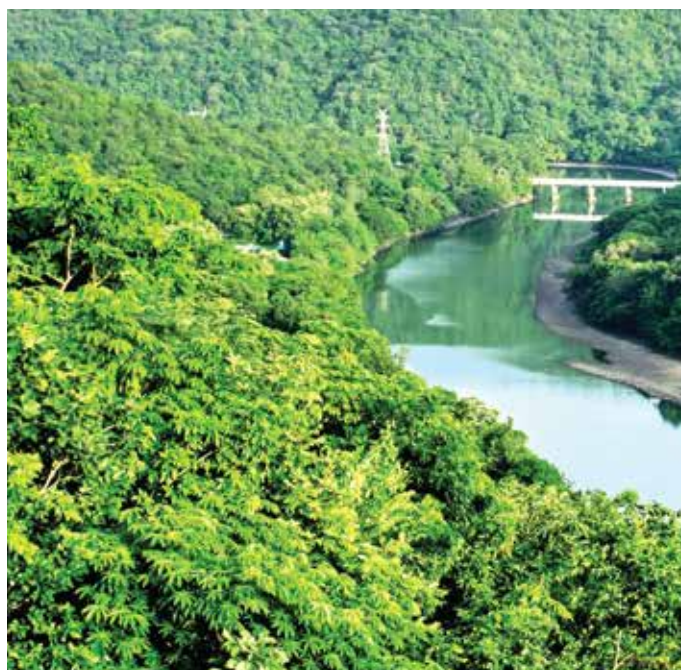
Mission: To provide evidence-based solutions to sustainably manage water and land resources for food security, people's livelihoods and the environment

Four imperatives have long defined IWMI's mandate: improving food security, eradicating persistent poverty and inequity, improving resource-use efficiency, and reversing the degradation and unsustainable use of natural resources. These principles will remain at the core of IWMI's mission and research program on agricultural water and land management. However, positioning IWMI's research agenda within the context of water security acknowledges the wider contributions the Institute can make to other dimensions of water resources management.

'A water-secure world' as our vision

The concept of 'water security' has become a prominent feature on the global water agenda and in the international development discourse more generally. The concept acknowledges the synergies among water-dependent sectors, and the need to enhance these links to manage water resources and

shape related policies effectively. The term broadly encompasses issues of food, energy and water resources; urbanization and demographic change; human and environmental health; and climate



variability and change.² It incorporates principles of both efficiency and equity that underpin a set of interconnected goals, namely, to achieve food security, halt environmental degradation, reduce poverty and foster economic growth.³ As defined by Grey and Sadoff, water security is "the availability of an

¹ IWMI shares this vision with several other organizations, including the Global Water Partnership (GWP). IWMI views a common vision as a strength, which aligns with the water security discussions in the United Nations and emphasizes the Institute's commitment to collaboratively identify solutions to water resources management issues with its partners, globally and regionally.

² Asian Development Bank. 2013. *Asian water development outlook 2013: Measuring water security in Asia and the Pacific*. Mandaluyong City, Philippines: Asian Development Bank; United Nations University. 2013. *Water security and the global water agenda: A UN-Water analytical brief*. Ontario, Canada: United Nations University; GWP (Global Water Partnership). 2012. *Increasing water security - A development imperative*. Perspectives Paper. Stockholm, Sweden: Global Water Partnership (GWP); Zeitoun, M. 2011. The global web of national water security. *Global Policy* 2(3): 286-296.

³ Clement, F. 2013. From water productivity to water security. In: *Water security: Principles, perspectives and practices*, eds., Lankford, B.; Bakker, K.; Zeitoun, M.; Conway, D. London, UK: Routledge. Pp. 148-165.

acceptable quantity and quality of water for health, livelihoods, ecosystems and production, coupled with an acceptable level of water-related risks to people, environments and economies.”⁴ IWMI embraces this view of water security. Its underlying principles reinforce the Institute’s aspirations of enhanced food security, equitable economic growth, poverty eradication and improved ecosystem health. IWMI’s interconnected socioeconomic, environmental and

water management options may affect future water security for a variety of sectors and actors. It opens avenues for new partnerships, and for engaging with the public and private sectors on issues related to



risk-management dimensions provide a conceptual framework to guide the Institute’s research agenda and the development of resource-based solutions.

In the spirit of the recent CGIAR reforms (Box 1, overleaf), IWMI’s vision of ‘a water-secure world’ opens up opportunities for innovative research and developing new partnerships to address the current complexities of water resources management. It encourages novel interdisciplinary approaches to understanding the biophysical and socioeconomic dimensions of water security, and how different



**IWMI’s vision of
‘a water-secure world’
opens opportunities for
innovative research and
developing new
partnerships to address
the complexities of water
resources management**



energy, urban water, domestic water supply and sanitation, agribusiness and insurance. Cross-sectoral research and partnerships, in turn, open the door to new products, practices, tools and solutions to sustainably manage water and land resources in order to improve the well-being of the poor, in particular.

⁴ Grey, D.; Sadoff, C.W. 2007. Sink or swim? Water security for growth and development. *Water Policy* 9: 545-571.

Box 1. CGIAR Research Programs.

As part of its recent reforms, the CGIAR Consortium launched 16 CGIAR Research Programs with an overarching objective to promote “collaborative research for solving complex development issues.” Through these programs, CGIAR aims to achieve System-Level Outcomes (SLOs) of reducing rural poverty, increasing food security, improving human nutrition and health, and sustainable management of natural resources. IWMI contributes to several of the research programs and leads the CGIAR Research Program on Water, Land and Ecosystems (WLE). The research focus and objectives of WLE, and the other programs to which IWMI contributes, are outlined below.

CGIAR Research Program*	Research objectives
Current engagement	
Water, Land and Ecosystems (WLE)	<ul style="list-style-type: none"> • Ensure resources that contribute to long-term sustainability are used efficiently with limited environmental impact. • Restore the productive capacity of degraded rainfed and irrigated agricultural landscapes that underpin provisioning ecosystem services, and lay the basic foundations for sustainable agricultural intensification. • Reduce risk and uncertainty associated within rainfed and irrigated landscapes, with the result that productivity is improved through the sustainable management of water, land and ecosystems.
Climate Change, Agriculture and Food Security (CCAFS)	<ul style="list-style-type: none"> • Identify and test pro-poor adaptation and mitigation practices, technologies and policies for food systems, adaptive capacity and rural livelihoods. • Ensure that agriculture is included in climate change policies, and that climate issues are incorporated into agricultural policies, from sub-national to global level, in a way that brings benefits to the rural poor.
Dryland Systems	<ul style="list-style-type: none"> • Identify and develop resilient, diversified and more productive combinations of crop, livestock, rangeland, aquatic and agroforestry systems that increase productivity, reduce hunger and malnutrition, and improve quality of life for the rural poor.
Integrated Systems for the Humid Tropics (Humidtropics)	<ul style="list-style-type: none"> • Apply an ‘innovative, integrated agricultural systems approach’ to sustainably intensify rainfed smallholder production systems.
Aquatic Agricultural Systems (AAS)	<ul style="list-style-type: none"> • Enhance the benefits of aquatic agricultural systems for low-income smallholders, by increasing productivity, improving access to markets, strengthening resilience and capacity to adapt to change, reducing gender disparities, and enhancing policies and institutions.
Policies, Institutions and Markets (PIM)	<ul style="list-style-type: none"> • Improve policy options and strengthen capacity of governments to design and carry out policies and investments that will increase agricultural productivity and enhance rural incomes. • Contribute to effective and equitable access to rural services, property rights, collective action and assets. • Integrate small-scale producers within upgraded value chains.

Notes

*For more information on all CGIAR Research Programs, please visit: <http://www.cgiar.org/about-us/our-programs/>

Delivering water and land management solutions as our mission

Delivering agricultural water and land management solutions to improve food security, people's livelihoods and the environment, will remain at the core of IWMI's research agenda. Through its leadership of WLE, IWMI will ensure that sustainable governance and management of ecosystems and natural resources form the basis for practical agricultural water and land management solutions. Research findings suggest that there is significant potential to improve agricultural water management in ways that enhance farm productivity, while safeguarding associated ecosystems and economies against water scarcity and variability, across irrigated and rainfed landscapes. Facilitating adequate access to reliable water resources and water storage options can help to improve crop yields and enable farmers to invest in their land, diversify agricultural activities and manage risk better. Achieving this potential requires an understanding of, and finding solutions to, the many constraints faced by farmers practicing irrigated and rainfed agriculture.

For example, only 20% of the world's cultivated area is irrigated by public schemes, and many of these systems are underperforming. Providing equitable access to water, the small- and large-scale infrastructure required to convey and store it, plus supporting markets, services and information, remains a challenge in many irrigated landscapes. In many such environments, resource depletion and environmental degradation threaten the food security and livelihoods that irrigation schemes were originally designed to safeguard. In rainfed systems, the predominant form of agriculture for the world's poor, farmers must contend with the uncertainty of precipitation as well as fragile landscapes and poor infrastructure. These conditions contribute to extreme poverty and malnutrition.



Facilitating adequate access to reliable water resources and water storage options can help to improve crop yields and enable farmers to invest in their land, diversify agricultural activities and manage risk better

Other pressures, including energy supply and access, gender inequity, demographic change, urbanization, agricultural commercialization and trade, and climate variability and change, also affect the world's food supply along with the natural resources and ecosystems that underpin it (Box 2, overleaf). Together, these issues pose a number of challenges for the development community. Key among these challenges are how to achieve the following:

- Intensify agricultural productivity sustainably.
- Manage risk and increase resilience.
- Benefit from functioning ecosystems.
- Enhance efficient resource use and reuse.
- Promote gender and social equity.
- Maximize shared benefits across sectors and borders.

Box 2. Pressures on the world's food supply.

There are a number of exacerbating issues, trends and pressures affecting the world's food supply, and the underlying natural resources and ecosystems that form its foundation. While many of the issues described below are outside of the water sector, they clearly highlight cross-sectoral interdependencies that need to be reflected and addressed in IWMI's research work.

Energy supply and access

Farmers increasingly rely on energy to access water whenever they need to, by using power to pump out and convey groundwater and surface water to their crops or livestock. Agriculture is also a source of energy in the form of biofuels (often at the expense of food production), while requiring energy to manufacture farm inputs, and to process and transport food products to markets. Hydropower projects are often a major driver of change for a basin's water resources. This water-food-energy nexus is highly complex. How it is managed presents clear opportunities, as well as risks, and has implications for the agriculture sector, global food security and the livelihoods of smallholder farmers.

Gender inequity

Women, young and old, form the majority of people living in extreme poverty. Within the agriculture sector, many women and resource-poor farmers face significant challenges in accessing affordable agricultural water management technologies and inputs. Unequal access to credit and information further hinders investment, marketing and management choices. These inequities mean that poverty prevails where it need not.

Demographic change

Young people make up a quarter of today's global population. Unemployment among them is high. Many migrate to urban areas to seek new opportunities, resulting in an aging rural population. Those that remain, however, are open to adopting new farming and water management practices. Future water management research needs to take these demographic trends into account, so that the solutions it proposes support a new generation of farmers.

Urbanization

Half of the world's population now lives in towns and cities. This number is expected to increase to two-thirds by 2050. Urban and peri-urban agriculture is expanding to meet the growing demand for food in cities, but the sector has to compete with industry and municipalities for water and land resources. It also faces increasing urban pollution. With farmers frequently relying on wastewater for irrigation, this can present public health risks. On the other hand, urban waste offers a significant nutrient resource for farming, if safely treated and applied. Solutions are being put forward at the urban-rural interface to upscale opportunities for using such resources while safeguarding public health.

Agricultural commercialization and trade

In developing countries, foreign direct investment (FDI) in agricultural land has surged in recent years. While crops produced on such land are primarily for export, usually to the investing country, responsible investments present major opportunities for developing countries. However, without appropriate policy and regulatory frameworks, FDI can also have significant negative implications for food and water security.

Climate variability and change

Climate variability and change are adding further uncertainty to future food and water security. Climate change is causing more extreme weather events, such as floods and droughts, which are, in turn, disrupting agricultural production and destroying infrastructure, causing damage amounting to billions of US dollars annually. It is also increasing climate variability, for example, by delaying the onset of wet seasons. Effective planning is essential for increasing resilience, and reducing related social and economic risks to livelihoods and environmental systems.



NANA KOFI ACQUAH-HWAMI



Meeting development challenges through the CGIAR framework

Strategy 2014-2018

IWMI is uniquely placed to help shape and inform the water and land management dimensions of the development challenges outlined in Box 2, and to deliver integrated, research-based policy and management solutions (Box 3). IWMI's core capacities include applied research from field to

Box 3. How IWMI's expertise helps solve key development challenges.

Potential solutions	IWMI's relevant expertise
Intensify agricultural productivity sustainably	<ul style="list-style-type: none"> • Demonstrating technical and policy interventions to support sustainable intensification along the continuum from rainfed to irrigated agriculture. • Providing scalable solutions to increase the productivity of water and land resources in agricultural and aquatic systems. • Formulating policy, legal and institutional frameworks that provide poor and vulnerable populations with access to productive water and land resources.
Manage risk and increase resilience	<ul style="list-style-type: none"> • Understanding system variability within and across landscapes and scales. • Building adaptive capacity to climate variability and change across scales. • Enhancing policy and institutional capacity to manage risk and respond to changing conditions. • Optimizing water storage options.
Benefit from functioning ecosystems	<ul style="list-style-type: none"> • Maximizing the value of natural systems and synergies with built infrastructure. • Exploring new approaches and incentive schemes to reverse water and land degradation. • Strengthening capacity to manage land, groundwater and wetlands sustainably. • Creating institutional opportunities for poor and vulnerable populations to benefit from ecosystems.
Enhance efficient resource use and reuse	<ul style="list-style-type: none"> • Assessing opportunities to improve resource-use efficiency in rural and urban areas. • Innovating business models for resource recovery and reuse. • Promoting safe practices in the use and reuse of water resources.
Promote gender and social equity	<ul style="list-style-type: none"> • Explicitly including gender-related objectives and questions in the design of research programs. • Compiling gender-disaggregated data, and improving the evidence base on the benefits of addressing gender in water and land resources management. • Exploring new approaches to improve decision-making options for poor and vulnerable populations. • Proposing gender-specific solutions and policy recommendations.
Maximize shared benefits across sectors and borders	<ul style="list-style-type: none"> • Improving the evidence base for the equitable, socioeconomic and environmentally sustainable allocation of resources. • Enable informed decision-making on water-food-energy trade-offs and synergies. • Developing and assessing future water use and security scenarios at river basin scale. • Enhancing cooperation on water resources across development sectors (e.g., agriculture, urban, energy, water supply and sanitation, industry) and national boundaries.

basin scales, modeling of biophysical processes, socioeconomic assessment, policy and institutional analyses, and capacity development. Meanwhile, the Institute's multi-disciplinary research expertise, global engagement and local presence in multiple regions ensure that IWMI and its partners can address complex water and land management issues, while keeping the resulting research relevant, responsive and grounded in the local context.

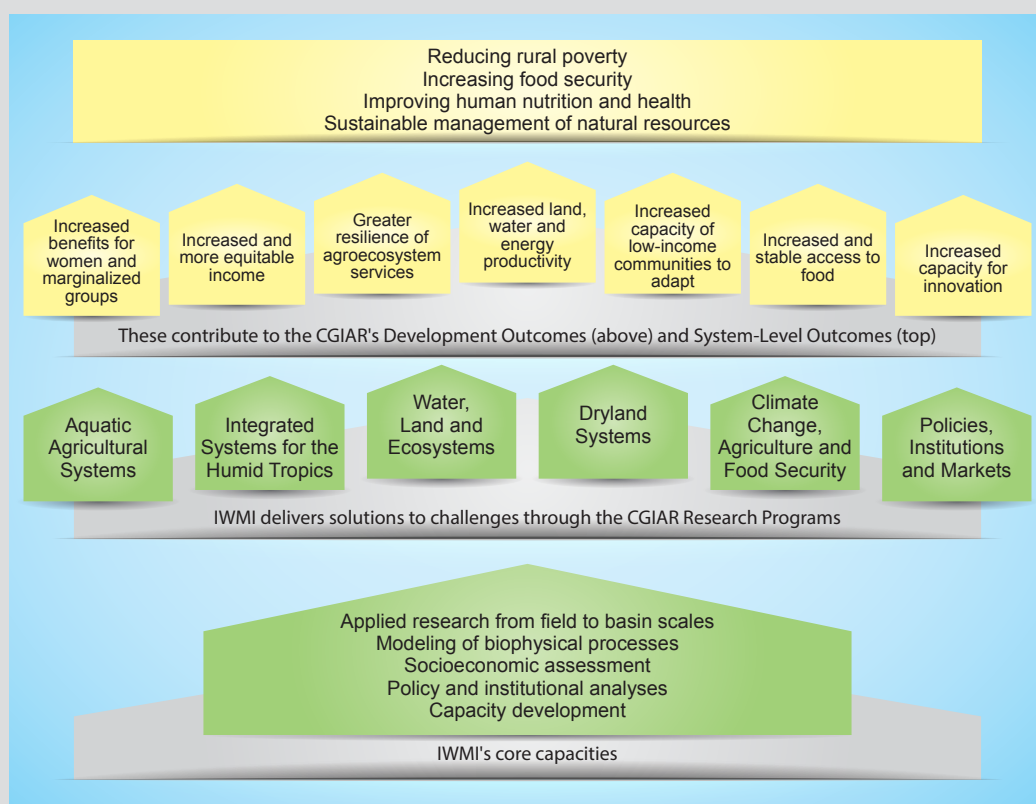
By integrating its research program within the CGIAR framework, IWMI has an opportunity to leverage the broader scientific expertise and partnerships that exist within the CGIAR system to achieve its mission and vision. WLE and other CGIAR Research Programs are the primary conduits through which IWMI will address these key challenges and contribute to the

broader development outcomes of the CGIAR Consortium (Figure 1). Together with its partners, IWMI will identify context-relevant, scalable, evidence-based solutions to help address these

IWMI has an opportunity to leverage CGIAR's scientific expertise and partnerships

challenges. The Institute will also provide the necessary knowledge, products and support services to enable policymakers, managers and communities to put these solutions into practice. Solutions that benefit women and resource-poor farmers will be integral to IWMI's approach.

Figure 1. The central role of the CGIAR Research Programs in IWMI's Strategy.





Catalyzing impact

Strategy 2014-2018

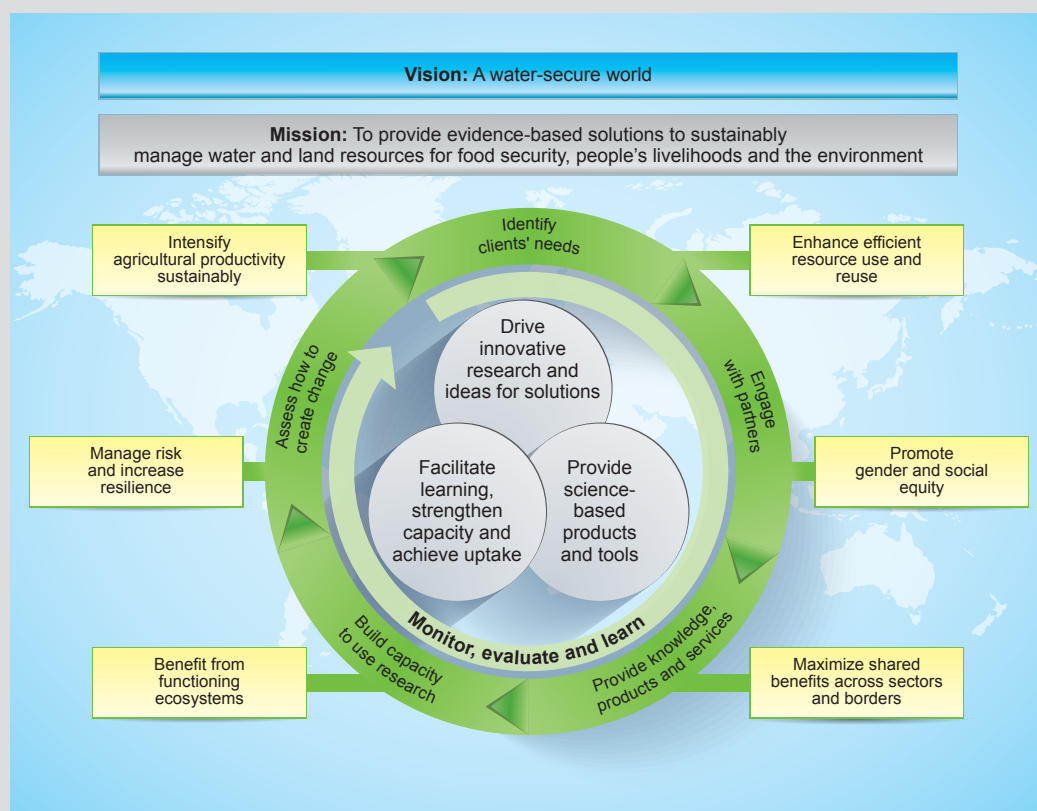
IWMI's vision of 'a water-secure world' acknowledges the increasing interconnections between water-dependent sectors and the contributions that the Institute's research can make to key development challenges at the intersection of agricultural water management and other water dimensions, such as energy, climate variability and change, urbanization and the environment.

Achieving this vision requires broader engagement and partnerships in the field of water resources management. These new collaborations will enable IWMI to capitalize on, and contribute to, the CGIAR

Research Programs, while supporting diverse stakeholders (including farmers, nongovernmental organizations [NGOs], government agencies, the private sector, donors, and national and regional policymakers) who influence how natural resources are managed.

Figure 2 broadly illustrates IWMI's vision, and the main roles it plays in relation to water resources management to address key development challenges and create positive change. The following section (overleaf) describes the roles and strategic actions IWMI will take to implement this vision.

Figure 2. IWMI's mission, vision and challenge areas, showing the main roles the Institute plays within water resources management to catalyze impact.



Implementing IWMI's vision

Strategy 2014-2018

IWMI has three main roles in relation to water resources management that are critical to the success of all the CGIAR Research Programs. These roles are to serve as a:

- think tank driving innovative research and generating ideas for solutions;
- provider of science-based products and tools; and
- facilitator of learning, strengthening capacity and achieving uptake of research findings.

To deliver water and land management solutions for a water-secure world, IWMI will refine its research approach and how it operates within these roles.

A think tank driving innovative research and generating ideas for solutions

IWMI will explore opportunities to broaden its knowledge and the contribution made to key dimensions of water security, so that the Institute can continue to develop practical, research-based policy and management solutions to agricultural water and land management challenges, while gaining greater visibility and influence regionally and globally.

In this spirit, IWMI will continue to promote its core strengths in agricultural water and land management, including applied research from field to basin scales, modeling of biophysical processes, socioeconomic assessment, policy and institutional analyses, and capacity development. It will simultaneously cultivate synergies with other dimensions of water security and related development challenges through its research on topics such as the following:

Water economics

Economics brings powerful cross-sectoral insights to water and land management. IWMI's substantive

expertise and neutral international character are well-suited to providing knowledge and facilitating policy-level discourses. The Institute will extend its work in hydro-economic modeling to help resolve challenges, such as how to allocate water equitably, increase efficiency and sustainability, and prevent conflicts across development sectors and national boundaries.



HAMISH JOHN/APPLEBY/IWMI

Gender and equity

With rural and urban landscapes changing, empowering women and reducing inequities is central to ongoing global discussions. To help drive this debate forward, IWMI will build on its past research on water, gender and poverty to provide scientific data and analyses that demonstrate the benefit of gender targeting, and for delivering well-designed and investable solutions for poor and vulnerable populations.

Water quality

Agricultural intensification, urbanization, climate change and industrialization are key trends that are negatively affecting the health of the world's freshwater systems. IWMI's experience in wastewater reuse and

groundwater quality provides a platform from which to examine how poor water quality compromises water availability for rural and urban communities, and to identify measures for reducing contamination and minimizing its impact on ecosystems and human well-being.

Water-food-energy nexus

In order to inform the broader discussions around the water-food-energy nexus, IWMI will expand its existing expertise on energy aspects of irrigation; rural



electrification; the links between hydropower and irrigation; and the connections between energy, water and the environment in a policy context.

A provider of science-based products and tools

IWMI will make its product portfolio more cohesive by defining a framework for the types of products (or outputs) it produces, their purpose and target audience.⁵ As part of this, the Institute will develop a set of water management tools to address key dimensions of water security. Realizing that IWMI

already has flagship products, most notably the IWMI Research Report series, potential additional products include the following:

Water metrics

Accessible online, and created with partners, these will underpin the development and delivery of CGIAR development objectives; monitor and inform



IWMI will explore opportunities to broaden its knowledge and the contribution made to key dimensions of water security

the post-2015 development agenda; and support national and regional water management goals (Box 4, overleaf).

⁵ IWMI fully supports CGIAR, which views “the results of its research and development activities as international public goods and is committed to their widespread diffusion and use to achieve the maximum possible access, scale, scope of impact and sharing of benefits to advantage the poor, especially farmers in developing countries” (CGIAR Principles on the Management of Intellectual Assets).

Box 4. IWMI's contributions to the United Nations Sustainable Development Goals.

IWMI will contribute to the Sustainable Development Goals (SDGs) by:

- defining feasible indicators and measuring methods for tracking progress of water-related SDGs;
- supporting national governments in setting relevant and feasible national targets (e.g., on irrigated areas, wastewater reuse and environmental flows) through scenario and modeling exercises; and
- promoting appropriate solutions, such as business models on water storage options, and resource recovery and reuse, to achieve these targets.

A suite of products and tools

These will inform governments, resource managers and the private sector. Examples include business models for resource recovery and reuse; flood- and drought-risk assessment tools, which build on work already undertaken using remote sensing to map global flood risks; and irrigation benchmarking, which provides practical guidance on how to improve the performance of irrigation management.

An annual IWMI flagship report

This will be created in partnership with thought leaders to synthesize evidence, recommendations and expert opinion. The report would inform global and regional discussions on water security.

A topical report series

Drawing on IWMI's knowledge base in a particular area, this will present the research carried out by the Institute and WLE in a way that communicates clear messages for planners, decision-makers and program managers within and beyond the water sector.

A facilitator of learning, strengthening capacity and achieving uptake

Building on its extensive regional network of offices, IWMI will strengthen its capacity to deliver research and products that are responsive to development needs. IWMI's research has already produced a range of high-profile outcomes, and

the Institute is committed to developing a more solutions-oriented research agenda. This means giving priority to research users, and their needs for research, policy and investment support; and continually consulting, monitoring and evaluating IWMI's program to ensure that its research, products and services are demand-driven and put to use.

Key entry points include the following:

- Research into the factors that drive favorable impacts, perception, behavior, and institutional and policy change.
- Identifying client needs and undertaking targeted dialogues to promote continual engagement with research users.
- The tailored packaging of selected research recommendations as actionable investment plans and business models; and delivery of support services to adapt selected IWMI research products into meaningful decision-making tools for applying to specific development challenges and needs.
- Strengthening capacity in the form of joint research, training courses and exchanges of information for water-related professionals within, and across, geographic regions. IWMI will look for specific opportunities to engage women and young people in its capacity building, research and field activities.
- Strategic partnerships to ensure research is relevant, and to facilitate uptake and engagement in global discussions.





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AKICA BAHRI



DAVID BRAZIER

Putting plans into practice

Strategy 2014-2018

This *Strategy 2014-2018* is intended to be a concise, adaptable road map to guide IWMI's research, outputs and outreach activities over the coming years. The strategy will be supported by a set of more detailed regional and operational documents to guide its implementation.

Tailoring solutions to regional priorities

Within the broader set of development challenges described above, the regional diversity of water resources management issues is immense. Sustainably intensifying agricultural productivity requires different solutions for different contexts. For example, in India, where small pumps dominate the agricultural landscape, farmers have different needs to those in Central Asia, where they use large public irrigation schemes. In sub-Saharan Africa, where many farmers rely on rainfall to water their crops, largely untapped groundwater resources represent an important conduit to expanding the region's irrigated area. Meanwhile, in growing peri-urban areas of Asia and Africa, wastewater irrigation opens yet another set of opportunities, as well as risks.

Climate variability and change have an impact on all regions, but the risks and opportunities to increase resilience vary. In West Africa, for example, climate forecasts indicate that the Sahel region will be among the worst hit by climate change, resulting in increased competition for, and potential conflicts over, scarce water and land resources. By contrast, the region's coastal areas are facing issues of erosion, flooding and salinity. While all farmers face risks, women and the poor are often less able to access the resources they need to adapt to short- and long-term change.

In the Middle East, North Africa, Central Asia and parts of South Asia, combating salinity is crucial for future agricultural production and ecosystem services. In Southeast Asia, as built infrastructure expands, a key focus will be the sustainability of natural wetlands and aquatic ecosystems. Reversing land degradation is a priority shared by many countries, but is particularly relevant for highland areas, such as those in Lao PDR and Ethiopia. In South Asia, farmers rely heavily on groundwater resources for irrigation. However, in some highly productive, densely populated locations, over-abstraction and quality issues (e.g., arsenic or fluoride contamination) threaten the future use of groundwater resources.

The changing peri-urban landscape adds further complexity to efficient water use in the world's river basins. Across the developing world, the rate of urbanization and demographic change is significant. Cities are expanding, rural populations are aging and peri-urban agriculture is crucial to feeding the growing urban populations. These demographic changes will influence how groundwater, surface water and wastewater are managed, and how the quality of water resources is affected differently in rural and urban areas, and across basins.

Finally, changing landscapes and growing competition for water and land resources call for a more holistic approach to managing water resources to address cross-sectoral and cross-boundary demands, synergies and trade-offs. These trade-offs are most acute in 'closed basins'⁶, for example, in the Middle East and Central Asia. However, changes to economic,

⁶ 'Closed basins' refer to river basins where water use exceeds, or is approaching, the total renewable water resources available, at least during part of the year. In the Middle East and Central Asia, examples of closed basins include the Nile, Amu Darya and Syr Darya river basins.

demographic and environmental landscapes, in general, require a closer examination of specific water-food-energy trade-offs. Innovative partnerships and solutions to emerging challenges will be needed to suit these new realities.

IWMI is committed to ensuring that its research program continues to support and inform national and regional priorities and opportunities, so that it delivers research that is relevant, responsive and demand-driven. In this regard, each of IWMI's regional offices is preparing a more detailed strategy, drawing from existing knowledge and consultations in the regions, which will guide the implementation of the Institute's overall strategy and provide support to the CGIAR Research Programs. Developing and implementing these regional strategies will involve holding regular dialogues with IWMI's local partners to ensure that the Institute's research is relevant,

responsive and grounded in the local context. We will capitalize on this rich knowledge base to undertake cross-regional analyses of water management issues and lessons learned.

IWMI will also extend its regional presence during the 2014-2018 strategy period, building on its existing network of regional and country offices that includes the Institute's headquarters in Colombo, Sri Lanka (Figure 3). In early 2014, IWMI's office in Cairo will become the Institute's regional hub for the Middle East and North Africa region. This, together with a planned expansion in francophone Africa, will complete IWMI's regional coverage in Africa. In Asia, IWMI will open a new country office in Myanmar in 2014 and will re-establish its work in China, by initiating collaborative agreements with national research agencies to share experiences both within and outside of the country.

Figure 3. IWMI's network of offices.





FASEEH SHAMS/IWMI



NANA KOFI ACQUAH/IWMI



LIQA RASCHID



FASEEH SHAMS/IWMI



AKICA BAHRI

Operational implications

Strategy 2014-2018

IWMI will develop operational plans covering research, product development and uptake roles, and administrative areas, including business development, human resources, communications and finance. Operational implications include the following:

- Linkages with the CGIAR Research Programs.
- Partnership strategy.
- Institutional growth.
- Strategic research, product development and service delivery.
- Impact pathways and targets.

Linkages with the CGIAR Research Programs

Each of the CGIAR Research Programs is defining innovative responses to increasingly complex and interconnected development challenges. IWMI is helping to shape that discussion for WLE and the other CGIAR Research Programs to which the Institute contributes. It is expected that the CGIAR Research Programs will collectively represent between 80% and 90% of IWMI's work during the strategy period 2014-2018; this will require a review

of IWMI's management procedures and planning processes going forward (Box 5).

Partnership strategy

Water research has expanded considerably over the last decade to encompass a larger number of disciplines. Funding is more frequently awarded to platforms, made up of equal partners, which address issues of

Future partnerships must complement the strengths and information demands of diverse organizations

common concern. Donors also require a stronger commitment to demonstrable outcomes. These shifts present new opportunities and requirements for collaboration. Building on the success of the CGIAR Challenge Program on Water and Food (CPWF), the IWMI-Tata Water Policy Research Program and similar collaborative programs, IWMI will strengthen its and WLE's partnerships in line with the Institute's strategic objectives. Future partnerships

Box 5. Positioning IWMI's contributions to the CGIAR Research Programs.

Implementing the CGIAR Research Programs requires certain change-management processes to ensure that IWMI's organizational and administrative framework is effective in relation to those programs. As part of this effort, IWMI is reviewing its research management structure as well as its administrative systems to identify the changes required to streamline and facilitate productive relationships between the Institute's research agenda and the CGIAR Research Programs.

This includes a review of IWMI's staff, work planning processes and fund allocation procedures. Adjustments to IWMI's organizational framework may also be required. Further, IWMI will re-examine its performance management system to ensure that it fully supports the strategy's combined focus on science, partnership and research outcomes. Any structural changes will be finalized and implemented in early 2014.

must be tailored to complement the strengths and information demands of diverse organizations, including partners in research and uptake, and the users of IWMI's products and services. Early in the strategy period, IWMI will revise its partnership strategy. It will examine new ways of collaborating, and suggest methods to enhance and cultivate these partnerships at project and institute levels.

Institutional growth

To support its strategic directions, IWMI has set a goal to grow its funding base by 20% in real terms over the strategy period. The Institute is developing the necessary financial, business development and human resource plans to achieve this target. Institutional growth will be combined with more efficient and effective use of partnerships in IWMI's research, product development and uptake activities.

Strategic research, product development and service delivery

For each of the broadened research and product development roles described above, IWMI is undertaking a market analysis to assess its niche, comparative advantage, strategic partnerships and audiences, risks and resource requirements. The results of this analysis will guide the Institute's future

investments in these areas. To foster a more solutions-oriented research agenda, IWMI is also exploring the option of creating a 'service delivery' group. This operational group would have strong links with the research teams. Its remit would be to provide support services to clients interested in developing a research concept into an operational investment for those initiatives that have not yet reached mainstream practice.

Impact pathways and targets

Over the next year, IWMI will articulate future impact pathways for its key research activities. It will also outline supporting uptake and communication strategies to facilitate, monitor and effect change towards the challenge areas, Development Outcomes and System-Level Outcomes (SLOs) of the CGIAR Research Programs. Detailed articulation of the impact pathways, targets, and supporting monitoring and evaluation frameworks for individual activities is already under way through the CGIAR Research Programs. IWMI will build on this work and further detail its theory and actions for change early in the strategy period; it will regularly monitor progress against the established targets. A mid-term evaluation by IWMI's Management Team and the Board of Governors will take place in 2016.



IWMI offices

IWMI Headquarters and Regional Office for Asia

127 Sunil Mawatha, Pelawatte, Battaramulla, Colombo, Sri Lanka
Tel: +94 11 2880000, 2784080 Fax: +94 11 2786854
Email: iwmi@cgiar.org Website: www.iwmi.org

South Asia

India offices

New Delhi

2nd Floor, CG Block C, NASC Complex, DPS Marg,
Pusa, Opp Todapur, New Delhi 110 012, India
Tel: +91 11 25843536, 25840812 & 65976151
Fax: +91 11 25840811
Email: iwmi-delhi@cgiar.org

Anand

C/o India Natural Resource Economics and Management
(INREM) Foundation
IWMI-India Water Policy Program "Jal Tarang"
Near Smruti Apartment, Behind IRMA, Mangalpura,
Anand 388001, Gujarat, India
Tel/Fax: +91 2692 263816/817
Email: iwmi-anand@cgiar.org

Pakistan Office

12KM Multan Road, Chowk Thokar Niaz Baig,
Lahore 53700, Pakistan
Tel: +92 42 35299504-6 Fax: +92 42 35299508
Email: iwmi-pak@cgiar.org

Nepal Office

Shree Durbar, Pulchowk, Lalitpur-3, Kathmandu, Nepal
Tel: +977 1 5542306/5543141 Fax: +977 1 5543511
Email: iwmi-nepal@cgiar.org

Southeast Asia

Southeast Asia Office

C/o National Agriculture and Forestry Research Institute
(NAFRI)
Ban Nongviengkham, Xaythany District, Vientiane, Lao PDR
Tel: + 856 21 740928/771520/771438/740632-33
Fax: + 856 21 770076
Email: iwmi-southeastasia@cgiar.org

Myanmar Office

C/o International Rice Research Institute (IRRI) Myanmar
Seed Division Compound
Myanmar Agriculture Service (MAS), Gyogon-Insein,
Yangon, Myanmar
Tel: +95 9795695816
Email: iwmi-myanmar@cgiar.org

Central Asia

Central Asia Office

C/o PFU CGIAR/ICARDA-CAC
Apartment No. 120, Building No. 6, Osiyo Street,
Tashkent 100000, Uzbekistan
Tel: +998 71 237 04 45 Fax: +998 71 237 03 17
Email: iwmi-ca@cgiar.org

Africa

Regional Office for Africa and West Africa Office

C/o CSIR Campus
Agostinho Neto Road, Council Drive, Airport Residential Area,
Accra, Ghana
Tel: +233 302 784753/4 or +233 289 109561/+233 544 088 277
Fax: +233 302 784752
Email: iwmi-ghana@cgiar.org

East Africa and Nile Basin Office

C/o ILRI-Ethiopia Campus
Gurd Sholla Area, Bole Sub City, Woreda 6, Addis Ababa, Ethiopia
Tel: +251 11 6172000/6457222/23
Fax: +251 11 6464645/6172001
Email: iwmi-ethiopia@cgiar.org

Southern Africa Office

141 Cresswell Street, Weavind Park, Pretoria, South Africa
Tel: +27 12 845 9100 Fax: +27 12 804 6397
Email: iwmi-southern_africa@cgiar.org

Middle East and North Africa Office

C/o International Center for Agricultural Research in the Dry
Areas (ICARDA), 15 G, Radwan Ibn El-Tabib St., Giza, Egypt
Tel: +202 35724358 Fax: +202 35728099
Email: iwmi-mena@cgiar.org

IWMI Representatives

North America

Washington, DC, USA

USAID E3/W, Room 3.07.034A, 1300 Pennsylvania Avenue
NW, Washington, DC 20523-3800, USA
Tel: +1 202 712 1791
Email: B.McIntyre@cgiar.org

Francophone West Africa

Ouagadougou, Burkina Faso

West African Science Service Center on Climate Change and
Adapted Land Use (WASCAL)
Avenue Mouammar Khadafi Ouaga 2000
06 BP 9507 Ouaga 06, Ouagadougou, Burkina Faso
Tel: +226 25375423 or +226 25375429
Email: b.barry@cgiar.org

Europe

Leiden, The Netherlands

Zoutkeetlaan 4, 2343 BE Oegstgeest, The Netherlands
Tel: +31 621516366
Email: j.vanderblik@cgiar.org

Bonn, Germany

Zentrum für Entwicklungsforschung (ZEFc)
Center for Development Research, University of Bonn
Walter-Flex-Straße 3, 53113 Bonn, Germany
Tel: +49 228 73 4922 Fax: +49 228 73 1889
Email: l.bharati@cgiar.org

Editorial consultant: Carolyn Fry
Copy editor: Mahen Chandrasoma
Designer: Mario Bahar, Gracewinds Advertising
Cartographer: John Plumer
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Hamish John Appleby/IWMI (Bottom right)



International Water Management Institute (IWMI)

127 Sunil Mawatha, Pelawatte, Battaramulla, Colombo, Sri Lanka

Telephone: +94 11 288 0000 Fax: +94 11 278 6854

Email: iwmi@cgiar.org Website: www.iwmi.org