

WATER FUTURES: Beyond 2012

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> Joint introduction from the Water Futures Founding Partners

Dear Colleague,

Ensuring the sustainability of water resources, and managing the risks that threaten them are undeniably two of the most pressing issues confronting society. Ban Ki-moon, Secretary-General of the United Nations summarised it well at the recent Rio +20 summit, when he said: "Water links the local to the regional, and brings together global questions of food security, public health, urbanization and energy. Addressing how we use and manage water resources is central to setting the world on a more sustainable and equitable path."

Managing the competing water demands of ecosystems, agriculture, energy production, industry and communities (whether megacities or small villages) requires a collaborative response involving a wide range of stakeholders and, crucially, is sustainable over the long term. This is why helping local companies with long-term interests in watersheds to understand the business case to engage and invest in improving water security is at the heart of our approach.

Since 2009, the Water Futures Partnership – SABMiller, WWF, Deutsche Gesellschaft für Zusammenarbeit (GIZ), and our local partners - has been building the business case and creating mechanisms for companies to engage in local collective action to help address shared water risks facing businesses, communities and ecosystems. Despite the partners' different motivations for participation, we have been able to leverage our combined expertise, resources and networks to develop a model based on an overlapping interest: water security. Certainly, it has taken time to develop effective working relationships and build trust, but we have worked hard and good progress has been made.

Across eight countries – including South Africa, India, Peru, Tanzania and the USA – we are mobilising the

private sector to support stakeholders in addressing specific water risks. We are implementing a wide range of projects covering groundwater protection, watershed conservation, infrastructural upgrades and the strengthening of local water management institutions. This year, we are pleased to announce a new local Water Futures Partnership in Zambia and the integration of new partners in existing countries. The focus of these partnerships has been to better understand and begin to mitigate shared water risks an approach based on local understanding, engagement and action. We are trying to develop impactful approaches to reducing shared water risk. But perhaps our most valuable achievement is acquiring a better understanding of what works in practice and the contribution we can make to the multitude of ongoing efforts to improve water security.

Water risk is a local issue, deeply influenced by the local political economy. The solution lies in watershed level action, to change the institutions that shape society's behaviour, to strengthen governance, and to support governments in implementing good water policy. Managing it therefore requires local knowledge and a local response, with the willingness of different parts of society – government, business and civil society - to work together. We believe that the role of businesses as good water stewards is fundamental, not just in reducing their own water impacts, but also in being strong advocates of sustainable water management.

We are confident that we are moving in the right direction, but how do we increase our impact?

We improve what we do, and we do more of it, with new partners and in new countries. Our vision is to expand this collaboration into a broader Water Futures

Initiative, which allows other partners to contribute to and benefit from addressing water risk – whether they are other businesses, organisations from the public sector or representatives of civil society. At the heart of the Water Futures Initiative will be the principles set out in its draft Charter (see page 6). It will have an effective governance structure, with senior representatives from the partners providing strategic direction and oversight. We aim to provide a comprehensive support platform and financing system, offering services and matching donor funds to local partnership activities that reduce shared water risk. In return, new partners will be invited to contribute their ideas, outreach, expertise and resources. These will broaden and reinforce our knowledge base and breadth of experience, and increase our ability to scale-up activities to improve water security.

As a result we will grow our global network of local partnerships, strengthening our ability to share best practice, lessons learnt and knowledge, and leverage funds. We believe this is an effective and robust approach for mobilising the private sector to help tackle one of the most pressing issues of our time: water insecurity.

This publication highlights some of our achievements to date and explains our thoughts on how to move forwards. We welcome your feedback on our ideas and discussion on how you might get involved in the Water Futures Initiative.

AChoh Ba

Andv Wales. Senior Vice President, Sustainable Development SABMiller

Franz-Josef Batz.

Head of Competence Centre for Cooperation with the Private Sector in Africa, GIZ



David Till

David Tickner, Head of Freshwater WWF-UK

Businesses can play an important role in supporting municipalities and other water and sanitation service providers to improve water and sanitation infrastructure and management. However partnering is rarely a straightforward process and needs careful facilitation. The Water Futures Partnership in South Africa is an example of how we can effectively bring together business and local government to help address shared water risks from inadequate wastewater treatment, with clear benefits for broader society. It is an example that needs to be emulated in the other countries and basins in the SADC region.

Phera Ramoeli, Senior Program Officer, South African Development Community Secretariat – Water Division, Botswana

Thanks to the support and leadership from MillerCoors, thousands of people around the country are actively engaged with projects that will have long-term benefits for water resources in their community and state.

Todd Ambs, President of River Network, USA

> Water Futures Partnership Stewardship in action

The Water Futures Partnership helps to enable local structures to understand and address shared water risks at the watershed level.

While there may be local will for partners to address their water risks, the process of risk mitigation is challenging and needs a long term approach. Resources, effective advocacy that engages local and national political structures, and technical skills can often be in short supply or, at best, limited. Our experience has shown that local partnerships can benefit from a degree of support or capacity building to be able to develop and carry out effective risk mitigation programmes. This support can include funding, guidance on implementation, water risk tools and methodologies, access to lessons and practices from other partnerships, links to new partners and so on.

The Water Futures Partnership has a portfolio of water risk mitigation projects in eight countries. These vary in terms of the risks they are addressing, the work underway, and their scale, but they all aim to develop and implement sustainable solutions to help improve water security.

Partnership activities

In Zambia, we have launched a new partnership this year to develop and implement water protection projects focused on the Itawa Springs. This is an important water resource supplying water for domestic and industrial purposes to the city of Ndola and downstream communities. The springs face significant environmental and socio-economic challenges caused by informal settlements near the water resource. Working with a multi-stakeholder group, led by government, Water Futures has helped to galvanise action. A partnership has been formed between local stakeholders — including GIZ, Zambian Breweries (SABMiller's local subsidiary), the Department of Water Affairs and Ndola City Council — to develop a sustainable and long term programme to protect the water source and improve the living conditions for local communities.

In South Africa, risk assessment for hops farms – a key resource for brewing beer – found that nonnative trees were reducing surface water available to grow these crops and putting undue stress on the rest of the catchment. The partnership is working with local stakeholders to remove these alien species and replace them with indigenous, less water-intensive vegetation in the region, as well as introduce groundwater monitoring and establish a Water User Association. The project, in George, is the first of its kind in the hops industry worldwide. In a separate project in Polokwane, the partnership is engaging the municipality to conduct a detailed technical needs assessment for the upgrade of a wastewater treatment works.

In Tanzania, there are multiple ongoing activities working to help address water related issues in the city of Dar es Salaam. One example is a project to restore heavily polluted urban streams in the city, which present risks to health, flood-prone communities, business reputation and coastal biodiversity. The partnership, with Nabaki Afrika and Coca Cola Sabco, is working with the National Environment Management Council, UNEP, and a multi-stakeholder group to identify options to clean up and protect these rivers.



In Peru, the partnership has developed a comprehensive programme to increase sustainability of groundwater use in Lima following assessments of the socio-economic and hydrological risks facing the Rimac River Basin. GIZ and Backus (SABMiller's subsidiary) are working to bring on board several companies to help fund this programme with the municipalities. Elements will include: improving aquifer recharge, reducing the use of groundwater in watering the city's green spaces and introducing an aquifer monitoring committee.



In India, SABMiller's subsidiary, together with its local partners, have implemented programmes in water-stressed Rajasthan to protect the water supply in the region, particularly benefiting local farmers by funding the construction of four water recharge dams. These relatively low-cost structures aim to prevent the excessive run-off of water and facilitate the natural replenishment of groundwater. There has already been an estimated net rise of groundwater by 9 metres – equivalent to the needs of SABMiller's brewery operating in the area.

In the USA, MillerCoors is working with The Nature Conservancy to improve habitats and safeguard the watershed in the barley-growing Silver Creek Valley in Idaho. Improvements made on a model barley farm, designed to showcase best conservation practices, have increased yields and saved almost 125 million gallons (4.7 million hectolitres) of water, about 9% of the farm's annual water use. They're also expected to reduce energy use by an estimated 10-20%

Other countries in which work is underway include Colombia and Honduras. The Water Futures Partnership recently ended in Ukraine with the establishment of the Kalmius Basin Sub Catchment Committee. Further information on these and other projects can be found at www.water-futures.org

External recognition

In May 2012, the Water Futures Partnership was recognised at the Guardian Sustainable Business Awards (www.guardian.co.uk/sustainable-business) by winning the best collaboration category. The judging panel highlighted the way in which the project had been integrated into the mainstream of business activity and praised the high degree of collaboration displayed by the different stakeholders. The Water Futures Partnership approach permits a holistic perception of water resources management where every affected party is considered important regardless of their size or status. The partnership also provides a more practical effort at conserving ecosystems and the biodiversity they support. Considering the ongoing national water reforms, this approach can only be seen as an augmentation of government efforts.

Michael Nangalelwa, National Heritage Conservation Commission, Zambia

We are extremely proud and delighted to support and be a part of Water Futures Initiative. For several years, we had been searching for an avenue or platform to really get involved and make a difference to our environment and community in Dar es Salaam and Tanzania as a whole. Only through joint Public and Private sector collaboration can there be sustainability through ownership and accountability. We are excited and enthusiastic about future development — it is all about timing and the timing is right now! Tania Hamilton, Director, Nabaki Afrika Ltd, Tanzania

> What next for Water Futures?

Introducing the Water Futures Initiative

We are committed to opening up the knowledge, experience and benefits to a wider set of partners. To this end, we have decided to establish a successor body — the Water Futures Initiative (WFI).

The WFI will build on the original Partnership by:

- Increasing the number of corporate, civil society and donor partners
- Moving into new watersheds and up-scaling activities in existing watersheds
- Securing new funds and developing new funding mechanisms to support local implementation
- Creating a central coordinating body with specific capacity building and advisory services to help initiate and support local partnerships in fostering collective action

We believe that we have initiated a network of decentralised, well-resourced, local collaborative partnerships focusing on addressing long term water risk – that presents a focused and sustainable

approach, which can be utilised by others. It offers an alternative to the often piece-meal approaches where companies invest on a case by case basis in bilateral partnerships and projects that are largely unconnected to each other or the public sector.





Tanzama. Dartey Jarmi



Figure 1: Example of a local Water Futures partnership

Our overarching vision is of a secure and fair water future that supports sustainable economic growth, achieved through the improved use and management of water at a watershed level. In essence, it is a drive for professionally managed, long term partnerships between public, private and civil society sector actors at a watershed level that:

- Have a high degree of local ownership and autonomy, and are sensitive to the local political economy
- Invest to improve water infrastructure and ecosystems, and engage to improve water use by others, accelerate public policy implementation and strengthen water governance
- Can be up-scaled to collective action initiatives between multiple stakeholders, attracting longterm funding from multiple sources
- Have potential to become institutionally anchored, working through the public sector to increase impact and chances of sustainability
- Have the potential to exert a positive influence on the country's water sector

The initiative offers a new model of cross-sector collaboration by drawing in the private sector, sharing knowledge and implementing practical solutions. While the Water Futures Partnership began by looking at risks associated with the operations and supply chains of a beverage company, it is clear water risk affects a much broader range of sectors, including agriculture, energy, mining, food production and manufacturing. We believe that this model can be adapted to work in every sector where water risks pose a threat.

Focus on sustainable solutions for managing water risk

We hope that through the formation of a long term, well governed support platform, we will be able to create a global pool of shared resources and expertise to enable local project partners around the world to focus on specific watersheds and ensure that:

- The link between water and sustainable economic growth is better understood
- Water risks shared by business, society and ecosystems are understood, and the case is made for investment and support of institutional change to mitigate these risks
- Public, private and civil society sector actors work collectively on joint, short-term and longterm investment projects to improve water use and management practices
- Water policy implementation and water governance are strengthened through a meaningful, transparent and productive engagement between public, private and civil society actors
- Public sector agencies have the organisational capacity and institutional framework to engage the private sector for a water future that will benefit broader society

International governance and support

Our intention is to create a strong governance framework by establishing an International Steering Committee (ISC). This group will be responsible for setting the Initiative's overall strategy, providing guidance on its policies, and building global relationships. The ISC will be comprised of senior individuals from organisations funding or partnering in multiple countries. It will be supported by input from external advisors and experts. The success of the Water Futures Initiative will depend on the success of local partnerships. The experience of recent years has highlighted the importance of having a central resource to provide support and co-ordination for them. The intention is to establish a team of individuals drawn from partnering organisations to fulfil this function. This support and coordination unit will act as a secretariat to the Water Futures Initiative overall. It will have responsibility for, amongst other things, building the capacity and monitoring the impact of local partnerships, communicating the Initiative's achievements, and funding/budgetary management. It will also provide a portal through which local partnerships can access relevant tools and services some of which will be offered by third parties such as NGOs, academe, and the corporate sector.



Figure 2: Overall structure of WFI

New partners, new ideas, new developments

As we design the WFI, we would like to invite organisations, who have a keen interest in action to mitigate watershed-level risks, to discuss with us their possible role in the Water Futures Initiative. Partners will be encouraged to help shape its strategy and programme of work. We recognise that new partners will be able to offer innovative ideas, resources and expertise that we can utilise to develop the initiative further.

Our belief is that companies will recognise the benefits of global collaboration and, through a tailored local approach, the Water Futures Initiative can help them address some of the long term water risks they face in the communities in which they operate.

Our hope is that public sector bodies will recognise that Water Futures offers a complementary approach, mobilising the private sector to achieve mutual benefits for business and society. By working together to develop appropriate projects in specific watersheds, we can contribute to sustainable change and the mutual goals that we develop.

Our expectation is that other members of civil society, including non-governmental organisations, will recognise the value of this collaborative approach in which the interests of the private sector and society overlap. In this way, communities can be mobilised to create sustainable change and contribute to reducing shared water risks.

Working together to deliver long term mutual benefit

We have established an outline as to how the initiative could work in practice, including membership structures, roles and responsibilities, and possible funding models. However, we recognise that an innovative initiative requires consultation, flexibility and commitment.

While we feel that we have the fundamentals right we also appreciate that it is in the early stages of its development and that there is already a multitude of important ongoing initiatives to improve water security that we can contribute to. For this reason we want to listen and work with other interested parties — including those from business, public sector bodies, donors, or parts of civil society — to develop a sustainable partnership with a shared commitment at its heart. With the support and input of others, we are confident the Water Futures Initiative will address water risk in a way that delivers long term mutual benefit for communities, governments, businesses and ecosystems around the world.



If you are interested in finding out more please contact one of the partners listed at the end of this document.







> Water Futures Charter



The Water Futures Partnership recognises that it takes time to develop working relationships and build trust, both between the partners and with external stakeholders. Based on our experience, we have developed a charter that expresses the shared principles of the partners. It is these principles that have informed and will continue to underpin this initiative:

- Tanzania: Community water provision
- Affordable and sustainable water supply and sanitation for all should be a priority. Water is essential for health, education, livelihoods, businesses and ecosystems. It is a fundamental building block for the prosperity of a country. We believe that while there are many competing demands for water, priority should always be given to basic human needs.
 - Water resources should be managed to ensure the health of critical ecosystems. Water supply to cities and agriculture relies heavily on healthy ecosystem services, especially the continued flow of water through rivers, lakes and aquifers. We believe that it is critical to understand the water needs of these services and allocate water to maintain the health of ecosystems as a priority.
 - Water is the life-blood of local and national economic development. Water is a critical resource for public and private enterprises to thrive, which in turn fuels foreign investment, job creation, tax revenues, improved living standards and broader economic growth. We believe that water must be appropriately valued, and that the value created by economic activities should be considered in its allocation.

- Water is a shared resource and creates a shared responsibility. Inadequate water/wastewater infrastructure or poorly managed land and water resources creates risks that are shared by communities, ecosystems and businesses. The state of our water supply depends heavily on how individuals use land and water, and how resources are managed by the public sector. While it is ultimately the government's role to regulate land and water use, we believe that everyone, including businesses, has an obligation to use water responsibly and support the public sector in managing water.
- Water governance can be significantly improved when there is constructive and transparent dialogue between water users and managers. It is crucial that water users and stakeholders play a part in the governance of water resources in order for the overall management to be effective and allocation sustainable. We believe in an open and effective dialogue, and that one of the main purposes of our work should be to assist in facilitating this dialogue.
- Awareness and understanding of the importance of water and how to manage it well are

critical. We believe in a risk-based approach to understanding water challenges, motivating stakeholders and prioritising action. We are committed to raising awareness of water risk and sustainability issues with businesses, the public sector and the general public. Knowledge sharing relating to good practice in water and land management should be encouraged.

- Transparency in decision making, financing and execution supports trust amongst stakeholders. While recognising and upholding commercial sensitivities that are fundamental to all businesses, we are committed to open dialogue and transparent, participatory decision making.
- Collective action is important for sustainable water use and management. We believe that it is only through broad based collaboration with local stakeholders, that pathways to sustainable water security can be found. As such, the partnership is open to like-minded stakeholders, who share our principles, to join in working towards sustainable solutions. We also believe in pre-competitive collaboration and therefore accept that competing companies/organisations be allowed to join the global and local partnerships.
- Sharing information and lessons enables an
 effective partnership and strengthens water
 stewardship approaches. We believe in the
 power of knowledge transfer and ideas sharing.
 While recognising that water realities are very
 specific to each watershed, we also recognise that
 approaches used in one part of the world might be
 usefully adapted to other locations. Therefore, a
 culture of pro-active knowledge management is
 vital. In addition, we believe in using our practical
 experiences to help inform other partnerships,
 global water stewardship policy dialogues and
 other initiatives.



Context The need for collaboration

Understanding the reasons for water stress and availability

Global demand for water has increased dramatically: between 1900 and 1995, demand for water increased six-fold – twice the rate of growth of the world's population¹. The world population is predicted to grow from 6.9 billion in 2010 to 8.3 billion in 2030 and 9.1 billion in 2050². This is coupled with a massive increase in prosperity, consumption and, therefore, the water footprint of individuals - especially in emerging markets³. The world's population is requiring more food, water and energy to meet its needs. However, economic growth could be undermined by resource scarcity - not least in regard to water. The Water Resources Group estimates that there could be a 40% shortfall between demand and availability of freshwater resources by 2030⁴. According to the UN's World Development Report⁵, almost half of the world's population will live in areas of high water stress by 2030.

These challenges are exacerbated by the fact that global freshwater resources are not uniformly distributed (across the planet, nine countries⁶ account for 60 per cent of current supplies) and the impacts of climate change. Increased levels of evaporation – because of rising temperatures – are one manifestation of this; others include changes in the seasonality of water flows from snow melt basins and glaciers, groundwater depletion, and reductions in soil moisture⁷.

Water-food-energy nexus

Water, food and energy are interconnected. Agriculture accounts for around 70% of global freshwater withdrawals⁸ and poor management practices can pollute supplies. Water also plays a central role in energy production: in the USA, for example, half of all freshwater withdrawals are used for power generation⁹ while in countries that rely heavily on hydropower drought can lead to interruptions in electricity supply. At the same time, large amounts of energy are needed to fertilise and transport crops, and to pump water to drier regions. Increasing use of desalination – to combat water scarcity - will also place a greater demand on energy resources. Understanding this water-food-energy nexus is fundamental to developing effective and integrated solutions that balance these competing demands.

Taken together, the impacts of climate change and increasing consumption raise fundamental questions about our ability to satisfy demand over the next 20-30 years. At the heart of the problem is the lack of capacity of many governments, particularly in developing countries, to manage a rapidly changing water resource situation effectively. This is exacerbated by the weakness of society to hold governments to account for failing to provide these critical services.

Why should business address shared water risk?

A significant driver of corporate water stewardship has been the realisation by business of the risks posed to their value chains by water insecurity. Without stable water resources, ecosystems and infrastructure, irrigating crops, accessing water for manufacturing processes, or ensuring that consumers have sufficient water to use with products becomes a challenge and potential cost. As an initial step, a number of companies have undertaken detailed assessments of their water consumption areas across the value chain.¹⁰ However, companies realise that water risks which affect other stakeholders may also have consequences for their operations. For example, a company's social licence to operate may be jeopardised if its activities impact on the surrounding communities' access to water. Increasingly, companies are realising that water insecurity presents a shared risk that must be addressed through partnerships with government and civil society.

Why should NGOs and development agencies help business address shared water risk?

Collectively, through their value chains, private sector companies are by far the biggest water users in the world. These companies are also often the largest tax payers and employers in a country and are also the engines of economic growth. Motivating and facilitating the private sector to engage in collective action for water security presents an attractive option to leverage resources and capacity, and create powerful advocates of sustainable water management.







- 1 World Meteorological Organization (WMO), Comprehensive Assessment of the Freshwater Resources of the World (WMO, Geneva, 1997), p.9.
- 2 UNDESA (200
- 3 World Bank, Global Economic Prospect, 2010: Fiscal Headwinds and Recovery (2010). 4 McKinsey and Company, Charting our Water Future (2009).

World Economic Forum Water Initiative. The bubble is close to bursting (2009). Brazil, Russia, China, Canada, Indonesia, USA, India, Colombia and the Democratic Republic

⁷ UN-Water, World Water Development Report 4, (Unesco, Paris, 2012), volume 1, p.80. 3 8 lbid., p.24. International Water Management Institute.

For example, SABMiller and WWF, Water footprinting: Identifying and addressing water risks in the value chain (2009).

The sustainability of Wami/Ruvu River Basin, Dar es Salaam's water supply, depends on the collective action of players from public sector, private sector and civil society.

Praxeda Kalugendo, Wami/Ruvu River Basin Officer, Tanzania

The Water Futures Partnership is bringing together stakeholders from the private, international development and conservation sectors to follow the critical path to improved water stewardship.

Richard Rosengren, Director of corporate partnerships at the Nature Conservency



Figure 4: The Water Futures approach – focusing on actions to mitigate shared water risks

Understanding water dependencies and vulnerabilities

Water risks can only really be understood and addressed at a watershed level. However, an appreciation of the complexities of the local political economy as well as stakeholder roles and interactions is prerequisite for trying to secure the support of stakeholders critical to the success of risk mitigation. If these stakeholders are invited to join businesses on their journey to understand water risks, it is more likely they will cooperate in mitigating identified risks. Therefore, to be effective, partnerships require careful guidance and facilitation from an organisation that understands the local political economy and is trusted by government.

Categorising types of water risk and holistic responses

Projects to address water risk can be loosely categorised under four broad headings:

- Physical investments into infrastructure or ecosystems – e.g. help to upgrade public infrastructure and reduce water losses for supply networks to ensure flows meet downstream water needs; improve water supply and sanitation facilities; and increase catchment forest cover
- Helping to reduce the water impacts of others

 e.g. create awareness campaigns; reduce groundwater demand; work with farmers and others to enhance land use management practices and thereby to reduce pollution from agricultural run-off, improve recharge to groundwater sources and prevent soil erosion; establish a business forum for improved water use; and promote self-regulation schemes
- Supporting governments in the implementation of public water policy – e.g. helping to establish and capacitate water user associations, collecting and sharing hydrological data
- Strengthening water governance e.g. develop a platform for public-private dialogue on water; support public accountability studies; and engaging in river basin planning

While these individual elements can have some degree of benefit in isolation, adopting a holistic approach that considers a combination of elements is much more likely to deliver positive results. Wherever possible, activities should be implemented through or in close collaboration with the government bodies that are mandated to manage water resources. This holistic and inclusive approach forms the basis of good corporate water stewardship and helps ensure the impact and institutional sustainability of any interventions.







Adopting a business risk-led approach to understanding water challenges



Implementing local responses to shared water risks

The Water Futures Partnership is co-funded by develoPPP.de



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Front and back cover images show the dam at Heiderkruin Farm in South Africa.

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This report is printed on Revive Pure White Offset which is 100% recycled content from post-consumer waste, by an FSC and ISO 14001 accredited printer.

Design & production: Oculus Design & Communications Limited www.oculus.co.uk