Technology Challenges and tools for the implementation of the water- related sustainable development goals and targets

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1. Context

The role of technology in the Post 2015 Development Agenda has been discussed in two complementary reports from the UN Secretary General on "*Options for facilitating the development, transfer and dissemination of clean and environmentally sound technologies*" (A/67/348 and A/68/310). The General Assembly deliberated on these options through eight workshops and structured dialogues which were held during its 67th and 68th sessions. These workshops discussed gaps and issues across all stages of the technology cycle; the roles of governments and the private sector; and reviewed the activities of existing platforms and centers facilitated by the UN system and other organizations.

The Open Working Group on Sustainable Development Goals (OWG) also considered the implications of technology for the implementation of the SDGs and this is reflected in the proposal which has been presented to the General Assembly in A/68/970 - 12 August 2014.

The synthesis report of the UN Secretary General reinforces the importance of technology in the Post 2015 Agenda, as illustrated in paragraphs 118 to 126 of the document. It is important to stress that, in paragraph 125, building on the recommendations emerging from the structured dialogues, the Secretary General proposes to "*establish an online, global platform building on and complementing existing initiatives, and with the participation of all relevant stakeholders, in order to:*

> *(a) map existing technology facilitation initiatives, needs and gaps, including in areas vital for sustainable development, including agriculture, cities and health;*
> *(b) enhance international cooperation and coordination in this field, addressing fragmentation and facilitating synergies, including within the UN system; and*
> *(c) promote networking, information sharing, knowledge transfer, and technical assistance, to advance the scaling up of clean technology initiatives.*"

The discussion of this Conference could provide an important contribution to the on-going discussions and the Secretary General proposal.

2. Introduction

2.1.- What do we mean by technology?

Technology refers not only to physical equipment – including infrastructures and installations (so called 'artefacts'), but also to the knowledge, techniques and skills that surround its deployment and use. These in turn form part of a broader technological 'regime' or infrastructure that supports innovation and the ability for one technology to build on or link to another.

We know not all technologies become innovations, and not all innovations diffuse widely and become part of a successful enterprise: *'…the world of the technically feasible is always much greater than that of the economically profitable, and this in turn, is much greater than that of the socially acceptable.'*

2.2.- How is technology being addressed in the context of this discussion?

The discussion is being framed around the idea of **technology development, transfer, adoption and/or dissemination** and gives a very careful attention to the integration of scientific with indigenous and local knowledge as an important element of policies and programmes to manage natural resources in an environmentally and economically sustainable and culturally appropriate manner. This echoes the call underpinned in Goal 6 – target 6.b to the involvement of local communities in the management of water, including the identification of sound technology solutions.

3. Technology Challenges to address existing gaps and opportunities

This chapter provides a general context on technology development, transfer, adoption and / or dissemination and builds on existing studies and literature (reference to chapter 8 - Bibliography). To a large extent, information reflected in this chapter is general in nature, meaning relevant to all clean and environmentally sound technologies. Very limited water technology specific information is available.

3.1- Gaps and opportunities for technology advancement in developing countries
Gaps
As stated by the UN Secretary General in the synthesis report on the Post 2015 Agenda (paragraph 124), *there are a number of on-going international initiatives aimed at accelerating the development, diffusion and transfer of appropriate, especially environmentally sound, technologies. Thus far, however, ambition has not matched the challenges at hand.* Although technical achievement has been rapidly increasing in developing countries, the gap by comparison with developed countries remains large (Figure 1).
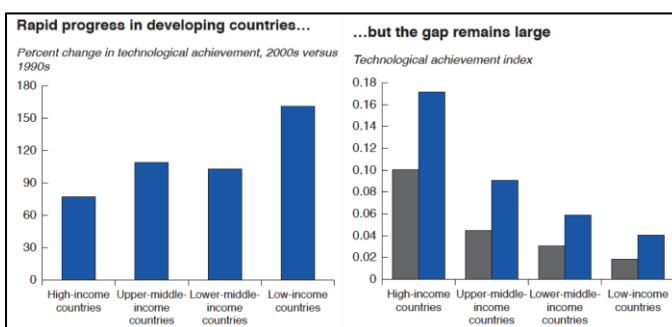

Figure 1: Technological achievement in developing countries. Source: World Bank (2008) - The World Bank measures 'technical achievement' across three areas: 1) scientific innovation and invention, 2) the diffusion of old technologies (e.g. electrical networks, transport systems, fixed line telephones), and 3) the diffusion of new technologies (Internet, mobile phones, computers).

The gap is even more pronounced when looking at the dissemination of environmental and water technologies. Figure 2 reflects the trade dominance of developed countries in environmental goods.
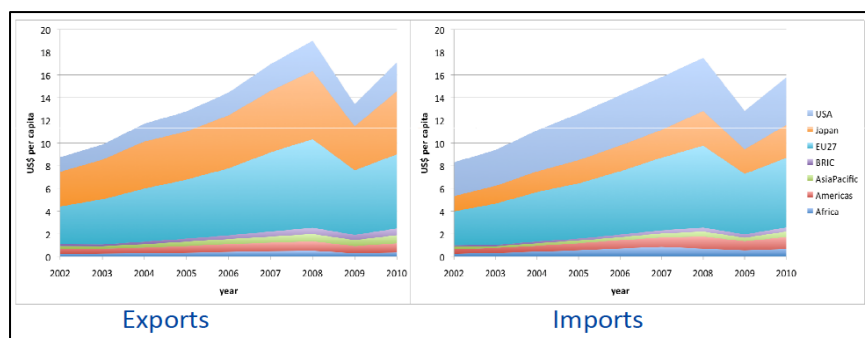

Figure 2: North-South eco-innovation gap: Trade in environmental goods

Source: European Commission & Eco-innovation Laboratory (2012)

In addition to the gaps associated with the divide between developed and developing countries, equally important "divides" must be addressed to ensure technology becomes an effective and equitable means to attain socially and ecologically sustainable development. These include the divide between: 1) Traditional versus new technologies; 2) Gender and technology; 3) Beyond technology transfer: technology assessment; 4) Ownership and control of technology and innovation; and 5) Intellectual property rights.

Opportunities

The importance of technology in economic development is well established. In fact, a review of empirical studies show foreign sources of technology may account for as much as 90% of domestic productivity growth. The following opportunities can be highlighted:

a) *Economic development* – The spread of appropriate technology in society is a strong catalyst for economic growth, bringing increased investment, jobs, knowledge, skills, productive capacity and transactional efficiency.

b) *Environmental improvement* – With ecosystems under increasing pressure from economic development, environmental technology adoption enables societies to reduce their environmental impacts, reducing the risks and costs of ecosystem degradation or collapse, and to adapt to environmental changes.

c) *Poverty alleviation* – Many technological innovations bring crucial social benefits as well, such as better access to water, improved sanitation, reduced energy poverty and lower health risks as a result of replacing polluting products and processes with cleaner technologies.

d) *Access to new markets* – Environmental technologies create opportunities to produce products and services that meet the social and environmental requirements (embodied in policy prescriptions and voluntary codes and standards) accessing markets with stringent water related requirements.

e) *Capital investment* –Environmental technology adoption often brings both financial investment and new assets such as improved processing plants and equipment, thereby contributing to creating the conditions for countries to move further up the value chain in their industry sectors and benefit from foreign direct investment.

f) *Resource productivity* – As natural resource scarcity continues to grow, prices are likely to rise in future, driven by higher demand and lower supply. Environmental technologies enable societies to improve their resource productivity, meaning that more economic value is derived from less input of energy and materials, thus resulting
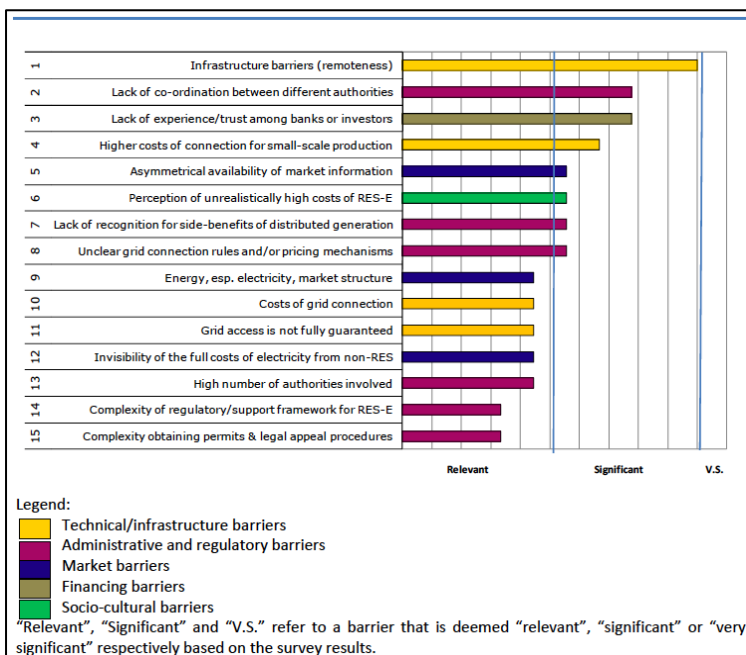
in real cost savings to the economy and reduced environmental burdens per unit of output produced.

g) *Collaborative partnerships* – Building social capital is as important for development as economic or technological capital. Technology development and dissemination typically adopts a multi-stakeholder approach that must build trust and legitimacy within the society and must achieve more long-lasting impacts across a broader spectrum of sectors, constituencies and even countries.

h) *Sustainable solutions* – Many of the world's most serious social and environmental challenges are global in nature. Environmental technologies can provide a cost effective way to tackle these global challenges, through technological solutions in developing countries and economies in transition that have a much higher social and environmental return on investment.

3.2.- Challenges to water technology uptake

There are many challenges that can inhibit the adoption of environmental technology in developing countries. Some of these are relevant to all countries (both developing and developed) – such as weak market demand, uncertain return on investment, and technological lock-in to current infrastructure. Others, however, are more specific to developing countries, such weak protection of intellectual property, and to technology adoption, such as the lack of technical skills and capacity.

A recent study addressing technologies for the renewables sector, highlighted key challenges to environmental technology transfer. While some of these are specific to the renewables sector – like remoteness of infrastructure and higher costs of connection for small-scale production – other barriers to administrative, regulatory, market, financing and socio-cultural conditions – such as poor co-ordination between regulators and lack of subject experience among investors – and are more generally applicable (Figure 3).

Figure 3: Ranking of non-economic barriers to deploying technologies

Source: International Energy Agency (2010)

4. Water Technology Challenges in the context of the water themes & Means of Implementation (MoI)

Key references:	
Means of Implementation (MoI)	- Capacity Development - Governance - Financing and economic instruments - Technology
Water themes	- WRM: Water Resource Management (focus on Water Scarcity) - Risk: Risk Management in Water and Sanitation - WASH: Water, Sanitation and Hygiene - Quality: Water Quality and protecting ecosystem services

4.1.- Technology Challenges & Interlinkages

An opening reflection is dedicated to the pressing need for interlinkages of the Means of Implementation. With an entry point on the water technologies, the correlation with the other MoI is critical and essential. **Key interlinkages** are required to address the following challenges:

i. *Financial resources* – The introduction of environmental technologies in new markets usually requires significant and sustained funding, whether for research and development, adaptation, licensing, installation, training or operations. In some developing countries and economies in transition, the private sector's ability to pay and government's ability to support are often weak.

ii. *Policy incentives and economic instruments* – The development and diffusion of environmental technologies significantly benefit from policy incentives in the form of tax breaks, subsidies, tariff protection, preferential terms of trade or government endorsed promotional programmes. Where these policies are weak, or uncertain, or where perverse subsidies for unsustainable industries exist, the chances of success are much lower.

iii. *Governance and institutional capacity* – Successful environmental technologies adoption requires well-functioning public and private sector institutions, with good governance, efficient administration, an effective legal system, strong management skills and investment in R&D. Lack of good governance can specifically hinder the opportunities of SMEs to participate in the implementation of water related solution, as it would prohibitively increase time and resources.

iv. *Capacity development and social instruments* - To address implementation challenges under the four water themes, it is envisaged that new technologies should be implemented, and where it is insufficient, capacity should be strengthened and traditional knowledge should be acknowledged and used. This encompasses both public awareness, as well as the inclusion of relevant technical profile in formal and informal professional education.

It is worthwhile stressing that all water themes are related to the above-illustrated challenges:

Theme / Technology Interlinkages Challenges	WRM	Risk	Quality	WASH
Financial resources	X	X	X	X
Policy incentives & economic instruments	X	X	X	X
Governance and institutional capacity	X	X	X	X
Capacity development and social instruments	X	X	X	X

4.2.- Technology Challenges and Water themes

An attempt to classify remaining challenges per each of the water theme proved to have little success. As indicated in the water theme specific background documents developed for the Conference, most of those challenges are actually relevant for all water themes.

i.   *Access to information* – Technology can be instrumental to enable technology users, as well as policy makers, get a better understanding of technology options available, including the respective cost-efficiency. In addition, measurement technology is instrumental to provide much needed water related information, which is also an essential element for good decision making at both policy and technical decision-making. The relevance of this challenge is particularly evident in the case of water quality, WASH and WRM. It is nonetheless also relevant for water risk management decisions.

ii. *Cost competitiveness* – Environmental technologies, which are not always ready-for-market, are often more expensive than incumbent technologies, without the necessary supportive infrastructure. Competition from existing technologies, including "*unsustainable technologies*" (as defined in the UN Secretary General report, paragraph 120, December 2014) is high. Such challenge would be relevant for water quality, WASH and WRM.

iii. *Knowledge and skills* – By their very nature, new technologies require specialized knowledge and skills, which are often lacking in host countries where education levels in science, engineering and technology can be low, and emerging areas like environmental engineering, biotechnology or clean energy are underdeveloped and not supported in universities. This is very relevant for all themes, but very much stressed in the case of WASH and water risk.

iv. *Public awareness and professional education* - Capacity to respond to water risk may be strongly hindered by the lack of understanding of the inter-dependence of disasters with development, climate change, disaster risk and adaptation are the foundations of a culture of risk reduction. As regards the technological aspects of water quality and WASH, professionalization of the water technology related practices is key. Codes of Practices may offer a relevant solution to this challenge.

v.   *Social legitimacy* – The transfer of new technologies, especially from abroad, can be treated with suspicion in local communities if they have had previous negative experiences with foreign investment and inappropriate technologies that were seen as misguided, resulted in job losses or created unintended social consequences. Hence,

water technologies parties need to earn the respect and trust of key stakeholders. This challenge is particularly relevant in the case of water quality, as well as WASH.

vi. *Cultural barriers* – Sometimes, new environmental technologies are seen as a challenge to cultural traditions, such resource collection methods or other communal activities. Environmental technologies can also face barriers such as language, the role of women in society, lack of support for entrepreneurs, or dependencies created by decades of development aid. This challenge acquires a very high importance in all water themes, and especially for those activities that call for a significant engagement of local communities. It is worthwhile to recall the importance given to local community participation in water management in the current Post 2015 Agenda.

vii. – Technology projects may have failed due to the inability of host countries to absorb the technology into their infrastructure, culture and society. This can derive from the technology not being aligned with the host country's political and social priorities, or from a lack of skills and supportive economic, market and technological infrastructure. This situation is relevant for all four water themes.

viii. *IPR enforcement* – New environmental technologies development may be the result of leading edge R&D, which relies on the protection of intellectual property (e.g. through patents) to recover upfront investment costs. In countries where intellectual property laws are weak or ineffective, or where technology plagiarism is high, technology investors prefer to stay away. Technologies for water resource management seem to be particularly affected by this challenge.

The following table summarizes the relevance of the above-described challenges for the specific water themes:

Theme / Technology challenges	WRM	Risk	Quality	WASH
Access to information	X	X	X	X
Cost competitiveness	X		X	X
Knowledge and skills	X	X	X	X
Public awareness and professional education		X	X	X
Social legitimacy			X	X
Cultural barriers	X	X	X	X
Absorptive capacity	X	X	X	X
IPR enforcement	X			

5. Specific guidance/tools to address water implementation challenges

The following table provides an initial overview of tools, platforms and networks that have been promoting water technologies development, transfer, adoption and / or dissemination. This list is the result of an initial inventory, which the discussion during the Conference will aim at completing. In addition to the brief information provided in the following table, for some of these tools a specific case study is provided in the annex to this document.

Theme	Tool / platform / network	Brief description of purpose	Implementation challenges addressed	Stakeholders involved
WASH	Rural water supply network	Local network of professionals and practitioners working to raise standards of knowledge and evidence, technical and professional competence, practice and policy in rural water supply.	• Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education	Academia, governments
Link:	http://www.rural-water-supply.net/en/			
WASH	M&E for household water treatment and storage	Tool to monitor and evaluate the uptake of technologies for water treatment and storage to ensure and sustain their correct use.	• Social legitimacy • Capacity development and social instruments • Access to information • Knowledge and skills • Absorptive capacity	Academia, government
Link:	http://apps.who.int/iris/bitstream/10665/76568/1/9789241504621_eng.pdf?ua=1			
WASH	GI-REC Global Initiative for resource efficient cities	It works with different stakeholders to promote energy efficient buildings, efficient water use, sustainable waste management and other activities.	• Good governance and institutional capacity • Policy incentives and economic instruments • Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education	Governments (national and local level), civil society, business.
Link:	http://www.unep.org/resourceefficiency/Policy/ResourceEfficientCities/Activities/GI-REC/tabid/771769/Default.aspx			

Theme	Tool / platform / network	Brief description of purpose	Implementation challenges addressed	Stakeholders involved
WRM	Transfer of Environmentally Sound Technologies (TEST) methodology - UNIDO	It provides a formal and systematic approach to leverage private sector investments in resource efficient cleaner production in order to reduce industrial water consumption, to enhance environmental performance and productivity of industries.	- Financial resources - Capacity development and social instruments - Access to information - Knowledge and skills - Public awareness and professional education	Business, government, financial institutions.
Link:		http://www.unido.org/en/what-we-do/environment/resource-efficient-and-low-carbon-industrial-production/watermanagement/services/medtest/publications.html		
WRM	Eco-innovation project	This comprehensive project support different stakeholders in the promotion of eco-innovation, including the policy and technology related implications.	- Good governance and institutional capacity - Capacity development and social instruments - Access to information - Knowledge and skills - Public awareness and professional education	Business, academia, government, civil society
Link:	http://www.unep.org/ecoinnovationproject/			
WRM	SBCI	The Sustainable Buildings and Climate Initiative is a partnership of major public and private stakeholders in the building sector, working to promote sustainable building policies and practices worldwide.	- Good governance and institutional capacity - Policy incentives and economic instruments - Capacity development and social instruments - Access to information - Knowledge and skills - Public awareness and professional education - Absorptive capacity	Business, academia, government, civil society
Link:	http://www.unep.org/sbci/pdfs/greening_the_supply_chain_report.pdf			

Theme	Tool / platform / network	Brief description of purpose	Implementation challenges addressed	Stakeholders involved
WRM	PRE SME Promote Resource Efficiency in SMEs	The resource kit is an integrated Resource Efficiency package by resource category (water, energy, chemicals, wastes and materials) with a clear methodological guidance, based on an in-depth survey and review of existing tools and techniques to be used by SMEs.	• Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education	Business, academia
Link:	http://www.unep.org/resourceefficiency/Business/CleanerSaferProduction/ResourceEfficientCleanerProduction/Activities/PromotingResourceEfficiencyinSMEsPRE-SME/tabid/104523/Default.aspx			
WRM	Global SCP clearinghouse	It is a unique one-stop hub for bringing together and expanding the Sustainable Consumption and Production (SCP) community worldwide, collecting, disseminating and sharing initiatives, policies, tools and best practices, the latest news and events on SCP.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education	Business, academia, government, civil society
Link:	http://www.scpclearinghouse.org/			
WRM	EcoWater Toolbox	It is integrated suite of on-line resources and tools for assessing the system-wide eco-efficiency improvements from innovative technologies, applicable to different water systems and sectors of water use.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education • Absorptive capacity	Business, academia
Link:	http://environ.chemeng.ntua.gr/ewtoolbox/			

Theme	Tool / platform / network	Brief description of purpose	Implementation challenges addressed	Stakeholders involved
WRM	APELL Centre	It provide access to expertise and up-to date sources of knowledge about environmental emergency preparedness at the global, regional, national and local levels by offering APELL (Awareness and Preparedness for Emergencies at Local Level) related tools and guidelines.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Public awareness and professional education • Social legitimacy • Cultural barriers	Business, academia, government (local)
Link:	http://apell.eecentre.org/Home.aspx			
WRM	World Bank Group Environmental, Health, and Safety Guidelines (known as the "EHS Guidelines").	The EHS Guidelines contain the performance levels and measures that are normally acceptable to IFC, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Absorptive capacity • Financial resources	Business, financial institutions, government
Link:	http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site /ifc+sustainability/our+approach/risk+management/ehsguidelines			
WRM	CEO Water Mandate	It is an action platform to share best and emerging practices and to forge multi-stakeholder partnerships to address the problems of access to water and sanitation.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education • Access to financial resources	Business
Link:	http://ceowatermandate.org/			

Theme	Tool / platform / network	Brief description of purpose	Implementation challenges addressed	Stakeholders involved
WRM	Guidelines for Strengthening Environmental Monitoring and Reporting by Enterprises	They contains guidance for Strengthening Environmental Monitoring and Reporting by Enterprises in Eastern Europe, Caucasus and Central Asia that were approved by the UNECE Committee on Environmental Policy.	• Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education	Government, business, civil society organizations
Link:	http://www.unece.org/?id=30343			
WRM	GGKP	The Green Growth Knowledge Platform (GGKP) is a global network of international organizations and experts that identifies and addresses major knowledge gaps in green growth theory and practice. It offers policy guidance, good practices, tools, and data necessary to support the transition to a green economy.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education	Academia, government, civil society organizations
Link:	http://www.greengrowthknowledge.org/			
Quality	ETV	This tool enables technologies to be verified by qualified third parties called 'Verification Bodies' delivering a "Statement of Verification"	• Good governance and institutional capacity • Policy incentives and economic instruments • Capacity development and social instruments • Access to information • Public awareness and professional education • Social legitimacy • Cultural barriers	Academia, business, government
Link:	http://ec.europa.eu/environment/etv/index.htm; http://iet.jrc.ec.europa.eu/etv/			

Theme	Tool / platform / network	Brief description of purpose	Implementation challenges addressed	Stakeholders involved
WRM and Quality	RECPnet	The Resource Efficient and Cleaner Production (RECP) network contributes to the effective and efficient development, application, adaptation and replication of RECP concepts, methods, policies, practices and technologies in developing and transition countries, including the transfer of RECP-relevant knowledge, experiences and technologies.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education • Access to financial resources	Business, academia, government, civil society
Link:	http://recpnet.org/			
WRM and Quality	The Green Industry Platform	It is a global, high-level, multi-stakeholder partnership and forum to catalyze, mobilize and mainstream action on Green Industry around the world. It provides a framework to bring governmental, business and civil society leaders together to secure concrete commitments and action in support of the Green Industry agenda.	• Good governance and institutional capacity • Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education • Access to financial resources	Business, academia, government, civil society
Link:	http://www.greenindustryplatform.org/			
WRM and Quality	NaWaTech	Indian-European research and development initiative that aims to explore, assess and enhance the potential of natural and technical water treatment systems in order to improve their performance and reliability to cope with water shortages in India.	• Capacity development and social instruments • Access to information • Knowledge and skills • Public awareness and professional education	Business, academia, civil society
Link:	http://nawatech.net/			

Theme	Tool / platform / network	Brief description of purpose	Implementation challenges addressed	Stakeholders involved
All themes	WIPO GREEN	Online database and network that brings together a wide range of players in the green technology innovation value chain, and connects owners of new technologies with individuals or companies looking to commercialize, license or otherwise access or distribute a green technology	• Good governance and institutional capacity • Cost competitiveness • Capacity development and social instruments • Access to information • Absorptive capacity • Financial resources • IPR enforcement • Cultural barriers • Public awareness and professional education	Business, academia, government
Link:	www.wipo.int/green			

6. Lessons learnt by applying the tools

The experience developed during the implementation of the technology tools highlights that:

- Access to water technologies is still very unevenly spread, both within and between countries, with developing countries frequently not having access to basic water technologies.
- Limited availability of data on water quality is frequently hindering the capacity for informed planning and decision-making on matters related to water management and sanitation.
- Technology solutions require a good understanding of the context in which they are applied. Understanding of and access to reliable context information is essential to inform choices both in the public and private sectors.
- Access to reliable information on technologies, with proven impact, can help overcome the concern of local communities and the risk of failure in technology adoption or adaptation.
- Sharing lessons learned during technologies implementation, as well as the impact achieved through technology transfer is critical for replication and dissemination.
- Effective technology solutions need to be based on a holistic approach which goes beyond the identification of "quick fixes" and looks at cost-effectiveness along a life-cycle perspective.
- Local capacity development needs to include the strengthening of skills to operate and maintain technologies.
- Periodic assessments of progress in technology needs, gaps and achievements are instrumental to orient decision makers.

7. Main discussion points for the Conference

for the parallel stakeholder sessions and the final multi-stakeholder panel

Overarching discussion points:

1. The Synthesis Report of the Secretary General on the Post 2015 Agenda calls for:

*Having taken into account the recommendations of the structured dialogues of the General Assembly, I propose to establish an **online, global platform building on and complementing existing initiatives, and with the participation of all relevant stakeholders**, (paragraph 125)*

and

*At the same time, I call upon all Member States to **(a) urgently finalize arrangements for the establishment of the proposed Technology Bank and the Science, Technology, and Innovation Capacity Building Mechanism for LDCs, (b) significantly scale up cooperation for the sharing of technologies, strengthening knowledge and capacity building for usage, innovation capacities, including ICTs, (c) make the adjustments necessary in the national and international policy frameworks to facilitate these actions, (d) substantially progress in the development, transfer, and dissemination of such technologies and knowledge to developing countries on favorable, concessional, and preferential terms; (e) ensure that our global intellectual property regimes and the application of TRIPS flexibilities are fully consistent with and contribute to the goals of sustainable development; (f) make specific commitments to shifting public resources out of harmful technologies, and into our sustainable development goals; and (g) promote the acceleration of the innovation-to-market-to-public good cycle of clean and environmentally sound technologies.** (paragraph 126)*

> How can UN Water and the work in preparation and during this Conference build a substantive input to this recommendation?

2. 2015 will offer an unprecedented opportunity to contribute to a number of intergovernmental discussions which are very relevant for UN Water. Among others, these include the discussion to the Post 2015 Development Agenda and the Sustainable Development Goals; the deliberations of the Intergovernmental Committee of Experts on Sustainable Development Financing; the preparations for the 21st Conference of the Parties (COP) of the UN Framework Convention on Climate Change, and the discussion of the Post 2015 Framework for Disaster Risk Reduction.
    How will this Conference convey a coherent and synergistic contribution to these different discussions?

Discussion points for the cases of the parallel stakeholder session

    (a) Technology implementation challenges

3. Which are the **implementation challenges** that you had to address in relation to technology development, transfer and/or adoption? How do they differentiate

according to the **perspective of the stakeholder group**? And of the different **water theme**?

4. From these challenges, which one do you feel have been addressed, building on your experience? And how have they been addressed?
5. Stress your perspective on main challenges that still remain to be addressed to upscale water technology development, transfer and/or adoption. Please consider whether such outstanding challenges are different per stakeholder group and per water theme.

(b) Models for replication and dissemination

6. Which are the **key success factors to replicate** the development, transfer and/or adoption of water technologies in different context (geographic, hydrologic, institutional, etc.)?
   a. the role of the tool you applied in progressing on those challenges
   b. the specific role your stakeholder group can play in addressing those challenges
   c. the role you expect / envisage other stakeholders groups should play in addressing those challenges

(c) Interlinkages with other MoI

7. To which extent have other Means of Implementation (namely finance, capacity building and governance) played a critical role in your experience? Could you please elaborate your reflections to address

(d) Contributions to the Post 2015 Development Agenda

8. Which considerations and recommendations on the Post 2015 Development Agenda do you consider this Conference should contribute to the intergovernmental discussion, in order to upscale progress in water technology development, transfer, adoption and / or dissemination?

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