

UN High Level Event on the Millennium Development Goals 2008

A synthesis document of
global stakeholder inputs

September 2008



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Sustainable Future with the
participation of stakeholders.

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INTRODUCTION

This report has been prepared for the Roundtable on Environmental Sustainability at the UN High Level Event on the Millennium Development Goals (MDGs) on 25th September 2008.

The report is based primarily on a consultation with global stakeholders carried out by Stakeholder Forum for a Sustainable Future in August and September 2008. It also draws on a similar consultation carried out and synthesised into a document for the Annual Ministerial Review in July this year. This compilation has been made with the support of the United Nations Environment Programme (UNEP) and funded by the UK Department for International Development (DFID). More information on Stakeholder Forum for a Sustainable Future and this project can be found at <http://mdg.stakeholderforum.org>.

The MDG High Level Event

Having crossed the halfway point towards 2015, the deadline for achieving the MDGs, the United Nations Secretary General and the President of the UN General Assembly have jointly called for a High-Level Event on the status of the MDGs. The meeting will take place at the UN Headquarters in New York on 25th September 2008.

The over-arching aim of the MDG High Level Event is to bring together governments, civil society and representatives from the private sector to:

- **review the progress already made towards achieving the Goals and associated targets**
- **identify policy and implementation gaps**
- **produce concrete efforts, resources and mechanisms to bridge those gaps.**

The meeting aims generate commitments from world leaders to 'announce their specific plans and proposals' and as such send a clear message to the Doha Review Conference.

Three Roundtables are to be held in parallel to the Plenary, focusing on the following themes: *Poverty and Hunger; Education and Health* and *Environmental Sustainability*. There will be two cross-cutting themes on *Gender* and *Global Partnerships for Development*.

The Roundtables aim to generate issue-based discussions on progress made to date, problems encountered, and commitments for the next eight years to ensure that the Goals are met. This consultation report is to the Roundtable on *Environmental Sustainability*, and links to the key challenges for achieving the 7th Millennium Development Goal (MDG-7), to '*Ensure Environmental Sustainability*'.

The targets of the 7th Millennium Development Goal (MDG-7) are:

- **Target 7a: Integrate the principles of sustainable development into country policies and programmes; reverse loss of environmental resources**
- **Target 7b: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss**
- **Target 7c: Reduce by half the proportion of people without sustainable access to safe drinking water**
- **Target 7d: Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020**

For the purpose of these two consultations and due to time constraints, Stakeholder Forum has focused on the first three targets. Given the importance of the climate change agenda in relation to 7a and 7b we also included a specific section to address these issues.

The Consultation

The consultations were carried out on-line, where stakeholders were asked to complete a questionnaire. They were also asked to pass their views on to their own governments to ensure that messages are communicated at all levels. 45 organisations from 18 nations responded to the two consultations. While this is only a limited number given the global issues under discussion, there are a range of opinions from different sectors and many valuable ideas have been set out. Respondents include single nation NGOs and support agencies as well as business and industry bodies and international bodies including IUCN (See appendix 1 for a full list of contributors).

Synthesis of Stakeholder Inputs

Stakeholder Forum has gathered the inputs from the stakeholders which were then synthesized into this document by Chris Church. The synthesis of findings is broken down into four sections; (1) Integration of sustainable development principles into national strategies, (2) Natural resources and biodiversity, (3) Energy and climate change, and (4) Water resources. We have sought to represent as far as possible the points made by all those who contributed to this process. Due to the rapid nature of the consultation processes, some stakeholders' inputs were more comprehensive than others – we have nonetheless attempted to include the key points expressed by all those who responded. Many of these points were made by many of the respondents – there was a consensus on some core issues.

The quotes within this report are all from responses made to the consultations. We would like to thank all of those who took time and made the effort to take part in this process. If there are any points you would like to make in response to this document, or if you have any questions, please do not hesitate to contact Hannah Stoddart, Policy Co-ordinator at Stakeholder Forum: hstoddart@stakeholderforum.org

SUMMARY

“The Millennium Development Goals are no mere aspirations; they are commitments – sacred vows to the poorest, most vulnerable sections of humanity. Let us keep our promises. Let us build a world we can all be proud of.”

This report has been prepared for the Roundtable on Environmental Sustainability at the UN High Level Event on the Millennium Development Goals (MDGs) on 25th September 2008. It is based on on-line consultation with global stakeholders carried out by Stakeholder Forum for a Sustainable Future in August and September 2008. 45 organisations from 18 nations responded to the consultation. There was an emerging link between not delivering on the MDGs and the Rio Agenda and increased insecurity around the world eg Food Security, Energy Security, Water Security and Economic Security. The report is broken down into four sections relating to MDG 7. Phrases highlighted in bold are explored in more detail in the report.



The UN Secretary-General Ban Ki-Moon speaking in March 2008

1. Integration of Sustainable Development Principles into National Strategies

The key points made are:

- **The need for greater political will to achieve these goals and the need to make sustainable development an integrated part of all national development.**
- This in turn will require **adequate resourcing for sustainable development planning** and **the need for coherence between government departments.**
- Several NGOs also stressed **the need to tackle corruption and deliver better governance** and **the need for increased capacity for promotion of sustainable development.**
- **The need to tackle the issues of Sustainable Consumption and Production** was raised at the 1992 Earth Summit and stressed again in 2002. This is central to delivering sustainable MDGs, but there is still little action in many countries. Without addressing the consumption patterns of the developed countries any gains in the MDGs will be short lived.
- Fundamental change is needed if there is to be progress: this includes **the need for a longer-term framework, an increased role for the UN in promoting sustainable development** and **better** and more effective **engagement of stakeholders.**
- There was absolute unanimity on the need for **tackling poverty and sustainable development together.**
- Main environmental challenges have a global extend. In consequence, **we need a global policy that, under the coordination of a reformed UN,** give coherence to all policies of UN agencies, programmes and states.

2. Natural Resources and Biodiversity

The key points made are:

- The need for strong policy at every level and the implementation of that policy
- There is widespread support for the wider use of **Payment for Ecosystem Services (PES)** as a means of providing incentives for farmers and others to conserve, with the provision that PES does not have a negative affect on poorer communities.
- PES work also links to the need for more and better **Protected Conservation Areas**, along with effective **Environmental Management** and well-funded **education and awareness-raising campaigns**



3. Energy and Climate Change

“Climate change has the potential to reverse the development gains that have been hard earned by developing countries over the past decades and progress towards achieving the millennium development goals such as eradicating poverty, combating communicable diseases and environmental sustainability.”



The key points made are:

- Stakeholders stressed **the need for immediate action in relation to the MDGs.**
- This work will entail **meeting and managing increasing demand for energy for development** and string programmes for **Training, ‘climate literacy’ and knowledge transfer**
- **Changing consumption and production patterns to reduce carbon emissions** is an area where much more work is needed
- **The importance of the Clean Development Mechanism (CDM) and the Global Environment Facility (GEF)** were recognised, but many stakeholders called for improvements to these systems to ensure that they can have the biggest impact
- **Sustainable production of biofuels** remains a controversial area and the need for international guidance on preventing land and water resources being diverted from food production
- Stakeholders stress that the immediate need is for work to mitigate climate change, **designing and implementing climate change adaptation strategies** is also important
- Climate change should be faced to protect atmosphere as a global common good. **We should develop a global policy, compulsory for all states,** under a renovated UN mandate with the capacity to take measures when there is a compliance failure.

4. Water Resources

Stakeholders agree that the key challenge is **Making Integrated Water Resources Management work**. The idea is clear – the need is for implementation. This will involve:

- **Enhancing water efficiency**
- Major improvements to **water use in agriculture**
- **New approaches to waste-water**
- Linking the development of **Payment for Ecosystem Services and IWRM**
- Effective **regional and trans-boundary agreements on the use of water resources and the ratification of the Convention on the Non-navigational Use of International Watercourses**
- A better understanding of **the role of environmental flows** in water management and a new focus on **'Fresh', 'blue' and 'green' water linkages**
- Creating a global framework to deal with virtual water.



Perspectives on the Millennium Development Goal 7

A synthesis document of global stakeholder inputs

1. Integration of sustainable development principles into national strategies

MDG Target 7a is focused on policy rather than action, but is an important reminder of the need to have such policy as a basis for well-planned long-term action that will deliver genuinely sustainable change. It is to **“Integrate the principles of sustainable development into country policies and programmes; and to reverse the loss of environmental resources“**.

Respondents were asked what they saw as the main barriers for countries in integrating these sustainable development principles (the integration of economic and social development and environmental protection) into their development strategies and into the planning and implementation processes of these strategies. They were also asked how they thought such integration could be increased and also linked with national strategies such as Poverty Reduction Strategy Papers

In response to these questions, stakeholders raised the following points:

For many NGOs the IUCN vision is a long way from the reality they face at present. Uganda NGO Luuka points out that “Despite the existence of the National Environmental Management Authorities at the national level, the infrastructural capacity is limited or even lacking” even though there are unemployed qualified professionals. There is an emerging link between not

delivering on the MDGs and the Rio Agenda and increased insecurity around the world eg Food Security, Energy Security, Water Security and Economic Security.

At the core of many of the responses was the simple need for political commitment to developing and implementing National Strategies for Sustainable Development (NSSDs). The urgency of a strategic approach to these issues is recognised in every international forum, but there is still too little action at the national level.

IUCN, the International Union for the Conservation of Nature emphasise the need to make sustainable development an integrated part of all national development. They call for “comprehensive, integrated, sound and accountable national development strategies which draw on, inter alia, existing National Sustainable Development Strategies, sectoral strategies, and national strategies and action plans pursuant to multilateral environmental agreements”.

The Global Eco-Village Network (GEN) insist “that action must be taken in all countries both to fulfil MDG 7 and also the commitments made first in 1992 at the Earth Summit Conference and then again in 2002 at the World Summit on Sustainable Development -- by actually completing the implementation of their Strategy Plans”. GEN call on the General Assembly to issue a Statement reminding all countries of their commitment and that they still need to complete their national strategies for

sustainability and to support civil society in taking the lead in those countries where government leadership has not yet been displayed.

For many NGOs the IUCN vision is a long way from the reality they face at present. Uganda NGO Luuka points out that “Despite the existence of the National Environmental Management Authorities at the national level, the infrastructural capacity is limited or even lacking” even though there are unemployed qualified professionals.

Adequate resourcing for sustainable development planning

Alongside the lack of will is of course the lack of resources. Rainforest Alliance (RA) point out that “Government mechanisms for promoting sustainable development need to be adequately funded – political alone will not suffice!”

The Global Eco-Village Network (GEN) spell out what many others support: “specific means and mechanisms must be agreed on and put in place to ensure that all countries are able to fully implement their national strategy plans; and that they thus have all of the financial resources that are needed”. They add that “If the UN General Assembly would agree to put in place a means to raise the amount of funds recommended by the Millennium Project in 2004, then this would go a long way towards meeting the investment needs” and that mechanisms should “be put in place to fully fund and achieve the action plans for the Action Plans for the Convention on Combating Desertification and for the Convention on BioDiversity, along with all of the other conventions associated with achieving environmental sustainability”.

The need for coherence between government departments

Sustainable development requires action within all aspects of human society and thus by all government departments. Getting those departments to work together on these issues was seen by many as one of the key reasons why there is inadequate action on sustainable development.

Cameroon NGO FEEDAR&HR (Federation of Environmental and Ecological Diversity for Agricultural Revampment and Human Rights) set out the problem in their country. The Ministry of Environment and Forest is now divided into the Ministry of Forest and Wildlife and the Ministry of Environment and Nature protection. These are quite separate from the Ministries of Energy, of Water Resources, of Economic Development and of Agriculture, making it very difficult “to define and realise achievable goals in conflicting ministries”.

This is a problem common to too many governments. The Netherlands Association of Consulting Engineers (ONRI) point out how these ‘conflicting interests’ are major barriers to implementing sustainable solutions, and suggest that reorganizing government and institutional structures will “be necessary in the near future”. The International Council for Science (ICSU) further stresses that the Departments or Ministries for Finance and Planning often do not value the environment in economic terms and so initiatives that help to protect the natural resource base do not always receive concomitant financial support from relevant departments.

Several stakeholders point out that the responsibility for the planning and implementation of sustainable development commitments is not always clear. The delivery of goals and targets

is thwarted by overlapping and conflicting roles of government departments. Despite the welcome creation of Ministries for the Environment in many countries, this has often failed to solve the problem of overlapping responsibilities and lack of national coherence.

The IUCN stress the need to “Engage environmental ministries and agencies in promoting the role and value of ecosystem services in economic development discussions with planning and finance ministries including in the context of international economic agreements”.

Similar issues are reported by local government. ULG state that “Regardless of the successes to implement Agenda 21 at the local level, much remains to be done. Lack of coordination and cooperation mechanisms between all spheres of government hamper the integration of sustainability principles as well as their localization. Co-decisional network mechanisms should be further strengthened and local/regional governments should be recognized as part of the solution and as potential partners”.

The need to tackle corruption and deliver better governance

Several NGOs including FEEDAR&HR single out corruption as being at the root of poor planning and the failure to implement projects in some developing nations. Despite moves to tackle this there is a lack of long-term international engagement that seems to some to suggest a lack of commitment. The EEG is one of several NGOs seeking a step change. They suggest that civil service laws should be reviewed in many nations to help create more transparency and better governance.

Poor governance is not confined by any means to poorer nations. Sciencecorps, a US NGO, calls for stronger leadership from the rich nations on SD but points out that the USA and other nations have little incentive to “move forward on equity in food security, economic development, education, and other key elements of social stability” making it very difficult to achieve progress on sustainable development.

The need to tackle the issues of Sustainable Consumption and Production

The 1992 Earth Summit stressed the need to tackle unsustainable patterns of consumption and production and the same message has come from many meetings since. The 2002 WSSD Johannesburg Plan of Action led to the establishment of the Marrakech Process - a global process to support the elaboration of a 10-Year Framework of Programs (10YFP) on sustainable consumption and production. ANPED, the Northern Alliance for Sustainability, stress the importance of this international framework and that this work will play an important role in delivering the MDGs, but point out that there are many countries that should be engaged with this process that have made no moves to action.

Belgian NGO VODO points out that “Unsustainable patterns of consumption and production are still the most common”. They add that there is some work to promote new approaches to sustainable consumption and production, but changing the old patterns is still very difficult. “There is a need for more action on measures for sustainable production and consumption that replace the non-sustainable ones. There is a big incoherence in measures that sustain unsustainable patterns and measures that counteract them”.

Kenyan NGO Friends of Ozone Africa (FOOA) point out that change can happen quickly: “High fuel prices during the last 3-6 months have shown that people are ready to change their behaviour... But beyond the energy crisis, people need to have better incentive for embracing a low carbon economy. The solution is to provide alternatives without compromising standards of living”.

Sciencecorps, a USA NGO, raise a further problem that well-funded advertising campaigns can confuse and even “misinform” the public as to what is and what is not sustainable and that this affects levels of awareness and engagement.

It is also the case that many poorer nations have few options as to how they might transform production and consumption, even where basic production systems are problematic and unsustainable. FEEDAR&HR point out that “communities lack possibilities in attaining alternative decisions in equitable production and marketing of products” and are vulnerable to imposed reduced prices for their agricultural farm products while the non-agricultural goods prices rise rapidly, making families vulnerable to hunger, poverty and diseases.

The need for increased capacity for integration and promotion of Sustainable Development

The achievement of sustainable development requires an equal emphasis on the social, economic and environmental pillars. Twenty years on from the Brundtland Report stressing the need for this integrated approach it is still absent in many nations and agencies. Emirates Environmental Group (EEG) point out

that despite all the work done progress here is very slow. They suggest that “SD is not a very easy concept to understand” and that many people in governments of developing nations may “need a longer social preparation to understand such a concept”. They also recognise that “Because of the poverty trap some governments cannot easily escape the quagmire of problems that engulf them”.

The Nepalese Chambers of Commerce have the same message: “Many of the developing countries do not have adequate human, institutional and infrastructure capacity so they are not successful in their integrating the objectives of sustainable development”.

Friends of Ozone Africa (FOOA) point out that “Poor deployment of human capacity is the challenge.. Regular transfer of senior policy level and management staff in government ministries, for example, means lack of institutional memory and continuity. The situation is compounded by limited institutional and infrastructure capacity due to scarce and poor allocation of resources”.

But this is also not just a problem for developing nations. ANPED, the Northern Alliance for Sustainability, suggest that rapid changes of government and lack of political continuity have led to a lack of capacity in some of the eastern European nations that underwent economic transformation in the 1990s.

The need for a longer-term framework

There are further sustainable development issues that show the need for increased capacity. ONRI point out that “Inter- and intragenerational equity in the use of natural and energy resources has received no attention”

and that Sustainability issues require a time horizon of more than one generation. They add that “available resources are used up to stimulate the national economies, instead of seeing these resources as an economical asset that should be preserved for future generations”.

The problem as they see it is that “Political systems and governments are still aiming at targets to be reached in the short term (5 – 10 years)”. This is going to become a more urgent problem as governments seek to work towards long-term targets such as the goal of 80% CO₂ emission reductions by 2050. There is a real risk that these inter-generational goals become the targets of one particular party then their opposition may reject them on principle unless there is serious work done to show all politicians that such goals transcend party rivalry.

The US-based Atlantic States Legal Foundation makes a similar point: “The power structure that has led to our unsustainable life styles benefits from short term programs and economic analyses. Only with a deep and broad understanding and with people able to think in longer timeframes will anything approaching sustainability come into widespread practise”.

The international agencies around the UN can perhaps be the base for this longer-term vision but national governments will also need to engage with long-term planning with much more commitment that has been shown to date by many. ONRI hint at some of the thinking required when they talk of how “using only the interest of the capital of natural resources for the present generation is starting to receive attention as a sustainability concept”. EEG adds a similar idea: “society and economics should always work within the

boundaries of the “utilizable” portion of the environment”.

The UN also needs to do more to promote sustainable development

Sustainable development may be rooted in local action as many respondents stressed but it also needs long-term and global viewpoints. The UN system can provide that view and there was widespread support for more proactive initiatives from the UN. Some support reform to make the UN a stronger body to take action on sustainable development and climate change.

Some stressed the need for more immediate effectiveness and more resources. FEEDAR&HR note the lack of UNEP country offices and a strong regional coordination have weakened moves to sustained economic and environmental development in some key countries. They also suggest that UNDP UNIDO have not adequately responded to these challenges. Other respondents point out that the environmental pillar of sustainable development is still underrepresented in much work by UNDP and other agencies. Others again see that UNDP and UNIDO as development partners have a much greater capacity, but despite a recently increased awareness of climate change, they are still not in a position to adequately respond to environmental challenges, for which UNEP is better placed.

The need for better Consultation and Engagement

UCLG highlight the “lack of ownership” of sustainable development strategies as a main barrier to progress. They, like many others, stress that “the lack of adequate consultation processes, including the local dimension and local actors, is one of the main barriers for the

successful implementation” of these strategies.

There is a general consensus among stakeholders that policy-making becomes more effective as consultation gets closer to a grassroots level. Global negotiations are an important step in this process, but effectively implementing commitments requires consultation at a regional, national and local level. Integrating a gender perspective, WOCAN points out that the implementation of sustainable development strategies must include engagement with women, who in developing countries are a major stakeholder group as agricultural laborers and land managers. The Jordan Dept of Statistics see increased cooperation between stakeholders from the government and private sector as a key action for poverty reduction.

FEEDAR points out that “the implementation of sustainable development commitments is compromised by the oft-encountered unwillingness of centralized governments to communicate with and consult with local and rural people”. It was highlighted by a number of stakeholders that consultation with local communities is at best tokenistic, and that the potential value of civil society partners is not always recognized. Some respondents also suggest that development organizations often inadvertently mirror this centralized model, and are less likely to be present in areas where access and facilities are limited.

The need for better utilisation of resources including farmland

Tackling rural poverty will be central to delivering sustainable development for many nations. CropLife see improving agriculture systems as a key process for

abating hunger and alleviating poverty. They stress that “harnessing its potential requires cooperation with different sectors of society and a focus on sustainable strategies rather than band aid solutions”. They and others urge that agriculture should be made a priority for governments in their national strategies but that investment in agriculture has steadily declined in Asia, Latin America and Africa over the past two decades. They also stress the need for governments to work with the private sector, from small producers and local agro dealers to others along the value chain, to ensure strategies and growth are sustainable.

NGOs from poorer nations also point to the need for investment. AASM from Cameroon say that the ‘lack of human and material resources’ is one reason why much of their agricultural production is unsustainable.

Rainforest Alliance also stress the value of natural resources, although with a focus on tourism as well as agriculture. They call on Governments to “identify high conservation value areas (forest and other ecosystems) and institute programs to provide alternative livelihoods for anyone engaged in destructive practices in those areas”. They add that ministries of tourism, which are responsible for the promotion and regulation of an industry that is the number one or two source of GDP in many developing nations, should work with international and regional sustainable tourism initiatives such as the Sustainable Tourism Stewardship Council to take this work forward.

Tackling poverty and sustainable development together

There was absolute unanimity on the need to tackle these issues together and

support for the need to develop more sustainable livelihoods. Association Nigérienne des Scouts de l'Environnement (ANSEN) was one of the respondents who saw these two issues going 'hand-in-hand'.

However many recognised the problems. It was highlighted that the preservation of some of the world's most valuable ecosystems is in the hands of the poorest, who have the most to gain in the short-term through depleting and degrading these ecosystems.

Respondents' views on how to deliver change vary. Some call for radical action. EEG support moves to "Begin addressing the most basic needs of the people and equip them with resources to produce through a government-initiated asset reform. It is high time for governments to protect and address the interest of the poor instead of the rich. A new development framework should be drafted – one that is participated in by the people themselves".

VODO suggest that power relations and economic interests are at the root of current problems: "In most developing countries the Poverty Reduction Strategy Papers are considered as more important, and they promote the World

Bank view of increasing export. This leads to "selling out" the countries natural resources. This is far from sustainable. So priority should be given to NSSDs with of course a social (poverty reduction) view in it as well".

Others look for more gradual change and stress the need for capacity-building. Croplife and others highlight (as in previous sections) the need for more efficient and better supported agricultural systems to help build grass roots change. Another solution is increased localisation. UCLG call for "increased support for capacity development at the local level, the freeing of resources to ensure local dialogues, the fostering of exchanges of best practices through city-to-city cooperation and an international aid architecture that ensures the voice of local governments in donor coordination as well as the localization of the current aid effectiveness agenda".

The other common view was recognition of this as a world-wide problem and that every nation needed to be engaged in appropriate ways in tackling poverty as part of moves towards sustainable development.

2. Natural Resources and Biodiversity

Biodiversity and ecosystems are under unprecedented stress. The fourth Global Environment Outlook Report (GE0-4), released by the UN Environment Programme in 2007 points to the unsustainable pressure on the world's resources, leading to dwindling availability of freshwater, deforestation and loss of fertile land, and rapidly declining fish-stocks, to name but a few examples. The Millennium Ecosystem Assessment has found that over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fibre and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth. All this poses substantial barriers to the delivery of Target 7b: **“Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.”**

Respondents were asked to consider, in light of this global emergency, what steps can be taken to assist in preserving and restoring biodiversity and ecosystems. The key issues arising from the consultation were:

Policy, regulation and implementation

Laws and Conventions exist to protect biodiversity and ecosystems. The key point made by many respondents in the consultation is, perhaps unsurprisingly, that these need to be enforced locally and nationally and that this in turn needs global support and resources.

One specific aspect of policy and law that is key to biodiversity conservation is

the numerous multilateral environmental agreements currently in effect, some older than three decades and most with a roster of Parties that includes the majority of the nations of the world. Within the context of these various agreements, Parties have taken much time and effort to come to agreement upon plans of action to address the specific issues within their mandate. Each of these agreements individually recognises their potential role in sustainable development and poverty reduction. However, political, financial and operational constraints impair their full participation.

IUCN suggest that “One way to improve efficiency and effectiveness of these agreements, and enhance their role in sustainable development, is to promote harmonization among them”. UNEP has taken some initial steps in this direction by working to harmonize national reporting and information management for biodiversity-related conventions under its mandate. On the direction of the Parties to the CBD, a Biodiversity Liaison Group has been formed with the secretariats of CBD, CITES, CMS, World Heritage and Ramsar. They add that “successful implementation of all these agreements depends not only on the support of Secretariats and UNEP or on adequate financing, but also on commitment at the national level to the concept and practice of harmonisation. Each Party to each MEA should resolve that harmonisation is a priority.”

With national-level political commitment in place, potential resources for harmonized action among MEAs can be found beyond the environment sector. Current contributions to ODA amount to about USD 80 billion annually (OECD, 2005). While ODA should not be the only means by which countries should finance their commitments to the MEAs,

it could form a significant foundation upon which to build. Doubling of international development aid to at least 0.7% of the GNP of developed countries has been one of the most specific and concrete suggestions to come out of the UN Millennium Project work. Ensuring that some of that increase is targeted to environmental management that supports poverty reduction is important.

Croplife are clear that the private sector has a crucial role to play in preserving biodiversity. They agree that “International agreements are important to the protection of biodiversity as they represent mutually agreed principles and guidelines and allow actors to operate with greater clarity in a complex environment”.

They are concerned that “the multiplication of agreements at different levels (international, regional, national) can lead to confusion and create disincentives for all actors. It is crucial that any agreements be designed and implemented according to sound science and risk assessment principles. When this is the case, these treaties help encourage innovation, development and capacity-building for agricultural technologies which are necessary for sustainable agriculture, and help achieving the goal of biodiversity protection”.

Payment for ecosystem services (PES)

One of the major developments of recent years has been the work around PES. This involves providing incentives for the protection and sustainable use of natural resource and valuation of ecosystems and related services. The ecosystem services in question can be watershed protection, forests conservation, biodiversity conservation, carbon sequestration, landscape beauty

and wildlife husbandry in support of tourism and eco-tourism, and more. Ecosystem services may be present at any scale, from local to national to international (international ecosystem services are often called “global commons”) and all these scales may allow a PES approach. The World Business Council for Sustainable Development recognizes the opportunities provided to business both by the preservation of ecosystems services, and through the creation of markets for those services which provide a familiar framework in which business can operate.

Payment schemes may be a market arrangement between willing buyers and willing sellers, such as tourist companies paying African communities for their protection of local wildlife. It can also be a scheme intermediated by a large private or public entity, for example, a portion of household water bills in New York is used by the water company to buy watershed protection services from farmers in the vicinity of the water company intake. The scheme also can be government-driven, where public revenues are used to pay the providers of ecosystem services as in Costa Rica where the Government uses a fraction of the tax on energy to buy forest conservation services from farmers. The International Council for Local Environmental Initiatives (ICLEI) points out that local government plays a key role in valuing ecosystem services.

While it is not without come controversy several respondents stressed the importance of this mechanism as a means of providing incentives for farmers and others to conserve.

Gratis Ghana point out that “Whatever the payment scheme the golden rule for a functioning PES scheme should be that those who pay are aware that they

are paying to secure the provision of a valuable ecosystem service, and that those who are paid engage in measurable activities to provide the ecosystem services in question”.

Kirudef state that “Providing incentives for the protection and sustainable use of natural resources through payment for ecosystem services (PES) is important. When resources are valued they become more meaning full”. They add that “an alternative to private forest loss involves paying the owner of the forest. This could save forests from destruction. The communities may engage in other activities other than depending on cultivation. This would change the environment as we achieve the MDG7”.

IUCN point out that virtually all environmental problems have an economic component, and many are driven by market imperfections. Today’s economies generally fail to support the sustainable management of ecosystems, primarily because the full value of biodiversity is not taken into account. Indeed, most ecosystem services, and use of the biodiversity that supports them, remain virtually free-of-charge at the point of use. They state that “The growing demand for ecosystem services combined with external pressures on the ecosystems that provide them have led to scarcity, congestion, conflict and growing risks to human wellbeing. In this context, the continuing failure of markets to charge for the use of ecosystem services (or to reward the provision of ecosystem services) has become an increasingly severe constraint on long-term economic performance and sustainable development”.

They also point out that “while most ecosystem services are not traded in markets, there are important exceptions. Two of the most well-established

markets for ecosystem services are organic foods and the eco-tourism industry. The latter has been described as the fastest growing sector of the largest industry on earth, accounting for annual exports of over USD 100 billion (TIES, 2005)). The market value of organic foods was reported to have reached USD 25 billion in 2003 (IFOAM, 2005). In both cases, the link between sales of consumer products and services, and the supply of ecosystem services is indirect but significant”.

ONRI talk about experience of various pilot studies on Payment for Ecosystems Services including work in the Netherlands water sector. They state that “In the beginning this is seen as a compensation for loss of time and income for those who are providing these services e.g. farmers. With increasing awareness and know-how it is to be expected that these activities are going to be considered as an overall profit making event, requiring no compensation or additional funds, when positive biodiversity and ecosystem effects are taken into account”.

FEEDAR & HR say that PES is “acceptably good” but question the long-term sustainability of schemes that rely on regular payments. They suggest that the biggest challenge for PES is “to immediately provide for the services that will alleviate rural poverty and hunger and contribute to sustainable development among rural communities”. They also call for PES not to be in the form of proposal calls, but instead use direct payments and support to community groups.

WESDE also call for an “ecosystem approach which is community centred for sustainable use of resources and equitable and fair share of benefits between various stakeholders”.

Rainforest Alliance state that “Market-based mechanisms are well-suited to addressing conservation of biodiversity in today’s world. Positive experiences with sustainability certification over the past twenty years – including the over 94 million hectares of forest certified to the Forest Stewardship Council standards for sustainable forest management and almost half a million hectares certified to the standards of the Sustainable Agriculture Network – indicate that this method is an effective one. Innovative strategies that involve third parties in the verification of products’ legal origins or step-wise efforts to achieve high levels of sustainability are also significant and should be promoted”.

They add that “Payments for ecosystem services have great potential if they are rigorous and strategic: project proponents (and national governments) need to identify areas of high conservation value (for biodiversity, other ecosystem services and social values) and target these for such payments, then ensure that the project is fulfilling its goals”.

UCLG point out that cities rely upon ecosystem services in order to function. They state that “Ecosystems services, if incorporated into urban development and into urban development strategies, can deliver significant benefits, such as i.e. clean air, storm water resilience, sustainable livelihoods, food security, recreational assets, increased tourism or reduced carbon footprint”. They recognise that the discussion of valuing ecosystem services is a controversial one, and call for local ownership of valuation of ecosystem services:

A significant consideration of PES is that they do not have a negative affect on the

poor, especially where poor communities who benefit from ecosystem services are required to pay those who are identified as responsible for ensuring their sustainability. The Trade Unions point out that ‘While actions to *promote biodiversity* preservation, impact minimization, pollution reduction, improved management of species and increases in conservation areas must all be supported and strengthened, poverty and population issues must addressed at the same time. It important to recognize the synergies and trade-offs that can arise between and among ecosystem services and *human well-being* when developing management options’. This point is further enhanced in the fourth Global Environment Outlook report.

Protected conservation areas

If PES is to protect ecosystems it is important that every nation is clear on which areas are to be protected and how this should be done. Several consultees specifically referred to this and central to this is the need for clearly defined protected conservation areas.

Protected areas play a critical role in enhancing the livelihoods of poor people by sustaining vital ecosystem services, including clean water and sustainable fisheries stocks. Achieving the Millennium Development Goals will require new and innovative approaches to protected area management, linked to social and economic strategies, particularly those which address poverty reduction and climate change adaptation strategies..

The Vth IUCN World Parks Congress in 2003 celebrated one of the significant achievements of the last century: the establishment of protected areas over 11.5 % of the earth’s surface. This

represents a huge increase from 1962 when protected area coverage was 3 % of the earth's surface. Significantly, the majority of the growth of protected areas in the last decade has been in developing countries and within terrestrial ecosystems. However, significant gaps remain in relation to the coverage of protected areas in the marine, freshwater and coastal ecosystems.

EEG point out that "Part of the environment is made available for man and his activities. However, society and economics should always work within the boundaries of the "utilizable" portion of the environment. A major portion of the environment should be set aside for conservation. This portion will also help in maintaining the whole ecosystem and contribute in regenerating "used" and "degraded" portions of itself due to society's needs. The more areas we provide for conservation, the more chances for man to achieve sustainability and provide for future generations".

FOOA call for action in places where it is needed: "Conservation efforts need to shift to tropical regions that are high in biodiversity but poor in the resources needed to protect them. There is need for better global coordination of effective biodiversity protection efforts".

GRCA, a Kenyan conservation agency, stress the links with PES: "Conservation areas can only survive if communities are getting revenue from the wildlife their protecting. There is a need to have clear policies which govern community initiatives: current community sanctuaries are not recognize by the laws of Kenya despite the contribution to conservation and management of resources".

K-rep show why this can only be part of the answer: "Animal Migration routes around Nairobi national park have been taken over by housing causing zero grazing of animals and are also interfering with the natural circle of vegetation regrowth and renewal. This has not only weakened the animals due to lack of diversity of plants and food but also due to lack of cross breeding provided by migration".

Environmental Management

The importance of effective environmental management was widely stressed. FOOA add that "More needs to be done by way of putting the tools and resources of environmental management in the hands of the primary stakeholders (e.g. smallholder farmers in Africa)".

IUCN offer a wider perspective and state that "One key principle for environmental management is using a landscape-scale approach. Landscape-scale management acts on a scale broad enough to recognize the role of all critical influencing factors and stakeholders that shape land use decisions (McNeely and Scherr, 2003; Scherr and McNeely, 2007). Good landscape management will fulfill societal needs by equitably balancing trade-offs between the productive, social and environmental requirements of current land-use".

The need for education and awareness-raising campaigns

As with the other issues there are many calls for effective resourcing for campaigns to raise awareness and build engagement. ANSEN in Niger call for "better information, education and communication with the public". UCLG are also keen on this: "As the sphere of government closest to the people and

accountable to them, local governments are crucial partners to implement environmental education and awareness-raising campaigns. They can adapt and complement national education policies with local campaigns and install public spaces dedicated to environmental education.

3. Energy and Climate Change

Tackling climate change has to become the 'great project' of this generation. Climate change is being addressed in many other political arenas and the United Nations Climate Change Conference 2009 to be held in Copenhagen will be central to this work, but most respondents saw this as a critical issue for the MDG review.

It is important to ensure that other issues are neglected as the world faces up to a changing climate and while it is arguable that it might be possible to minimise climate change without moving towards sustainable development, it is clear that we will not deliver sustainable development if we do not tackle the climate change. If this problem is not faced, and if greenhouse gas emissions are not rapidly reduced, with clear progress in the near future, then it is likely that global temperatures will rise by more than 2°C causing problems worldwide. This will exacerbate an already fragile global environment as water scarcity becomes an increasing problem and ecosystems are disturbed by even subtle changes in temperature and weather patterns.

Respondents were asked for their views on how best to mitigate the most extreme effects of climate change and how ambitious carbon emissions reduction targets can be met. The key issues arising were:

The need for immediate action in relation to the MDGs

The K-rep Bank of Kenya stress in their response that "Climate change has the potential to reverse the development gains that have been hard earned by

developing countries over the past decades and progress towards achieving the millennium development goals such as eradicating poverty, combating communicable diseases and environmental sustainability." For all these reasons it is a central concern in relation to MDG-7

Many of the respondents have stressed the urgency of this issue - EEG point out that "this is already the eleventh hour" and all respondents recognise that massive increases in investment are necessary. As the UK Stern Report pointed out there will be many benefits from making such investments as soon as possible. There was unanimous support amongst responses for an increased focus on renewable energy development and reducing reliance on fossil fuels.

Meeting and managing increasing demand for energy for development

EEG point out that "energy demand is still increasing" and that meeting this demand is likely to create more demand due to new opportunities created by a growing energy market. They recognise the most obvious solution - "the adoption of renewable sources of energy (solar, wind, thermal, hydro) or a combination of mainstream and renewables". But it was also pointed out that it is "still a question of national priority where to put the government's money and who will benefit from setting up these facilities".

Merely managing demand will ultimately not deliver the necessary change. National and regional action plans within Europe are supporting calls from the scientific community for 60% and 80% cuts in CO₂ emissions. VODO point out that "the industrialised countries have to decrease their demand. This has to be the main focus in their policy". They add

that “developing countries have to right to increase their demand in favour of the economic growth (which in those countries is needed)”.

Enabling policy frameworks

Many respondents agreed that additional resources to build support systems (e.g. educational, infrastructural) in less developed countries should be considered part of the solution. Centre Congolais pour la Protection de la Nature (CCPN) urged that every nation needed a climate change ‘observatory’ or similar centre to act as a focal point for action within the nation and as a centre for information-gathering and monitoring.

A common view is that a combination of both regulatory mechanisms (e.g. cap-and-trade) and well as market-based initiatives (e.g. carbon trading) should be pursued. Governments need to be clear on how these market initiatives are deployed and what they want these measures to achieve. The global community also needs to finalize as soon as possible a post-Kyoto protocol to stay the course on emission reduction.

The K-rep bank state that “Funding should be prioritised for projects that will serve to mitigate and adapt to the effects of climate change. Favourable Lending terms should also be used to attract interest in such projects- e.g. low carbon project, alternative energy sources to those with heavy carbon foot print”.

Traditionally, energy suppliers, utilities and governments have decided on energy investments, how energy is provided and how costs are allocated. The consequence is that environment, society, health and public welfare, have been neglected and the arising problems are manifested in worldwide pollution,

desertification, global climate change, and associated social problems.

The liberalisation of the energy market and the increasing role of local authorities in climate change issues are shifting how energy decisions are being made and present an opportunity for better aligning the provision of energy services to eco-development goals.

Changing consumption and production patterns to reduce carbon emissions

The importance of changes to such patterns has been stressed in the first section and such action must be central to climate change strategies. Recent events have put this in a new perspective as NGO Friends of Ozone Africa (FOOA) point out: “High fuel prices during the last 3-6 months has shown that people are ready to change their behaviour in ways that can lead to reduced GHG emission. But beyond the energy crisis, people need to have better incentive for embracing a low carbon economy. The solution is to provide alternatives without compromising standards of living.”

Other NGOs propose more radical steps. US NGO ASLF state that “We will have to learn to live with less. Travel less. Use bicycles and walk to work, school, etc. Eat lower on the food chain from foods produced locally. Live in smaller spaces – especially true for Americans!” They add that “these changes make life better not worse and improve the economy rather than the opposite”.

VODO point out that “changing consumption and production patterns to reduce carbon emissions: is very important, and is an issue which is too often neglected”. They urge that more importance should be given to

developing sustainable life styles (especially in nations with high carbon footprints) to reduce carbon emissions and resource use. Sustainable Consumption and Production is central to delivering sustainable MDGs, but there is still little action in many countries. Without addressing developed countries' consumption patterns any gains in the MDGs will be short lived.

The Clean Development Mechanism (CDM) and the Global Environment Facility (GEF)

Clean Development is seen as a central issue, especially by many of the southern respondents. FOOA call for the "Massive transfer of green technology from industrialised to less industrialized countries, especially using the Clean Development Mechanism" though they also stress that other simpler instruments should also be considered.

Not all respondents are so positive. VODO state that the CDM is "not very effective, and the GEF is struggling too with efficiency problems". They describe these as "end of pipe" solutions and seek a paradigm shift in "thinking and acting on (inter)national level" to generate more fundamental changes.

ONRI seek a refocusing of the CDM. They point out that even though "the construction and operation of buildings contributing up to 40% of all human-caused greenhouse gas emissions, in its current form the Kyoto Protocol provides no effective mechanisms to encourage the participation of the building sector in cutting emissions". They point out "the poor representation of building related energy efficiency projects under the Clean Development Mechanism (CDM). Of the 2700 that are in the pipeline for CDM, only 14 relate to buildings (SBCI, 2007)". They are concerned that action beyond 2012 will fail unless it enables the building sector to create markets in

efficiency and emissions cuts. They stress that the potential for drastic reduction of energy consumption in this sector is significant, pointing to the fourth IPCC assessment report which states that the building sector has the largest potential for significant greenhouse gas emissions reduction. They also stress the Recommendations made by UNEP Sustainable Buildings and Construction Initiative (UNEP SBCI) which focus on how CDM systems can be improved in this sector.

IUCN made the links between investment to tackle climate change and other issues "The GEF should identify opportunities for financing the maintenance of ecosystem services underpinning energy systems, and mechanisms for CDM to be used for such financing should also be explored".

Sustainable production of biofuels

The last year has seen concern in many parts of the world about the poorly regulated growth in biofuel production the damage that this has done to food supplies. Many respondents said that if biofuels are to play a meaningful role in minimising carbon emissions then it will be essential to prevent land and water resources being diverted from food production.

Rainforest Alliance stresses this point: "The world must stop cutting down forest and converting other natural ecosystems for agricultural production, regardless of if the end product is biofuels or food. Moratoriums in Brazil and Indonesia attempt to make this point, and international conservation organizations promote this idea widely. However, both industry support of sustainable production of biofuels and food products and government support for appropriate zoning restrictions are needed to help

stop rainforest – and all forest – destruction”.

That said there was not always agreement: Croplife state that “While agriculture is a significant contributor to greenhouse gas emission, it also has the potential to help with mitigation and adaptation. The plant science industry can help provide technologies to reduce greenhouse gas emission and improve the production of renewable fuels”.

FOOA suggest that “In order to make a difference in the lives of millions of people, and to make strong environmental and economic contribution, there seems to be a compelling case for additional investment (e.g. through GEF) and right policies to facilitate advancement in biofuel technology through agricultural innovation and trade”.

ASLF suggest that there may be win-win solutions – they suggest that in the USA “restoring savannah grasslands, where many bird and other wildlife species are increasingly endangered, could sustainably produce vast quantities of biofuels... restoring 10,000,000 hectares of tall grass prairie in the US could supply grass pellets that could cover 35% of the US energy needs. If these lands were managed for many parameters, such as biodiversity and not just energy, endangered species could be protected as well.”

VODO call for biofuel production in the developing countries to be done simply with the aim of meeting their own energy demand as part of a programme of decentralisation of energy supply.

Training, ‘climate literacy’ and knowledge transfer

K-Rep Bank are one of several respondents stressing the need for

investment not just in technology but in learning, calling for “joint knowledge ventures”. This may be especially important in national where climate change is a low priority and where there is little support for action.

ANPED highlighted low levels of concern in several nations surveyed in eastern parts of Europe and that action is hampered by a lack of skills, understanding and capacity in governments, local authorities and civil society. They call for “a drive for ‘climate literacy’ – a well-targeted programme of training and capacity-building to be delivered locally nationally and through regional networks”.

Helio International suggests the increased use of ‘energy users’ councils’. They see these as a way to “facilitate a “knowledge exchange”, between and among various user groups to better understand available policy options”. These councils allow citizens, as energy users to be better informed, to be prepared to contribute to rational energy decision-making, and to promote more actively climate stabilisation and sustainable development by favouring energy efficiency and renewable energy.

Sciencecorps approach this from a different angle: “A shift in the educational paradigm is necessary, and post-education employment options, as well as substantial financial incentives for developing renewable resource mechanisms for energy generation are needed in most countries. As long as we turn out highly educated and costly engineers in large numbers who have training primarily in outdated and hazardous fuels-based energy generation, we cannot expect to make the same progress as would be achievable if those training, financial, and intellectual resources were devoted

to sustainable energy development options.

The knowledge that people may need to help make changes will vary. In Cameroon WESDE stress the threats to their forest from over use. They state that “all stakeholders agreed that it is urgent to sensitize and educate environmentally the population to substitute fire-wood with other sources of energy that will relies on economising fuel energy”. This needs to be linked to the strict preservation of forest resources and increasing our forest potential through new planting.

Designing and implementing climate change adaptation strategies

Some climate change is inevitable and it will be important to build resilience within nations and communities to enable them to deal with this change; as far as is possible. Many NGOs express concern at the extent to which some governments and agencies seem to prioritise work on adaptation over mitigation, seeing this as an excuse for ‘business as usual’ in the short term. It is certainly the case that the worst effects are not likely to be immediate and that the current priority must be getting global buy-in and making initial steps towards global emissions cuts. These changes need to start now – many argue that heavy investment in adaptation can wait. VODO are on of several respondents who urge that mitigation should be the priority.

Others recognise the need for both. As K-rep Bank and others point out “An effective response to climate change must combine both mitigation to avoid the unmanageable and adaptation to manage the unavoidable”.

Rainforest Alliance point out that “The sustainable management and conservation of all types of forests are some of the most effective means readily available for climate mitigation and adaptation, contributing to sustainable development and the implementation of national development priorities. National strategies for forest-related mitigation and adaptation must not only be mutually compatible but must also be balanced in terms of planning and resourcing”.

ONRI recognise that adaptation strategies will be needed, and want to ensure that this work does not lead to loss of biodiversity and ecosystem damage. They highlight work done in the Netherlands around climate change and spatial planning and their “Room for the Rivers” programme in which new concepts of flood mitigation with preservation of ecological values are combined.

4. Water Resources

MDG Target 7c is very clear: **reduce by half the proportion of people without sustainable access to safe drinking water.** Today, about 700 million people in 43 countries live below the water stress threshold (water stress occurs when the demand for water exceeds the available amount during a certain period or when poor quality restricts its use).

Respondents were asked to consider what mechanisms can be employed to meet demands in an environmentally sound manner whilst water availability decreases and the role of Integrated Water Resources Management.

Water stress causes deterioration of fresh water resources in terms of quantity (aquifer over-exploitation, dry rivers, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.). By 2025, more than 3 billion people could be living in water-stressed countries, caused by factors including unsustainable management of available water resources, and changing climatic conditions that reduce water availability. Achieving the target will thus require interventions which will take place at a time when the current trend is moving in the opposite direction.

Inadequate water supply is without doubt one of the most paralyzing problems for the development of any country. Gratis, an NGO from Ghana, spell out the problems their country faces – these are not new but should remind all stakeholders both of the problems and indeed of the mistakes still being made. They are:

- a looming water shortage;
- little popular awareness that regional water resources are finite;
- inappropriate tariff structures, poor cost recovery;
- an emphasis on installation of water-supply systems, rather than on their maintenance;
- inadequate water-management education, training, and support for rural users;
- serious environmental-degradation problems, particularly relating to rural land management;
- poor coordination among water-management agencies; and
- inadequate attention to sanitation.

Making Integrated Water Resources Management work

All respondents on the water issues supported the increased development of IWRM and recognised its value in helping meet demands in an environmentally sound manner whilst water availability decreases. As with other issues the challenges are in the implementation.

IUCN point out that “It is necessary to incorporate environmental considerations into IWRM programmes through the development of legal and policy frameworks. This work should be supported by environmental flows assessments to inform a dialogue process involving all stakeholders from fisher-people to government officials”.

Accurate information on the availability of water in any river system is essential, along with understanding of demand by all users including the environment. With this information allocation of water can be negotiated among the parties, but this requires both planning and resourcing. Developing this approach is the basis for ensuring negotiated, equitable distribution of water among competing users. IUCN point out that “this approach also strengthens climate change adaptation, as scenarios for future water allocation can account for changes in availability because of climate change”.

FOOA add that “capacity to assess environmental water requirement should be developed where it does not exist”. Such capacity-building for all stakeholders is a first step to empowerment, which in turn enables communities and households to take an active part in decision making and assists them in developing the skills necessary to manage water resources. IUCN point out in this context that “Achievements are strengthened if power relations among different social groups are addressed through consensus building using multi-stakeholder platforms. This must be supported by building capacity amongst stakeholders to participate in and influence water decision making and to analyse policies and practices.

The Gender and Water Alliance (GWA) state that if IWRM plans are to be sustained and sustainable then “ these have to be written in consultation with all stakeholders, and should include a gender perspective. This means that differences in power relations have to be assessed, to provide a picture of who will win and who will lose because of these IWRM plans. It is the opinion of GWA that only involvement of all stakeholders and the application of a

gender perspective is adamant for the proper implementation of the IWRM plans, even if this was not done when drafting the plans. It implies that the opinion of the poor and vulnerable will be heard and that requires political will. The major constraint is therefore in GWA’s opinion a combination of political will at national level, a lack of knowledge or awareness on gender issues and a reluctance to pay for capacity building”

They add: “In conflict situations the poor and vulnerable groups and from these, especially the women, are suffering the most as they are insufficiently empowered to stand up for their rights to equitable water distribution. Water should be recognized as a universal human right and attention should be paid to the necessary change in power relations in water demand management”.

Stakeholders stress that in many countries this wider supporting governance framework is absent – Tearfund cited its research into water management in a West African country, where the hydrological service was unable to visit community wells and water points simply because they did not have the funds to pay for fuel for their transport. With overarching national frameworks that prioritise IWRM within national policies, these kinds of problems are more likely to be avoided.

Others stress that since water is vital for human survival it should be a right. VODO state that since “Water is a right, so it is a public good. Management has to be state controlled”. Others again see the involvement of the private sector as important for development but question where control should lie.

Several also stressed the need for work at every level. FEEDAR&HR say that an unacceptable number of communities

live around water but the water is either unsafe to drink or too little to satisfy their needs. The best way to tackle these many thousand problems areas is by “increasing the capacities of communities to educate themselves, to obtain and preserve clean water for drinking, and to provide for channelling clean water from their sources to towns and villages”.

While several stakeholders addressed the need for a National Water Policy in every country, delivery of water and sanitation services is usually the responsibility of local governments and their involvement is essential. UCLG point out that “The development of infrastructure required for the safe collection, treatment and disposal of human waste is extremely capital intensive and requires skilled maintenance capacities. Adequate financial mechanisms and the cooperation on all levels are needed to promote integrated water resource management. It is equally important to align local, regional, national and international water policies and to introduce participatory bottom-up processes to elaborate these strategies.” The organized local authorities through their world organization are contributing to the global urban water policy consensus which will be adopted at the World Water Forum in Istanbul in 2009.

UCLG also stress that “awareness-raising campaigns at the local level and city-to-city cooperation to exchange knowledge between local authorities play a vital role to improve urban water management”. Sciencecorps also call for effective public education as a way to create public demand for clean water – “in the absence of honest and accurate information regarding the hazards of water pollution, there is no way to achieve clean water”.

Enhancing water efficiency

Water waste remains at unacceptable levels. ASLF point out that “as with energy, conservation and reduction of waste should be the first area to consider regarding water resources”.

FOOA suggest that governments should require “all large users of water, including utilities, shopping centers, hospitals, universities, as well as commercial and industrial sites to audit their water use and develop plans for recycled water; restricting potable water to human and food related uses; requiring the use of recycled water for certain large volume activities such as irrigation; requiring water recovery systems; structuring water pricing policies to provide incentives for water efficiency; etc.”

There are other calls for water law and regulations that enable allocation and enforcement of rights to water use within the limits of the available resource. Other measures can also help reflect the full economic value of water and encourage water use efficiency.

Increasing supply and efficiency will require more resources and the development of new financial mechanisms. UCLG suggest that Donor funds should increasingly be directly facilitated through local governments to ensure effective use in answering the direct demands of citizens.

Water use in agriculture

Agriculture is the largest use for water. ASLF point out how traditional, sustainable low-water-use practices have often been dropped as countries sift to “industrial food production, often for export, at the expense of the environment and feeding local people”.

They are now involved with a project in China to retrain indigenous people in traditional agricultural methods as a means of preventing further desertification and protecting endangered species. Newer technologies can also be water-efficient - sophisticated drip irrigation systems offer a modern means of making best use of water.

Croplife highlight how “better management of resources and inputs through integrated crop management systems can help protect waterways from pollution and limit water wastage. Reduced or no tillage (“no-till”), as part of integrated crop and weed management are collectively described as conservation tillage or conservation agriculture. They help to increase productivity while using available water more effectively by promoting increased levels of soil organic matter and thereby increasing water retention. For crops grown without irrigation in drought-prone soils, this can translate into higher yields.”

Croplife also raise some related issues: “Water body protection is part of a broader integrated management of farms or landscapes. This not only protects against the degradation of water catchment areas but also contributes to the promotion of coherent biodiversity networks and thus their conservation. Many invading alien plants are threatening scarce water resources and can be managed efficiently through the use of herbicides”. They also commend the development of stewardship programmes to work with local communities to demonstrate good practices and train farmers are also an essential part of the efforts the industry makes in helping preserve water.

New approaches to waste-water

Much water wastage occurs within waste systems. ONRI point out that “conventional wastewater systems are largely end-of-pipe systems where drinking water is misused to transport waste into the water cycle, causing environmental damage and hygienic hazards”. They stress that “Paradigm shifts in water and waste water management are required. In the new concepts efficiency in water use with reuse and recycling of water and nutrients are essential”. These new concepts are being introduced: ONRI highlight projects such as ECOSAN (www.gtz.de/ecosan) and DESAR (www.ete.wur.nl/UK/Projects/DESAR/)

EEG point out that “Waste water recycling is a very good concept but it is applicable for countries and areas which can afford such technology. Saving water is a value that should be learned and acquired by all. It is also a policy that should be integrated in every manufacturing, construction and or industrial systems”.

Monitoring and evaluation

Achieving the MDG7 target on water and sanitation will require widespread and robust monitoring and evaluation, especially on the local level. UCLG point out that “Local authorities can make crucial contributions to develop local indicators and cooperate with national and international stakeholders in the monitoring and evaluation of development plans. Local authorities should be strengthened and empowered to provide this comprehensive picture of the local situation, to gather local data and to feed this data into the national/international M&E processes”.

Regional and transboundary agreements on the use of water resources

IUCN point out that “Water management is best achieved at a basin level – this accounts for basin-wide ecosystem services which provides the basis for services such as adequate supplies for drinking water”. To achieve this agreement across regional and national boundaries is therefore often necessary.

Cooperation on regional and international rivers advances international cooperation, supporting progress on sharing of costs and also benefits from water resources among riparian states, leading to increasing efficiency of water resources development and reduced environmental impacts.

Transboundary agreements on river basin management can reduce the likelihood of water disputes amongst sharing states. Such agreements can also incorporate adaptive management, allowing flexibility in approaching the problems of rising water demand, tensions and climate change. WWF US pointed out that the ratification of the Convention on the Non-navigational Use of International Watercourses would provide an important framework to deal with some of the key transboundary issues

ONRI point out that “Conflicting interests considering water availability and distribution is an old problem, which is getting worse with increasing water scarcity”. They add that innovative solutions are required in finding solutions and agreements in the use of water resources. In a water balance study in Kuttanad, India a salt water barrier has been proposed to be constructed in the Vembanad lake to keep part of the available water resource as fresh water (for irrigation in agriculture) and part as brackish water for fisheries (shrimps).

The role of environmental flows

In IWRM, environmental flows serve to represent water allocation for ecosystems. As ecosystems, in turn, provide services to people, providing for environmental flows is not exclusively a matter of sustaining ecosystems but also a matter of supporting human well-being, in particular in developing countries. One of the most promising ways of placing ecosystems on the water agenda is by economic valuation of the services provided, such as water supply. In this way ecosystems can be compared to other water using sectors and internalized in decision-making processes. The sustainability of livelihood services are then taken into account, as these are directly linked to the ability (and health) of the ecosystems to maintain sufficient water resources for the flow regime.

IUCN point out that “Environmental Flows generate benefits for people and nature that are critical to river health, economic development and poverty alleviation. They ensure the continued benefits from a healthy river and groundwater system. Environmental flows provide a regime that is adequate in terms of quantity, quality and timing for sustaining the health of rivers and other aquatic systems. Decisions on managing river flows have to balance environmental, economic and social aspirations of the use of the river water. This ensures for example, that basic services such as sufficient water resources for clean drinking water are met and the risks of water scarcity are reduced”. Creating a global framework to deal with virtual water would enable better utilization of water and costing was identified in the WBCSD scenario work on water..

Payment for Ecosystem Services and IWRM

New approaches to ecosystem services offer some new approaches to water supplies. Incorporating this approach into decisions on watershed management can change the range of options available, and may also change the choices made. IUCN point out that "Increasingly, it is being shown that options which accommodate sustainable use of multiple ecosystem services are not only more ecologically sound but can also be economically more beneficial. An example of using valuation of watershed services in planning investment decisions comes from New York City where new options for investment in infrastructure for water filtration resulted from better understanding of indirect use values of the watersheds supplying water to the city. This illustrates that natural water infrastructure has a vital role in providing the ecosystem services necessary to ensure access to clean and pollution-free water supplies.

'Fresh' and 'blue' water linkages

A final point on the need for new ways of working was summed up by the science journal Nature in its editorial in March

2008, which points out that in the past "water research and policy have focused mostly on the 'blue water' in rivers, lakes, reservoirs and underground aquifers. But blue water accounts for only 40% of the world's freshwater balance, and for much less in dry regions.

The key to tackling the crisis in the most food-insecure parts of the world is managing 'green water': the less spectacular, but more abundant moisture that infiltrates the soil from rainfall, and that can be taken up by the roots of plants. Experts estimate that in regions such as sub-Saharan Africa, where more than 95% of crops are rain-fed, only 10–30% of the available rainfall is being used in a productive way. The fixes they suggest are decidedly low-tech: harvesting rainwater, planting roots deeper, better terracing, and switching from ploughing to tilling. Yet the potential gains could be enormous."

FOOA and others draw attention to this and stress that such ideas need to be taken seriously if there is to be real progress to meeting the 2015 target.

Appendix 1: The respondents

45 Stakeholders responded to the consultation.

NGOs

ANPED, the Northern Alliance for Sustainability, Netherlands
Amboseli Tsavo Group Ranches conservation Assoc., Kenya
Association Nigérienne des Scouts de l'Environnement (ANSEN), Niger
Association Des Amis Solidaires Mero (AASM), Cameroon
Atlantic States Legal Foundation, (ASLF), USA
Centre Congolais pour la Protection de la Nature, Congo Dem. Rep.
Collectif Senegalais des Africaines pour la Promotion de l'Education Relative à l'Environnement – COSAPERRE, Senegal
Emirates Environmental Group, UAE
Federation of Environmental and Ecological Diversity for Agricultural Revampment and Human Rights (FEEDAR & HR), Cameroon
Friends of Ozone Africa, Kenya
Fundación TIERRA, Bolivia
Global Ecovillage Network, USA
Gratis Foundation, Ghana
HELIO International, France
Kibaale Rural development Foundation (Kirudef), Uganda
Luuka Youth Development Association and Advisory Center, Uganda
Pragya, UK
Rainforest Alliance, USA
Sciencecorps, USA
Tearfund
Ubuntu Network
Unitas, Bolivia
VODO vzw, Belgium
World Information Transfer, USA
WWF, USA

Other

Education Caucus for the Commission on Sustainable Development

Business and industry

CropLife International
Federation of Nepalese Chambers of Commerce and Industry
International Chamber of Commerce, ICC
K-rep bank, Kenya
Kenya Ports Authority. Kenya
Netherlands Association of Consulting Engineers, ONRI
World Business Council for Sustainable Development, WBCSD

Women

Gender and Water Alliance, Netherlands
Women Organizing for Change in Agriculture and Natural Resources Management, WOCAN

Local Government

United Cities and Local Governments
Department of Statistics - Jordan
International Council for Local Environmental Initiatives, ICLEI

Intergovernmental Organization

IUCN – International Union for Conservation of Nature
International Police Association
United Nations Development Programme, Gambia

Scientific and Technological Communities

International Council for Science, ICSU

Farmers

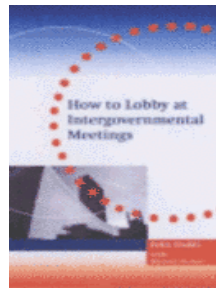
International Federation of Agricultural Producers, IFAP

Multi Stakeholder Networks

Global Public Policy Network on Water Management

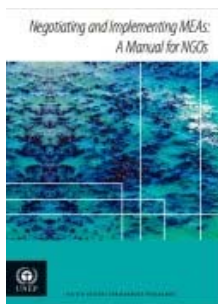
Recent Publications from Stakeholder Forum

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2004
How to Lobby at Intergovernmental Meetings – Mine is a Café Latte (Earthscan) by Felix Dodds and Michael Strauss

2008
Climate and Energy Insecurity (Earthscan) edited by Felix Dodds and Richard Sherman (due out in May 2008).



2007
Negotiating and Implementing Multilateral Environmental Agreements (UNEP) by Felix Dodds, Megan Howell, Maria Onestini, Michael Strauss and UNEP



2004
Plain Language Guide to the World Summit on Sustainable Development (Earthscan) Edited by Jan McHarry , Janet Strachan , Rosalie Callway , Georgina Ayre



2005
Human and Environmental Security: An Agenda for Change (Earthscan), edited by Felix Dodds and Tim Pippard



2002
Multistakeholder Processes on Governance and Sustainability (Earthscan) by Minu Hemmati with Felix Dodds, Jasmin Enayati and Jan McHarry