

Integrating Health, Sustainability and Ecosystems in the Post-2015 Development Agenda. Pierre Horwitz, Karen Morrison, Margot Parkes, Jonathan Patz and Jakob Zinsstag. International Association for Ecology and Health (ecohealth.net)

EcoHealth [9] is a journal that aims to advance research, practice, and knowledge integration at the interface of ecology and health by publishing high quality research and review articles that address and profile new ideas, developments, and programmes. This paper introduces a central idea: that the achievement of health as expressed in the MDGs is dependent on creating and maintaining healthy ecosystems. This creates a direct link with MDG goal 7 but there is interdependence between all goals. For example, it is not possible to address health issues without being attentive to links between Goal 3 (Promote gender equality and empower women), Goal 5 (improve maternal health) and Goal 7 (ensure environmental sustainability). The authors maintain that the MDGs are too narrow to encapsulate the breadth of social and environmental determinants of health, including inequity in opportunities for health, and very few targets and indicators are focused on integrative themes or interventions. The achievement of health goals is underpinned by the condition and functioning of ecosystems, including urban ecosystems.

The authors call for the post-2015 framework to acknowledging the multisectoral dynamics upon which human health depends. Sustainable health can only be achieved through a new level of engagement across international and national agencies and scientific disciplines. Developing trust and reciprocity with local communities, across sectors, and across disciplines will be essential. Multisectoral engagement and increased interdisciplinary research and collaboration are needed to overcome system-level constraints, including poor governance, weak institutions and a lack of appropriately trained personnel. A systems approach can help identify key areas of intervention – such as improved and open information systems – that can help harness change. Improving supply chains, enhancing transparency, professionalizing management systems, investing in ecosystem-based governance and investing in secondary and tertiary education may be less politically attractive than providing new therapies and drugs, but may have far more sustainable benefits.

The authors emphasize the need to see health as interrelated and interdependent – especially in relation to the links among human health, animal health and the environment. Protecting and promoting health is a shared responsibility in relation to other MDGs and should be coupled with Sustainable Development Goals (SDG). Approaches that connect health, ecosystems and society, provide points of reference for achieving goals that serve multiple objectives and that consider multiple stakeholder needs.

The authors warn that the current economic crises must not be allowed to decelerate or reverse the progress achieved. National governments, the international community, civil society and the private sector need to be explicit about the longstanding and long-term challenge of inequities, and press forward challenges of food security, gender equality, maternal health, rural development, infrastructure and environmental sustainability, and responses to climate change. The integration of the MDG and SDG processes as essential in order to harness the potential for positive processes and outcomes that enhance synergies and avoid frustrating redundancies and overlaps. Working toward equitable health outcomes will be fundamentally linked with creating and maintaining healthy ecosystems - the poor suffer the most from ecological degradation and have the least power to affect change in the absence of global leadership. Climate change will exacerbate these entrenched inequities and will have system-wide consequences for human society, including large-scale migration and increased demands on already-degraded land and water systems. New values and new thinking - for example, about complexity, uncertainty, reciprocity and humility – are required.

A dedication to involving communities and defining human health holistically in terms of its physical, mental, social, inter-species and ecosystem facets will enable the following strategies:

- Integrated assessment and improved science: Integrated health, social and environmental impact assessments inform policies and development.
- New values, attitudes, knowledge and skills: A re-framing of population health to include its fundamental dependence on ecosystem services.
- Design and implementation of innovative policy instruments: The strategic development of appropriate mechanisms to enable health costs to be satisfactorily included in development options and ecosystem management.
- Multi-scalar dialogue and improved communication: The establishment of cross-sectoral partnerships for capacity building: improving communication and empowerment of groups particularly dependent on ecosystem services or affected by their degradation, including women, indigenous people, young people and the elderly. This also involves embedding freedom of information, open access and transparent decision making systems throughout the post-2015 processes.

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Integrating Health, Sustainability and Ecosystems in the Post-2015 Development Agenda

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The International Association for Ecology and Health (IAEH) appreciates the invitation for interested individuals and groups to submit think pieces on the positioning and role of health in the post-2015 agenda, with a challenge facing the health community: to agree on very few goals, feasible targets and measurable indicators that put health at the heart of people's understanding of the purpose of development. Representing Ecohealth researchers, practitioners, and policy makers, the Association promotes sustainable health and well-being by pursuing "transdisciplinary" approaches across sectors to address interdependent causal factors of health and well-being. The post-2015 development agenda must have *sustainable health* in mind; that is, health for today without compromising the natural, social and cultural capital required for the health of future generations.

Introduction – the context

At the beginning of the 21st century, 191 nations committed to significantly reduce poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women. Since then, these Millennium Development Goals (MDGs) have served as a source of inspiration, guidance and frustration to governmental and non-governmental organizations. Progress has been made toward achieving some goals; others appear to remain stubbornly out of reach. In part, this has occurred because, while we have improved in our ability to articulate and measure MDGs, much less attention has been directed at *how* such complex, interacting goals can be most effectively achieved.

A long tradition of international, regional and intergovernmental organizations have recognised the complex links between human health, animal health and the environment, expressed as a series of statements, declarations and agreements. In the last decades the emerging field of ecohealth has paid particular attention to how to understand and respond to these links and the implications this has for development priorities. This think piece draws on these precedents to highlight the importance and potential of a post-2015 agenda that explicitly links health, sustainability and

ecosystems. We do this with a focus on lessons learned from the health MDGs, framing the future health goal, enhancing the relevance of the processes and outcomes of a post-2015 development agenda and identifying specific recommendations for action.

Lessons learned from the implementation of the MDGs and the relevance of ecohealth

This think piece introduces and emphasizes a central idea: that the achievement of health as expressed in the MDGs is dependent on creating and maintaining healthy ecosystems. This creates a direct link with MDG goal 7, but the idea of health being both influenced by and a product of the other MDGs needs more careful consideration given the interdependence of all goals. An obvious example is that it is not possible to address health issues without being attentive to links between Goal 3 (Promote gender equality and empower women), Goal 5 (improve maternal health) and Goal 7 (ensure environmental sustainability). And the MDGs are too narrow to encapsulate the breadth of social and environmental determinants of health, including inequity in opportunities for health, and very few targets and indicators are focused on integrative themes or interventions.

A central lesson learned from the MDG process has been that Health is not only a goal (see Goal 4, reduced death; Goal 5 – health stated twice, or Goal 8 – health stated once) but is also determined by other Development goals, and underpinned by the condition and functioning of ecosystems - including urban ecosystems. This insight has been reinforced by a number of international processes that, during the same period, have identified the linkages among health, social equity, ecosystems and biodiversity. Expressions of this interdependence are easily found, two particular examples being the Millennium Ecosystem Assessment, and the Commission on Social Determinants of Health.

A key improvement for the current MDGs lies in acknowledging the multisectoral dynamics upon which human health depends. The recent publication "Our Planet, Our Health, Our Future" co-led by the World Health Organization and the Convention on Biological Diversity (and other agencies), is a clear example of how sustainable health can only be achieved through a new level of engagement across international and national agencies and scientific disciplines. In addition to the well-articulated calls for local communities to be involved in decision-making regarding interventions, there are also increasing amounts of work that profile the importance of the health sector engaging with 'atypical' allies – including those directly involved with the study and management of ecosystems. Developing trust and reciprocity with local communities, across sectors, and across disciplines, will be an important part of the post-2015 health agenda. Thus, resolving the MDGs will require participant abilities for increased multisectoral engagement and increased interdisciplinary research and collaboration, and these abilities will need to be developed in our workforce and our educational systems.

Better skills, context-dependent solutions and an understanding of transdisciplinary approaches is required (TD-Net, undated). For example, eradicating extreme hunger and poverty are emergent properties of a system where land use, land ownership and agricultural policies perpetuate often unjust and nutritionally poor food systems.

Progress on MDGs is limited by system-level constraints, including poor governance, weak institutions and a lack of appropriately trained personnel. A multiscaled approach is needed with a focus that includes sub-national or local

governments to begin the process of change and demonstrate improved quality of life for participants. Stepwise approaches, such as the ladder of sanitation services, are useful to match services to sustainable community assets. A focus on equity only can undermine current power relationships that perpetuate failed systems and services. A systems approach can help identify key areas of intervention - such as improved and open information systems - that can help harness change. In many cases, however, the system itself needs attention. Improving supply chains, enhancing transparency, professionalizing management systems, investing in ecosystem-based governance (such as watershed governance), and investing in secondary and tertiary education may be less politically attractive than providing new therapies and drugs, but may have far more sustainable benefits.

The MDG of ensuring environmental sustainability is not well-captured by the water, sanitation and urban slum indicators - particularly given the vital role that ecosystems services play in support of human health and wellbeing, and the reciprocal relationships between humans and their surroundings. Leadership, innovation and new ways of thinking are required.

Framing the future health goal: How does health fit in the post 2015 development agenda?

This think piece emphasizes the need to see health as interrelated and interdependent – especially in relation to the links among human health, animal health and the environment. Protecting and promoting health becomes a shared responsibility in relation to other MDGs, and will be tightly coupled with proposed Sustainable Development Goals (SDG). EcoHealth and related approaches that connect health, ecosystems and society, provide points of reference for achieving goals that serve multiple objectives and that –from the start– consider multiple stakeholder needs.

Informed by a long tradition of international, regional and intergovernmental organizations who recognize health as a shared responsibility (influenced by the environmental, economic, and social dynamics of sustainable development), at least three questions arise about the 'fit' of health in the post- 2015 development agenda:

- * How do we reflect the health impact of 'non-health' MDGs (acknowledging the many pathways of influence among existing development processes and health and wellbeing);
- * What is the role of the health sector (decision-makers, researchers, educators) in engaging with upstream determinants of health; would better recognition and acknowledgement of the health impacts of other MDGs better motivate, support, or gain profile for some of the more challenging and elusive development goals?
- * How can the fundamental role of ecosystems in supporting healthy and sustainable development be more explicitly addressed in the development process?

Related to the above, there needs to be a way to recognize the latest thinking in indicators and indices that emphasize the relationships and pathways of impact, i.e. how lack of progress in other MDG's may have flow-on impacts on health, and how health targets will be influenced by both other MDGs, and the broader social and environmental determinants of health. Linking the MDGs and the SDGs offers potential to both enhance their relevance, reduce redundancy and optimize health benefits through an integrated approach to improving social and environmental determinants of health.

Enhancing relevance and optimising health benefits by linking the MDGs and SDGs

Because of their inter-relatedness, and because they are deeply embedded in global progress toward sustainable development, we believe that the post-2015 development agenda and any revisions to the MDGs need to be explicitly situated within the SDGs. Explicitly relating the MDGs to each other, and to the more broadly articulated SDGs, will enable more effective, integrative, sustainable action by all organizations involved.

The relevance and potential for this kind of integration is evident in the 2012 MDGs Report

(<http://www.un.org/en/development/desa/publications/mdg-report-2012.html>) that lists important progress, including meeting targets on poverty reduction, improving the lives of slum dwellers and access to improved sources of water, but stresses the need for a true global partnership to achieve remaining goals and targets by the 2015 deadline. Looking ahead to outcomes and processes in post-2015 era, any global partnership needs to be more attentive to the synergies and overlaps among development, health, and environmental agendas, in order to enhance relevance and optimize efforts.

In particular, the current economic crises must not be allowed to decelerate or reverse the progress that has been made. Fuelled by the 2012 MDG report, national governments, the international community, civil society and the private sector need to be explicit about the longstanding and long-term challenge of inequities, and press forward on other challenges like food security, gender equality, maternal health, rural development, infrastructure and environmental sustainability, and responses to climate change. We see the integration of the MDG and SDG processes as essential if we are to harness the potential for positive processes and outcomes that enhance synergies and avoid frustrating redundancies and overlaps.

The need for integration is exemplified when we consider health in context of climate change, and in particular the implications of climate change on a range of the aforementioned list of challenges. Working toward equitable health outcomes will be fundamentally linked with creating and maintaining healthy ecosystems - the poor suffer the most from ecological degradation and have the least power to affect change in the absence of global leadership. Climate change will exacerbate these entrenched inequities and will have system-wide consequences for human society, including large-scale migration and increased demands on already-degraded land and water systems. New values and new thinking - for example, about complexity, uncertainty, reciprocity and humility – are required.

According to Article 247 of the Rio+20 report, SDGs *"should be action-oriented, concise and easy to communicate, limited in number, aspirational, global in nature and universally applicable to all countries while taking into account different national realities, capacities and levels of development and respecting national policies and priorities."* To meet these criteria the SDGs will require broad involvement and cooperation among community members, practitioners and decision-makers from a variety of institutions. When different stakeholders are not equitably represented in the decision-making process, or they cannot communicate effectively with each other, solutions are stifled or not viable in the long-term. By integrating the SDGs and MDGs, we will also identify opportunities for improving health and at the same time addressing the necessary commitment to ecosystem sustainability.

Ecohealth researchers and practitioners have already made a conceptual and structural move in research towards a scholarship that is adaptively oriented, with a view to dynamic, action-oriented learning that can work toward achieving multiple societal objectives - including health, ecological and equity priorities (Charron 2012; Parkes 2012). Such a shift has been occurring not only at academic levels, but most importantly in civil society including local communities, government (national, regional, local) and international (intergovernmental, non-government and multinational corporate) levels. The Ecohealth community also foregrounds the needs and aspirations of local and Indigenous peoples who seek a better balance between bottom-up and top-down approaches, and a redistribution of resources to those working to protect, enhance and restore public goods and services - such as abundant and safe water resources, fertile soil, and clean air.

An example can be given of merging goals of MDGs and SDGs, that of expanding upon efforts on HIV, TB and Malaria. The poorest countries of the world can cover only a fraction of the required means cost for health care provision. They are struggling maintaining intact ecosystem services and live often in social instability or outright civil unrest. The Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM) has proven the power of global solidarity for a common cause in the fight against these diseases in the poorest countries. Considering all difficulties and shortfalls of implementation it remains one of the most successful international efforts to contribute to reaching the MDGs (GFATM 2012). Our vision is a strengthening and extension of GFATM to mutually agreed priorities of social and ecological determinants of health as an operational arm of the above scientific and technical considerations. Efforts to provide drugs and vaccines would thereby be complemented by societal and ecological interventions in close interaction with communities and authorities. In many countries of the world marginalized populations dwell having an illegal albeit tolerated status. Examples are migrants trying to cross the Mediterranean sea by boat, working migrants, mobile pastoralists to name just few. Tens of millions such forgotten populations have no representation to claim health care provision as declared in the constitutions of the countries they live in. Improvements of social and ecological determinants of health would enhance the efforts in the health system and leverage benefits of interventions.

Specific recommendations: current and future strategies informed by ecohealth approaches

Cradle-to-cradle approaches, ecosystem-based governance, participatory, transparent and accountable investments are well-within the reach of the development community. While the Ecohealth approach embraces the tools of core domains such as public health, ecology, and ecosystem management, its emphasis on transdisciplinarity and cross-sectoral collaboration enables it to transcend the important limits and blind spots of individual fields of expertise. A commitment to accounting for and celebrating the interdependence and diversity intrinsic in human-centred ecosystems could yield solutions that remain viable and generative in the long-term. A dedication to involving whole communities, and defining human health holistically in terms of its physical, mental, social, inter-species and ecosystem facets will facilitate linkages among health, ecosystems and sustainability, to enable the following strategies:

Integrated Assessment & Improved Science

- The development of integrated health, social and environmental impact assessments for policies and development (for example, following principles developed by WHO used for conducting “Health Impact Assessments.”).
- Inter-jurisdictional approaches, such as watershed-based organizations, can help cut across traditional silos and open the door to new voices, that are attentive to the inequities of social and ecological marginalisation.
- The consideration of trade-offs between ecosystem services and human health and well-being and animal health and their resolution according to the principles of sustainability and equity.
- The adoption of a deliberative rather than hierarchical approach in research design, inclusive of local people in their MDG aspirations and not defined by finance, positions of power or obsolete knowledge paradigms.

New Values, Attitudes, Knowledge and Skills

- The adoption of a people-centred approach for ecosystem management (such as watershed governance) and research that does not diminish the (actual or perceived) importance of biodiversity in sustaining ecosystem services.
- A re-framing of population health to include its fundamental dependence on ecosystem services;
- Taking action to remove barriers that limit consensus through engagement and the development of new skill sets such as humour, patience, tolerance, and a willingness to reciprocate; and seek to have the development of these skills included as part of national curricula or sustainability literacy.
- The identification of shared values of principal partners and responsible stakeholder groups, often across disciplines and between sectors.
- A focus on complexity, uncertainty, reciprocity and humility when dealing with both human- and non-human systems

Design and Implementation of Innovative Policy Instruments

- The strategic development of appropriate mechanisms to enable health costs to be satisfactorily included in development options and ecosystem management.
- A development of price-based incentive mechanisms for ecosystem services that currently exist outside of markets, in order to adjust inappropriate personal and institutional behaviours.
- The elimination of subsidies that promote excessive use and/or the degradation of natural resources;
- The development of proactive policy and incentive schemes that aim at measures to reduce consumption, raise awareness, develop curricula, empower communities and promote participation for the ecosystem - human health nexus.

Multi-scalar Dialogue and Improved Communication

- The establishment of cross-sectoral partnerships for capacity building: improving communication, and empowerment of groups particularly dependent on ecosystem services or affected by their degradation, including women, indigenous people, young people and the elderly.
- Embedding freedom of information, open access and transparent decision making systems throughout the post-2015 processes.

Focused on the period of 2012-2014, the IAEH is in the position to play a role as a member of the international post-2015 development agenda community, and to facilitate collaboration on:

- Reframing health to fit the vision and values of post-2015 development and the SDGs
- Designing new policy instruments to provide incentives for behaviour change at multiple scales
- Implementing transdisciplinary training and capacity building in ecosystem approaches to health
- Advocating for new approaches to health equity and health governance that recognize and incorporate fundamental ecological services in both urban and rural areas

Isolated targets can be useful, but the commitment of stakeholders and countries may be increased when we point out the multiple objectives achieved through converging benefits of actions that can improve health, enhance equity and ecosystem sustainability. This links closely with the idea of integrated sustainability that the proposed SDG's should develop. The ecohealth approach can help reframe the dialogue to focus on the full suite of new ideas and approaches available in the 21st Century, not least our unprecedented opportunities for communication and collaboration and our shared understanding of the vital importance of ecosystem services in promoting equity and sustaining healthy human populations.

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