



## Summary report from the Joint UNEP-UNAIDS meeting to review a position paper on HIV and AIDS and Climate Change

A joint position paper on HIV and AIDS and Climate Change was commissioned by UNEP and UNAIDS in February 2008. The draft paper prepared by three consultants from the Australian National University, Professor Tony McMichael, Dr. Colin Butler and Dr. Haylee Weaver, was reviewed in a technical meeting held in Nyon, Switzerland, on 20 May, 2008. Several UN agencies, research institutes from Switzerland, India, South Africa and Canada as well as the International Federation of Red Cross and Red Crescent Societies were represented at the meeting. Described below are highlights of the main findings from the paper as well as resulting consensus on the way forward.

HIV and AIDS and Climate Change are two of the most important “long wave” global issues of the recent past, the present and the future. They share similarities, interactions, and present possibilities for a more united response. Yet, these links have received little analysis. This paper seeks to address that gap. It first focuses on scientific issues, identifying major, minor, and speculative pathways by which HIV and climate change are likely to interact. These interactions are, here, called the HIV and Climate Change Complex (HACC).

The maximum impact of Climate Change is in the future, likely to occur decades after the peak incidence of HIV. The severity of the HACC will largely be determined by the temporal overlap of these ranges. The HACC will also have an uneven spatial distribution, modified by the regional impact of Climate Change and the regional epidemiology of HIV, each of which varies by physical and social elements. Populations with currently high rates of HIV are the most vulnerable to a worsening or prolongation of the epidemic due to climate change. This places the people of Sub-Saharan Africa (SSA) at the greatest risk of the HACC, though outside Africa populations, in north east India and New Guinea may also be significantly impacted.

There is agreement that the most important pathway in the HACC will be further deterioration of regional and global food security. At the individual level, nutrition is vital for good immune function, to reduce the risk of acquiring HIV if viral exposure does occur, and to slow the progression of HIV to AIDS, and of AIDS to death. At larger scales, population nutrition is important for good governance, by helping to nurture and stimulate the “effective” demand populations need to reduce corruption and to more evenly distribute available resources. Any substantial decline in the availability and intake of calories or micronutrients brought about by Climate Change is likely to increase poverty, impair learning and expand the number of migrants. The current decline in global food security, partly attributable to

Climate Change, is already causing disproportionate nutritional harm to migrants and otherwise impoverished populations, some of whom experience HIV and AIDS.

There is agreement that the second major pathway of the HACC is the Climate Change related alteration in the distribution of infectious diseases, which interact with HIV. Of these, malaria is the most important, due to its high burden of disease. Climate Change is projected to reduce malaria transmission in some regions, which experience a comparatively low rate of HIV, both now and in the future. This will reduce the beneficial impact to the burden of disease of HIV for these populations. On the other hand, a large population with a high rate of HIV lives on the plateaus of SSA, an area as yet little affected by malaria. If the climatic, eco-systemic and other factors for malaria transmission alter sufficiently in these plateau cities, then the HIV burden of this population is likely to be substantially higher, and will also be worsened by increased poverty and greater food insecurity.

There are several other plausible biological pathways in the HACC. Of these, the relationship between Climate Change, air pollution and immunity, and Climate Change, heat stress and immunity are likely to be the most important

More speculative is the possibility that Climate Change will harm infrastructure and governance on a scale sufficient to aggravate and prolong the burden of disease of HIV. Again, the population of SSA is judged to be at the highest risk. This mechanism is plausible by interlinked pathways including more extreme weather events and “natural” disasters, increased mobility and additional migrants and refugees. These factors are also likely to aggravate gender inequalities, increasing the frequency of transactional and coercive sex — pathways likely to increase the burden of disease of HIV among women and girls, via increased viral transmission and reduced access to treatment and prevention. At the global level, Climate Change may exert an immense opportunity cost, diverting resources of the international community away from public health, including from HIV, poverty alleviation, and the other Millennium Development Goals (MDGs).

Suggestions for a future research agenda include the more accurate assessment of the pathways within the HACC, and an improved conceptual understanding of the linkages between conflict, behaviour, governance and values, environmental factors including climate, and food production, and between each of these macro-elements and sea level rise. This would be best done by an interdisciplinary working group. Another research gap is the effect of Climate Change on human behavior, including behavior related directly to HIV risk.

From science, the paper moves to strategies and policies. The struggle to address HIV and Climate Change has generated two vigorous global social movements, with, as yet, little formal interaction or collaboration. We suggest this gap is a microcosm of a separation between two even larger communities – those concerned with the environment and those concerned with social justice. Of course, this is a simplification, but on the whole our perception is that the environmental movement is insufficiently aware of poverty, while the social justice movement is still poorly informed about the environment. The work, advocacy and activism of the leaders and actors within each community who do recognise these linkages will be strengthened by this report.

HIV has already killed tens of millions of people, while Climate Change may dwarf this number. Those concerned to reduce Climate Change can apply many lessons learned by

the HIV community. These include the need to challenge conventions and to seek benefit for the poorest and most marginalised; and to widen the Climate Change movement's emerging engagement with entrepreneurs, philanthropists and prominent personalities: tools instrumental in the growth of support for those with HIV. The HIV constituency can benefit from the experience of humanitarian programmes, some of which already see HIV and Climate Change as cross-cutting issues.

Several actions to reduce the impact of Climate Change on HIV and AIDS are proposed. These include the integration of HIV prevention and management into disaster management plans, particularly for populations in SSA, some of whom have already experienced extreme weather events. Means to enhance global and regional food security, especially in SSA, are vital, and much more can be done. A quarter of the world's population is over-nourished, and a more equitable distribution of global food production will go far to defusing any future food crisis, and is likely to improve health for both over and under-fed people. Malaria treatment and prevention in SSA can also be improved. The Climate Change community might also consider strengthening the United Nations Framework Convention on Climate Change (UNFCCC) including formal links with agriculture, health and security.

Finally, a risk is perceived whereby a relatively privileged stratum of people and interests argue that issues of global health and global social justice must be put aside in the effort to pursue partial Climate Change adaptation. This approach is highly dangerous for global health and global social cohesion. It would also likely to generate profound longer-term risks for currently privileged populations pursuing this strategy. A stronger alliance between the HIV and AIDS and Climate Change communities will help thwart the emergence of such a policy. A focus on the interconnections between Climate Change, food security, HIV, health in general and the links between these and the MDGs is key to breaking out of this "either or" myopia.

UNEP and UNAIDS are committed to carrying forward recommendations resulting from the above. The draft position paper is currently being finalized, after which it will be subjected to wider consultation to both encourage civil society engagement and expand the partnership between HIV and AIDS and Climate Change constituencies. In concurring that there is a link between Climate Change and HIV and AIDS, participants at the Nyon meeting clearly pointed out that this link needs to be understood better. They also concurred that this process of taking forward the research agenda should be spearheaded by the Health Economics and HIV and AIDS Research Division (HEARD) at the University of KwaZulu-Natal, South Africa, supported by the partnering Department of Geography and Environmental Studies, Carleton University, Canada, and the National Centre for Epidemiology and Population Health, Australian National University. The UN will continue to play an integral role in all of this through partnership development and by participation in various forums related to the research agenda.

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