

## **ANNEXES**

# **ANNEX A - HEALTH AND POLLUTION FUND WHITE PAPER**

## **HEALTH AND POLLUTION FACILITY**

### **Toxic Pollution**

Toxic pollution results from the discharge of heavy metals, radionuclides, solvents and other poisonous substances into the natural environment. Such hazardous materials cause incalculable harm to human health, and are particularly dangerous for children. These health impacts include physical and mental disability, organ dysfunction, neurological disorders, cancers and lesions. In addition, they weaken the human body's immune system, rendering it more susceptible to other ailments and diseases. Thus, morbidity and mortality attributed to respiratory infection, maternal health, tuberculosis, gastrointestinal disorders, and the like could have originated in prior exposure to toxic pollution.

It is now known that the global scale of the problem of toxic pollution is much greater than had previously been thought. The number of people at risk from toxic pollution, worldwide, is likely in excess of 100 million. In other words, it is a public health issue as salient as tuberculosis, malaria and HIV/AIDS, which rightly receive considerable international attention and resources. Toxic pollution, however, has hitherto flown under the radar and urgently needs a policy and fiscal response from the international community.

Many toxic sites involve legacy pollution, where the original polluter (sometimes a defunct state-owned entity) no longer exists and is unavailable to pay for the clean-up. In others, active polluters continue to add toxins to legacy sites that are already badly polluted. Cleaning the legacy component of pollution enables credible and capable enforcement of active polluters (increasing the effectiveness of the 'polluter pays' principle and helping prevent recurrence of such pollution in other locations). In some cases, the polluters are micro-enterprises (such as artisanal gold miners), and need help to make their operations environmentally safe.

Many polluted sites have extreme health and development implications for local populations. Pollution not only reduces life expectancy and increases morbidity, but heavy metal exposures reduce intellectual capacity. Some of the pollutants are transboundary (such as mercury) and end up in Western food chains. Other polluted sites have backgrounds in the extraordinary global economic boom that has shifted mining and industry from the West to countries without pollution controls. As a result, many sites with high levels of pollution are compelling cases for international development assistance intervention.

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## **An International Plan to Deal with Toxic Pollution**

A plan to tackle toxic pollution should be coordinated by both the major donor countries and the developing and transitional countries in Asia, Africa, Latin America and Eastern Europe that will be the recipients of aid. The plan should focus on (i) expanding and deepening the database of toxic polluted sites begun with Blacksmith Institute's Global Inventory Project (GIP), and (ii) funding clean-up of the worst polluted legacy sites in eligible countries (a Health and Pollution Fund).

## **Expanding the Global Inventory of Toxic Hotspots Database**

As currently resourced, Blacksmith Institute's Global Inventory covers Asia and the Pacific (financed by Asian Development Bank), along with the rest of the developing and transitional regions (financed by the European Commission and Blacksmith's own resources). While coverage of the Asian-Pacific region is adequate, some additional financing may be required from World Bank, African Development Bank and Inter-American Development Bank to cover the other regions in similar fashion.

The database only contains a rapid assessment of polluted sites, and any subsequent clean-up project at a GIP site may require a more detailed analysis of technology options and costs, among other factors.

## **Funding Clean-Up of Polluted Sites**

The amount of financing that would be needed to clean up the worst of the polluted legacy sites may approach \$1 billion. This estimate includes sites in China, India and Russia. If, for these countries, donor countries wish to offer only technical assistance and, perhaps, some funding for pilot projects, the financing required would be substantially less and may amount to around \$400-500 million.

Funding clean-up of polluted sites should be attractive to donors for at least four reasons:

- The cost per disability-adjusted life year (DALY) of clean-up projects is in the \$5-50 range, or comparable to bed-nets and vaccinations.
- Unlike vector and communicable diseases, remediating a toxic site is a one-time intervention.
- Funding requirements are finite. Once sites are cleaned, simple processes to avoid re-contamination are straightforward and local ownership for this work would be expected and required.
- Sites with active polluters need to stop these exposures before legacy pollution is cleaned, a process that has also proved to be successful.

In other words, the entire global scope of cleaning up the worst legacy sites, affecting many tens of millions of people, is eminently cost effective and doable within our lifetimes.

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It should be noted that the financing, though intended primarily for project implementation, should be in the form of grants. Clean-up projects restore health (of people and land) but do not by themselves generate fresh income to repay loans. That said, grant funding for clean-up would be appropriate only for those sites with the most compelling public health exposures, and where other resources are not available.

### **Options for a Health and Pollution Facility (Health and Pollution Fund)**

Donor countries could consider various options for putting together the required level of financing. These include:

- A free-standing trust fund, similar to the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) or the Global Alliance for Vaccines and Immunisation (GAVI).
- A “vertical fund” housed in the World Bank (or distributed across the World Bank and regional development banks), like the Climate Investment Funds.
- A committed and dedicated funding mechanism, residing as line items in the budgets of donor countries; in other words, a facility.

Each of these modalities has pros and cons.

Free-Standing Trust Fund. A fund of this nature would effectively raise the profile of toxic pollution and its health implications, is straightforward in concept, and relatively easy to manage and administer. If, as in the case of the Global Fund and the GAVI, it is envisaged as a public-private partnership, such a fund also accommodates the possibility of leveraging additional financing from non-government sources (such as foundations and high-net-worth individuals).

The two trust funds cited above differ slightly in their funding approaches but both have been successful in mobilizing large amounts of financing for their respective causes. The Global Fund (at first administered by WHO but now an autonomous organization) operates traditionally, pooling pledges from governments (donors and recipients) and foundations (principally the Bill and Melinda Gates Foundation) and providing grants for eligible programs and projects. So far, more than 45 countries, the European Commission, and others have committed \$21 billion to the Global Fund. It provides financing only and does not act as an implementing entity.

The GAVI, which targets pneumonia and diarrhea, is also based on commitments from governments and others (again principally the Bill and Melinda Gates Foundation). It operates two financing mechanisms. The Advanced Market Commitment (AMC) defrays the disproportionately high costs of developing and adapting vaccines for developing countries to make them affordable. Five countries and the Bill and Melinda Gates Foundation contributed \$1.5 billion to the first ever AMC (for pneumococcal disease), which will reduce the cost per dose from \$70 to a “tail” price of \$3.50. The International Finance Facility for Immunisation (IFFIm) collects long-term (5-20 year) commitments from governments, on the strength of which it issues bonds. The proceeds provide immediate and predictable program funding. Against

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legally-binding commitments of \$3.7 billion so far, the IFFIm's bond issuance has amounted to \$2.6 billion (eventual target: \$4 billion).

It is unlikely, in the foreseeable future, that governments and others would come together to establish a trust fund to clean up toxic pollution on the lines of the Global Fund or the GAVI. Although the health consequences of toxic pollution are as compelling as HIV/AIDS, TB, malaria and the like, they do not, as yet, command strong international attention. Also, the funding requirements are nowhere near as large as those of these other public health issues, so may not warrant the kind of administrative overheads such a free-standing entity would entail.

Multilateral Vertical Fund. Climate change may be the field that has seen the largest number of vertical funds (with a cumulative total so far of \$26.8 billion). Examples are the Climate Investment Funds of the World Bank (comprising the \$4.4 billion Clean Technology Fund and the \$1.8 billion Strategic Climate Fund), and the Global Environment Fund (GEF) replenishments of \$1 billion (for 2006-2010) and \$1.4 billion (for 2010-2014). Although these funds are located at World Bank and GEF, respectively, other multilateral institutions, such as UNDP, UNEP and the regional development banks, participate in their operations (as implementing agencies). Interestingly, the largest such vertical fund is, in fact, a bilateral one: the Hatoyama Initiative (\$15 billion). This helps developing countries that try to reduce greenhouse gas emissions to achieve economic growth in ways that contribute to climate stability.

One advantage a multilateral (or bilateral) vertical fund enjoys as compared to free-standing trust funds is that related overhead costs are limited. However, as in the case of the latter, the absence of strong global concern for toxic pollution makes it difficult to establish a vertical fund, at least in the first instance. In the event that increased international funding for toxics clean-up can be mobilized over the next year or two, the feasibility of a vertical fund housed at the World Bank and/or the regional development banks could be considered at a later stage.

Funding Mechanism Residing in Donor Country Budgets. A funding mechanism that leaves project resources as line items within the budgets of donor countries (i.e., a facility rather than a fund) may be easier to establish. However, it will call for a coordinating Secretariat, answerable to the donors. This Secretariat would be designated as the key entity for implementation of clean-up projects financed by each donor country concerned. Donor countries would allocate resources for clean-up projects, and also provide small amounts of core funding for an efficient working Secretariat. This unit would prepare submissions to each donor program, aligned with the specific requirements of recipient and donor country, and manage projects within appropriate guidelines. Such a facility may also include the possibility of attracting private funding for specific projects.

The line item allocations should, in principle and practice, be untied. Nevertheless, the Secretariat should endeavor to ensure that as much of these resources as possible flow back to national consultants and contractors of the donors concerned. They could, for example, be involved as members of individual project consortiums. Doing so would both bolster public support for the budget allocations and build vested interests (as well as expertise and experience) in favor of action on toxic hotspots.

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As mentioned, one possibility is to start with a funding mechanism that remains in donors' own budgets, wait to gain confidence in the operation of the facility, and then upgrade to a vertical or more free-standing fund.

Irrespective of which modality is finally selected, an additional option may be to provide (i) actual funding (direct allocation) to specific projects or (ii) guarantees against which the funding mechanism can raise money from the market (as GAVI's IFFIm does). The implications of market borrowing for grant financing will, of course, have to be examined.

### **Governance Structure**

The governance structure of the Health and Pollution Fund should comprise:

- An Executive Council, comprising representatives of the largest contributors (members) and of the World Bank and the regional development banks (associate members), that may meet once a quarter (by videoconference) to approve grants of \$250,000 and above, and consider matters referred to it by the Secretariat, and
- A Health and Pollution Fund Secretariat, taking over the core expertise of Blacksmith Institute, and to which staff could be seconded by contributing donors and by the multilateral development banks (MDBs), as appropriate. It would select projects for funding; approve grants of \$249,000 and below; submit grant proposals of \$250,000 and above to the Executive Council; coordinate grant implementation with project sponsors; and provide regular reports to the Executive Council on all operational and accounting matters.

### **Potential Challenges for Administering a Health and Pollution Fund**

Blacksmith Institute estimates that the following challenges will need to be considered in order to ensure that the processes administered and financed by the Fund are as efficient and direct as possible:

Prioritizing Remediation Actions. The Secretariat will need to work with partner countries in order to establish an agreed upon method for prioritizing sites for remediation. This would presumably happen through the NTAP process.

Prioritizing Funds Between Countries. Because funding and assistance from the Fund may be limited, the Secretariat will need to manage the prioritizing of funds between countries. This process will need to follow a very particular set of guidelines and procedures. Ideally, member countries will be able to have a strong voice in this initial prioritizing plan.

Ensuring Finances are put Towards Intended Projects. It is important that the Fund have a plan to prevent the diversion of resources to other areas once funds are approved for remediation projects. A strong Secretariat that manages the allocation of funds through all steps of the clean-up process, including accounting, reporting and auditing, will likely address this challenge.

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Stable Funding. Due to competing global issues, the current economic distress in high-income nations, and the difficulty in assigning responsibility for many toxic pollution issues (“polluter pays”), it may be difficult to maintain a consistent source of international funding for pollution and health issues alone. All of the above issues will need to be given careful consideration when creating a long-term plan for avoiding insolvency for the Fund.

Liability and Decision-making. Addressing liabilities involved with remediation work is another important challenge. Potential liability problems could include: 1) unforeseen events such as an injury, a fire, a spill of toxins, etc.; or 2) the community near a remediation site may be unhappy with the final outcome of the project. For these reasons, agreements must be made within countries that indemnify the Fund, the Secretariat, and any remediation workers from liabilities. Plans to address the liability issue, however, need to also consider acceptable amounts of risk so as to avoid situations where remediation projects are overly conservative and less effective. The impact of overly conservative or bureaucratic approaches is less cost effectiveness, fewer projects implemented and ultimately less public health benefit. Establishing these guidelines will require a coordinated and clear decision-making process that involves many stakeholders.

Given Blacksmith’s technical expertise and experience in the field of toxic pollution, its leadership in efforts to mobilize resources for clean-up, and its operational presence in a number of recipient countries, it makes sense for the organization to be responsible for managing the Health and Pollution Fund. At the same time, given donors’ need to ensure fiduciary and operational safeguards and credibility, Blacksmith’s institutional capacity could usefully be reinforced by seconding staff from donor country administrations and from the MDBs.

## **ANNEX B – BELLAGIO 2010 CONFERENCE AGENDA**

### ***Bellagio 2010 Conference Agenda***

### **Legacy Pollution in Developing Countries**

At the Rockefeller Foundation Estate in Bellagio, Italy

September 14<sup>th</sup> – 18<sup>th</sup> 2010

### **Agenda**

#### **September 14<sup>th</sup> Day 1 – Arrival**

14:00 – 15:00 Lunch

19:00 – 19:30 Cocktails

19:30 – 20:30 Dinner

#### **September 15<sup>th</sup> Day 2 – Full Day (9am-4:30pm)**

Toxic Pollution and Chemicals – Highlighting the Challenges: *A review of the scope of toxic pollution in low and middle-income countries, existing chemical regulatory frameworks and the global inventory of legacy polluted sites, featuring presentations by various countries and multilateral agencies.*

08:00 – 09:00 Breakfast

09:00 – 09:30 Welcome and Introduction, World Bank, Asian Development Bank, and Blacksmith Institute

09:30 – 11:00 Overview of toxic hotspots, sites, populations and health impacts  
*Mr. Richard Fuller, Blacksmith Institute*

11:00 – 11:30 Coffee Break

11:30 – 12:00 Toxic Pollution in Indonesia  
*Mr. Dasrul Chaniago, Assistant Deputy Minister for the Administration for Toxic and Hazardous Substances and Waste Management, Ministry of Environment, Indonesia*

12:00 – 12:30 Toxic Pollution in Mexico  
*Mr. Mauricio Limón, Vice Minister of Environment, Mexico*

12:30 – 13:00 Group Picture

13:00 – 14:00 Lunch

14:00 – 14:30 Overview of existing international agreements and gaps  
*Mr. Jacob Duer, UNEP*

14:30 – 15:00 Toxic Pollution in the Philippines  
*Mr. Neric Acosta, Minister Designate of Environment, Philippines*

15:00 – 15:30 Public Health - Exposure and Impact  
*Dr. Kersten Gutschmidt, World Health Organization*



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15:30 – 16:00 Toxic Pollution in Senegal

*Mr. Saliou Rama Ka, Secretary General, Ministry of Environment and Nature Protection, Senegal*

16:00 – 16:30 Toxic Pollution in Ukraine

*Mr. Oleksandr Sokolov, Director of the Department of Environmental Security and Waste Management, Ministry of Environment, Ukraine*

16:30 – 18:30 Break

18:30 – 19:00 Shuttles to villa

19:30 – 20:30 Cocktails and Dinner (at the Bellagio villa)

### **September 16<sup>th</sup> Day 3 – Full Day (9am-4pm)**

*Exposure and Risk Case-Studies: An in-depth look at success stories, remediation efforts, and programs in place.*

08:00 – 09:00 Breakfast

09:00 – 09:30 Global Inventory Summary

*Mr. Richard Fuller, Blacksmith Institute*

09:30 – 10:15 Solutions: Lead Smelting and Used Lead-Acid Batteries

*Mr. Ian von Lindern, Terragraphics*

10:15 – 11:00 Solutions: Mercury and Artisanal Gold Mining

*Mr. Ludovic Bernaudat, UN Industrial Development Organisation*

11:00 – 11:30 Coffee Break

11:30 – 12:15 Solutions: Mine Tailings and Run-Off

*Mr. David Hanrahan, Blacksmith Institute*

12:15 – 13:00 Large-Scale Pollution Issues

*Mr. David Hanrahan, Blacksmith Institute*

13:00 – 14:00 Lunch

*Setting The Way Forward: An exploration of the current international programs, donor agency and recipient country responses.*

14:00 – 16:00 Donor Agency Perspectives and Brainstorming

*Discussion guided by Mr. Karti Sandilya, Blacksmith Institute*

*Discussion and responses from US Dept of Treasury, EC, JICA, CIDA, WB, ADB, IDB, UNEP, UNIDO, WHO & Recipient Countries*

16:00 – 19:00 Break

19:00 – 19:30 Cocktails

19:30 – 21:00 Dinner (offsite)

### **September 17<sup>th</sup> Day 4 – Full Day (9am-4pm)**

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Strategic Next Steps: *A discussion of priorities, and possible program options and opportunities.*

08:00 – 09:00 Breakfast

09:00 – 09:30 Vision for International Cooperation

*Ms. Katharina Kummer Peiry, Executive Secretary, Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, United Nations Environment Programme (UNEP)*

09:30 – 10:00 Private Sector Coordination

*Mr. Heinz Leuenberger, UNIDO*

10:00 – 10:30 Conference Knowledge Summary

*Mr. Richard Fuller, Blacksmith Institute*

10:30 – 11:00 Coffee Break

11:00 – 13:00 Strategic Next Steps – Priorities and Opportunities

*Facilitated Discussion*

13:00 – 14:00 Lunch

14:00 – 15:30 Garden Tours and 1:1 Meetings

15:30 – 16:00 Summary and Wrap-up

16:00 – 19:00 Break

19:00 – 19:30 Cocktails

19:30 – 20:30 Dinner

### **September 18<sup>th</sup> Day 5 – Departure**

08:00 – 09:00 Breakfast

09:00 – 10:00 Check out and Departure

## **ANNEX C – BELLAGIO 2010 PARTICIPANTS LIST**

### ***Bellagio 2010 Participants List***

The following individuals attended the Bellagio 2010 conference:

**Asian Development Bank:** On behalf of Rajat Nag, **Andrea Monari**, Resident Director General, European Representative Office and **Bart Edes**, Director, Poverty, Gender and Social Development Division.

**Blacksmith Institute:** **Richard Fuller**, President, **David Hanrahan**, Director Global Affairs, **Meredith Block**, Program Director, **Karti Sandilya**, Senior Advisor, **Rachael Vinyard**, Senior Development Associate, **Indira Sandilya**, Director Blacksmith India, **John Brothers**, Facilitator and **Sandy Page Cook**.

**Canadian International Development Agency:** **Ralph Osterwoldt**, Senior Environmental Specialist, Policy and Strategy Planning Division

**European Commission:** **Simon Le Grand**, Administrator, Development Cooperation Directorate, and **Jill Hanna**, Advisor, DG Environment

**Government of Indonesia:** **Dr. Dasrul Chaniago**, Assistant Deputy Minister for the Administration on the Hazardous and Toxic Waste Control, Ministry for Environment and **Ir. Achmad Gunawan Widjaksono**, Head of Section for Energy Power to the Assistant to the Deputy Minister for the Hazardous and Toxic Substance and Waste Management – Mining, Energy and Oil Gas

**Government of Mexico:** **Mauricio Limon**, Vice Minister of Management for Environmental Protection, Ministry for Environment

**Government of the Philippines:** **Neric Acosta**, Special Coordinator to the President on Environment and Natural Resources

**Government of Senegal:** On behalf of Minister Ka, **Saliou Rama Ka**, Secretary General for Environment and **Cheikh Abdul Kader Konte**, Technical Inspector for the Environment, Ministry of Environment

**Government of Ukraine:** **Oleksandre Sokolov**, Head, Dept for Environmental Security and Waste Management, Ministry of Environment

**Inter-American Development Bank:** On behalf of Janine Ferretti, **Elizabeth Brito**, Senior Environmental Specialist

**Japanese International Development Agency:** **Naoki Mori**, Deputy Director General, Global Environment Department

**Terragraphics:** **Ian von Lindern**, Technical Advisor and **Margrit von Braun**, Technical Advisor

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**United Nations Environment Program:** On behalf of Achim Steiner, **Jacob Duer**, Senior Program Officer, Office of Environmental Law and Conventions and **Katharina Kummer**, Basel Secretariat

**United Nations Industrial Development Organization:** On behalf of Yumkella Kandeh **Heinz Leuenberger** and **Ludovic Bernaudat**, Industrial Development Officer

**The World Bank:** On behalf of Inge Anderson, **Michele de Nevers**, Senior Manager, Environment Department, and **Kulsum Ahmed**, Lead Environmental Specialist and Team Leader

**World Health Organization:** On behalf of Maria Neira, **Dr Kersten Gutschmidt**, Technical Officer, Public Health and the Environment