

## **AN L-14 LEADERSHIP INITIATIVE WITHIN THE UN CLIMATE CHANGE PROCESS**

**DRAFT – revised by Ted, May 11, 2007**

Limiting global climate change is an acute problem of global governance that has thus far challenged the decision-making capacity of existing institutions. Its causes and impacts within national economies are so deep and broad that the problem transcends individual portfolios and mandates. The response requires a decision making body with representation from both North and South, yet its complexity precludes effective decision-making in a universal forum. Political leaders of major industrialized and developing nations meeting in some appropriate forum such as L-14 can make progress on such acute global problems in cases where no other existing international forum can.

This note presents the result of a quasi simulation exercise. Former government officials and subject experts met in a quasi G8 Leaders Summit preparatory process to explore the merits of the approach. The product is a proposed draft "grand bargain" on climate change – a package of decisions, invitations, and charges that could be taken by L-14 leaders – that would represent a significant step toward resolving the global problem. It represents a win-win solution by providing net gains to all and illustrates, by example, the capability of a group of leaders such as L-14 to advance deadlocked global issues.

To widen and deepen the understanding of our research results and to increase the support for promoting its findings, we have organized four events – a custom tailored meeting for (i) organizations with a policy research capacity, (ii) senior global opinion leaders, (iii) print and broadcast media opinion leaders in the L14 countries, and (iv) influential advisers to the current US presidential candidates in both parties.

The proposal is based on a few simple principles.

- Provide a win for every participant;
- Put more issues on the table to increase the opportunities for beneficial trade offs;
- Aim for a feasible first step that makes a real contribution, even if it does not produce an ideal solution;
- Ensure the feasible first step makes subsequent improvements easier to achieve;
- Take actions in accordance with participants' existing commitments under the UN Framework Convention on Climate Change (UNFCCC);
- Use the more limited and manageable decision-making vehicle of L-14 to provide a model for North-South agreement, which can provide a starting point for further refinement and expansion under the UNFCCC.

***The proposed “Grand Bargain” package has six elements:***

- An atmospheric greenhouse-gas target and L-14 emissions budgets within it;
- An international market in greenhouse-gas emission permits;
- A collaborative process for analysis and review of fiscal measures related to greenhouse-gas emissions;
- A global climate-safe energy R&D initiative;
- An initiative for deployment and transfer of climate-safe energy technology;
- A set of specific investments in low-carbon energy infrastructure.

***1: An atmospheric target and L-14 emissions budgets.*** L-14 leaders could state their own commitment to a climate limitation goal, in the form of specific limits on atmospheric greenhouse-gas levels, and establish a process to agree on emissions budgets for L14 nations consistent with this global goal.

- Because L-14 nations represent more than 70% of energy-related CO<sub>2</sub> emissions and more than 60% of all global greenhouse-gas emissions, they can provide a powerful signal of global leadership by stating their own commitments to a specific global climate-limitation goal.
- As a first step, the global climate goal could be expressed as a target concentration of atmospheric carbon dioxide (CO<sub>2</sub>) not to be exceeded.<sup>1</sup>
- This target could be in the range of 450 – 550 parts per million of CO<sub>2</sub>. Within this range, a higher limit would be less costly to achieve, but may pose serious climate-change risks. A lower limit would substantially reduce risks, but require earlier and stronger efforts to limit emissions and carry significantly higher costs.
- Leaders could each appoint a Special Personal Representative to identify alternative L-14 emissions trajectories through 2050 that are consistent with the global target and with L-14 nations' current and projected shares of the world population and economy, and that limit projected costs of reductions. Leaders could further request their Representatives to identify alternative emission budgets, consistent with these trajectories, to be allocated to each L-14 nation.
- In instructing their Representatives, leaders could re-affirm their commitment to the principle of common but differentiated responsibility, as stated in Article 3 of the UNFCCC. Consistent with this principle, leaders could request their representatives to consider national emissions budgets under which obligations to reduce emissions by developing L-14 nations are conditional upon observable agreed benchmarks of prior reduction efforts by industrialized L-14 nations.
- Drawing on the work of their Representatives, leaders could reconvene in one year to decide on an emissions trajectory and national budgets to adopt, consistent with their obligations under the UNFCCC. At this time, they could also agree to support establishment of an ongoing process under the UNFCCC to consider adaptation of the agreed target and L-14 emissions budgets, in response to changed scientific knowledge of climate change and its impacts, or changed technological capabilities to limit emissions.

***2: An international market in greenhouse-gas emissions permits.*** L-14 leaders could commit to establishing an international market for greenhouse-gas emissions permits.

- Leaders could request their ministers of Finance to convene a process, with participation of their Energy ministers and the support of the IMF, with other

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<sup>1</sup> Although an ideal goal would be defined in terms of the total climate-changing effect of all human-source greenhouse-gases, measurement and monitoring problems for some sources and some gases are too severe to include at this time. As monitoring ability increases, the atmospheric target and L-14 emissions budgets could be broadened to include other sources and other gases.

appropriate experts (such as the IEA and IETA), to develop a specific proposal for implementing a system of international tradable permits for emissions of CO<sub>2</sub> by 2015. The proposal could specify how the efficiency and integrity of the emissions-permit system is to be guaranteed, including, e.g., how permits are issued and defined; how emissions are verified; how exchanges of permits are executed, recorded, and validated; and how failures of the system are dealt with.

- Together with jointly adopted L-14 emissions budgets, such an emissions permit market would provide the incentives needed for private-sector development of a host of innovations in conservation, efficiency, and non-carbon energy sources.
- Initially, the system could be designed to implement L-14 nations' agreed emissions budgets. The system could be designed to allow broadening to include other anthropogenic sources and sinks of CO<sub>2</sub> (including land use and forestry-related fluxes), and emissions of other greenhouse gases, as the reliability and precision of monitoring makes such broadening feasible. Other nations could be invited to join the system, upon adoption of consistent terms for its implementation and oversight, and acceptance of a national emissions budget consistent with the global target adopted by L14 nations.

**3: A collaborative analysis and review of fiscal instruments.** L14 leaders could request their Finance ministers, with participation by the WTO, OECD, and other appropriate experts, to convene a process to analyze the potential to use fiscal measures to manage greenhouse-gas emissions trends.

- This process could assess the potential of emissions taxes and fees, and other tax and expenditure instruments, to contribute to limiting greenhouse-gas emissions.
- The review could consider the following:
  - How to calibrate, compare, and project the effects of policies employing domestic tradable emissions permits, emissions taxes, other fiscal instruments, and combinations of these, in limiting emissions
  - How to integrate national systems that may include various combinations of emissions permits and fiscal measures, various points of application of the system within the national economy (e.g., upstream vs. downstream), and various breadths of included emissions sources, to coordinate an effective, efficient, and credible international effort to limit emissions.
- The review could report back to leaders in two years, with specific recommendations for decisions.

**4: A Global Climate-Safe Energy R&D Initiative:** Leaders could invite the International Energy Agency to convene a process to design a new global initiative for research and development in climate-safe energy systems suitable for both industrialized and developing countries. The initiative would both strengthen and build networks among existing laboratories, and establish new laboratories. The proposal could be developed assuming a \$10 billion annual level of funding.

- Leaders could adopt a cost-sharing formula for financing this initiative by L-14 governments. All products and results from work conducted under the initiative would be placed in the public domain.
- Leaders could invite the L-14 National Academies of Sciences to convene a process, including appropriate participation from private-sector energy experts, to review the proposed terms of the initiative, to develop a process for periodic evaluation and review of the management and results of this initiative, and to recommend changes in overall funding and allocation among labs and fields.

**5: *An Initiative for Transfer of Climate-Safe Energy Technology:*** Leaders could adopt an initiative for the development of climate-safe energy technology and its deployment in developing countries on concessional terms.

- Leaders could create a global venture capital fund to commercialize clean energy technologies developed in the Global R&D Initiative or elsewhere. They could invite venture capital concerns to manage the fund on a pay for performance basis. The fund could enter into agreements to license or sell technology on terms that vary with the per capita GDP of the country in which the technology is deployed, with concessional terms for developing countries.
- The fund could be a vehicle for acquiring rights to existing technologies, or guaranteeing markets for privately developed technologies through bulk pre-purchase commitments, and making these available in developing countries. Leaders could commission the OECD to design a precise institutional design and terms of operation for this fund.
- Leaders could invite their Industry Ministers, with participation of appropriate experts from WTO, WIPO, and elsewhere, to study the implications of potential new forms of intellectual property and technology-transfer arrangements for climate-safe technologies, including 1) government purchase of existing private-sector IPRs and their transfer into the public domain, either in developing countries or everywhere; 2) defining new schemes by which the character, scope, or duration of intellectual-property rights are graduated according to the development status of the country in which an innovation is used.
- The concessional arrangements under this initiative could be offered initially only to developing countries within the L-14. Other developing nations could be invited to join the system upon their acceptance of national emissions budgets consistent with the global target adopted by L14 nations.

**6: *Specific Investments in Global Low-Carbon Energy Infrastructure:*** Leaders could consider adopting a set of specific, near-term investments in global energy infrastructure, to ease the transition toward a climate-safe global energy future.

- Leaders could invite the IAEA to convene a process, involving their Energy and Defense Ministers, to develop a specific, costed proposal for international oversight and management of the nuclear fuel cycle. This could include secure, internationally held sources of supply of nuclear fuel; secure, internationally

controlled repositories for disposal of spent fuel and other high-level nuclear wastes; secure, internationally controlled infrastructure and systems for transport of both fuel and high-level wastes; discussions with WANO on training staff; and international oversight and safeguards for operations of nuclear facilities.

- L14 leaders could commit to their governments to funding a new initiative, with private-sector organizations, to promote new coal-fired electrical generating stations in L-14 nations to use "integrated gasification-combined-cycle" (IGCC) technology in order to provide flexible opportunities for future retrofitting of carbon capture and storage (CCS) technology, and to support near-term large-scale demonstration projects deploying CCS together with IGCC technology.
- L14 leaders could commit to their governments to funding a new initiative, with private-sector organizations, to develop infrastructure necessary to establish an efficient international market in liquefied natural gas. All of Russia's major customers (including the EU) must gain confidence in Russia's ability to produce and export the volumes needed. This could include expansion of pipeline capacity in eastern Russia with connections to China; and new LGN ports worldwide to increase purchasers' confidence in the adequacy and reliability of supply.
- L14 leaders could invite the IADB, together with FAO and the International Union of Forest Research Organizations, to develop a viable plan for slowing deforestation in Brazil and other countries whose silvan balances are shrinking.

***Summary of benefits to illustrative major L14 participants:***

This proposal is a victory for everyone. All gain from achieving a real step toward limitation of global emissions and consequently limiting the risk of future climate change. Nations have thus far differed in how immediate climate change is relative to their other priorities. This package provides concrete and immediate gains to all participants. Examples are Russia's increased "security of demand", India's and China's access to advanced coal technologies, and security of supply, the U.S.'s preference for market based solutions and significant private sector role.

***Wins for the USA:***

- Binding emission-limitation commitments from major developing nations
- A cost-minimizing, market-based approach to international mitigation initiatives
- An approach to international energy tech transfer that respects private IPRs
- International security gains from a standardized nuclear fuel-cycle system, with oversight
- A solution to the USA's long-standing spent-fuel disposal problem, resolving the security hazard of spent fuel being stored site at reactors' sites.

***Wins for Europe:***

- L-14 commitment to a global GHG concentration target
- Binding emission-limitation commitments from the USA and major developing nations
- A cost-minimizing, market-based approach to international mitigation initiatives
- An approach to international energy tech transfer that respects private IPRs

- Enhanced international security from a standardized nuclear fuel-cycle system, with oversight
- An initiative for global mitigation leadership that respects and may help to re-invigorate the UNFCCC and Kyoto Protocol

### ***Wins for Russia***

- Financing for expansion of natural-gas production and export infrastructure
- Secure gas markets through China connections and far-east LNG development
- Support for R&D facilities – international financing for energy labs
- Enhanced international security from a standardized nuclear fuel-cycle system, with oversight
- Opportunity to host nuclear waste-disposal facility
- Potential international investment in clean coal (CCS) technology, making more oil and gas available for profitable export.

### ***Wins for China***

- Re-affirmation of the principle of common but differentiated responsibility, and a preferential emissions budget consistent with that principle
- Mitigation obligations are explicitly conditional on prior achievement of industrialized-country benchmarks.
- Secure access to diversified supply, and to nuclear fuel and disposal capability
- Increased energy security of supply
- Opportunity to host and benefit from a global energy R&D laboratory
- Access to venture capital for Chinese climate-safe technology
- Preferential access to commercial climate-safe energy technologies, developed through Global R&D initiative and Venture Fund.
- Contribution to arresting deterioration in local environmental quality

### ***Wins for India***

- Re-affirmation of the principle of common but differentiated responsibility, and a preferential emissions budget consistent with that principle
- Mitigation obligations are explicitly conditional on prior achievement of industrialized-country benchmarks.
- Secure access to diversified supply, and to nuclear fuel and disposal capability
- increased energy security of supply
- Opportunity to host and benefit from a global energy R&D laboratory
- Access to venture capital for Indian climate-safe technology
- Preferential access to commercial climate-safe energy technologies, developed through Global R&D initiative and Venture Fund.
- Contribution to arresting deterioration in local environmental quality

This proposal is intended to be a meaningful first step outlining advantageous actions that are within the authority and capability of leaders acting today. It also suggests a commitment by leaders to a process to undertake more detailed explorations and return to in one year with specific proposals for their consideration.