This note discusses the potential role of the World Bank in providing global public goods. From an economic point of view, global public goods are those for which a large share of the benefit cannot be contained within a single country. For instance, a country that establishes a policy to reduce carbon emissions to prevent global warming does not just benefit itself but helps all countries that would be hurt by global warming. Likewise, a successful campaign to eradicate polio would not only improve health in those countries where the disease persists, but would also save other governments hundreds of millions of dollars a year in avoided immunization costs.

It’s worth noting that there is a continuum in the extent to which the benefits of goods spill over across borders. Reductions in carbon emissions or efforts to eradicate polio are at one end of the continuum, while efforts to, for example, expand the use of nets to fight malaria are at the other, since most epidemiological models would suggest that the great majority of the benefits of net programs fall within a country, although theoretically there might be some reduction in transmission of disease to the neighboring countries. (As this example illustrates, not every worthwhile investment is a global public good, and the international community should not feel that every activity undertaken by international organizations needs to be justified as falling under this rubric.)

The full value of global public goods is not reflected in an individual country’s own cost-benefit analysis. As such, governments often have inadequate incentives to devote their own resources to these programs.
International organizations such as the World Bank fill this void by supporting global public goods. Of course some global public goods, such as development of improved algorithms for matching kidney donors to patients, would benefit primarily rich countries. For equity reasons, the World Bank may want to focus on those global public goods for which a large share of the benefit goes to poor countries.

When the Bank was limited to providing loans to governments, the Bank's instruments for promoting global public goods were likewise restricted. It is difficult for the World Bank to ask a country to repay any substantial part of a loan if the benefits are primarily for other countries. Because it now can offer grants, the Bank has the potential to do much more to promote global public goods that benefit the poor. It may make sense for the Bank to set up a funding mechanism for these global public goods that is separate from IDA.

In particular, the Bank might consider a separate funding mechanism that could make investments in the following global public goods: 1) technologies for the poor, 2) developing knowledge about what works in public policy, 3) a road network for Africa, and 4) creating incentives for countries to house and care for refugees.

**Technologies for the Poor**
The development of certain health and agricultural technologies, such as a schistosomiasis vaccine or improved cassava varieties, would affect the lives of people in many developing countries. While private companies are often motivated to develop new technologies based on a combination of up-front public funding as well as the prospect of a market, markets for these technologies either do not exist or function poorly.

The Bank can help overcome these hurdles in two ways. First, it can use its funds to support research. In the past the Bank has used part of its profits to support the development of agricultural technologies through institutions like the CGIAR system. The Bank could expand its support of these activities and of the development of health technologies as well.

The second approach would be for the Bank to use its resources to create a market for the needed products and thus create incentives for private firms to invest in these technologies. In particular, the Bank could make a commitment to extend loans or grants to help countries
finance the purchase of certain goods, like the purchase of a schistosomiasis vaccine.\footnote{1}

Moreover, if the Bank had a separate financing mechanism devoted specifically to supporting global public goods, it could do much more than lend money to countries to buy vaccines. The Bank could also offer up-front to devote its resources to the creation of new vaccines, through an Advance Market commitment for example.

Developing Knowledge on Public Policy
A second global public good that targets poor countries is the development of a solid knowledge base on the impact of various public policies in these settings.

Oportunidades, the conditional cash transfer program in Mexico formerly known as PROGRESA, is a prime example of the benefits of combining policy innovation with rigorous evaluation to determine their impact. Mexico developed a very sophisticated evaluation mechanism for Oportunidades, which included randomizing the order in which the program was phased in across villages. The high quality evaluation techniques created a reliable evidence base that has not only helped lead Mexico to preserve and expand the program, but also led other countries to adopt similar programs. (The IDB played a role in this, and the Bank has played a role in expanding this type of program.)

The Bank could support countries interested in testing new approaches through an innovation and evaluation fund. Through such a fund, the Bank could make resources available, with a large grant element, to countries that are willing to subject programs of potential interest to other countries to a rigorous evaluation, including randomization of the order of phase-in.

African Road Network
Support for an African road network would provide a regional public good to one of the poorest areas in the world. (Since there are other financial institutions that specifically serve this region, some have argued the Bank follow the subsidiarity principle by funding or offering co-financing to those institutions, such as the African Development Bank.)

If the Bank were to consider such a program, it would be critical to provide for a continued role of international institutions in preservation and maintenance of the road, including preventing the overloading of trucks, which damages roads. In the absence of such an international
role, there may not be sufficient incentive to prevent road damage from heavy trucks since much of the cost of that kind of road deterioration would be shared with neighboring countries.2

Support for Refugees
More speculatively, support for refugees can be considered an international public good. Each country would rather that another accept refugees. This is one justification for the international treaties which require signatories to accept political refugees. Yet the current system creates a number of problems.

Maintaining refugees in camps concentrates them in a particular area, making it harder for them to work in the normal economy, and leaving them plenty of time and incentive to engage in politics, including violent political activities. We have seen this most recently with Rwandan refugees in Congo. We also saw it in Afghanistan, and with the Palestinians.

In some instances, powerful political actors may have political motivations for keeping refugees in camps. For instance, some may have felt that in order to keep pressure on Israel, it was strategically useful to have Palestinians in refugee camps rather than dispersed and resettled throughout the Arab world. On the other hand, there are certainly some cases—the Hutu militias and other refugees that fled to Congo might be a good example—in which there is no strong international political force which is lobbying for refugees to be maintained in camps, and there might be prospects for reform.

One way the Bank might assist in such situations would be to support countries, especially non-neighboring countries, that are willing to take in refugees and to let them integrate into their society. For example, if the World Bank had a mandate in this area, it could have provided assistance to countries that were willing to take in refugees on condition that they would allow them to settle freely. For example, there could have been assistance to countries like Kenya if they accepted Rwandan refugees. Had this occurred, it is possible the invasion of Congo and the terrible war there could have been avoided.
Conclusion
Global public goods present a problem to the international community. Because the returns on an investment in these goods are shared around the world, individual countries rarely have the incentive to devote their own resources to providing them. The World Bank, armed now with grant instruments in addition to loans, is in a unique position to support the creation and maintenance of these goods. It would be appropriate for the Bank to focus on the

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