Implementation costs. Implementation costs refer to the increased planning and land management expenses a government needs to put REDD into practice.

Administrative costs. Administrative costs are the operational expenses of administering REDD programs.

For $5 billion a year, REDD can protect nearly 20 percent of the tropical forests in danger of deforestation, and $20 billion a year can protect about half.

Transaction costs. Transaction costs include the cost of searching for projects and partners, negotiating with partners, as well as monitoring and regulatory approval of projects.

Stabilization costs. Another important part of REDD is stabilization, or the need to prevent deforestation from moving to non-participating countries. Stabilization seeks to prevent this international leakage. Payments to ensure that low-deforesting countries—such as those of the Congo Basin—do not increase their deforestation as REDD is implemented elsewhere are an example of stabilization costs. One study estimates stabilization will cost about $630 million per year for the 10 most important stabilization countries.

Overall, the total implementation, administrative, and transaction costs amount to nearly $1/ton of reductions. Stabilization costs are added separately, since they are not proportional to the tons of reductions made. The cost curve in Figure 2 includes all costs.

Potential of REDD Funding
REDD represents a particularly attractive method for reducing heat-trapping emissions because the least expensive reductions can be made early on, with the cost per ton of reductions increasing as...
more reductions are made. The cost curve and supply curve for REDD in the year 2020 are estimated by averaging recently published results from the three main global models—DIMA, GTM and GCOMAP.

For $5 billion a year, REDD can protect nearly 20 percent of the tropical forests in danger of deforestation, and $20 billion a year can protect about half. With funding approaching $50 billion a year, tropical deforestation could be reduced by two-thirds.

The global models vary significantly in their overall cost estimates, but much of the variation is due to different underlying assumptions relating to the carbon stocks and baseline deforestation in different regions. For this reason, the reductions shown in Figure 1 are reductions from the different baseline levels used by each of the three models. Even the higher cost estimates demonstrate that REDD is an inexpensive means to reduce global warming.

The financing for REDD could come from several different kinds of mechanisms, and the cost and supply curves shown here do not assume any specific funding source. For example, financing could come from direct carbon market offsets, market-linked auction revenues from domestic cap-and-trade programs, voluntary contributions, or a combination of these. The funding mechanism will likely transition from voluntary to market-linked to direct carbon market, with the latter providing more substantial funding in later periods.

**Conclusion**

The data show that REDD can greatly reduce tropical deforestation and heat-trapping emissions with modest funding. Because estimates here use conservative methods and include all costs, estimates are higher than previous studies for comparable reductions (e.g., about $20 billion a year to cut deforestation by half, compared to the $5–15 billion a year estimate of the Stern Review). Nonetheless, REDD remains a very cost-effective way to address global warming.