Statements by the External Review Panel: Climate Evaluation, Phase I

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Overall I think this is a very good report. It focuses on important issues that are ones where the Bank can make some difference. My comments are minor.

I think that the two main themes, removal of energy subsidies and improvement of energy efficiency, are critical issues in the context of developing countries (and rich countries too!) facing rising energy prices and threatened by climate change. We know from experience that neither is easy to achieve, but for both I feel sure that the benefits outweigh the costs and fully justify the efforts. I do think it is particularly important to stress, as the report does, that removing energy subsidies need not compromise the ability to get energy to the poorest in society more efficiently, and that the main beneficiaries of subsidies are often the middle and upper classes. I was struck by the numbers indicating that high subsidizers have much higher emissions per capita than others: not surprising, but the numbers are impressive.

The report refers several times in the early sections to a systems approach to energy. I am still not completely sure what is meant by this. I take it to mean looking simultaneously at all aspects of energy production and consumption and thinking through interactions and possible duplication and overlap, worrying more about joint heat and power schemes, and so on. It is likely that there are real gains in this area but I feel that this is something that should be spelled out more clearly.

I was impressed by the comment that the social benefits of providing power to the poorest greatly outweigh the social costs, even if power is provided in a way that generates greenhouse gases. These numbers should be more widely known. They are important in the global discussions on climate change and the role of the poor countries in mitigating this.

I like the suggestion of Energy Scorecards. These can provide a basis for benchmarking, often important in the policy-making context, and could also be useful in climate negotiations. Connected to this is the idea of carbon pricing of projects that emit CO_2, even when there is no legal requirement to purchase permits. Most major banks in the West now require this of their clients: U.S. banks, for example, require their clients to charge for carbon emissions in project evaluations even though there is no need to buy carbon permits. It would be natural for the Bank to do this too.

As the report mentions, emissions from deforestation are large and generated by developing countries: Brazil, Indonesia, and China are in the top four emitters, and for Brazil and Indonesia it is the case that most emissions come from deforestation. There is scope for a global win-win move if we implement one of the Reduced Emissions from Deforestation and Degradation (REDD) ideas now under discus-

sion, as this will not only reduce emissions but also lead to new development finance. The Bank's Prototype Carbon Fund is important in this context.

Again, in summary, I was impressed by the review: it seems to address very important issues, and does so clearly.

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My comments are intended to be useful and provocative, even though I understand that, as detailed in chapter 1, the segment of the overall projected IEG evaluation we have before us is very restricted. It deals with win-win opportunities and defers systematic consideration of major issues (like carbon markets) that are only alluded to in this initial treatment. Any criticism of findings or recommendations in these areas of work key to rating and reforming Bank Group performance is evidently unfair as premature. Still, I hope that these remarks on the incomplete work may contribute to shaping the entire final product.

I want to state immediately that I like the report and find its organization, analyses, and recommendations generally clear, well founded, and pertinent. I will describe below the main points that exemplify these contributions. After stressing my strong appreciation for the tenor and content the report already makes (part A), I would like to discuss an implicit issue that runs throughout that is troubling (part B). The issue is that even a cursory history of the Bank Group's engagement, though admittedly indirect, with climate change since the early 1990s indicates the matters stressed in the report have been known to the Bank's actors and central to the Bank's agenda for this whole period. The unanswered question that runs through the report is why outcomes should be different now, and in years to come, than they have been in the past. As the report implies in chapter 7, box 7.1, what is needed most in the future elaboration of the entire IEG project is to clarify and elaborate, in the light of its recorded behavior, the Bank's comparative advantage in the field of climate change.

Part A

There are very many discrete elements of the report that I found coherent, enlightening, and innovatively put forward. It makes a very useful contribution to the literature on energy and climate that would well be read within and outside the Bank Group. I'll list areas of treatment that, in my view, reinforce this conclusion.

1

The initial chapters on the relationships among energy growth, carbon emissions, and economic growth are concise and precise statements of what we know about these essential matters. They stress the critical points for the Bank Group and other major actors in the climate/energy intersection that poverty reduction and energy growth are not directly in conflict, that carbon and energy intensity are partially functions of natural endowments and partially products of clear choices about economic development paths, and that wide variation between nations in carbon emission performance is in part a function of energy policy and pricing. (Although given different labor, capital, and energy endowments, as well as the lack of understanding of carbon dynamics during the period in which basic patterns of economic development and resource use were set, the province and maintenance of these policies may themselves be subject to alternative interpretations.)

2

The tabular and analytical work on the carbon tax equivalence of recent increases in resource prices is original and quite helpful.

3

The case against subsidies and its political dynamics in the emerging era of high commodity prices and resource rent transfers summarizes well a mass of (fragmented) data clearly and deals nicely with the lack of basis for pushing these policies forward in the name of

the poor, much better aided through other policy means.

4

The scale of the economic opportunities to reduce waste through energy efficiency and thereby avoid the construction of additional carbon-intensive generation is restated, but with apt attention directed to the gap between the technical and engineering potential of improving both economic and environmental performance and the far weaker experience of closing this gap. There are many particular and original observations throughout the report, based on case studies of the Bank Group's energy-efficiency program record (see #6 below) that contribute to the political economy or organizational theory explanations of why energy-efficiency gains are often ignored in practice.

5

The report is very informative in describing World Bank concentrations of loans and investments in specific dimensions of broad project categories. For example, in the area of energy efficiency, the bulk of projects and funds are placed in supply-side efficiency (equipment). Even in the limited set of projects aimed at managing demand- side efficiency (DSM), there is more emphasis given to technology (for example, CFL bulbs) than policy reforms (tariff decoupling—though it is shown that Bank Group electricity pricing reform should have a positive impact on the demand for energy-efficiency measures of all types). In the area of codes and standards, the emphasis is more on the elaboration and enactment of codes than on their monitoring or enforcement. Equally important, there are allusions to the role of organizational structures and incentives in producing these concentrations.

6

The report is replete with valuable and original observations that reflect the IEG author's substantial knowledge of the sectors and programs under review. They often stand in contrast to the lack of quality evaluation in other Bank Group processes designed to yield ongoing increases in the productivity of investment. These observations most often are made in the course of case or project studies. Examples include:

a. DSM projects may often be undertaken as economical by utilities in developing countries that are forced by subsidized pricing to realize losses in some retail services.
b. In many cases there are serious questions about the causal impacts of Bank Group projects. Brazilian gains in conservation and energy efficiency in the 2001 drought period were more likely attributable to learning during mandatory rationing than codes or other policy reforms. Eastern European price reforms were more likely due to wide systemic movement toward markets than specific policy measures.
c. Even in cases where the economies of energy efficiency seem clear, subsidies to compact fluorescent lighting (ILUMEX) were not sustainable learning instruments that led to changed behavior when terminated.
d. The best energy-efficiency codes have little impact in the longer run without greater and sustained attention to monitoring and implementation capacity.
e. Favorable organizational image (public relations) was a more effective cause of reproducible behavior than other policies or subsidies in EGAT's (Thailand) success with compact fluorescent lightbulbs, indicating the potential of properly incentivized utilities.

7

The report details well how and why what appear to be win-win investments, especially in the area of energy efficiency, do not eventuate in a great number of instances. The roster of reasons varies from an absence of core collective goods like information to the presence of intranational resource transfer that requires either compensation or regulatory expropriation. But the report also makes it clear that many of these collective gains are efficient at the national level and that international transfers may be an unwise use of scarce financial resources. With these insights, it

would seem that it would by now, after many years of Bank Group investment in this area, be standard operating practice within the Group to have developed effective analytical tools to discriminate between what should be done nationally and what internationally. However, there is no case made in the evaluation that any such tools have been consistently applied as normal use. The lack of attention over the years of Bank Group experience raises concerns about the incentives within the Group to manage these issues as well as might be hoped.

Part B

Before explaining my questions about the implications of the report for defining the comparative advantage of the World Bank Group in the area of climate change, I want to list a number of specific criticisms of the record made in the Report itself that are both persuasive and tempered.

1

Although there is increasing recent attention given to energy-efficiency support, especially by the IFC, when one considers the full spectrum of Bank Group investment in the energy/climate intersection (one in five projects has some connection to efficiency if a broader range of supply-side measures is considered), the relative proportion of the project funding going to energy efficiency has been less than optimal. Within this class of under-funded activities, the relative proportion to demand-side management is especially low in comparison to supply-side efficiency.

2

The report presents a good compilation of the mixed record of effectiveness of many of the core programs in the World Bank portfolio. These include the large number of investments in power sector reform, gas flaring in general and the Global Gas Flaring Reduction Partnership in particular, and energy pricing reforms. There are patterns observable in the variation in effectiveness within these programs. For example, fuel price reforms have been less successful than electricity price reforms; Eastern Europe did better than large-scale fuel-producing nations. Moreover, the report notes very variable performance in project monitoring, analysis, and performance evaluation in the Bank's portfolio as well. (It is again surprising that there is as little systematic examination and learning from the variable record of performance as one would gather has occurred from a reading of the report's description of the materials to which it had access.)

3

There is good emphasis given in the report to the need for greater coordination across departments of the Bank Group to reduce intra-organizational stove-piping and the loss of potential benefits from a more comprehensive and systematic evaluation of the productivity of different investment options.

These three main themes form the logical and empirical basis for some of the key recommendations for reform. The first four recommendations are indisputable and well supported by the internal analysis of the report. These are: (1) focus on the removal of subsidies and provide targeted income compensation to the poor damaged thereby; (2) emphasize energy-efficiency opportunities and correct fuel and power prices to support these initiatives; (3) approach climate change systematically across the full range of World Bank country engagements because of the risk of perverse incentives under stove-piping; (4) improve the metrics and monitoring capacities to improve the information base on which such policy and program choices are made.

It is the fifth recommendation—that it would be better for the Bank to concentrate on those areas of the Bank Group's competitive advantage, namely, promoting policy and institutional reform—that I think would benefit from clearer and more explicit elaboration in future work. I do not suggest this because I disagree with the recommendation. I agree wholeheartedly that the weak record of positive results of all of our institutions around global climate change is generally best explained by hard problems

associated with the implementation, monitoring, evaluation, and reform of misgovernance. What seems to merit further development in the light of this perception is more empirical evidence or organizational analysis that it is the comparative advantage of the Bank Group to be the agent best positioned to improve the record with regard to these agreed institutional objectives.

Just as the report correctly emphasizes that the problems with the realization in practice of win-win opportunities in theory lie often in political economy and organizational behavior, it may be useful in framing the future completion of this IEG project to ask directly why the Bank Group, after some 15 years of programming in the climate/energy intersection, continues to operate with a suboptimal investment portfolio and highly inconsistent analysis based on an inadequate information base. Project assessment has been narrow; carbon footprints have been haphazard; funding for renewables and energy efficiency has been generally low; implementation and monitoring are less attended than are normative prescriptions in policy-oriented activities. Are there systemic or institutional reasons that cause the persistence of these obvious and long-standing attributes of Bank Group practice? After initial experience with earlier programs that were subject to these same criticisms, why have there not been processes of systematic and sustained correction in later investment vintages? Would ongoing IEG work be more likely to induce positive change in the development in the Bank Group's program over time if there were more explicit discussion of the reasons that clarify why it has mainly stuck to a course that has long been subject to serious criticism?

We might here only speculate on types of organizational explanations that might be subjected to more intensive analysis to improve Bank Group practice by exposing the incentives that still are manifest in a relatively stagnant and problematic investment program. These might include arguments that an emphasis on normative economic prescription is too clear and too easy. This argument has been leveled at other dimensions of Bank Group programs by internal critics in areas including liberalization, privatization, and sectoral reforms. Related is the refrain that the path of transition from state-controlled to market-dominated economies was imagined as straightforward and technical, rather than profoundly political and conditioned by historical and institutional particularities in different countries. All of these claims could suggest the Bank Group has internal incentives to emphasize nonpolitical, often technical, remedies for poor growth performance; to stress upstream (technological) and normative solutions instead of downstream regulatory, behavioral, or implementation problems because the latter are relatively more constrained by fundamental concerns about intrusion into political operations that impose larger sovereignty conflicts.

An alternative line of explanation might begin in organizational sociology. The report notes that many of the relatively less frequent elements of Bank Group programs, like DSM or particular types of renewable generation, have been carried on under the particular aegis of GEF funding or are championed by small expert teams marginal to the larger Bank system. This observation suggests the foundational proposition of organization theory that large organizations have a core mission and an attendant adapted culture that dominates their priorities and performance. Such organizations respond to threats from the environment by establishing marginal groups that mediate external demands without disturbing core operations.

The Bank Group's core mission in this perspective is certainly to foster economic growth, with a strong amendment in the last decade to an express poverty alleviation orientation. This is reflected in an incentive system that concentrates on economic expansion and a commitment to short-run measures that bring poverty relief. Outcomes such as continued investment in energy infrastructure growth not necessarily constrained by environmental considerations (for example, coal plant investment) or technology diffusion rather than (longer-run) technology innovation would be expected in such an organizational culture explanation. (Conversely, focus

on demand restriction might be less prized and reinforced because efficiency projects are complicated and staff-intensive, don't expend a lot of cash, and are less tangible and less prone to offer ceremonial occasions.)

These deeper issues of Bank organizational culture or internal incentives raise questions about what the report poses as the key issue going forward: what is the Bank Group's comparative advantage that should define its climate/energy strategy? With vast new resources coming onto the climate table, should primary responsibility be assigned to the Bank in allocating important segments of these resources, given its own institutional incentives? These questions may be premature in terms of the various phases of the complete IEG evaluation project. Major issues are not yet examined. These include both the contested record of the Bank Group in expending many times the funds on fossil fuel infrastructure financing than on noncarbon alternatives and the record of the Bank Group's carbon market initiatives. While the former is not addressed at all in the report, there are important anecdotal accounts of the latter.

Yet the preliminary work in the report also questions the Bank Group's early engagement with the CDM market in energy-efficiency financing, raising well-founded concerns about additionality if international funds are devoted to reducing costs of projects that are economically efficient at the national level. This is particularly true if continuing subsidies in retail prices reduce incentives for demand management. The report's chapter on gas flaring also analyses critically the Bank's use of CDM in cases where gas is not flared in the common cases where the regulated wholesale price of gas undercuts its collection and transmission, where electricity prices are held at levels too low to justify gas-fired generation, and where gas transportation projects that should be wholly economic at oil prices in excess of $40 per barrel do not take place because of risks of nonpayment from state-owned and run-off-takers. These prospective questions, yet to receive comprehensive IEG analysis, may be seen as challenges to the conclusory proposition that the Bank Group should have a strong, though reformed, role in the growing world of carbon finance or climate policy.

In conclusion, at the end of discussing an excellent report, I wonder whether the report can best further the more effective resolution of such key climate change questions and help steer the Bank's internal evolution through more direct attention in the phases of the project to come to the issue of whether the Bank Group does have comparative advantages in climate in comparison to other potential climate institutions or to other public purposes the Bank Group might pursue.

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The report is comprehensive and reviews a range of World Bank activities that fit into an overall program related to climate change. Quite appropriately, the report traces the history and record of World Bank activities that are expected to have driven mitigation of GHG emissions over the years. The emphasis on institutional changes and reform measures is quite appropriate, because in the operations of the World Bank these assume logical primacy and should lead to outcomes in developing countries ensuring higher levels of energy efficiency and reduced emissions of GHGs as a consequence. It may be mentioned that the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4, 2007) has very clearly emphasized the importance of placing a price on carbon as perhaps the most effective policy measure for promoting technological change and other actions that could result in reduced emissions of GHGs. Hence, the viewpoint of the Bank on the issue of subsidies and their removal as well as rational pricing for different applications constitutes an important set of priorities that over a period of time can bring about change in the right direction. Addressing the assessment of several co-benefits, including lower levels of air pollution at the local level with attendant health benefits, higher security of energy supply, and the like in relation to mitigation of GHGs would have

provided another dimension of externalities that should be part of economic decision making. This aspect has not been addressed adequately.

In my view, two additional aspects in preparing this report could have enhanced its value:

1. Research and development and technology issues for ensuring mitigation of greenhouse gases. While a number of technological innovations would generally flow from the developed to the developing countries, the need for customization of specific technologies to suit local conditions is an important aspect of technological change that perhaps deserved greater analysis and coverage in the report. This would also be justified by the fact that in several developing countries, technological capabilities have reached a level where they are making a significant difference in bringing about efficiency improvements and reduced emissions of GHGs.
2. The second subject on which greater coverage and targeted analysis would have been useful relates to adaptation to the impacts of climate change. It is very clear that effective climate policy in every country of the world would require a combination of mitigation as well as adaptation, most effectively to be conceptualized and implemented by the same organizations and authorities handling both. By not covering adaptation measures in adequate detail and confining the report essentially to mitigation, this dimension has been a loss in terms of the value of what is presented in the report.

All in all, this is a useful document, which, I am sure, will not only help the Bank in developing its own climate change portfolio in the coming years but would also be of value to policy makers and analysts in both the developing as well as the developed world.