The Matrix System at the World Bank
An IEG Evaluation

Approach Paper

December 28, 2010
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<th>Acronym</th>
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<tr>
<td>ARDE</td>
<td>Annual Review of Development Effectiveness</td>
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<td>ARPP</td>
<td>Annual Report on Portfolio Performance</td>
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<td>BW</td>
<td>Business Warehouse</td>
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<td>CAE</td>
<td>Country Assistance Evaluation</td>
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<td>CAS</td>
<td>Country Assistance Strategy</td>
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<tr>
<td>CASCR</td>
<td>Country Assistance Strategy Completion Report</td>
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<td>CASCRR</td>
<td>Country Assistance Strategy Completion Report Review</td>
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<tr>
<td>CD</td>
<td>Country Director</td>
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<td>CFR</td>
<td>Corporate Finance and Risk Management</td>
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<td>CM</td>
<td>Country Manager</td>
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<td>CMU</td>
<td>Country Management Unit</td>
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<td>CODE</td>
<td>Committee on Development Effectiveness</td>
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<td>DPL</td>
<td>Development Policy Loan</td>
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<tr>
<td>EAP</td>
<td>East Asia and the Pacific</td>
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<tr>
<td>ECA</td>
<td>Europe and Central Asia</td>
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<tr>
<td>ESSD</td>
<td>Environmental and Socially Sustainable Development Network</td>
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<td>ESW</td>
<td>Economic and Sector Work</td>
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<tr>
<td>HR</td>
<td>Human Resources</td>
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<tr>
<td>ICR</td>
<td>Implementation Completion Report</td>
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<td>ICRR</td>
<td>Implementation Completion Report Review</td>
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<td>IEG</td>
<td>Independent Evaluation Group</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>IL</td>
<td>Investment Loan</td>
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<td>INF</td>
<td>Infrastructure Network</td>
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<td>ISR</td>
<td>Implementation Status and Results Report</td>
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<td>KLC</td>
<td>Knowledge and Learning Council</td>
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<td>LAC</td>
<td>Latin America and the Caribbean</td>
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<td>MENA</td>
<td>Middle East and North Africa</td>
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<td>MLT</td>
<td>Matrix Leadership Team</td>
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<td>NGO</td>
<td>Non Governmental Organization</td>
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<td>OETF</td>
<td>Organizational Effectiveness Task Force</td>
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<td>OPCS</td>
<td>Operations Policy and Country Services</td>
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<tr>
<td>PPAR</td>
<td>Project Performance Audit Report</td>
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<tr>
<td>SAR</td>
<td>South Asia</td>
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<tr>
<td>SB</td>
<td>Sector Board</td>
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<tr>
<td>SD</td>
<td>Sector Director</td>
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<tr>
<td>SM</td>
<td>Sector Manager</td>
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<td>SMU</td>
<td>Sector Management Unit</td>
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<td>SDN</td>
<td>Sustainable Development Network</td>
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<tr>
<td>QAG</td>
<td>Quality Assurance Group</td>
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<tr>
<td>VP</td>
<td>Vice President</td>
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<tr>
<td>VPU</td>
<td>Vice President Unit</td>
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<td>WBI</td>
<td>World Bank Institute</td>
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Approach Paper
The Matrix System at the World Bank: An IEG Evaluation

Rationale and Purpose

1. The World Bank’s ability to deliver effective country operations and services is contingent upon responsiveness to the client and technical excellence. Both responsiveness and effective use of technical capacity depend in turn on organizational structure, staff incentives, and accountability mechanisms.

2. The Bank has made several attempts, most notably in 1987 and then in 1997, to strengthen its ability to achieve these twin objectives—responsiveness to the client and technical excellence. The institution’s 1997 renewal strategy was motivated in large part by recognition that the Bank’s development programs were excessively driven by a culture of lending, with insufficient attention to client needs and the quality of results, which are crucial to development effectiveness (see Wapenhans 1992, 1994; and Pincus and Winters 2002). The reforms included a major organizational restructuring and change management process, resulting in the Bank’s current management structure, and brought the word matrix into the Bank’s organizational vocabulary. The resulting structure consists of a dual matrix—between the six regional Vice President Units (VPU) and network VPUs at the bankwide level, and between Country Management Units (CMU) and Sector Management Units (SMU) within each region.

3. IEG is evaluating the Bank’s matrix management system, at CODE’s request,\(^1\) as a contribution toward strengthening the Bank’s effectiveness in supporting development in its client countries. The exercise aims to generate lessons relevant to the Bank’s current efforts to strengthen management practices in order to deliver results: it is not intended to be an accountability exercise assessing compliance with Bank procedures and policies. The evaluation will examine the extent to which the matrix system has achieved its twin objectives of enhancing responsiveness to the client and establishing strong technical networks to harness global and local knowledge and hence its relationship to the Bank’s development effectiveness. The evaluation will focus on implementation of the existing matrix system rather than on the design of the 1997 matrix. The primary motivation of the evaluation is to assess the relevance and efficiency of the matrix system in strengthening the Bank’s organizational effectiveness and its ability to provide high quality knowledge services to its clients. Bank Management undertook an internal review of the matrix system in FY2010 and has recently introduced reforms to address some of the constraints identified by the review. This evaluation will provide an independent assessment of the benefits of the current matrix system and constraints or gaps, identify those issues already addressed by the recent matrix reforms, and highlight those issues which may need further attention.

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\(^1\) This request was reiterated at the Informal Board Meeting on March 16, 2010, where Bank Management presented its proposed matrix reform.
4. Past IEG evaluations have identified significant organizational and institutional constraints emanating from the matrix system which are likely to impact on development effectiveness, including:

   i) Difficulties in linking corporate and sector strategies with country-driven operations (Gender and Development 2009) and global programs with country programs (ARDE 2009);

   ii) The key role of knowledge and data, and weaknesses in sharing knowledge about what works (Climate Change and the World Bank Group: Phase I 2009);

   iii) The erosion of technical expertise and need for stronger staff skills, especially those relevant to new business needs (Growth and Productivity in Agriculture and Agri-business 2010; The World Bank Group’s Response to the Global Economic Crisis: Phase I 2010);

   iv) Inability to fully exploit cross-sector synergies for development effectiveness (Improving Outcomes for the Poor in Health, Nutrition and Population 2009; Environmental Sustainability 2008);

   v) Weak accountability for implementation (Safeguards and Sustainability Policies in a Changing World 2010).

5. Previous assessments by Bank Management have identified similar matrix-related problems: (i) the persistence of sector “silos” leading to weak cross-sector collaboration and untapped synergies; (ii) disconnects between Board-approved sector strategies and country operational programs; (iii) limited staff mobility and sharing of knowledge and staff skills across regions; (iv) dispersed and poorly-defined managerial accountabilities, resulting among other things in inadequate quality control; and (v) the growth of trust funded activities not well connected to country programs.

6. This evaluation is designed to assess the benefits and constraints of the current matrix system in furthering the Bank’s development effectiveness. In this evaluation the terms “matrix system” and “matrix reform” refer to both the organizational structure and the accompanying institutional rules and behaviors. This assessment will examine the relevance of the objectives and design of matrix organization to the current strategic priorities of the Bank, and the efficacy and effectiveness of the Bank in meeting those priorities. Understanding the incentives and accountabilities that have a bearing on quality and outcomes will be essential for the evaluation.

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2 Previous assessments include the Assessment of the Strategic Compact (2001), the QAG Assessment of Sector Boards (2004), OETF findings (November 2004), and the diagnostic carried out by the World Bank (December 2010).
Relevant Literature on Organizational Reform

7. Organizations implement matrix structures to help balance competing objectives and deal better with interdependent activities. Successful matrix organizations continuously review their organizational effectiveness and readjust internal power imbalances, as necessary, to enhance their ability to achieve their goals (Gottlieb 2007; Galbraith 2009). Much of the literature on the Bank’s internal reform focuses on organizational culture as the impediment, or facilitator, of past reform efforts (Phillips 2009; Wade 2001; Weaver and Leiteritz 2005). This research views the reforms of 1997 and beyond as largely successful in making the Bank more responsive to its clients (for example faster disbursing loans with greater ownership and less conditionality) but falling short in other intentions such as integrating some strategic objectives in operations (mainstreaming), adhering to its own mandates such as safeguards (Rich 2000), and demonstrating development impact and sustainability (Mallaby 2004, 2005; Easterly 2001, 2002; Stiglitz 1999, 2002; Pincus and Winters 2002; Gutner 2005b).

8. Some authors, such as Hobbs (2005), argue that it is quite predictable, perhaps inevitable, that the reality of internal reform does not match its rhetoric for two reasons. First, as an international organization the Bank must respond to the demands of multiple stakeholders (donors, borrowers, NGOs, and academics) from whom it draws its legitimacy and resources, yet these demands are often in conflict with each other (Nielson, Tierney, and Weaver 2006; Gutner 2005a; Wade 2005). Second, the strong internal culture of the Bank—as in most large organizations—is slow to change and requires ample time, money, and skillful leadership at all levels (Finnemore and Sikkink 1998; Burke 2002; Bebbington et al 2006). Consequently, the internal Bank reforms that mesh well with its “preexisting intellectual and operational culture” have more traction than those that do not (Weaver 2008).

9. The experience with matrix systems in the private sector—where financial outcomes provide a common metric for success—may have less relevance for public institutions, but some common issues emerge. The literature finds incomplete implementation to be one of the most common weaknesses, when formal changes in structure are not accompanied by changes in the softer, more stubborn, issues of organizational culture and incentives. Galbraith (2009) argues that changes in strategy, people, rewards, processes, and structure are essential for matrix reform to be effective. Others have pointed to unclear lines of accountability, competitiveness and internal power struggles, and proliferation of bureaucratic layers (Gottlieb 2007), as well as the inability to rebalance power across the matrix, reluctance to adopt collaborative behaviors, and lack of systems and processes to support the reforms (PA Consulting Group 2009) as recurring challenges in matrix organizations. The institutional aspects of reform thus appear to be far more challenging than changes in organizational structure.

The Reform Context

10. The premise behind the matrix reform was that to be effective the Bank’s operational work must be both tailored to individual and client needs and technically appropriate, combining local knowledge with knowledge and good practice around the world. Country de-
portments and sector departments embody these two sides of the Bank’s structure, and reorganizations have typically sought to adjust the balance between the two centers of power. The 1997 reform was a deepening of the rebalancing effort undertaken in 1987 to strengthen the country focus of the Bank’s work, which hitherto had been dominated by sector experts of the Technical Departments. The 1987 reorganization had created 20 Country Departments, composed of subregional clusters of countries, with most technical, analytical and program management skills combined in each department to carry out the work program. Specialized, one-of-a-kind skills were housed in four Technical Departments to provide services to the Country Departments.\(^3\) While the 1987 matrix strengthened the country focus, the technical quality of the Bank's project work deteriorated.\(^4\)

11. The 1997 reorganization was designed to deepen the country focus and responsiveness to client needs with greater decentralization of country directors to the field and devolution of authority over strategy and budgets to them. To foster technical excellence, four technical Networks were created, comprising 19 sector boards (SB) responsible for technical quality and for mobilization and dissemination of country-specific knowledge and global technical practices. In addition, a Quality Assurance Group (QAG) was established outside the VPU structure to provide feedback on portfolio quality independently to senior management. The matrix system was one of the essential elements of the 1997 renewal strategy and was intended to ensure consistency between the reform objectives and the organization’s delivery system for operations (World Bank 1995, 1996a, 1997c, 2001c). This was to be facilitated by shared accountability for technical quality and development effectiveness and an internal labor market for staff mobility and renewal to ensure availability of relevant skills that meet client needs.

12. Implicit in much of the Bank’s analysis and discussion of restructuring has been the need for staff to work across VPU and sector boundaries, and to ensure greater accountability across the institution for quality and outcomes. Encouraging conducive ‘matrix behaviors’—flexibility to work across regions and sectors, internalization of diverse staff and management needs across dual reporting lines, responsiveness to client needs rather than institutional imperatives—is essential for making the matrix deliver on its promise. This need to ‘get the plumbing right’ for effective matrix management has been acknowledged in FY10.

13. Implementation of the reforms was intentionally kept flexible because, apart from the basic objectives, there was little a priori agreement on how the necessary changes in organizational culture would be achieved. Thus, implementation was envisaged to be done through a Bank-wide, participatory learning process, in which issues would be systematically flushed out and dealt with as needed, and indicators would be used to monitor progress and share lessons (World Bank 1997b). The design permitted variations among the regional matrix organ-

\(^3\) In 1991, the Technical Departments were reduced in size—one third of the staff went to the country departments, one third to Central Vice Presidencies, and one third stayed in the Technical Departments within the regions.

\(^4\) The Wapenhans Report (1992) and first QAG reviews, which cover older projects approved prior to 1997, indicated that about one third of Bank projects were not likely to have satisfactory outcomes.
izations both in structure and in process; some of these variations have since been standar-
dized while others continue or have diverged further.

14. Since 1997, there have been several assessments of the Bank’s matrix management
structure. A 2001 management review led to some adjustments in budget and human re-
sources (HR) systems to improve incentives but integration of country and sector strategies
and cross flow of people and knowledge remained problematic. Following pilot assessments
of two sector boards in FY 2003, the Quality Assurance Group (QAG) carried out an assess-
ment of the remaining sector boards.\(^5\) While not focused directly on the matrix, the QAG as-
sessment identified several matrix issues, including: the governance and effectiveness of
network councils and SBs; the relationship between global agendas and regional operations;
the proliferation of SBs; and weaknesses in HR management (World Bank 2004b). A review
by an Organizational Effectiveness Task Force (OETF) in FYs 2004-05 identified similar
constraints: (a) excessive fragmentation of tasks across organizational units with overlapping
mandates; (b) inadequate leveraging of global knowledge; and (c) suboptimal deployment of
staff and budget resources. These recommendations were not acted upon at the time.\(^6\)

15. The Bank has decentralized considerably since the matrix was established. The number
of country departments increased to 45, with almost 90 percent of Country Directors country-
based as of June 2009, compared to just five percent in 1997.\(^7\) Increasing numbers of sector
staff are also country-based, most often co-located with the Country Director. Key to the suc-
cess of these reforms is the Bank’s ability to ensure critical mass of high quality technical
expertise to ensure development effectiveness in a setting that is even more decentralized.

16. It has been more than a decade since the 1997 reorganization and concerns that the ma-
trix system is not delivering on its promise persist. There have been some changes since
1997, most notably the reduction in the number of networks through mergers to form the cur-
rent matrix structure (see Figure 1) and adaptations within the regional matrices. But the funda-
mental structure, including the regional structure put in place in FY97, is still intact (Figure
2).

17. In FY 2010, Bank management undertook a review of the matrix system, reconsidering
the findings and recommendations of the previous assessments and carrying out additional
consultations with regional and network staff. The review was part of six ‘change initia-
tives’.\(^8\) The review identified five priorities for matrix reform:\(^9\)  (1) mobilize top talent and

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\(5\) Quality Assurance Group, FY02 Annual Report on Portfolio Performance, p. 21. Also see

\(6\) In 2006 the ESSD and INF networks (the two largest) were merged into the SDN network, which
houses almost two-thirds of regional staff and manages two-thirds of the Bank’s investment lending
portfolio.

\(7\) OETF data and Africa Region Staffing Report, FY05-10 (World Bank 2010a).

\(8\) The change initiatives are: (1) Global Bank: next steps in decentralization; (2) Matrix review; (3)
Knowledge strategy; (4) Human Resources reform; (5) Information Technology (IT) modernization;
and (6) Results agenda & investment lending (IL) reform (World Bank 2009c).
global knowledge for country clients; (2) create strong and rejuvenated technical practices; (3) increase staff mobility; (4) ensure clear accountability, especially of networks and sector boards; and (5) strengthen corporate management through the establishment of a Matrix Leadership Team (MLT) of regional and network VPs to manage matrix issues. The MLT is designed to act as a collective decision making body to oversee the functioning of the matrix and resolve identified problems, analogous to the management team of Country Directors and Sector Directors/Managers in each region. The 2010 reforms focus essentially on rebalancing the matrix to ensure that the sector boards play a more catalytic role in facilitating knowledge exchange for results on the ground.

Figure 1. The World Bank Matrix Structure

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9 “Towards a More Effective Matrix”, (World Bank 2010d) that was discussed with the Executive Directors at the Informal Board Meeting on March 16, 2010.
The regions are organized as matrix structures based on Country Units and Sector Departments.

**Regional Management**
- Strategy & Policy Directors
- Chief Economists

**Country Units**
- Responsible for overall relations with specific countries. Lead preparation of the Country Assistance Strategy and allocate the Bank administrative budget to SMUs based on WPAs.

**Sector Departments**
- Responsible for managing specific tasks (e.g., lending, supervision, ESW) and ensuring quality and timeliness as agreed with the respective Country unit.

**Quality, Safeguards, Procurement and Financial Management**
- Responsible for compliance with Bank policies and procedures and overall portfolio monitoring.

Source: OPCS Technical Briefing to the Board, July 28, 2009

18. In parallel, a review of the Bank’s knowledge agenda identified a series of systemic weaknesses and proposed a new Knowledge Strategy (World Bank 2010b, 2010c). The three pillars of the knowledge agenda (greater staff mobility, active management of knowledge products, Bank as global knowledge ‘connector’) are integral to the original conceptual framework of the matrix (Figure 3) and make it important to take account of the knowledge reforms in evaluating performance of the matrix system. Management has established a Reform Secretariat housed within OPCS to act as a joint secretariat for the MLT and the Knowledge and Learning Council (KLC), implicitly recognizing the inseparable linkages between the two.
Scope of the Evaluation

19. This evaluation will assess the Bank’s recent experience with matrix management with the aim of identifying the relevance, efficacy and efficiency of the matrix system from the perspective of its effects on development effectiveness.

a. Relevance (of objectives and design) is defined as the extent to which the objectives are consistent with current development priorities and current strategies and corporate goals, and the extent to which the design is consistent with the stated objectives.

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10 The International Development Research Centre recommends using four measures to assess performance of development organizations: relevance, efficacy (or effectiveness), efficiency, and sustainability/financial viability (Lusthaus and others 1999). In assessing the organizational performance of the World Bank’s matrix system the first three dimensions are more pertinent. To the extent that it is relevant, the fourth dimension is endogenous to the first three. This evaluation will therefore focus on the first three dimensions.
b. Efficacy is defined as the extent to which the objectives were achieved, or are expected to be achieved, taking into account their relative importance.

c. Efficiency is defined as the extent to which the costs involved in achieving organizational objectives were reasonable in comparison with their benefits.

20. The evaluation will focus on the current matrix arrangements including organizational structures, procedures and institutional behaviors. When the matrix was introduced it was deliberately kept flexible and has evolved, adapting to intervening changes. The evaluation will adopt a comparative approach, relying heavily on secondary analysis of data from existing Bank databases and prior IEG evaluations, supplemented by qualitative evidence from staff and manager surveys, informed opinions of knowledgeable interlocutors, and in depth review of focus sectors and focus countries. The evaluation will compare organizational and behavioral differences across regions and sectors, to the extent possible, relating these to incentives and measures of regional and sector performance. The comparison across regions and sectors will be illustrated by case studies of country-level matrix issues. The analysis of sectors will cover all sectors and cross-sector themes that have been evaluated by IEG in the last five years, while the surveys will cover all operational staff and managers. To a limited extent the evaluation will compare the strengths and weaknesses of the pre-1997 organization, such as the relationship between country and sector units, with the current matrix system, drawing primarily on the feedback from staff and managers with Bank experience from before the 1997 reforms were introduced.

21. The matrix and knowledge reforms introduced in 2010 are too recent for its implementation and results to be evaluated. However, the IEG evaluation will review the issues raised by the 2010 Management assessment and reflect on the relevance of the proposed reform actions to the findings.

22. Decentralization and labor market issues overlap with the functioning of the matrix and, to a limited extent, will be addressed by the evaluation through a comparison of different models of decentralization adopted by the regions, and an in-depth analysis of cross-support to review its effects on the flow of global knowledge and cross-sector collaboration. However, the primary focus will remain on the effectiveness of the matrix system, and the broader range of issues around decentralization and labor markets will not be addressed directly by this evaluation. The 1997 internal reform agenda consisted of several interrelated dimensions addressing incentives, organizational structures, and budgetary, human resource, and quality processes. They were introduced with the aim of rejuvenating and increasing the relevance of the World Bank through better strategies, knowledge and quality (Figure 3). Decentralization has increased and further steps are planned. However, it is not feasible to cover all of these elements given time and resource constraints.

23. The matrix evaluation proposes to focus on outputs and intermediate outcomes along three key dimensions—strategic alignment, knowledge production/dissemination, and incentives/accountability for quality—that are intimately linked both in terms of the original objec-
atives of the matrix reform and their contribution to development effectiveness. (Figure 4). The three dimensions are described more fully in the next section.

**Figure 4. Matrix Management Evaluative Framework**

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Outputs</th>
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<tbody>
<tr>
<td>• Decentralized &amp; financially empowered Country Managers</td>
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<tr>
<td>• Professional networks and sector boards</td>
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<tr>
<td>• Country Management Units and Sector Management Units with variations among regions</td>
<td></td>
</tr>
<tr>
<td>• Budget and WPA processes for CMU contracts with sectors</td>
<td></td>
</tr>
<tr>
<td>• Human Resources policies and processes for recruitment, deployment, and performance evaluation</td>
<td></td>
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<tr>
<td>• Quality Assurance processes by QAG, regions and networks</td>
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</table>

**Strategic Alignment**
- Sector strategies informed by country and regional experiences
- Country strategies and operations under the matrix system integrate sector strategies and global knowledge
- Corporate strategic priorities, including GPG and sub-regional agendas integrated in country programs

**Knowledge Production and Dissemination**
- Networks facilitate production of knowledge by anchors & regions
- Country programs effectively utilize operationally relevant knowledge from other regions and global good practices
- Matrix creates flexibility for technical staff to work across regions and sectors, and enables work across dual reporting lines

**Incentives and Accountability for Quality**
- Clear Network and sector mandates with incentives and accountability for quality and results
- Financing and budgetary arrangements enhance relevance and effectiveness of knowledge and technical services
- Incentives for cross-sector collaboration and teamwork in country operations

**Intermediate Outcomes**
- **Strategy:** Country strategies and programs aligned with Bank priorities and client needs
- **Knowledge:** Innovation in the field is well captured across the institution and country operations draw efficiently on global knowledge to meet client needs
- **Quality:** Incentives and accountability ensure teamwork and high quality country dialogue and client services

**Long-term Outcomes**
- Country programs and services are timely and responsive to client needs
- High quality operations, advisory services and results are based on global best practice

Source: IEG Matrix Evaluation

**Evaluation Questions**

24. The overarching question for this evaluation is: “**To what extent has the matrix system, including the organizational structure and the incentives and accountability mechanisms it created, contributed to development effectiveness by fostering strategic alignment, harnessing of knowledge, and quality assurance?**” The questions to be examined under the three dimensions of this evaluation are provided below and the sources of data and indicators are listed in Annex 1:

A) **Strategic Alignment:** The matrix structure was intended to ensure both responsiveness to the client and alignment with corporate and sector objectives. The matrix was

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11 While related staffing implications of those three dimensions may be touched upon, the evaluation will not attempt to assess the full spectrum of human resources management issues.
also conceived as a way of eliminating “silo” behaviors and encouraging intra- and cross-sector collaboration. The key question on strategy is “How effective is the matrix system in aligning country programs with Bank-wide sector and thematic strategies and client needs? The sub-questions are:

i) To what extent have sector strategies been informed by country and regional experiences?

ii) How effectively do country strategies and programs draw on sector strategies, sector experience and global best practice?

iii) How effectively are corporate strategic priorities, including global public good agendas and regional and sub-regional issues reflected in country strategies and country programs?

B) Knowledge Production and Dissemination: The key question on knowledge is: “How effective is the matrix system in enabling the Bank to distill and utilize country experience and global knowledge to meet client needs?” The sub-questions are:

i) How effective have the Networks been in harnessing and making available country experience and knowledge across regions?

ii) How effective have the Networks been in facilitating the flow and adaptation of global knowledge to regions and countries?

iii) How effective has the matrix system been in creating the flexibility for technical staff to work across regions and sectors, and in enabling managers and staff to work effectively across dual reporting lines?

C) Incentives and Accountability for Quality: One of the objectives of the matrix system was to shift the culture from inputs and lending to quality and results. The ultimate objective of the Bank is to promote development through high-quality advice and financing. The key question in this respect is “Are incentives and accountability mechanisms aligned in a manner that rewards high quality in client services and results?” The sub-questions are:

i) Within the regions, are incentives and accountabilities of CMs/SMs well-defined and reasonably designed to ensure quality assurance and results? How have Network and Sector Board mandates affected quality of Bank products and client services?

ii) How have financing and budgetary arrangements associated with the matrix system influenced the quality of outputs, including the relevance and effectiveness of knowledge and technical services?

iii) Have incentives under the matrix system facilitated cross-sector collaboration and teamwork to the extent needed to achieve results in country operations?
Evaluation Methodology

25. **Data sources.** The evaluation will utilize a range of existing documents and data sources, including relevant Bank management assessments of the matrix, Business Warehouse portfolio data, HR data, budget data, and QAG data. The evaluation will draw to the extent appropriate on the findings of previous IEG assessments, including Country Assistance Evaluations (CAEs), CAS Completion Report reviews (CASCRRs), and sector and thematic evaluations to identify matrix issues that have a bearing on the evaluation questions. The evaluation will also draw on relevant literature and external sources and conduct secondary analyses of existing Bank documents and data sources listed above. Existing databases will be analyzed to generate findings on cross-support and cross-sector collaboration across organizational units for lending and non-lending activities. The results from country and sector evaluations will be analyzed to examine the effect of the matrix system on quality of country and sector services. Budget data will be analyzed to explore the effect of incentives created by different financing mechanisms on effectiveness and quality of knowledge services. Additional data for the matrix evaluation will be obtained through surveys of Bank operational staff and managers, in-depth interviews with managers of the sector/thematic areas and managers of the focus countries identified for in-depth analysis, and focus group discussions with staff to assess how different segments contribute to, are affected by, and perceive the matrix system.

26. **Comparative analysis.** Several types of analysis will be undertaken for the evaluation. First, analysis of existing databases will yield time series data on patterns of cross-support in lending and non-lending operations, and on the distribution of outcomes in sectors and themes across the portfolio. These trends will be analyzed, to the extent feasible, to assess how the flow of knowledge and expertise under the matrix system affect portfolio quality. Second, comparative analysis will be undertaken across regions, sectors and countries through both secondary analyses of existing databases listed above and additional data gathered from the regions and sector boards (see next section). Structured instruments for surveys, interviews and focus groups will provide feedback from staff and management on relevant reform actions proposed or under implementation. Third, an attempt will be made to elicit informed views on the strengths and weaknesses of the matrix system compared with those of the pre-1997 organizational structure, recognizing however that the usefulness of interview data for inter-temporal comparison of Bank performance before and after the 1997 matrix reform is necessarily limited by the high turnover in Bank staff since the reforms were introduced and generally weak reliability of recall data. The methods and indicators associated with evaluation questions are listed in Annex 1 and the analysis to be undertaken at different levels is depicted in Figure 5.
The evaluation will also include a review of matrix issues on selected sectors and cross-cutting themes that have been evaluated recently by IEG. The list includes five sector evaluations and three evaluations of cross-sector themes undertaken by IEG since 2004 (see Table 1). In addition to a review of the documentation and the relevant portfolio within the focus countries, this will include analyses of time series data on cross-support and cross-sector collaboration, and on portfolio quality, and an assessment of the effectiveness of sector boards in facilitating the transfer of country experience and global knowledge to other countries and regions. Follow-up interviews will be undertaken with relevant sector boards to assess how the matrix facilitated or hindered their role and responsibilities, especially in the production and dissemination of operationally relevant knowledge, provision of technical expertise, and quality assurance for client services and sector operations.
### Table 1. Focus Sectors/Themes for the Evaluation

<table>
<thead>
<tr>
<th>Sector Evaluations</th>
<th>Cross-Sector Thematic Evaluations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Environment</td>
</tr>
<tr>
<td>Health, Nutrition and Population</td>
<td>Gender</td>
</tr>
<tr>
<td>Public Sector Governance</td>
<td>Social Safety Nets</td>
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<tr>
<td>Transport</td>
<td></td>
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<td>Water</td>
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</table>

28. For the focus countries, the evaluation team will review 14 countries out of the 18 for which IEG has conducted an independent country program evaluation since 2006 (review period ending no earlier than FY06). This includes 4 selected randomly from the 8 African countries. All the 10 countries for which IEG evaluations were available from the other five regions (which consisted of two in each) were adopted for the review sample. The group, which includes small and large countries, low-income and middle-income countries, is listed below.

### Table 2. Focus Countries for the Evaluation

<table>
<thead>
<tr>
<th>AFR</th>
<th>ECA</th>
<th>MNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madagascar</td>
<td>Georgia</td>
<td>Egypt</td>
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<tr>
<td>Mali</td>
<td>Ukraine</td>
<td>Yemen</td>
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<tr>
<td>Nigeria</td>
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<tr>
<td>Uganda</td>
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</table>

<table>
<thead>
<tr>
<th>EAP</th>
<th>LCR</th>
<th>SAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>Peru</td>
<td>Bangladesh</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Honduras</td>
<td>Nepal</td>
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</table>

29. The evaluation will include a review of Bank performance at the country level during the most recent period evaluated by IEG, including (1) the relevance, responsiveness and effectiveness of country strategies and their links with Bank sector strategies; (2) the degree of flexibility and adaptation evident in the country program in response to significant changes in the country context; (3) the sources and uses of knowledge and technical expertise in the country program; and (4) the structure and implementation of quality assurance functions. Evidence will be gathered through an analysis of portfolio data, Country Program Evaluations and CASCR reviews, and interviews with country managers, sector managers, and country team members (including country sector leaders and operations advisors) on strategic priorities and country operations. Client feedback on the Bank’s responsiveness to country needs will also be solicited from the respective Executive Directors for those countries.

30. To assess the incentives and accountability for quality in the matrix system the evaluation will analyze (1) the roles and responsibilities of country managers and sector managers in terms of strategy development and implementation, staff management, client relations, and accountability for operational quality; (2) the role of regional and central mechanisms for
quality assurance; (3) financing and budgetary arrangements associated with the matrix system; and (4) the trajectory of cross-sector and thematic collaboration over time. Among other sources, evidence will be drawn from sector and thematic coding data from Business Warehouse and ISR data for FY06-10, the period for which ISRs are available.

31. Finally, the evaluation will also produce four background papers:

- Key strengths and weaknesses of regional matrix models
- Matrix issues in three cross-cutting thematic areas – environment, gender, and social safety nets.
- Effects of SDN merger on matrix management and development effectiveness.
- A descriptive case study of IFC’s matrix management system.

**Timeline**

32. The approach paper has been revised in accordance with the recommendations of the IEG One Stop Review meeting on September 27, 2010 and is being submitted to CODE in December 2010. The data collection and analysis will be undertaken between January and April 2011. The evaluation report is expected to be finalized for submission to CODE in September 2011.

**Team**

33. The evaluation team will be led by Anis Dani and includes Brett Libresco, Manuel Penalver-Quesada, Rino Schiavo-Campo, Jesse Torrence and Melvin Vaz.

**Peer Review**

34. Peer reviewers for the study are Nancy MacPherson (Rockefeller Foundation), Nicholas Argyres (Senior Associate Dean for Faculty and Vernon W. and Marion K. Piper Professor of Strategy, Olin Business School, Washington University in St. Louis) and Geoff Lamb (Gates Foundation). Peer reviewers have provided feedback on the Approach Paper and will review the draft evaluation report at the One-Stop Review stage, prior to sharing the draft report with World Bank management.
REFERENCES


## Annex 1: Evaluation Design Table

<table>
<thead>
<tr>
<th>Evaluation Question</th>
<th>Evaluation Sub questions</th>
<th>Methods</th>
<th>Metrics/Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Strategic Alignment</strong>: How effective is the matrix system in aligning country programs with Bank-wide sector and thematic strategies and client needs?</td>
<td>i) To what extent have sector strategies been informed by country and regional experiences?</td>
<td>• Analysis of BW portfolio data by sector&lt;br&gt;• Desk reviews of strategies and IEG evaluations of focus sectors/themes&lt;br&gt;• Budget analysis&lt;br&gt;• IEG Staff Survey&lt;br&gt;• IEG Manager Survey&lt;br&gt;• In-depth interviews with country and sector managers&lt;br&gt;• Analysis of Global Public Opinion Surveys and Client Surveys (from EXT)</td>
<td>• Portfolio number and lending volume over time&lt;br&gt;• Portfolio outcome ratings over time, across regions&lt;br&gt;• Sector strategies reflect country and regional variations&lt;br&gt;• Sector priorities reflected in country operations&lt;br&gt;• Changes in sector budgets for country and corporate priorities&lt;br&gt;• Staff, manager and client perceptions</td>
</tr>
<tr>
<td></td>
<td>ii) How effectively do country strategies and programs draw on sector strategies, sector experience and global best practice?</td>
<td>• Desk reviews of CAS, CAE, CASCRR, CASCRR in 14 countries&lt;br&gt;• Analysis of BW portfolio data&lt;br&gt;• Portfolio analysis in focus countries&lt;br&gt;• Analysis of Global Public Opinion Surveys and Client Surveys (from EXT)&lt;br&gt;• IEG Staff Survey&lt;br&gt;• IEG Manager Survey&lt;br&gt;• In-depth interviews with country and sector managers&lt;br&gt;• Analysis of Bank Staff Surveys</td>
<td>• Variations in portfolio content across countries, controlling for country type&lt;br&gt;• Changes in budgetary allocations among countries&lt;br&gt;• Changes over time in composition of lending and AAA in focus countries&lt;br&gt;• ICRR ratings of design, Bank performance, and outcomes in focus countries&lt;br&gt;• Country performance from CAEs and CASCRR reviews.&lt;br&gt;• Client perceptions of responsiveness&lt;br&gt;• Staff perceptions of responsiveness</td>
</tr>
<tr>
<td></td>
<td>iii) How effectively are GPG agendas and regional and sub-regional issues reflected in country strategies and country programs?</td>
<td>• Incentives, technical support, and advocacy for GPGs in regions&lt;br&gt;• Portfolio analysis of GPGs in 15 countries&lt;br&gt;• Secondary review of IEG evaluations (ARDE08 and GPG evaluations)&lt;br&gt;• Manager interviews</td>
<td>• GPG priorities reflected in country strategies&lt;br&gt;• Incidence of GPGs in country portfolio&lt;br&gt;• Quality of GPG portfolio&lt;br&gt;• Financing of GPG portfolio, including Bank and client costs over time&lt;br&gt;• Dedicated technical expertise on GPGs available in regions</td>
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<tr>
<td>Evaluation Question</td>
<td>Evaluation Sub questions</td>
<td>Methods</td>
<td>Metrics/Indicators</td>
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| **B. Knowledge Production and Dissemination:** Has effective is the matrix system in enabling the Bank to distill and utilize country experience and global knowledge to meet client needs? | i) How effective have the Networks been in harnessing and making available country experience and knowledge across regions? | • Analysis of cross-support data (for AAA)  
• QAG and IEG assessments of knowledge products (ESW, TA and KP)  
• Desk reviews of sector / thematic evaluations  
• Analysis of learning activities in focus sectors  
• Analysis of IEG Staff Survey  
• Analysis of Manager Survey and in-depth interviews  
• Analysis of Global Public Opinion Surveys and Client Surveys  
• Analysis of Bank Staff Surveys | • Extent of cross-support for AAA from Anchor to regions, and across regions  
• Contribution of regional staff to sector knowledge production  
• Extent of demand for knowledge produced by anchor and other regions  
• Operationally relevant learning activities  
• Participation days of operational staff in learning events  
• # and quality of dissemination products by sector boards  
• Client feedback on knowledge |
| | ii) How effective have the Networks been in facilitating the flow and adaptation of global knowledge to regions and countries | • QAG and IEG assessments of knowledge products (ESW, TA and KP)  
• Analysis of learning activities in focus sectors  
• Analysis of IEG Staff Survey  
• Analysis of Manager Survey and in-depth interviews | • Use of global knowledge in Bank operations  
• Operationally relevant learning activities  
• Staff perceptions of use of global knowledge to meet client needs  
• Client feedback on knowledge |
| | iii) How effective has the matrix system been in creating the flexibility for technical staff to work across regions and sectors, and in enabling managers and staff to work effectively across dual reporting lines? | • Analysis of cross-support data (over time, by region and sector)  
• Comparative analysis of BW data on sector/thematic composition of portfolio  
• Case studies of focus sectors/themes  
• IEG Staff Survey  
• Manager interviews | • Inter-regional cross-support by grade level  
• Intra-regional cross-support by grade level  
• Anchor- region cross-support by grade level  
• Proportion of non-dedicated sectors/themes across regions and sectors, over time  
• Outcome ratings for projects with/without cross-support |
<table>
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</table>
| 3. Incentives and Accountability for Quality: Are incentives and accountability mechanisms aligned in a manner that rewards high quality in client services and results? | i) Within the regions, are incentives and accountabilities of CMs/SMs well defined and designed to ensure quality assurance and results? How have Network and Sector Board mandates affected quality of Bank products and client services? | - Analysis of regional matrix structures, including budgets and staffing  
- Comparative analysis of regional quality assurance arrangements  
- Analysis of focus sectors/themes  
- Comparative analysis of IEG ratings for quality of design, supervision and outcomes  
- Analysis of ISR data from sample of projects to assess CM/SM role in quality  
- Analysis of QAG supervision data by region and sector  
- Analysis of span of control of CMs, SMs and Division Chiefs  
- IEG Staff Survey  
- IEG Manager Survey  
- Manager Interviews  
- Analysis of Bank Staff Surveys | - Time series data on quality of design, supervision, outcome ratings  
- Analysis of QA structures, instruments and processes  
- CM and SM contributions to supervision quality  
- Correlations with IEG outcome data  
- Proportion of budgets from BB, project WPAs, and TFs  
- Proportion of resources dedicated to GPG and corporate mandates vs country operational work  
- Number of staff/operations per SM vs division chiefs  
- Staff perceptions of accountability  
- Staff perceptions of cross-sector collaboration and teamwork |
| | ii) How have financing and budgetary arrangements associated with the matrix system influenced the quality of outputs, including the relevance and effectiveness of knowledge and technical services? | - Analysis of network anchor and regional SMU budgets over time  
- Analysis of IEG outcome ratings  
- IEG Staff Survey  
- IEG Manager Survey  
- Manager Interviews | - Proportion of anchor budgets from core BB, cross-support, TFs  
- Proportion of SMU budgets from core BB, project WPAs, and TFs  
- Proportion of budget for own-managed KPs from BB and TF  
- Proportion of AAA budget from BB and TF  
- Staff perceptions  
- Manager’s experience and constraints |
<table>
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<tr>
<th>Evaluation Question</th>
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<th>Methods</th>
<th>Metrics/Indicators</th>
</tr>
</thead>
</table>
| iii) To what extent have incentives under the matrix system facilitated greater cross-sector collaboration and teamwork to the extent needed to achieve results in country operations? | • Comparative analysis of BW data on sector/thematic composition of portfolio  
• Analysis of QAG supervision data by region and sector  
• Analysis of IEG outcome ratings  
• Analysis of mainstreaming environment, social development and gender, governance, and social protection  
• Analysis of IEG Staff Survey  
• Analysis of IEG Manager Survey | • Proportion of non-dedicated sectors across regions and sectors, over time  
• Proportion of non-dedicated themes across regions and thematic areas, over time  
• Proportion of cross-cutting themes in sector operations  
• IEG outcomes for projects with/without cross-sector/thematic collaboration  
• Staff perceptions of cross-sector collaboration and teamwork |
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   A Problem of Attribution: Identifying the Impact of the Matrix System

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   Evolution of the Matrix System, 1997-2010
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   Alignment of country strategies and sector strategies
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   Financing and budgetary arrangements
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VI. Conclusions: Lessons and Open Issues

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