

3. The Promise of a Knowledge Bank

Highlights

- ❖ The objective of creating a global Knowledge Bank has not been achieved.
- ❖ The matrix system has been highly inefficient and modestly effective in ensuring that innovation in the field is well captured across the institution and that country operations are able to draw efficiently on global knowledge to meet client needs.
- ❖ Most staff do not efficiently draw on existing knowledge generated inside and outside the Bank.
- ❖ The Bank lacks the ability to efficiently retrieve and share the large volume of embedded knowledge generated during preparation and implementation of lending operations.
- ❖ Sector silos persist, but regional and network silos are even stronger.
- ❖ Actual inter-regional cross support accounts for less than one percent of regional staff time.
- ❖ Cross support within the Regions is 15 percent of staff time, significantly higher than across VPUs but much lower than the 42 percent share of allocations to cross-sector work identified by the Bank's coding system.
- ❖ In fiscal 2010, expenditures for nonlending technical assistance, driven by trust funds, outstripped those for economic and sector work.

*"We have been in the business of researching and disseminating the lessons of development for a long time. But the revolution in information technology increases the potential value of these efforts by vastly extending their reach. To capture this potential, we need to invest in the necessary systems, in Washington and worldwide, that will enhance our ability to gather development information and experience, and share it with our clients. **We need to become, in effect, the Knowledge Bank.**"*

*"Let me stress one other point: the global knowledge partnership is not about machines. It is about people. The challenge is to harness the technology to link people together and to leverage its impact for development. That means both accumulating the right kind of knowledge, and helping our clients build the capacity to use it."
(James D. Wolfensohn, Speech at 1996 Annual Meetings)³⁵*

Introduction

THE KNOWLEDGE BANK

3.1 The Knowledge Bank was envisaged both as the means to enhance the quality of World Bank lending and as an opportunity to grow a new stream of services to developing countries. One of the key drivers of the 1997 renewal strategy was the 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 (Wapenhans 1992, 1994; and Pincus and Winters 2002). This was accompanied by a growing acknowledgment that the Bank's lending portfolio itself was under criticism from advocacy nongovernmental organizations (NGOs)³⁶ and of diminishing importance due to the increasing flows of private capital to developing countries that offered alternatives to official aid. Under President Wolfensohn, with the 1996 announcement of the Knowledge Bank, there was an overt shift toward capacity building and knowledge creation, and with it a growing emphasis on institution building and market regulation, and later on governance reforms (Phillips 2009: 9). While World Bank annual commitments have been relatively steady, averaging \$22 billion from 1990-95, foreign direct investment grew from \$22 billion in 1990 to \$95 billion in 1995³⁷, four times the size of Bank lending.

3.2 The Knowledge Bank was seen as the solution to both forms of criticism, and the matrix system was to be the vehicle to create it. On the one hand, more careful attention to knowledge could enhance the quality and hence effectiveness of Bank-financed lending. On the other, in an increasingly competitive world, knowledge could offer an alternative stream of services to developing countries and a unique value proposition combining knowledge and finance. Specialized knowledge providers in the private sector—think tanks and universities—have already demonstrated the demand for knowledge services to inform public policy. With the introduction of the matrix system, the World Bank decided to emulate them more systematically.

3.3 The relevant question is “how effective is the matrix system in enabling the Bank to distill and use country experience and global knowledge to meet client needs? To answer this question this chapter assesses to what extent:

- is knowledge produced efficiently by Regions and network anchors?
- do networks facilitate access and use of Bank and global knowledge?
- is high quality expertise mobilized across Regions and sectors?

3.4 The functioning of the Knowledge Bank is examined in this chapter by focusing on the capture and flow of knowledge. This complements the work of the Bank's own report on the state of knowledge to examine the composition of knowledge products and the volume of expenditure on explicit knowledge products over time and includes findings from staff and managers on the supply and demand for knowledge. Knowledge flows are reviewed through an in-depth analysis of the volume and trends in cross support, as a proxy for the flow of tacit knowledge across Regions, networks, and sectors and findings on knowledge capture and dissemination. Following this assessment of the Bank's ability to achieve these outputs we draw conclusions regarding the extent to which the related intermediate outcome – "Innovation in the field is well captured across the institution, and country operations draw efficiently on global knowledge to meet client needs" – has been achieved during FY1997-2010, the period reviewed by this evaluation.

KNOWLEDGE NEEDS TO BE POOLED AND SHARED

3.5 Knowledge comes in three distinct forms – explicit knowledge, tacit knowledge, and embedded knowledge. *Explicit knowledge* consists of knowledge found in codified knowledge products that are produced by Bank staff, sometimes in collaboration with clients or partner organizations. Dissemination of explicit knowledge products is essential for them to be of operational use. *Tacit knowledge* is the stock of knowledge that Bank staff, clients, and partners gain from development experience. Of these, the most relevant to this report is the tacit knowledge among Bank staff. The principal mechanisms for transfer of tacit knowledge remain staff rotation and cross support to other organizational units, or personal networking. *Embedded knowledge* refers to knowledge within operational documents prepared as part of project appraisal, supervision, or assessment of lending operations. While embedded knowledge is often put to immediate operational use, and could be invaluable to similar operations elsewhere, without explicit arrangements for its capture and dissemination, this knowledge is unlikely to flow beyond an individual operation. Knowledge retrieval and transfer across the organization and externally could significantly enhance the value of the Bank's knowledge products. The Knowledge Bank initiative, supported by the matrix and internal markets, was supposed to require a shift from an individualistic mode of working and storing knowledge toward a team-based mode (Phillips 2009: 71).

3.6 Knowledge organizations need well-developed mechanisms to capture and share knowledge. The World Bank has the advantage of being staffed by highly qualified technical experts in comparison with most of its clients in developing countries. However, before the introduction of the matrix, the Bank did not explicitly commit to sharing of knowledge across the organization. Most technical

staffs were housed in sector divisions within 20 country departments with minimal collaboration across country departments. The 1997 reform was designed to overcome these silos by grouping technical staff into Bank-wide sector families governed by Bank-wide Sector Boards, regardless of where they were located. The Knowledge Report (2011) describes three key roles for the Bank – producer, customizer, and connector – of knowledge. This chapter focuses more on knowledge flows – that is, the Bank’s role as a connector and customizer of knowledge, rather than on the quality of knowledge produced.

ASSESSING THE BANK’S KNOWLEDGE WORK

3.7 The magnitude of knowledge work in the Bank is very difficult to estimate. In FY2010, the Bank spent \$606 million on “core knowledge products,” which includes knowledge for external clients, internal use, and research and data generated as a public good. Although how much the Bank spent on explicit knowledge products is known, tacit knowledge among clients and partners is inestimable. Nor has the Bank monitored the volume or quality of embedded knowledge in operational documents, except for a one-off review undertaken by the Middle East and North Africa Region, which estimated that in 2010 the Region spent about 10 percent of loan proceeds on knowledge products. Projecting from this, the Bank’s Knowledge Report estimates that knowledge spending embedded in lending was \$2.5 billion (World Bank 2011: 11). However, given the wide variation in the nature of lending operations and knowledge products across the Regions, without further substantiation this estimate remains dubious. The volume of cross support across organizational units provides a proxy of the flow of tacit knowledge among Bank staff.

3.8 The ultimate purpose of the Knowledge Bank is to ensure that the Bank uses cutting-edge knowledge, internal and global, to support client needs. An effective Knowledge Bank is predicated on maintaining an appropriate body of knowledge generated internally or externally and ensuring effective flows of knowledge. For this to be achieved, knowledge needs to be strategically relevant and customized to serve client needs. Effective knowledge flows require incentives and efficient systems for capture, dissemination and use of explicit, tacit, and embedded knowledge generated by the Bank, and global knowledge to operational teams and country clients.

3.9 Bank management recognizes that the transformation into a Knowledge Bank has not yet been achieved. The 2010 management review of the matrix found that “anchors and Regions are increasingly disconnected,” “innovation in the field is not well captured across the institution,” and “not all country programs are able to draw on available knowledge.” IEG concurs with these findings. Management initiatives to address these weaknesses include targets for cross support, Global

Expert Teams (GETs), Knowledge Platforms, a Global Fellows Program, and the “10 point program” toward enhanced Sector Practices.³⁸ However, unless the underlying incentives inhibiting the flow of knowledge and expertise across regional and network boundaries are addressed, these initiatives will have limited effect.

Investing in Knowledge Production

3.10 The capture of knowledge from operations, analytical work, and technical assistance has been limited. Staff members believe that the Bank generally produces useful economic and sector work (ESW) – 53 percent of sector- and anchor-based staff believe that their own sector produces operationally relevant knowledge to a substantial or very large extent. But in interviews, staff and managers repeatedly indicated that there was no mechanism or time to extract lessons from lending operations, and that this is a critical barrier to cross-regional and even cross-country knowledge sharing. The result is that much of the Bank’s knowledge is really embodied as tacit knowledge among individual staff members of the Bank. Most of this knowledge is not stored in easily searchable and retrievable forms resulting in considerable inefficiencies in the Bank’s knowledge work.

PRIMACY OF LENDING DELIVERY

3.11 Lending volume remains the most important metric of success. Incentives and accountability of country directors and sector managers is strongest for lending operations and particularly lending delivery. Sector managers argue that in the current flat budget environment, knowledge and lending vie for scarce resources; lending always emerges as the winner (Box 3.1). The primacy of lending incentives is amply substantiated by the feedback from managers’ interviews (see Appendix E) and by the fact that success has been measured and reported primarily in terms of lending commitments and disbursements.³⁹

Box 3.1. Sector Manager Perspectives on Primacy of Lending

“All that matters is lending; knowledge gets relegated to the tenth place.”

“... in any competition between lending and knowledge-generation, lending wins.”

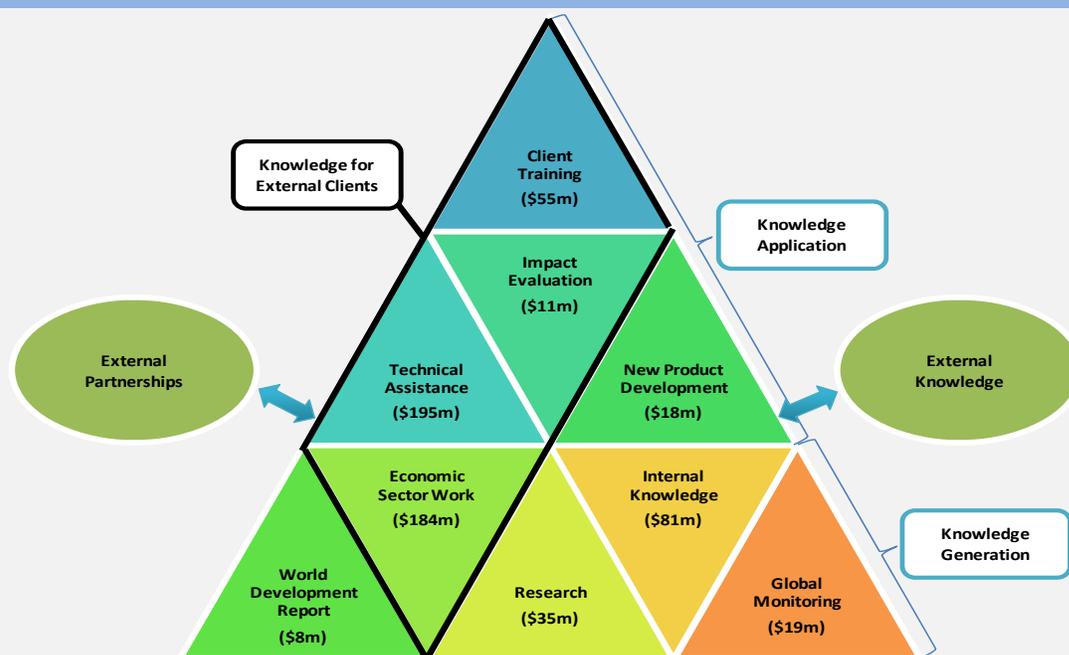
“At the institutional level, knowledge management has not worked well. In the Regions, we are under too much pressure to deliver [lending]. We have no time to think or document our experience, although this was originally envisaged as part of the matrix reform. We have no resources to document and disseminate experience systematically. The main constraint is pressure of lending delivery. Whatever is done is based on individual initiatives only.”

Source: IEG manager interviews

THE BANK'S CORE KNOWLEDGE PRODUCTS

3.12 In FY11, the Bank spent \$606 million, about 20 percent of its administrative and trust fund budget,⁴⁰ on nine core knowledge products grouped into three categories (Figure 3.1).⁴¹ The first category, *knowledge for external clients*, accounted for the lion's share (\$444 million) and includes ESW, technical assistance, impact evaluation, and external client training. Most of the knowledge for external clients is produced by the regional sector units and network anchors, except for client training which is delivered mostly by the WBI. About 10 percent of client training is also provided by the network anchors and 8 percent by the Regions. The second category, *internal knowledge* (\$99 million), includes knowledge products and new product development and is produced largely by the network anchors. The third category, *knowledge as a public good* (\$63 million), includes the World Development Report, research, and global monitoring, and is produced by DEC.

Figure 3.1. The Production and Application of Knowledge at the World Bank



Source: Adapted from "The State of World Bank Knowledge Services: Knowledge for Development 2011" (World Bank 2011)

Note: Volumes denote total FY10 Bank budget resources expended on core knowledge products.

3.13 Core knowledge constituted 56 percent of operational expenditures (including trust funds) in FY10. About 60 percent was spent by the Regions, while the network anchors and DEC/WBI each spend about 20 percent of the total budget on core knowledge products.⁴² DEC and WBI lie outside the matrix structure and

their knowledge activities appear to be less well connected to the Bank's operational work.

3.14 Within the Regions, the Middle East and North Africa and East Asia and the Pacific had the highest share of spending on core knowledge. In FY10, the six Regions together spent 24 percent of their expenditures (Bank budget plus BETFs) on core knowledge products. The Middle East and North Africa and East Asia and Pacific Regions spent 29 and 28 percent, while Africa and Latin America and the Caribbean had the lowest shares at 21 and 19 percent, respectively.

A TREND TOWARD JUST-IN-TIME KNOWLEDGE

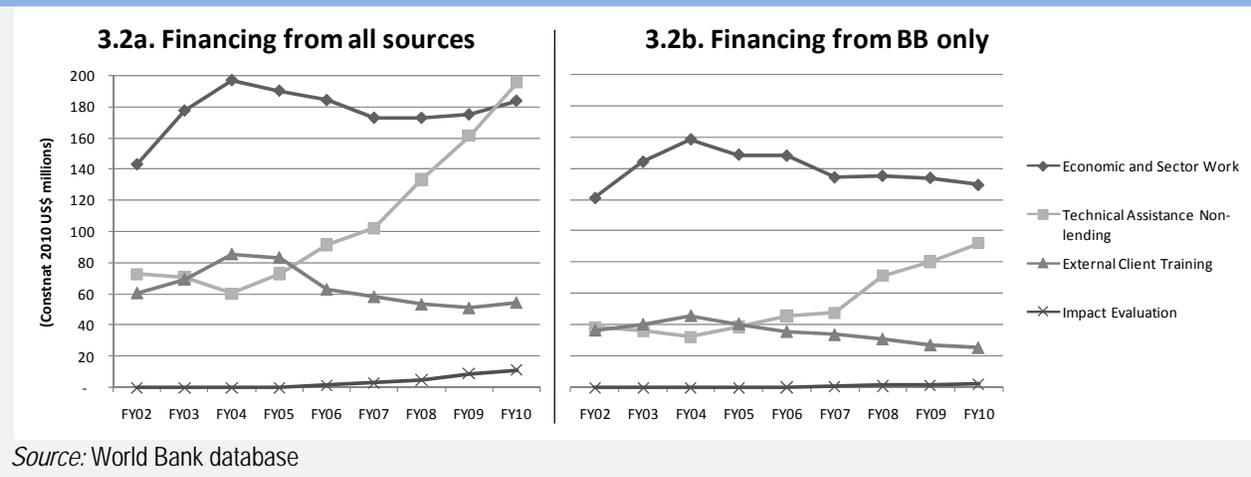
3.15 Nonlending technical assistance (NLTA) is the fastest growing segment of the knowledge portfolio. Knowledge for external clients made up almost three-fourths of all core knowledge expenditures throughout the FY02-10 period. As shown in Figure 3.2a, the composition of products within this category has changed. Spending on ESW has decreased since FY04, and in FY10 expenditures for NLTA outstripped that for ESW. This growth has been financed largely by trust funds. ESW continues to receive more Bank funds than NLTA, but the gap between the two products has decreased significantly over time (Figure 3.2b). A 2010 client survey indicates that technical and policy advice are highly appreciated by country clients.⁴³ The growth in volume of NLTA could thus be seen as a positive trend as long as (a) the stock of analytical knowledge products is maintained, (b) NLTA selection is based on strategic planning rather than availability of donor funds, and (c) adequate quality assurance processes for NLTA are in place. In practice, the shrinking volume of ESW and the increasing reliance on trust funds raises questions about the sustainability of current trends and, as will be discussed in chapter five, quality assurance for NLTA is a mounting concern. With the exception of Latin America and the Caribbean, where trust funds are small, BETFs are driving knowledge products toward NLTA in all the Regions.

Dissemination and Use of Knowledge

DISSEMINATION OF KNOWLEDGE

3.16 The Bank, as noted, operates through a country-based model, with the country director having budget authority for all Bank activities in a partner country. This budget is allocated by the country director to all SMUs through a WPA that specifies the deliverables each SMU will be accountable for.

Figure 3.2. The Composition of Expenditures on Knowledge for External Clients Has Changed Substantially with NLTA Overtaking ESW



3.17 **The country model has increased responsiveness to client governments, but the incentives under the current matrix system and imbalance in power between country and sector units result in insufficient integration of sector and corporate issues and global knowledge in country programs.** Under the country-based model, country directors are primarily accountable for country-level results in the near term and are therefore responsive to demand by in-country counterparts. There are very limited institutional incentives to finance strategic activities whose benefits would accrue to other countries (such as regional programs) or to the same country over the medium- to long-term. The view from sector managers was clear in this regard, and summarized by one:

“Country directors have no incentive to give priority (and funding) to sector knowledge activities, and the sectors do not have their own funds to do so . . . The focus on individual countries increased greatly the responsiveness to the client, but three problems emerged: (i) loss of a regional perspective, as each director was concerned exclusively with his country; (ii) lack of strategic view for the country, as directors became too close to and dependent on the government; and (iii) neglect of generation and transmission of knowledge.”

3.18 **Correspondingly, the dissemination of knowledge is weak.** Two-fifths of sector staff find the Bank-wide dissemination of internally generated knowledge and experience within their own sector effective to a substantial or very large extent (Table 3.1). And only one-fourth of staff surveyed report the dissemination of global knowledge from outside the Bank to be as effective.

Table 3.1. Dissemination of Knowledge within the Bank

Survey question	Percent indicating to a substantial or very large extent
To what extent was your sector family effective in . . .	
. . . the production of operationally relevant knowledge within the Bank?	53
. . . the dissemination of internally generated knowledge and experience across the Bank?	40
. . . the dissemination within the Bank of operationally relevant global knowledge produced outside the Bank?	25

Source: IEG staff survey

3.19 A frequent concern among staff was that the regional sector units are disconnected from each other, a fact that is complicated by the deep decentralization of sector staff in recent years. As one survey respondent from an SDN sector in Europe and Central Asia said, “with some technical staff decentralized, and little resources devoted to knowledge sharing among sector staff, it is difficult for operational staff to reflect experiences from other Regions or from outside the Bank to enhance [the] quality of the operations.”

3.20 Sector managers and country directors were just as candid as staff regarding the dissemination of knowledge generated in their portfolios. While about half of the sector managers reported that lessons from their unit’s portfolio were provided to global, corporate, and sector strategies to a substantial or very large extent, a third provided knowledge to other Regions. Cross-regional sharing of lessons was rated even lower by country directors, with just two of 11 reporting that this occurred in their portfolio to a substantial or very large extent (Table 3.2).

3.21 In most sectors, sector managers and regional sector staff were very critical of the usefulness of their anchors in disseminating operationally useful knowledge, and of Sector Boards for managing that knowledge. On a ten-point scale, sector managers gave their anchors an average rating of 5.0 regarding their effectiveness in providing knowledge and learning services to the Regions. A typical comment from a manager was, “The anchor does what it wants to do, with a cottage industry mentality and without reference to country needs or even discussion with sector people in the Regions.” Staff in the Regions indicated that the anchors “seem to have their own agenda” and are “too far away from operations.”

Table 3.2. Most Knowledge Generated in a Unit is not Shared with Other Units

Survey question	Sector managers (n=30)	Country directors (n=11)
In the past five years, to what extent have lessons from experience in your country/sector been provided to . . .	Share indicating to a substantial or very large extent	
Global, corporate and sector strategies	47%	--
Development Economics VPU	3%	27%
World Bank Institute	20%	9%
Network anchors	40%	9%
Other regions	33%	18%
Other units in your VPU	--	60%

Source: IEG manager interviews

3.22 **The social protection sector was an exception** and was generally viewed by sector managers as one of the best with regard to global knowledge management. On a **ten-point** scale, the Social Protection Sector Board received 9.0 for knowledge and learning services to the Regions. As one social protection manager put it, “Social Protection is one of the best sectors in global knowledge management. The Sector Board works well and has a business model that puts the Regions first. The sector anchor too is very client-focused and very supportive of the Regions.” Box 3.2 highlights some ingredients of success for the sector.

Box 3.2. Social Protection: A Model for Global Knowledge Management?

The Social Protection Sector Board is recognized by staff and managers as the best functioning Sector Board.⁴⁴ During IEG interviews, the sector anchor was widely praised for its work in providing operationally relevant knowledge to the Regions. Interviewees attributed this to the service orientation of the anchor, and highlighted the following factors:

- Since the 1997 reorganization, the management of the anchor unit has ensured that its top priority is to serve the Regions, and its research agenda is also driven by the Regions.
- The anchor’s annual work plan and budget are discussed and approved by the Regions.

The sector is not distracted by donor-driven initiatives due to a lack of sector-specific trust funds.

Sources: IEG manager interviews, IEG staff focus groups, 2005 QAG Sector Board Assessment

3.23 **Thematic groups, when properly funded, can serve as a useful platform for global knowledge sharing when compared to Sector Boards.** The QAG Sector Board Assessment reported significant shortcomings in most of the Sector Boards.

However, some of the thematic groups were found to be rather effective in sharing knowledge, an assessment also conveyed to IEG through feedback from staff and managers. Three main characteristics were offered for the more successful thematic groups in knowledge sharing. First, thematic groups cover narrower topics than a typical Sector Board, so they involve a smaller group of experts across the Bank interested in a particular topic. Second, they can be led or co-managed by staff in the Regions rather than exclusively by anchor staff; this makes them more operationally focused. Third, the sole purpose of thematic groups and communities of practice is sharing knowledge among participants, unlike the multiple roles of Sector Boards.

3.24 The GETs are not a substitute for thematic groups. Ten GETs, constituted by managers and recognized experts who serve as gurus in their respective technical areas, were launched as part of recent knowledge reforms. The GETs are aimed at issues of high corporate priority and are subsidized: the time of the experts is partly paid for from a central pool of funds. The GETs model is reported by managers and staff to be restrictive both in its membership and in limiting GETs members to a single mission per operation. Task teams who were able to obtain support from GETs valued its contribution, but many more reported being unable to obtain GETs support. The GETs provide high-quality advice in a top-down fashion to a limited number of priority operations and offer a partial solution to inadequate knowledge flows. In contrast, thematic groups are more inclusive mechanisms for staff to share knowledge and experience and are the primary vehicles through which sharing of tacit and embedded knowledge among regional staff occurs. Their inclusive nature and willingness to share knowledge was valued by task teams. Communities of practice (such as those on Financial Management Information Systems and Political Economy) are similar to thematic groups. Like thematic groups, membership is open to all interested staff who may access and contribute knowledge. Due to their openness, the thematic groups and communities of practice, when resourced, are able to capture and share knowledge across operational staff. GETs and thematic groups thus serve different purposes. While accountability and funding for the GETs has been established, rather than improving the governance of thematic groups most of them have been starved of resources and allowed to attenuate.

3.25 While the incentives of the matrix system exacerbate the problem of knowledge dissemination, challenges go beyond just the matrix. Even dissemination of country-specific analytical work – paid for by the country director’s budget to improve outcomes within the borders of that country, whose dissemination falls squarely within the interests of the country director – is substantially weaker than its relevance and quality. A 2009 QAG synthesis report of AAA assessments found most knowledge produced for clients to be strategically relevant and of high quality. However, the impact of analytical products has been

more muted due to weaker dissemination and dialogue on the analytical findings and inadequate client ownership and involvement in the analytical activities. Results from 53 country AAA assessments undertaken from FY00-09 by QAG, covering 485 different tasks, show that in comparison with 87 percent moderately satisfactory or better on strategic relevance and 98 percent on internal quality, dialogue and dissemination was rated 72 percent and likely impact on government policy was rated 75 percent.⁴⁵ Similarly, IEG found that only 55 percent of impact evaluations conducted by the Bank Group are disseminated to governments and clients (*World Bank Group Impact Evaluations: Relevance and Effectiveness*, 2012 forthcoming). Dissemination to clients was found to be a critical determinant of their influence on the policy dialogue and on the design of subsequent operations. Furthermore, of the 75 technical assistance activities in the QAG sample, 36 could not even be evaluated, indicating substantially weaker management oversight of technical assistance products and services. This suggests that incentives for knowledge work need to be revisited.

USE OF KNOWLEDGE PRODUCED BY OTHER OPERATIONAL UNITS

3.26 Knowledge is only useful if it is ultimately used for programs and operations in partner countries, whether or not the relevant program is financed by the Bank. The Bank must therefore go beyond the capture and dissemination of knowledge and actually use this knowledge.

3.27 The use of analytical and advisory activities to underpin lending operations is somewhat limited. About half of the staff based in country units reported that their sector units do so to a substantial or very large extent. One field-based staff member in a country unit said:

“AAA takes too long and is outdated by the time it is finalized. Often analytical work is not linked to any country operation and once finished is shelved and forgotten. Clients do not always see the value of AAA if it is not demand-driven and does not provide options and solutions to problems.”

3.28 But the use of knowledge across organizational boundaries is even weaker. Table 3.3 shows that about one-quarter of the 262 respondents⁴⁶ to the staff survey used analytical work produced by the anchor unit in their sector for operational work, and less than one-fifth used analysis from other Regions or other sectors. One focus group participant from a sector in SDN summarized the view of the group:

“I was in operations for 13 years before moving to the anchor. Compared to the amount of knowledge generated, the amount that I was able to use was zero. The only

time you could use knowledge was because of personal contacts through exchanges, or sometimes missions, or occasionally through thematic groups. But it was minimal."

Table 3.3. Few Staff Use Knowledge Produced Elsewhere

Survey question	Sector- and anchor-unit based staff
In the preparation and supervision of your lending and non-lending operations, to what extent have you used ESW or other analytic products produced by . . .	Percent indicating to a substantial or very large extent
. . . the anchor unit from your sector?	28
. . . sector units from other regions in your sector?	19
. . . sector units outside your sector?	17
. . . Development Economics VPU?	7

Source: IEG staff survey

3.29 Staff members report that incentives (lack of time and budget) and poor mechanisms to promote knowledge sharing prevent them from using the full range of knowledge available in their operational work. One focus group participant noted that once the time of the task team leader and the fiduciary and safeguards work are taken off the top, project budgets are only large enough for one or two technical people. Another asserted, "Knowledge is country-driven and country-retained." Participants in multiple focus groups were universal in their assessment that "knowledge sharing is really personality driven and not institutionalized."

3.30 Sector managers and country directors provided a similar view regarding the use of knowledge products produced outside their own VPU, as shown in Table 3.4. Eleven of the 30 sector managers interviewed indicated that operations in their portfolio had used knowledge generated in other Regions to a substantial or very large extent, and the same number for other units in their Region. Country directors were slightly more positive regarding the use of knowledge produced elsewhere in their Region, but much less so regarding knowledge generated in other Regions.

KNOWLEDGE PRODUCED BY DEC IS RARELY USED BY OPERATIONAL UNITS

3.31 Despite the recognition of the high quality of knowledge products generated by DEC, they are rarely used by operational staff. Seven percent of the 262 respondents to the staff survey reported using knowledge from DEC in their operational work, and 10 percent of sector managers reported that knowledge from DEC was used for the operations in their portfolios. A recent DEC paper (Ravallion 2001) reports wide variability in familiarity with DEC's research with less than 15

percent of staff from SDN sectors (primarily SDN) reporting familiarity compared to 60 percent for HDN and PREM staff, country-based staff being far less familiar with DEC research than staff in headquarters. Familiarity with DEC research is one step removed from using it in Bank operations. Those who benefited from actual collaboration with DEC were very positive about the high quality of input received from DEC staff, but the vast majority of operations did not benefit directly from DEC. DEC’s work is geared heavily toward knowledge as a public good. While this clearly is a useful contribution, the disconnect from the Bank’s country operations warrants some rethinking. At a minimum, DEC may want to invest in ways to improve internal dissemination of research findings in a form that is easily accessible by operational staff.

Table 3.4. Most Units Do Not Use a Substantial Amount of Knowledge Produced Elsewhere

Survey question	Sector managers (n=30)	Country directors (n=10-11)
SMs: To what extent have operations in your portfolio used knowledge products or analytical work produced by . . .	Percent indicating to a substantial or very large extent	
CDs: To what extent has your CMU received useful knowledge from . . .		
. . . Development Economics VPU?	10	18
. . . World Bank Institute?	17	0
. . . Network anchors?		0
. . . other regions?	37	18
. . . other units in your VPU?	37	50

Source: IEG staff survey

Tacit Knowledge Does Not Flow

3.32 There are two primary vehicles for the movement of tacit knowledge within the Bank, integral to making the matrix work effectively. The first is the periodic rotation of staff between departments and Regions. The second is the use of expertise from staff across units as temporary inputs for specific tasks, also known as cross support.

STAFF ROTATION

3.33 Staff mobility has been a slow vehicle for the flow of tacit knowledge. Under the Bank’s 3-5-7 policy in place since 2003, staff should remain in their assignments for three years for the sake of continuity, are encouraged to apply for rotation within five years, and should expect a rotation to a unit in another vice

presidency [facilitated by their manager] within seven years. In practice, the policy was not implemented systematically and the internal labor market has not been efficient.⁴⁷ In recognition that a large number of staff had spent more than seven years in their unit, a one-time mandatory rotation process was conducted for GH-level staff in the first quarter of FY09 and for GG staff in FY10. This resulted in a one-time level reduction in the share of staff working in the same unit for more than five years, as shown in Table 3.5, although no new policies or processes were introduced to address the underlying problem. Even after the mandatory rotation, in FY11, 29 percent of regional staff and 25 percent of network anchor staff had served in their VPU for more than five years and 17 percent of regional staff and 14 percent of network anchor staff had served for more than seven years. Overall, the share of staff working in a unit for more than seven years declined from 24 percent in FY09 to 19 percent in FY11, showing that even mandatory rotation was only partially successful in adhering to the seven year rule. An in-depth evaluation of HR policies and implementation – including recruitment, rotation, and exits – that could shed more light on some of these challenges to sharing knowledge was excluded from the scope of this evaluation. Staff transfers are only considered in terms of their impact on the flow of tacit knowledge.

Table 3.5. Proportion of Headquarters-Appointed GF-GI Staff in Unit for more than 5 years

	FY09 Q1		FY10 Q1		FY11 Q1	
	#	Percent	#	Percent	#	Percent
AFR	231	42%	213	38%	189	32%
EAP	93	37%	89	34%	69	25%
ECA	136	43%	119	37%	93	29%
LCR	121	37%	111	33%	101	29%
MNA	57	31%	64	32%	53	27%
SAR	74	32%	68	28%	56	24%
Regional units	712	38%	664	35%	561	29%
FPD	30	33%	30	29%	32	28%
HDN	30	39%	23	25%	17	18%
PRM	18	25%	17	20%	20	24%
SDN	90	37%	85	32%	73	27%
Network anchor units	168	35%	155	29%	142	25%

Source: HR Analytics IBRD Quarterly Staffing Reports

3.34 A natural time to capture tacit knowledge is when a long-serving staff member moves from a Region to a new VPU or retires, but the Bank lacks any mechanism and resources to “debrief” staff upon leaving a unit or to prepare staff

moving to a new Region or country. While frequent staff rotation can help to transfer operational lessons across Regions, it can also weaken institutional knowledge within any unit. Several staff and managers suggested that senior staff should be required to take a brief sabbatical or time-out between appointments to give them time to write a synopsis of the lessons they have accumulated from their time in the unit.

CROSS SUPPORT

3.35 Cross support is defined by Bank management as the staff time of an expert or a specialist purchased from outside the responsible unit for a specific task. Budget data of cross support sold or purchased thus provides a “measurement of matrix functionality and organizational flexibility” from the knowledge perspective. Cross support is an indicator of the ability of anchors and Regions to make use of the tacit knowledge and expertise embodied in individuals across the Bank while making the knowledge and skills of their own staff available to others.

3.36 A management review of FY08-10 data found inter-VPU cross support to be 3 percent of total staff time and resulted in the setting of higher targets for cross support. FY10 Bank-wide inter-VPU cross support sold accounted for 2.1 percent of staff time from regional VPUs and 8.3 percent from network anchors. However, estimated cross support as a proportion of total staff time results in underestimates of cross support by the technical sector staff who should be working across organizational boundaries, as opposed to support staff who cannot be expected to do so. Furthermore, eliminating silos and promoting cross-sector collaboration even within the Regions were deliberate aims of the 1997 matrix reform. The analysis was therefore expanded to include cross support across organizational units within VPUs.

3.37 Variations in organizational structures and accounting practices across Regions posed significant methodological challenges. Accurate analysis of data covering all the Regions and networks is available only for FY10. For FY02-09, inter-VPU cross support was analyzed separately for the four networks – FPD, HDN, PREM, and SDN – and for four of the six Regions (Africa, East Asia and the Pacific, Latin America and the Caribbean, and South Asia) for which data could be tabulated.

Cross Support across VPUs

3.38 IEG found cross support to be higher than the numbers in management’s review. Cross support across VPUs was about 5 percent of technical staff time in FY10.⁴⁸ The figure was lower for staff in the Regions, at 3.3 percent of staff time for

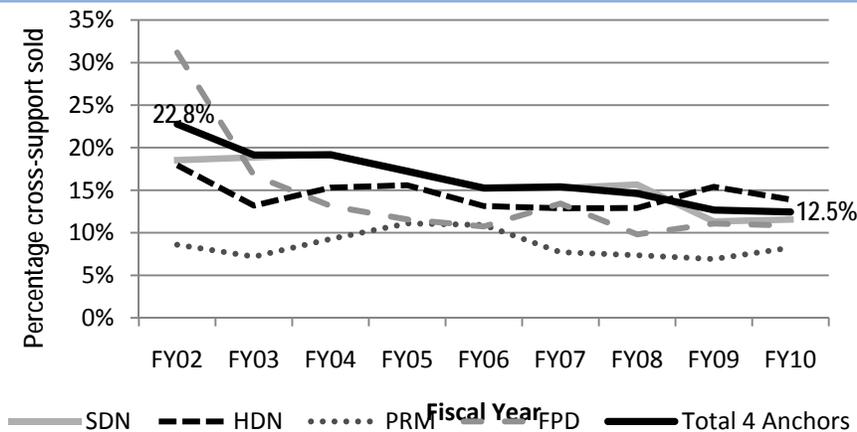
staff at level GF or above, than for staff in the network anchors at 12.5 percent. The Middle East and North Africa Region was the biggest seller among the Regions with 3.8 percent; Europe and Central Asia, with 2.9 percent, had the lowest inter-VPU cross support sales (see Appendix H for details). Demand for cross support varied considerably across the Regions. The Middle East and North Africa Region was also the biggest purchaser of cross support (10 percent), followed by South Asia (7.2 percent). Africa was at the regional average (6.5 percent), with the others somewhat lower. Among network VPUs, HDN, with 15.1 percent, was the biggest provider, followed by 12.7 percent inter-VPU cross support from SDN. Cross support from one network VPU to another was minimal (0.2 percent of staff time). Network anchors purchased an average of 7.8 percent of staff time, of which 5 percent was from the Regions. These findings indicate a slightly higher degree of cross support than recent findings by Bank management, and are more robust because they exclude nontechnical staff.

3.39 Real inter-regional cross support, however, is less than one percent. While the aggregate volume of cross support sales across VPUs appears to be slightly higher than that reported by Bank management, in FY10 cross support across Regions was 1.5 percent of GF+ regional staff time. Even this amount masks actual collaboration across the Regions. Indeed, 0.6 percent of staff time was charged as cross support by staff who had transferred out of a Region within the past 12 months and were continuing work on their previous operations. Correcting for this factor, actual inter-regional cross support in FY10 was 0.9 percent by staff who were not mapped to the purchasing unit in the previous fiscal year.

3.40 The bulk of cross support from network anchors to regional sector units or vice versa has typically been within the boundaries of their respective networks. There was virtually no inter-VPU cross support from regional sector units to anchors of other networks during FY10. SDN and HDN anchor staff provided 9 percent and 10 percent of their time as cross support to HDN and SDN sector units, respectively, but very little to regional units of other networks (Appendix H, Tables H.4 and H.5).

3.41 The share of staff time devoted to cross support has decreased from FY02 to FY10. Total inter-VPU cross support sold was 9,373 staff weeks in FY02, and 9,264 in FY10. Yet, as a percentage of staff time, inter-VPU cross support declined from 7.6 percent in FY02 to 5.2 percent in FY10. Cross-support from network VPUs to Regions also decreased over time. Total network anchor staff time increased from 24,537 in FY02 to 36,807 staff weeks in FY10 but the percentage of cross support from network VPUs to the Regions decreased from 23 percent in FY02 to 12.5 percent of network VPU staff time in FY10 (Figure 3.3) indicating that a growing proportion of anchor staff time is consumed by corporate or global actions.

Figure 3.3. Cross-Support from Network VPUs to the Regions, FY02-FY10

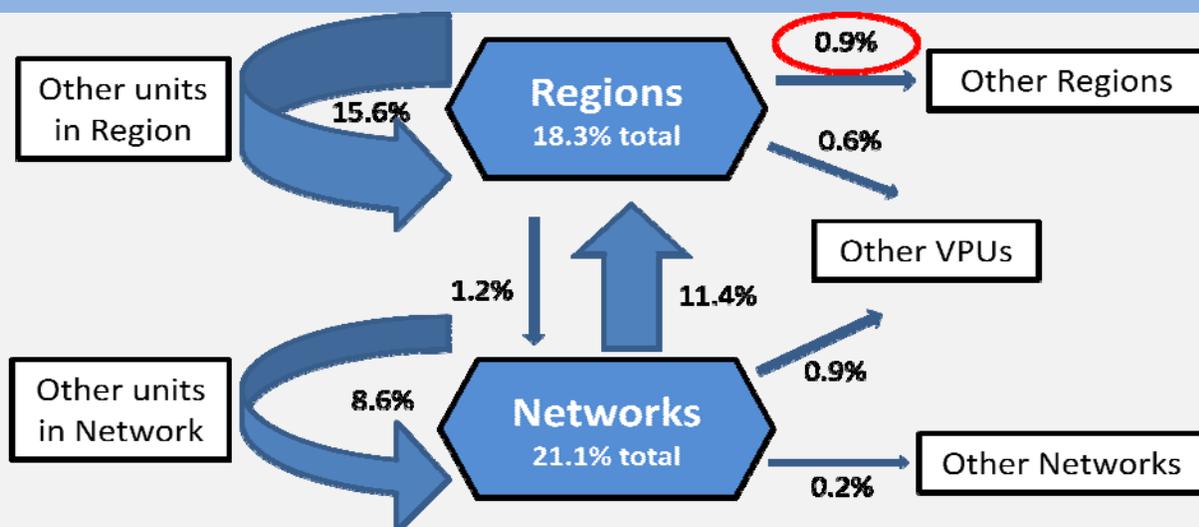


Source: Business Warehouse

Cross Support within VPUs

3.42 In FY10, cross support within VPUs (intra-VPU cross support) across sector units, between SMUs and CMUs, or from the regional functional nodes to SMUs and CMUs was almost three times as high as inter-VPU cross support. Intra-VPU cross support averaged 13.8 percent overall, 15.6 percent in the Regions, and 9 percent in the network anchors (Figure 3.4). Variations across networks and Regions were significant: cross support within VPUs amounted to 10 percent staff time in the SDN anchor but was barely 0.6 percent in the PREM anchor, indicating that silos are strong within the PREM anchor.

Figure 3.4. Cross Support under the Matrix System in FY10



Source: Business Warehouse

Note: The system records an additional 0.6% inter-regional cross support that in practice is cross support to a staff member's previous unit within a year of departure. The denominator for Regions is total staff weeks in Regions; for networks, it is total staff weeks in networks.

3.43 Intra-regional cross support also appears to have declined in FY10 compared to previous years. Intra-regional cross support for the period FY02-10 is available on a comparable basis for four Regions – Africa, East Asia and the Pacific, Latin America and the Caribbean, and South Asia.⁴⁹ In East Asia and the Pacific and South Asia, intra-regional cross support remained steady in FY10 (compared to the average for FY02-10) at 17 percent and 18.6 percent, respectively. In Africa, it dropped from an average of 14.8 percent to 11.4 percent in FY10, possibly due to a change in budget settlement rules for fiduciary and safeguards services, which are no longer considered cross support. In Latin America and the Caribbean, it dropped from the FY02-10 average of 21.5 percent to 19.3 percent in FY10, which is still the highest among the Regions. On aggregate, intra-VPU cross support for the four Regions declined from an average of 17.3 percent in FY02-10 to 15.6 percent in FY10.

Table 3.6. Total Cross-Support Sold by Regions and Network Anchors, FY10

	Total cross-support sold (staff weeks)				Total cross support sold (% of seller's total time)		
	Inter-VPU XS	Intra-VPU XS	Total XS	Total time	Inter-VPU XS	Intra-VPU XS	Total XS
AFR	1351	4776	6127	41758	3.2%	11.4%	14.7%
EAP	803	4249	5052	25150	3.2%	16.9%	20.1%
LCR	703	3934	4637	20415	3.4%	19.3%	22.7%
SAR	729	3847	4576	20648	3.5%	18.6%	22.2%
4 regions	3586	16806	20392	107971	3.3%	15.6%	18.9%
	Total cross support sold (staff weeks)				Total cross support sold (% of seller's time)		
	Inter-VPU XS	Intra-VPU XS	Total XS	Total time	Inter-VPU XS	Intra-VPU XS	Total XS
SDN	2663	2155	4818	21017	12.7%	10.3%	22.9%
HDN	808	362	1170	5356	15.1%	6.8%	21.8%
PREM	427	27	454	4476	9.5%	0.6%	10.1%
FPD	686	639	1325	5958	11.5%	10.7%	22.2%
All networks	4584	3183	7767	36807	12.50%	8.6%	21.1%
4 regions + all networks	8170	19989	28159	144778	5.6%	13.8%	19.4%

Source: Business Warehouse

Note: Europe and Central Asia and Middle East and North Africa underwent unit restructuring during FY10; reliable data on cross support within the Middle East and North Africa and Europe and Central Asia do not exist.

3.44 Intra-VPU cross support consisted largely of sales across sector units within network boundaries and sales from central units to sector and country units. Cross-support sales by sector staff to other SMUs in their network averaged 8 percent over the period FY02-10, ranging from 10.1 percent in East Asia and the Pacific to 5.6 percent in Africa. Cross-support sales by regional function units to sector and

country units averaged 4 percent across the four Regions, ranging from 3.8 percent in South Asia to 5.6 percent in Africa, but was exceptionally low (0.4 percent) in East Asia and the Pacific, which has the highest degree of decentralization (Appendix H, Table H.7). It is noteworthy that the cross support from the regional function units in Africa is the same as that across sectors within the Region, indicating a higher degree of centralized financial management and procurement services from the regional function unit.

Efficiency and Effectiveness of the Knowledge Bank

3.45 This chapter has assessed questions on the Bank's production and dissemination of knowledge. Based on the findings, the evaluation draws conclusions in this section regarding the extent to which the expected intermediate outcome – "Innovation in the field is well captured across the institution and country operations draw efficiently on global knowledge to meet client needs" – has been achieved. During the period evaluated, the matrix system has been highly inefficient and modestly effective in achieving this outcome. Rather than functioning as a global organization, the evidence from the flow of virtual knowledge and technical expertise indicates that the Bank is at risk of evolving into a group of regional banks interconnected by fraying ties among the Regions and between the Regions and networks. Knowledge that is generated by the Bank or captured from operations implemented by clients is rarely used in future operations or in other contexts. Decentralization has created further impediments to the flows of knowledge and expertise, and until the underlying incentives and constraints inhibiting effective knowledge flows are addressed, further decentralization will inevitably aggravate these problems.

3.46 **The three forms of knowledge – explicit, tacit, and embedded – do not draw on each other efficiently, which reduces the Bank's development effectiveness.**

Most staff, particularly those in the Regions and country offices, are unable to draw on existing knowledge generated inside and outside the Bank efficiently, and dialogue and dissemination is less effective, which reduces likely impact. The volume of expenditures by the Bank on explicit knowledge has been growing and reached \$606 million in FY10. QAG assessments of AAA indicate that although knowledge produced for clients tends to be strategically relevant and of high quality, weak dissemination and dialogue limits their impact. To the extent that knowledge is disseminated, this is limited primarily to the client for whom it is produced. Knowledge products are not stored in an easily searchable and retrievable form and are rarely used by staff outside the units where they are produced. Notwithstanding the analytical quality of the Bank's knowledge products, much of

the Bank’s knowledge thus has a limited shelf life and limited use value. The only exception is knowledge produced by DEC, which is widely disseminated to a global audience, but Bank operations make very limited use of DEC’s knowledge.

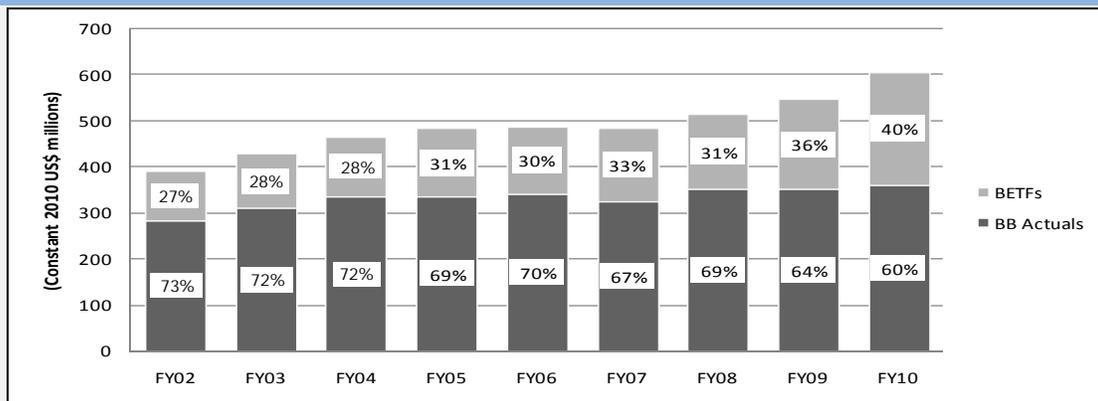
3.47 The Bank generates a large volume of knowledge embedded in its operations but lacks the ability to efficiently capture and share that knowledge.

The Bank’s knowledge report (*Knowledge for Development 2011: The State of World Bank Knowledge Services*) estimates that the Bank spends \$2.5 billion a year⁵⁰ on embedded knowledge, four times the amount spent on core knowledge products. Embedded knowledge produced for individual operations suffers from the same production inefficiencies as explicit knowledge, and is mostly buried within the documentation of that project or program. Management does not have any system in place to capture, share, or even track embedded knowledge across the Bank. Given the volume of embedded knowledge, these inefficiencies need to be addressed urgently.

3.48 The availability of trust funds has led to an increase in core knowledge production by 50 percent, but the Bank’s budget for knowledge barely increased.

The growing reliance on trust funds generates inefficiencies and risks. While the share of the Bank’s gross administrative budget spent on core knowledge has remained steady at approximately 15 percent over the FY02-10 period, trust funds for core knowledge have more than doubled in real terms over the same period, growing from \$107 million in FY02 to \$245 million in FY10. This has resulted in growing reliance on external financing for the Bank’s core knowledge products, with external financing for core knowledge growing from 27 percent in FY02 to at least 40 percent in FY10 (Figure 3.5).

Figure 3.5. BETFs Now Finance More Than 40 Percent of the Bank’s Core Knowledge Products



Source: World Bank database.

3.49 Reliance on trust funds also gives rise to questions about relevance and quality since most BETFs are earmarked for special, sometimes supply-driven, purposes. IEG's evaluation of trust funds (IEG 2011) also raised concern over the growing use of BETFs as they are not allocated within the Bank's budgeting process which relies on the tensions between country and sector units to balance the needs of both sides of the matrix structure, leading to non-strategic allocation of resources. Staff report high transaction costs both in soliciting funds from multiple trust funds and in tracking and reporting separately on a myriad of different trust funds that have their own grant-making procedures and reporting requirements. The priority given to lending induces even greater reliance on trust funds for AAA tasks since country directors feel that the sector units will be able to mobilize trust funds for AAA more easily. But this increases inefficiency and undermines the effectiveness of strategic planning for knowledge, sometimes leading to a distortion of Bank priorities and quality problems arising from looser oversight than for operations financed by the Bank's budget.

3.50 Trust funds play a significant role in the implementation of corporate priorities such as governance and gender, and GPGs, such as climate change, which may not otherwise be integrated into country programs. However, this undermines the effectiveness of strategic planning for knowledge and creates a disincentive to integrate these corporate priorities within country program budgets. This may be justifiable for those GPGs where the externalities are significantly greater than in-country benefits.

3.51 Tacit knowledge is largely unmonitored, making it difficult to assess its efficiency and effectiveness. Tacit knowledge resides in the form of operational experience of Bank staff, clients, and partners and is much harder to monitor. While the magnitude of explicit knowledge is known—at least in terms of the number of knowledge products “delivered” and spending on knowledge products—“the Bank has yet to put a value on the tacit knowledge staff, partners, and clients have developed in the course of their work” (World Bank 2011: 20). The only portion of tacit knowledge that can be tracked and analyzed at present is the movement of staff and cross support, and even that is constrained by incomplete and inconsistent data across the Regions.

3.52 Sector silos persist, but Region and network silos are even stronger. Overall, the flow of tacit knowledge through cross support has been rather limited, is declining in volume, and is constrained by structural boundaries. This is not what the matrix system aimed to achieve. First, there has been a decrease in inter-VPU cross support. Second, the percentage of cross support from network anchors to the Regions has halved during the same period as a percentage of network anchors' staff

time. Third, real inter-regional cross support is miniscule; the incentive of staff to prioritize operational services in their own Region creates strong regional silos. Fourth, to the extent that there is cross support from the network anchors to the Regions and from the Regions to the network anchors, those flows occur within network silos. There was virtually no cross support from SDN sector units to sector units of other networks, and not much cross support among sector units across other network boundaries.

3.53 The communication tools for the Bank to act as a connector of knowledge are available, but not systematically used. Some sector groups (such as the HDN chief economist's seminars) connect sector staff in the Regions through webinars, which are more easily accessible by staff in country offices. The governance and anticorruption team has also been in the forefront of using technology to reach out to regional staff. However, this is more the exception than the rule. Operational staff in the Regions, especially those in country offices, complain about the ineffectiveness of the Bank's role as a connector of knowledge. The problems arising out of weak knowledge flows have become more acute with increasing decentralization of sector staff to country offices, 54 percent of technical staff mapped to the Regions now being country-based. The dissemination of operationally relevant global knowledge was considered to be substantial by only 25 percent of staff surveyed and internally generated knowledge by only 40 percent of staff. Managers interviewed were not more encouraging.

3.54 Recognizing that personal networks are the primary mode of knowledge sharing, staff and managers alike lamented the loss of networking opportunities due to the scaling back of "sector weeks." In the absence of other effective, and readily accessible, mechanisms for sharing of virtual knowledge, sector weeks are an effective forum for sharing new initiatives and cross-fertilization of operational knowledge, especially for country-based staff. They are also the most valued opportunity for country-based staff to network and demonstrate their ability to their sector colleagues, a prerequisite for mobility across the Bank.

3.55 Innovation in the field is *not* well captured across the institution, and country operations *do not* draw efficiently on global knowledge to meet client needs. Given the vast amount of resources expended on the Bank's knowledge work—\$4 billion annually, of which \$2.5 billion is embedded knowledge—knowledge that is not captured or disseminated has limited use, often to a single client. Innovations and knowledge generated at the country level, is rarely disseminated further. Despite the numerous seminars organized by the networks, the travel schedules, decentralized location of operational staff, and time differences with Washington reduce their reach. Seventy percent of task teams report that they

rely primarily on their own resources and personal networks for knowledge. This is not an efficient use of resources given the constraints of the internal search engines and limited opportunities for collaborative networks to access knowledge, and is a far cry from the promise that the Knowledge Bank offered when the concept was introduced in 1996 and was a major justification for introducing the matrix system.

3.56 Based on the Bank's performance since the introduction of the matrix, both in efficiency and effectiveness, the intermediate outcome of the Bank's knowledge work – capturing innovation across the institution, and drawing on global knowledge to meet client needs – has not been achieved. This shortcoming assumes even greater importance as feedback from country surveys indicates that clients value the Bank's knowledge and policy advice even more than its financial assistance. Improving its knowledge portfolio is critical to the Bank's future.

3.57 The Bank has recently launched several initiatives to rectify these shortcomings. The creation of the KLC is an attempt to redress the weaknesses in the Bank's knowledge agenda. The KLC has increased corporate oversight of knowledge activities and launched several initiatives, including GETs and Knowledge Platforms. The restructuring of the FPD into Global Practice Teams is also aimed at improving knowledge flows. The KLC also oversaw production of the first-ever Knowledge Report, following which management has committed to actions to fill gaps in governance arrangements of individual knowledge products, establish a results framework for all core knowledge products, and establish mechanisms to promote greater connectivity and support management of knowledge as a portfolio. A more detailed implementation plan is under preparation. While these are steps in the right direction, the underlying incentives that effect demand for and use of knowledge will also need to change if these initiatives are to address the constraints that have hampered the Knowledge Bank.

3.58 The Bank's role in development knowledge is equally vital to the quality of its lending portfolio. In addition to knowledge services that have a direct bearing on policy advice and institutional development, there has always been a complementarity between knowledge and lending. IEG's evaluation of the Bank's use of knowledge to improve development effectiveness found that ESW and technical assistance was effective in shaping Bank lending and was statistically associated with better loan design (IEG 2008a). The Bank's ability to produce high-quality knowledge needs to be preserved to improve the quality of Bank lending, and its ability to access and customize cutting-edge global knowledge is essential to maintaining its relevance to the increasingly complex demands of its clients.