

Development Research Group

Knowledge in Development Notes

Overview

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Development and Aid Effectiveness: What have we learned, what are we doing, where are we going?

The developing world as a whole has made huge strides against poverty over the last 20 years, but progress has been highly uneven. The persistence of poverty in many countries is a source of both concern and impatience in the policymaking and development communities. After 50 years of experience and effort, the argument goes, why have we not made greater progress in all developing countries? Why is sustained growth elusive and aid effectiveness uncertain? Tempering their impatience, these same communities recognize that economic development is a poorly understood phenomenon. So a key part of development policy is not only to implement effective reforms that work, but also to discover what those reforms might look like.

The Bank, through pilot programs, through the analysis and evaluation of operational experience, and through its own research as well as extensive collaboration with the broader research community, has made great progress on the knowledge in development agenda. Lending, learning and knowledge have proven to be mutually reinforcing activities, and the Bank leads the development community in exploiting these synergies. Knowledge generated by research is a key input into the design of Bank programs and lending, and the Bank's knowledge itself is a key selling point to clients. Through lending, we learn more about what works in development, and through research, this learning adds to the Bank and the development community's knowledge base.

But important gaps remain in our understanding of how the policies of both developed and developing countries achieve development goals. This note outlines key policy insights from the knowledge-lending-learning cycle, and some of the important gaps that remain. These insights relate to:

- how the policies of developing countries could be improved to accelerate development,
- whether specific interventions to reduce poverty are really effective, and
- how the policies of developed countries could best be reformed to promote development.

The Policies of Developing Countries

Developing countries often confront unique and troubling conditions that pose special challenges to growth, poverty reduction, and the effectiveness of donor assistance. This is especially so for the very poorest countries. For example, their disease environment is different from that of developed and middle-income countries: AIDS,

malaria, and tuberculosis pose much greater challenges to human welfare and economic progress in developing countries than elsewhere. Their rural populations whose livelihoods are dependent on agriculture are subject to highly covariate risks and shocks in settings characterized by credit and insurance market failures. And the poorest countries often face much greater domestic and foreign macroeconomic shocks.

The poorest developing countries also confront binding skill constraints—the inability to improve education because of the sheer absence of teachers, the inability to improve medical care because doctors have migrated, the inability to control dangerous pollution because regulators lack basic technical skills.

Developing countries are also more likely to be threatened by internal conflicts. And the demographics of developing countries, particularly the large fraction of children and young adults, are strikingly different from those in richer countries and pose unique development challenges.

In addressing these problems, development advice focuses mainly on steps that developing countries can take to improve their development chances. From macroeconomic, trade, and environmental policies to social services, social protection and firm and financial regulation, we know much more about the contribution that policies make to growth and poverty than we did 15 years ago. Recent discoveries have influenced the Bank’s policy advice in a wide range of areas.

Despite great progress in understanding the effects of policy on development, significant remaining gaps handicap the policy advice to developing countries. The Bank’s research is targeted at bridging many of these gaps.

Policies to promote economic growth

We know that the policy and governance environment is crucial for economic growth. We also know that it is the combination of policies and how they interact that matters, but we know much less about which combination of policies is likely to ensure growth in a particular environment. Nor is there evidence that identifies whether some specific constellation of policies and institutions is necessary to encourage investment and productivity. Micro and macro research, at the household, firm, and country levels, is seeking to sharpen our policy advice on these issues.¹

- We have learned that greater openness increases efficiency and stimulates growth, but that beneficial outcomes are conditional on a supportive domestic investment climate. Excessively regulated economies may not benefit much from trade liberalization. Reforms that reduce transactions costs (trade facilitation) and improve access to and the quality of key service inputs (logistics, distribution, communications, finance) are important complements to trade reforms. Foreign direct investment in services is a key channel for improved productivity performance of domestic firms.²
- We also know now that financial development is a key driver of growth. However, we still know relatively little about precisely how access to finance promotes firm growth. The determinants of access to finance—and the effects of access—vary across countries and among firm and income groups. Our research is looking at these determinants and investigating, for example, how important access to finance is for

growth of small firms and how openness and foreign entry in financial markets affect access for both large and small firms.³

- International financial integration is tightly linked to developments in countries' domestic financial systems. Better domestic market fundamentals are associated with more, rather than less, use of international financial markets by domestic firms. In fact, the importance of domestic financial markets decreases relative to the activity in international markets as fundamentals improve, contrary to the earlier view that better fundamentals are related to more domestic financial development and less internationalization.⁴
- Ownership of financial firms is an area where the public sector tends not to have a comparative advantage. On average, bank privatization tends to improve performance over continued state ownership, and in weak institutional settings selling to a strategic investor and inviting foreign interests to participate in the process tends to increase the benefits.⁵
- Past research has taught us that infrastructure investments can make crucial contributions to growth and development, but some types of infrastructure require appropriate regulation—and appropriate regulations in poor and rich countries look very different.⁶ Multi-country work is under way to refine advice to developing countries on the regulation of infrastructure, as well as to assess the institutional and other factors that shape the growth contribution of public infrastructure spending.
- Appropriate financial regulation similarly varies across countries. Regulations transplanted from developed countries may prove ineffective or even counterproductive in weak institutional environments. For example deciding which aspects of Basel II regulations to adopt, and how to design deposit insurance are particularly important questions for developing countries.⁷
- Innovation lies at the heart of economic growth. Recent research shows the important role that openness to international trade can play in the transmission of technology across countries and in shaping firms' incentives to adopt new techniques. Entry of new firms is also a key mechanism of technological upgrading and productivity growth. Excessive regulation—from licenses and permits to bankruptcy laws—can hamper the creation of new firms and stifle their contribution to increasing productivity.⁸
- We have learned that the welfare costs of macroeconomic volatility in developing countries are large, particularly in the poorest countries. Poor countries face large external shocks such as abrupt changes in their terms of trade, as well as greater domestic shocks. Their ability to cope with these shocks is limited, both because of poor financial markets and because of tighter barriers to microeconomic reallocation in response to shocks.⁹

Policies to improve governance

Cross-country comparative research has revealed that the security of property rights and good governance are keys to the growth of national income.¹⁰ While research has shown that broad measures of governance are significantly associated with faster

growth and more efficient and equitable public expenditure, much less is known about which types of policy and institutional reforms will lead to better governance outcomes. Ongoing research digs deeper into the specific “inputs” to governance reforms and how they link to specific governance “outcomes.”

- Greater political accountability increases the quality of public services and reduces corruption, and information is a key factor in this relationship. One route to increasing accountability is transparency. Publishing information about government transfers to local spending units has been shown to reduce leakage of those funds by as much as 90 percent.¹¹ Citizen report cards that provide information on the quality of service delivery increases community involvement in monitoring providers and eliciting better service delivery.¹² There is little systematic evidence on the conditions under which transparency alone has such an effect, however, and there are many instances where transparency alone fails to trigger improvements in government policy. Research is under way to explore conditions under which transparency has the largest effects.¹³
- Research indicates that creating greater government accountability for citizen welfare is a great deal more subtle than simply encouraging competitive elections, at one extreme, relying on anti-corruption agencies and financial management reforms, at another, or changing specific aspects of the regulatory environment, at still another extreme. None of these is sufficient when citizens are uninformed about what governments are doing for them, when they have no credible alternatives if incumbent governments are not performing, or when they are weighed down by cultural and historical legacies that make them unwilling to hold governments accountable.¹⁴
- The security of land property rights is a precondition for economic development. How rights are defined and administered and how land is distributed can have far-reaching implications for the cost of financial intermediation, conflict, governance, and corruption. For example, land tenure insecurity leads to significant underinvestment and substantial income differences across rural households.¹⁵
- The environmental resources that many of the world’s poorest people rely on—water, grazing land, fisheries, forest products—exhibit poorly defined and insecure property rights and are subject to degradation and exhaustion. But under certain social and environmental conditions, local institutions can manage these resources sustainably.¹⁶
- Assignment of property rights over environmental assets and services such as forests was shown to have the potential to improve environmental and economic outcomes by overcoming the incentive failures that cause inefficient behavior. Current research seeks to examine the implications of mechanisms to trade rights for carbon sequestration with the aim of reducing carbon emissions into the atmosphere.¹⁷

Policies to make growth more inclusive: human development

We have learned that inequality and uninsured risk are harmful to growth, and that human development and social protection policies can be crucial to ensuring growth and enhancing the degree to which it is poverty reducing. When well designed, such policies can reach the poorest people, improve their well-being, expand their

opportunities for advancement, and help reduce their vulnerability to economic and environmental risks. When poorly designed, these policies can easily fail to help poor people participate in the opportunities unleashed by economic growth.

- Shortfalls in learning and attainment often have their roots in deprivation very early in life.¹⁸ By the time children from poor families arrive at primary school, they have already fallen far behind their peers from better-off families—suggesting that nutritional and educational interventions need to come in the pre-school years. Among pre-school children in Ecuador, research shows not only that better nutrition improves children’s test scores, but also that this effect becomes stronger as the child matures.¹⁹
- Improving service quality remains a major challenge. Unannounced visits to randomly selected schools and health clinics in six countries revealed that, on average, 19 percent of teachers and 35 percent of health workers were absent from their facilities—and there is little evidence that raising pay will greatly reduce absenteeism.²⁰ In India public doctors put in far less effort, spend half the time doing only 60 percent as many examinations as private providers, and applied only 15 percent of what they knew, compared to 50 percent or higher for private doctors.²¹
- Antiretroviral therapy for AIDS patients can save a year of healthy life in India for less than \$50, but only if treatment can be used to motivate improved HIV prevention.²² Thailand’s substantial prevention efforts between 1991 and 2002 averted the need to spend an additional US\$18.6 billion on treatment over the decade through 2012, a cost-benefit ratio of 1:43.²³
- Death from infectious disease in developing countries is once again soaring, not only because of new epidemics, but because of the emergence of drug-resistant strains of such diseases as tuberculosis and malaria. Rapidly expanding international trade and travel increase the speed of transmission of new disease threats. Research is examining the economic impact of these new health dangers. It assesses how some health care services—already failing to confront routine problems—can meet new health challenges and is estimating the cost-effectiveness of specific interventions.
- We have also learned that widespread respiratory health damage from cooking and heating smoke in rural villages can be significantly reduced by simple, affordable changes in household construction and cooking practices.²⁴ Simple improvements in agricultural pesticide use could save many lives. Pesticide poisoning affects between one and five million agricultural workers per year, resulting in at least 20,000 deaths. Switching to lower toxicity pesticides, the use of protective gear, and utilization of environmentally friendly Integrated Pest Management practices will help reduce individual health risks and environmental damage.²⁵
- Interactions between physical infrastructure and human health have been prominent in recent research. Our research has revealed that improved water and sanitation can greatly enhance child health, whereas poverty and poor maternal education can reduce these gains.²⁶ We have learned that well-designed, self-financed community water and sanitation projects significantly lower infant intestinal disease and mortality.²⁷

Policies to make growth more inclusive: social protection

Even as growth raises incomes, problems of vulnerability remain: the risk that some non-poor will become poor and that some poor people will become even poorer persists. Research is investigating these links and the appropriate policy response to problems of vulnerability. Researchers have been studying the potential for providing effective insurance to the rural poor through various forms of safety net policies.²⁸

- Social policies matter in protecting poor people from shocks due to economic crises, ill health, or natural disasters. Deep economic crises can sharply reduce household incomes and public expenditures in the social sectors, leading in turn to a sharp decline in health outcomes.²⁹ In China and Vietnam, health shocks are very likely to impoverish households. Social insurance can reduce catastrophic out-of-pocket expenditures by poor people, but, in order to contain costs, such programs need to factor in incentives to avoid over-providing care.³⁰
- We have learned that well-designed workfare schemes can be highly cost-effective in reaching the poorest and in helping them cope with adverse shocks that undermine their own efforts to escape poverty.³¹ By making cash transfers targeted to poor families contingent on their actions to help assure that their children are healthy and well educated, it is possible to reduce poverty both now and in the future.³² Local control of decisions to allocate financial assistance to the poor can increase the fraction of resources intended for the poor and ensure that it actually reaches them. But this depends critically on the local institutional context.³³
- Land reforms may raise aggregate output and have a positive long-term impact on poverty but need to be implemented in a cost-effective and non-politicized manner.³⁴ Given its initially equitable land allocation,³⁵ Vietnam's introduction of a land market has been poverty reducing overall.
- Social protection in the form of targeted transfers can both help poor people escape poverty as well as protect people from falling into poverty. However, in fighting transient poverty it is vital that transfers be more responsive to changing household circumstances. This suggests the need to rely on self-targeting methods whenever possible.³⁶
- How can trade reforms reduce poverty more effectively? Current research focuses on the channels through which trade reform affects the poor, on the potential for particular groups to lose from reform, and on complementary measures that can reverse these losses (for example, by reducing costs of market access or lowering barriers between rural and urban labor markets).³⁷
- Migration is often a means to insure against household risks. Evidence shows that remittances can increase in times of need, as well as that, in some countries, households with migrants tend to have stronger health and education outcomes (especially for girls), make less use of child labor and achieve higher average incomes.³⁸
- Financial market imperfections that limit access to finance play an important role in perpetuating inequalities and slowing growth, hence financial sector policies that

promote broader access to financial services are important in promoting pro-poor growth.³⁹

The importance of agriculture and the environment to pro-poor growth

We have learned that the sectoral pattern of growth is often crucial to the outcomes for poor people, and that agriculture and rural development can play an important role in assuring that growth is poverty reducing.⁴⁰ Recent research has focused on what policies work, and what do not, in promoting agricultural growth. The nexus with environmental issues has also generated an important set of new research questions.

- Bank research has revealed that rural extension services frequently fail to provide cost-beneficial advice to farmers, in part because extension services do not fully internalize the risks to farmers of adopting new technologies and the types of evidence that farmers look to before they take on such risks. Furthermore, extension programs intensely focused on small groups of farmers may fail to generate a national impact if the information they disseminate is overly complex and not easily diffused to other farmers.⁴¹
- Failure to account for collective action problems among farmers has limited the success of some programs, such as promoting integrated pest management to reduce toxic pesticide use.⁴²
- Global warming may bring about a rise in sea levels of more than one meter within the present century. This could dislocate tens of millions of residents in developing countries, and the loss of significant shares of GNP, given that the areas inundated include some of the most fertile river deltas, where agriculture is currently thriving.⁴³
- Agriculture in developing countries will be affected by climate change. The predicted extent of impact depends on the climate change scenario and global climate model used. Rainfed areas will be much more vulnerable than irrigated areas. The impacts on small and large farms differ mainly due to differences in infrastructure, cropping patterns, and technologies. Farmers have been making adjustments in how they grow crops and raise livestock in order to cope with global warming, depending on public policies that make such adjustments easier or difficult. While some agricultural areas will benefit from global warming, many will sustain significant losses in economic performance.⁴⁴
- The poor suffer disproportionately from unregulated pollution and natural resource degradation, but developed country regulatory models frequently fail when applied in developing countries. Through pilot programs in a variety of sectors, research is evaluating possibilities for more cost-effective intervention under developing country conditions.⁴⁵ One success is on the disclosure of firms' industrial pollution. Bank research and policy engagement over 14 years has seen this policy curtail pollution in several countries and the policy has been adopted nationally in China.

Knowledge creation through evaluative research

Progress in development requires that we learn from both successes and failures. Rigorous evaluation is needed to choose among competing models and, more broadly, to

establish which types of interventions deliver the greatest benefits at lowest cost. Such evaluations have been rare in the past. Now, expert attention and the application of new techniques have made them part of the basic development assistance toolkit. DECRG has played a core role in developing new operational tools for assessing impacts, building on its long-term capabilities in policy evaluation and micro-data collection, such as under the Living Standards Measurement Study.

- An important new mode in delivering foreign assistance is community-driven development. Rigorous research is under way to assess the impact of programs structured around several possible CDD methodologies designed to provide local infrastructure and services. The roles of the socioeconomic and political context are being specifically assessed.
- Conditional cash transfer (CCT) programs have become one of the most popular interventions in the social sectors in developing countries. A growing number of countries, in particular in Latin America, have implemented such programs. A rigorous review of existing and ongoing evaluations of these programs will shed light on the relative importance of the condition and the cash involved in such programs.
- Rural agricultural households adopt a variety of risk-coping mechanisms to reduce exposure to shocks, many of which have efficiency costs. These include migration, off-farm diversification of income sources, reliance on family and village networks, and choice of production techniques and crops that reduce variability of output. Understanding these behavioral responses and their fluidity is vital to designing policies that help smooth income and consumption and thereby enhance equitable development.⁴⁶
- Research is testing how the results of impact evaluation can be scaled up so that the impact of similar interventions can be rigorously assessed in different settings. New methodologies are also being developed that do not require randomization—an approach that, by using “chance” to exclude some potential beneficiaries, often generates political opposition that undermines the evaluation initiative.

Development impacts of the policies of developed countries

Developed countries pursue a wide range of policies that have large direct or indirect effects on the development prospects of poor countries. Policymaking in developed countries—whether related to foreign assistance, trade, security, immigration, or finance—does not always take these effects into account, in part because their severity is only incompletely documented. Research has focused most strongly on developed country trade policies as well as aid effectiveness.

We have learned that:

- Aid accelerates growth in countries that have adopted complementary policies, restrained corruption, and offered security to investors.⁴⁷
- Trade strategies of developed countries that favor preferential rather than nondiscriminatory trading regimes can have significant negative effects on

excluded poor countries, and often benefit signatories less than a multilateral approach would. The accretion of bilateral and regional agreements may promote eventual multilateral agreement in the WTO, but the evidence for this view is not strong.⁴⁸

- The agricultural policies of developed countries cost the developing countries approximately \$26 billion a year, or 60 percent of the cost to developing countries of all industrial country trade distortions. Agricultural market access restrictions (tariffs) account for more than 90 percent of the total global welfare cost of agricultural trade policies. Reducing this protection matters because agricultural trade reform continues to be a key potential source of income growth and poverty reduction in developing countries.⁴⁹
- The net economic benefits to developing countries of adopting strong intellectual property rights may be negative and not offset by corresponding benefits in increased innovation in developed countries.⁵⁰
- Violent conflict is inextricably linked to the persistent, deep poverty of the neediest countries. Research has suggested that the development effects of intervention by rich countries to halt conflict are huge relative to the costs. Recent research has also found that most participants fight for economic gain and that an effective way of ending it is to deny developed country assistance to all parties to the conflict.⁵¹

Research on the effects of developed country trade-related policies has had a significant impact on aid policy and international trade negotiations. Developing countries are increasingly vocal in calling for reform of trade policies that affect them negatively. Unfortunately, sometimes this results in overlooking the need for sound trade policies in their own countries.

We currently know less about the effects of policies in areas ranging from immigration to combating terrorism. For example:

- Financial sector and immigration regulations have a significant effect on remittances back to developing countries. Early evidence suggests that remittances can be strongly poverty alleviating when migration flows are strong and the poor can migrate, but much less so where restrictions on numbers make migration an option only for the skilled and well-connected. Research is continuing on this as well as on issues such as whether developing countries gain or lose from the emigration of their skilled workers, and what policies might maximize the net gain from such migration.⁵²
- Developed country policies to control terrorist threats and drug trafficking may impose significant costs on developing countries. The economic costs of drug trafficking to developing countries are a function of the enforcement of drug laws and the vigor of interdiction practices. They include the costs confronted by developing countries when large slices of economic activity are illegal, including the effects on political institutions and the rule of law. The magnitude of these effects is unknown and the subject of research. Security measures by developed countries, such as those to control the contents of shipping containers, may also

impose costs that fall disproportionately on developing countries. Again, such issues are the subject of research.⁵³

Endnotes

Most Bank documents cited in this summary are available through the documents and reports portal of the World Bank <http://www-wds.worldbank.org/>. The word “processed” describes informally reproduced works that may not be commonly available through library systems.

¹ For work at macro level, see N. Loayza, A. M. Oviedo, and L. Servén. 2005. “[Regulation and Macroeconomic Performance](#).” Policy Research Working Paper 3469, World Bank, Washington, DC. For work at the firm level, see the *World Development Report 2005: A Better Investment Climate for Everyone*. For work at the household level, and efforts to explain why some poor households do so much better than others over time, see J. Jalan and M. Ravallion. 2002. “Geographic Poverty Traps? A Micro Model of Consumption Growth in Rural China.” *Journal of Applied Econometrics* 17(4): 329-46.

² B. Bolaky and C. Freund. 2005 (2006 revised). “[Trade, regulations and growth](#).” Policy Research Working Paper 3255, World Bank, Washington, DC.; B. Hoekman. 2006. “[Liberalizing Trade in Services: A Survey](#).” Policy Research Working Paper 4030, World Bank, Washington, DC.; J.S. Wilson, C.L. Mann, and T. Otsuki. 2005. “Assessing the Benefits of Trade Facilitation: A Global Perspective.” *The World Economy* 28(6): 841-71; S. Djankov, C. Freund and C. Pham. 2006. “[Trading on Time](#).” Policy Research Working Paper 3909, World Bank, Washington, DC.

³ T. Beck, A. Demirgüç-Kunt, and V. Maksimovic. 2005. [Finance for Growth: Policy Choices in a Volatile World](#). A Policy Research Report. Washington, DC: World Bank; “Financial and Legal Constraints to Firm Growth: Does Size Matter?” *Journal of Finance* 60(1): 137-177; S. Schmukler, A. de la Torre and E. Levy Yeyati. 2002. “Financial Globalization: Unequal Blessings.” *International Finance* 5(3): 335–57.

⁴ S. Schmukler, A. de la Torre and J.C. Gozzi Valdez . Forthcoming. “Financial Development: Maturing and Emerging Policy Issues.” *World Bank Research Observer*; S. Schmukler and P. Lane. 2007. “The International Financial Integration of China and India.” In [Dancing with Giants: China, India, and the World Economy](#), ed. L. Alan Winters and Shahid Yusuf . Institute of Policy Studies and World Bank.

⁵ W. Megginson. 2005. “The Economics of Bank Privatization.” *Journal of Banking and Finance* 29(8-9):1931-1980); G. Clarke, R. Cull, and M. Shirley. 2005. “Bank Privatization in Developing Countries: A Summary of Lessons and Findings.” *Journal of Banking and Finance* 29(8-9):1905-1930.

⁶ I. Kessides. 2004. [Reforming Infrastructure: Privatization, Regulation and Competition](#). Policy Research Report. Washington, DC: The World Bank and Oxford University Press.

⁷ A. Demirgüç-Kunt and E. Kane. 2002. “Deposit Insurance Around the World: Where Does it Work?” *Journal of Economic Perspectives* 16(2): 175–95; J. Barth, G. Caprio, and R. Levine. 2004. “Bank Supervision and Regulation: What Works Best?” *Journal of Financial Intermediation* 13(2): 205–48.

⁸ L. Klapper, L. Luc, and R. Raghuram. 2006. “Entry Regulation as a Barrier to Entrepreneurship.” *Journal of Financial Economics* 82(3): 591–629; R. Almeida and A. Fernandes. Forthcoming. “Openness and technological innovations in developing countries: evidence from firm-level surveys.” *Journal of Development Studies*.

⁹ N. Loayza and C. E. Raddatz. Forthcoming. “The Structural Determinants of External Vulnerability.” *World Bank Economic Review*; N. Loayza, R. Rancière, L. Servén, and J. Ventura. Forthcoming. “Macroeconomic Volatility and Welfare in Developing Countries.” *World Bank Economic Review*; C. E.

Raddatz. 2007. "Are External Shocks Responsible for the Instability of Output in Low-Income Countries?" *Journal of Development Economics*. 84(1): 155-187.

¹⁰ S. Knack and P. Keefer. 1995. "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures." *Economics and Politics* 7(3): 207–28; D. Acemoglu, S. Johnson, and J. Robinson. 2004. "Institutions as the Fundamental Cause of Long-run Growth." NBER Working Paper 10481. National Bureau of Economic Research, Cambridge, Mass.; P. Aghion and S. Durlauf, eds. 2005. *Handbook of Economic Growth*. Amsterdam: North Holland; D. Kaufmann, A. Kraay, and M. Mastruzzi, 2006. "[Governance Matters VI: Aggregate and Individual Governance Indicators 1996-2005](#)." Policy Research Department Working Paper 4012, World Bank, Washington, DC.

¹¹ K. Deininger and P. Mpuga. 2005. "Does Greater Accountability Improve the Quality of Public Services Delivery? Evidence from Uganda." *World Development* 33(1): 171–91; P. Keefer and S. Khemani. Forthcoming. "Democracy, Public Expenditures and the Poor." *World Bank Research Observer*; R. Reinikka and J. Svensson. 2005. "Fighting Corruption to Improve Schooling: Evidence from a Newspaper Campaign in Uganda." *Journal of the European Economic Association* 3 (2-3): 259-267.

¹² M. Björkman and J. Svensson. 2007. "[Power to the People: Evidence from a Randomized Field Experiment of a Community-based Monitoring Project in Uganda](#)." Policy Research Working Paper 4268, World Bank, Washington, DC.

¹³ Experimental studies are being undertaken in India and elsewhere in the education sector to identify features of an information campaign that might successfully mobilize communities to extract better services from their public agents.

¹⁴ K. Hoff, and P. Priyanka. 2006. "Discrimination, social identity, and durable inequalities." *American Economic Review Papers and Proceedings* 96(2): 206-211; P. Keefer, and S. Khemani. 2005. "Democracy, Public Expenditures, and the Poor: Understanding Political Incentives for Providing Public Services." *World Bank Research Observer* 20 (1): 1–28; P. Keefer. 2007. "Beyond elections: politics, development and the poor performance of poor democracies." In *Oxford Encyclopedia of Comparative Politics*, eds., C. Boix and S. Stokes. Oxford: Oxford University Press.

¹⁵ K. Deininger. 2003. [Land Policies for Growth and Poverty Reduction](#). Policy Research Report. Washington, DC: World Bank; Oxford and New York: Oxford University Press; H. Jacoby and G. Mansuri. 2007. "[Incomplete Contracts and Investment: A Study of Land Tenancy in Pakistan](#)." Policy Research Working Paper 3826, World Bank, Washington, DC; Jacoby and G. Mansuri. 2007. "[Incentives, Supervision, and Sharecropper Productivity](#)." Policy Research Working Paper 4125, World Bank, Washington, DC.

¹⁶ T. Sterner. 2003. *Policy Instruments for Environmental and Natural Resource Management*. Washington, DC: Resources for the Future (with World Bank and SIDA); T. Dietz, E. Ostrom, P. C. Stern. 2003. "The Struggle to Govern the Commons." *Science* 302(5652): 1907–12; [World Development Report 2003: Sustainable Development in a Dynamic World—Transforming Institutions, Growth and Quality of Life](#). Pp. 102, 168–69. Washington, DC: Oxford University Press and the World Bank; A. White and A. Martin. 2002. *Who Owns The World's Forests? Forest Tenure and Public Forests in Transition*. Washington, D.C.: Forest Trends and Center of International Environmental Law.

¹⁷ K. M. Chomitz, E. Brenes, and L. Constantino. 1999. "Financing Environmental Services: The Costa Rican Experience and Its Implications." *Science of the Total Environment* 240: 157–169; S. Pagiola, J. Bishop, and N. Landell-Mills, eds. 2002. *Selling Forest Environmental Services: Market-based Mechanisms for Conservation and Development*. Sterling Va.: Earthscan (with IIED and World Bank Institute); A. White and A. Martin. 2002. *Who Owns The World's Forests? Forest Tenure and Public Forests in Transition*. Washington, DC: Forest Trends and Center of International Environmental Law; K. Chomitz with P. Buys, G. De Luca, T. Thomas, and S. Wertz-Kanounnikoff. 2007. [At Loggerheads? Agricultural Expansion, Poverty Reduction, and Environment in the Tropical Forests](#). Washington, DC:

World Bank; D. F. Larson and G. Breustedt. 2007. "[Will markets direct investments under the Kyoto Protocol?](#)" Policy Research Working Paper 4131, World Bank, Washington, DC.

¹⁸ H. Alderman, and E. M. King. 2006. "[Investing in early childhood development.](#)" *Web Research Brief*, August 28, Development Research Group. World Bank, Washington, DC; N. Schady. 2006. "[Early childhood development in Latin America and the Caribbean.](#)" Policy Research Working Paper 3869, World Bank, Washington, DC.

¹⁹ C. Paxson and N. Schady. 2005. "[Cognitive Development among Young Children in Ecuador: The Roles of Wealth, Health and Parenting.](#)" Policy Research Working Paper 3605, World Bank, Washington, DC.

²⁰ C. Nazmul, J. S. Hammer, M. Kremer, K. Muralidharan, and F. H. Rogers. 2006. "Missing in Action: Teacher and Health Worker Absence in Developing Countries." *Journal of Economic Perspectives* 20(1): 91-116.

²¹ J. Das and J. Hammer. 2007. "Money for Nothing: The Dire Straits of Medical Practice in India.", *Journal of Development Economics* 83(1): 1-36; for other countries, see summary in J. Das and P. Gertler. 2007. "Practice-Quality Variation in Five Low-Income Countries: A Conceptual Overview." *Health Affairs* 26(3): w296-w309.

²² M. Over and others. 2004. *HIV/AIDS Treatment and Prevention in India*. Washington, DC: World Bank.

²³ A. Revenga and others. 2006. *The Economics of Effective AIDS Treatment. Evaluating Policy Options in Thailand*. Washington, D.C.: World Bank.

²⁴ S. Dasgupta and others. 2006. "Indoor Air Quality for Poor Families: New Evidence from Bangladesh." *Indoor Air* 16 (6): 426-44. (Available as [Policy Research Working Paper 3393](#)).

²⁵ [Toxic Pollution from Agriculture: Costs and Remedies](#) (website: <http://go.worldbank.org/9TLA5X2DY0>)

²⁶ J. Jalan and M. Ravallion. 2003. "Does Piped Water Reduce Diarrhea for Children in Rural India?" *Journal of Econometrics* 112: 153-173.

²⁷ L. Wang, K. Bolt, and K. Hamilton. 2003. "Estimating Potential Lives Saved from Improved Environmental Infrastructure." Environment Department, World Bank, Washington, DC, processed.

²⁸ M. Ravallion. 2006. "Transfers and Safety Nets in Poor Countries: Revisiting the Trade-Offs and Policy Options." In *Understanding Poverty*, eds., A. Banerjee, R. Benabou and D. Mookerjee. Oxford University Press.

²⁹ C. Paxson and N. Schady. 2005. "Child Health and Economic Crisis in Peru." *World Bank Economic Review* 19(2): 203-23.

³⁰ A. Wagstaff. 2007. "The economic consequences of health shocks: Evidence from Vietnam." *Journal of Health Economics* 26: 82-100; A. Wagstaff, and S. Yu. 2007. "Do health sector reforms have their intended impacts? The World Bank's Health VIII Project in Gansu Province, China." *Journal of Health Economics* 26(3) 505-535.

³¹ See the evaluation by DECRG researchers of the World Bank's Social Protection Loans to Argentina reported in (for example), M. Ravallion and others. 2005. "What Can Ex-participants Reveal about a Program's Impact?" *Journal of Human Resources* 40(1): 208-230.

- ³² See the evaluation by DECRG researchers of the Food for Education Program in Bangladesh reported in M. Ravallion and Q. Wodon. 2000. "Does Child Labor Displace Schooling? Evidence on Behavioral Responses to an Enrolment Subsidy." *Economic Journal* 110: 158–76.
- ³³ See E. Galasso and M. Ravallion. 2005. "Decentralized Targeting of an Anti-Poverty Program." *Journal of Public Economics* 89(4): 705-727.
- ³⁴ K. Deininger. 2003. [*Land Policies for Growth and Poverty Reduction: A World Bank Policy Research Report*](#). Washington, DC: World Bank; Oxford and New York: Oxford University Press.
- ³⁵ M. Ravallion, and D. van de Walle. Forthcoming. "Does Rising Landlessness Signal Success or Failure for Vietnam's Agrarian Transition?" *Journal of Development Economics*.
- ³⁶ D. van de Walle. 2004. "Testing Vietnam's Safety Net." *Journal of Comparative Economics* 32(4): 661-679.
- ³⁷ G. Porto. 2006. "Using Survey Data to Assess the Distributional Effects of Trade Policy." *Journal of International Economics* 70(70): 140-160; T. W. Hertel, M. Ivanic, R. Keeney and L. A. Winters. 2007. "Putting Development Back in to the Doha Agenda: Poverty Impacts of a WTO Agreement." The World Bank; T. W. Hertel et al. 2007. "Distributional Effects of WTO Agricultural Reforms in Rich and Poor Countries." *Economic Policy* 50: 289-337; B. Hoekman and M. Olarreaga, eds. Forthcoming. *Impacts and Implications of Global Trade Reform on Poverty*. Brookings Institution.
- ³⁸ G. R.G. Clarke and S. Wallsten. 2003. "Do Remittances Act Like Insurance? Evidence From a Natural Disaster in Jamaica." The World Bank, Washington, D.C.; D. Yang and H. Choi. Forthcoming. "Are Remittances Insurance? Evidence from Rainfall Shocks in the Philippines." *World Bank Economic Review*; Mansuri, G. 2006. "[Migration, School Attainment and Child Labor in a Rural Economy](#)." Policy Research Working Paper 3945, World Bank, Washington, DC; G. Mansuri. 2006. "[Migration, Sex Bias, and Child Growth in Rural Pakistan](#)." Policy Research Working Paper 3946, World Bank, Washington, DC.
- ³⁹ See forthcoming *Policy Research Report on Access to Finance*. 2007. Washington, D.C. and NY: World Bank.
- ⁴⁰ This is a theme of the 2008 *World Development Report*, which drew heavily on Bank research on this topic over many years.
- ⁴¹ J. R. Anderson and G. Feder. 2007. "Agricultural Extension." Ch. 44 in *Handbook of Agricultural Economics*, eds., R. Evenson and P. Pingali. London: Elsevier B.V., pp. 2344- 2378; G. Feder and S. Savastano 2006. "The Role of Opinion Leaders in the Diffusion of New Knowledge: The Case of Integrated Pest management." *World Development* 34(7):1287-1300.
- ⁴² G. Feder, R.G., Murgai, R. and J. Quizon. J. 2004a. "Sending Farmers Back to School: The Impact of Farmer Field Schools in Indonesia." *Review of Agricultural Economics* 26 (1):45-62; G. Feder, R.G. Murgai, and J. Quizon. 2004b. "The Acquisition and Diffusion of Knowledge: The Case of Pest Management Training in Farmer Field Schools, Indonesia." *Journal of Agricultural Economics*. 55(2):217-239.
- ⁴³ S. Dasgupta, B. Laplante, C. Meisner, D. Wheeler. and J. Yan, 2007. "[The Impact of Sea-Level Rise on Developing Countries: A Comparative Analysis](#)." Policy Research Working Paper 4136, World Bank, Washington, DC.
- ⁴⁴ P. Kurukulasuriya, R. Mendelsohn, R. Hassan, J. Benhin, T. Deressa, M. Diop, H. Mohamed Eid, K. Yerfi Fosu, G. Gbetibouo, S. Jain, A. Mahamadou, R. Mano, J. Kabubo-Mariara, S. El-Marsafawy, E. Molua, S. Ouda, M. Ouedraogo, I. Sène, D. Maddison, S. Niggol Seo, and A. Dinar. 2006. "Will African Agriculture Survive Climate Change?" *World Bank Economic Review* 20(3):367-388; S. Niggol and R.

Mendelsohn. 2007. "[A Ricardian analysis of the impact of climate change on Latin American farms.](#)" Policy Research Working Paper 4163, World Bank, Washington, DC.

⁴⁵ Early experiments involved DEC researchers, who developed and tested low-cost pilot programs for public disclosure of pollution in China, India, Indonesia, Philippines, and Vietnam. World Bank. 1999. [Greening Industry: New Roles for Communities, Markets, and Governments: A World Bank Policy Research Report.](#) Washington, D.C.: World Bank and Oxford University Press; S. Dasgupta and others. 2006/2007. "Disclosure Strategies for Pollution Control." In *International Yearbook of Environmental and Resource Economics*, eds., T. Tietenberg and H. Folmer. Edward Elgar: Cheltenham, U.K, 93-119.

⁴⁶ J. Giles. 2006. "Is Life More Risky in the Open? Household Risk-Coping and the Opening of China's Labor Markets." *Journal of Development Economics* 81(1): 25-60.

⁴⁷ C. Burnside and D. Dollar. 2004. "[Aid, Policies and Growth: Revisiting the Evidence.](#)" Policy Research Working Paper 3251 World Bank, Washington, DC.

⁴⁸ N. Limao. 2006. "Preferential Trade Agreements as Stumbling Blocks for Multilateral Trade Liberalization." *American Economic Review* 96: 896-914; M. Schiff and L. A. Winters, eds. 2003. *Regional Integration and Development.* Washington, DC: Oxford University Press and the World Bank.

⁴⁹ K. Anderson and W. Martin. 2006. "Agriculture, Trade Reform and the Doha Agenda." In *Agricultural Trade Reform and the Doha Development Agenda*, eds., K. Anderson and W. Martin. Palgrave-Macmillan and the World Bank; K. Anderson., W. Martin and E. Valenzuela. 2006. "The Relative Importance of Global Agricultural Subsidies and Market Access." *World Trade Review* 5(3): November.

⁵⁰ C. Fink and K. Maskus. 2006. *Intellectual Property and Development: Lessons from Recent Economic Research.* Palgrave-Macmillan and the World Bank; M. Finger. 2004. *Poor Peoples' Knowledge?* Palgrave MacMillan and the World Bank.

⁵¹ World Bank. 2003. [Breaking the Conflict Trap: Civil War and Development Policy.](#) Washington, DC: World Bank and Oxford University Press.

⁵² J. Mora and J. E. Taylor. 2005. "Remittances, Inequality and Poverty: Evidence from Rural Mexico." *Department of Agricultural & Resource Economics, UCD. ARE Working Paper* 05-003; J. Gibson and D. McKenzie. 2007. Forthcoming. "The Impact of an Ex-Ante Job Offer Requirement on Labor Migration: The New Zealand–Tongan Experience." In *International Migration, Economic Development and Policy*, eds. C. Ozden, M. Schiff. Palgrave McMillan.

⁵³ D. Mirza and T. Verdier. 2006. "[Are Lives a Substitute to Livelihoods? Terrorism, Security, and US Bilateral Imports.](#)" Policy Research Working Paper 4094, World Bank, Washington, DC.