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FUNDING OF NATIONAL SURVEYING AND MAPPING ACTIVITIES

World Bank Support for Land-Related Projects in Developing Countries - experiences and
implications for International Cooperation**

(Submitted by The World Bank)

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World Bank Support for Land-Related Projects in Developing Countries
Experiences and Implications for International Cooperation

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WORLD BANK SUPPORT FOR LAND-RELATED PROJECTS IN DEVELOPING COUNTRIES

Experiences and Implications for International Cooperation

1. Introduction

In 1975, the World Bank prepared a land reform policy paper to guide its operations. The Bank did this out of recognition that land is a powerful weapon to fight poverty because it is often the only asset that the rural poor possess and is therefore a primary means of generating a livelihood in the rural areas of developing countries. The 1975 policy paper identified the importance of land issues, articulated a conceptual framework to address them and cleared the way for increased Bank assistance for land related activities ranging from reforming policy and legal frameworks to supporting land titling and administration (Deininger and Binswanger, 1999).

While the start-up was slow, the Bank's support for interventions in land and real estate was boosted by the end of the cold war which created demand for Bank assistance for: (i) establishing policy and legal frameworks, and the institutional infrastructure for the privatization and administration of land rights in Eastern Europe and other former centrally planned economies; (ii) legal and institutional reforms in Africa and Latin America; and (iii) design and implementation of new approaches for undertaking redistributive land reform, commonly known as negotiated community-based land reform or market-assisted land reform. Consequently, World Bank lending for land-related projects and policy reforms grew from a few projects to an average of more than 10 projects per year in the last 10 years, or a total of 156 new projects from the Bank's fiscal year 1988 (FY88) to its fiscal year of 1999 (FY99).

In this paper, we review in Section 2 the rationale for World Bank support for these projects and what the projects have been about (Section 3) and their benefits (Section 4). We also examine the experiences, and the lessons that the Bank has learnt from them (Section 5) and their implications for international cooperation (Section 6) before we make our conclusions in Section 7.

2. Rationale for Bank Support

World Bank support for clarification, distribution and administration of land rights has been underpinned by several considerations. First, in countries moving from centrally planned to market economies, Bank support has been critical for developing legal frameworks and institutional infrastructure needed to establish private rights in land and real estate and to support their transactions. This has resulted not only in the transformation of land ownership but also in promoting investment, production incentives and the development of credit markets. Second, in countries such as South Africa, Zimbabwe and much of Latin America where historical legacies had created highly concentrated ownership patterns of land, Bank support for negotiated and community-driven land reform has become necessary to redistribute land to the poor as a mechanism to directly attack rural poverty while also raising overall production efficiency. Third, in many countries in Sub-Saharan Africa and some countries in other Regions where customary land tenure is still important, there has been a growing challenge to provide

land tenure security to individual land owners who opt out of the communal ownership system while also preserving and, if necessary, giving legal protection to the customary land tenure system. Fourth, in many middle income countries where the transition from customary to individual land tenure is complete or near completion, there is an increasing need to improve efficiency of land markets to complement the development of other factor markets and speed up economic transactions. Fifth, the need to reduce housing shortages in urban areas and improve the investment climate for private sector development has made it necessary to develop effective and efficient institutions for the administration of land.

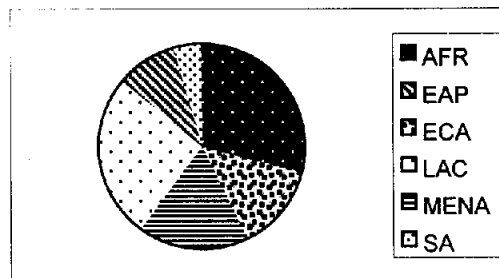
Over time, the Bank has developed a comparative advantage in assisting developing countries to address land issues. With its global outreach in operations and research, the Bank is able to draw lessons and share cross country experience in addressing the rather complex and sensitive problems that are found in land policy and administration. Furthermore, with its large pool of multi-disciplinary staff, it is well positioned to deal with land issues which are highly demanding in terms of quality and diversity of expertise.

3. Bank Portfolio in FY88-FY99

From July 1987 to June 1999, the Bank (IBRD and IDA) approved funding for 156 land-related projects --- an average of 13 projects per year. Forty six (46) of these projects have been in Sub-Saharan Africa (AFR), 41 in Latin America and the Caribbean (LAC), 28 projects in Eastern Europe and Central Asia (ECA), 22 projects in East Asia and the Pacific (EAP), 15 projects in the Middle East and Northern Africa (MENA) and 7 projects in South Asia (SA) (see Chart 1). It must be noted up-front that this tally of projects includes not only those projects primarily focused on addressing land issues but also those that support land-related areas such as financial intermediation, urban housing, legal and regulatory reforms in land, urban housing and land use planning. Of the total number of 156 projects, about 50 projects are primarily focused on the clarification and administration of land rights.

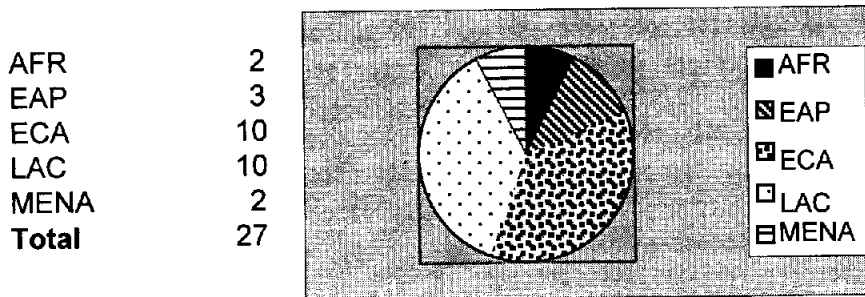
Chart 1
World Bank Approved Land and Real Estate Projects during FY88-FY99

AFR	46
EAP	21
ECA	27
LAC	41
MENA	15
SA	7
Total	157



Given that the primary interest of this conference is on digital and non-digital land and geographic information systems (LIS and GIS), a more relevant statistic on Bank lending may be the latter one which represents projects primarily focused on land administration including land reform. During this fiscal year (FY00), there are 27 such projects under implementation. Of the 27 projects, 10 are in LAC, 10 in ECA, 3 in EAP, 2 in AFR and 2 in MENA, with ECA and LAC Regions having the largest portfolio (see Chart 2). The total cost of these projects is US\$1,432 million (see Annex Table 1), with financing coming from the Bank, host countries and, in some cases, other donors in a co-financing arrangement with the Bank.

Chart 2
Portfolio of Land Policy and Administration Projects in FY00



(a) Land Policy and Administration Projects in the East Asia and Pacific Region

While there have not been many land policy and administration projects in the East Asia and Pacific Region compared to Latin America and the Caribbean Region or the Region of Eastern Europe and Central Asia, the Region has set the pace in terms of designing and implementing community-oriented land titling projects. Behind the good Regional performance has been the Thailand Land Titling Program which, with donor financing from the Bank and the Australian Government, has been under implementation since 1984 and is due for completion in 2004. It pioneered the so-called systematic land titling which has been adopted world-wide as a cost-effective, community-oriented approach to the adjudication of land disputes, as opposed to the sporadic approach where land titles are provided in response to individual requests. In addition to the Thailand Land Titling program, the Bank has been financing also the Land Administration Project (1994) in Indonesia and the Land Titling Project (1996) in Lao PDR. Furthermore, technical assistance support for land administration has been provided to Viet Nam. As for the future, we foresee continuation of Bank programs in Thailand, Indonesia and Lao PDR while starting up new programs in the Philippines and Cambodia. In the Philippines, a major land management and administration program is being contemplated, but starting first with a series of pilot projects supported by a learning and innovation loan. Furthermore, the Bank is assisting the Government to study the feasibility of implementing a negotiated community-based land reform program. As for Cambodia,

the Bank is planning a land management and administration project whose preparation will begin in the second half of this calendar year. Across all these countries, Bank support has ranged from the review of legal and regulatory frameworks to the undertaking of policy studies, accelerated land titling, improved service delivery of land administration, management of state land and the development of property valuation services.

(b) Best Practice in Land Administration – The Thailand Land Titling Program

The Thailand Land Titling Program typifies a conventional land titling and administration project as it supports accelerated land titling, improved service delivery of land administration and the development of property valuation services. However, it does not support reviews of the legal and regulatory framework or the management of state land as these areas were found in a developed state. The Thai program, which is a 20-year program (1984 –2004), has so far been supported by three loans from the World Bank. The first loan – US\$35 million – supported the first 5-year phase of the program (1984-90). The second loan – US\$30 million – supported the second phase of the program (1990-94) while the third loan – US\$180 million – supported the third phase of the program (1995-99) although the funding is being spread out to cover the first two years of the fourth phase (2000-01). Arrangements are being made to obtain World Bank financing for the remaining three years of the fourth phase (2002-04) as well as to strengthen sustainability of the land administration program.

In its 16th year of implementation, the Thai program has already supported the issuing of more than 11 million land titles, out of a target of 13 million, and the improvement of land administration by enhancing decentralization through opening up new branch land offices and by increasing efficiency in handling land transactions; in many offices, a land transaction can be completed in one day while in the computerized offices of Bangkok, a transaction is normally completed in two hours. All the three projects have performed satisfactorily. The second project, for which an ex-post economic evaluation has been conducted, generated an economic rate of return of 34% which is considerably higher than the 12% minimum cut-off point for World Bank – funded projects (Operations Evaluation Department, 1998).

4. Benefits from Land Administration Projects

Formalization of property rights in land, undertaken under land titling and administration projects, has got numerous economic, environmental and social benefits. A summary of these benefits can be found in McLaughlin and Palmer (1996): (i) assurance ---- clear definition of rights to enable the owner to defend those rights against the claims of others; (ii) social stability – to prevent and help to resolve land disputes; (iii) credit – to enable use of land as good collateral for loans from credit institutions; (iv) improvements to land --- increased tenure security from a title provides adequate certainty and incentives to the owner to invest in long term land improvements; (v) productivity --- increased tenure security and access to credit promotes investment and increased productivity; (vi) liquidity --- formalization of rights promotes cost-effective exchange and the unlocking of resources embedded in land; (vii) labor mobility --- opening up land markets and increased tenure security promotes labor mobility in search

of higher returns for labor while land is sold or rented out; (viii) property values --- expected increases in productivity and incomes associated with titling raise the property values of land; (ix) property taxation --- land registration provides the necessary information to facilitate the assessment and collection of land-related taxes; (x) public services --- increased revenues from land together with improved cadastral data facilitate the planning and financing of infrastructure services such as public transport and utilities; and (xi) resource management --- increased land information facilitates public and private agencies to improve their planning for the management of natural resources, infrastructure and utilities.

A considerable volume of research has been done on the conceptualization and measurement of the economic benefits particularly following the seminal work of Feder et. al (1988). Through sector studies, the economic effects of land titling on land productivity and rural or urban real estate incomes have been quantified; a summary of the findings of these studies can be found in Feder and Nishio (1998). Attempts have been made also to estimate economy-wide effects by measuring the relationship between land registration on one hand and financial development and economic growth on the other (Byamugisha, 1999a; 1999b). It should be noted that the World Bank justifies financing of investments in land policy and administration on the basis of economic returns but also taking into account the need to provide for safeguards necessary to enhance the positive social and environmental impacts of the projects while also mitigating the negative impacts.

Specific objectives and related benefits from the formalization of property rights have varied with the states of economic development of the countries and regions. For example, in Eastern Europe and Central Asia, the objectives and expected benefits would be aligned to the creation of private ownership and the transferability of property rights while in the middle income countries of East Asia, Latin America and the Caribbean Region, interventions in land have been primarily oriented toward efficiency in land markets and improving access to credit. In Sub-Saharan Africa, interventions in land have been directed at improving legal and regulatory frameworks to protect traditional land tenure systems while also improving land tenure security for the individual land owners that have broken away from the traditional systems. Market-assisted land reforms are being tried in countries such as Brazil, Colombia, South Africa and the Philippines where there is a commitment by governments to change the historically inequitable distribution of land.

What promises to be an important benefit that has not been adequately quantified is the value of cadastral data or, more broadly, land information (or LIS) which, on its own or as the first layer of spatial data infrastructure (SDI), is important for economic and social development, and environmental management. LIS, including cadastral data, is an important information resource for assisting private and public sector entities to undertake business, ranging from revenue assessment and collection to financial sector intermediation, environmental planning and management, planning of infrastructure and utilities, and land and real estate development.

5. Experiences and Lessons

Performance of World Bank-supported projects has on the whole improved over the last 20 years. For example, a review of land titling projects by the World Bank's Environment Division (1992) found that many of the projects had been less successful in achieving their objectives with a notable exception of two land titling projects in Thailand. But more recent individual project performance reviews by the OED --- through the so-called Audit Reports --- and by the operational staff of the World Bank -- through Project Completion Reports --- lead to a conclusion that land and real estate projects have performed better than non-land projects in terms of outcome and sustainability but not as well in terms of institutional development.

Over time, the Bank has learnt from experience on how to improve the design and implementation of land-related projects. First, there is more appreciation of the benefits of taking a comprehensive approach to dealing with land issues. Due to market imperfections and policy distortions, improving sales markets for land alone would not be adequate to increase efficiency. Other measures such as: (i) improving land rental markets and other markets for factors of production (credit and labor) and commodities; and (ii) supply-side measures including making land use regulations market-friendly and introducing local taxation of land, have proven important in improving efficiency and the welfare of poor people in rural and urban areas. Hence, there is a need not only for taking a comprehensive approach but also of sequencing reforms since not all of the reforms can be undertaken at the same time.

Second, there is now a recognition that traditional systems of land tenure are not necessarily inferior to individualized land tenure but are in fact superior in certain socio-economic environments. Third, social and environmental impacts of land titling and administration projects are treated on the same footing as the economic impacts. Fourth, there is greater encouragement of participation by local communities, the private sector and civil society in project preparation and implementation to enhance project success. And finally, piloting of technologies before they are scaled up for wide scale implementation has become the norm as this approach facilitates testing the appropriateness of the various technologies to meet local and legal requirements at least cost, be it the introduction of techniques for surveying parcel boundaries or application of community-based and market approaches to redistributive land reform.

From its operations in East Asia and the Pacific Region, an important part of the learning has been the Bank's appreciation of country differences not only in terms of the level of development of the respective economies and cadastral systems but also in terms of differences in land issues prevailing in each country. In Thailand, Bank support was built on an already well established legal and institutional framework while for Lao PDR, Bank assistance was used to start the system from scratch including the start-up and development of policy, legal and institutional frameworks. In Indonesia, the policy, legal and institutional frameworks for the administration of individualized land tenure was in place while the frameworks for customary and forestry land was and still remains poorly developed. As for the Philippines, Bank intervention is starting from a unique situation of highly fragmented and inefficient legal and institutional infrastructure, and the associated lack of confidence in the institutions and products of land administration. In Cambodia, the most outstanding issue is that of lack of governance and the destruction of traditional systems of land tenure. In dealing with the diversity of problems in the Region, the

World Bank has had to help its clients develop country-specific programs while also encouraging them to look out for relevant experiences from neighboring countries.

6. Implications for International Cooperation

There are at least two implications for international policy and co-ordination that we have come to appreciate at the World Bank: (i) the capturing, processing and supply of cadastral data is quite a costly exercise and requires not only maximization of benefits but also cost-reduction efforts to generate positive and satisfactory economic returns to public investment particularly in developing countries; and (ii) design and implementation of reforms and projects in the area of land can benefit significantly from sharing of experiences on what works and does not work.

Economies in Capturing and Using Cadastral and Spatial Data. There are at least three measures that can be undertaken to reduce costs of data capture and use. First, greater international cooperation in accessing and applying satellite imagery could accelerate the reduction in the costs of undertaking base and cadastral mapping. The recent launching of commercial satellites with a capability of one meter resolution has made it possible for the application of satellite technology to be extended beyond environmental and land use planning to the development of cadastral infrastructure, at least in the production of cadastral index maps. There is an urgent need for piloting this satellite technology in cadastral mapping with a view to comparing it with other conventional technologies particularly in terms of meeting the minimum technical requirements and assessing the magnitude of the realized cost savings. Once its use is acceptable, then the next level of cooperation is to work out more cost effective arrangements for the international marketing of this technology.

Second, the wide spread use of internet-based technology has made it easier to access knowledge from the international scene without having to physically go abroad to look for it or to build expensive libraries and to subscribe to expensive journals. Since sharing knowledge and data involves an important element of reciprocity, it is important to work out arrangements of international cooperation to enable nations to contribute to and receive from an international reservoir of knowledge. Clearly, this should be seen as a challenge to the Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP) as well as to the international professional bodies represented here such as the International Federation of Surveyors (FIG), the International Society for Photogrammetry and Remote Sensing (ISPRS), the International Cartographic Association (ICA) and the International Association of Geodesy (IAG).

In a small way, we at the World Bank have established a Land Policy Network which publishes and sends out a monthly email Newsletter to our subscribers to promote exchange and improvement of knowledge in land policy and administration worldwide. The Newsletter contains updates on land policy related events and conferences and new publications available on our website (<http://www.worldbank.org/landpolicy>), and points our subscribers to other websites that feature land-related materials. Furthermore, the World Bank is one of the 12 members of the governing committee of the Popular Coalition to Eradicate Hunger and Poverty, whose secretariat is at IFAD in Rome. The Popular Coalition aims, among other things, to: (i) increase access to productive

resources by promoting agrarian reform on the national and international agendas; (ii) establishing knowledge networks; and (iii) building capacity of civil society organizations at local and community levels.

Third, international cooperation is needed in sharing experiences in the development of national spatial data infrastructure and sharing the data within countries. There are at least three priority areas. First, sharing experiences is required in the development of appropriate policies and rules on establishment of national spatial data standards, building partnerships between public and private sectors, data sharing, and providing public access to spatial data. There is much to learn from countries like Australia and USA which are significantly ahead of many developing countries; the countries with more developed national spatial data infrastructure should show more readiness to share their experiences with the countries with less developed infrastructure. Second, sharing of experience is required in the handling of liability and privacy issues associated with public provision of spatial data. These issues will grow in importance in developing countries as societies become more interested in accessing information particularly with the spread of internet technology. Third, there is much to gain by sharing experiences in the development of cadastral data to support needs over and above those related to land administration, such as economic and environmental management, and the planning of economic infrastructure and utilities. Public entities responsible for cadastral data, such as Departments of Land, need to be supported with appropriate legal and institutional frameworks as well as physical infrastructure to enable them provide updated digital cadastral data to other public and private organizations. Clearly, some countries are ahead of others in developing national systems and capacities for sharing cadastral data. Those on higher rungs of the ladder should share their experiences with those on the lower rungs of the ladder. The Permanent Committee on GIS Infrastructure for Asia and the Pacific (PCGIAP) should be well positioned to assist in working out mechanisms for sharing country experiences in the development of sustainable national spatial data infrastructure.

Sharing Experience in Project Design and Implementation. Many developing countries and some developed ones are at different stages of development and completion of automated, efficient and equitable systems of land management and administration. Those countries at the higher rungs of the ladder have accumulated experiences that other countries can learn from. Even within developing countries, there is much experience that can be shared. For example, many countries have benefited from Thailand's experience in undertaking systematic land titling. Similarly, the Philippines, South Africa, Colombia and Brazil have been actively sharing experiences in designing and implementing community-based and market friendly redistributive land reform. Such a sharing of experiences is important and should be further encouraged as it enables the late starters to build on the positive experiences of the early starters while avoiding costly mistakes that others could not escape.

International professional bodies and development agencies such as those represented here can help in speeding up and reducing the costs of sharing experiences by reviewing cross country experiences and developing best practices which can be disseminated using internet-based technology. At the World Bank, we have started preparation of a best practice paper for land policy and administration. We hope to put

an early draft on our website and to seek comments from the international community. The final version of the paper will be made as much accessible as possible to disseminate international best practices.

7. Conclusions

World Bank support for formalization and administration of rights in land has grown significantly over the last 25 years, particularly following the end of the cold war. As more countries have undertaken reforms in the land sector, more experience has been acquired which can be shared internationally to improve project performance and increase returns from public investment. There is also a need for greater sharing of spatial and cadastral data at national and international levels. International professional associations and development agencies should rise to the challenge of facilitating international access to spatial data and to best practices in the design and implementation of land policy and administration projects, and in the development of national spatial data infrastructure.

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Annex Table 1

World Bank Portfolio of Land Administration Projects in FY2000

Country	Project Name	Total Project Costs (US\$ m)	FY of Approval
AFR:			
Cote D'Ivoire	Rural Land	61	97
Zimbabwe	Land Reform	7	00
EAP:			
Thailand	Third Land Titling	207	94
Indonesia	Land Administration	140	95
Lao PDR	Land Titling	28	96
ECA:			
Armenia	Agric. Reform Support	20	98
Azerbaijan	Farm Privatization	29	97
Estonia	Agriculture	31	96
Georgia	Agric. Development	26	97
Kazakhstan	Real Estate Registration	13	97
Moldova	First Cadastre	25	98
Romania	General Cadastre	37	98
Russian Fed.	Land Reform Implementation. Support	80	94
Slovenia	Real Estate Registration	29	99
Tajikistan	Farm Privatization Support	24	99
LAC:			
Bolivia	Land Administration	20	95
Brazil	Land Reform and Poverty Alleviation Pilot	150	97
Colombia	Land Reform		
Ecuador	Rural Development	113	92
El Salvador	Land Administration	70	96
Guatemala	Land Administration	39	99
Guatemala	Land Fund	20	99
Honduras	Rural Land Management	42	97
Nicaragua	Technology and Land Management	58	94
Paraguay	Land Use Rationalization	41	92
MENA:			
Algeria	Cadastre	96	92
Lebanon	TA for Revenue Enhancement	26	94
Total		1432	

Source: Extracted from the World Bank's Internal Data Base

