

# Land Readjustment and Joint Urban Operations

Daniel Todtmann Montandon and Felipe Francisco de Souza

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As the coordinator for Japanese Technical Cooperation in Brazil through the Japan International Cooperation Agency, JICA, it is a great honor to see the publication of this book, fruit of the participation of Mr. Daniel Todtmann Montandon and Mr. Felipe Francisco de Souza in the 'Urban development focused on land readjustment measures' training course, held in 2005 in Japan. This course is part of JICA's most traditional and fundamental international cooperation program.

Every year, more than eight thousand technicians from more than 150 countries receive technical information and knowledge to contribute in some manner to development in their countries. As a consequence, this book contains what was learned from the referred course.

In other words, it is the gateway for you, the reader, to access the information addressed in the referred event in Japan, in the comparative study on urban planning in the city of São Paulo and through the collaboration of technicians from IPPUC – Urban Planning and Research Institute of Curitiba and the DNP – National Planning Department of Colombia, on the subject.

This publication is the result of the JICA follow-up project where the former training alumni in Japan disclose the knowledge they learned, and adapt it to their country's reality. Along these lines, I hope this book may serve as an example of good practices for future cooperation.

I hope this book may be an *inspiration* so that its readers may, in some manner, contribute to the improvement in urban policies not only in Brazil, but in other countries as well.

小林正博  
Masahiro Kobayashi

**Coordinator for Japanese Technical Cooperation in Brazil  
Japan International Cooperation Agency - JICA**





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go to sleep.

4 Sponsor's Foreword

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8 Forewords

**Francisco Vidal Luna** Municipal Planning Secretariat of São Paulo, Brazil

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The participation of technicians from the Municipal Planning Secretariat – SEMPLA – in the 'Urban development focused on land readjustment measures' course held from May to July 2005 in Japan was fundamental for in-depth reflection and the vanguard debate on the future of the city of São Paulo. The main focus adopted during the workshop was the frequent search for means to address core planning themes and institutional aspects to be improved by the diverse levels of action from public authorities.

We know that the necessary resources for financing urban development are limited, when not dramatically insufficient. We can thus indicate the public-private partnerships (PPPs) as important and creative sources for making faster and broader-based investments possible that can improve the quality of life for populations in any city.

In the case of the city of São Paulo, this possibility for enabling projects and overcoming shortages is even more evident. The metropolis gathers enormous potential in material, logistics and economic wealth, and for that reason it becomes a center that attracts talents from every area of human resources. The number of characteristic problems in this urban conglomerate grows hand-in-hand with budget difficulties, worsened by the debt inherited from past administrations in municipal government.

Therefore, there is no doubt that the Japanese experience should serve as the foundation for reflections on urbanism, since the country has several examples of efficient and integrated planning that provide excellent results in terms of development.

It is also important to underscore that the mobilization of human resources from SEMPLA, especially in making it possible for the professionals to participate in the workshop, is the most important contribution by the City of São Paulo to this project's success.

In conclusion, on behalf of the municipal government, I want to thank the Japan International Cooperation Agency, JICA, for the opportunity, as well as all those who made this event an important landmark in the discussion of alternatives for urban development in large cities.




**Francisco Vidal Luna**  
Municipal Secretary of Planning - SEMPLA  
São Paulo City Hall, Brazil

I am very happy with the news that Mr. Daniel Todtmann Montandon and Mr. Felipe Francisco de Souza are going to publish a book with the results obtained from JICA's course on urban development. The two gentlemen participated in the course in Japan when I was responsible for the Urban Development and Implementation Division of the Secretary for Urban and Regional Development at the Ministry of Land, Infrastructure and Transport, the MLIT, and I was able to collaborate towards holding the course. I was responsible for the courses in "Urban Development Techniques in Japan" and I gave the introductory part on techniques used in land readjustment and urban redevelopment projects. I also accompanied several expeditions, such as the one to Hiroshima, where the active participation of the two gentlemen was strongly engraved in my memory.

Throughout the entire course, the lectures and exercises were focused on land readjustment projects developed in Japan. And it will be difficult to apply the techniques from the Japanese system in other countries with different systems without making some changes. It is not difficult to imagine that the construction of a new system could run into difficulties due to each country's specificities. Nevertheless, I believe the two gentlemen will be able to overcome the challenges with their rich imagination and abundant strength to act.

I take advantage of the publication of this book to say I hope the results obtained from the course in Japan continue to yield fruit in Brazil.



**Hiroaki Sugita**  
Executive Director of the Planning Division for the Secretary of Ports – Tokyo, Japan  
Ministry of Land, Infrastructure and Transport – MLIT

I am honored for having been chosen to write the introduction of the book written by Mr. Felipe Francisco de Souza and Mr. Daniel Todtmann Montandon. The two gentlemen came to Japan in the spring of 2005 as scholarship holders of JICA – Japan International Cooperation Agency – and they studied about 'Land readjustment and urban policies in Japan'. I am Akira Nakanishi, from the Nagoya Urban Institute – NUI, and I was one of the professors for the course, responsible for introducing land readjustment techniques. In the hopes of solving urban problems in their country of origin, the two gentlemen decided to use the Japanese land readjustment techniques as a new challenge, and to write this book to inform area professionals. The passion and effort that these two gentlemen have for urban reconstruction deserves my sincere admiration.

Japan's land readjustment technique was initially used to improve rural areas with the objective of increasing agriculture production. However, after it was used to rebuild the Kanto urban area destroyed by the great earthquake of 1923, it became commonplace to resort to it when rebuilding cities that were victims of earthquakes, fires and war. Furthermore, the technique has been increasing its effectiveness since it is broadly used in the construction of new urban areas that surround large cities.

The land readjustment technique is of great applicability for the following reasons:

1. It is able to transform the territory into safe and healthy areas for housing, with broad-based possibilities for activities, and it is not limited to the mere construction of necessary roads for structuring cities;
2. It is possible to simultaneously think of the improvement project with the citizens who reside in the area where the project will be executed and to plan its realization with everyone's cooperation;
3. The regional public institutions responsible for urban administration are able to install urban structural bases in an effective manner and they can also expect an increase in tax collections with the region's development.

I hope that the land readjustment technique, so full of qualities, can be disseminated throughout Brazil and contribute immensely to the country's urban planning.



**Akira Nakanishi**  
Coordinator for the Nagoya Urban Institute - NUI, Japan

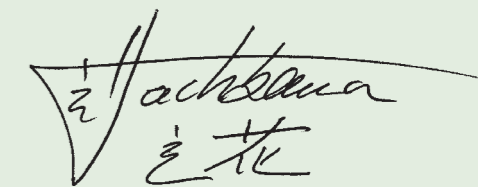
The JICA Alumni Association of São Paulo – ABJICA-SP is a non-profit, non-religious and non-political civil association that gathers approximately three thousand associates who work in the most diverse areas of knowledge, which defines the association as essentially multidisciplinary and inter-institutional. The training courses taken by the scholarship holders in Japan are part of the technology transfer process through Japanese international cooperation and they also promote friendship and respect for Brazilian-Japanese ties. During the phases before and after the courses taken in Japan, the scholarship holders receive support from ABJICA-SP, as in the case of this book's authors.

The Japanese method for urban development, called land readjustment, dealt with in this publication, brings elements for discussion and renewal of Brazilian methods, a process that the association has been accompanying for some time. Nevertheless, this follow-up project was a pioneer in the history of ABJICA-SP: in a multidisciplinary effort, JICA and ABJICA served as the bridge between the authors and several institutions in Japan (even after the authors' return) and helped in setting up a workshop to discuss the publication. The event took place in the Municipal Planning Secretariat of São Paulo with the presence of its technicians as well as two specialists sent by the Urban Planning and Research Institute of Curitiba and the National Planning Department of Colombia, the only country in Latin America to implement the land readjustment concepts.

Projects such as this reveal the importance in international cooperation and JICA's role as a catalyzer for the transfer and adaptation of the most appropriate technology for our regions. We want to thank the agency's entire team in the person of Masahiro Kobayashi for once again helping developing countries. We also want to thank SEMPLA and all the effort by several secretariat employees during the workshop. And we want to thank ABJICA-SP directorate members and associates who give their time to promote the function of the association parallel to their daily jobs and tasks.

This publication fulfills its objective of disseminating the knowledge learned in Japan, a pioneer country in the development of techniques and technologies in several areas, always seeking the best standards of sustainable development. It is our hope that the analyses in this book result in criticisms and suggestions that may not only innovate in the way we deal with our problems in Brazil, but also be absorbed by the Japanese people and contribute to improvements in their method.

In conclusion, we hope that the land readjustment concept can be translated, analyzed, criticized and duly implemented in Brazil.



**Toshi-ichi Tachibana**  
President of ABJICA-SP – JICA Alumni Association of São Paulo, Brazil



This publication is the result of technical cooperation promoted by the Japan International Cooperation Agency – JICA, through the JICA Alumni Association of São Paulo – ABJICA-SP, with the City of São Paulo, through Municipal Planning Secretariat – SEMPLA. JICA is an institution present in several countries and implemented on behalf of cooperation. It aims to help in social-economic development and to increase society's well-being. Brazil is ranked first among Latin American countries that receive donations from Japan and it actively develops cooperation projects, especially in the environmental, industrial, agricultural, health and social services areas (basic dissemination of education and security). More than half of the technical cooperation projects carried out in Brazil has Japan as partner. This is fruit of the historical ties of friendship, close economic relationships, the existence of nearly 1.4 million Japanese and their descendants as residents here and Brazil's great political-economic relevance in Latin America.

This close relationship is revealed in this publication entitled Land Readjustment and Joint Urban Operations. In a joint effort by JICA, ABJICA-SP and SEMPLA, under the coordination of urban planners Daniel Todtmann Montandon and Felipe Francisco de Souza, an agreement was signed to produce this book, sponsored through resources from JICA's Follow-Up Cooperation – a type of financing for small events and post-course publications – and with a counterpart by SEMPLA, by means of human resources. This project began with the participation of SEMPLA's two city planners in the training course entitled 'Urban development (focused on land readjustment measures)', elaborated by the Local and Regional Development Bureau of Japan's Ministry of Land, Infrastructure and Transport – MLIT, organized by JICA and held from May thru July 2005 in the cities of Tokyo, Kyoto, Hiroshima and Nagoya in Japan.

The training program had 16 participants from several countries – Egypt, Bangladesh, Ethiopia, Brazil, Dominican Republic, Ghana, Vietnam, Peru, Papua New Guinea, Maldives Islands, Philippines and Thailand – and as the training developed, two modalities were adopted: public policies (Policy Group) and the simulated practice in implementing urban projects (Implementation Group). Both received training in the land readjustment method for one month in Tokyo. After this phase, the Policy Group participants continued their studies of urban policies related to development projects in Tokyo, while the Implementation Group participants went to Nagoya for three weeks where they received training by the land readjustment consulting firm, Tamano Consulting Co. During the final week, at the end of the course and back in Tokyo, each participant gave a final presentation aimed at applying the method learned in their respective countries in an attempt to solve specific problems.

This study is part of the action plan established through the transfer of knowledge and technology, as an extension of the technical cooperation in Brazil, and more specifically in São Paulo. We believe that this study achieves the expected result within the scope of technical cooperation, and above all, in the disciplines related to urban planning.



A mature society is one that seriously considers the environment, whether urban or rural. It considers the fact that regions compete with each other on an international level, underscoring that each citizen represents an important part of its development process, whether economic, political, social or cultural. Due to the transformation process through which the environment has gone over the past century, the so-called global urbanization process, environmental problems are a key subject in many societies in both developing and developed nations. While specialists in different areas seek solutions and mitigating measures, it has been proven that the truly effective measures, called "Urban Development Projects", are those in which the plan for land use and the plan for building urban improvements must be carried out at the same time in which development of private activities is controlled and guided. The implementation of urban development does not only require projects with a broad scope and theoretical depth, but it also requires multidisciplinary development that encompasses every layer of the urban environment and considers how each society inhabits, which is the result of historical, economic and social-cultural factors.

Japan is a nation with a high likelihood for natural disasters, such as earthquakes and floods. Over the past 80 years it has strived to achieve better technical-technological results and improved levels of urban development. Last century, Japan not only suffered great natural disasters, but also the destruction of tremendous amounts of its territory during the Second World War. Several measures, methods and plans were used during the reconstruction process, and most especially, during its rapid economic growth period, associated with growing and disordered vectors for urbanization. Throughout this entire process, many urban development measures were institutionalized in the country's urban planning legislation, most especially land readjustment, which is characterized by replotting concepts (land repositioning and redimensioning) and the so-called "right conversion".

Specifically in Japan, land readjustment (LR) was legally introduced by the Agriculture Land Consolidation Law in 1899, and then updated, improved and enacted by the Land Readjustment Law in 1954. The instrument is responsible for developing more than 390,000 ha of Japanese territory (Ministry of Land, Infrastructure and Transport – MLIT, 2004). LR's projects are authorized by local and national governments and they encourage an agreement between all the landowners in the project's area. During the execution process, their lands will be redimensioned, repositioned and from the contribution of part of their properties, new public equipment will be built and reserve lands, lots put up for sale, will be used to finance the project. This process can take years and even decades. It plays an important role in the revitalization of urban areas, making good use of national subsidies and focusing on the participation of citizens on the path to community development.

Specifically in Brazil, the joint urban operations (*operações urbanas consorciadas* – OUCs in portuguese) were legally consolidated in the Statute of the City enacted in 2001. The instrument is responsible for regulating nearly 3,000 ha<sup>1</sup> of territory in the city of São Paulo. The OUC projects are authorized by local governments (municipal legislation) and encourage improvement of certain perimeters in the city through public-private partnerships. Each area that is an object of the operation has a specific law that sets goals to be reached and mechanisms for conceding benefits and incentives, which provide flexibility to parameters established by the Zoning Law through payment of a financial contribution directly to City Hall. These resources will be exclusively used for financing the operation's public works. This process, which is used in areas with land use intensification potential, makes room for

private enterprises that will directly fund investments in urban infrastructure. OUCs are subject to criticism since their development method makes use of land acquisition. Therefore, the cost of public projects is higher than the contributions acquired from the sale of potential. Expropriation is also used and this often excludes the local population.

The objective of this publication is to debate ideas about LR and analyze how much the concepts, methods, techniques and results obtained in the international context of applying this instrument can contribute to improve urban planning in São Paulo, or more specifically, the urban development policy through OUC interventions. The basic study on the Japanese method to develop this project was translated, transcribed, analyzed and organized by the authors using material from Japan, most of which was forwarded by e-mail after the city planners returned.

The main activity carried out in the comparative analysis was the internal evaluation workshop called 'Land Readjustment and Joint Urban Operations: Urban Instruments for Urban Development', held at SEMPLA facilities in December 2006. The workshop counted on the presence of SEMPLA urban planning specialists Clementina de Ambrosis, David Ventura, Domingos Netto, José Geraldo Oliveira, Marcelo Bernardini, Nilza Antenor, Pedro Sales; workshop coordinators Daniel Todtmann Montandon and Felipe Francisco de Souza; legal specialist Marcos Batistela; urban planning specialist from the Urban Planning and Research Institute of Curitiba (IPPUC) Ângela Bertolini; urban planning specialist from the National Planning Department of Colombia (DNP) Augusto Carrillo; as well as the municipal secretary for planning at the time, Francisco Vidal Luna. The event was held over two days. The first day included the exhibit of the OUC experience in São Paulo, the experience in Curitiba with the urban instruments, the Colombian land readjustment experience and the Japanese experience with LR. On the second day a comparative analysis was performed and a debate was promoted about the on-screen instruments. Each specialist exhibited arguments about the feasibility of incorporating LR concepts in Brazil in face of urban development, urban instrument, urban project, legal aspect and urban management themes. The exhibits by the specialists were then consolidated into testimony and incorporated in this book.

It is important to underscore that the participation by IPPUC and DNP (Colombia) technicians was made possible thanks to the effort by JICA, ABJICA-SP, and Nikkoryukai – Colombia Alumni Association. The principle of congregating via exchange programs is as important to JICA and its associations as the multiplication of knowledge acquired as a result of technical cooperation. This sharing occurs through the dissemination of technology by means of events, publications and, most especially, the public bodies responsible for implementing public policies.

This publication is structured in six chapters. In the first, the Japanese method was translated, analyzed and organized using material obtained in the course. In the second, case studies were analyzed from LR projects performed in Japan and in other countries with different realities, such as Colombia and Nepal, and a complementary study was systematized with the institutions that promoted and managed the projects. The third chapter deals with OUC experiences in São Paulo, whereas the fourth introduces case studies from two urban operations, Faria Lima and Água Branca. A comparative analysis of the urban instruments, LR and OUC is developed in the fifth chapter. A report is also given on the workshop and testimony from the specialists is presented. In conclusion, the last chapter consolidates the first conclusions about the comparative study, and lessons are extracted about the feasibility, limits and



potential to improve Brazilian urban development instruments by means of associated projects, in light of the LR method. The first edition, projected to be released during the first semester of 2007, will be distributed free of cost to all bodies (municipal, state and federal jurisdictions) related to urban planning, the most important Brazilian universities and some selected institutions in Japan to which we are very grateful. Within the current global setting, where drastic changes in economic, social and environmental structures predominate, it will be a great honor not only to innovate in how we develop our cities in Brazil, but to also return the knowledge learned from the Japanese so they can absorb it and improve their method, seeking, together, a more just and mature society.

