

Remaking the urban mosaic

Participatory and inclusive land readjustment

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**Remaking the urban mosaic:
Participatory and inclusive land readjustment**

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From a land readjustment plan in La Candelaria, Medellin, Colombia

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VIDEOS

This book is accompanied by a series of short, 1–2 minute videos featuring experts on various aspects of land administration, all contributors to this book, talking about various aspects of participatory and inclusive land readjustment. You can view a video in two ways. You can scan the QR code (like the

one on the right) on your mobile phone. You will need a QR code reader app to do this. Or you can visit the weblink next to it.



tinyurl.com/pilar-haile

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FOREWORD

THIS BOOK, *Remaking the urban mosaic – participatory and inclusive land readjustment*, represents a milestone in the development of the Participatory and Inclusive Land Readjustment (PILaR) tool. It offers valuable guidance on how to adapt the conventional land readjustment methodology in a developing country context.

Local and national governments often struggle to improve the urban fabric and meet the growing demand for public services. In many countries, authorities have to cope with unprecedented rates of urbanization. They are called on to provide shelter, housing, services, public infrastructure and safe public spaces. To achieve this requires land. In the absence of available public land, the only ways that the authorities can secure the necessary land are to buy it or through expropriation. Both are cumbersome and expensive processes – making it almost impossible for many governments to develop, or redevelop, large areas in a systematic way.

At the same time, a deteriorating urban environment further marginalizes many urban dwellers, leading to more poverty, unhygienic living conditions and limited livelihood opportunities. Women, children, youth and newly arrived migrants often bear the brunt of these hardships.

Land readjustment offers a solution. It provides access to land for public use by capturing a proportion of the value created by development. That gives the authorities much greater capacity for intervention. Land readjustment involves pooling all the land parcels in a particular area and planning them as a unit. Roads can be put in, and sewerage and other infrastructure installed. Agreed portions of the land are then reallocated to the original owners. Each landowner gets back a plot that is smaller than the area he or she originally contributed to the common pool, but that is now worth more: its value has gone up because of proper planning, rezoning, added infrastructure, and improved services.

Some local governments have achieved notable results with land readjustment. But a very specialist-driven approach to land readjustment requires strong and well-resourced local authorities and quick, effective dispute-resolution mechanisms that are accessible to all. Such things are lacking in many developing countries.

As the book demonstrates, the results from land readjustment have invariably been better, stronger and more sustainable if local people have been involved in the process. Positive outcomes have included an improved supply of serviced urban land, more

streets and better public space, more social housing, orderly and less conflict-ridden city expansion, and an increase in financial resources mobilized through the sharing of land value and other land-based financing instruments.

This book helps readers understand how to apply PILaR in a developing country context. It is the outcome of intensive research and collaboration by partners and experts convened by UN-Habitat and the Global Land Tool Network (GLTN). It builds on experiences in countries that have applied conventional land readjustment in a participatory and inclusive way. The best elements of these experiences have been used as building blocks of what a full-blown PILaR approach might look like. Significant thanks are also due to the city of Medellin, Colombia, and the community of La Candelaria,

which played a central role in making PILaR a reality.

The book is written in an easily accessible style to make it useful for a wide range of potential participants in the PILaR process. It can also be used as a basis for adapting the methodology to different local situations.

A key feature of PILaR is that it puts stakeholders at the heart of planning city extensions and redevelopment throughout the project cycle. The emphasis is on meaningful participation by all stakeholders, including the poor and marginalized residents of the affected area. They agree to operate under a governance, legislative and regulatory framework designed to create a win-win situation for most, and ideally all, the parties involved. The goal is sustainable urban development: a better urban future for all, especially for the urban poor.



A handwritten signature in black ink that reads "Joan Clos". The signature is stylized and fluid.

Joan Clos
Under-Secretary General, United Nations
Executive Director United National Human Settlements Programme
(UN-Habitat)

EXECUTIVE SUMMARY

PARTICIPATORY AND INCLUSIVE land readjustment, or **PILaR** for short, is a way of reallocating the land in or around a city in a more sustainable way for unified planning, subdivision or re-parcelling, and development.

LAND READJUSTMENT

Land readjustment involves pooling all the land parcels in a particular area and planning them as a unit: putting in roads, sewerage and other infrastructure, and then dividing up the land again to the original owners. A proportion of the land is used for roads and public space. Each landowner gets a plot back which is usually smaller than the area he or she originally contributed to the common pool. But the plot is now more valuable: it has infrastructure and services, and has formal documentation; the area has been re-zoned, and different types of use are permitted. The municipality may retain part of the area for sale or for other uses (such as affordable housing).

Land readjustment allows both the municipality and the landowners to share in the profits created by a change in land use and rational planning for a large area. The landowners end up with more valuable land parcels than if they were to act alone. The municipality gets a well-planned neighbour-

hood without having to pay for compulsory acquisition or risk lengthy lawsuits.

Land readjustment is not a new approach: it was developed in Germany in the early 1900s, and has since spread to many countries around the world, including India, South Korea, Turkey, Thailand and Colombia. In Japan, one-third of the built-up environment has been created or recreated using this approach.

PARTICIPATORY AND INCLUSIVE LAND READJUSTMENT

Conventional land readjustment does not necessarily operate in favour of the poor: too often, the municipal government, working only with formal landowners, imposes decisions on local communities.

PILaR differs from conventional land readjustment in that it is **participatory**. It involves all stakeholders – landowners, tenants, informal residents, the municipal authorities, land professionals and community organizations – in planning and making decisions. It is also **inclusive**: it ensures that the poor and disadvantaged also benefit. It aims to achieve consensus among all stakeholders and avoid forcible removals or evictions.

PILaR can be used where there is little or no formal land ownership, and few or no registered land parcels. It can be applied in situations where landholders have rights (or claims) to plots of land a variety of formal and informal arrangements. It involves all stakeholders in designing and planning how the land in the neighbourhood should be reallocated. It uses a financial framework that does not just benefit the landowners and municipality, but also people who do not formally own land, the tenants and the poor. It also supplies a better balance for sharing the burdens and benefits of land re-adjustment between the public and private sector.

WHEN CAN PILAR BE USED?

PILaR can be used in various circumstances:

Urban expansion On the edge of a growing city, PILaR can be used to convert land from rural to urban use.

Urban renewal, infill and densification PILaR can be used to redevelop areas that are already built up – for example to make an existing neighbourhood more suited to new uses, convert a low-density area to a higher density, rejuvenate a run-down inner city, or rebuild after a disaster such as a conflict or earthquake.

Improving poor neighbourhoods PILaR can be a key tool in upgrading slums.

Linear projects Building or widening roads and railways and installing pipelines requires changes in land holding and use. PILaR can facilitate these.

WHO IMPLEMENTS PILAR?

PILaR requires close collaboration between the municipality, technical and professional specialists, community organizations, non-government organizations, landowners, landholders, tenants, informal residents and other community members.

The process may be led by the national, regional or municipal authorities, a group of landowners, landholders, a nongovernment organization, or an international organization (such as UN-Habitat).

THE PILAR PROCESS

PILaR consists of five main steps.

Conceptualize This involves identifying the legal framework, choosing the location, determining the desired land use, checking the legal status of the land and plans for the area, setting up a team to manage the project, conducting a feasibility study, and making an initial presentation to the stakeholders (landowners, landholders, local residents, tenants and others who may be affected or want a say in the project).

Gather data This includes a baseline study, a mapping of the stakeholders, and a detailed enumeration of each plot of land and the tenure arrangements associated with it. The data are gathered in a participatory way, involving local people in designing, gathering and analysing the information.

Develop a draft plan The team analyses the data, fixes the boundaries of the total area, draws up a physical plan, creates a financial plan, identifies the amount of land that each landowner and landholder will be

expected to contribute and determines the boundaries of each plot. All these steps are done in close collaboration with the community and other stakeholders.

Finalize the plan During the negotiations with the stakeholders, it may be necessary to revise the plan several times in order to take their concerns and interests into account, and to create a workable financial plan. The plan is then submitted to the municipal council for approval.

Implement It is now possible to mark new boundaries on the ground, assign plots and manage compensation, put in the infrastructure, and sell or develop plots.

GOVERNANCE

The PILaR approach is based on a set of principles of good urban governance, including sustainability, subsidiarity (decisions should be taken at the lowest appropriate level), equity, efficiency, transparency and accountability, civic engagement and security. It recognizes that rights to land are rarely absolute; rather, there exists a continuum of land rights. PILaR tries to take the interests and rights of all stakeholders into account – whether landowners, landholders, formal or informal residents, tenants or people with customary rights to the land. By engaging with the stakeholders from a human-rights perspective and by building on the existing legal framework, it is possible to set rules that are fair to all.

LAND MANAGEMENT POLICIES

The project should comply with existing policies, but if PILaR is new in a country, it may

be necessary to create new policies and laws to facilitate it. If a pilot project is successful, the approaches used can be expanded to cover other similar areas within the country.

Key decisions will include:

The site selection It must be accessible and have suitable topography and social situation (for example, an area with a lot of crime is probably not a good place to do a pilot project). The land records must be reasonably clear and accurate, or it must be possible to generate new land information using an approach such as the Social Tenure Domain Model.

The amount of land to be contributed

Each landowner and landholder will be required to contribute a proportion of his or her land. The amount will depend on the amount of land needed for roads and other public spaces, as well as the land to be held by the municipality in reserve for later redevelopment or sale. The proportion may vary between 30% (in Bhutan) to 55% (South Korea). Larger landowners and landholders may be required to contribute more; smaller ones less.

The land valuation method The land may be valued according to its area, its presumed market value, or by some proxy (such as distance to the city centre or public transportation). Unregistered land will also have to be valued.

The compensation rate Planning requirements mean that it may not be possible for each landowner and landholder to get back exactly the amount of land he or she is entitled to. Landowners and landholders who fall short must be compensated at

a particular rate; those who get more than their entitlement have to pay the difference.

The consensus ratio This is the proportion of landowners and landholders who have to agree for the project to go ahead. Figures range from 85% (in Indonesia) to 51% (Colombia). If someone does not agree, his or her land must be compulsorily acquired at a set rate. This must be supported by the prevailing legislative framework.

PLANNING AND DESIGN

The plans must ensure that the resulting neighbourhood is a marked improvement over the previous situation. The area must conform to the planning system and guidelines, though it may be necessary to adapt them to suit the specific situation. For example, there must be enough land for streets and public space, and basic services and affordable housing must be made available.

The project should promote a diverse land-use and a social mix. As with all stages in the project, the stakeholders must be involved in the planning and design. A number of planning scenarios will have to be created for discussion with stakeholders and to identify the best fit with the financial model adopted.

COLLECTING AND ANALYSING DATA

It is important to gather sufficient data beforehand to ensure that the project functions smoothly and that everyone's interests are taken into account. The data will be drawn from a combination of formal records (remembering that in many countries these do not exist, are out of date, or do not re-

flect reality) and participatory enumeration of local residents and other stakeholders. The information needed will cover a range of topics: governance, legal issues, finance, stakeholders, planning, land and housing, and the environment. The information must be analysed and validated before it is used.

ENGAGING WITH STAKEHOLDERS

Along with the financial model, the **degree of stakeholder engagement** is the main difference between PILaR and conventional land readjustment. In the conventional approach, the project implementer negotiates only with landowners, then imposes its decisions on everyone else: non-owners, residents and tenants. A PILaR project involves all stakeholders at each stage in the project. A broad range of stakeholders are consulted, including formal owners, other landholders, tenants, informal residents and others who may be affected. The project puts a major effort into informing the stakeholders, getting their opinions and inputs, and finding solutions that all can live with. It puts particular emphasis on reaching individuals and groups who are usually ignored: women, young people, the elderly, and other disadvantaged groups.

LEGAL ISSUES

If the law already provides for land readjustment, it should be used as the basis for project design. If no such laws exist, it may still be possible to borrow concepts from related legislation, such as rules on planning, land acquisition, expropriation and compensation.

In conventional land readjustment, the main beneficiaries are the formal landowners and the municipality. PILaR aims to benefit a wider range of stakeholders, such as all landholders, tenants and informal residents. The solutions for these groups must be defined, and all parties must formally agree to them. Legal mechanisms are needed to handle issues such as the site selection, the level of land contributions, the amount of say that landowners and non-owners have, the land valuation mechanism, sales and transfers of land after the project has been announced, handling disputes, combatting speculation, the classification of land in the plan, the types of formal land rights to be allocated, and the financial arrangements.

FINANCE

A PILaR project aims to ensure that the burdens and benefits of the readjustment are shared as **fairly and equitably** as possible between the public and private sector so the private sector does not capture all the benefits while the public sector carries all the burdens. Everyone should benefit: each landowner and landholder should receive a plot of land that is smaller but worth more than his or her original plot, while those residents who choose to participate should benefit, regardless of their tenure status. They should not be displaced through forced eviction or by overt or covert market forces. The project should be self-financing as far as possible; that means it should cover the infrastructure and construction costs. This is possible only if the value of the land rises enough so that the municipality can sell (or rent) a portion to pay for the costs.

COMMUNICATION

A PILaR project has six main audiences: the project implementing agency itself (usually a team within the municipality), collaborating organizations (such as other branches of the local government), policymakers and donors, the landholders and community members, the media, and the wider public. The communication strategy is vital for stakeholder engagement. It should aim to keep all these people informed, facilitate exchange, enable them to make their voices heard, and generate their support and trust. The project can use a range of information products and events: newsletters, a website, videos, meetings, announcements and exhibits. A community liaison centre and the mass media can be valuable ways of keeping people informed and involved.

WAY FORWARD

PILaR is a promising way to reorganize the land-tenure rights and use of land in a variety of situations in and around cities. The approaches described in this book need to be adapted to each situation – there is no one-size-fits-all solution. Where the legal environment permits, the way to start is to do a small-scale pilot project in a relatively simple, clear-cut situation. If this is successful, the approach can be adapted and scaled up to larger areas and more complex conditions. If the legal situation is less conducive, it will be necessary to find related rules and legislation that can be used as a framework, then to design a pilot project. Changes in the law can then be proposed on the basis of the experience.



1

INTRODUCTION

THE FARMERS OF *Fátima* were sceptical at first: what did the provincial government want to do with their land? *Fátima* is a *bairro* (neighbourhood) on the southeastern edge of *Huambo*, the second-largest city in *Angola*, close to the airport. The provincial government wanted to make the land available for the city's expansion. The area was still mostly farmland, but it was divided up into lots of irregular plots: too small and higgledy-piggledy to plan in a rational way. Each plot by itself was not worth much: most lacked road access and basic infrastructure. How could the land be allocated for development, while making sure the landholders got a fair deal?

A nongovernment organization, *Development Workshop*, suggested using an approach called "land readjustment". This involves putting all the plots together into a single unit, allocating land for roads and services, then distributing smaller, but now more valuable, plots to the original owners.

Development Workshop added a twist. Instead of imposing the plan from above, it worked in a participatory way. It held a series of meetings with the government, local leaders and the landholders to explain how it would work.

After getting everyone's agreement, the boundaries of each plot were surveyed using a handheld GPS device, and the holders were identified. The few overlapping claims were resolved to everyone's satisfaction.

Roads and other infrastructure were planned: they took up 30% of the whole area. The remainder was then divided into plots. Half (35% of the total area) was redistributed to the holders, and the other half was sold to cover the costs of infrastructure. Bulldozers were brought in to make roads, a bridge was built to connect the area with the rest of town, and four wells were dug to provide drinking water. The landholders each received documents to confirm their rights to their new plots.

Today, this part of *Fátima* is a socially diverse community with a range of income groups, from poor to middle class. Some of the original landholders have sold part of their plots, but most have built houses and they or their relatives still live there (UN-Habitat 2013).

WELCOME TO AN URBAN WORLD

2008 marked a threshold: for the first time in history, cities became home to more than half humanity. Some 3.5 billion people across the globe now live in urban areas, and an extra 2.5 to 3 billion people will do so by 2050. Most of this growth will take place in the developing world. An influx of predominantly poor people, along with a burgeoning middle class, will put new stresses on cities. Those countries will require visionary urban policies, legal regimes and land management approaches that promote liveable cities that are socially just.

One of the biggest problems that city governments face is in making land available for development or redevelopment, especially for the poor. Land is typically divided into many small, irregularly shaped plots, each with a different landholder with his or her own particular interests. Even in the best cases, the resulting development is haphazard: each landholder erects buildings on his or her own plot, often without adequate services and without following planning guidelines. Roads are narrow and winding, and end up clogged with traffic. Many plots remain without road access or the possibility of providing services. In the worst cases, slums result: large numbers of poor people are crammed into restricted areas; land rights are unclear, tenure is informal and uncertain, and living conditions squalid.

Rational urban development needs larger areas that can be treated as a unit. This is so roads, sewers and other infrastructure can be installed and function efficiently, new buildings that conform to safety and other requirements can be put up, and living conditions can be improved.

Land readjustment (Box 1) is a way to achieve this. The individual private landholders voluntarily give up part of their land in return for better public infrastructure and services. The land is cleared and part of the land is sold to cover the costs of the infrastructure. New, multi-storey buildings replace the previous single-storey shacks. Taller buildings mean that more people can live in a smaller area, but still have more living space than before. The space freed up makes it possible to lay pipes and cables, build roads and drains, and set aside land for squares and parks.

In theory at least, everyone wins. Residents get new housing, better infrastructure and services, and a higher standard of living. The holders' land and the buildings on it rise in value because of the improved infrastructure and services. The local authority improves the services it offers, and saves money because it avoids having to buy the land in order to redevelop it. Its revenues rise as people start to pay taxes and fees for services. Public health improves; crime falls.

Box 1 Definition of land readjustment

Land readjustment is where a group of contiguous plots are voluntarily brought together or shared. This land may be in an urban fringe or in an inner city or municipality neighbourhood, or lie along the line of an infrastructure project such as a railway or road..

The consolidated plots are treated as a unit for the planning of new buildings and infrastructure such as roads, drains, water, electricity and sewerage.

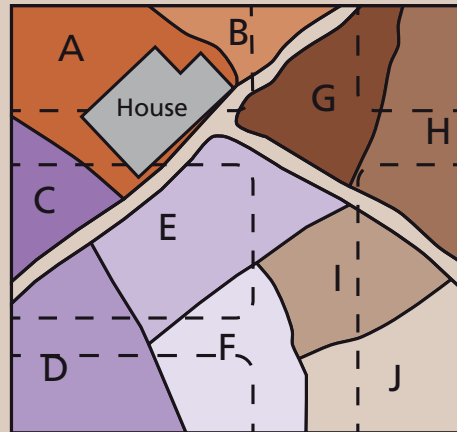
The unit is re-divided into plots and re-allocated to the landholders according to the size or value of the land that each has contributed. The costs and benefits are shared equitably among the landholders.

The landholders get back a smaller amount of land than each contributed, but the value has increased because of the improved infrastructure. The excess land is used for public amenities such as roads and open space. Some land may be set aside as a reserve to be sold to cover the costs of the readjustment.

Definition adapted from: Global Land Tool Network/UN-Habitat, tinyurl.com/o4fyt4h

Graphic adapted from Kiyotaka Hayashi, Land readjustment in international perspectives tinyurl.com/pd99xbr

Before land readjustment



After land readjustment

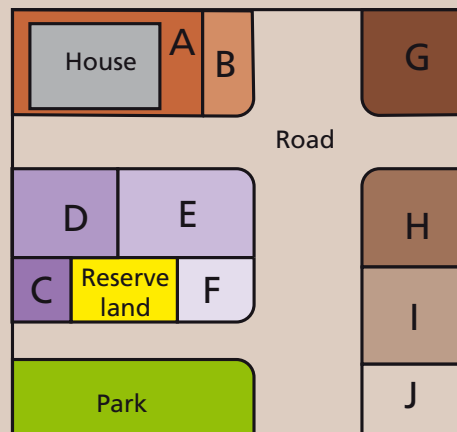


Figure 1 An example of land readjustment

A SHORT HISTORY OF LAND READJUSTMENT

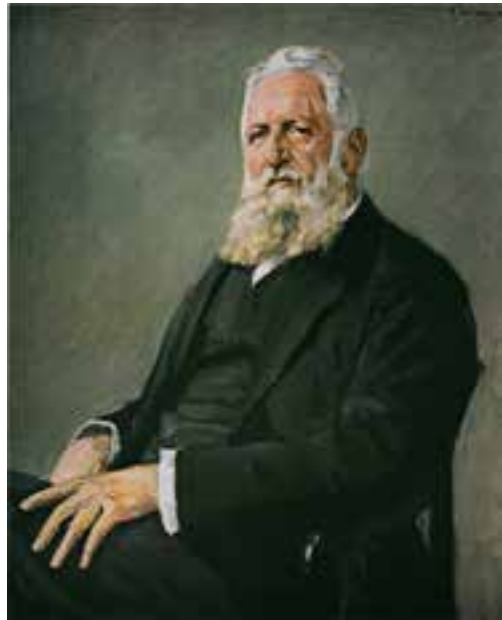
Land readjustment was first developed in Germany in the early 20th century. Franz Adickes, the Lord Mayor of Frankfurt am Main in Germany (Figure 2), first proposed a law to ease the development of this rapidly growing city. This law, passed in 1902 and known as “Lex Adickes”, or “Adickes’ Law”, made it possible to convert rural land into other uses. Before this, individual landowners could block redevelopment or could make large profits through speculation.

Adickes’ Law (Figure 3) envisaged that readjustment should be done in the common interest. A readjustment could be initiated either by the municipal authorities or by the owners of a particular area. Holdouts could be forced to take part, ending the possibility of speculation.

Areas designated for public use such as streets and squares were subtracted from the total area and were transferred to the city government. The remaining area was distributed as plots to the original owners, preferably located as close to their original plots as possible.

The first version of the law allocated a maximum of 30% of the original area to the owners; in 1907 this increased to 35% (40% if the landowners themselves had initiated the process).

To reconstruct the destroyed cities after World War II, federal states in West Germany implemented special “rebuilding laws”



Source: Wikipedia

Figure 2 Franz Adickes, the originator of land readjustment in Germany

(*Aufbaugesetze*), with a maximum land contribution ratio of 35%.

The German Federal Building Code still contains the fundamental ideas of Adickes Law. This code has 40 paragraphs regulating land readjustment. Since 1960, it has included land values as a way of readjusting the plots. The construction of public infrastructure is still not included; it has to be financed separately by the landowners.

Germany has no overall data on land readjustment because such projects are managed by individual municipalities. But the approach has been used successfully in thousands of projects for urban development and redevelopment.

Land readjustment has since been widely used in various other developed countries, including Spain, where land administration

systems are comprehensive and legal systems are well-established. Japan also adopted the approach, modifying it in a special Land Readjustment Law (*kukaku-seiri*) of 1954, including regulations for construction work. More than 10,000 projects covering more than 300,000 ha have been subject to land readjustment.

Specialists from the Japan International Cooperation Agency have introduced land readjustment in various countries in Southeast Asia. It has also proven to be exceptionally useful in developing countries such as India, South Korea, Turkey, Thailand and Colombia (Box 2). In Japan, one-third of the built-up environment has been created or recreated using this approach.

Box 2 Other names for land readjustment

The preferred term in English, **land readjustment**, was adopted in 1979 at a conference in Taiwan. The same, or similar, approaches are known under different names in various parts of the world.

- **Australia:** Land pooling
- **Germany:** *Umlegung, Baulandumlegung*
- **India:** Town planning scheme, plot reconstitution
- **Indonesia:** *Penyesuaian lahan*
- **Japan:** *Kukaku seiri*, 区画整理
- **Spanish:** *Reajuste de suelos*
- **Taiwan, Southeast Asia:** Land consolidation
- **Turkey:** *Arazi ve arsa düzenlemesi*



Figure 3 The Lex Adickes: the German law that is the basis of land readjustment

LAND READJUSTMENT AND THE POOR

Unfortunately, conventional approaches to land readjustment have had limited success in developing countries. Even if they have aimed to benefit the poor, they have often failed to do so (Table 1). By ignoring the needs and opinions of the poor, land readjustment may end up profiting local power brokers and property developers. It can trigger gentrification, in which better-off outsiders move in, pushing up house prices and rents, and forcing out existing poor tenants. Women are often at a particular disadvantage in such situations: they have little say in decisions that affect them, and they see few benefits.

Where it is managed by the local authority, land readjustment does not necessarily aim to help the poor. It may aim merely to redevelop an area at a minimum cost to the local

administration. For example, it may replace an existing, run-down area with upmarket housing or shopping facilities.

Land readjustment also needs specialized skills and institutional capacity. It is often implemented in a top-down way, and various elements or steps (such as the crucial improvements in infrastructure) are left out. The private sector often uses land readjustment for its own purposes, to the detriment of the urban form and of poorer residents, and ignoring the local authority's social objectives.

To benefit the poor, land readjustment projects have to consider the following factors:

PHYSICAL DEVELOPMENT

Develop infrastructure This is necessary to enhance the value of land, and so attract landholders to give up part of their land voluntarily. A strong partnership between the private and public sectors is needed to

“The general idea is to share the profit and the land value increase in urban development projects between the landowners and the municipality. It leads to a typical win-win situation where both sides make a profit.”

Rainer Müller-Jökel, City Survey Office,
Frankfurt, Germany



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-mueller-joekel

TABLE 1 CONVENTIONAL LAND READJUSTMENT: GOOD AND BAD

	Good	Bad
Stakeholder involvement	Works best when consensus is high Strong incentive for land contribution More carrots (better infrastructure and land value increase) than sticks (expropriation)	Can be very unstructured Weak or no stakeholder engagement or involvement
Land plots	Converts unstructured land units into more structured and serviced plots	Plots may be the wrong shape or size for urban functions Plots may be too small for roads and public spaces
Infrastructure	Allows infrastructure improvements and creation of public space	Delayed or dropped infrastructure investment reduces the incentive for landholders to contribute land voluntarily Delays can result in land grabbing
Land value	Increases land value	Land contributions are based on the size of plots rather than their value
Legal framework	Works best where there is a solid legal framework Avoids litigation where possible	Fragmented, inadequate and complex legal frameworks frustrate gains Litigation may result in termination of projects
Tenure	Regularizes tenure and inclusion of informal settlements	Does not improve tenure security for informal residents
Financing	At least part of the cost covered by sale of land and increased tax on land value	Not always self-financing (a mix of public subsidy, public–private partnership, cost sharing)
Institutional capacity	Can be outsourced to the private sector, but this requires strong public oversight	Capacity in public agencies is often a huge issue
Location	Works best in areas with few or no current residents	Complex and contentious in inner cities and densely populated areas
Impact on the poor		Poor and vulnerable people are not considered. They may be forced out or evicted

Source: Based on Solomon Haile, UN-Habitat, 2012 (pers. comm).

finance investments in infrastructure. It is best to build the infrastructure at the same time as doing the land readjustment, rather than waiting until afterwards (which may mean it gets forgotten).

Provide enough affordable housing

Many of the people who live in areas subject to land readjustment are poor. But land readjustment projects typically do not build enough affordable or social housing: local authorities often cannot plan and build such housing, and projects are sometimes taken over by the private sector, which has little interest in doing so.

PARTNERSHIPS AND COORDINATION

Engage key stakeholders throughout

The local community and other key stakeholders must be consulted and involved from the beginning. This is to ensure that

their voices are heard and their interests are taken into account. Urban development projects sometimes fail to involve the poor, women and the vulnerable, who end up worse off than before, or are even displaced.

Build broad partnerships Local authorities can build strong partnerships with various stakeholders: residents' associations, NGOs, private developers, etc. These can help ensure that everyone's interests are taken into account, and that the benefits are not captured only by one group.

Improve coordination and integration

Land readjustment projects involve many stakeholders, so require strong coordination and negotiation, particularly in city extensions. The stakeholders may include different local authorities in a metropolitan area, urban and rural local governments, government and communities, public- and private-sector organizations.

Box 3 Finding the right words

The terminology relating to land tenure is fraught with difficulties. Different legal and administrative systems, unclear tenure and disputes make it hard to find universally applicable terms.

Land ownership is an example. It comes in many shapes and forms (see the section on the *Continuum of land rights*). We use the term **landowner** to refer to the person or persons who have the recognized legal right to a particular piece of land which is registered in the cadastre (a **parcel**). In English Common Law, this is the holder of a **freehold title**.

In many situations where PILAR will be used, there may be little or no formal

land ownership, and no (or very few) registered land parcels. Instead the land is held in large and small **plots** under different formal and informal agreements.

For the sake of simplicity this book uses the term **landholder** as an overarching term. This term includes formal landowners, people with customary rights, formal and informal residents and tenants. It covers parcelled and un-parcelled land, and plots which are legal and non-legal.

Some terms come loaded with negative connotations. The word **squatter** is one: in some places it is seen as derogatory. We prefer to use **informal resident**.

ADMINISTRATION

Increase security of tenure Land readjustment can help bring informal landholders and tenants into the formal system by providing them with legal and financial incentives. People who have occupied land without formal title, often for many years, can get their rights recognized (Box 3).

Improve land administration Many cities suffer from weak land administration: land records are limited, many plots lack titles, and the rights of slum dwellers are not recognized. Land readjustment projects can help overcome these problems.

Develop a conducive legal framework The legal framework must be clear, robust and favourable for land readjustment. It must also be tied to strong institutions that are capable of implementing it. Where an explicit legal framework does not exist, borrowing from concepts from related legislation such as planning, land acquisition, expropriation and compensation should be considered. If this is not possible, the project can help to create a new legal framework.

Embed in broader urban planning To ensure consistency, land readjustment must be part of the overall urban plan and related to other urban development projects. If not, confusion, hostility and litigation may result.

Manage the financial arrangements Ideally, land readjustment is self-financing, but this is not always the case. It often entails a mix of public subsidy, private-public partnership (cost sharing), and some value capture. Local authorities often lack the capacity to manage land readjustment; outsourcing to the private sector can help

overcome this, but still requires the local authority to supervise and approve activities .

ALTERNATIVES TO LAND READJUSTMENT

The main alternatives to land readjustment are:

- Compulsory acquisition
- Land markets
- Guided land development.

Land readjustment should be used only if it has clear advantages over the alternatives. It may also be used in conjunction with these approaches; for example, it may be necessary as a last resort to compulsorily purchase the plots of landowners who refuse to participate in the land readjustment.

COMPULSORY ACQUISITION

Compulsory acquisition (also known as eminent domain, resumption, compulsory purchase, or expropriation) is routinely used in most developing countries. From the municipality's perspective, it is expensive because it entails compensation and may lead to lawsuits. "Public interest", which justifies expropriation, is almost always loosely defined. When cases go to court, the public authorities often lose. Litigation also causes delays and political problems.

The landholders also find compulsory acquisition unattractive. Challenging it in court

is expensive and risky. The compensation is rarely adequate or prompt, and does not include the costs of relocation. Plus, the valuation is based on the current market price of land, not on its expected future value – which is likely to be much higher.

Land readjustment is more consensual. It allows negotiation, and the majority of landholders choose to take part; very often, peer pressure results in complete consensus (though it is important to make sure that peer pressure does not descend to bullying).

Land readjustment is cheaper for the municipality as the scheme covers part or all of its costs. It makes it possible to integrate land development and the provision of infrastructure and service, and creates space for public use. Most or all current residents can stay in the area, and they enjoy better living conditions. The result is a mixed neighbourhood with a strong social fabric.

Land readjustment is fairer than compulsory acquisition for two reasons: it displaces few people (or none at all), and the development costs and benefits are shared equitably. This means it will generate broader political support and be less likely to result in protests and lawsuits, and the associated delays. That more than compensates for the extra time and effort needed for more detailed consultations with a larger number of stakeholders.

Figure 4 illustrates this. Here, the city government plans a new road through a residential area. Using compulsory acquisition to buy land to put in a road (top of the figure) has different outcomes for different classes of landholders:

- Landholder ❶ will lose out: his or her land will be purchased at a price determined by the city, and there will not be enough left for a viable plot. This landholder will be displaced.
- The landholders labelled ❷ will lose a small part of their land and be left with some frontage on the road – enough for access, raising considerably the value of their remaining plot.
- The landholders labelled ❸ will lose a larger chunk of land to compulsory acquisition, but will be left with larger road frontages.
- Landholders labelled ❹ do not benefit at all: they are left without road access.

The municipality must cover the cost of building the road and providing the infrastructure out of its own budget.

The bottom of Figure 4 shows the alternative using land reallocation. Here, all landholders get a smaller, but more valuable plot with road frontage. No one is displaced, and the costs and benefits are shared. Rather than a few landholders giving up all their land, all give up a little, creating the public space required for the road. In addition to the road itself, the municipality is allocated plot ❺, which it can use for public space or sell to cover the cost of providing the infrastructure.

Compulsory acquisition may be used within a land readjustment project in several situations:

- **To acquire land from holdouts** Landholders who do not wish to collaborate

and who refuse to include their land in the readjustment.

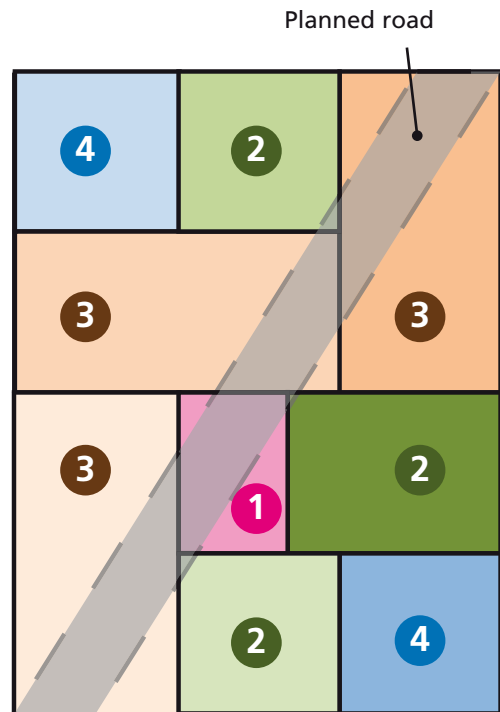
- **To acquire land from landholders** who wish to sell it in the period after the readjustment has been announced but before it has been implemented. The municipality may reserve the right to purchase such land in order to prevent speculation.
- **To allow the municipality to acquire more land** than the contribution permitted under law (see Chapter 8) or agreed with the landholders.

LAND MARKETS

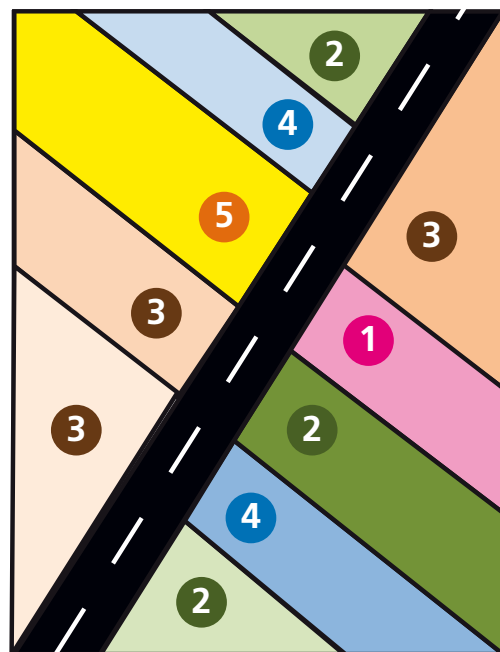
Land markets mediate the transfer of land from one party to another through rental, lease or sale. These arrangements provide land that individuals, real estate companies, cooperatives and governments can use for housing, infrastructure and other purposes. The land that changes hands may be serviced or unserviced. Market-based mechanisms of accessing land and property are widely used in developed countries and most cities in developing countries. Both formal and informal land markets exist.

An investor (usually an outsider with sufficient capital, or perhaps an existing landholder or group of landholders in the area) can use the markets to acquire all the plots in the area. The investor can then seek planning permission and redevelop the site.

This has various advantages and disadvantages from the municipality's point of view:



Compulsory acquisition



Land readjustment

Figure 4 Alternative land acquisition approaches for a new road

Remaking the urban mosaic

- The cost of acquiring land and constructing buildings is borne by the investor, not the municipality.
- The cost of installing roads and other infrastructure may be borne by the investor alone, or in certain situations by the investor and the municipality together.
- The municipality can exert a degree of control over the development because it has to conform to urban plans and be granted planning permission.
- The area involved is fairly small, especially in built-up areas. Private investors do not have the capital or capacity to negotiate with large numbers of individual landholders or to buy up large areas. For this reason, speculation is restricted mostly to high-value city-centre sites or to larger, greenfield sites on the edges of the city.
- The social component is weak. Investors have no incentive to cater to the needs of existing residents. They will want to maximize their returns, so are unlikely to invest in social housing.

GUIDED LAND DEVELOPMENT

Most urban development in the developing world occurs at the urban fringes where rural land is converted to urban uses. The municipality can guide the conversion of privately-owned land so that development occurs less haphazardly and informally.

Guided land development indicates where future infrastructure will be installed. The infrastructure itself may not be built until later when the population density justifies

the investment. By planning ahead, the municipality can guide expansion and deter settlement in environmentally sensitive or inappropriate areas. Areas suitable for settlement can be prepared in advance. Acquiring rights of way for roads and other infrastructure helps ensure that roads – especially secondary roads – are not under-supplied. It makes sense to acquire these rights of way and prepare basic infrastructure investments while land prices are still relatively low (World Bank, 2011).

RELATED LAND TOOLS

Land readjustment may be used in conjunction with other land tools, including those in the GLTN toolbox (www.glttn.net). Related tools include:

- Land-use planning
- Slum upgrading
- Land sharing.

LAND-USE PLANNING

Land readjustment may relate to land-use planning in three ways:

- The city's overall land-use plan may inform and guide the land readjustment approach and goals. It can determine where development is desired or permitted, and direct its character, level and intensity.
- Planning is an important part of the readjustment process itself. Detailed plans

of the area are developed and used to guide the location of infrastructure and the boundaries of plots (see Chapter 5).

- Land readjustment can also help in the development of an overall land-use plan (if none exists), revise the existing plan, or pioneer approaches to develop plans in the future.

SLUM UPGRADING

Slum upgrading is a way of gradually improving slum areas, formalizing them and incorporating them into the city. It provides slum dwellers with the economic, social, institutional and community services available to other citizens. These services may include legal (land tenure), physical (infrastructure), social (crime or education, for example) or economic improvements.

Slum upgrading usually includes the provision of basic services such as housing, streets, footpaths, drainage, clean water, sanitation, and sewage disposal. It often also improves access to education and health care. A key element is legalizing or regularizing properties and bringing secure land tenure to residents.

Slum upgrading also stimulates the economic, social, institutional and community activities that are needed to reverse downward trends in an area. These activities should be undertaken cooperatively among all parties involved – residents, community groups, businesses as well as local and national authorities. The upgrading aims to boost the community's sense of ownership, entitlement and inward investment in the area (Cities Alliance, 2015).

LAND SHARING

Land sharing enables poor communities (often informal residents) who occupy land and private or government landowners to share an area. The interested parties negotiate an agreement in which the community is given, sold or leased one part of the land for reconstructing their housing (usually the least commercially viable part of the land). The rest of the land is returned to the landowner to develop. How much land the people get and how much land goes back to the owner is decided during the negotiations.

Land sharing can be a long and complicated process and does not work in all situations, but it is becoming more common. (UN-Habitat and UNESCAP, 2008).

PARTICIPATORY AND INCLUSIVE LAND READJUSTMENT

This book describes an adaptation of land readjustment that aims to improve the outcomes for people who live in the project area – especially the poor. Known as **Participatory and Inclusive Land Readjustment**, or **PILaR** for short, this uses the same idea as conventional land readjustment (swapping land for improved services), but does so in a participatory and inclusive way (Box 4).

HOW PILAR IS DIFFERENT FROM CONVENTIONAL LAND READJUSTMENT

PILaR differs from conventional land readjustment in various ways:

- It emphasizes a **participatory process**, rather than only the technical or financial results (Figure 5). It engages with all community members, not just the formal landowners, maximizing the likelihood of consensus, reducing the risk of disruption, and protecting weaker groups.
- It aims for **inclusive outcomes** that benefit all, including the poor and vulnerable.
- It is based on **human rights** and aims for a pro-poor, gender-sensitive outcome.
- It aims to distribute the burdens and benefits more **equally** among the private and public sectors. It does this through public-private partnerships, legal reforms and capacity building.
- It strengthens **governance** through a preliminary urban legal assessment and by building the capacity of government authorities.
- It improves **land administration** – the systems of land records and valuation – making it possible to share the value of the land more equitably. By identifying the claimants to the land, it can be a first step to regularizing their tenure.
- It **integrates** land readjustment with other urban development and planning initiatives.
- It can be **varied** to suit a particular context and situation.

STAKEHOLDERS

Conventional land readjustment involves a small group of stakeholders in making decisions: the municipal authority and the formal landowners. PILaR involves a much wider range of stakeholders (see Chapters 3 and 7 for details):

- The **municipal authority**, including the units responsible for planning, finance, public works, the cadastre and land registry, the environment and communication.
- The **city legislature** and politicians.
- Relevant branches of the provincial and national **government**.
- **Professional specialists**: architects, surveyors, lawyers, property appraisers,

Box 4 Definition of PILaR

Participatory Inclusive Land Readjustment (PILaR) is a land assembly mechanism in which land units, with different claimants, are combined in a participatory and inclusive way into a contiguous area, for more efficient use, subdivision and development.

This is done through participatory and inclusive approaches which include mechanisms, processes, and institutions through which local authorities, citizens and groups articulate their interests, exercise their legitimate rights, meet their obligations, and mediate their differences.

PILaR projects are undertaken to meet the broader economic, social and environmental objectives of the country, including poverty reduction.

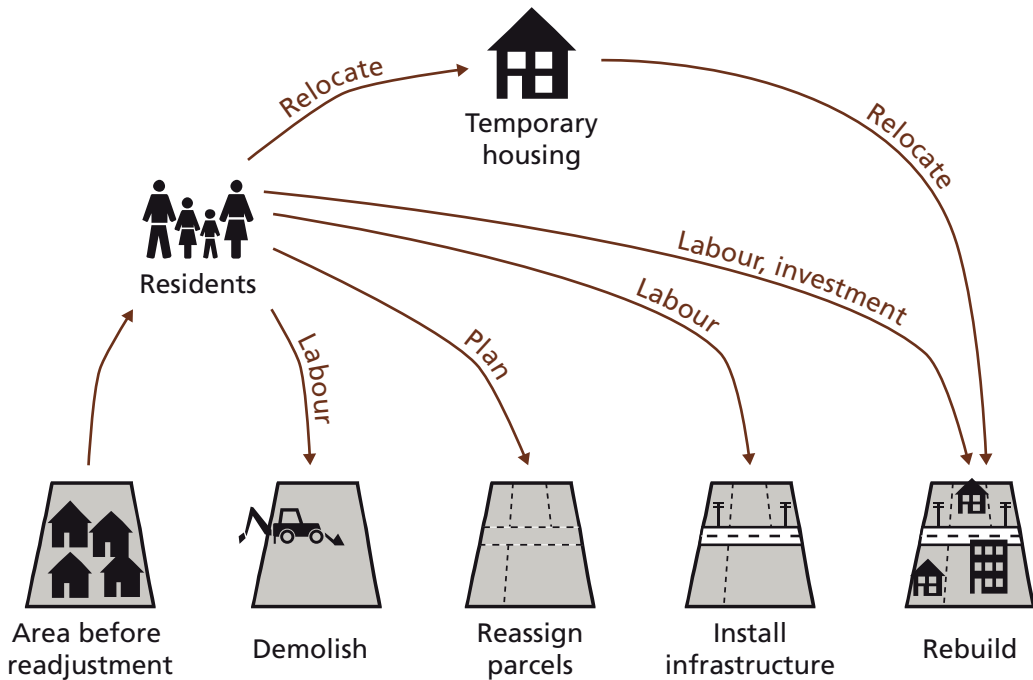


Figure 5 Role of residents in PILaR

financial analysts, urban designers, and planners.

- **The community:**
 - Formal and informal landholders
 - Tenants and informal residents
 - Community members: women and men, youth and elderly, the poor and vulnerable
 - Community groups and NGOs
 - Local businesses and service providers
 - People in neighbouring areas.
- **Neighbouring local authorities.**

PARTICIPATORY AND INCLUSIVE

PILaR is **participatory inclusive** land readjustment. What exactly does that mean?

Participatory concerns the **process** that is followed. It means that people have a say in decisions that affect them. This is not just lip-service. It means ensuring that all the stakeholders – and not just the municipality and formal landowners – have a say in what happens in the project, from initiation to implementation. It means engaging with the local community to help them get organized, inform them about the project possibilities, make sure they know their rights, and build their capacity so they can express their interests and interact with other stakeholders.

Inclusive refers to the **outcomes** of the project. It means ensuring that all stakeholders share in both the costs and benefits in a fair and equitable manner. One way to do this is to identify the formally recognized **rights** of each stakeholder, such as a right to property or the right not to be forcibly evicted. Countries or cities may recognize rights that go beyond those provided for in international law. The stakeholders' **needs** or **interests** can then be considered. These relate to the particular project objectives, such as improving public space, enhancing connectivity or greater economic opportunities.

Once the rights and needs have been identified, they can then be analysed for equity or fairness. Does the project adequately protect and advance rights? Does it address needs in an equitable way? It is unlikely to do so for all the needs or interests that might be identified. But by comparing the outcomes against a list of priorities, it is possible to check how each group or individual fares.

The principal way of ensuring participation and inclusiveness is through close engagement with the community affected by the project (Chapter 7).

WHAT PILAR IS NOT

PILaR is a land-readjustment tool – not a comprehensive solution for urban development. PILaR assembles land into viable, valuable plots. It is not a housing solution: it ends when the plots have been reallocated and the infrastructure built. It is up to the individual landholders to develop their plots – or to sell them to someone else.

PILaR is not a way to pay for major infrastructure such as bridges and roads, mass transit systems or trunk sewerage systems. The infrastructure built should be confined to that needed within the project area itself. Even then, the project may not be able to cover all the costs, so additional funding may be needed.

“We don't treat people as beneficiaries but as investors. They have something to offer, and that will be realized through equitable sharing of benefits and costs among all the stakeholders.”

Solomon Haile, Human Settlements Officer, UN-Habitat



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-haile

HOW HAS PILAR BEEN USED

PILaR is a new approach to urban development. It is being tested and promoted by UN-Habitat, the branch of the United Nations that deals with human settlements, and the Global Land Tool Network, an alliance of organizations focusing on land reform, improved land management and security of tenure to alleviate poverty.

There is no standard method of applying PILaR, for two reasons:

- The approach is still experimental, so there is not enough experience to draw on to provide a firm set of recommendations.
- Each situation is different, and the participatory nature of the method anyway demands that the approach be adapted to suit local conditions.

The methods suggested in this book build on experiences in land readjustment in various developing countries around the world, especially Colombia, Angola, India and Turkey. These experiences have applied the conventional land readjustment approach in a participatory and inclusive way. Most have not been labelled “PILaR” as such. Nevertheless, each of them has certain elements that would fit well in a PILaR project. We have drawn the best elements for these experiences and used them as building blocks to show what a full-blown PILaR project might look like. We have drawn on other aspects of land administration to fill in any remaining gaps.

This book therefore provides guidelines, based on the best current knowledge. Feel

free to use them as a basis to develop your own, locally adapted, methodology.

BUILDING BLOCKS OF PILAR

A PILaR project draws on various fields and types of expertise: governance, policy, law, planning and design, land administration and valuation, data gathering and analysis, community work, finance, communication, engineering and monitoring and evaluation. Specialists in some of these areas (such as engineering) will not need additional skills to work on a PILaR project (though they may need to adapt to a new workflow and the involvement of the community in making decisions), so we do not need to focus on them here. Others will need new skills or will have to learn and adapt to new procedures. This book offers some guidelines on what to do.

The degree of involvement of each of these fields will depend on the situation. Where a clear policy on land readjustment already exists, for example, there may be few policy issues to address. Where a policy does not yet exist, more work in this area may be needed. In a slum-upgrading project, a lot of effort will be needed to engage the community. In an urban expansion project on the edge of the city, there may be few, if any, residents, so less effort will be needed in this aspect. The timing and order in which the fields are needed will also depend on the situation.

We can therefore think of each of the fields as a building block or component. Select those blocks that are required at each stage

in the project in order to design a project that will fulfil its goals (Figure 6).

WHO THIS BOOK IS FOR

This book describes PILaR for people who are new to the process. Because PILaR draws on many specialist fields, each with its own technical terminology, it is written in a way that avoids jargon and is easy to understand for a wide range of professionals, and indeed for people without a background in land issues who wish to understand the approach. We frequently speak directly to “you”, the person who coordinates or manages the PILaR process.

Conventional land readjustment is a complex process, and the addition of participatory and inclusive elements in PILaR makes it more so. While we have offered sugges-

tions and recommendations, you should not take these as absolute musts. A solution that works well in one country or city may not work in another. You should adapt and revise the approach to suit your own situation. Build on the experience of others where appropriate. See the *Acknowledgements* for a list of organizations and individuals with expertise in PILaR.

WHAT IS IN THIS BOOK

This rest of this book is divided into 10 chapters, each focusing on a particular thematic area in the PILaR process.

Chapter 2, Using PILaR, describes when PILaR is a useful approach and which types of organization have implemented it. It then summarizes the stages in a typical PILaR project.

Chapter 3, Governance, looks at the governance and management issues that will affect the project. It lists the relevant principles of good governance and human rights, describes ways of improving governance to support a PILaR approach, and outlines approaches to evaluation.

Chapter 4, Land management, gives some general policy guidelines to support the PILaR project. It discusses the choice of site, the condition of the land records, and ideas on who has a say in the project planning and who is entitled to benefits. It then focuses on the issue of land contributions and how these are decided.

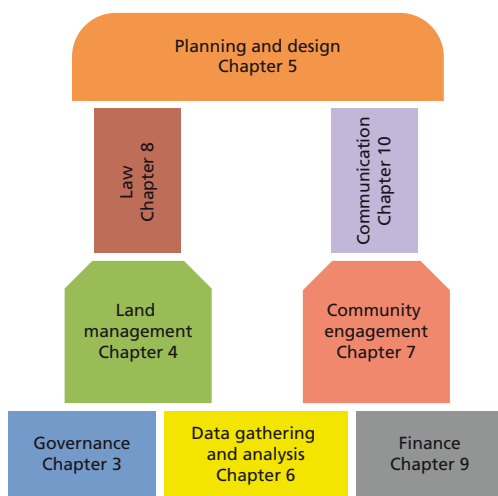


Figure 6 The main building blocks of PILaR described in this book

Chapter 5, Planning and design, describes how to turn the general policies and agreements into plans and maps. It covers the planning and design objectives, and describes how to take into account both the planning guidelines and the real situation on the ground in order to produce a plan that will be realistic and will result in an improved urban environment.

Chapter 6, Collecting and analysing data, describes various techniques for gathering information about the area, its land tenure types and residents, and the various legal and financial requirements that will guide the PILaR project. It outlines the various phases of data collection, with particular emphasis on participatory enumeration and mapping techniques.

Chapter 7, Engaging with the community and other stakeholders, describes the various stakeholder groups and explains how to involve them in the project. It focus-

es especially on how to deal with women, youth and other vulnerable groups.

Chapter 8, Legal issues, looks at the various legal concerns that can support or hinder a project. It covers both the legal basis for land readjustment and the detailed legal mechanisms needed to implement a project.

Chapter 9, Finance, describes the principles that guide the financial aspects of the project. It suggests sources of funding for the municipality and the residents, and outlines how to calculate the costs and benefits of the project and the amounts of land that each stakeholder must contribute and will get back in the end.

Chapter 10, Communication, summarizes the major audiences that the PILaR project must serve and how to reach them.

Chapter 11, Way forward, suggests how you can begin to put the guidelines offered in this book into practice.



2

USING PILAR

LIKE CONVENTIONAL LAND readjustment, PILaR is most useful in large or medium-sized cities. They are often growing rapidly and need to use their scarce land more efficiently. The difference in value between unserviced and serviced land gives landholders an incentive to participate in the land readjustment. Smaller municipalities, on the other hand, are less likely to need a readjustment process, and are unlikely to have the budget or personnel required to manage it.

PILaR can be used in at least four broad situations:

- Urban expansion (on the edge of cities)
- Urban renewal, infilling and densification
- Improving poor neighbourhoods
- Linear projects.

URBAN EXPANSION

Many cities in developing countries are growing fast, and municipalities need to bring new land on the edges of the city into residential and other uses. Two main problems are associated with this.

High land prices Holders of rural land on the edge of cities are often farmers with little capital. They cannot afford to put in the infrastructure needed to raise the value of their land. Speculators buy up small plots at low prices and consolidate them into larger plots. They get the area rezoned for residential or commercial use, often by greasing officials' palms. They may sell the land at a higher price, wait for the value to rise, or develop it by putting in infrastructure and constructing buildings. That is profitable (though risky) for the speculator, but has several disadvantages from others' point of view:

- The original landholders gain little: they sell unimproved land at a low price, then watch as someone else makes a big profit.
- It is in the speculators' interest to sell or rent out the land for as high a price as possible – to wealthy or middle-income clients. They have little incentive to provide housing for the poor.
- Only small amounts of land come on the market, so this approach does little to open up large tracts of land for the city to expand. The price of serviced land stays high, pushing rents up.

- Land is one of the most corrupt sectors in economies throughout the world.

Unplanned, haphazard growth Rural land is converted to urban use through a series of uncoordinated negotiations between individual landholders and the municipality (or the neighbouring local authority as the built-up area spills over the municipal boundaries). A lack of overall planning for the city and coordination among local governments makes it hard to provide adequate infrastructure and services.

The photograph at the beginning of this chapter shows what can happen. At the top is an orderly residential area with adequate road access. At the bottom, the local authority failed to establish rights of way and public spaces on time, and the settlement has spread in an unorganized way. That means a poorer living standard for residents and much higher development costs in the future to retrofit the required rights of way.

PILaR helps solve both these problems (Box 5). It creates an incentive for the original landholders to participate in the scheme as it increases the value of their holdings. By selling part of their land, they can earn enough to build housing on the rest. If the planning regulations permit, some may decide to build apartment blocks, augmenting the housing supply. The municipality can allocate its share of the reallocated land to low-cost social housing. And because the project is self-financing, it frees up funds that the municipality can use to build low-cost housing elsewhere.

Small-scale land readjustment projects will probably not have a marked effect on land prices in the city as a whole. But if done on a large scale, as in South Korea and Japan while they urbanizing rapidly, it can substantially increase the rate at which subdivided, serviced land comes on the market, pushing prices down.

“In conventional land conversion, developers convert individual parcels into urban subdivisions. It makes a windfall for them but it has very little impact upon the prices and affordability for the poor.”

Robin Rajack, housing and urban development lead specialist, Inter-American Development Bank



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-rajack

Box 5 When might PILaR be used in urban expansion?

- When the existing urban area is already dense enough to be served by public transport cost-effectively.
- When peri-urban land is not prime agricultural land yielding a high return.
- When the topography around the city is not a major constraint to cost-effective infrastructure and environmental management.
- When the periphery is not already densely occupied.
- When the peri-urban land is held mostly by relatively few, large private landholders.

Because PILaR is a new approach, it is inadvisable to use it at a large scale straight away. It is better to try it out on a small scale first (perhaps only a block or two) and learn how to apply it. Once you have built the capacity and got the necessary laws in place, you can go to scale.

URBAN RENEWAL, INFILL AND DENSIFICATION

It may be desirable to redevelop already built-up areas within the city (Box 6). This may occur in various circumstances:

- **Changes in land use** One use becomes defunct and new uses emerge, but the urban fabric has not caught up. For example, small businesses may have taken over a formerly residential area, but the roads are too narrow and winding, causing traffic jams.
- **Changes in development rights** A low-density area may be earmarked for

higher-density housing. To make this possible, it may be necessary to upgrade the infrastructure and services, and to find locations for parks, squares and shops.

- **Inner city transformation** If the municipality wants to modernize a run-down city centre, it may have to plan new roads, shopping centres, offices and car parks.
- **Disasters** An earthquake, fire, tsunami or war that devastates an area is an opportunity to “build back better”.

It is important to check the economic justification for such plans. Can revitalization justify the process and expense of reconfiguring the physical space and building or upgrading the infrastructure? For prime locations such as city centres, the economic return should drive the urban form, and not the other way round. This is because city centres are normally the engines of employment generation.

Do the current layout of plots, permitted densities and internal infrastructure connections restrict the economic opportunities in that part of the city? If so, PILaR may be the

right choice. For example, plot sizes or road frontages may be too small for large commercial buildings or offices to be built. Or former industrial land may be too large for start-ups or residential uses.

PILaR may also be a way to redevelop a city after a disaster, especially if:

- Much of the original occupation was informal or irregular. PILaR can lead to replacing rickety structures with better-planned, more robust buildings.
- Transport accessibility was poor, adding to casualties and hindering evacuation or emergency vehicles. PILaR makes it possible to plan for wider roads that allow better traffic flow and emergency access.
- The surviving landholders are physically scattered, making it hard and costly to restore the original infrastructure.
- Many stakeholders want to rebuild their homes and businesses at the same time.

IMPROVING POOR NEIGHBOURHOODS

In many poor neighbourhoods such as “informal settlements”, “slums”, etc., land ownership rights are unclear or disputed. There are often only a few formal landowners (often the state or the municipality), but a very large number of residents and other people with informal rights. Such settlements house thousands of people, many of

them informal residents with no legal rights to the land where they live. Most are poor and have limited education; they rent their housing from landholders, or sublet from other tenants. They have little or no tenure security.

Even if land ownership is clear, poor neighbourhoods may be segregated spatially, economically and socially from the rest of the city. They are considered a blight that must be eradicated or dramatically changed. But such areas are also often very dynamic: residents can offer a lot to the rest of the city if their area is better integrated physically (through better streets and transport), socially (through mixed-use development) and economically (via improved employment opportunities). This would benefit the municipality and government too, through higher tax receipts.

Various approaches to improving poor neighbourhoods exist, from gradual improvements to wholesale clearing and re-development. Unfortunately it is often done with little or no consultation with the people affected. But when done well, it regularizes tenure, provides infrastructure (roads, sewers, piped water, electricity) and services (garbage disposal, schools, health care, etc.), and replaces single-storey shacks with multi-storey housing.

PILaR can make a major contribution to a slum-improvement effort. It would identify the formal and informal rights to the land, redraw plot boundaries, allocate a proportion of the land for roads, public space and municipal ownership, facilitate the sharing of the increase in land value to ensure financial sustainability, and build the basic

Box 6 PILaR in built-up areas

Doing a land readjustment in an area that is already built up is a lot more complicated than on the edge of the city where there are few or no houses and residents.

Built-up areas subject to land readjustment probably have a lot of poor residents, many of whom may be tenants or informal residents. Landholders may have unclear or disputed titles to their plots, or may lack documents specifying their rights to the land.

The land readjustment must find solutions to these issues:

- Large numbers of poor residents, many with unclear or disputed tenure.
- Existing buildings, many of which need to be upgraded or replaced.

While everyone may agree on the end point of the readjustment (a rebuilt area with better services, occupied by the same people), getting there can be difficult. Buildings will have to be demolished, and people will need somewhere to live in the meantime.

Some possible solutions:

- Undertake the demolition and rebuilding gradually. Start in one area, move the residents to temporary accommodation, demolish the buildings, reassign plots, install infrastructure, and build new housing. The residents can then move back in. Then

repeat the process in the next area.

- Involve the local residents in the project activities. They should be involved in the planning, of course, but may also contribute labour for clearance, installing infrastructure and rebuilding.
- Assist the residents to invest in rebuilding their houses in accordance with the planning standards. Encourage them get organized into mutual-help groups to build each other's houses.
- Help them to avail of government and private housing assistance programmes such as cheap loans and subsidies. Work with microfinance organization to set up savings schemes for residents. The savings accounts can be linked with mortgages so residents can buy their property.
- Allocate part of the area to social housing for renting out to residents.
- Allocate part of the area to high-value commercial use (such as shops). This will generate tax income for the municipality to offset the costs of redevelopment. Require the shop owners to prioritize local residents for jobs.

Where the project area has fewer or no residents – as on the edge of a city – the procedure will be simpler and easier.

infrastructure. At the end of the process, it would provide clear formal land documents to the landholders, and clarify the tenure status of tenants. This would help create a market for affordable housing, so reducing the creation of new slums.

PILaR seeks the maximum consensus of the people affected and with minimum disruption to the local community. It makes special efforts to reach vulnerable stakeholders such as widows, orphans and women household heads, and to ensure that their property rights are not overlooked or misrepresented in the reconfiguration.

LINEAR PROJECTS

Municipalities need land to upgrade or build linear infrastructure such as roads, railways and pipelines. Such infrastructure may follow existing alignments (such as when a road is widened), or they may follow completely new routes (for example, when building a motorway). They may cut through a range of different land types: built-up, derelict, green space and rural, with different ownership and tenure situations. Such projects may considerably enhance the desirability and value of certain plots (for example, by improving access), and make others undesirable or unsuitable for certain types of use (e.g., because of increased traffic or noise).

Land readjustment may be a way to obtain the land required. If the infrastructure substantially increases the value of the land, the

landholders have a strong incentive to contribute land. On the other hand, if it creates a nuisance (such as traffic noise, environmental damage, visual detriment or a risk of accidents) they may oppose the project – even if the value of their land rises.

For land readjustment to work in such linear projects, the aim should be to develop the area along the route. The strip of land on either side of the new route has to be wide enough for there to be land to redistribute. Projects with a narrow objective of providing linear services without such development (for example, merely widening a road) are not suited to land readjustment.

WHO IMPLEMENTS PILAR?

The most common initiator and implementer of a PILaR project is the local government or **municipality** (Figure 7). It usually has the power to deal with land management and urban planning issues, and has the proximity and resources to lead the process and interact with the stakeholders.

But **other organizations** may also take the lead, either because they have the requisite expertise or because the municipality lacks the necessary resources: a branch of the national or provincial government, the private sector, an association of landholders, an NGO, or an international agency. An individual organization may take the lead role, or the project may be jointly run by a consortium (such as a housing association and

a firm). The implementing organization may vary from country to country or even within a single city. For simplicity, we refer to the “municipality” throughout this book.

The implementing organization must have the right skills and experience to undertake a PILaR project. Both technical and social skills are needed: they include the demarcation and re-demarcation of plots (land surveying), urban planning, civil engineering, participatory planning and consultations, real-estate valuation, land documents and

records. If it does not have these capabilities, it may have to hire private consultants or collaborate with partners that do. One possibility is for the government entity to work with a private company, an NGO (or both); the government provides the political support, the company offers the technical skills, while the NGO handles the engagement with the community.

Land readjustment is already a complicated process, and adding participatory and inclusive aspects in PILaR adds further complexity.

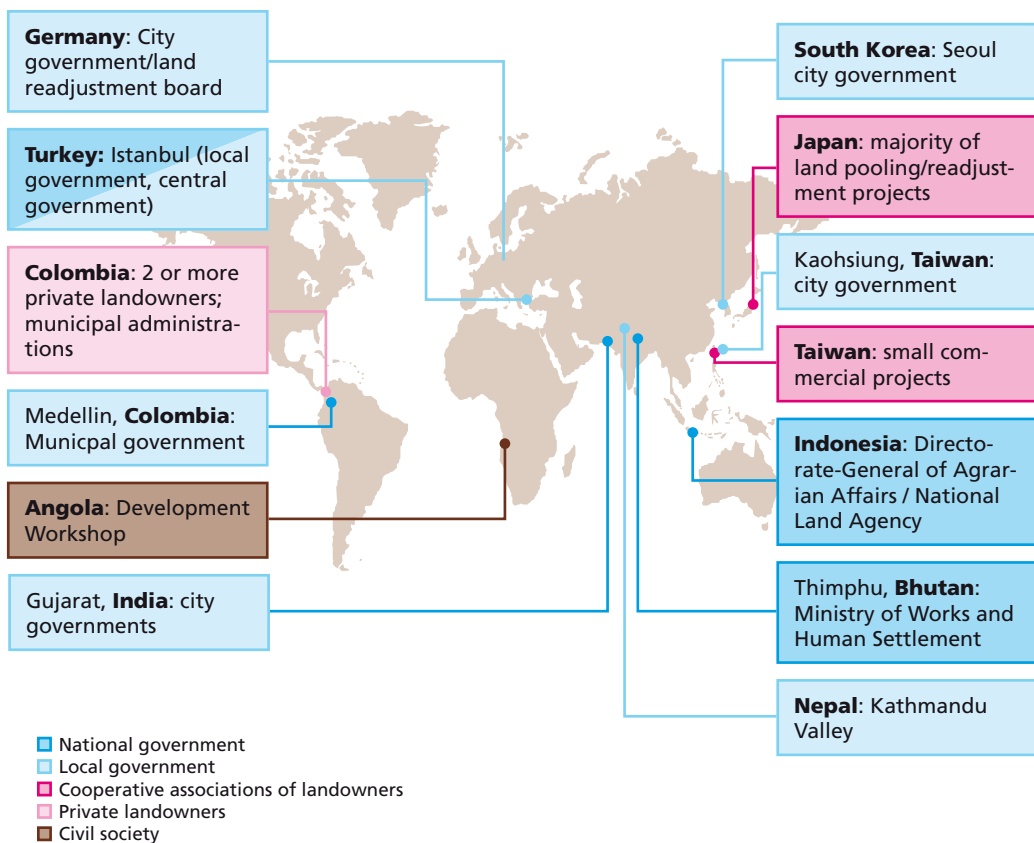


Figure 7 Who leads land readjustment in different countries?

THE PILAR PROCESS

The PILaR process consists of five major steps (Figure 8). Note that the steps may overlap or be repeated, and the number, details and order may vary according to the situation. Reality can be much more complex (Figure 9). At each step, some tasks are done by the implementing organization, while others involve engagement with the community and other stakeholders.

1 CONCEPTUALIZE

This consists of several substeps.

Identify the legal framework

PILaR requires a suitable legal framework; without it, the process can easily become bogged down in lawsuits brought by unhappy stakeholders who feel their interests are not being taken into account. A dedi-

cated law may not be required, but it may be necessary to amend existing laws or local authority regulations. Questions include (see Chapter 8 for details):

- Is the executing agency empowered by legislation to perform the tasks required for PILaR?
- Does the urban planning legislation include statutory provisions for participatory planning, voluntary land contributions, development rights trades or land swaps?
- Is there a sufficiently functional system for accessing and updating property rights?
- Would key authorities be bypassed in the PILaR process, or are their complementary roles duly recognized?

Choose the location

The general location and extent of the proposed project area should be selected. Its location (edge of city, within city, slum) and

“The PILaR approach builds on consensus and dialogue between different, potentially conflicting parties. This model is interesting now for replication across the country.”

Allan Cain, Development Workshop, Angola



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-cain

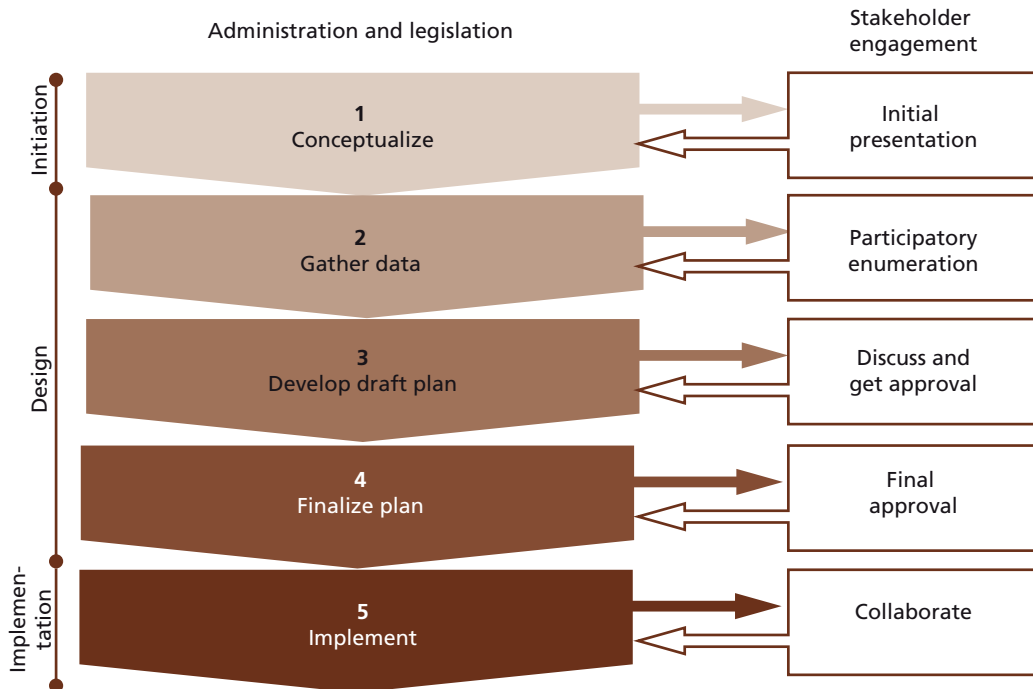


Figure 8 Simplified steps in a PILaR process

the title/tenure situation (few formal owners with clear titles vs many owners and tenants with unclear or disputed tenure) will determine the nature and complexity of the process followed. It is not necessary to fix the exact boundaries at this stage – that can come later. It may be advisable to select several candidate areas for consideration.

Determine the desired land use

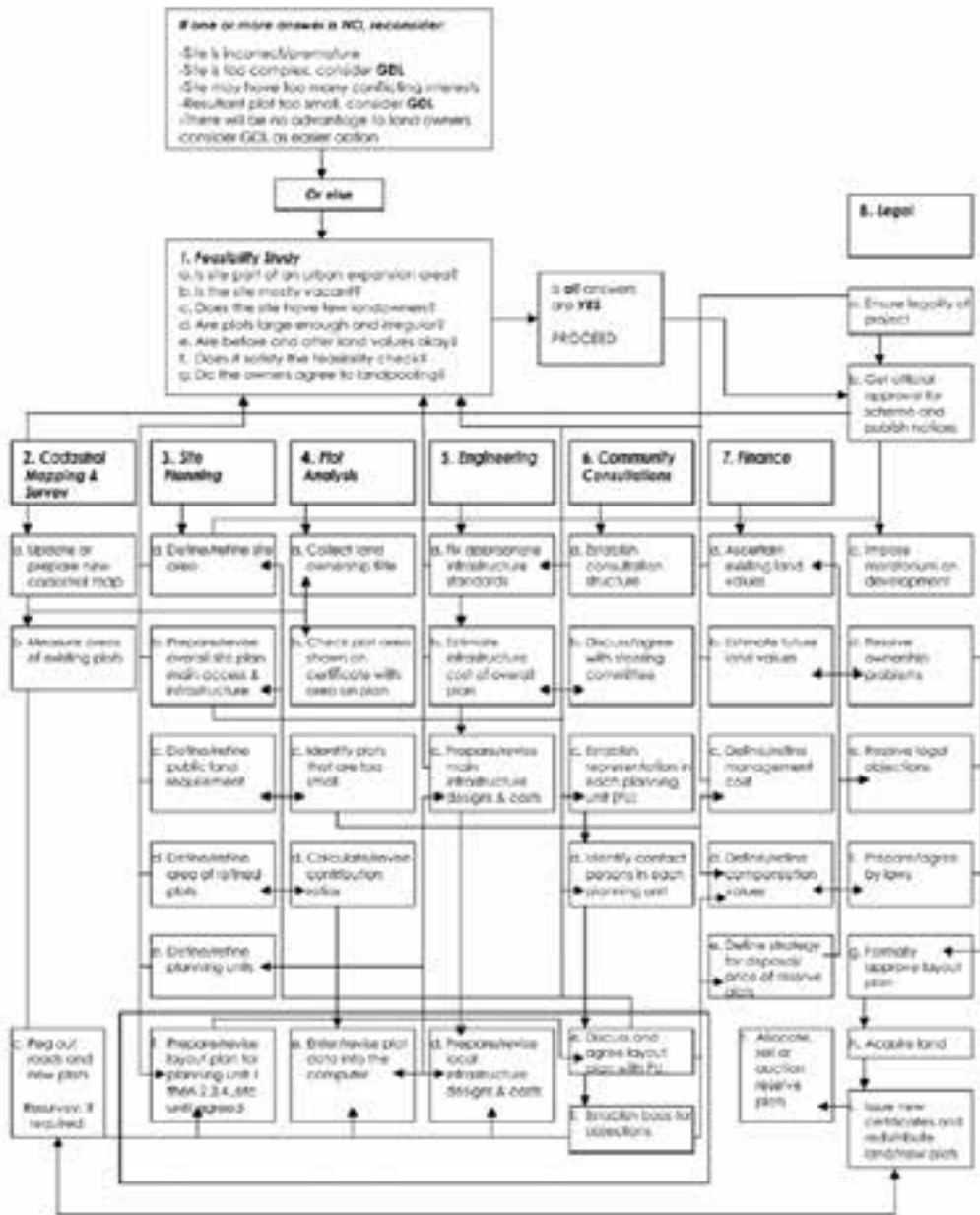
Much will depend on what type of land use is envisaged for the area. Is the area earmarked for single-family dwellings, multi-storey residences, social housing, industrial or retail use, low- or high-density buildings? This will depend on the location, the city's needs, and the overall urban plan.

Check the status of land records

Land readjustment requires information on who holds what rights where. This includes (but goes beyond) cadastral parcels. If such records do not exist, or if they are seriously out of date, land information for the whole area must be created before the project can proceed. This may include participatory enumeration and forms of adjudication. The project should include turning this information into land records. Creating or updating the information and records can be included as part of the land readjustment project.

Set up the project management

The project is managed by a small, multi-disciplinary management team, hosted and supported by an implementing agency, and



Source: Department of Urban Development and Engineering Services, 2006

Figure 9 Land readjustment can be very complex: A flowchart from a project in Bhutan

advised and supervised by an advisory committee. The management team coordinates with, and draws support from, various units within the municipality. See Chapter 3 for details.

Conduct a feasibility study

A feasibility study can reveal whether the proposed location is indeed suitable. If on the edge of the city, is it suited for development, or would it be better left as open space? Is it feasible to upgrade a slum, or would it be better to relocate the residents elsewhere? The feasibility study should take into account aspects such as topography, hydrology, existing infrastructure in neighbouring areas, and the overall urban development plan. It should also determine whether the proposed development will be feasible financially – whether the expected increase in land values will be enough to attract landholders to participate. Feasibility studies of several candidate areas can select which one should be prioritized for land readjustment. See Chapter 3 for more.

Make initial presentation to stakeholders

At some stage during the conceptualization, the project proponents and the management team introduce the idea of the project to the major stakeholders – landholders, tenants and occupiers. They describe the PILaR process and how it might work in the area, and explain what the next steps might be. It is also important to share information with all stakeholders on the current and estimated future values of the plots after the readjustment in order to get the stake-

holders' buy-in. This meeting (or meetings, as several may be needed) aims to get the stakeholders' initial reactions, gauge their expectations, answer their questions and allay their fears, and invite them to nominate representative to join the management team and advisory committee. After this presentation, it may be necessary to go back to reconceptualize the whole project.

2 GATHER DATA

Gather data

The management team organizes the collection of data about the proposed project area. The types of data and how to gather them depend on the situation. The data gathering may fall into three phases:

- **Baseline study** This may have been done earlier as part of the feasibility study.
- **Stakeholder mapping** to identify stakeholders and institutions.
- **Detailed enumeration** of each plot, formal and informal claims to each plot (land documents, tenancy, tenure, occupancy), the identity of the claimants, their socioeconomic situation, etc.

The data may be gathered in various ways, including the inspection of formal records, interviews and focus groups with residents, surveys, participatory enumeration, and mapping of plots using GPS devices. A lot of information will also emerge through participatory enumeration and consultations with the stakeholders. See Chapter 6 for details.

Participatory enumeration

This is an important part of the data-gathering process. It involves local people in collecting information about the community and its members, and mapping the location and boundaries of each plot. Parallel to this are discussions to diagnose the current situation, and to develop suggestions for the readjustment. Several iterations may be needed to draft an initial plan.

The discussions may consist of meetings with all stakeholders or with subgroups (such as formal landowners, tenants, informal residents, community organizations and local businesses), individual interviews, visits and electronic interaction, for example through social media. See Chapters 7 and 10 for details.

3 DEVELOP A DRAFT PLAN

In conventional planning, professionals draw up a plan and then present it to the authorities and other stakeholders for approval. In PILaR, the stakeholders are involved throughout the planning process in a continuous series of meetings and consultations.

Analyse data

The management team analyses the data to understand the local situation and develop realistic alternatives. The data will consist of two types of information:

- **Structured** Names, areas, locations, values, tenure status, etc., which are easy to put in a spreadsheet or on a map.

- **Unstructured** Opinions, feelings, needs, etc., which are harder to summarize.

The team must make sense of all this information in order to come up with a draft plan.

Fix the boundaries of the area

If the boundaries of the project area have not yet been fixed, now is the time to do so. Considerations will include the interest of the landholders and other stakeholders in participating, the feasibility of providing infrastructure and services to particular areas, and the financial situation.

Draw up a physical plan

This means deciding where roads, sewers and other infrastructure will go. This in turn determines how much land will be needed for such things. The team will need to take the desired land use and existing norms and regulations into account, for example, for road widths, building heights, open space requirements, etc. See Chapter 5 for details.

Plan finances and land contributions

This involves calculating the costs of the project and the revenues (primarily from the increase in land values) it is expected to generate for the landholders and municipality. The land is divided into three categories:

- Land to be **reallocated** back to the original landholders (or to others with legitimate rights).
- Land required for **infrastructure**, roads and public space.

- Land **reserved** for the municipality to cover the cost of the project or to allocate to social housing or other uses.

The proportion of land in each category, along with the expected gain in land values, will determine whether the project will be self-financing (from the municipality's point of view) and whether it is attractive for the landholders. See Chapter 9 for details.

Fix boundaries of individual plots

Based on the physical and financial plans, the team can determine the size and boundaries of individual plots. Plots may be of different sizes, with each landholder receiving a plot in proportion to the size (or value) of his or her original holding. Or the plots may be a uniform size; small landholders get a single plot, larger landholders two or more.

Discuss and get approval

The management team presents the draft plan to the stakeholders, and get their comments and suggestions. They are unlikely to approve the first draft; they may want radical or minor revisions, or may reject it entirely. Several rounds of discussion and revision may be necessary before the stakeholders agree to the plan. In general, the more stakeholder involvement in the planning, the better.

Depending on the legal framework, complete consensus may not be necessary. In countries with land readjustment laws, the law specifies what percentage of landholders (holding what percentage of the total area) are required to approve a plan. The

law then forces any dissenters to go along with the majority.

4 FINALIZE PLAN

It is now possible to prepare the final plan and submit it to the stakeholders and the appropriate authority (usually the municipal council) for approval. If the council requires changes, the revised plan must again be submitted to the stakeholders for their scrutiny and approval.

5 IMPLEMENT

Mark new boundaries on the ground

This involves driving wooden (or preferably concrete) markers into the ground to mark plot boundaries. This is easy in rural areas on the edge of cities where there are few buildings or current residents. It is much harder in areas that are already built up, such as in inner cities or slums. Here, it may be necessary to clear the existing structures first, before marking out the new plots. Local residents can assist with the various tasks.

Assign plots and manage compensation

Each of the stakeholders who are entitled to a plot gets possession of that plot and the relevant documents (a title or other document specifying their rights). Some stakeholders may receive a smaller plot than they are entitled to; they must be compensated financially. Others may receive a bigger plot; they must pay the difference. The land registry formalizes the transaction by record-

Box 7 Critical factors for PILaR

PILaR is not an easy process. To make it work, it is necessary to consider a range of aspects. Here is a summary.

Political

Secure support from stakeholders and all levels of government

Sign memorandums of understanding for the process and outcomes

Governance

Assess governance structures, strengths and weaknesses

Legal

Assess legislative and regulatory capacity and links between legislation and planning

Ascertain legislative flexibility on land rights

Check key land laws and capacity for regularization

Be ready to use the law to force holdouts to cooperate

Land

Select a suitable location

Assemble enough plots to make readjustment worthwhile

Prevent speculators from capturing the gains in land value

Calculate the area needed for public amenities

Calculate each landholder's contribution based on the plot size or value

Plan readjustment and infrastructure development

Stakeholders and community

Profile the community and other stakeholders

Map the stakeholders' interests, risks, opportunities and mitigation measures

Ascertain capacity and knowledge on community engagement

Determine land value and capture options

Identify ways to support vulnerable groups (women and others)

Financing

Calculate the financial costs and benefits

Decide how to distribute burdens and benefits

Fund infrastructure development by selling a portion of the land or using other funds

Project management

Ascertain technical capacity, especially to deal with pro-poor aspects

Ensure robust and insightful project management.

ing the new location and size of the plot received by each stakeholder.

Build infrastructure

This is when the heavy equipment can be brought in, holes dug and concrete poured. It means putting in roads and drainage ditches, laying pipes and cables, erecting utility poles, and establishing parks. Slum upgrading projects typically also include the rebuilding of dwellings. Here it may be necessary to work in stages, clearing a small area first and finding temporary accommodation for residents, then putting in

the infrastructure and building new accommodation before allowing the residents to return. Only then is it possible to move on to the next area. Again, local residents may be able to do much of the work.

Sell or develop reserved plots

The municipality reserves a certain proportion of the land to sell or develop. It can cover the part or all of the project costs by selling plots; it may also choose to use it for desirable uses such as social housing, shops, public buildings or open space.



3

GOVERNANCE

CONCRETE LASTS A long time; road patterns last even longer. Ancient Roman roads still affect the shape of cities in today's Europe, long after the buildings that lined them have disappeared. To an overwhelming degree, the physical environments and settlement structures of cities are the result of the policies of municipalities and other tiers of government. So today's urban areas reflect decisions made in the past, and today's decisions will shape tomorrow's cities.

Governing a city is an incredibly complex process: it covers everything from economic development, housing, transportation, the environment, and a whole lot in between. These spheres are intimately related. A decision to build a road in one place can lead to congestion somewhere else. Designate an area for housing, and you automatically create the need for transport, recreation facilities and employment opportunities, as well as stimulating demands to change administrative boundaries, solve land-ownership disputes and preserve nature.

So it is not just how the decisions are made, but also what is at stake if they are not made properly.

Improved land governance is vital to avoid repeating the mistakes of the past. **Land governance** (Box 8) refers to the processes

of decision-making relating to land (Box 8). These processes involve many stakeholders, not just the municipality or the management team.

Getting the governance right is important for several reasons:

- Land represents **wealth and power**. Rich, powerful people, such as large landholders and speculators, have a much better chance of getting their interests served than the poor and weak – such as the residents of slums. PILaR tries to ensure that the interests of all stakeholders are taken into account, and that one group does not capture all the benefits.

Box 8 Land governance

Land governance concerns the rules, processes and structures through which decisions are made about the use of and control over land, the manner in which the decisions are implemented and enforced, and the way that competing interests in land are managed.

More information: Palmer et al. (2009)

- Because urban land is valuable, it is a magnet for **corruption**. Individuals use their wealth and connections, and use illegitimate means to divert income into their own pockets. In the extreme case, a few wealthy individuals or companies manage to “capture” the state: they implement policies to benefit themselves and to transfer land to their ownership.
- Land administration is the province of **professional specialists**. There is a danger that they ignore the interests of one or more groups of stakeholders. The poor are the most likely losers. Good governance makes it possible for their voices to be heard.
- Decisions on how the land is used affect not just the immediate vicinity, but also the **city as a whole**. A poorly implemented project may make land and housing unaffordable, stimulate rather than reduce the growth of slums, encourage sprawl, worsen congestion, produce roads that are too narrow, restrict public space, foster inappropriate usage, and a catalogue of other sins. A project that takes all stakeholders’ interests into account is less likely to suffer from these ills.
- City governments are **strapped for cash**. Good governance can ensure that a PILaR project is self-financing (or nearly so). That frees up funds to be used on other priorities.

RIGHTS AND PRINCIPLES THAT UNDERLIE PILAR

HUMAN RIGHTS

Human rights (Table 2) must inform each stage in a land readjustment project. During the **project conceptualization**, human rights must be included in the project agenda and should underlie the approach followed. The project partners should sign memorandums of understanding recognizing the rights of the people affected and the indicators to be used to ensure these rights are respected.

During the **project formulation**, it is necessary to identify key vulnerable groups, evaluate the risks to human rights in each thematic area (legal, governance, community, land, etc.), and find ways to avoid these risks. Arrangements must be made to ensure suitable social housing during and after the project. It is also necessary to identify indicators to monitor progress and measure outcomes, and to ascertain capacity development needs in each thematic area.

While the **project is being implemented**, key groups must be engaged and consulted, the social housing component must be designed and financed, and capacity built to ensure that human rights are addressed.

The **monitoring and evaluation** procedures must be designed to measure success, identify problems, and take human rights into account.

TABLE 2 IMPLICATIONS OF HUMAN RIGHTS ON LAND READJUSTMENT

Key areas	Implications
Political	<ul style="list-style-type: none"> Commitment to relevant governance and legal reforms Agreement to a set of minimum standards of engagement and outcome Signing of a “minimum standards” memorandum of understanding Memorandum of understanding with key stakeholders
Governance	<ul style="list-style-type: none"> Devolution of powers Decentralized systems Respect and engagement of all key stakeholders, particularly vulnerable and poor Optimal use of land resources and planning capacities. Memorandum of understanding with key stakeholders Agreement on key indicators
Legal	Suitable legal frameworks and structures (legislation, regulation etc.)
Land	<ul style="list-style-type: none"> Capacity to regularize land tenure, provide security of tenure to all rights holders, sustainable pro-poor development Recognition of a “continuum of land rights” Use of pro-poor land information and record management models (e.g., the Social Tenure Domain Model)
Stakeholders	<ul style="list-style-type: none"> Stakeholder engagement strategy to inform all phases of the project Participatory and inclusive process for all stakeholders, especially poor and marginalized Sustainable, mixed community development that is pro-poor and gender sensitive Use of established mechanisms for engagement Engagement memorandum of understanding to be signed by all stakeholders
Planning	<ul style="list-style-type: none"> Clear links with other frameworks that have non-discriminatory planning for housing and other infrastructure Universal provision of infrastructure, improved public spaces
Housing	<ul style="list-style-type: none"> Minimum basic requirements Pro-poor sustainable housing with universal design Specific strategy to address social housing component
Finance	<ul style="list-style-type: none"> Funds secured for necessary community infrastructure and social housing Funds secured for participation and engagement
Monitoring and evaluation	<ul style="list-style-type: none"> Clear and transparent monitoring and evaluation process Process captures pro-poor and participatory dimensions Process offers a template for future projects

Source: Melissa Permezel, UN-Habitat

TABLE 3 APPLYING THE PRINCIPLES OF GOOD URBAN GOVERNANCE TO PILAR

Principle and explanation	Examples of how it applies in a PILaR project
<p>Sustainability</p> <p>Cities must balance the social, economic and environmental needs of present and future generations.</p>	<p>The PILaR project must be clearly committed to reducing urban poverty and based on a long-term strategic vision for both the project area and the city as a whole.</p>
<p>Subsidiarity</p> <p>Decisions should be taken, and services provided, at the lowest appropriate level.</p>	<p>Decisions are taken locally so that community members can have a say. Services (shops, transport, etc.) must be planned so that people can get them close to where they live.</p>
<p>Equity</p> <p>All must have equitable access to shelter and services, and should be able to participate as equals in decision-making.</p>	<p>The project must ensure that disadvantaged groups (women, the poor, young and old, minorities, people with disabilities) are consulted, have their voices heard and needs catered to.</p>
<p>Efficiency</p> <p>Services must be delivered efficiently and cost-effectively.</p>	<p>The project must be financially sound: it must either be self-financing or not impose an undue burden on the municipality or the stakeholders. Tasks should be undertaken by the municipality, private sector, community or nongovernment groups based on their comparative advantage.</p>
<p>Transparency and accountability</p> <p>Decisions must be made transparently, and decision makers must be held accountable.</p>	<p>Stakeholders are able to participate in decision-making and be informed about decisions. Officials should be held to high standards of professional and personal integrity. The project must be free of corruption. Laws and policies must be applied in a transparent and predictable way.</p>
<p>Civic engagement and citizenship</p> <p>People have a duty to engage for the common good.</p>	<p>The project should encourage the community and other stakeholders to participate and help guide the work. Preparing and designing the land reallocation should help build social capital. The reallocation itself should avoid disrupting social networks.</p>
<p>Security</p> <p>People are entitled to a safe environment, free of conflict and hazards.</p>	<p>Involving people in planning is the best way to avoid conflicts and to improve their living conditions. The readjustment should reduce risks of e.g. flooding and improve people’s living conditions. It should avoid forced evictions and improve tenure security.</p>

PRINCIPLES OF GOOD URBAN GOVERNANCE

PILaR is grounded in the principles of good urban governance. It both depends on these principles and can help improve how the urban area is governed (Table 3).

CONTINUUM OF LAND RIGHTS

Land rights are rarely clear and never absolute. A whole range, or continuum, of land rights exists, from formal to informal (Figure 10). Even in those places where individuals have a clear legal title to the land (“registered freehold”), their rights are restricted: they cannot do whatever they like on it. For example, they still have to conform to building and other regulations, and others may have the right to use the land in certain ways – for access, to harvest fruit, or graze animals. The state may retain the right to confiscate the land for particular purposes (such as to build a road), with or in some cases even without compensation. In some

countries, the state may formally own the land, while the “owners” merely have strong user rights over it.

At the other end of the continuum, land rights are more tenuous and insecure. Informal residents’ rights to live in a particular place may be recognized by their neighbours or an informal landlord, but not by the person who is formally registered as owning the land. Such informal land rights are surprisingly commonplace: over 60 per cent of people living in Nairobi reside in informal settlements, and several high-rise buildings are not legal. Such situations may also prevail for decades or longer.

In between these two extremes are a wide range of rights. In reality, the rights do not lie on a single line, and they may overlap with one another. Tenure can take a variety of forms, and “registered freehold” (at the formal end of the continuum) should not be seen as the preferred or ultimate form of land rights, but as one of a number of appropriate and legitimate forms. The most

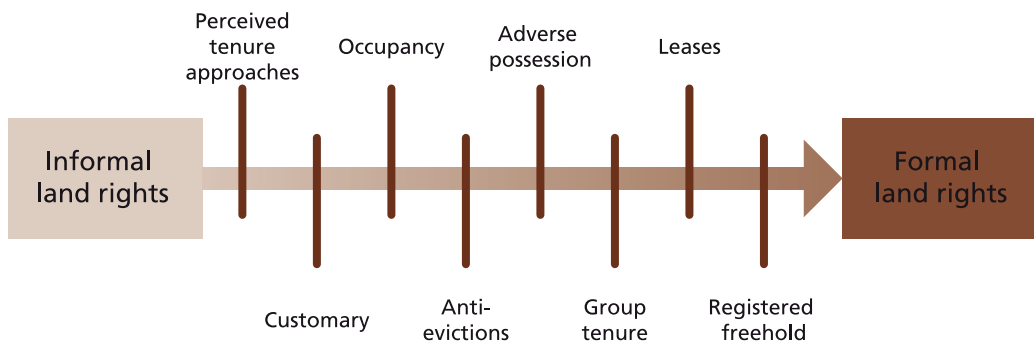


Figure 10 The continuum of land rights

appropriate form depends on the particular situation.

PILaR recognizes that such a continuum exists, and tries to preserve and improve the rights of people at all points along the continuum. The continuum of land rights approach works with what is already in place and incorporates it into a land information management system that caters for the whole spectrum of rights. It aims to give secure, formal recognition to landholders who have informal rights, and to regularize the tenure of illegal residents.

Taking this continuum of land rights approach to tenure is an important component of the PILaR process. Because of this, it can add considerably to the time and effort needed to implement a land readjustment.

STAKEHOLDERS IN PILAR

A PILaR project may generate opposition from any of the stakeholder groups, especially if they feel disadvantaged or do not understand it. However, each group also has reasons to support the PILaR approach. Active stakeholder engagement (see Chapter 7) and a well-thought-out communication strategy (Chapter 10) can help reduce misinformation, allay fears, win over opposition and achieve consensus. See Figure 39 in Chapter 7 for more details on the stakeholders.

LANDOWNERS

Why landowners may be opposed In many countries, land ownership plays a big role in wealth accumulation. Few things are as lucrative as the windfall that comes from urban land development: the rezoning of

“It is vital to facilitate the relationships between the different stakeholders – between the community and the local authority, the urban governance structures and rural governance structures.”

Clarissa Augustinus, Land and GLTN unit, UN-Habitat



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-augustinus

farmland for urban use, the allocation of extra development rights to prime urban land, or the provision of infrastructure to unserviced plots. That poses a risk for land readjustment: a project may benefit a few private landowners or speculators rather than achieving its intended social objectives.

Unsurprisingly, landowners want to protect their property rights. They are wary of initiatives that may reduce the value of their property or deprive them of it through compulsory acquisition. Many landowners are wealthy and have considerable political sway. They may object to a development proposal on various grounds, attracting public sympathy and judicial support. Politicians are aware of this power and often withhold support from an urban development project that is likely to be controversial or stymied by opposition or litigation. This is especially so if it involves compulsory acquisition.

Many landowners are attached to their land for sentimental reasons: it is where they were born or raised, it belonged to their grandparents, they have invested a lot of effort in building their house, they are elderly and cannot contemplate moving, etc. They may value their land much more highly than its market value might suggest. Such sentimental attachments should be taken into account as far as possible. For example, try to make sure that people can stay on the same plots and in the same houses.

Landowners are often unwilling to share the gain in land value with the municipality, and do not see why the tenants and informal residents should benefit from a land readjustment project. Some may refuse to col-

laborate or may hold out for a bigger share of the gains. Others try to remove the residents and develop the land on their own. Sometimes entire communities have been evicted for this reason.

Landowners may also object to contributing to the cost of infrastructure by accepting smaller portions of the redistributed land. They may well do so if they see the municipality subsidizing the cost of infrastructure in other parts of the city (especially in middle-income and wealthy neighbourhoods).

On the other hand, a landlord may see the land readjustment project as a way of evicting the current tenants and constructing new accommodation to rent out at a higher price. This is not the objective of PILaR.

Incentives for landowners Nevertheless, land readjustment (and especially PILaR) can be very attractive for landowners.

- It can convert a plot that is worth little on its own into a valuable plot with road access, drainage, sewerage, piped water and building permission – all for no capital outlay.
- It can speed up the process of rezoning and the allocation of permits.
- It is likely to give them a bigger profit than compulsory acquisition.
- It gives the landowners a major say in how the land is developed.
- It makes it possible to reach agreement with all the parties involved: the municipality, residents and owners of neighbouring plots. In slum areas, it may be the only practical way for the landowner to benefit financially from a holding.

TENANTS AND INFORMAL RESIDENTS

Why tenants and informal residents may be opposed They may fear the loss of their homes and businesses and disruption to their lives that redevelopment may bring. For slum dwellers, a shack, however small and insanitary, is their home and probably their biggest asset. They cannot risk losing it.

The urban poor have few reasons to trust officialdom. They may be suspicious of attempts by outsiders, however well-meant, to help them. They may fear the transition between when they move out of their current accommodation and into the new. They may not believe that the promised improved housing will materialize, or if it does, they worry that the rents will be unaffordable. They may fear the loss of valued ties to friends and neighbours.

Informal settlements are rarely uniform; just like any other neighbourhood, they are divided socially, ethnically and economically, with different concerns and interests. Conflicts, mutual suspicion, jealousies and rumours abound, so it can be hard to reach agreement on a plan. Individuals or groups may oppose a land readjustment initiative because they suspect that someone else is getting a better deal than they are.

Incentives for tenants and informal residents Nevertheless, tenants and informal residents have much to gain from a well-managed PILaR project. It aims to provide them with tenure security. It promises them new, better accommodation in the same area. Unlike the alternatives, it gives them a say in the process. It offers them

security of tenure and perhaps legal documents or rights to land they currently occupy illegally.

COMMUNITY ORGANIZATIONS

Why community organizations may be opposed Community organizations try to represent the views of their members, so they may be opposed to aspects of the project for the same reasons as landowners, tenants and informal residents (see above).

In addition, they may fear the project will disrupt the organizations themselves, for example by breaking up networks, or depriving them of a meeting place or a *raison d'être*. It is easy to understand a sports club opposing a project that might break up its team, or a gardening association that fears losing its allotments.

Incentives and roles for community organizations Community social groups can gain from the project if they get new or improved facilities (a new football field, a meeting room). Because they bring together friends with common interests, they can become a foundation of support for the project.

Certain types of community groups, such as housing associations, cooperatives of residents or landholders and community land trusts, may take the initiative in land readjustment, or they may be important partners and interlocutors in the process. See Box 32 in Chapter 8 for an example.

LOCAL BUSINESSES

Why local businesses may be opposed Owners may fear the loss or disruption of business; employees may worry about losing their jobs. Many local businesses are extremely local: they sell only to an established clientele who live in the few nearby streets. Land readjustment, with its disruption, relocation, demolition and rebuilding work, may mean these businesses lose their customer base.

Incentives for local businesses Land readjustment can offer businesses better facilities, improved services, and a more attractive location. They can make it possible for a business to expand and attract more customers. The project may have to offer loans to help businesses bridge the difficult period of readjustment and to invest in new premises.

Businesses that are located outside the area may also be interested in the land readjustment, for example if lots of their workers live there, or if the land readjustment will create new business opportunities.

NONGOVERNMENT ORGANIZATIONS

Why NGOs may be opposed NGOs from outside the project area may suspect the municipality or private developers of trying to take advantage of residents. Where the municipality sees only problems (insanitary living conditions, crime, congestion, etc.), an NGO may see a vibrant local community that should be preserved rather than disrupted.

Incentives and roles for NGOs If they are convinced of the value of the project, NGOs can be important supporters, and may even take a lead role in implementing a PILaR project. They can also provide valuable expertise, especially in organizing community members and helping in data collection and analysis. They can also act as a watchdog to hold the municipality and other project partners accountable and ensure that the project acts in the interests of the community and does not damage the environment.

THE PRIVATE SECTOR

Why the private sector may be opposed Many private-sector actors from outside the project area have legitimate interests in land: builders and building suppliers, developers, real estate agents, banks, transport firms and local businesses, etc. They may see a land readjustment project as unwarranted official interference in their business model. A property developer who plans to redevelop an area, for example, is unlikely to welcome the municipality coming in with another plan that eliminates a profit opportunity. Even if they welcome the project as a whole, they may fear bureaucratic delays and red tape, restrictions on their freedom to act, and requirements to engage with the community. Parts of the private sector may not welcome greater transparency and will try to prevent it.

Incentives and roles for the private sector Nevertheless, land readjustment offers significant opportunities for the private sector. Companies are often indispensable

partners in land readjustment projects. In some countries they may even initiate and lead a project, or manage it under contract. They may be involved in other ways: financing investments, providing expertise, building infrastructure, developing property, etc. Municipalities are typically short of money and lack in-house capabilities, so such private-sector involvement may be vital to enable a project to go ahead.

The municipality needs to engage with the private sector in a formal, transparent way, rather than through ad-hoc relations based on who-knows-whom. In all cases, the municipality or an independent party should ensure that minimum standards are adhered to, especially that the project benefits the poor and that decisions are made transparently.

If the private sector initiates and manages the project, the municipality can help reduce the risks (for example, the risk of holdouts or of lawsuits delaying the process). One option is for the municipality to subsidize the preparation phase (planning, consultations, decision-making), in return for a guarantee that the project will ensure the interests of the poor are included. The municipality must also guarantee that it will not arbitrarily change the rules during the project. Close collaboration between the public and private sectors is necessary to avoid misunderstandings and unpleasant surprises on both sides. An independent, neutral arbiter may be necessary to mediate disputes that arise.

PEOPLE IN NEIGHBOURING AREAS

Why neighbours may be opposed Residents and businesses in neighbouring areas may fear the negative impact of a PILaR initiative. They may fear increased traffic, flooding, noise, pollution or crime. They may oppose plans to build social housing or to turn part of the area over to commercial use. Such nimbyism (“not in my back yard”) is not unique to PILaR projects. If anything, PILaR gives more opportunity than other approaches for the affected stakeholders to voice their opposition and to mobilize resistance to the proposals.

Incentives for neighbours By facilitating a rational land-use plan, PILaR can in fact lead to better outcomes than the alternatives – less traffic and flooding, better waste-collection services and access for emergency vehicles, etc. Unlike the alternatives, PILaR gives the neighbours an opportunity to express their concerns and ensure they are taken into account.

MUNICIPAL ADMINISTRATION

Why the municipal administration may be opposed Just because one unit within the municipal government supports a PILaR initiative does not guarantee that others will do so. Even if they do not express outright opposition, they may hinder the process, find bureaucratic hurdles and refuse cooperation.

A PILaR project may challenge political interests, or fail to get support from politicians or municipality staff. Within the municipal legislature, elected representatives may be

opposed to the PILaR approach, or to using the approach in this particular place. They may be listening to concerns expressed by their constituents; they may be following a party political line; or they may be acting in their own interests (many politicians are also large landowners or property developers).

Incentives and roles for the municipal administration Strong coordination is necessary to overcome such opposition. A high-ranking public official or “champion” (such as the mayor) who supports the approach is indispensable to ease its passage through the legislature and bureaucracy. Some steps may require a decree or regulation issued by the appropriate official.

The municipality often takes the lead role in a land readjustment project (see *Project management* below). If someone else (such as the private sector) does so, the municipality still has an important role as a partner and regulator.

PROJECT MANAGEMENT

The project management typically consists of four key elements: the implementing agency, the management team, specialists, and an advisory committee.

IMPLEMENTING AGENCY

This may be the responsible branch of the municipal government, an NGO, an association of landholders, or some combination of

these and other organizations. The choice of implementing agency may be affected by the legal framework and location. The implementing agency hosts the management team, provides its core staff, manages the project budget, and is responsible for those project activities that fall within its competencies.

MANAGEMENT TEAM

This is a small group that coordinates the project and runs day-to-day operations. This team (Box 9) should be chaired by the municipality and include key members of the implementing agency itself, along with staff from other government units and community representatives. The community representatives should include landholders as well as tenants and occupiers. The team may also include staff from the various local government agencies and NGOs involved. Team members who are government employees will be paid by their official units. Remuneration for community representatives and other technical personnel should come from the project budget.

SPECIALISTS

The management team will need to draw on specialists, for example to handle financial and legal aspects, interact with the community, and gather and analyse data. These specialists may be municipal or NGO staff, or come from the private sector. You may also wish to get advice from other municipalities that have implemented PILaR or from individuals and organizations with

experience (see the list of contributors at the end of the book).

Box 9 The management team

The management team should consist of people with these skills:

- Land surveying and valuation
- Planning/architecture
- Urban or property law
- Economics, finance
- Sociology, community organizing
- Environment.

ADVISORY COMMITTEE

This is a broader group with representatives from the funding agency, relevant government units, political leaders, elected local residents and other local stakeholders, NGOs, community organizations, the private sector and professional groups. Its purpose is to supervise, advise and guide the management team, generate broad support for the project, and assist in implementing the process. It may be useful to include a neutral “honest broker”, such as UN-Habitat or another organization with experience in implementing PILaR.

MANAGEMENT STRUCTURES AFTER THE PROJECT

After the project ends, if the municipality wishes to continue and expand its land readjustment activities, it should retain the project management structures – the im-

plementing agency, management team and advisory committee in order to take advantage of their accumulated expertise. Some changes may be needed:

- Community representatives and other stakeholders in the management team and advisory committee must be drawn from the new project area.
- The rules and procedures must be adjusted in the light of experience – and informed by the evaluation.

If the municipality decides not to continue with the PILaR approach, the management team and advisory committee will be dissolved.

In either case, the implementing agency may keep its role of organizing the community in the neighbourhood. The municipality takes over responsibility for maintaining the public infrastructure and services. A property tax, fee or local “sweat equity” may be needed to finance and deliver these.

IMPROVING GOVERNANCE

Improving land governance is not easy, but it is possible. PILaR can help improve land governance by establishing procedures that follow the principles listed above. The relationship is mutual: a PILaR project also depends on and benefits from good governance.

Traditionally, urban development was in theory dominated by municipalities and their professional staff. In practice, of course,

landowners, developers and others had a major effect: municipalities were too weak to coordinate their activities, and so much development was haphazard.

Throughout the world, this traditional hierarchical and dysfunctional approach is being replaced by more networked forms of governance with greater collaboration between the private and public sectors, as well as the involvement of civil society. This is in part because of the recognition that governments alone cannot do everything – and should not try. Plus, various government functions have been privatized, and more private capital has been flowing into urban development. The growth in importance of the private sector in turn raises questions about how decisions are made and about democratic legitimacy.

PILaR is a complex intervention in a complex environment: urban space. It is not possible for any one of the actors involved to handle it all. At the same time, the actors are dependent on each other. When interactions are open and regular, and expectations are set correctly, the stakeholders will be able to influence each other's decisions and agree on the project's direction. A high level of participation must involve not only the community, but all stakeholders. When stakeholders feel that their ideas can shape the collective decisions, they will commit to and take ownership of the project. When this is achieved, a workable local governance structure has emerged.

Initially at least, PILaR focuses on just a single area. But it can have a wider impact on the city in two ways: as more PILAR projects are implemented, and by bringing together

a wide range of stakeholders to discuss concrete issues. It forces them to be practical, so may lead to a change in mind-set. That may in turn lead to legal and policy reforms.

POLITICAL VISION

Responsible land governance means managing the politics and power associated with land. The municipality has to be strong enough to regulate the private sector and ensure that the rule of law, rather than bureaucratic whim or personal favour, is paramount. A strong political vision is needed to do this. That requires both support from the top and champions within each unit in the municipality.

ADMINISTRATIVE SYSTEMS

Administrative systems must be transparent, participatory and accountable. They must be suited to the local situation. For example, they should take both formal and informal and customary forms of tenure into account; they should be easy to keep up-to-date; and they should make it possible for stakeholders to contribute and obtain information.

Most current administrative systems fall short on these counts. They recognize only formal ownership while ignoring the informal rights of the people who actually live in an area. They are often hopelessly outdated because land transactions have not been registered with the system. They are open only to the professionals who maintain them. New approaches, such as the Social Tenure Domain Model (Box 10 in Chapter 4)

combine participatory methods with digital technology to overcome these limitations.

Significant gaps still remain. For example, conventional land valuation systems usually do not cover the whole urban area, and there are too few specialists with the skills required. The poor often find the land they occupy is expropriated and they get inadequate compensation because its value is set too low. A valuation system for unregistered land based on local approaches would alleviate this.

Another example is in planning standards. Building codes and standards for things like road widths are often designed for an ideal situation – such as a smart middle-class suburb. They have to be adjusted to suit poorer areas.

STAKEHOLDER ENGAGEMENT

Robust civic engagement creates a vital bulwark against corruption. It can strengthen the city's governance structures by holding the municipality to account, requiring transparency and ensuring good governance.

Some municipalities already have a close dialogue with civil society organizations – NGOs, religious institutions and local businesses. This dialogue may be collaborative or combative. Other municipalities have fewer such ties. And organized groups may represent only part of the community – usually the more vocal and powerful individuals. It is necessary to ensure that women, the poor and vulnerable also have a voice.

The municipality needs to ensure meaningful consultation and negotiation through-

out the project cycle. These tasks should not be delegated to a community specialist alone; instead they should also involve the technical staff who are directly responsible for the activity under discussion. These staff may need training in negotiation and mediation skills. The community specialist can facilitate the interaction.

The interests of the community (or parts of it) may clash with those of the municipal government or other stakeholders. It is more fruitful to have a calm, informed negotiation rather than violent confrontation fed by rumour and misunderstanding. To maintain such a conversation, it is necessary to build the capacity of community members and groups, and to design a communication strategy to keep them informed. Two-way communication also enables land professionals to learn from the community. Only then will the various stakeholders be able to interact in a meaningful way. Community organizations and NGOs can play a key role in facilitating this.

The goal of community engagement is not to present a plan to the community and expect them to agree to it with minor changes. Rather, it is to build a plan together – one that reflects the interests of all and that a large majority can agree on (see Chapter 7).

Broad-based engagement takes time, effort and money. The project staff must be patient and willing to hold repeated discussions, modify plans and adjust decisions. Participants in meetings must be made to feel that their time is well spent and their feedback is taken seriously. A skilled moderator is needed to facilitate such meetings.

CAPACITY DEVELOPMENT

The municipality will need to develop the capacity of the relevant departments and its partner organizations to handle a PILaR project. Some key considerations include:

- Assess the capacity needs for the land readjustment process to be implemented, and the current capacity of the various staff, units and partners. Design and plan a capacity development programme to build on this and fill any gaps.
- Consider both “hard” (technical, functional, tangible and visible) capacity and “soft” (social, relational, intangible and invisible) capacities.
- Promote learning and capacity development in all aspects of the land readjustment process, including follow-up support.
- Enhance skills of both the municipal staff and other stakeholders (e.g., lawyers, planners, surveyors, community mobilizers).
- Incorporate capacity development into all relevant aspects of the PILaR project.
- Establish learning partnerships, including with other actors or institutions that have implemented PILaR.
- Use existing local knowledge and technical capacity and experience.
- Monitor and evaluate the capacity development process and adapt the programme as necessary.
- Encourage continuous learning to keep abreast of emerging issues.

For more information, see the Global Land Tool Network’s capacity development strategy, tinyurl.com/q30mnn5.

SETTING RULES

Engagement with the community and other stakeholders makes it possible to make decisions collectively. Because they are collective, such decisions have a good chance of being accepted by all concerned. The key rules concern:

- **Voting eligibility** Who gets to vote? In a conventional land readjustment, it is only the registered landowners who have a say (though in some countries, the municipality can overrule them). In PILaR, other stakeholders who occupy land (tenants, informal residents) also have a voice. Efforts are made to ensure that both rich and poor, and both men and women, can vote on a proposal. Some decisions may be voted on by all stakeholders; some by landowners only.
- **Vote weights** What weight should be given to each vote? Possibilities include one-household-one-vote, votes weighted according to the amount of land owned, and votes for landowners given more weight than tenants or occupiers.
- **Approval criteria** What is the majority required to approve a decision? Possibilities include unanimous consensus (not practical as it gives disproportionate power to holdouts), a supermajority of, say, 75%, and a double majority (the majority of voters holding the majority of the land area).

- **Land contributions** What proportion of land should each landholder be required to contribute? This will depend on the amount of land needed for infrastructure and public space, the amount the municipality will need to as a reserve, and the expected gain in land values. In the interests of fairness, it may be advisable to set minimum amounts and a sliding scale: holders of small plots do not have to contribute anything; holders of medium-sized plots contribute a certain percentage of their area; holders of bigger plots must give up more.
- **Basis for land contributions** Should the land contributions be based on the area of land, or its current market value? If there is no information on the market value, the current cadastral value (the value noted in the cadastre, which is used as a basis for taxation) may be used instead. Land that currently has a road frontage is likely to be more valuable than that without access. Other valuation approaches will have to be developed for land that is not in the cadastre.
- **Eligibility for benefits** Who is eligible to benefit from the project? In conventional land readjustment, only the landowners and municipality can claim benefits: the landowners get a smaller but more valuable piece of land, while the municipality gets a land reserve it can sell or develop. Tenants and illegal occupiers may be forced out. In PILaR, by contrast, they may be granted legal tenure or be given formal documents for a plot.
- **Holdouts** What should be done if some people refuse to participate in the project? Can they be legally required to cooperate – for example, forced to sell at the current market price? Every effort should be made to persuade holdouts to cooperate; compulsory acquisition should be a last resort. Extremely poor

“Currently not so many countries are able to undertake a PILaR intervention. Capacity development is needed so they are effectively able to implement the project.”

Rebecca Ochong, UN-Habitat



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-ochong

households should be given alternative accommodation and assistance to relocate.

- **Relocation** If people already reside in the area, will they need to move? Will the municipality provide them with new permanent or temporary accommodation? What about farmers who cultivate rural land? Will they be offered a new area to farm?

There is no one best answer to these questions. International, national and customary law may specify answers or provide guidelines. For example, national laws may protect tenants from eviction and give informal residents the right to occupy land. Such laws give them at least some power in negotiations with the landowners and the municipality. Similarly, some countries set the amount of land that each landowner must contribute.

However, a pre-existing law may make things more difficult. For example, a large land contribution may be needed to make way for roads and to cover the costs of providing infrastructure. If the contribution specified in the law is less than this, it will not be possible to put in the facilities required without finding outside funds.

Ideally, the rules should be determined collectively as a result of repeated discussions with the stakeholders, and taking the local situation into account. Once decided, the rules must be made clear to all. See Chapters 4, 5, 8 and 9 for further discussion on these issues.

MANAGING EXPECTATIONS

PILaR is not a quick fix: it takes time to design the project, reach agreement with the stakeholders, work through the bureaucracy and actually allocate the new plots. It will take even longer to build infrastructure and put up new housing (if the project aims to do this).

The implementing agency must help all stakeholders to have a realistic expectation on how long the process will take. It will be useful to set some interim deadlines: for holding public consultations, for signing agreements with the majority of households, and for completion of the land allocation. Progress should be reported to the stakeholders periodically to assure them that the project is moving in the right direction.

Many things can happen in the meantime: some predictable, others not. The real estate market may be volatile; political commitments change; governments come and go; global and national finances change. The community changes as well: people change jobs or become unemployed; children are born; couples get married or separated; people grow older and die.

All these changes make planning and implementing a PILaR project challenging. Only the willingness of the participating parties to stick together during uncertain or even bad times will ensure success. Close collaboration and relationships built on mutual trust are crucial for this.

PREVENTING SPECULATION

Engaging all stakeholders early on may open the door for some to engage in land speculation. As soon as they hear of a potential project, such opportunists start buying up plots of land or properties in the neighbourhood with the expectation that land prices will rise. This use of inside information is unfair on those who have not yet heard of the project – who are likely to be poor. It also tends to make it more difficult to negotiate the land exchange.

In addition, the situation in the field is constantly changing: people move in and out; plots are transferred from one person to another; buildings are constructed, modified or demolished.

Possible solutions include:

- **Moratorium** Set a date after which no changes are permitted in the list of people who are eligible for reallocated plots, or in the size of plot they are entitled to.
- **Right to purchase land** In addition, the implementing agency may ask lawmakers to give the municipality the right to buy land or properties from landowners or residents who want to sell after the project is conceptualized.
- **Construction freeze** Prohibit construction in the area after the project has been announced. See Chapter 8 for more.

PREVENTING CORRUPTION

Land is associated with corruption all over the world. Tricks include:

- The theft and illegal subdivision of public land.
- Falsifying documents.
- Public officials using their inside knowledge of the project plans to buy land cheaply.
- Public officials working unofficially for private-sector land speculators for gain.
- The alteration of project sites for private individual gain (shape of the site, number and width of roads, non-adherence to building regulations).
- Soliciting and accepting bribes from landholders, developers and suppliers.
- Poor standards of infrastructure and services.
- Changing project objectives (such as the aim to protect all residents) for individual private gain.
- The use of public money to build infrastructure on private land.

There should be zero tolerance of such ploys. Approaches include:

- Maintaining transparency in records and decision-making.
- Ensuring the community is engaged throughout.
- Setting clear rules for officials – and publicly disciplining those who transgress.

- Inviting an independent third party (such as an NGO specializing in anti-corruption measures) to monitor activities.
- Inviting the media to scrutinize the project.
- Interdepartmental coordination committees and task forces.
- Appropriate legal frameworks.
- Financial arrangements such as tax sharing.
- Capacity development and sharing of knowledge and data.

INTRA- AND INTER-GOVERNMENTAL COORDINATION

Bureaucracies are not monolithic. Municipal governments have various units, each with its own interests, priorities, work programmes and budget. They may have different understandings of the law. Managers and staff are only human: friendships and jealousies may help, hinder or bias bureaucratic functions.

Similar concerns affect collaboration with other levels of government and with neighbouring local authorities. An overarching strategy is needed to deal with this, and to make sure that weaker bodies are not steamrollered – for example, to ensure that the offices responsible for the environment or social issues are not overwhelmed or ignored.

Coordination can be improved in various ways:

- Top-level coordination of competing units in the municipality.
- The identification of an agency with the executive authority to undertake the function.
- A clear division of functions among government units to reduce overlap and eliminate gaps.

EVALUATION

At key stages during and after the project, it is important to evaluate progress and achievements. It is best to have an evaluation by an independent entity. It should include:

- A review of the project outcomes compared to the objectives established at the start (or as revised during the project) (Table 4).
- A review of the procedures followed.
- Discussions with the members of the management team, implementing agency and advisory committee to reflect on the process and outcomes.
- An exit survey of households to assess their satisfaction with the project.
- Interviews with key members of the municipality: the mayor, departmental heads, key staff and politicians.

An evaluation is useful at three stages in the process:

TABLE 4 SAMPLE QUESTIONS FOR EVALUATION

	Interim	End of project	Long term
	When the land readjustment plan is complete	After the plan has been implemented	5 years after completion
Governance	<p>Have the relevant public and private agencies been involved in developing the plan? Have they accepted it?</p> <p>Are the necessary institutional arrangements in place?</p>	<p>Did the institutional arrangements work as expected?</p> <p>What changes are needed to replicate the approach elsewhere?</p>	<p>What changes in institutional arrangements have been made?</p> <p>Have informal land rights been incorporated into the land register and cadastre?</p> <p>Have similar projects been done elsewhere?</p>
Legal	<p>Does the plan conform to the law?</p> <p>Have any recommendations to change the law been made?</p> <p>Does a grievance mechanism exist?</p>	<p>What legal problems have been encountered? Have they been resolved?</p> <p>Have any changes been made to the relevant laws or policies?</p>	<p>What changes have been made to the law and regulations?</p>
Financial	<p>Does the plan show how much each household will contribute? How much each will benefit?</p> <p>Will the plan be self-financing? How much will it cost the municipality? What other sources of funding are needed and available?</p>	<p>What did each household in fact contribute? What did they gain?</p> <p>How much better (or worse) off financially are they?</p> <p>What have been the actual costs to the municipality?</p>	<p>How have land markets and prices in the area changed?</p> <p>How much additional revenue (or costs) does the area generate for the municipality?</p> <p>Are residents better or worse off now?</p>
Planning	<p>Does the plan cover the whole area?</p> <p>Is it clear what infrastructure will be provided?</p> <p>Does it say how big the new plots will be and where they are?</p>	<p>Has the area been cleared (if necessary)?</p> <p>Has the promised infrastructure been installed?</p> <p>Have the new plots or properties been allocated to landholders and residents?</p>	<p>How has the urban fabric changed?</p> <p>Who has invested in the area?</p>

Interim	End of project	Long term
<p>When the land readjustment plan is complete</p>	<p>After the plan has been implemented</p>	<p>5 years after completion</p>
<p>Does the plan cover all the residents? Does it take the residents' needs and wishes into account? Does it consider vulnerable groups? Were residents involved in creating the plan? Do they know about it and how it will affect them? Have they formally agreed to it?</p>	<p>Have all residents been satisfactorily covered? Have their needs and wishes been taken into account? How happy are they with the results? Has everyone been satisfactorily relocated? Have they taken up occupancy of their new plots or properties? Have there been any forced evictions?</p>	<p>How many of the original residents are still in the area? How many of the vulnerable residents? Has social capital been strengthened?</p>
<p>Stakeholders</p>		

Remaking the urban mosaic

- An interim evaluation after the readjustment plan has been completed but before implementation has begun.
- An end-of project evaluation after the plan has been implemented.
- A long-term evaluation after several years.

The evaluation framework will depend on the specific situation. Table 5 suggests some broad questions.

The evaluation has several uses:

- It can help the municipality and other stakeholders learn from their experience

and judge whether PILaR was a good use of funds and an appropriate way to plan and implement land readjustment.

- It can help the municipality decide whether to repeat the PILaR approach in another area, or to scale it up to cover the whole city.
- It can guide the design of new legislation or the revision of planning and land laws.
- It should be documented to inform the design and implementation of future activities.

TABLE 5 EVALUATION FORM TO COMPARE THE SITUATION BEFORE AND AFTER A PILAR PROJECT

	Before	After
Number of residents		
Number of households		
Number of housing units		
Number of other structures		
Renters		
Average plot size		
Land value per square metre		
Number of businesses		
...		

4

LAND MANAGEMENT POLICIES

CONVENTIONAL LAND READJUSTMENT involves combining the plots of different owners into a contiguous area, then dividing it up again so it can be used more efficiently. PILaR takes this basic idea and uses it in a pro-poor way: it aims to balance the interests of the municipality, the landholders and vulnerable groups such as tenants and informal residents.

The implementing agency needs clear guidelines on what to do and the type of decisions it should take. This chapter considers the following policy issues:

- What are the general policy guidelines for a PILaR project?
- What criteria should be used in selecting a PILaR site?
- How will the needs and interests of registered landowners, landholders and other residents be balanced?
- How will the land contributions be fairly determined?
- How will the community be engaged in making decisions? How to deal with people who do not agree?
- How will land be valued?
- How will the land be transferred?

While policy guides the PILaR process, the process may also help to develop new policies, especially if it is new or unfamiliar in a country.

The land management policies discussed here are different from the broad, national-level policies that govern land ownership, access and use. Such national-level policies include whether land is held by the state, whether foreigners may own land, and whether customary rights are recognized.

GENERAL POLICY GUIDELINES

Below are some land management policy guidelines to consider in a PILaR project.

OVERARCHING

Related to the national urban plan The land readjustment should conform with and contribute to the overall national urban plan – for example, supporting the development of particular cities in the desired direction.

Part of a city plan Wherever possible, it should fit with a city-wide policy for urban

development. This will allow for economies of scale in institutional and legal structures and will create planning and financial advantages for the municipality and the city's inhabitants.

Improving efficiency The PILaR project should make the city more efficient, so contributing to sustainable urban development. Currently many cities and towns are dysfunctional because they do not have enough public space, their inner cores are decaying, a lack of streets cause congestion, slums are dangerous and insanitary places to live, and urban growth is unplanned. The project should try to alleviate such problems.

Building communities The project should result in a new configuration of formal plots and increased social capital of the local community. It should be used to build communities rather than to displace them through gentrification. That means involving the affected residents through participatory mechanisms throughout.

Strengthening the public sector The public sector's role in regulating the private sector should be strengthened. Too often the private sector takes all the gains from urban development projects, while the public sector uses public money to pay for the infrastructure and other costs. Instead, the private sector should take on more of the project burdens and the public sector should get more of its benefits.

Balancing the market and social objectives Economic distortions should be minimized by using the market, but balancing it with social objectives. Neither centralized planning nor unregulated markets benefit

the poor. Inclusive cities require better regulated markets which are transparent and competitive and also provide housing, security of tenure and community facilities for the poor, women and the vulnerable.

Urban–rural links The project, especially if it is on edge of the city, should try to create more coherent linkages between the urban and rural areas in terms of connectivity, governance, food security, environmental management, economic growth and poverty reduction. Urban and rural areas do not operate in isolation but instead are linked by the flow of people, goods and services. These linkages should be strengthened and made to work better to develop the economy and reduce poverty.

GOVERNANCE

Inclusiveness and equity Landowners, other landholders and all types of residents (owner-occupiers, tenants, informal residents) should be beneficiaries. Women, young people and indigenous groups (where appropriate) and the vulnerable should be accommodated in the project plan, and their requirements and wishes taken into account. All forms of legitimate tenures should be accepted, both formal and informal. All forms of non-criminal governance structures should be included as stakeholders, both formal and informal.

Stakeholder engagement A participatory approach with the affected community should be part of the entire project cycle. This aims to ensure that the project's pro-poor objectives are met. It helps the public-sector agencies to mediate the power

relations between the community and associated the private sector. See Chapter 7 for more.

Governance Decisions should be made transparently throughout. Corruption must not be tolerated. See Chapter 3 for more.

Communication The project should invest in communicating with the stakeholders in order to keep them informed, get their opinions, and avoid the risk of rejection by one or more stakeholder groups. See Chapter 10 for more.

LAND

Land rights The project must recognize that a continuum of land rights exists (Figure 10) to ensure that the land tenure of tenants and informal residents is enhanced.

Alternative land records Where the conventional land administration system (cadastre, land records, valuation) does not exist or is too expensive, alternative, pro-poor forms should be considered.

PLANNING

Appropriate standards Where conventional planning standards for plot size are not appropriate, smaller plot sizes that fit with occupation patterns should be considered. Road widths, community facility space and other public space should be optimized (UN-Habitat recommends a maximum of 30 percent of the land; countries may specify more or less than this). Future needs must be taken into account in setting planning rules.

Mixed use Mixed rather than single use should be considered (except for noxious uses).

Density The project should aim to create a compact, dense, well-connected urban area.

Improvement over time It is not necessary to put in all the infrastructure from the start. But it should include at least a minimum of infrastructure and services in order to encourage the stakeholders to collaborate.

Avoiding relocation The project should minimize the relocation of residents out of the project area. This is because the project is pro-poor and aims to prevent the growth of slums elsewhere.

Environmental protection The project should protect environmentally sensitive areas such as rivers, upper river catchments, steep slopes and wetlands.

Protecting farmland Agricultural productivity, food security and land degradation issues should be taken into account when planning the expansion of the city.

See Chapter 5 for more.

LEGAL AND INSTITUTIONAL

Strengthening the rule of law The project should be based on the existing legal framework. It should use the law rather than trying to bypass it. Procedures should be predictable, applied fairly and impartially.

Developing new law If no suitable legal framework exists, a new law should be passed to provide the legal basis for the project.

Developing regulations Appropriate regulations should be developed and piloted to implement the policy objectives. This will also help the national and local governments to think through the steps required, improve coordination among the institutions involved, and manage the project cycle.

Strengthening institutions The institutional framework of the municipality and other local authorities, as well as agencies such as the water and electricity boards and the roads department should be reviewed. These institutions should be strengthened if necessary to improve their efficiency, clarify their functions and increase their coordination.

See Chapter 8 for more.

FINANCIAL

Diverse financial options The financial model should include diverse financial options, such as whether the project will be self-financing, require public subsidies, require sales of land or housing to non-residents, or include low-interest loans or guaranteed loans. The financial aspects should be considered early because of the cost associated with any form of land readjustment.

Sharing of costs and benefits The sharing of the land value and the costs of infrastructure should be integral to the design. The benefits should be shared equally, but the poor should bear a smaller proportion of the costs.

Social benefit Impact investment (investments that produce a social benefit) should be encouraged. Speculation should be discouraged.

Self-financing As far as possible, the project should pay for itself.

Compensation for relocation The amount of compensation for relocation should be predictable, and managed through a due process. For non-legal landholders, the compensation should be weighted to low-income residents.

See Chapter 9 for more.

CHOOSING THE LOCATION

PILaR is a useful approach if the plots in a particular location are an inappropriate shape or size for the desired land use. For example:

- An area earmarked for low-rise housing that currently has lots of small, irregularly shaped plots.
- An area on the edge of the city that is divided into several fields, each with a different landholder. These fields must be combined in order to put in roads that link with the nearby main thoroughfare.
- A run-down inner-city area that needs to be redeveloped and more space given over to public parks.

In all these cases, the individual landholders have no incentive to redevelop their land separately – or if they do, the result would not be in the interests of the local residents or the city as a whole. No one wants to sacrifice their land to put in a road or park that will only benefit other landholders.

CRITERIA FOR SITE SELECTION

The site selection must be subject to the usual criteria for land development:

- The site must be **accessible** and connected to trunk infrastructure (roads, sewers, water pipes, etc.).
- It must have suitable **topography** for building (e.g., not on steep slopes or a swamp).
- It must allow for the intended (and permitted) **land uses and densities**.
- It must have minimal costs for the **environment** and **heritage**.
- It must fall in the **jurisdiction** of the proposed implementing authority.

Additional criteria that are specific to PILaR may include:

- It should be possible to redraw the plot boundaries without having to demolish too many existing buildings. The buildings have to be spaced so as to allow the permitted “setback” (the minimum distance a building must be from a road or boundary).
- The social situation must be suitable: for example, do not try to do a first-time PILaR project in an area with sky-high levels of crime.
- The majority of local landholders and residents must be in favour of the land readjustment.
- The current land records must be reasonably accurate and it is reasonably clear who the landholders are.

SITE SIZE AND BOUNDARIES

There is no optimal size for a PILaR project. But keep it manageable. Split a large site into several smaller projects to make it easier for the implementing agency to handle the planning, work with the local community, and achieve the objectives. What is “large” and “small” here depends on the situation.

The project area should ideally be contiguous. It is possible to have enclaves and exclaves to deal with specific situations. For example, parks and public spaces and other areas that are to be retained (such as cemeteries) may be excluded from the area subject to readjustment. An exclave may be useful to use as a temporary or permanent resettlement area for people displaced by the project (Figure 11).

The boundaries should be fixed early on in the project. This is to prevent speculation and to avoid the free-rider problem, where landholders refuse to have their land included in the project, but benefit from it because of the improved infrastructure or rising property values associated with the project.

The municipality may wish to use land readjustment over a large area of the city. It is best in such cases to divide the area into more manageable sections, and deal with each in turn (Figure 11). Start with the smallest and simplest to manage, and then move onto the next section when the first is complete.

PILOT PROJECTS

If this is the first PILaR project in the municipality, keep it simple. That may mean choosing a site on the edge of the city that is easily accessible, has only a few landholders, and has few or no informal residents. Check the prospect of getting consensus on redrawing the boundaries. If some landholders are reluctant to join, consider changing the project boundaries so their land is excluded. When they see the benefits of the project, they may decide to join in – as occurred in a land readjustment project in Thimphu, Bhutan.

Aim for simplicity, but not for over-simplicity. The pilot project site must be reasonably representative of other locations where PILaR might be used. The pilot site should allow the implementing agency to learn how to implement the approach and adapt it and scale it up in other, more complex locations.

LAND RECORDS

Once you have chosen a potential site, check the condition of the land registration records and other information about the current owners, landholders and residents.

The formal land records show the boundaries of each plot and who the registered owners are. In some places, these records are reasonably complete and up-to-date. In others, they are patchy, inaccurate, wildly misleading or even non-existent. A plot may have changed hands several times without

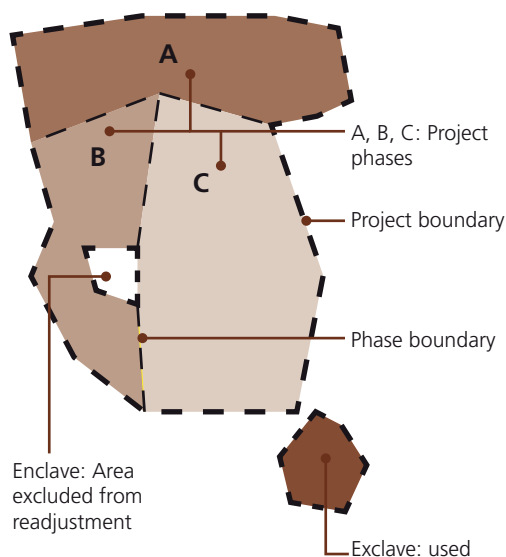


Figure 11 It may be advisable to do the project in stages

the registration authority being informed. The land may have been subdivided or built on. It may be occupied legally or illegally. The records may overlap or contradict one another – and they may have been falsified.

If the cadastral records are incomplete or out-of-date, you need to obtain any evidence that is available on property rights. You then use a series of public consultations and formal notification processes to update the list of claimants and claims. You will need information on:

- The extent and location of each plot.
- Any claims on the plot, such as easements, court judgments or mortgages.
- The current land use, including any permanent structures as well as long-term crops and fruit trees.
- The current land-use zoning, if any.

If land records do not exist at all, they need to be built from scratch. You can do this fairly quickly by using non-conventional methods: combining global positioning system equipment, satellite images, interviews with local people, various types of documents, and a mechanism to resolve disputes. The Social Tenure Domain Model is one way to do this (Box 10).

Such methods would need to be recognized by the authorities (to provide legal cover) and the community (to give social legitimacy). Agreement is needed on the types of evidence that are acceptable to back up a claim of long-term occupation. Ideally, when the exercise is complete, the records in the cadastral and registration offices will be updated to match the newly created and validated *de facto* records. If this cannot be done immediately, a legal instrument (such as a decree) will be needed to recognize the records in the meantime.

WHO HAS A SAY?

WHO GETS WHAT?

THE MUNICIPALITY

The municipality is normally the organization in charge of the land readjustment process (though it may call on NGOs or contractors to help with aspects such as community engagement, land clearance and infrastructure provision). It coordinates the process, manages the legal and admin-

istrative work, and maintains records. The municipal council must approve key stages.

The municipality may itself already own land in the project area – perhaps discrete plots, or the streets and other rights of way. This land should be included in the overall area for reapportionment.

The municipality will require a certain amount of land for roads, open space and other infrastructure. It may also need to reserve some land to build social housing or to sell to cover the project costs.

PILaR brings many potential benefits to the municipality:

- PILaR can help improve the urban fabric and realize the urban plan. It results in a more pleasant, safer and more efficient environment.
- The improvements result in higher land values and so greater income from taxation and land-related fees.
- It is cheaper and involves fewer legal hurdles and social problems than alternative ways for redeveloping land, such as compulsory acquisition.

LANDOWNERS

Formally registered landowners have the strongest rights to the land. In conventional land readjustment, they are the only group (apart from the municipality) to have a say in the readjustment process. In PILaR, however, the views of other groups are also taken into account. Typically, each landholder (not just the formal landowners) gets a readjust-

Box 10 Social Tenure Domain Model

The Social Tenure Domain Model is a way of recording who has what rights to what piece of land. It is a pro-poor, gender-responsive and participatory land information system developed by the Global Land Tool Network. It helps create land records quickly and cost effectively.

The approach is based around a computer program that shows a map (or aerial photograph) of an area. Local people (the **party** in Figure 12) can draw boundaries on the map to show plots; they can also point out buildings and other features (such as ponds or trees). For each plot or feature (the **spatial unit**), they can add annotations on who owns, rents, occupies or is allowed to use it (the **social tenure relationship**). These claims can be supported by various types of evidence: sketches, audio, video, scanned documents such as utility bills (the **supporting documents**). All this information can come from various sources, including participatory enumerations.

The computer program makes it possible to deal with overlapping and conflicting claims. For example, herders may have the right to graze their animals on a piece of cropland during the dry season. The Social Tenure Domain Model can show this; conventional land information systems have a hard time doing so.

Like all geographical information systems, the Social Tenure Domain Model stores information in layers: one layer for each type of information: land use, risk, transport routes, etc. That makes it possible to monitor the situations before and after the readjustment.

The Social Tenure Domain Model has various attributes:

- It takes advantage of the continuum of land rights concept.
- It uses participatory enumeration methods.
- It ensures that gender issues are reflected.
- It is affordable because it uses free, open-source software
- It is flexible to use: it can be applied in various situations and complements other tools
- It is simple to use: non-technical people can use it.
- It is inclusive: it can be used by communities such as slum dwellers, small landholders, as well as in formal situations.

Source: *GLTN/UN-Habitat* or see www.stdm.gltn.net/

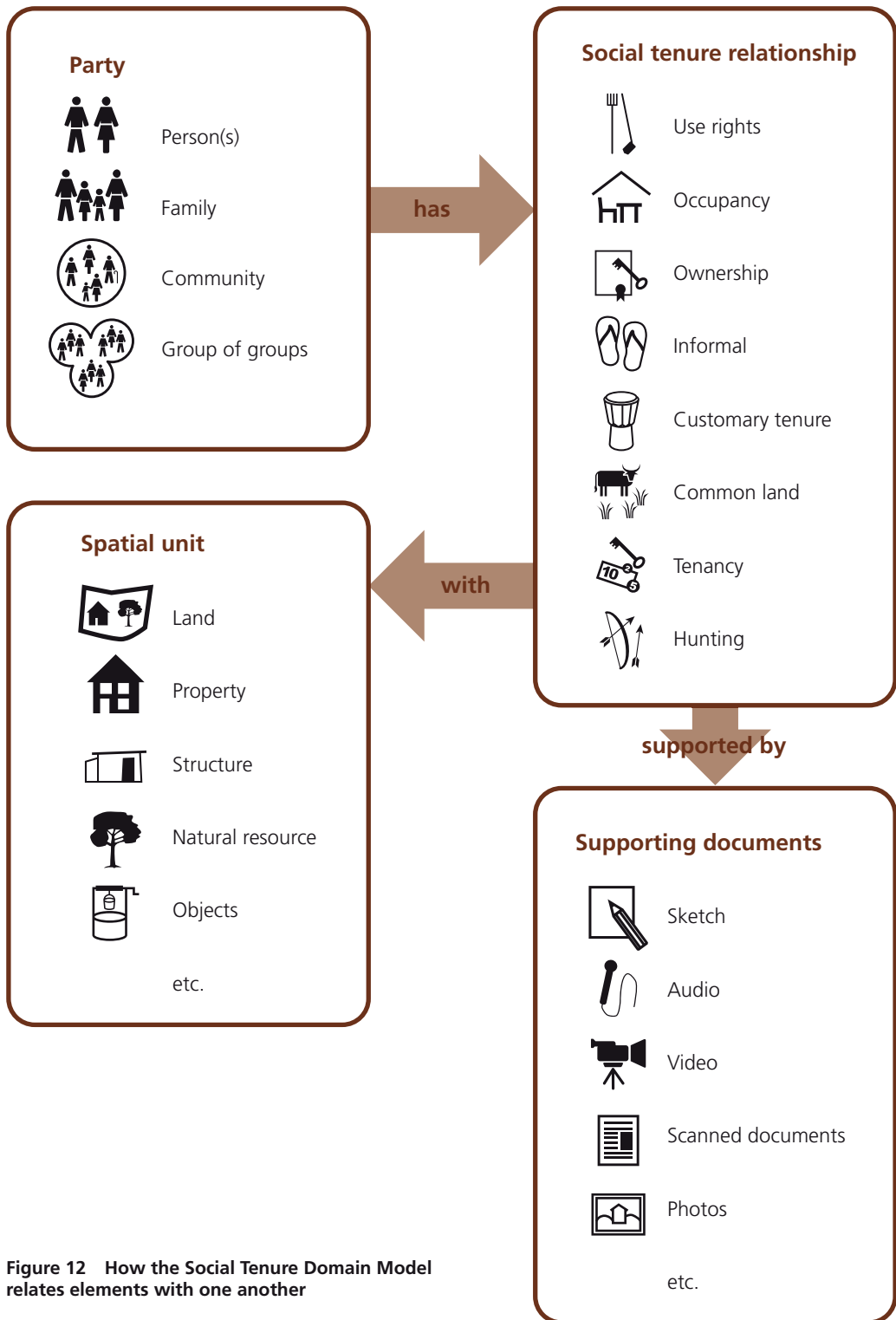


Figure 12 How the Social Tenure Domain Model relates elements with one another

ed plot proportional to the size (or value) of his or her original plot.

Landowners fall into different categories, each with different interests. Owner-occupiers and landowners who reside in the area may have different views from absentees. Large landowners may have different opinions from smallholders.

LEASEHOLDERS

Leaseholders usually have very strong long-term rights to use a plot or buildings. Depending on the age and type of the property, they may get a leasehold to the readjusted plot and the building on it, or compensation if the building has to be demolished.

TENANTS

Long-term tenants have stronger rights; they may be granted the right to rent property on the readjusted plot at a similar rent, or the municipality or landholders may find them an equivalent place to rent elsewhere.

Short-term tenants have weaker rights, but it is important to find a solution for them too so they do not end up as victims of the redevelopment process. One possibility is to reach an agreement with landholders for such tenants to rent accommodation at similar terms to their current arrangements.

People may rent land or buildings for residential purposes, or to use as workplaces such as shops. It is important to take their interests into account in order to maintain employment in the area.

Tenants of agricultural land usually cannot stay in the project area because the area will be built on. The project should try to find ways to ensure they are not disadvantaged by the land readjustment. For example, it might transfer their rights to other plots in the municipality, compensate them with a residential plot in the project area, or find other forms of compensation.

INFORMAL RESIDENTS

Options for informal residents include:

- Offer them low-income housing financed by the municipality in apartments built in the project area. Part or all of the costs of building such apartments can be covered by the increase in land values after the land readjustment.
- Offer them long-term leases for land or housing.
- Offer them a low-interest, long-term loan so they can buy a plot or a house.
- Use the land readjustment as the first stage in slum upgrading. Here, the area is cleared gradually, and the existing slums are replaced with higher-density housing. The informal residents get the right to rent one of the newly built apartments.

LAND CONTRIBUTIONS AND REPARCELLATION

You have selected the potential site, identified the plots, and identified who has a legitimate interest in each plot. You have worked out a way to accommodate the interests of other stakeholders. You can now move on to the design part of the project.

You will need to answer these questions:

- How much land is needed for roads, public space and other **infrastructure**?
- How much land must be **reserved** for municipal use – to sell or for social housing?

This will give you the amount of land that needs to be subtracted from the total project area.

- How should the contribution of each landholder be calculated – according to its **area**, or its **value**?
- Should larger landholders be required to **contribute more** than smaller landholders?

This will enable you to calculate how much land each landholder will be required to contribute.

LAND REQUIRED FOR ROADS, PUBLIC SPACE AND INFRASTRUCTURE

Enough land must be made available for roads, walkways, parking spaces, parks, squares and other public uses. The lack of public space is one of the things that makes a slum a slum: the houses are huddled so

close together that there is simply no room for such things. Adequate space must be allocated to make the area attractive to live and work, to allow the free flow of pedestrians and traffic, and to enable residents to relax. Land may also be needed for protected areas along river banks and steep slopes, utility lines (electricity, gas, water, sewerage), and to conserve natural and heritage sites. The proportion of land to be allocated for such uses may be set in the law.

LAND RESERVED FOR MUNICIPAL USE

The municipality may decide to reserve a certain proportion of the land for its own use. It may use this land in various ways:

- To build social housing for residents (usually tenants and informal residents) displaced by the land readjustment, or for low-income people from elsewhere.
- To sell to cover the costs of the project.
- To redevelop (for example, as a shopping centre), then sell or rent out.
- To use for administrative buildings or other municipal services.
- To hold for future needs.

LAND CONTRIBUTION RATIOS

How much land is needed for these purposes depends on the situation. It is often 40% or more (Table 6). In some countries or jurisdictions, the proportion is set by law. It may also vary within a country, depending on the type of project and the site's physical constraints. For example, if the site has very

small plots and few or no vacant plots, it may not be feasible for residents to contribute 40% of their land, as the resulting plots would be too small. In reality, the contribution percentage will be the result of a series of negotiations with the affected landholders and residents.

Do not set the contribution ratio too low, as this will leave too little land for public space and municipal use (Box 11).

In a multi-phase project (Figure 11), the land contribution amounts from each area may differ, depending on the situation and requirements in each. To avoid misunderstandings (and unless there are compelling reasons not to do so), it is best to calculate a single level of land contributions for the whole project, and then use this throughout (see later in this chapter).

**Box 11 Thimphu, Bhutan:
Setting the contribution
ratio too low**

In a Land Readjustment Project in Lungtenphu, part of Thimphu, the negotiated land contribution ratio ranged from 15% to 30%. This rate was popular, but was very low. When detailed calculations were done, 26.7 ha was needed for roads and a protected zone. This was twice as much as had been contributed for these purposes (14.3 ha).

Fortunately, the municipality owned land within the site, and some was used to make up the shortfall. But this subsidy compromised the project’s financial viability. Such subsidies also limit the replicability, a major issue in cities where many sites need readjustment.

TABLE 6 LAND CONTRIBUTION RATIOS AROUND THE WORLD

Proportion	Where
30%	Bhutan
About 40%	Japan, Thailand, Israel, Turkey, Germany
Up to 50%	Taiwan under modified Zone Expropriation approach
About 55%	South Korea
100%	Lebanon (compensation in the form of shares in the Redevelopment Co.)
Variable	Gujarat, India

ASSESSING THE VALUE OF LAND

Land readjustment always means making judgments about the value of land. The value of land can be defined in a number of ways. The value of farmland is often (but not always) determined by the amount of agricultural products it can yield. But the value of urban land is always determined socially – it can vary for many reasons: the type of actual and permitted use, the attractiveness of the location, the availability of services, etc.

Furthermore, land values are never static. Sometimes they change because of explicit decisions or actions by the municipality. Or they may result from changes in the demand for land. For example:

- The municipality may decide that an area designated for farming may now be built on.
- Better pedestrian access makes certain plots more attractive for retailers.
- The population increases, meaning more people are competing for a limited land area.
- A particular part of the city becomes a popular place for professionals to live.

PILaR and other land readjustment processes assume that the land values will go up as a result of the readjustment. This rise in value is main reason landholders are interested in the process. So it is necessary to quantify land values in a way that:

- Can be used to assess the relative contribution of each landholder.
- Is attractive to all the landholders.
- Is accepted as fair by the majority of landholders.
- Can be used to configure and allocate final plots after readjustment.

The share of value that each landholder contributes should be maintained when configuring and allocating the final plots.

Value is a relative concept and is subject to judgment and interpretation. For PILaR, there are three viable approaches to value: by land area, market value, or using market-like alternatives. In addition, it may be advisable to use a sliding scale for contributions, with large landholders contributing a larger proportion of their land more than small ones. The basis to be used may be defined in the law, or it may be possible to decide it to suit the local situation.

LAND AREA

This is the most straightforward approach and is the easiest to implement. The area of each plot in the project area is calculated, and the proportion of the total area is worked out. The landholder will receive a similar proportion of the final private land area (after deducting the area needed for public space and the municipal reserve). So if a landholder contributes 10,000 m², and the contribution ratio is 40%, he or she is returned a plot measuring 6,000 m² (10,000 m² minus 40%).

The area method is used if the initial land values are quite homogeneous, or if it is not possible to calculate the market values of the land. This may be the case if no information on land prices is available.

While it is easy to do, this approach does not take into consideration any variations in the current value of the existing plots. One plot may have more commercial potential, or better access to public infrastructure. The holders of these plots will probably want this to be taken into account. As a result, the land area will likely be used as a starting point, and variations from the basic proportions should be considered during the negotiation process. The process for approving such variations should be agreed upon in advance by all participants.

MARKET VALUE

Here, the amount of land each landholder gets back depends not on the size of his or her plot, but on its value. So a small plot that currently has road access or a building on it may be more valuable than a larger one away from the road and with no building.

If there is an active land market in the area and the prices are recorded, the prices paid can be used to measure the value of land. The value of each plot can be estimated from the prices paid for similar plots in the same area.

Enough information has to be available for this to work, and it has to be accurate enough. Some municipalities have valuation agencies that monitor land market values for tax or other purposes. It may be possible

to consult professional valuers or appraisers, or use informal networks that can provide the information needed. To get systematic access to land market information is likely to need professional specialists (Boxes 12 and 13).

If the land has buildings or other permanent improvements on it, it is still possible to use market transactions to estimate the value of the land itself. A normal transaction will reflect the combined value of the land and all the improvements. You just subtract the depreciated construction costs from the total price to get the land value.

Market transaction data can give an initial estimate of the value. One or more independent professional appraisers can be asked to assess the value of each plot. Even then, the landholder may object to the estimate, so negotiations may be required. If these fail to resolve any differences, it may be necessary to go to the courts. The land readjustment law should specify a speedy procedure to avoid having the entire project being tied up in the courts for years.

Judgments about market value are always subjective. Estimating the value for a particular plot is as much art as science, even if a wealth of data on market transactions are available. Estimating the value of a plot after readjustment is even more difficult. The value should be higher – but how much higher will not be known until after the project is completed. By then new plots will have been defined and allocated to landholders. Further adjustments to achieve equity will be difficult or impossible.

If the transaction data are available, the market value may be the best way to determine value. But do not expect it to resolve all valuation concerns.

MARKET-LIKE ALTERNATIVES

What if market data does not exist or is inadequate? It may be possible to use proxies to estimate the values, such as:

- The distance to a major business district or city centre.
- Proximity to public transportation, parks or other public infrastructure.
- Other known favourable location factors.

The choice of factors will be subjective, but they should if possible be directly observable. It can be difficult to predict how the readjustment will affect the final values. Many of the factors will not change as a result of readjustment.

Broad agreement, achieved through participatory discussions, is needed on the factors used. It may be necessary to use the courts to settle certain disputes.

GLTN is currently developing a way to value unregistered land. When it is complete, this tool will be useful to resolve issues concerning such land.

PERCEIVED VS ASSESSED VALUE

The value of land is in the eye of the beholder. Owners or residents may attach a greater value to a plot than the value it is assessed at. For example:

- It is where they were born; it has been in the family for several generations
- They have invested a lot of money and labour in improvements
- It contains sites they want preserved, such as a cemetery, religious buildings or trees
- They fear the disruption of moving
- They fear they will be separated from valued friends or neighbours, or the loss of convenient access to nearby facilities (shopping, transport, recreation, etc.).

The land readjustment should take these concerns into account where possible. For example, it may be possible to minimize moving people off their ancestral land, and to preserve valued sites. However, it is important to treat people equally: avoid allocating a higher value to one plot than another simply because of its sentimental value.

Owners and residents may sometimes value land at less than its market price (or lower than the figure arrived at by a professional valuer). They may do so because they are ignorant of the current market price, or they do not realize that with a little investment, their land would be worth much more.

In such cases, the project should not try to take advantage of the landholders' ignorance. It should treat them fairly. If they get rich because of the land readjustment project, they are much more likely to want to participate, and people in other areas will also be interested in future projects.

Box 12 Using betterment charges to fund infrastructure in Ahmedabad, Gujarat, India

In land readjustment projects, the state of Gujarat uses betterment charges (Box 14) to finance public infrastructure.

For each plot, the **market value** is estimated both before the readjustment and afterwards, based on a proposed design.

After an initial design stage, the **infrastructure costs** are estimated.

The municipality charges each landholder an amount based on:

- The gain in value for that landholder's plot, as a proportion of the total gain in value for the whole project area.
- The cost of investing in infrastructure for the whole area.

Landholders have the opportunity to review and respond to the proposed plan and financing scheme. Several iterations may be needed to modify the initial plan in response to public inputs and to resubmit it for further comments.

SLIDING SCALE

Here, the contribution ratio depends on the size of the landholding. People who hold a lot of land are required to contribute a larger proportion than those who have a small plot. This has three justifications:

- **Pro-poor** Richer landholders have to contribute more than poorer ones.
- **Practicality** If small landholders give up a large proportion of their plots, they may be left with a piece of land that is too small to use.
- **Regulations** Small plots may be below the minimum size on which it is permitted to build.

If one landholder has several plots in the project area, the areas of all those plots are added together to calculate that person's contribution.

Such a sliding-scale approach was used in "town planning" schemes in the city of Bhuj, India, as part of the reconstruction after the devastating 2001 Gujarat earthquake (Table 7).

MUNICIPAL LAND CONTRIBUTIONS

The municipality or other public bodies may already own land in the project site – such as existing roads and public space or discrete plots of land.

The municipality will have ideas on how this land should be treated in the readjustment. Options include:

- **Equal treatment** Treat it in the same way as privately held land: it is subject to the same rules for contributions and compensation as land held by other landholders.

Box 13 Land values in Germany

In Germany using land values for land readjustment started in 1960. It is now used in almost all projects. This is because the plots usually have very different values before the project.

The urban development laws create a win-win situation for both landholders and the municipality:

- The initial value of the plots is set taking the detailed urban plan for the project area, even if it is still a draft. The landholder's profit is thus the planning gain – the difference between agricultural land and land with planning permission.
- The municipality gains the increase in land value as a result of the land readjustment (e.g., for readjusting the plots and allocating space for roads, open spaces, etc.). It treats the plots after readjustment as building land.
- The building of roads and other public infrastructure usually is not included in the land readjustment project. It is financed separately: the landholders pay 90% of the costs; the municipality, 10%.

- **Separate treatment for public space** Carry over the area covered by existing roads and public space into the adjusted area for these purposes. Treat discrete plots in the same way as private land.
- **Use as a subsidy** Use the municipal land to reduce the contributions from other landholders. This was done in the Thimphu case (Box 11). Such subsidies are naturally popular among landholders, but reduce the municipality's financial gain and may endanger the project's financial viability.

COMPENSATION

In practice, it may not be possible to return precisely correct areas of land to the landholders. This may be because:

- It may be desirable from a planning point of view to have evenly sized plots in the reappropriated land.
- The plot may have constraints such as topography, a river or an irregular boundary that makes it impossible to mark out plots of exactly the right size.

In such cases, the difference can be made up in cash:

- If a landholder gets a plot that is smaller than agreed, he or she gets a cash payout to make up the difference.
- If the landholder gets a larger plot than agreed, he or she must pay the value of the difference to the project.

The compensation (or obligation) rate per square metre must be agreed beforehand.

Compensation can also be made in the form of a plot of land elsewhere.

TABLE 7 SLIDING SCALE FOR LAND CONTRIBUTIONS IN BHUJ, GUJARAT, INDIA

Original plot size (m ²)	Land contribution (%)
0–30	0
31–100	10
101–200	20
201–500	30
> 500	35
Public land	50

Source: Draft town planning schemes for walled city of Bhuj, prepared by Environmental Planning Collaborative, Ahmedabad, India.

Many land readjustment projects have buildings already on them. Where possible, these buildings should be taken into account when drawing the boundaries of the new plots. The building owner gets to keep the building (and the lessee or tenant has an option to stay in it).

In some cases, though, it may be necessary to demolish buildings. If this happens, there are two possibilities:

- The holders of the reconfigured plots must cover the demolition costs.
- The municipality can compensate the holders for the demolition costs. It can raise money by reserving a larger area that it can sell, or find the money from other sources.

Informal residents whose houses are demolished should be compensated for their loss.

In general, compensation should be fair, adequate and prompt.

HOLDERS OF SMALL PLOTS

Many countries specify a minimum size for plots that may be developed. Some enforce this limit strictly; others do not. In Istanbul, for example, the minimum plot size is 400 m².

Some landholders may already have plots that are below the limit, and the readjustment may leave others that are too small to build on. Here are options for such cases:

- **Purchase beforehand** The municipality buys the plots from landholders at the current market rate before the land readjustment.
- **Sliding scale** Do not require any land contribution (or require a smaller contribution) from such landholders. Other landholders must give up a larger proportion of their land to make up the deficit.
- **Cash payment** Do not require any land contribution (or require a smaller contribution), but ask for a cash payment from those landholders. In effect, they pay for the extra land they receive above their entitlement.
- **Joint assignment of plots** The holders of small plots contribute their entire area, and in return are jointly assigned a plot for their common use – for example to build multi-storey apartments. Or they may be given “sectional rights”: rights to part of a plot or building, plus shared rights to common areas such as stairways, entrance areas and gardens. See Table 17 in Chapter 8 for more.

VALUE OF PLOTS AFTER READJUSTMENT

It is also possible to take the value of plots after the readjustment into account. Some of the readjusted plots will be particularly valuable because of their location (e.g. close to a park, a favourable street position, or an attractive view); others will be less valuable. In general, the holders of more valuable plots before the readjustment should be awarded the more valuable plots afterwards. Working out the value of plots after the readjustment requires the skills of a professional land valuer.

LAND PURCHASES DURING THE PROJECT

The land readjustment process can take time, and some landholders may sell their land before the process is complete. In such cases, all the obligations and rights enjoyed by the holder at the start of the project are transferred to the new holder. Any values assigned to the land at the start continue to apply to the land, regardless of the actual sale price.

The buyer should be informed beforehand about the land readjustment project and how it will affect the plot, including any contributions that may be required.

To prevent speculation, the municipality may retain the right to veto sales that are overpriced. This right should be built into the law governing the land readjustment.

CALCULATING LAND CONTRIBUTIONS AND COMPENSATION

The calculations for contributions and compensation can quickly get complicated and fiddly. They have to take a wide range of concerns into account: the opinions of the landholders and residents, the planning rules, the site constraints, decisions by the municipal council, etc. They may have to be adjusted frequently as negotiations proceed, the situation changes and people change their minds. For example, a landholder may die during the negotiations, and the heirs may want a different arrangement. Or a landholder may sell a piece of land, bringing a new holder into the negotiations.

To handle these changes, create a master spreadsheet showing all the plots, their areas, values (if applicable) and landholders. Agree on the key parameters early on:

- The amount of land needed for public space
- The amount to be reserved for the municipality
- The contribution ratio
- The compensation rate.

Once these parameters are set, they can be used as a basis for negotiations.

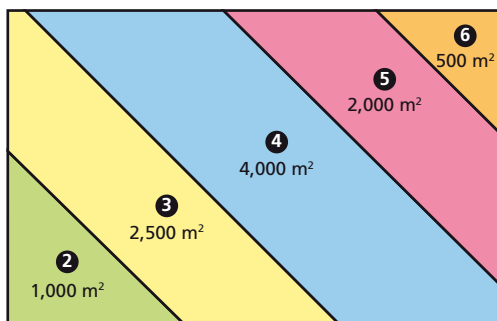
EXAMPLES OF REPARCELLATION

AREA-BASED, NO MUNICIPAL RESERVE

This is the simplest scenario. The site is held by five landholders. It is on the edge of the city, and is currently unoccupied. A uniform price per square metre is assumed; all the landholders are involved, and all agree to the reparcellation plan. No residents have to be relocated. The municipality requires 30% of the total area for a road and a park, but does not need any land reserved for its own use.

Figure 13 shows the original layout; Figure 14 shows the final layout; Table 8 shows the calculations. All the landholders give up 30% of their area. In return, they get a smaller plot with road frontage and services, and permission to build on it.

- **Landholder 3**, for example, starts off with 2,500 m². He ends up with two plots totalling 1,750 m².



Before land readjustment

② - ⑥ private landowners

Figure 13 Original ownership of area to be readjusted



After land readjustment

Land contribution ratio: 30%

① municipality ② - ⑥ private landowners

Figure 14 Land readjustment plan based on land area, with no municipal reserve

TABLE 8 LAND AREAS BEFORE AND AFTER READJUSTMENT – NO RESERVE

Land contribution = 30% for all landholders

Landholder	Before Area m ²	Land contribution Area m ²	After Area m ²
1 Municipality public space	0	0	3,000
2	1,000	300	700
3	2,500	750	1,750
4	4,000	1,200	2,800
5	2,000	600	1,400
6	500	150	350
Total	10,000	3,000	10,000

AREA-BASED, WITH MUNICIPAL RESERVE

Here, the municipality needs to reserve another 10% of the land (1,000 m²) for a building plot that it can develop and sell to cover the costs of putting in the road and infrastructure.

Figure 15 shows the original and final layouts; Table 9 shows how the areas are calculated. All the landholders give up 40% of their area.

Landholder 3, who started out with 2,500 m² ends up with a 1,500 m² plot.



After land readjustment

Land contribution ratio: 40%

1 municipality 2 - 6 private landowners

Figure 15 Land readjustment plan based on land area, with municipal reserve

TABLE 9 LAND AREAS BEFORE AND AFTER READJUSTMENT – WITH RESERVE

Land contribution = 40% for all landholders
Reserved land = 10%

Landholder	Before Area m ²	Land contribution Area m ²	After Area m ²
1 Municipality public space	0	0	3,000
1 Municipality reserved	0		1,000
2	1,000	400	600
3	2,500	1,000	1,500
4	4,000	1,600	2,400
5	2,000	800	1,200
6	500	200	300
Total	10,000	4,000	10,000

“The key factor, remember, is that land value is determined socially. Land values increase or decrease based on what is happening in the broader community.”

Larry Walters, Brigham Young University



Photo: Rainer Müller-Jökel

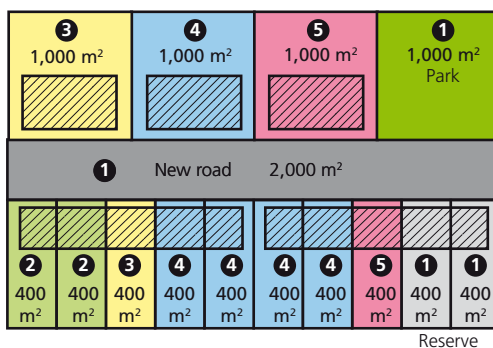


tinyurl.com/pilar-walters

CALCULATING COMPENSATION

Here the readjusted plots are standard sizes; each landholder gets one or more plots depending on their original landholding (Figure 16, Table 10). If someone gets less land back than the entitlement, that landholder gets a cash payout from the municipality. If the landholder gets more land back than the claim, he or she has to pay the municipality.

- **Landholder 3** gets only 1,400 m² after the readjustment: 350 m² less than he is entitled to (see the “Entitlement” column in Table 10). So the municipality must pay him compensation of \$35,000.
- **Landholder 2** gets 100 m² more than he is entitled to, so must pay the municipality \$10,000.
- **Landholder 5** gets exactly the right area of land back, so pays nothing.
- **Landholder 6** started off with the smallest plot. She was entitled to 350 m² of



After land readjustment

Land contribution ratio: 40% with building plots allocated

- ① municipality
- ② - ⑥ private landowners

Figure 16 Readjustment based on area with compensation for excess or shortfall

readjusted land, but after negotiations, decided instead to take cash compensation instead. She gets \$35,000.

- **The municipality** reserves an extra 800 m² of land to sell to raise the \$80,000 needed to cover the compensation costs.

TABLE 10 LAND AREAS BEFORE AND AFTER READJUSTMENT – WITH COMPENSATION FOR SHORTFALL OR EXCESS AREAS

Land contribution = 30% for all landholders

Reserved land = 8%, used to pay for compensation; compensation rate = \$100/m²

Landholder	Before	Contri- bution required	Entitle- ment	Land actually assigned	Differ- ence*	Compen- sation*
	Area m ²	Area m ²	Area m ²	Area m ²	Area m ²	\$
1 Municip. pub. space	0			3,000		
1 Municip. reserved	0		0	800	800	80,000
2	1,000	300	700	800	100	10,000
3	2,500	750	1,750	1,400	-350	-35,000
4	4,000	1,200	2,800	2,600	-200	-20,000
5	2,000	600	1,400	1,400	0	0
6	500	150	350	0	-350	-35,000
Total	10,000	3,000	7,000	10,000	0	0

* A **positive** number means the landholder has received more than his or her entitlement, so must pay for it. A **negative** number means the opposite: he or she gets less than the entitlement, so gets compensation.

CONTRIBUTIONS BASED ON LAND VALUE

All the examples above use the land area as the basis for calculating the areas each landholder is apportioned. They also assume that no tenants need to be included as beneficiaries. But some of the original plots may be currently more valuable for some reason: they already have road frontage or services; they are close to a park or shopping centre; they already have buildings on them. The holders of these plots will want this value taken into account in the land readjustment process – otherwise they may refuse to take part.

Basing the readjustment on the initial value is more complicated than using the land area alone. The idea is to find out how much each plot is currently worth, and work out

what proportion that is of the total value of the whole project area. It is then possible to convert these proportions into land entitlements. People with more valuable plots at the start end up with larger plots at the end.

In the example in Table 11, the land values vary from plot to plot. Plots 2 and 3 are more valuable because they are next to a road; they are valued at \$60 per square metre. Plots 5 and 6 lack road access; they are worth only \$40 per square metre.

The entitlement area depends not on the area of each plot but on its value. It is calculated like this:

Entitlement =

(Value of plot) / (Total value of project land)

× Total project area

× (1 – Contribution ratio)

TABLE 11 LAND AREAS BEFORE AND AFTER READJUSTMENT, BASED ON LAND VALUE

Land contribution = 30% for all landholders

Reserved land = 8%, used to pay for compensation; compensation rate = \$100/m²

Landholder	Before		Value \$ per m ²	Entitle- ment Area m ²	Land actually assigned Area m ²	Differ- ence* Area m ²	Compen- sation* \$
	Area m ²	\$					
1 Municip. pub. space	0				3,000		
1 Municip. reserved	0				800	800	80,000
2	1,000	60	60,000	824	800	-24	-2,400
3	2,500	60	150,000	2,059	1,400	-659	-65,900
4	4,000	50	200,000	2,745	2,600	-145	-14,500
5	2,000	40	80,000	1,098	1,400	302	30,200
6	500	40	20,000	275	0	-275	-27,500
Total	10,000		510,000	7,000	10,000	0	-100

* A **positive** number means the landholder has received more than the area to which he or she is entitled, and must pay for it.

A **negative** number means the opposite: the landholder receives less than the entitlement, and will be compensated for the shortfall.

Remaking the urban mosaic

For **Landholder 3**, this works out as:

Entitlement =

$$\begin{aligned} & \$150,000 / \$510,000 \\ & \times 10,000 \text{ m}^2 \times (100\% - 30\%) \\ & = \mathbf{2,059 \text{ m}^2} \end{aligned}$$

The actual land allocations can be approximated to the entitlements, or the differences can be made up by compensating the landholders in cash.

- **Landholders 2, 3 and 4** get compensation in addition to their new plots.
- **Landholder 5** gets a bigger plot than she is entitled to, so has to pay the municipality the difference.
- **Landholder 6** was entitled to a plot measuring 275 m², but she decided to take cash instead.
- **The municipality** sets up a fund to pay the compensation amounts. It sells the 800 m² of land it has reserved for this purpose. After paying off all the claim-

ants (and receiving the payment from Landholder 5), it earns a small profit of \$100.

Note that the compensation amounts are different from the previous example, where land area, not value, was used as the basis. Landholders 2 and 3 are better off as they had more valuable plots. But Landholders 5 and 6 are worse off than in the previous example because their plots were worth relatively little.

The municipality could earn more by setting the contribution ratio higher. That would give it a larger amount of reserved land. But it might run into opposition from the landholders, who will want to capture as much of the value of their land as possible.

SLIDING SCALE

Table 12 shows an example of using a sliding scale of contribution ratios to calculate the plot entitlements. The stakeholders

“The land readjustment in Bhuj was extremely pro-poor. For the landowners who had very small parcels, very minimal or zero contributions were taken. For public land and larger land parcels, higher contributions were taken.”

Shirley Ballaney, HCP Design, Planning and Management, Gujarat, India



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-ballaney

TABLE 12 LAND AREAS BEFORE AND AFTER READJUSTMENT, SLIDING SCALE OF CONTRIBUTIONS

Land contribution = variable according to land size. Overall = 30%

Landholder	Before		Land contribution	After
	Area m ²	%		
1 Municipality public space	0			3,000
2	1,000	15%	150	850
3	2,500	30%	750	1,750
4	4,000	40%	1,600	2,400
5	2,000	25%	500	1,500
6	500	0	0	500
Total	10,000		3,000	10,000

agree that the smaller landholders need to contribute a smaller proportion of their land than larger landholders. The holders of the smallest plots do not have to contribute any land at all.

The scale is set so landholders with over 3,000 m² contribute 40% of their area, and those with smaller plots contribute progressively smaller proportions. Those with 500 m² or less contribute nothing. Over the whole project area, the landholders contribute 30% of the land for public use.

STAKEHOLDER ENGAGEMENT

All the stakeholders have different interests. The success of a PILaR project depends on gaining their support and finding a solution that is acceptable to all (or to as many people as possible). It is important to engage the stakeholders to win this support and to

ensure that the readjustment reflects their needs and wishes. See Chapter 7 for ideas on how to do this.

PILaR aims to ensure that all the stakeholders are better off as a result of the readjustment process. That includes informal residents and other people with informal rights. As a guide:

- No-one (or as few people as possible) should be forcibly evicted.
- Everyone with a recognized formal or informal claim to the land is compensated either by an equivalent plot or in cash.
- Everyone who resides on the land has the right to continue residing there after the reapportionment, in housing of an equal or higher quality, and at the same rent.

NEGOTIATING LAND CONTRIBUTIONS

The level of land contributions depends on negotiations with the stakeholders involved – principally the existing formal landholders. The negotiations must take the project objectives into account, and must be transparent and open. The municipality will need to set aside a certain amount of land for public space; this amount may be specified by law. It may also need to reserve a certain area, for example for social housing. Make sure the stakeholders understand this.

Use visuals (images, plans, maps and charts) to illustrate various scenarios and to show the additional space requirements. Show possible locations for public facilities such as parks, schools and social housing, and make sure these are thoroughly discussed.

Advise the stakeholders on the implications of the choices. Do they want a solution that satisfies their immediate needs, or that complies with the minimum standards set by law? Or should they think of the longer term, when there may be more people and vehicles to accommodate? Fulfilling current needs may permit smaller land contributions but may stifle development and limit the land value; planning for the future will probably require larger contributions.

The stakeholders may reasonably expect to contribute less land if roads already exist and just need widening. If only part of the infrastructure is to be constructed, or if it will be delayed, this should also be factored into the negotiations. Municipal land, if it exists, may be used to make up a shortfall from lower private land contributions.

The negotiations must also take the project's financial model into account (Chapter 9). This includes a professional estimate of the costs of the readjustment process and the public goods (roads, parks, public buildings) that it creates. It also identifies and quantifies the sources of funding for these expenses, such as the municipality's capital budget, national government funding, income from the sale or renting of reserved land.

If these sources are insufficient, it will be necessary to scale back the public goods that can be built, or to find other ways of paying for them – such as through a higher tax on the readjusted land, charging a betterment levy (Box 14), or by increasing the amount of land reserved for the municipality.

HOW MANY LANDHOLDERS MUST AGREE?

Not all the landholders may agree with having their land included in the readjustment. Some may refuse to have anything to do with the process; others may disagree with the way the reparcellation is done, the amount of land they get in return, or the compensation they receive. Requiring 100% agreement is a recipe for inaction.

Laws vary from country to country and among municipalities. In Germany, the municipality can make a unilateral decision: none of the landholders have to consent for the project to go through. In others, the law sets a minimum threshold: at least 50%, and usually two-thirds or more, of the landholders must agree before the readjustment can proceed; the other landholders are then obliged to collaborate (Table 13). In prac-

Box 14 Betterment

Betterment is the difference between the value of a piece of land before and after an action by local government that results in an increase in private land values.

Here is an example. You own a piece of land. The municipality builds a road along one side of it. The value of your land instantly increases (you now have road access) without you having done anything. The increase in the land value is called **betterment**.

A **betterment tax** (or charge or levy) is where the municipality taxes you for the gain in value. It is also known as a **land value increment tax**.

tice, a scheme seldom proceeds against the wishes of a sizable minority.

In PILaR, the plan must be prepared in a participatory manner and supported formally by a supermajority of landholders (e.g., >50% of the landholders holding >50% of the land). It must also be endorsed by more vulnerable residents such as short-term tenants and informal residents. The law may require this; if not, try to get their endorsement anyway.

Why a supermajority? This is needed to prevent a large number of holders of small plots from making decisions if they control only a minority of the land area. Similarly, it prevents a few large landholders from deciding the fate of an area where thousands of people live. The municipality must ensure that the rights of the majority are not harmed by the decisions of a few people who happen to hold the land.

HANDLING HOLDOUTS

If a large number of landholders refuse to cooperate, there may be something wrong with the readjustment terms, or with the whole project concept. It may be necessary to revise the terms considerably, revamp the whole concept, develop the land in a different way (such as using compulsory acquisition), or drop the development project altogether.

What if only a few landholders do not agree? The legal framework may determine how such holdouts are handled. Some options:

- **Try to persuade them** of the advantages of the project.
- **Sweeten the deal** to win them over. Note that any such changes must be applied fairly to all landholders, not just for those who are most influential or tenacious.

TABLE 13 CONSENSUS RATIOS AROUND THE WORLD

Proportion	Where
85%	Indonesia
Two-thirds	Bhutan, Japan, South Korea, Taiwan
51% of land area	Colombia
None	Taiwan (Zone Expropriation model that combines land readjustment with expropriation) Germany, Turkey, some other European countries

- **Redraw the project boundaries** to exclude the holdouts' land. This is possible only if their plots are on the edge of the project area and the changes can be accommodated in the urban development concept. But it is not a good idea as it can lead to a "free-rider" problem that gives people an incentive to refuse cooperation: they stand to gain the benefits of the readjustment without having to contribute to its costs. Others in future projects will learn from this and also refuse to participate.
- **Force them to cooperate.** That requires the force of law and courts that adjudicate cases speedily.
- **Expropriate them.** This also depends on there being a law that allows this.

BARGAINING CHIPS

The municipality can sweeten the deal for landholders or other stakeholders in various ways. Some examples:

- It can grant (or withhold) permission to develop a particular piece of land – for example to convert it from farmland to urban use, or to zone it for uses such as industry or retail.
- It may own land in the project area that it can throw into the pot, so reducing the contribution required of other landholders.
- It may be able to adjust the regulatory framework, for example by specifying different plot sizes, the amount of public space required, the floor area ratio (Box 15), or the maximum or minimum per-

mitted building heights. It can also use mechanisms such as the transfer of development rights (Box 16) to encourage or prevent building in an area.

- It can adjust the plans for providing infrastructure – such as the road layout, pavement width, provision and location of green space, and the location of bus stops, railway stations and retail space.
- It may adjust the amount, quality or location of social housing it plans to build.

RESOLVING DISPUTES

Disputes are inevitable in situations with non-existent, incomplete and outdated land records. Several parties may all lay claim to the same piece of land. Some parties may be unknown, absent or deceased. Some plots may be held by organizations with unclear

Box 15 Floor area ratio

The **floor area ratio** is the amount of floor space in a building, divided by the area of the plot the building occupies.

A multi-storey building with 300 m² of floor space that occupies a plot of 100 m² has a floor area ratio of 3.0.

Municipalities can set maximum or minimum floor area ratios for buildings in a particular area. A high floor area ratio means the area will have dense housing or high-rise buildings. A low ratio will have single- or two-storey buildings with space between them.

The floor area ratio is also known as the **floor space ratio, floor space index, site ratio or plot ratio.**

or very slow, bureaucratic decision-making procedures. Some people are tempted to falsify claims so they can gain from the increase in land values. Disputes may also arise over the layout, size and assignment of the new plots.

Disputes can be resolved in various ways:

- **Community mechanisms** are usually quicker and easier than using the court system.
- A **land-readjustment committee** can adjudicate the disputes. This committee should include professionals (such as a surveyor or planner), a municipal representative, and substantive representations from the affected community.
- Use the **court system**.

Depending on the situation, it may be advisable to:

- **Try to resolve all the disputes** and unclear titles as part of the land readjustment process.
- **Carry the disputes over.** Do not attempt to resolve such issues; the land readjustment is done and the disputes are merely carried over to the reapportioned plots, to be resolved later, perhaps through the courts. An unresolved dispute of fairly limited scope should not hijack the broader land readjustment objective.
- **Exclude the problematic plots** from the project area.

Box 16 Transfer of development rights

The **transfer of development rights** is a way of encouraging development in one area while discouraging it in another.

For example, a landowner owns land in an environmentally sensitive area. She transfers the development rights to another plot she owns on the other side of town, in a location designated for development. She can then put up denser housing on the land than would otherwise be permitted.

The landowner may also sell the development rights to another landowner, or to a bank, which sells them on to someone else who wants to build on their land.

Laws regulating the transfer of development rights exist in some states in the United States.

RELOCATION

In urban areas, it may be necessary to demolish certain buildings and relocate some residents or businesses. Ways to deal with this:

- Compensate those affected in cash or provide them with rental assistance.
- Find temporary housing or premises for those affected. Rebuild the facilities, then allow them to move back in.
- Find permanent alternative accommodation for those affected.

The costs of relocation and rebuilding must be covered either by the project itself or by other funds.



5

PLANNING AND DESIGN

THIS CHAPTER DESCRIBES how to turn the general policies and agreements described in chapters 3 and 9 into maps and plans. This is the province of urban planners and architects. But it should not be dominated by technical considerations. As with all stages of PILaR, the community should have a major input into the planning process, and their approval is needed before the plans can be put into effect. Indeed, that is a big difference between PILaR and conventional land readjustment: PILaR aims to help the poor. It recognizes the rights of all stakeholder groups – landowners, tenants and occupiers – and the community has a big say in what happens.

This chapter covers the following topics.

- Setting the planning and design objectives (Box 17)
- Recognizing the development and tenure situation
- Conforming to and adapting the local planning system and guidelines
- Setting planning principles and policies
- Planning the project area
- Stakeholder involvement in planning.

Box 17 Planning vs design

Planning and design differ in their scale, orientation and how they treat space.

	Planning	Design
Scale	Region, community, activity centre	Street, park, transit stop...
Orientation	Utility	Aesthetic, functional
Treatment of space	Two-dimensional, uses plans	Three-dimensional, uses models, sections and elevations

Adapted from Ewing (undated).

SETTING PLANNING AND DESIGN OBJECTIVES

The planning objectives depend on the overall project's economic and social objectives. Examples to consider and adapt to your situation:

- To provide enough land for streets, public facilities and other public space.
- To provide enough serviced land in a timely manner.
- To improve access to public basic services and to make the access more equitable.
- To create infrastructure and encourage employment creation that benefit the city as a whole.
- To provide land for social housing that is well integrated into the area, thereby creating a social mix.
- To reserve enough land to finance infrastructure costs, enabling the project to be self-financing.
- To renew and densify the city centre.

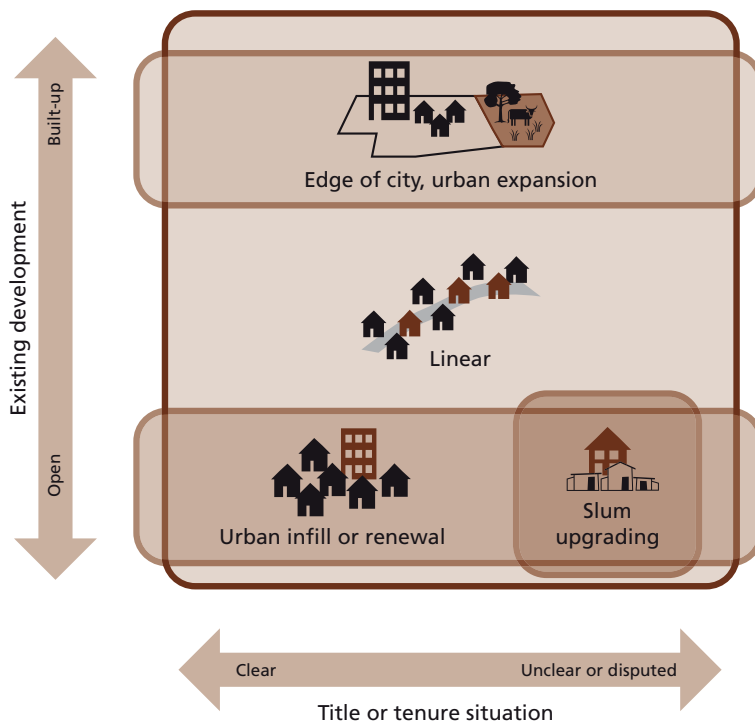


Figure 17 Land readjustment in various development and tenure situations

RECOGNIZING THE DEVELOPMENT AND TENURE SITUATION

The design will depend on the situation. An area that is already built up will impose more constraints, and require a very different plan, from a greenfield site. The tenure situation is also important: one where there are only a few freeholders will be different from a situation with many landholders and tenants, or where land ownership is unclear or disputed, and where many residents are informal. Figure 17 summarizes the likely situations – though in reality, things may be more complicated than this.

CONFORMING TO AND ADAPTING THE PLANNING SYSTEM

The objectives and approach used in PILaR will have to be combined with the planning system used in your municipality. That means working with the existing organizations and tools, and complying with the current legislation and planning guidelines, norms and standards. It may be necessary to adapt the legislation and guidelines, especially if PILaR is new to the country or municipality.

CURRENT PLANNING SYSTEM

Most countries have legislation on urban planning and organizations that deal with it. Before starting to design the land readjustment, find out what the rules say and get to know the organizations and key staff involved. Identify any likely points of friction or conflict. Find out how the PILaR process can be implemented within the system, and whether any changes are needed to let it run smoothly.

Specific laws on land readjustment, or provisions in other laws, may exist. If so, they will guide how the project proceeds.

Traditional or customary rules for land management may also be important. Find out what they are and who (such as the local chiefs or clan heads) implements them.

If there is no formal or customary planning system that can be used for land readjustment, or if the system has gaps, you may have to develop one. The PILaR project can create the basic planning and legal formulations to fill the gaps. Try to avoid creating new organizations or ad-hoc rules. Instead, help the existing organizations implement the PILaR process, and try to develop provisions that can be used elsewhere – in other parts of the municipality or in other cities. Test the approach in the pilot area, then use it as the basis for countrywide legislation and policies.

PLANNING GUIDELINES, POLICIES, NORMS AND STANDARDS

National legislation or local rules on a wide variety of subjects are likely to affect the

PILaR plans. These may come from a wide variety of national and local government bodies. Table 14 gives a partial list.

It may be necessary to develop new guidelines for use in the PILaR project. Where possible, these should be designed so they can be incorporated into national guidelines and used elsewhere.

While it is important to comply with current laws, most national standards and norms provide recommendations rather than strict rules. They may be set too high for some situations, such as for slum upgrading. That makes them impractical, too costly or too socially unacceptable to enforce.

Consider modifying the planning norms to reduce the cost, improve their feasibility and make them more socially acceptable. Keep in mind the need for public health and safety. For example, it may be possible to reduce the amount of space needed for roads in a densely populated area by designing pathways for pedestrians between the houses.

REGULATORY VS DISCRETIONARY PLANNING

Countries have either regulatory or discretionary planning systems.

In **regulatory** planning systems, development rights are assigned in advance, and

TABLE 14 EXAMPLES OF POLICIES, LEGISLATION, STANDARDS AND GUIDELINES THAT MAY AFFECT A PILAR PROJECT

<p>Policies and legislation</p>	<p>Urban, land, spatial and environmental policies Land laws – cadastre, transfer, change of use, subdivision, amalgamation, etc. Development adjoining water courses Development of industries Regulation of coastal and forest areas Laws on the protection of agricultural and pastoral areas Urban renewal laws Development along high-tension power lines Development abutting highways, airports, defence areas Slum improvement Heritage Environment laws</p>
<p>Standards</p>	<p>Proportion of open space, road widths, building heights, floor area ratios, densities, setbacks, dimensions of plots/sizes, etc. Per capita open space and amenity requirements Parking standards Per capita water consumption norms, treatment norms</p>
<p>Guidelines</p>	<p>Valuation Open space design Street design</p>

planning and implementation are administrative procedures. Land readjustment has to comply with a hierarchy of existing plans, and local planners have little possibility to adapt them. If they try to do so, the courts may stop them.

In **discretionary** systems, the planners have far more room for manoeuvre. The project can make decisions, and these can be incorporated into the larger urban plans. The disadvantage of such systems is that they involve a lot of uncertainty for all involved, and there is a risk of municipal decision-makers ignoring the rights of other stakeholders. To avoid this, it is necessary to negotiate agreements with the people affected.

SETTING PLANNING PRINCIPLES AND POLICIES

PLANNING POLICES

You will need to decide on policies to govern the land readjustment planning process. These include:

- The physical, topographical and socio-economic surveys required.
- The land records and other requirements needed to create a base map showing the original plots.
- The rights of owners, landholders, tenants and informal residents.

Box 18 Encumbrances and clearances

In land administration jargon, an **encumbrance** is a claim on land or property that diminishes its value but does not prevent ownership from being transferred.

An encumbrance may be financial (such as a mortgage) or non-financial (such as a right of way that crosses the land).

A **clearance** is an official permit from the authorities to do something that would otherwise not be allowed. For example, an environmental clearance may give a landowner the right to cut down trees on the land.

- The contribution ratio and basis of calculating this (land area or value) (Chapter 9).
- The valuation method to be used (land area, market value, market-like).
- The treatment of small plots (e.g., a sliding scale, minimum plot size).
- The treatment of encumbrances and clearances (Box 18).
- The types of infrastructure to be provided, and how it will be built and maintained.
- The financing model to be followed (Chapter 9).

Box 19 UN-Habitat's five principles for sustainable neighbourhood planning



Adequate space for streets and an efficient street network. Streets should occupy at least 30% of the land. There should be at least 18 km of streets per km².



High density. Aim for at least 15,000 people per km², or 150 people/ha or 61 people/acre.



Mixed land use. Allocate at least 40% of the floor space for economic use.



Social mix. Make houses available in different price ranges and tenure types to accommodate different incomes. Allocate 20–50% of the residential floor area for low-cost housing. No tenure type should occupy more than 50% of the total.



Limited land-use specialization. Limit the number of single-function blocks or neighbourhoods. Single-function blocks should cover less than 10% of the neighbourhood.

Source: UN-Habitat (2014)

PRINCIPLES OF SUSTAINABLE NEIGHBOURHOOD PLANNING

UN-Habitat's five principles for sustainable neighbourhood planning are a useful basis for planning (Box 19). Use these as guidance; you may need to adapt them to the local situation and your project objectives.

PROVIDE ADEQUATE SPACE FOR STREETS AND AN EFFICIENT STREET NETWORK

The street network should accommodate vehicles and public transport, as well as pedestrians and cyclists. It should have both arterial routes and local streets where speeds are lower. The street network shapes the urban structure: it determines the location and shape of the blocks and of open spaces.

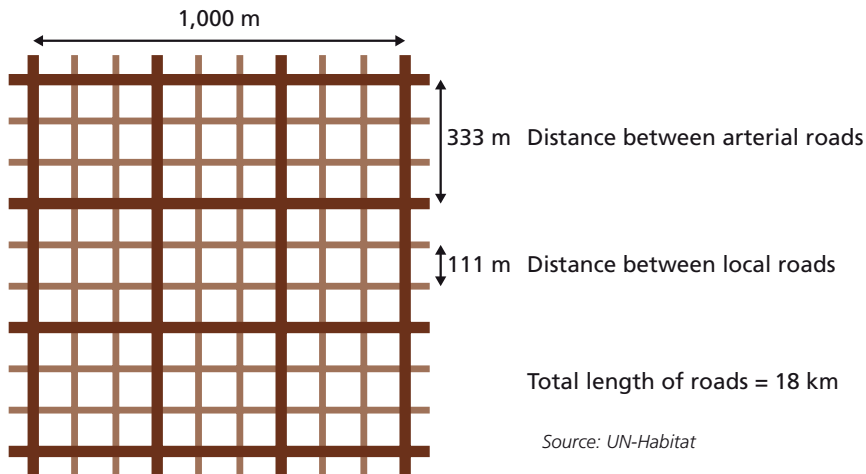


Figure 18 Example of a street network covering 1 km²

UN-Habitat recommends that at least 30% of the land in a neighbourhood should be allocated to streets. This figure is for high-density, mixed-use urban areas, of the sort that result from a PILaR project. Another 15–20% is needed for open public space.

When planning the street layout, make sure that the network is highly interconnected, and that the streets are walkable and cyclist friendly. Encourage public transport, and provide enough parking space.

A “walkable” neighbourhood means that everywhere is within about 400–450 m of key services, such as a bus stop. That means that there should be about 800–1,000 m between two arterial routes, with a network of smaller local streets between them. Figure 18 shows an example of such a street network.

PROMOTE HIGH DENSITIES AND COMPACT DEVELOPMENT

Urban sprawl has many drawbacks: it eats up valuable farmland, causes traffic congestion and pollution, increases the costs of providing services, increases dependency on cars and the need for parking, and encourages segregation into richer and poorer areas.

The most desirable density depends on the situation. UN-Habitat recommends a density of at least 150 people per hectare, but higher densities are common: in some Asian countries, 400 to 600 people per hectare are being encouraged. Developed countries or those with a lot of land may want to set a lower target and work progressively towards increased density.

Some people worry that higher densities mean more crime or other social problems. This is not so. A well-designed and organized high-density neighbourhood can be safe and comfortable.



Figure 19 Street network created through land readjustment in Ouagadougou, Burkina Faso

PROMOTE MIXED LAND USES

Separating people from their work forces them to commute – with the problems of congestion, pollution and waste that this brings. Mixed land uses allow people to live near where they work. That creates local jobs, promotes the local economy, reduces car dependency, encourages pedestrian and cyclist traffic, reduces landscape fragmentation, allows public services to be closer, and supports mixed communities.

UN-Habitat recommends that at least 40% of the floor space should be allocated to economic use. Mixed land use means a combination of residential, commercial, industrial, office, educational, recreational and other uses. Noise and pollution should be kept to a minimum to protect the well-being of the community and to keep the area pleasant. Noxious uses should be prohibited.

PROMOTE SOCIAL MIX

A problem in many cities is the increased segregation of social classes. This results in ghettos occupied by the disadvantaged, alongside gated communities where the privileged few reside. The ghettos are starved of services, while the rich can safely ignore the needs of the poor.

A rich social mix is healthier for city life. It results from a mixed land use: jobs are created for residents of different backgrounds and with different income levels. People live and work in the same neighbourhood and form a diverse social network with greater cohesion and services available for all.

UN-Habitat recommends making a range of housing available at different price ranges and suited for different types of tenure. Between 20 and 50% of the residential floor area should be allocated for low-cost housing. No tenure type should occupy more than half of the total.

LIMIT SPECIALIZED LAND USES

Specialized land uses are the opposite of mixed uses. Zoning one area for residential purposes and another to industrial use forces people to commute from one to the other twice a day. Putting retail areas out of town makes it hard for people without cars to go shopping, and leaves the rest of the city as a “food desert”, served only by fast-food chains and convenience stores.

Restricting the size of specialized land uses can prevent such problems. UN-Habitat recommends that single-function blocks should cover less than 10% of the neighbourhood.



Figure 20 High-density urban use: Jaipur, India

Source: Google Earth. Image © 2015 Digital Globe

PLANNING THE PROJECT AREA

Once the planning principles have been decided, it is time to start planning the area. You will need a map (or series of maps at different scales) showing the boundaries of the current plots and the existing infrastructure.

LINK THE PROJECT AREA WITH THE REST OF THE CITY

The project area will need adequate links with the rest of the city – in terms of roads, public transport and utility lines. For an area on the edge of the city, this will mean planning new roads and other infrastructure links to connect it with the urban area (Figure 21). For areas subject to urban renew-

al or slum improvement, it may mean upgrading existing routes to and through the area, taking the existing urban fabric into account.

DEFINE A FUNCTIONAL HIERARCHY OF STREETS

It is easier to plan a new network of streets on open land at the edge of a city (Figure 22). It is harder in inner city or slum renewal projects, when existing streets, buildings and residents must be considered.

RESPECT THE NATURAL TOPOGRAPHY

The design for infrastructure must be aligned to the natural topography: roads must avoid steep gradients, and drains must run downhill (Figure 23).



Source: Improvement Scheme Kirmiti for Nagpur Improvement Trust, prepared by HCP Design, Planning and Management (HCPDPM), Ahmedabad, India. Courtesy HCPDPM

Figure 21 Connectivity to the city and major transport networks, improvement scheme, Nagpur, India

ENSURE ACCESS TO WATER, SEWAGE, ELECTRICITY AND OTHER UTILITIES

Utility lines must be located on public land – typically under or above streets or pavements (sidewalks) – to enable easy access for maintenance and repair. The topography will influence the layout of water, sewage pipes and drains: they have to avoid uphill stretches and kinks that would impede flow. Water networks must have enough pressure to supply users in the tallest permitted buildings, and to feed strategically placed fire hydrants. The utility grid must link up with the key nodes in the city, such as water mains, sewage treatment facilities and electricity substations. Each plot has to be serviced by all the relevant utilities.

CREATE WALKABLE BLOCKS

This is closely tied to creating an adequate street network (see above). The size of the blocks (and so the distance one has to walk to the nearest bus stop or park) will depend on the situation; they are likely to be smaller in urban renewal and slum improvement projects than in edge-of-city developments (Figure 24).

PLAN FOR THE ENTIRE RIGHT OF WAY

The project may build only a minimum of infrastructure to begin with, and fill in the rest later. That usually means putting in roads, drains, piped water, sewerage and electricity – but not necessarily surfacing the roads or building pavements (sidewalks) (Figure 25).



Figure 22 Hierarchy of streets in the Nagpur Improvement Scheme

Source: see Figure 21



Figure 23 Topography and infrastructure, improvement scheme, Nagpur

Source: see Figure 21



Figure 24 Creating walkable blocks in the Nagpur improvement scheme

Source: see Figure 21

Of course, you should allow for the whole right of way when planning and marking out the plots. Leave enough space for the roads to be widened and pavements built.

Make sure that streets and other public space takes up the proportion of the area agreed on with the community.

LOCATE THE READJUSTED PLOTS OVER THE ORIGINAL PLOTS

You can now sketch in the readjusted plots over the original ones. Landholders are often very concerned about the location of the plots they get after the readjustment. Try hard to displace each landholder as little as possible. This is particularly important if the plots contain buildings that have to be preserved. Draw the plot boundaries to avoid having to demolish such buildings.

In Figure 26, for example, compare the area currently owned by landholder 132 (in blue) to the area he or she is allocated after the readjustment (in red). This landholder has to endure very little dislocation, apart from having to give up a proportion of the original plot (like all of the landholders).

Keep the shape of the new plots regular so they can be developed easily. Make sure that each plot has road access and can be served by infrastructure such as water and drains. Take the location of existing infrastructure into account (if it is to be preserved).

In Figure 27, landholder 44 starts out with an elongated plot without road access. He or she ends up with a nearly square plot on the road.

CONSOLIDATE OR SUBDIVIDE PLOTS BELONGING TO THE SAME OWNER

Plots held by the same landholders may be consolidated to permit large-scale development. Or they may be subdivided into smaller plots to ease the construction and sale of smaller buildings. Consult the landholders and other stakeholders on their preferences.

STAKEHOLDER INVOLVEMENT IN PLANNING

BALANCING CONCERNS

Planning must take a range of concerns into account:

- **Policy** For example, the municipality may aim to create mixed-used neighbourhoods
- **Technical** Roads must allow for adequate draining and access to all plots
- **Legal** Roads must be so many metres wide
- **Financial** The project must stay within its budget.
- **Stakeholders' interests** The different stakeholders will have different interests. The municipality may want to minimize the costs and maximize its tax receipts. Landholders may want to maximize their profit. Business owners may want



Figure 25 Street design for the Nagpur improvement scheme

Source: see Figure 21



Blue = original boundaries

Figure 26 Locating final plots in the Nagpur improvement scheme

Source: see Figure 21



Figure 27 Regularizing the shapes of plots in the Nagpur improvement scheme

Source: see Figure 21

to minimize disruption or get a frontage on a busy road. Residents may want low rents and spacious apartments, away from traffic noise. Of course, individual stakeholders may have different interests from their neighbours.

It can be difficult to balance between all these interests. In general, policy will indicate the general direction. The law will give a general framework for what is permitted; financial and technical considerations will limit what is feasible. Within these restrictions, the stakeholders' interests should guide the outcome of the plan.

It may be possible to find one or more "sweet spots" that satisfy all the concerns (Figure 28). More likely, there will be no clear overlap among all the concerns, so compromises will be needed. This is possible because the boundaries of the interests are not as hard as Figure 28 implies: they are in reality fuzzy. Stakeholders may be ready

to give way on their non-priority wishes. It may be possible to reinterpret planning rules, find legal compromises or additional sources of funding. Ideally no one should be forced to accept a solution that they find intolerable.

ENSURING STAKEHOLDER INPUTS INTO PLANNING

Faced with the need to achieve a difficult balance, planners may be tempted to work alone, produce a plan, and present it as a *fait-accomplis*. That is a mistake. While the planners are responsible for coordinating the production of professional plans, they must ensure that the stakeholders are involved in determining both the overall layout and the details. See Chapters 4 (*Policies*), 6 (*Collecting and analysing data*) and 7 (*Engaging with the community*) for ideas on how to do this.

“The very first step is to create consensus on the vision. This consensus, this idea of the future, will strengthen the participatory process in the next phases.”

Salvatore Fundaro, urban planner and designer, UN-Habitat



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-fundaro

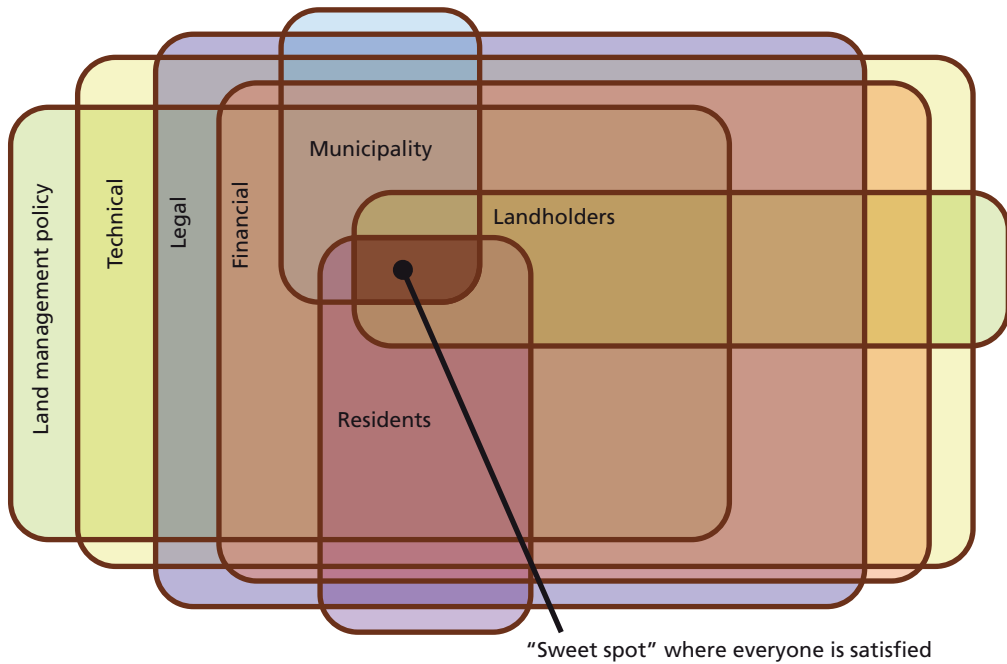


Figure 28 Finding the “sweet spot” that serves all interests

One approach is to gather the stakeholders’ inputs as part of the enumeration process (Chapter 6), then produce a series of overall scenarios, all of which conform to the legal, technical, financial and other constraints. Present this to the various groups of stakeholders to get their comments (Figure 29). Get them to choose one or more scenarios to develop further. Elaborate these plans and again present them to the stakeholders for further comments and selection. Be prepared to change the plans, several times if necessary, in order to accommodate people’s opinions. Continue tweaking the details until everyone is happy.

VISUALIZING THE PLAN

It is vital that the stakeholders involved can visualize the plans. Use maps and drawings to show them how it works, and invite their comments. This builds understanding and trust, and helps everyone avoid nasty surprises.

People in some cultures (and levels of education) are not familiar with maps and find it difficult to understand them. But they may find satellite images or “image maps” (a combination of a map and a satellite image) easier to use. You can annotate such images to show existing and planned features.

Remaking the urban mosaic

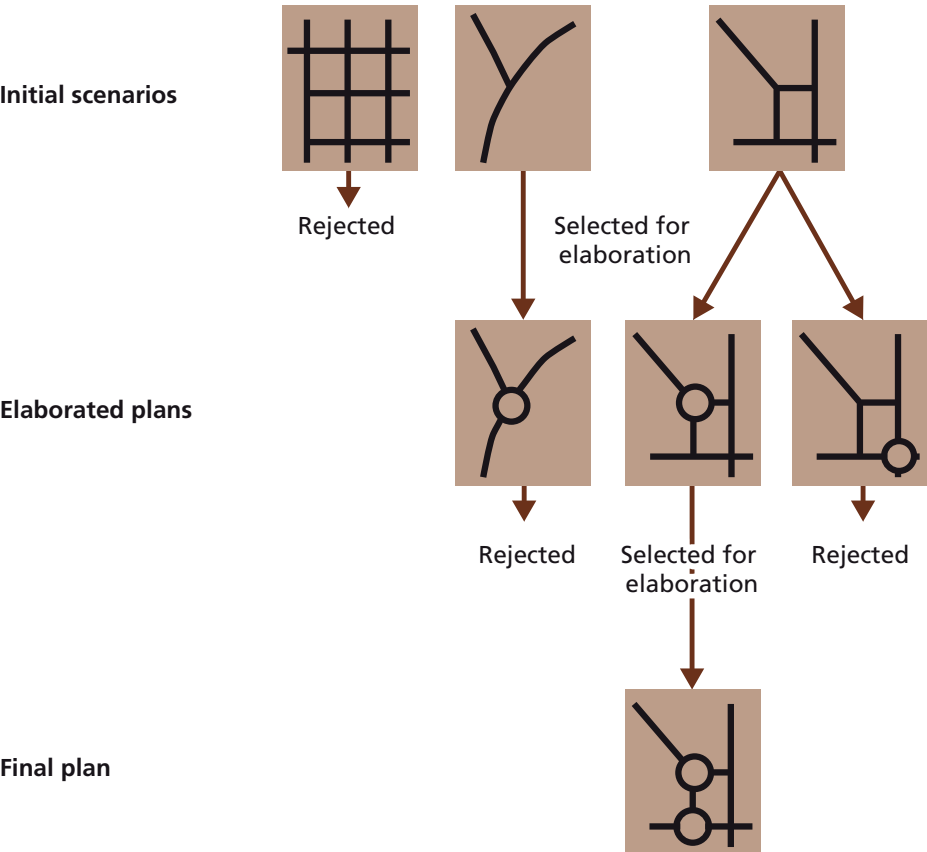


Figure 29 Be prepared to create several options at each stage for the stakeholders to consider

6

COLLECTING AND ANALYSING DATA

LAND READJUSTMENT PROJECTS need a lot of information about an area:

- The **policy** framework: the objectives of the project and how it relates to the larger situation.
- The **legal** framework: the laws that govern the reallocation of land.
- The **planning** rules that must be applied to a redesign of the area and its links to the city as a whole.
- The **financial** situation, the costs of readjustment and infrastructure provision, and the potential income to be gained by the municipality and landholders.
- The **land administration** aspects: the location and boundaries of each plot, the identity of the landholders, and the physical characteristics of the site.
- The **community**: the people who live and work in the project area.
- The opinions of the **landholders**.

PILaR needs all these types of information, and adds some more:

- The **tenure** situation: who actually lives on the land, including tenants and informal residents as well as the formal landowners.

- The opinions and needs of **all stakeholders**, including formal and informal residents, tenants, private-sector developers, absentee landholders, and residents of neighbouring areas.
- More detailed information on the social, cultural and economic aspects of the **community**, including the community character, social capital and vulnerability.

These extra types of information are needed for several reasons:

- The **P** in PILaR stands for a **participatory** process. The stakeholders take part in making decisions: their opinions count. The needs and opinions of all stakeholders need to be understood: not just formal landowners, but also other landholders, tenants, informal residents, and other disadvantaged and vulnerable individuals.
- The **I** in PILaR stands for **inclusive** outcomes. PILaR ensures that all the stakeholders, and especially the poor, benefit from the land readjustment. It tries to conserve and build communities rather than disrupting them.
- PILaR projects often occur in areas where the formal records are **incomplete** or out-of-date. The only way to obtain the

information needed to collect it from the community.

- PLaR aims for **long-term, sustainable, large-scale urban development**. The information will help ensure that the project can overcome dysfunctional aspects of the city and can improve legal, planning and financial frameworks.

You will need a larger amount of information in areas with small plots, existing buildings and a lot of residents (as in slum upgrading projects) than in a project on the edge of a city with larger plots and fewer houses and residents.

This chapter discusses the various types of information you will need, how to get it, and how to analyse it.

INFORMATION AT DIFFERENT SCALES

You will need to get information at various scales:

National. This includes information about the national laws and policies that apply.

City. This is information on the city as a whole: the overall urban plan, the major transport and infrastructure links, growth trends, and the municipality's planning rules.

Project area. This covers the project area as a whole, or major parts of it. It includes things like information on the topography, current infrastructure such as roads and

other utilities, employment opportunities, schools, recreation and retailing facilities, as well as the area history, the local community and social capital.

Plots. This concerns the characteristics of individual plots: the location and boundaries, the identity of the formal owners or other landholders, the type of rights they claim to the land and buildings, existing utilities and buildings on the site, trees or permanent crops, and the presence of formal tenants or informal occupiers.

Households. Here we are concerned about the people who own or hold land or live in the area. You will need to know about the household makeup, financial situation, tenure status, etc.

Information on the plots and households is of interest for three reasons:

- The information must be **aggregated** to give a picture of the project area as a whole. For example, summing the number of owner-occupiers, renters and informal residents lets you calculate how much land will be needed for individually owned plots, and how much has to be reserved for public space, social housing and other uses.
- You also need to **disaggregate** the information into categories such as gender, age, wealth, ethnicity and religion to make sure that the project takes into account the needs of disadvantaged people.
- The project will have to deal with each plot or household **individually**. Each plot will be numbered, and an equiv-

alent (smaller but more valuable) plot designated in the final plan. Similarly, each household must be allocated a new plot (or for tenants and informal residents, the right to rent) in the new plan. You need data on the individual plots and households to keep track of these changes.

INFORMATION-GATHERING METHODS

Unlike conventional land readjustment, PILaR seeks out informal as well as formal sources of information. The project will need a mix of the two.

Formal sources include the official land records, census information and the official urban plans. The municipality already has most of this information on file – though it may be inaccurate and out-of-date. Municipality staff are comfortable dealing with it, and documents like land records have legal status: a land title gives the holder a strong claim to a piece of land, even if it is occupied by thousands of informal residents. So formal sources often reflect what should be (according to the authorities) rather than the actual situation on the ground.

Informal sources include various types of stakeholder engagement: household surveys, discussions with stakeholders, opinion surveys and participatory mapping. Municipality staff are less comfortable dealing with information from such sources, and it may not be recognized by the law. But this type of information tends to reflect better the actual situation on the ground.

You will need to gather three types of data:

- **Quantitative:** numbers, names, locations
- **Qualitative:** descriptions, stories, opinions, reports, analysis
- **Images:** maps, diagrams, photographs, etc.

“In PILaR we gather a range of data that reflects people’s formal situation but also people who might not be officially recognized in normal datasets.”

Melissa Permezel, urban specialist, UN-Habitat



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-permezel-data

You can gather information in various ways: desk research, household surveys, spatial mapping, discussions and interviews, and other methods. We describe each in turn.

DESK RESEARCH

Documents and records contain the formal information that has already been gathered. They will be in the files of various municipal agencies, other government organizations, academic and research institutions, and NGOs. You will need to get access to them; you may need high-level backing to persuade the organizations involved to open their archives.

Desk research is good for gathering **formal information**: policies, laws, plans, census data, municipal finances and land records, as well as previous reports and analysis of the situation.

HOUSEHOLD SURVEYS

The best way to get information on the households in the project area is to interview them using a standard questionnaire. This should be as short as possible: gather only the information you will need and can analyse. The questionnaire will have several sections, each dealing with one particular aspect of the household: the household members, residence location, income and employment, education levels, tenure type, disabilities, etc. Don't forget to include aspects such as intra-household relations and social capital.

For some types of information, you will need to interview a representative from

each household. For other types, you can use a smaller sample.

Many interviews focus on the head of the household – who is often taken to be an adult man. Make sure you also gather information from and about women (and children and the elderly): they may have different opinions from the men. And make sure the survey design includes the poor and vulnerable: minority ethnic groups, disadvantaged castes, people with disabilities, etc.

Previous surveys may have already collected some of the information you need. If so, check it to make sure that it is valid.

Such surveys are good for gathering **quantitative information** on:

- **Personal details** Age, gender, ethnicity, amount of time living in the project area, disability.
- **Individual and household socio-economic situation** Employment status, income, benefits, loans.
- **Tenure status**, whether formal owner, landholder, renter or person living informally in the household, as well as the property size and size and status of buildings.

DISCUSSIONS AND INTERVIEWS

Various types of meetings are also useful for generating the information required. These include plenary discussions with community members, focus group discussions, and individual interviews with knowledgeable individuals such as local leaders, shopkeepers and employers (Figure 30).

Box 20 Intra-household relations

Go into a middle-class neighbourhood, and you are likely to find a single family occupying each house or apartment. But the neat arrangement breaks down in poor, overcrowded areas. In such places, a single household may include members of an extended family, or even people who are not related to each other. For example, a group of friends or work-mates may get together to rent accommodation under one of their names, or a couple might sublet a room to another family. Only the principal tenant is visible to the landlord or the authorities.

The local housing office and other municipal bodies may not recognize or understand such relations, or they may ignore them. For example, water supplies or school places may assume a much smaller number of residents than the real figure. That perpetuates slums and poor housing conditions.

PILaR seeks to recognize the full range of living arrangements, both formal and informal. Doing so makes it possible to plan and provide for the housing needs

of all residents.

To find out about intra-household relations, you need to ask the right questions and use several sources of information. Standard questions include:

- How many people live in a house?
- How are they related to each other?

Additional questions to include in the standard questionnaire might include:

- Where do people in this household cook?
- How many people (or groups of people, including your own household), cook in this house?
- How many rooms in this house are used only for sleeping?

Cross-check the results with other sources of information. For example, check utility connections such as electricity and water meters for the building. If there are two electricity meters, there may be more than one household.

Such methods are especially suited to gathering **qualitative information** on:

- **Perceptions** or positions on community issues
- The **history** of the area and the people who live there, their reasons for living there and their occupations
- **Tenure**, including intra-household relations (Box 20).
- **Community character** and social capital (Box 21).

PARTICIPATORY ENUMERATION

In conventional land readjustment, the data are gathered largely by the professionals: a team of specialists and trained interviewers using a household survey. In PILaR, however, the stakeholders themselves can (indeed, should) help collect the information. This **participatory enumeration** includes the whole range of data-gathering methods described here (desk research, household surveys, discussions and interviews, spatial mapping, other methods). As its name suggests, it involves the community members themselves in designing, managing, implementing, analysing and using the data.

Box 21 Community character and social capital

Community character

This is the makeup and history of the neighbourhood and the people who live there, and (just as important), local people's perceptions of these. A community may be tight- or loose-knit, youthful or elderly, transient or enduring, poor or well-off, composed of owner-occupiers or tenants or informal residents, safe or dangerous.

This character is shaped partly by the built environment: a well-designed environment will help create a positive community character.

A PILaR project needs to understand the community character in order to preserve it (where desirable) and improve it (if necessary).

Social capital

Social capital is the network of linkages within the community. It tends to be highest in areas with owner-occupiers and with longstanding renters and informal residents.

We can think of three types of social capital:

- **Bonding social capital** This is the network of strong ties with one's

family, close friends, neighbours, colleagues. It helps people "get by" in their daily lives. These links tend to be informal, small scale and local. They include informal support mechanisms such as the networks that care for children, the sick and elderly.

- **Bridging social capital** This is the network of weaker ties, also with individuals sharing similar economic and political positions but who are outside the area, have a different type of occupation, or belong to a different ethnic group. It helps people "get ahead" in their daily life. These ties also tend to be informal, but link across networks. An example is informal networks that enable people to do business or find a job.
- **Linking social capital** These are people's vertical ties with formal organizations, such as the government or a bank. These ties enable people to get services or influence the powers that be. They tend to be formal and remote.

A PILaR project will be interested mainly in maintaining the "bonding" and "bridging" types of social capital, since they are important for people's day-to-day survival.

Participatory enumeration is not an end in itself. It has various advantages.

Richness and flexibility Participatory enumeration uses more tools than only a standard household survey. It can generate a much richer picture of the area and its people than conventional techniques, and it can be adapted as new aspects are uncovered.

Completeness and accuracy Local enumerators have local knowledge. They know whom to ask and what to ask, and they can tell if the responses are correct. They can gather information (such as on informal tenure and relationships within a household) that would be difficult or impossible to get otherwise. Respondents are less likely to be suspicious of local enumerator than

Box 22 Building trust in La Candelaria

Gathering information (this chapter), stakeholder engagement (Chapter 7) and communication (Chapter 10) are three closely related parts of a PILaR project. They help build the stock of community trust that enables the project to run smoothly and achieve the desired outcome.

Trust is vital as the project engages individuals and communities who are often very vulnerable. They are naturally wary of any change and may feel they lack the power to improve their lives. Ascertaining their formal legal status can make them worried. They want, and deserve, clear assurances and evidence that their information will be used in a way that helps rather than harms them.

The PILaR project in La Candelaria, Medellín, Colombia, built trust through a series of meetings to validate the information collected, explain how it would be used, and describe what the next steps would be.



Figure 30 PILaR project workers in La Candelaria explaining the next steps of the enumeration process to the community

of an outsider, and are more likely to give accurate answers.

Trust and ownership People do not want to divulge information about themselves if they do not trust the enumerator, know what will happen to their information, or understand how it will be used. The local enumerators can help respondents understand and trust the project's intentions and feel more ownership for it (Box 22).

Capacity The enumeration team build their capacity – one of the goals of a PILaR project. Women, in particular, gain both by being involved in the data gathering and because their voices are heard.

Empowerment Because residents are involved in designing the information collection, implementing it and analysing the data afterwards, they retain control of the process. They collect the information on behalf of the project, but also on behalf of the community as a whole. Collecting information can stimulate the formation of community groups; they can use the information to determine their priorities and to advocate with the municipality and other official bodies.

Cost It may be cheaper to hire and train local people than to put together an enumeration team made up of outsiders.

Benefits for outside organizations Both the municipality and NGOs get up-to-date, validated information and in-depth knowledge of the local social dynamics. That makes it easier to lobby for, design and deliver services. A common dataset makes it easier for the community, municipality and other groups to agree on priorities and activities.

Local enumerators are particularly useful for collecting detailed data on land, property, tenure and households. They are less likely to be useful for the initial baseline or feasibility study, when you need to understand the context and identify the stakeholders.

The local enumerators should be coordinated by technical specialists who help design questionnaires, train the local team, guide the data gathering, and ensure that it is systematic and sufficiently rigorous.

Overall, participatory enumeration can help make the land readjustment more inclusive and sustainable as the affected community gather information about themselves, and it throws light on all tenure rights and situations.

SPATIAL MAPPING

A lot of the information you will need is spatial in nature – so you will need to put it on a map. You will need a base map showing the entire area, and maps at larger scales showing the layout of plots. Nowadays the mapping can be done on a computer, with a series of layers showing different features: topography, existing infrastructure and buildings, plot boundaries, etc.

Some of the maps will already exist. You may have to update them, fill in the gaps, or confirm their validity with fresh surveys.

An important aim of the data gathering is to create a land information system of the current occupants. This demarcates the existing landholdings of all households, and is used to regularize their tenure.

Mapping techniques include the use of triangulation equipment (as in traditional surveys), global positioning equipment (such as GPS-enabled tablets, Box 23) and aerial and satellite photographs. In PILaR it is best done in a participatory way (see below).

Spatial mapping is good for gathering information on:

- **Plots** The location and boundaries of plots.
- **Improvements** The location of infrastructure and buildings.
- **Claims to land** The ownership and other claims to each plot.

Participatory mapping

The mapping is best done in a participatory way, with community members, government planning staff, religious leaders and students organized into teams and trained in map reading. The mapping team meets with the stakeholders in a particular area to explain the process, register their names, and organize them into groups. The team interviews longstanding residents, and then each group accompanies the team into the field to map the boundaries of each plot. The boundaries are marked onto a high-resolution satellite image or directly into a dig-

Box 23 Participatory mapping in Angola

Development Workshop, an NGO in Angola, collects household data using mobile-enabled Android tablets. These are equipped with global positioning capabilities and can plot the data in Google maps. The methodology is based on an enumeration approach developed by Shack/Slum Dwellers International. It engages both community members and municipal authorities in the production and ownership of data.

The enumerator collects and maps the geo-referenced household data on a tablet, and then uploads them immediately through the GSM cellular network to an online database. The tablet automatically stores an offline version for further verification if needed. If there is no cellular coverage, the data can be transferred by USB, Bluetooth or WiFi to a computer and then loaded to the cloud-based server. This technology bypasses the need to transfer data from paper forms, which is cumbersome and prone to error. The

data can be cleaned by a supervisor in the field or back at the office.

Development Workshop has adapted tools from the Social Tenure Domain Model (Box 10) to create cadastres in *bairros* (neighbourhoods) or municipalities using evidence of land occupation. The enumerator uses the tablet's voice and video recording functions to capture testimonies. He or she can photograph official documents and take photographs of residents and the houses they occupy.

When such co-produced data is mapped, validated and stored by the local administration it gains legitimacy even if the land occupation has not been formally legalized and titles issued. These methods assist occupants and communities to move towards a more secure position in the continuum of land rights (Figure 10).

More information: Development Workshop, www.dw.angonet.org/

ital map using a global positioning device. Where global positioning devices are not available, the team can pace out distances and mark the boundaries on paper maps (or on high-resolution satellite images). If a cadastre already exists, the mapping process can be used to validate it (Figures 32 and 33).

Most people have very good knowledge of where the boundaries are. Where overlapping claims exist, an intermediary tries to resolve the issue. If this is not possible, the claims are marked on the map anyway.

The **Social Tenure Domain Model** (Box 10 in Chapter 4) is one way to organize

this mapping. It records who claims what rights to what piece of land, and permits such overlaps to be noted. It uses a combination of interviews and global positioning equipment to plot boundaries, features and claimed rights on a base map. Box 23 describes how Development Workshop used this for participatory mapping in Angola.

The degree of precision required depends on the location. For a rural area where plots are relatively large, it is enough to set the global positioning device to register a point every 10 metres. In built-up areas, plots are smaller, and greater accuracy is needed to determine the boundaries.



Figure 31 Baseline mapping team in Angola



Figure 32 Ground truthing in Angola

Source: Development Workshop

This mapping results in a cadastre showing the land claims of each stakeholder. The land occupation documents that have been agreed on earlier can be used as an intermediary proof of rights to the land.

OTHER INFORMATION-GATHERING METHODS

Consider other techniques, including the following:

- Direct observation and surveys of land use and the state of buildings
- Email, telephone and online surveys
- Social media
- Counts of traffic and pedestrians.

PHASES OF DATA COLLECTION AND ANALYSIS

A PILaR project will have four phases of data collection and analysis (Figure 34):

- Feasibility study
- Stakeholder and institutional mapping
- Detailed data collection
- Analysis, validation, storage and maintenance.

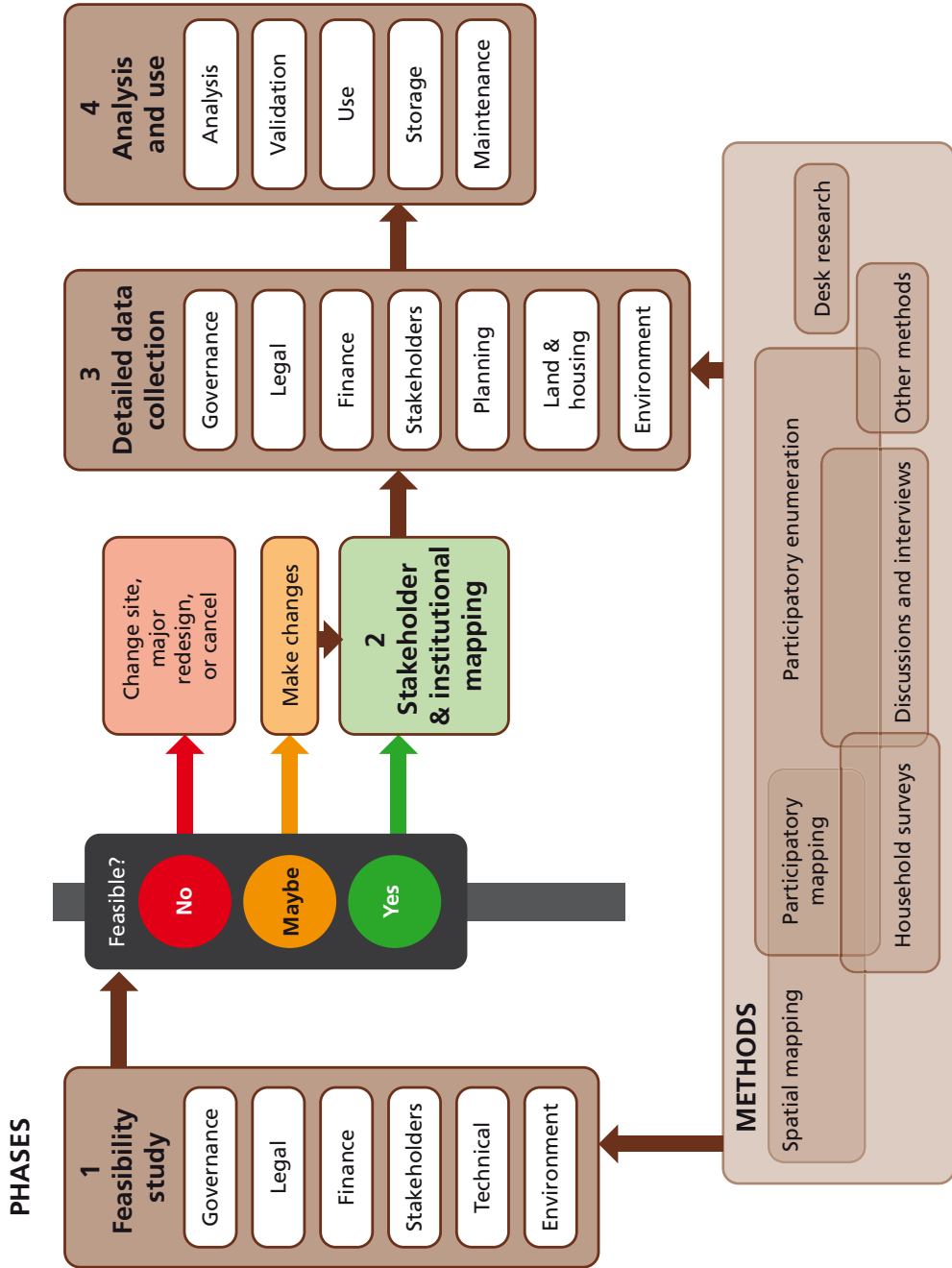


Figure 33 Data gathering stages and methods

1 FEASIBILITY STUDY

The feasibility study aims to gather enough information to choose a site of the land re-adjustment and to determine whether it is feasible. It is not necessary to go into detail at this stage, but it should identify the additional types of information that will be needed later. It must cover both the proposed project area and the adjacent areas that may be affected by it.

In some countries, the law does not require a feasibility study: the municipality can decide to implement land readjustment at its own discretion. Even so, a feasibility study should be done anyway as it will reveal valuable information (especially about the community) for the detailed design of the project.

The feasibility study should cover at least five components: legal, technical, financial, community and environmental.

Governance and legal

This will determine whether the proposed project can be implemented within the existing governance arrangements, legal framework, and land tenure system. It will:

- Check whether existing governance arrangements permit a PILaR project, what problems are likely to arise, and what changes will be needed.
- Verify whether the project will fit into the broader vision for the city and the national urban development plans.
- Check whether the existing laws will permit a land readjustment project.

- Delineate the ownership of public and private land.
- Check whether the land records are accurate, and how informal tenure must be handled from a legal point of view.
- Determine whether major property disputes and the mechanisms to resolve them exist.
- Review the content and enforcement of laws governing land management.
- Check whether there are antiquities or natural resources beneath the area.

The feasibility study should identify relevant legal instruments and institutions and cast its net widely to capture even tangentially relevant instruments. If a timely and relevant baseline study is already available, or a lawyer with specific experience is easily available to the project on demand, then it may not be necessary to do a formal baseline study.

Technical

This will include:

- A survey to ensure that the topography and soil are suited to redevelopment.
- A review of the overall urban plan and plans for adjoining neighbourhoods.
- An initial outline of the type of infrastructure and buildings that will be constructed.

Finance

This aims to predict the financial implications of the project. It will include:

- An estimate of the initial capital investment needed for the project.
- The projected cash flow for all construction stages.
- The sources of financing.
- An assessment of the financial risks.
- A negative finding in a critical area may be enough to **not continue with the project**. For example, if no suitable legal framework exists, the project will have to wait until a specific law can be passed – which can take years.
- It may show that the project concept has to be **radically changed**. For example, the environmental feasibility study may force the size or boundaries of the site to be altered dramatically. The financial study may mean changing the type of development envisaged. Social challenges may also require significant rethinking of the project.
- It may indicate that the project is **broadly feasible**, but that minor changes will be needed. The project can proceed, but the details need to be filled in and changes made during the next steps.

Stakeholders

This will explore:

- The number and types of people likely to be affected by or interested in the project.
- The tenure arrangements of residents.
- The willingness of landowners, other landholders and residents to participate in the project.
- Arrangements for households that either do not qualify for the project or who do not wish to participate in it.
- Ways to minimize any unintended adverse effects of the project on current residents.

Environment

This will try to predict the environmental constraints on and the consequences of the project. For example, the area may be close to a waste dump or in a floodplain, or developing it may cause flooding or other problems elsewhere.

After the feasibility study

The feasibility study may have various outcomes:

2 STAKEHOLDER AND INSTITUTIONAL MAPPING

If the feasibility study shows that the project is indeed feasible, the next stage is to determine who the stakeholders are. Questions in this phase include:

- What is the structure of the **community**? What other groups of stakeholders exist? Landowners and landholders (absentee or resident), owner-occupiers, tenants, informal residents, elderly, young people, women, disadvantaged, recent arrivals, longstanding residents, etc.
- Who are the leaders in the community and of each of the stakeholder groups?

- What are their interests and the risks? What might they have to offer the project?
- What **NGOs and community organizations** exist? How about faith-based organizations?
- What **private sector organizations** may have an interest? What roles might they play?
- What are the **services and facilities** in the site and nearby areas?
- What **government departments** or actors are involved? What is their potential interest or involvement in the project?
- What are the **relationships** between the different stakeholder groups? How do the communication channels work?
- How might the **project engage** with the various groups? What might be the opportunities and challenges for communicating and working with them?

For each of the stakeholder groups, you can identify their goals and interests, the degree of power and influence they have, their level of vulnerability, and their role in the project.

See Chapter 7 for a discussion of the various stakeholders.

3 DETAILED DATA COLLECTION

This is when you collect the detailed data on each of the aspects of the project. It will need to cover these aspects:

- Governance
- Legal issues

- Community
- Finance
- Planning
- Land and housing
- Environment.

We deal with each of these aspects below. Because these areas are closely interrelated, there is a considerable overlap among them. For example, the legal, financial, planning, land and community specialists on the project team will all be interested in the current land-tenure situation in the area. Such information should be collected only once, through a participatory enumeration. All team members should collaborate on designing the enumeration so it generates the information they require.

Governance

You will need to understand how the institutional framework operates and how it will affect the project. By “institutional framework”, we mean the ways in which government works and how people and departments connect.

Key questions

- What are the institutional and governance arrangements around urban development? Who usually drives the urban projects? Which departments are involved, and how are they integrated? Does the government manage projects, and who does it engage with to do so?
- What are the formal arrangements for land management, and how do these work in practice? Does the government

have the capacity to benefit from capturing land value?

- How is the private sector involved in urban development projects? What role does it play, formally and informally, especially on land values and speculation?
- How pro-poor are urban development projects? Do they include vulnerable groups? Do they recognize different land, property and tenure rights? How do they deal with informal residents?
- How does the local authority engage with and involve the community and other stakeholders in urban development projects?

Types of information needed

Some of the answers to these questions will emerge from the other aspects covered below. You will need to find out about:

- Policy and legal frameworks related to topics such as urban development, housing, land and land management, treatment of informal settlers and planning.
- Formal institutional arrangements and how these work in practice.
- Community engagement records and past practices.

Approaches

- **Desk mapping** of institutional arrangements, and studying background reports.
- **Field research:** interviews and discussions with officials, local organizations,

academics, urban practitioners, real estate practitioners or associations.

Legal

Theory is often different from practice. Just because a law or rule exists does not mean that it is applied in reality. In addition, many stakeholders may reside or hold land in the area “illegally” – outside the formal system. You will need to understand both the written law and what happens in practice, and whether it is possible to change the law (or other rules) to fit the needs of the land readjustment.

This means gathering information from formal sources (existing policies, laws and regulations) and cross-checking this with reality on the ground.

Key questions

- Are there any current legal mechanisms to support the PILaR project? Are there land readjustment laws? If so, what are the legal requirements? Are there laws in relation to site selection or contribution requirements?
- Which institutions may initiate a land readjustment project? Which other institutions must be involved, and what are their roles? Which are responsible for overseeing the project? What are the formal legal arrangements for managing the project?
- What is the legal situation regarding property and tenure of key stakeholders? How does this compare to reality?

- Are there any mechanisms to regularize rights or interests to housing and land for informal settlers?
- What mechanisms exist for government to control land for development? What if some landholders do not want to participate? Is expropriation an option?
- What planning, financial and environmental laws and legal instruments can be used? How effective are they in supporting the proposed land readjustment project?
- What is the legislation on low-cost housing mix and social housing? Are there legal mechanisms to manage gentrification?
- What are the legal arrangements for relocation? Do they fit within the PILaR human rights framework?
- What are the city's land management arrangements? If this is a city-extension project, how does the law handle changes to the city boundaries and the conversion of land from rural to urban use?
- What legal mechanisms exist for capital gains and land value sharing? What are the means of valuation and exchange values: area-based (land or built space) or price-based? What controls exist to manage land speculation?

Types of information needed

The law provides a framework for what is and is not permitted. You need to get clarity early on about what is possible under the letter and spirit of the law, what is feasible

given existing practice, and how much discretion do you have to change the procedures. You will need to know about:

- Existing laws, rules and regulations that might affect the land readjustment process.
- The institutions, both formal and informal, that are relevant.
- Customary law and existing practices relating to land in the area.
- The procedures for cadastral and property registration.
- National or municipal regularization initiatives to regularize informal occupants.

Approaches

- **Legal baseline study** This enables you to work out the possible legal paths in detail, based on what is both legal and feasible (Box 24).
- **Interviews and discussions** with land professionals, lawyers, academics, local leaders, NGOs and community groups.
- **Review of official land information system** to determine the tenure types on each plot, and the legal status of the unit in terms of claims, occupiers and governance structure.
- **Participatory mapping** If land records do not exist or are out of date, you will need to build new land records, compare them with the official records, and get them legal coverage. This is particularly important in jurisdictions where customary and informal interests have formal protection or are important in

practice. See the sections below on *community* and *land and housing* for more.

Finance

The financial model to be followed depends on the costs of the project and its expected financial benefits both for the municipality (or the implementing organization) and for the stakeholders involved. This will determine the area that needs to be reserved by the municipality to cover the project costs, and hence the amount of land that each landholder will have to contribute.

Financial considerations are closely related to legal issues. Land-based financing such as land contributions, taxes and fees must be expressly provided for under the law, rather merely implied.

Key questions

- What is the cost of the project for the municipality (and other organizations), and how is it to be financed?
- What costs and benefits can landowners, landholders and residents expect? Can they afford to bear the costs?
- What external resources will be available?
- What land-based financing tools are permitted by law? Which will be employed?
- What and how much of the required infrastructure will be included in a project?
- What standard of fairness will be used in dividing project costs among stakeholders? What protections will be afforded

Box 24 Conducting a legal baseline study

1. **Legal mapping.** Identify all national, local and municipal laws that might be relevant in implementing PILaR.
2. **Institutional analysis.** Describe the institutions mentioned in the relevant laws, their mandates, institutional capacities and deficiencies, conflicts of interest with other institutions or internally among the institution's different functions.
3. **In-depth review.** Once the basic shape of a project is identified, review specific instruments and institutions in greater depth. Describe their principal functions, the mechanisms they contain and the processes they establish.
4. **Process analysis.** Use this information to develop a "process analysis" that sets out, step by step, what must be done, who may do it and any terms or conditions that apply. This gives you the theoretical picture of what the law says should be done.
5. **Comparison with practice.** Compare the process analysis with actual practice. This highlights possible challenges that the project must address. For example, a procedure may exist in law but not be feasible in practice. An institution may exist on paper that has not been established or that lacks skilled staff.
6. **Possible legal path.** Identify a possible legal path, probably based on more than one instrument, which could be used for PILaR. Map out the path step by step. Describe for each step the key actors involved and the key decisions required.

the most vulnerable residents in a project area?

Types of information needed

- The **project costs for the municipality**: for design, data collection and analysis, land acquisition and clearing, infrastructure provision and maintenance, relocation, rebuilding and marketing, borrowing costs, etc.
- The **project income for the municipality** from the sale of land, higher taxes, external funding sources, etc.
- The current **market price** of land, and the expected price after the project.
- The **financial situation of landowners, landholders and residents**: their income levels and sources (formal and informal), loans or mortgages, percentage of income on rent, subsidies received and assets.
- The **costs and benefits for landowners, landholders and residents**: the costs that they can expect to incur, and the benefits they will gain from the land readjustment.

Approaches

- **Determining costs and income for the municipality** Check for information available in the public domain and from the applicable municipal departments. Check other infrastructure projects to get realistic costings.
- **Estimating market prices of land** Check records of land transactions. Banks and real-estate developers

should be able to provide price information.

- **Getting personal financial information** This can be difficult: poor, vulnerable people may be especially reluctant to share such information. Make clear how the information will be used, who will get access to it and why? Use a combination of conventional sources such as census or questionnaire data, welfare and social support records, and participatory enumeration. Poverty score cards (Box 25, Figure 35) are a way to find out people's capacity to pay for services and to absorb the costs of land readjustment.

Stakeholders

Understanding the situation and needs of all stakeholders is vital to design a land readjustment project that will benefit them and that they will support.

Key questions

- What are the characteristics and aspirations of each stakeholder in relation to the site?
- What are the major characteristics of each household? How many people are there, what are their ages, sex, education levels, income, occupation, etc?
- What plot or building does the household claim? What is the nature of the claim (legal ownership, occupancy, use rights, etc.)? Where are the plot boundaries?
- What are the needs, wishes and aspirations of each household? What are their attitudes towards the possibility of

land readjustment? What type of land or housing do they require?

- What vulnerable groups or individuals exist, and what are their characteristics?

Types of information needed

Table 15 lists some of the variables you will need to collect on each stakeholder household and the plots they claim rights to.

Approaches

While **participatory enumeration and mapping** (see above) can be useful for other aspects of the project, this is where it comes into its own. Table 16 lists the steps to follow. You may need to adapt these suggestions to suit your own situation.

Planning

The planning approach will depend on the existing physical situation (topography, in-

frastructure, buildings), the situation desired by the municipality, the planning rules, and the needs and wishes of the current landholders and residents.

Key questions

- What types of people live in the site? What are their social, cultural, economic and environmental needs, challenges and aspirations?
- What housing structures and arrangements exist?
- What are the planning rules? How applicable are they in this situation? Do they have room for flexibility?

Types of information needed

You will need a combination of physical information, demographic and field-based information, as well as the relevant rules and procedures.

Box 25 Poverty scorecards

How to determine which people in the project area are poor? Conventional ways of collecting poverty data ask people about their income and expenses. But they take time, and include questions that are difficult to answer and may be intrusive. Using a poverty scorecard is easy and accurate, and takes only 5–10 minutes per household. The information is easy to verify.

The scorecard contains 10 simple indicators that reflect the probability that a household is poor (Figure 35). For example, “What is the main roofing material?” Poorer households in the area may have thatched roofs; wealthier households

have roofs made of tiles or concrete.

Each response has a point value: zero for poor households, more for better-off ones. The enumerator visits the household to ask the questions (or observes the situation directly), fills in the poverty scorecard and adds up the points to get a poverty score for that household. This score can range from 0 (poorest) to 100 (wealthiest).

Poverty scorecards have been developed for over 60 countries. It is easy to adapt them for a participatory enumeration.

More information: www.microfinance.com

Simple poverty scorecard for Colombia

<u>Entity</u>	<u>Name</u>	<u>ID</u>	<u>Date</u> (DD/MM/YY)
Member:	_____	_____	Joined: _____
Field agent:	_____	_____	Today: _____
Service point:	_____	_____	Household size: _____

Indicator	Value	Points	Score
1. How many household members are 18-years-old or younger?	A. Four or more	0	
	B. Three	5	
	C. Two	11	
	D. One	17	
	E. None	23	
2. What is the highest educational level reached by the female head/spouse?	A. None, or pre-school	0	
	B. Primary or middle school	3	
	C. High school	6	
	D. No female head/spouse	8	
	E. Post-secondary or college (1 to 4 years)	9	
	F. Post-secondary or college (5 years or more)	17	
3. How many household members spent most of the past week working?	A. None	0	
	B. One	9	
	C. Two or more	14	
4. In their main line of work, how many household members work as wage or salary employees for a private firm or the government?	A. None	0	
	B. One	4	
	C. Two or more	11	
5. What is the residence's rate class for electricity?	A. No class or zero (no connection, pirated connection, or generator), one, or two	0	
	B. Three	4	
	C. Four, five, or six	9	
6. What fuel or energy source does the household usually cook with?	A. Firewood, wood, charcoal, coal, electricity, gasoline, petroleum, kerosene, alcohol, or waste material	0	
	B. LPG from a cylinder or tank	2	
	C. Natural gas from a public network	3	
	D. Does not cook	6	
7. Does the household have a working clothes washing machine?	A. No	0	
	B. Yes	4	
8. Does the household have a working refrigerator or freezer?	A. No	0	
	B. Yes	3	
9. Does the household have a working DVD?	A. No	0	
	B. Yes	4	
10. Does the household have a motorcycle and/or a car for its own use?	A. None	0	
	B. Motorcycle only	3	
	C. Car (regardless of motorcycle)	9	
Microfinance Risk Management, L.L.C., http://www.microfinance.com			Total score:

Figure 34 Example of a poverty scorecard from Colombia

Source: www.microfinance.com

- **Physical situation** Maps and documents showing the topography, hydrology, environment, and current layout and design of the area, current building quality and conditions.
- **Plans and planning rules** Current zoning plans, formal legal planning instruments, rules on building types, areas,
- **Demographic and social information** Numbers of households and people, occupation density,
- **Needs and aspirations** of landowners, landholders and residents.

Approaches

- **Desk research** to gather reports and plans from the municipal government, laws and regulations.
- **Participatory enumeration** to gather information on the community and their needs.
- **Site visits** to gather technical information.

Land and housing

The formal records for land ownership and boundaries may be very different from the situation on the ground, and from what local people say. Even where the formal records are in reasonable condition, they may not recognize the land, tenure and property rights of informal settlers, informal residents, or women. Formal titles are only one of a wide range of types of tenure reflected in the “continuum of land rights” (Chapter 3). You will need to gather information from various sources, including both the formal

records and participatory enumeration and mapping. See chapters 4 on *Land management* and chapter 5 on *Planning and design* for more.

Key questions

- What is the formal and informal land and tenure situation in the proposed project site?
- What laws apply to the land and property, and how will they support the project?
- What are the governance arrangements around land and housing (including the history of the land and property in the city)?
- How will the needs and interests of registered landowners and other residents be weighed and balanced in terms of who gains what?
- How will required land contributions be fairly determined?
- How will land be valued? How much is land currently worth?

Types of information needed

- **Community or customary land laws**, local land disputes or historical issues of significance.
- **Reports and maps:** reports and maps of local land and environmental issues and transactions between buyers and sellers of land.
- Evidence for **informal claims** to land – such as occupancy, traditional use rights, etc.

TABLE 15 INFORMATION ON HOUSEHOLDS IN THE COMMUNITY

Category	Variables
Basic household profile	Number of family members Age of household members Gender of household members Educational levels of school age children Educational attainments of adult household members Civil status of household heads Length of residency in the community Tenure status (house owners, renters, sharers, etc.) Type of structure (concrete, semi-concrete, wood, other light materials)
Physical profile	Size of plot Location of plot Size of housing Number of rooms Quality and building material of housing Number of persons in the house Connection to services and infrastructure (water and sanitation, electricity)
Social profile	Province where household comes from Ethnicity Religious affiliation Relatives in the community Access to or sources of basic services
Economic profile	Occupation, employment Type of work (regular, contractual, seasonal, etc.) Primary income source Other income sources Amount of monthly income Major household expenses (as percentage of monthly income) Access to sources of credit/lending facility or institutions (government and private)
Organizational affiliation	Membership in community organization Position in the organization Length of membership in the organization
Perceptions or positions on community issues	Knowledge/understanding of issues affecting the community Opinions on issues affecting the community Position/s on the issue/s affecting the community Recommendations to address community issues

Adapted from UN-Habitat (2010). Originally from Felomina Duka, DAMPAI Huairou Commission

TABLE 16 STEPS IN PARTICIPATORY ENUMERATION AND MAPPING FOR PILAR

Prepare	
1. Identify partners and build trust	Identify community groups who may be interested, and explain what you want to do. Make sure the groups represent a wide spectrum of people in the community.
2. Allocate tasks	Decide on the tasks and allocate responsibility to particular organizations and individuals.
3. Build and train a team	A small core group steers the enumeration and trains and manages a larger number of enumerators who go from door to door to gather information. Train these enumerators on the purpose of the enumeration, as well as techniques such as measurement, interviewing and recording responses.
4. Inform and mobilize the community	Make sure that people know that the enumeration will take place, its purpose, how the information will be used, as well as issues such as privacy.
5. Gather secondary information	Collect background materials, other data sources, maps, aerial photos, etc. You can use this to guide data-gathering or as a basis for comparison (for example, to contrast official figures with the enumeration findings).
6. Design the enumeration instruments and procedures	Design and pretest the questionnaire, develop interviewing procedures, and design the mapping exercises. Divide the area to be surveyed into manageable areas that one enumerator or a small team can cover within the time allocated.
7. Obtain materials and equipment	These may be as simple as paper, pencils and chalk, or they may include more sophisticated items: surveying equipment, global positioning equipment, tablets or mobile phones, computers and printers. You will also need the right software, and to train people how to use it.
Implement	
8. Conduct the enumeration	This may take one day, several days, or longer. The teams of enumerators visit their designated areas, knock on doors and interview people. For mapping, they work with the owners and residents of each plot or building, record its boundaries and characteristics (number of storeys, rooms, etc.), and record the ownership and tenure information.
Report and analyse	
9. Capture the data	Transfer the data from the original paper forms (or tablet computers or maps) into a computer or into the cloud.
10. Verify the data	Check the data for errors and missing information. Cross-check where possible with other data sources (such as other questions in the questionnaire). Where possible, go back to collect missing items. Display or present the data in public and invite people to discuss the preliminary findings.

<p>11. Analyse</p>	<p>Once the data are reasonably free of errors, you can start analysing it. Calculate totals (e.g., number of residents) and averages (e.g., mean number of people per household). Tabulate or graph data to reveal relationships (e.g., tenure status of female-headed households), or do more sophisticated statistical analysis.</p>
<p>Apply</p>	
<p>12. Report and get feedback</p>	<p>Convert the analysis into a form that can be used: reports, maps, posters, graphics, etc. Present to the local residents, municipality and other stakeholders.</p>
<p>13. Develop the land readjustment plan</p>	<p>Use the information to develop the land readjustment plan. Use the information to allocate each landowner, landholder or resident a new plot (or rights to rent a property) that is the right size and in the right location.</p>
<p>14. Store and access the information</p>	<p>Make the non-confidential information available to all stakeholders. Store the information in a way that is secure, protects confidentiality (if required), and can be updated if required.</p>
<p>15. Update the information</p>	<p>People are born, move into or out of the area, and die. Tenure situations may change rapidly. Keep track of these changes so you know who is eligible for a plot or social housing, and who is no longer eligible. You will need to impose a moratorium after which no more changes in certain types of data (for example, eligibility for reallocated plots) are not allowed to change.</p>
<p>16. Monitor progress</p>	<p>As the land reallocation progresses, use the data as a baseline for monitoring progress.</p>
<p>17. Evaluate</p>	<p>After the project is over, do another survey to check whether people are now better off. Again, use the enumeration data as your baseline.</p>

Adapted from UN-Habitat (2010)

Approaches

- **Desk research** to gather and analyse documents such as laws and rules.
- **Interviews and discussions** with land professionals, government officials, academics, local land groups and NGOs.
- **Participatory enumeration** to determine the situation on the ground.

Environment

The law may require a formal **environmental impact assessment** to predict the environmental positive and negative consequences of the project before it can proceed. This follows a standard set of procedures (Figure 36), and may have its own rules for public participation and documentation of decisions, and may be subject to judicial review.

Many slums are built in difficult areas – on steep slopes subject to landslides, in low-ly-

ing areas that are easily flooded, or close to noxious sites. A project may impinge on an area that should be conserved for environmental reasons – for example to preserve biodiversity or open land, or to protect water supplies. The environmental assessment can indicate whether it is advisable to do the project in such areas, and if so, how to mitigate the potential problems and reduce the risk of disasters. It should take into account the sensitivity to climate change – which may lead to more flooding or changes in the water table, for example.

The impact assessment weighs the environmental risks against the project's objectives. It may recommend whether to proceed with the project or propose measures to reduce environmental impacts to acceptable levels.

Even if a formal environmental impact assessment is not needed, you must still consider environmental issues. An assessment will inform the site selection, tell you what the relevant environmental laws are, and suggest how to deal with environmental issues.

Key questions

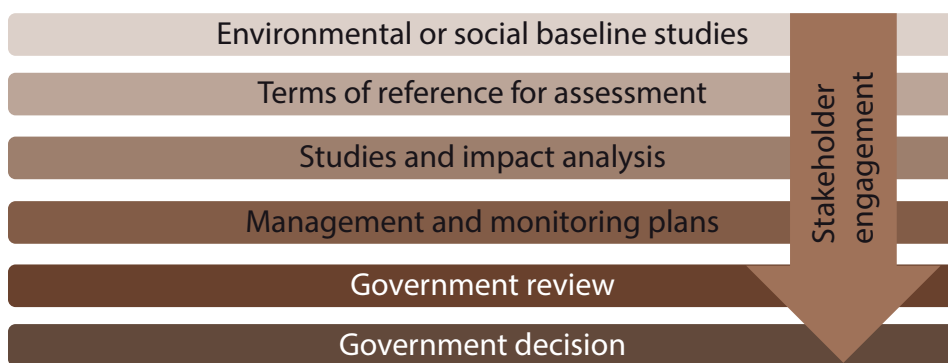
- What are the relevant environmental laws and regulations affecting the project?
- What environmental consequences (positive or negative) might the proposed project have? How might the environment affect the viability or design of the project?
- Are there any environmental considerations that may mean the project cannot proceed?
- How might the project be designed to reduce harm to the environment and maximize benefits to it?
- Are there particular groups or individuals who are currently harmed by the environmental situation, and how might the project improve the situation?

Types of information needed

- Laws relating to the environment and man-made environmental hazards
- Information on geography, topography, climate change risk, biodiversity, endangered species, etc.
- Opinions of local people on environmental issues.

Approaches

- **Employ an environmental specialist** to conduct the assessment.
- Formal **environmental impact assessment**.
- **Desk study** to analysis local and national policies, laws and regulations and to review the status e.g., of endangered species.
- **Field visits** to assess the situation on the ground.
- **Stakeholder engagement** to gain feedback from stakeholders.



Source: www.njv.com.fj/wp-content/uploads/EIA_process.jpg

Figure 35 A typical environmental impact assessment process

4 ANALYSIS, VALIDATION, USE, STORAGE AND MAINTENANCE

Analysis

Once the data have been gathered, they must be analysed and validated. This includes:

- Aggregation and summary of household- and plot-level data to give an overall picture.
- Segregation of the data by gender, age, income, disability/vulnerability, etc. to ensure the interests of each group are taken into account.
- Analysis of the governance, legal, financial, planning, land and environmental aspects to determine an appropriate approach.
- Analysis of the community information and stakeholders' opinions to ensure that the plans will fulfil people's needs and expectations.
- Checking and cross-validation of the data to eliminate errors.

Some of this analysis requires the skills of specialist professionals (such as lawyers or financial experts). But where possible, the analysis should be done together with representatives of the community. This will avoid creating the impression that the professionals are making decisions in secret, and will increase community ownership of the project.

Validation

Once the information has been summarized, it should be presented to the community and to the organizations involved in the project. This is an opportunity for them to assess whether the information accurately reflects the current situation, and to make any corrections needed. Three types of validation are needed:

- Checking the information against **official records** and other sources of information. For example, what the community says about the ownership of each plot (or claims to each plot) must be checked against the official records, and any differences reconciled.

- **An overall presentation** (or series of presentations) to familiarize people with the broad outlines.
- **A detailed checking** of the information with individual households or groups of neighbours to ensure that no errors have been made. This is also an opportunity to resolve conflicts or update the data with changes (e.g. in tenure or land ownership) that have occurred in the meantime. Get people's signatures to show that they concur on particular items (for example, that a particular plot belongs to a particular person). This helps prevent them backtracking later.

Information is not neutral: it may be conflicting or politically sensitive. It may be necessary to have an arbitrator to help resolve conflicts along with representatives of the community and other stakeholders. It is best to avoid using the courts if possible because of the expenses and delays this entails.

Use

Once the information has been gathered analysed and validated, it can be used to plan and implement the PILaR project. See the other chapters in this book on how to do this.

Storage and maintenance

How should the information be stored? Who should be responsible for keeping it updated?

Part of the information will need to go into the official records – the cadastre and land records system. Consider ways to keep the community involved in updating these re-

ords after the land readjustment has taken place. Because these records will carry legal weight (for example for claims to particular plots), you will need to ensure that changes can be appropriately validated.

Other types of information (such as demographics) carry less legal weight but are useful nonetheless. Here, the community can play a big role in keeping the data up to date. Perhaps a local NGO or community group can be entrusted with maintaining the records.

Keeping the data in the “cloud” permits trusted individuals to make changes and at the same time allows others to have access to the information.

Data collection is not a one-off activity. Some types of data will be updated automatically if the administrative systems are functioning well. The cadastre, for example, will be updated continuously through the process of registering land transactions. Even so, it is advisable to check a sample periodically to monitor whether the registration system is working properly.

Other types of data, such as income levels or numbers of tenants, are not updated automatically because the municipality does not keep track of them. Depending on the pace of change in the area, such records will quickly become out of date. It may be necessary to conduct periodic sample surveys to refresh the information so it can be used in planning.

CONSIDERATIONS IN DATA GATHERING

COST OF INFORMATION GATHERING

How much does information gathering cost? Collecting information can take a lot of staff time, energy and money, especially if conventional survey methods and professional staff are used. Make sure that these costs and the time required are built into the project budget and timelines.

Participatory approaches and gathering data in digital form can reduce the costs. You will have to invest in training and supervising members of the local community and in the digital equipment and software required. Bear in mind that local community enumerators should be reimbursed.

AMOUNT OF INFORMATION

It is tempting to collect a lot of information in order to get a complete picture of the situation, or in case it comes in useful. That has two big disadvantages:

- It requires a major effort, both on the part of the enumerators and from the people interviewed. That increases the time required and cost of gathering the information. Faced with lengthy questionnaires, interviewees may refuse to answer (or give unreliable responses), and the enumerators may be tempted to skip questions or fill in dummy responses.

- Analysing mountains of information takes time. The full analysis may not be ready in time, making the baseline useless for planning or evaluation.

Some suggestions to overcome these problems:

Decide if you really need it. For each type of data, ask yourself why you need to collect it, who will use it, and for what purpose. Then divide up the information into categories:

- Must know
- Should know
- Nice to know.

Top priority goes to the must-know data; you can probably avoid collecting the “nice-to-know” information altogether.

Split the data collection into manageable chunks. Design separate surveys to gather information on different topics. Do an initial survey to gather the information you need to start the project. Then do additional surveys to gather information on specific subjects.

Use samples. It may not be necessary to question everybody in the population. To measure poverty levels in the project area, for example, it may be enough to take a random sample of residents.

Use proxy measures. Gathering certain types of data can be very time-consuming. To count the number of households in the area, The Medellín project supported by UN-Habitat counted the electricity meters on the outside walls of the buildings. That saved having to knock on doors and hope

there was someone in who was willing to answer the enumerators' questions. It assumed that each household had its own meter (a reasonable assumption in this area).

PRECISION

Some data have to be precise: for example, the list of people who are to receive reallocated plots must be definitive (no one missed out; no one mistakenly included). Other types of data do not have to be as precise. Examples include the area of the original plots and the income levels of people affected. It is not necessary to measure these to the nearest square centimetre or shilling. Trying to do so will raise expectations that cannot be fulfilled.

Bear this distinction in mind when planning to gather data. It is quicker and easier to collect rough data than it is to measure things precisely. And it is better to be roughly right than precisely wrong.

TRANSPARENCY VS CONFIDENTIALITY

What information should be open, and what should be confidential? In general, it is best to be as transparent as possible. That means that all decisions should be made openly, with the participation and approval of the people who will be affected. Maps, plans and statistics should be made available so people can understand the project goals and details.

But the project will also need to gather information about individuals or households

that they may prefer to keep confidential. Indeed, they may divulge such information only if they are confident that it will stay a secret. Examples are incomes and relationships within the household, and the precise amount of compensation that each household receives. The types of sensitive information may vary from place to place.

Such sensitive information should remain confidential. In principle, each individual or household should be able to view and correct their own information, but not that of others (see *Ownership* below). But at the same time, participatory enumeration and mapping rely on neighbours' cross-checking each other's statements and claims. This is to prevent people claiming more land than they are entitled to, or conversely, claiming to be poorer than they really are in the hope of preferential treatment.

The project team, in conjunction with the local people, should decide what types of information should be kept confidential and what should be open.

OWNERSHIP

Who "owns" the data about individuals and the community? "Data ownership" means two things: the authority to allow or deny access to the data, and the responsibility for the data's accuracy, integrity, and timeliness.

In general, data should belong to the sources it came from (Figure 37). So individuals should own data about themselves: they must be able to allow or prevent other people from seeing and using it. The community (or a representative body of community

members) must be able to do the same for aggregated, anonymized data. But this data should be made more widely available.

It is vital that information not be appropriated by the municipality, some other government body or the private sector and used against the local people. That would breach the trust between the project agency, municipality and the community that is vital for project success.

Some information, such as land registration information (the location and boundaries of plots, and the identity of the people who hold rights to it), has legal implications and must be maintained by the relevant authority (such as the municipality's land registration office). But this office cannot change it without the express permission from the landowner – so the ownership is joint.

While designing the data collection, the project implementing agency should discuss these issues with the community members and reach an explicit agreement with them on who has access to and control over the

information, and how to manage such access.

USE BEYOND THE PROJECT

The information gathered will be useful not only for the project, but also for other purposes – for maintaining the cadastre and land register, monitoring progress, and planning further interventions in the community.

Make sure that using the data in such ways does not violate the principles of ownership (see above).

The information should also be used to change how official systems work – to make them more responsive to the needs and aspirations of local people. Gathering data in a participatory way helps people get organized and gives them the awareness and information they need to lobby other stakeholders and the municipality. A trusted local organization can help the community to make the most of the information.

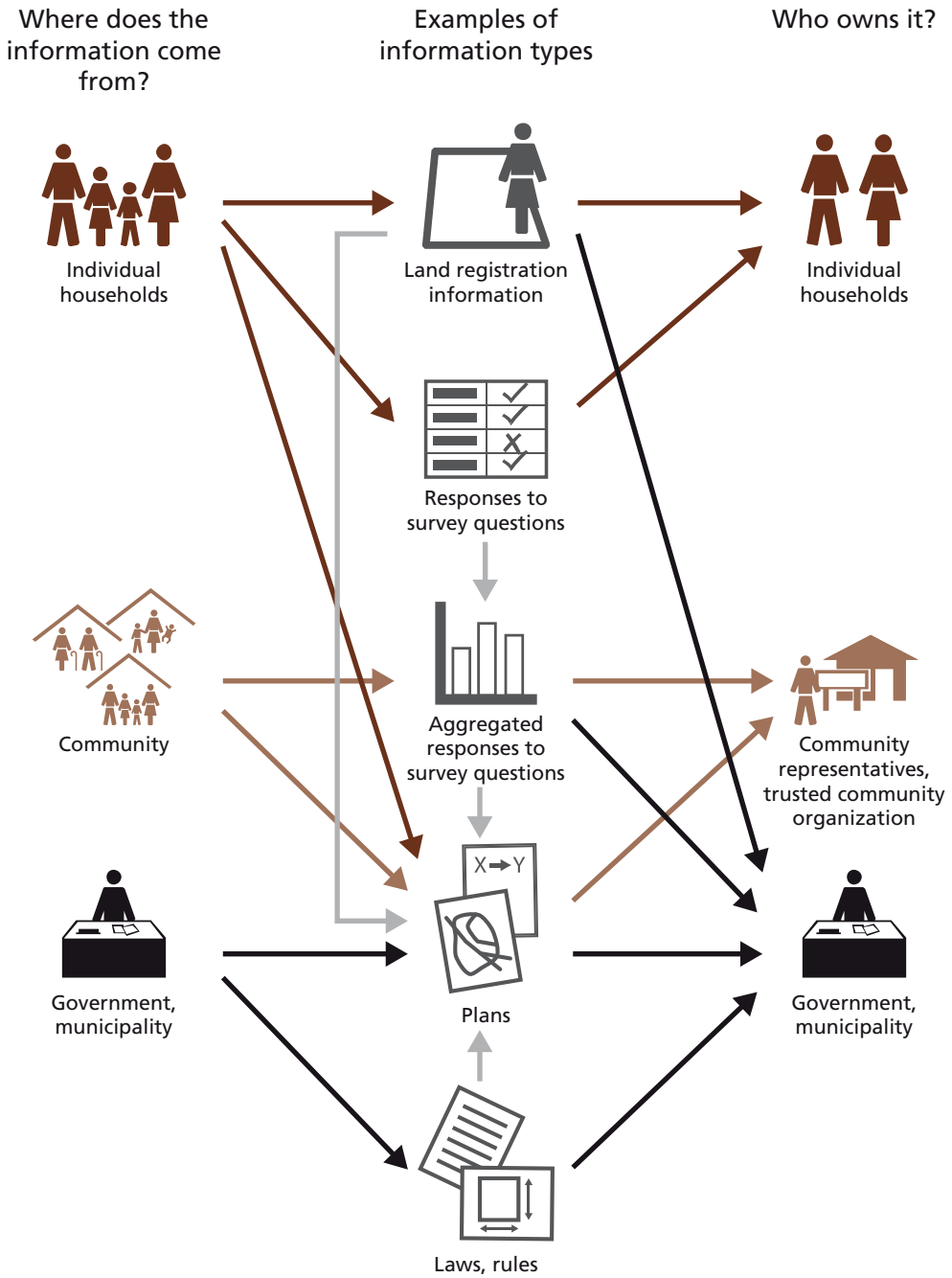


Figure 36 Where does information come from? Who owns it?



7

ENGAGING WITH STAKEHOLDERS

ONE HUNDRED PERCENT public agreement! A complete success for the land readjustment project in Lungtenphu, on the edge of Thimphu, the capital of Bhutan (Figure 38). But the agreement did not come easily. It was the result of intensive stakeholder engagement by the project.

Landholders were very sceptical at first. Some had already had to give up land through compulsory acquisition orders in order to build an expressway, sewerage facilities, a housing project and schools. When the land readjustment project was proposed, some were bitterly opposed: they did not trust the government, and they had the law and parts of the government on their side: neither the Ministry of Agriculture nor the National Environment Commission supported the idea of land readjustment.

But the government wanted to avoid the complicated and expensive process of acquiring land. So it engaged in a series of consultations with the local community. It established a public consultation unit, held public meetings, used to media to inform and conduct debate, invited landholders to visit the planning offices, and held one-on-one meetings with individual landholders. These initiatives worked: they enabled the landholders' concerns to be incorporated

into the plans. Ultimately, some of the people who had originally taken the government to court became staunch supporters of the land readjustment.

Many people have a legitimate interest in a land readjustment project. They may be affected directly – as the owners or land or buildings, as residents of the area, or as people who own businesses or work there. They may provide services to the area or depend on it for their livelihood. They may hope to gain something from the readjustment and the subsequent redevelopment.

You cannot keep everyone happy all of the time. But you can try to keep as many people as happy as possible. A PILaR project does this by engaging actively with the community and other stakeholders at all stages. It seeks their opinions, involves them in the planning and design, and provides them with the information they need to make informed decisions and choose among a series of technical feasible options. It aims to build consensus, trust and support among the stakeholders. It tries to ensure that they all benefit from the project, and that no one is harmed.

Doing this takes time and effort. But the risks of not doing so are greater: a high-handed

Remaking the urban mosaic



Before land readjustment



After land readjustment

Figure 37 Cadastral maps before and after the land readjustment in Lungtenphu, Thimphu

approach, where professionals make all the decisions and present them as a fait accompli to the other stakeholders, is much more likely to lead to dissatisfaction with the municipal government, protests and a breakdown in social order.

This chapter gives an overview of stakeholders and community engagement, focusing on the nature of the engagement and aspects such as human rights, power relations, gender, youth and capacity development. See also Chapter 6 on data gathering and Chapter 10 on communication for ideas on how to deal with these issues.

WHO ARE THE STAKEHOLDERS?

The stakeholders in a PILaR project consist of a wide range of actors. They include the local residents, businesses, service providers and organizations (the “community”), absentee landowners and landholders, as well as people in neighbouring areas, NGOs, the municipal government, neighbouring local authorities, local land professionals, academics, project partners, property developers, banks and donors and the media (Figure 39).

THE COMMUNITY

The community consists of a wide range of stakeholders, who may have different and conflicting views and interests. The bound-

aries of the “community” are fluid: it can be hard to tell whether someone is part of the community or not (and it may not matter much – more important is whether the person has a legitimate interest in the area). The most important groups include:

Landowners and landholders These are the people who hold formal or in some cases, informal land rights and claims to land and/or buildings. They may be residents, or they may rent out some of their land and property to others. Their claims may overlap; several individuals may claim the same plot, and they may disagree about the plot boundaries. Some may not actually live in the project site: they may have moved away and be hard to contact. They may have died, and their heirs may disagree over who owns the land. The documents for some plots may be unclear. In some countries, the government may formally own the land, but individuals have leasehold or other forms of land rights.

Tenants Tenants are residents who pay the landowners or landholders for the right to use the land or might sublet a room or part of a house from another tenant or via some other arrangement. They may have a formal contract or an informal agreement with the landowner or landholder. Their rights may be protected by law. Tenants may sublet all or part of their properties to sub-tenants. Informal residents occupy the land illegally, though in some countries they may have certain formal legal rights. Even where they are not protected by law, they still have basic human rights that must be respected.

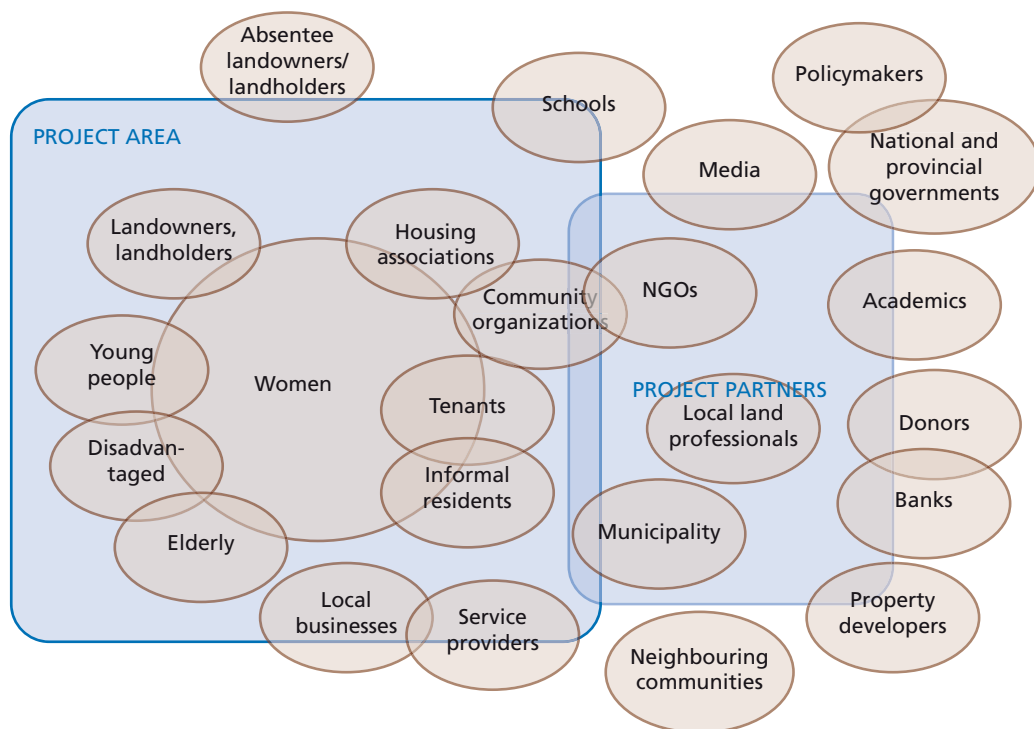


Figure 38 Stakeholders in a PILaR project

Women Women are often disadvantaged when it comes to land rights. They may lack formal legal rights: in some countries they are not allowed to own or inherit land by tradition or law. They may traditionally not be permitted to appear or speak in public, or may have to defer to their husbands’ or male relatives’ decisions. Single women and widows are particularly at a disadvantage here.

Young people Children and young people have their own interests that their elders may ignore. Adults may not realize the importance of facilities like schools, parks, playgrounds and sports facilities. Young adults may be more interested in renting housing than ownership. Children and young people typically lack the opportunity

to express their views in public. And young adults are the perpetrators of much of the crime that occurs in urban areas.

Older people The elderly and infirm have special interests and needs: such as green space where they can sit and meet their friends. They may be unable to attend community gatherings, and unwilling to swap their current housing, however unsatisfactory, with newer accommodation. In some cultures, the elderly are respected and privileged; in others, they are instead neglected.

Other disadvantaged groups These include the disabled, ethnic and religious minorities, lower castes and legal and illegal immigrants. Because they tend to be poor, they often live in the sorts of areas subject to land readjustment schemes.

Community organizations These include a wide range of organizations: faith-based groups, educational and lobbying groups, sports clubs and special interest associations, as well as organizations specifically interested in land and accommodation issues. They are important partners in a land readjustment project. If the project approaches them in the right way, they can be important allies; if not, they can be tenacious opponents.

Housing associations These may play a lead role in the land readjustment, or they can play a major role in organizing landowners, landholders and residents – especially the poor. If an association does not already exist, consider helping form one to represent their views.

Local service providers These include health, welfare, social services and schools in or around the PILaR site.

Local businesses In slums, many local residents may own, run or be employed in businesses within the project area. Retail is often a big source of employment, with shops, retail stalls and mobile vendors selling a wide range of items. Other common types of employment include food preparation and sale, construction, transport, security, small-scale manufacturing and repair, and services such as hairdressing and entertainment. The government itself may employ people – in things like administration, construction and waste disposal. In rural areas (and in urban areas too), crops, livestock and horticulture may be sources of income and food.

OUTSIDE THE COMMUNITY

People in neighbouring areas may stand to benefit from the land readjustment process because of improved access and services. Or they may fear the disruption caused by the redevelopment.

NGOs Two types of NGOs may be interested in the project: those already working in the area, and those with an interest in land issues. Those working in the area can be a valuable source of information, advice, organizational skills and connections with the community. Those with an interest in land issues can be vital partners in designing and implementing the project. NGOs may be suspicious or hostile to the project, and they can be effective opponents if they disagree with it. Or they can be equally effective supporters. So it is important to work with them, get their inputs and ensure their concerns are taken into account.

Local and municipal government and policymakers Various branches of the municipal government need to be involved in the project: the units responsible for planning, land registry and cadastre, finance, legal issues and infrastructure, as well as the mayor's office (or its equivalent). Managers and key staff of these units will need to understand the project's goals and contribute to the design and implementation (see Chapter 3). Support is also needed from elected officials such as councillors and the local member of parliament.

Neighbouring authorities These will be interested in a PILaR project on the edge of the city, especially if a boundary change is proposed.

Academics Universities and research institutes can provide the academic support needed to design and implement a land readjustment project (for example, in designing an enumeration or assistance with planning the readjusted area). They can also offer independent assessments or mediation where required.

Project partners Other potential project partners include professionals such as lawyers, surveyors, valuers and architects. The project will typically hire these to provide advice or to perform specific tasks.

Property developers These can provide expertise in designing and building infrastructure and buildings. But they may have a commercial interest in the redevelopment, so care is needed in dealing with them. Contracts should be put out for open, competitive tender, in accordance with the law.

Banks and donors These may lend (or grant) money to the project, so they will want a say in how it is invested and need to be kept informed about the goals and activities. Landowners, landholders, residents and businesses affected by the project may also want to borrow money from banks to purchase plots, invest in new building, cover the costs of relocation, or bridge over the period of disruption.

Media Local radio and television stations and newspapers can also be either supporters or critics of the project. Find out who the relevant journalists are and keep them informed throughout. The media can also be a valuable conduit for keeping the local community informed about the project's progress and for soliciting their inputs.

COMMUNITY ENGAGEMENT

Community engagement (Box 26) lies at the heart of a PILaR project: it is what enables it to be participatory, inclusive and equitable. Without proper community engagement, a PILaR project would be little different from a conventional land readjustment project.

The engagement must be **genuine**. It gives the community a significant say in the project decisions. It keeps the community informed, solicits their opinions, and ensures those opinions are taken into account in the planning and implementation.

The engagement takes power relations into account (see below). It ensures that people who are vulnerable or tend to be left out are given the opportunity to make their voice

Box 26 Community engagement

“Community engagement is a process that requires power sharing, maintenance of equity, and flexibility in pursuing goals, methods, and time frames to fit the priorities, needs, and capacities within the cultural context of communities. Community engagement... is often operationalized in the form of partnerships, collaborative, and coalitions that... help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs, and practices.”

Source: Ahmed and Palermo, 2010

heard. It is necessary to get local people's trust, support and acceptance.

The engagement runs through **all components** of the project: planning, legal, finance, plot allocation, etc. It must involve not only the team of community workers, but also the technical specialists. These specialists will need to adjust how they work and may need to learn new skills in working with local people.

Community engagement is not just a “nice thing to do”. It is also a **vital aspect** of the PILaR project. For example, where official land records are incomplete, disputed or do not reflect the current land use, community engagement can provide vital information on who actually lives on the land and their tenure status. It makes it possible to map the location and boundaries of plots. It helps quickly resolve disputes that would otherwise take years through conventional legal procedures.

A PILaR project needs to work with local residents. They have to be **organized** in some way to make this possible. If local organizations do not already exist – or if they are not representative – the project will have to help create them.

COMMUNITY ENGAGEMENT THROUGHOUT THE PROJECT

The most important way to understand the local reality and the stakeholders' relations to land, property and tenure is the **participatory enumeration and mapping** (Chapter 6). But this is only part of the community engagement process. The en-

gagement must run throughout the project life and must be coupled with an effective communication strategy (Chapter 10). Figure 40 lists methods at each stage in a PILaR project.

MANAGING COMMUNITY ENGAGEMENT

Conventional land projects often allocate the task of community engagement to a team of community organizers or social workers, or even subcontract it out to an NGO, leaving the specialist technical teams working on finance, planning, law etc. to work independently and undisturbed. The technical teams deliver their plans to the community for approval, and are often unwilling (or unable because of deadline or budget pressure) to make any significant changes or listen to the community. The result is plans that reflect technical considerations rather than the wishes of local people.

This is a mistake. Community engagement is central to a PILaR project: the technical work must be informed and guided by the community, who should be closely involved in the project design and decision making.

In urban expansion and city-centre projects where relatively few residents are affected, the amount of effort needed for community engagement is fairly small. But for land readjustment in slums, thousands of residents may be affected, and lot more attention is required.

In such situations, consider setting up a **project office** in or near the land readjustment site, staffed by a team of community

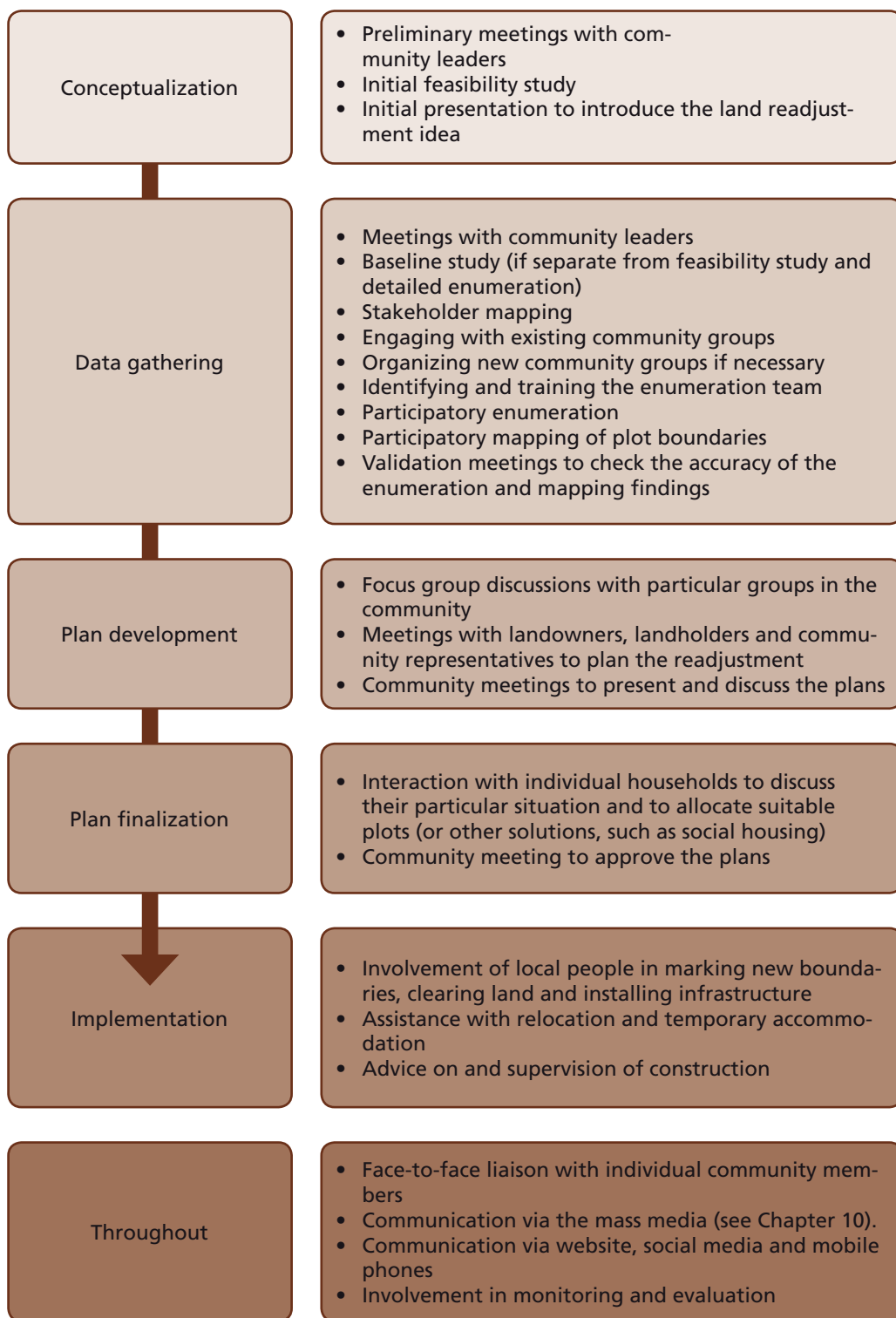


Figure 39 Community engagement at each stage in a PILaR project

specialists. These act as the liaison between the rest of the project team and the local community. They present the project to the local people, coordinate the participatory enumeration, organize meetings, answer questions and act as a conduit for feedback. The community specialists collaborate closely with the technical specialists, and ensure that the community is closely involved in and informed about the technical work. The more people affected by the project, the stronger the communication effort will have to be (Chapter 10).

POWER RELATIONS

A land readjustment project brings into sharp focus the power relations within the community and outside it, and within the

process itself. Powerful stakeholders include the municipality itself (or certain units within it), donors, banks, and land professionals such as planners and valuers. Within the community, landowners and property owners with formal titles are likely to have more influence than those with informal or customary rights and claims, or tenants and informal residents. Men tend to have a bigger say than women; older people's voices carry more weight than those of the young, and so on (Figure 41).

The powerful are more likely to have their interests reflected in the planning and implementation than are the weak. The PILaR approach tries to even out the power imbalances and ensure that the weak are also heard. The principal method of doing this is through community engagement.

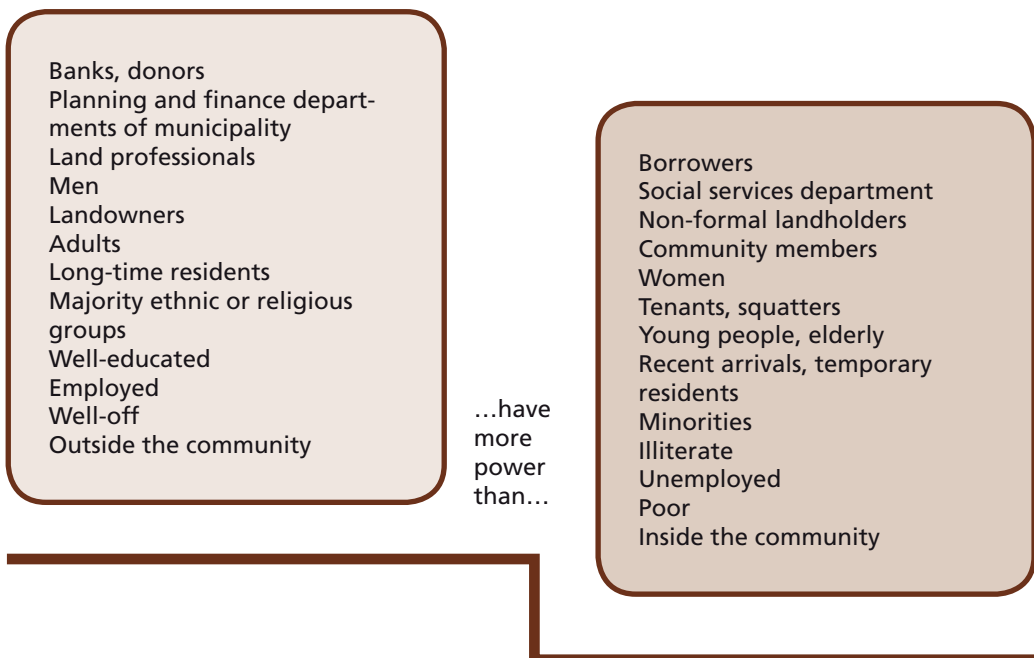


Figure 40 The powerful and the less powerful

People who tend to be neglected tend to fall into two categories:

- Those who are **willing but unable** to participate for a variety of reasons such as cultural or language barriers, geographical distance, disability or socio-economic status; and
- Those who are **able but unwilling** to participate because they are not very interested in politics, do not have the time, or do not trust government to make good use of their input.

It is important to consider these questions:

- Who is initiating the change and why?
- Who are the beneficiaries of the change, and what will they gain?
- Who is vulnerable to the change and why?
- What are the impacts, both positive and negative, short or long term.

DISADVANTAGED GROUPS

WOMEN AND GIRLS

Women and girls face several disadvantages when it comes to land:

- They may be prevented by formal or customary law from owning, inheriting or renting land or property.
- The land or property may be registered into their husband's or father's name rather than their own.
- They have little voice in discussions and decisions about land: they tend not to be invited to meetings, or to attend even when invited (perhaps because of household duties); they are expected to keep quiet or defer to men; they tend to be less well educated and less articulate than men.

“PILaR wants to engage people across the spectrum of the stakeholders and the communities involved. This involves understanding about everyone and including everyone.”

Melissa Permezel, urban specialist,
UN-Habitat



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-permezel-stakeholders

Box 27 Gender evaluation criteria

The Global Land Tool Network's gender evaluation criteria are a flexible framework to test the gender responsiveness of land readjustment and other land tools.

The six criteria relate to women's and men's access to land:

- Equal participation
- Capacity building
- Sustainability
- Legal and institutional considerations
- Social and cultural considerations
- Economic considerations.

The criteria include a series of questions to pose and suggestions for ensuring that both women and men included in the process. The gender criteria have been tested and applied in Brazil, Ghana, Nepal, Rwanda, Tanzania, Togo, Uganda and Zimbabwe.

More information: tinyurl.com/pvy5xt3



Figure 41 Training materials produced by the Global Land Tool Network on applying the gender criteria

- They are less likely than men to be able to enforce their rights in the courts or through the traditional justice system.

Because of these problems, the PILaR project must pay special attention to gender issues. The **gender evaluation criteria** developed by the Global Land Tool Network let you systematically assess and increase women's land rights (Box 27).

Applying the gender criteria to PILaR will ensure that the interests of both women and men are taken into account. For example, the project must take into consideration how women earn their livelihoods. It must ensure that both men and women can ex-

press their needs and concerns. It must involve both in identifying infrastructure priorities, and provide mechanisms for both to resolve disputes. It should ensure that women benefit from the project's capacity development efforts.

YOUTH

Young people – or in UN language, “youth” – are major users of public space in cities. But they have little say when it comes to making decisions about land. Surveys often question only the head of the household – usually an adult male – and ignore the in-

terests of younger people in the household (and women, of course). Many recent migrants to cities are young, so they tend to be recent arrivals and have insecure tenure rights to their homes. This means special efforts are needed to ensure that their voices are heard and cater to their needs (Box 28).

Young people have different needs and interests from their elders. They tend to be more interested in things like sport and recreation facilities, education and entertainment. They may be interested in low-cost rental housing so they can set up an independent household and start a family. They may prefer to seek employment locally. So a redeveloped area needs to provide adequate recreation and educational facilities, as well as low-cost housing and opportunities for small businesses to set up and grow.

Young people are often the perpetrators of a large proportion of urban crime, especially muggings, murder and gang violence. But they also tend to be the main victims

of such crimes. Better urban design (wider roads, street lighting), improved services (youth facilities, security and policing) and greater employment opportunities can help reduce crime rates.

At the same time, young people should not be seen as a problem, but as part of the solution. They are an important part of the future of the city, and can provide energy and resourcefulness for the neighbourhood to grow and adapt. They can also play a vital role in the project – for example, by gathering information during the participatory enumeration, or clearing land and constructing infrastructure.

ELDERLY

In some cultures, older people have disproportionate amounts of power: committees of elders make the key decisions. Elsewhere, older people may still be treated with respect, but the true power lies elsewhere.

“We are developing a renovation process in La Candelaria, and the PILaR approach will allow us to retain all the community in the place and avoid displacement of people.”

Maria Buhigas, urban and planning development specialist, Urban Facts



Photo: Rose Kipyego, IIRR



tinyurl.com/pilar-buhigas

Box 28 Youth and land

Youth is one of the cross-cutting issues (along with gender and several other topics) addressed by the Global Land Tool Network in developing tools to manage land. The network has developed and tested an approach to check the actual and potential role of youth in Brazil, Kenya and Zimbabwe. This may also be useful in PILaR projects.

More information: tinyurl.com/pm9xa5n

And in some societies, elderly people have little say and tend to be forgotten, especially if they are infirm.

The elderly may feel they have a lot to lose and little to gain from land readjustment. They may be attached to their current land or housing and reluctant to move, even if there are promised significantly better accommodation. They may fear the disruption of moving, the noise of construction and the break-up of familiar networks of friends and neighbours. Younger people may experience similar emotions, of course, but they generally find it easier to adapt to new situations.

Elderly people may have less access to the media and other communication channels than their younger neighbours. They may be less literate and numerate; this applies especially to older women.

PILaR should ensure that the interests of the elderly are taken into account. In particular:

- You may need to make special efforts to contact them and to explain the land

readjustment process to them and how they and their children (and grandchildren) will benefit.

- Ensure that they have the opportunity to express their wishes and influence the direction and details of the land reallocation.
- Ensure that the planning and design takes their needs into account. For example, housing, streets and open space should be designed with the elderly and people with disabilities in mind. Design features can range from the macro (easy access to shops and public transport, open space where elderly people can relax) to the micro scale (pathways separated from traffic, ramps to allow wheelchair access, etc.).

OTHER DISADVANTAGED GROUPS

These may include religious and ethnic minorities, recent lower castes, people with disabilities, people living with HIV/AIDS, the sick, etc. Some of these individuals have few social contacts outside their own group. Others may have few links with others in a similar situation to themselves. They may be excluded from services that others take for granted. That makes them especially vulnerable. Special efforts are needed to listen to their views and to ensure that they benefit from the project.



सत्यमेव जयते

GOVERNMENT OF GUJARAT
LEGAL DEPARTMENT

PRESIDENT'S ACT No. 2

The Gujarat Town Planning
Development Act, 1961

Source: Town Planning Schemes in Ahmedabad, presentation by Environmental Planning Collaborative (EPC), Ahmedabad, India. Image courtesy – EPC.

[As modified upto the 15th November

8

LEGAL ISSUES

LAND READJUSTMENT INVOLVES a change in people's legal relationships in the same way that it alters their physical ones. This means that there are three fundamental considerations:

- To provide the framework within which relationships can be changed in a clear and predictable manner that causes the least stress possible.
- To ensure that the framework is fair and will treat individuals and groups equitably, particularly the poor, women and the vulnerable.
- To provide the vehicle for the implementation of government policy on the ground.

In developing or reforming legal frameworks, efforts should focus on the specific challenges and objectives. It is best to design a framework that channels existing behaviour in the desired direction. Avoid trying to impose or force, particularly if the governance is weak, as this will make it more likely that the law will become irrelevant to people's lives.

In many countries that want to undertake land readjustment, a specific legal framework is not in place. But it is usually possible to adapt a range of existing legislation to produce the desired results.

This chapter is divided into two parts:

- The first part considers the legal basis of land readjustment. It includes identifying the legal framework and, where this may be absent or weak, options for how to work around it.
- The second part considers the more detailed mechanisms to implement a project.

Throughout, we emphasize practical experience rather than legal theory.

STRATEGIC ISSUES

PRINCIPAL ACTORS

Who may initiate a land readjustment project? The law may specify that only public-sector bodies (such as the municipality) may do so. If so, the public sector should be willing to initiate projects on behalf of other actors.

The law may also specify who is responsible for managing and for regulating the project. The lack of a clear lead regulatory agency can lead to lack of accountability, and the

Box 29 Policy and law

What comes first: policy or law?

In general, policy should determine the law: the government decides what the policy should be, and then passes a law reflecting this.

However, the relationship may also be the other way round: laws determine policies. This happens particularly at lower levels of government: the national government passes a law, and govern-

ment agencies and municipalities have to decide how to implement it.

Laws may be unclear or may conflict with one another. For example, a law on property development may conflict with one on environmental protection. In such cases, the concerned authorities must decide which law has precedence, or must try to find a compromise that does not violate the principles of both laws.

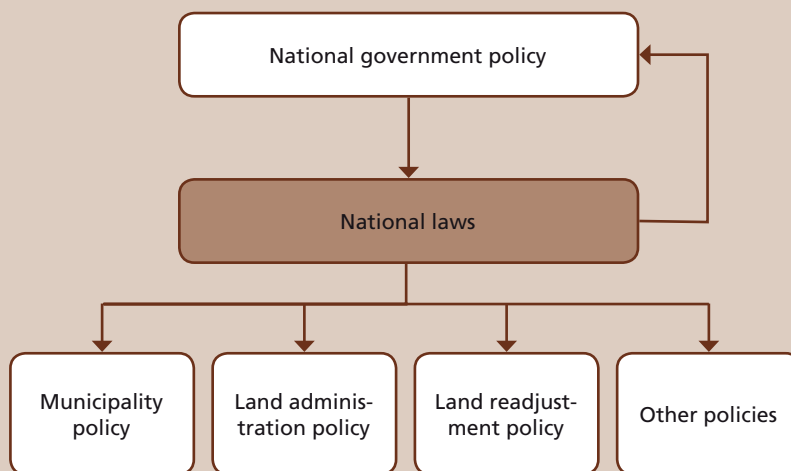


Figure 42 The relationship between policy and law

relationships between the regulator and the project implementation need to be well understood to avoid conflicts of interest and promote a healthy public–private balance.

The regulatory responsibilities must be well grounded in policy: the criteria to apply in making decisions must be clearly specified, otherwise the implementing agencies will have almost complete discretion on detailed standards and decisions. Where this is the case, more transparent standards can be de-

rived from policy and established as ad-hoc legal instruments through administrative decision or by contract.

Using a **contract** to do this is an attractive approach as it can engage the full range of stakeholders and empower them as active participants early on. This can be particularly important if the project area has a lot of tenants and informal occupiers whose interests have not been adequately considered in development decisions. Such an approach

can enable all stakeholders to play a role in the project oversight and management.

APPROPRIATE LAW AND POLICIES

The appropriate laws and policies to use will depend on the situation.

- A **city extension** will require specific legal interventions that cover the city boundary and the conversion of rural to urban land.
- An **infill** is likely to involve housing legislation, including social housing, building law, and appropriate bylaws.
- If **vulnerable groups** reside in the area, more emphasis will be needed on the protection of rights.
- If there are **informal tenure** arrangements, mechanisms will be needed to regularize the residents' rights or interests, or to offer them alternatives.
- If the majority of landholders and residents are **better off**, the emphasis will be on market mechanisms and potential for capital gain.

WHERE LAND READJUSTMENT IS ALREADY RECOGNIZED IN LAW

Where land readjustment is a regulated method of land management, it will be covered by a national law on urban policy and urban development issues, or by specific acts regulating the different aspects of the method.

If there is a specific law, this should be the basis for discussion and analysis, even if it is

dysfunctional or not used (Box 30). The specific responsibilities and processes should be mapped out and, if there is any experience in implementing land readjustment or a similar type of project, this should be documented and any weaknesses analysed.

Because land readjustment is a complex procedure, any law will require a set of implementing regulations. The project's experience with using these should be documented and shared with the responsible authority to enable the law to be developed further. If no such regulations exist, the law can be used as a basis and the project can be used to develop the regulations.

The written law and actual practice may vary. Having a pre-existing law does not always help with the design and implementation of land readjustment if the legal provisions do not reflect realities on the ground. Key characteristics of existing practice that should be identified include:

- Legal structure (principal instruments and their relationships)

Box 30 Getting the law used

Legal regimes sometimes take time to develop in practice. In Colombia, land readjustment has been explicitly regulated since 1989. In 1997, the regulation of land readjustment was effectively integrated into planning tools (partial plans). But it is only recently that the main municipalities (Bogota, Medellin, Barranquilla) have begun to use and promote these tools.

Remaking the urban mosaic

- Types of actors implementing land readjustment projects
- The nature and levels of required participation by landholders
- Cost-recovery mechanisms
- Requirements for land contributions
- The role of the public sector
- The procedures used by the government for calculating costs and doing financial analysis
- The means of valuation and exchange values: area-based (land or built space) or price-based?

Check whether the law covers only specific geographical areas or situations. If so, what conditions are required before it can be applied?

Other questions:

- What does a mandatory scheme imply: are the reluctant landholders forced to participate in the readjustment, or are they expropriated?
- Is it possible to freeze property values or development permits within an area formally designated for land readjustment?
- Is it possible to set cut-off times for participation in a given project?
- Are there any rules or criteria to define the location of the plots or properties that a landholder receives as a result of the land readjustment?

WHERE LAND READJUSTMENT IS NOT RECOGNIZED IN LAW

If the law does not directly provide for land readjustment, it may be impossible or very difficult to do it. Nevertheless, check other regulations and practices to see whether they could be reasonably adapted. For example, laws or regulations on property rights (e.g., rural land management), urban policy frameworks or previous projects may

“PILaR places great prominence on the legal framework – to ensure that everyone has a right to participate fairly and equally, to also ensure that everybody has a stake in the outcome of the project.”

Robert Lewis-Lettington, UN-Habitat



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-lewis-lettington

Box 31 Notice and publication measures: Borrowing related legal mechanisms

A project has to make the public (and especially people who are directly affected) aware that it exists and about what it is doing. The law will specify how it must do this. The requirements may depend on how important the project is: strict for big projects, less so for smaller ones.

A land readjustment project is like a de-

tailed planning process, so the same notice and publication standards that are required for detailed plans might be applied. But land readjustment also affects property rights – a particularly sensitive area – so the standards associated with expropriation might be more appropriate.

offer precedents or analogous approaches. You may be able to build an argument for the legal feasibility of land readjustment, or at least start a debate on the need for new regulation or amendment of the rules.

In practice, land readjustment relies on a series of actions that are generally possible even if no explicit law exists. You may be able to compile such a set of actions from generic mechanisms and processes (Box 31). The critical issues tend to be the determination of common action and the ability to address holdouts.

Where there is no explicit legal framework, you should consider the following:

- The constitution
- Laws covering planning, land acquisition, expropriation and compensation, condominium
- Laws covering cooperatives, land trusts, real estate development corporations, community organizations and joint schemes for private–public–community participation

- Foreign and local investment equity requirements
- Regulatory instruments such as master plans and building codes
- Administrative procedures for public communication and notification
- National, regional and municipal development policies.

NON-OWNERS

In most conventional land readjustment, the landowners are the principal beneficiaries and decision makers, and they have a major interest in participating. But PILaR aims to benefit a wider group, including all landholders and current residents no matter what their formal rights to the land.

The types of solutions for these stakeholders must be defined, and the formal owners, the landholders, residents and the project management team must formally endorse the arrangement that is agreed to.

THE POOR

Legislation may specify who must be regarded as “poor” and the types and levels of benefits they are entitled to. If this is not specified in the law, you can use the community enumeration to determine who in the area is poor and should be allocated special treatment.

DEALING WITH HOLDOUTS

If some formal landowners do not agree to the land readjustment, the law will determine what the project can do: a negotiated buyout or compulsory acquisition (eminent domain) power to acquire the land. If neither of these is possible, the project will have to reach agreement with 100% of the landowners.

One of the reasons for land readjustment is to avoid the expense and legal hassle of expropriating land for development. Despite this, the threat of expropriation in the last resort is a useful weapon to discourage holdouts.

HANDLING DISPUTES AND GRIEVANCES

Disputes and grievances are inevitable. They are best resolved through community mechanisms or an arbitration committee; the courts should be a last resort because they take time and are expensive. See Chapter 4 for more.

OWNERSHIP TRANSFER

Two options exist for the formal transfer of land titles (Figure 44): land readjustment and land pooling.

Both are formal legal processes which involve cadastral and registration offices as well as professional services such as lawyers and land surveyors. The capacity to conduct these exercises and the quality of the cadastral and registry records probably mean that in many developing countries, the former approach (land readjustment) is preferable.

The process of marking out the land, building infrastructure and issuing formal land documents may take some time. If the cadastral and registration offices are not able to take on these tasks, the implementing agency must be legally empowered to do so.

Land readjustment. Here, the individual plots are only notionally consolidated. The implementing agency is given the right to design services and subdivide the land on a unified basis. The landholders then exchange their original plots for specified plots.

Land pooling. The individual plots are all transferred to the ownership of a community land trust (Box 32). In return, the trust issues shares to the landholders in proportion to their shareholdings with each landholder owning a percentage of the area of the consolidated plots. The trust then divides up the consolidated land into newly configured plots, and transfers ownership to the individual landholders. Here, two distinct transactions are needed: from the individu-

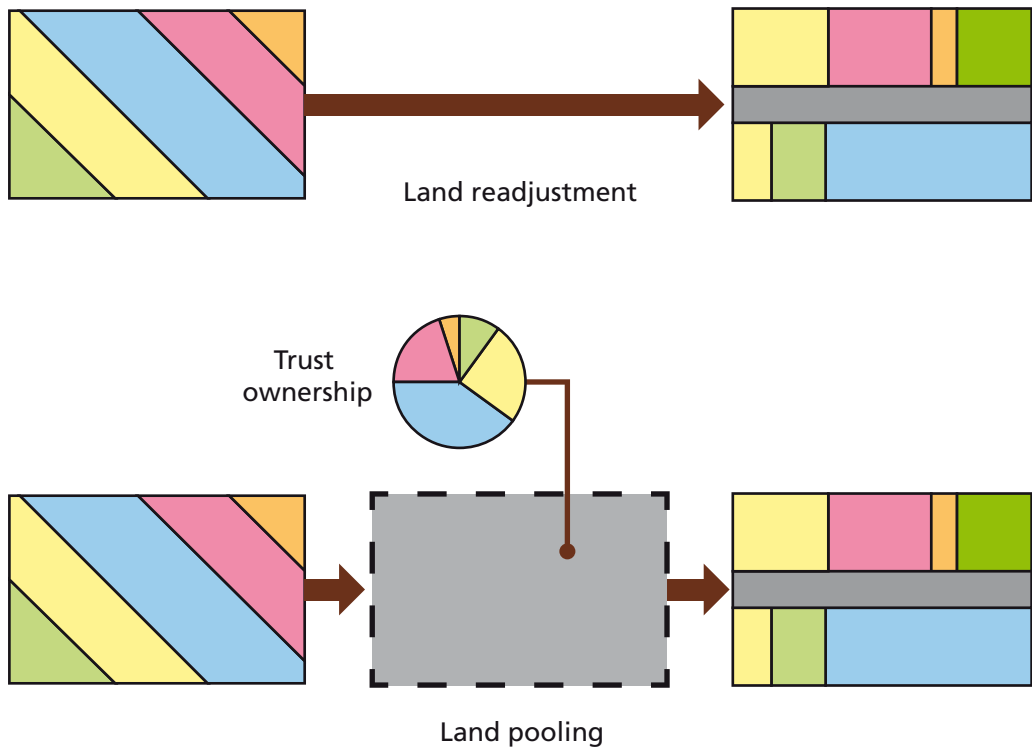


Figure 43 Options for the formal transfer of titles

al owners to the implementing agency, and back again.

The contractual agreement among all the participants needs to be set up in a way to allow them to pool/transact all their property rights together. The contributors are all the holders of disposable land rights and claims. The beneficiaries will include the contributors, plus other stakeholders (such as tenants and informal residents) who otherwise would not receive any legal protection and entitlement.

The trust can be structured so it can perform its mandate only when a minimum voting threshold, based on land area, persons, land value (or some combination of these criteria) is reached. Disputes and claims may emerge

during the project process, so include an arbitration mechanism in the contract that must be used before going to conventional courts. All residents and landholders should subscribe to it before the project starts.

PLANNING

Land readjustment needs to take into account the planning instruments (such as the city plan) that are established in the legal framework. Depending on the law, such plans may offer considerable flexibility, or very little. Similarly, the planning institutions and individual planners may be responsible for producing plans according to their own technical judgement, sometimes with minimal oversight. The resulting plans therefore

Box 32 Community land trusts

A group of individual owners could decide to pool their plots and create a community land trust (or housing cooperative or real estate development corporation) to manage them jointly. The trust is set up for the benefit of the owners (or in this case, owners, other landholders and tenants). It may sell part of the land, or rent it out in the short or long term.

Because it controls more land, the trust can do certain things more effectively than the individual owners. For example, it may be able to raise a bank loan for its members, using the land as collateral. The borrowers repay the loan by paying rent until the debt has been reimbursed.

Houses might revert to the individual owner or landholder or stay with the trust, as the owners or holders might recognize the advantages of the trust working for their benefit.

The community land trust is based on the idea that the value that can be derived from land within a community should be protected and made available for the long-term benefit of that community. It achieves this by separating rights over the use of land from the freehold ownership.

Adapted from Barlow et al. 2002

depend on the technical expertise and integrity of the individual planners. You need to understand how much discretion they have, how much flexibility there is in the plans they produce, and how the planners will be accountable, and respond, to other stakeholders.

The law may specify a hierarchy of plans, from the national down to the city, neighbourhood and local scales. But some of these may not exist, they may be out of date, overlap or contradict one another, or be ignored in practice (Box 33). So you must identify the most suitable planning instrument for the project's needs, and find out whether it is feasible to use it in terms of its legal relevance, its relevance to existing practice, and the possibility of changing it. If a master plan exists but is ignored, it may be a waste of time trying to follow it. Often, plans at the subdivision or neighbourhood are the most used, so it is worthwhile trying

to link these with higher-level policy directions. Using subdivision plans in isolation from each other will not help achieve wider policy goals. For example, the redeveloped area may end up being poorly linked to the major roads, cut off from retail centres or underserved by public transport.

SPECULATION

Land speculation can be a major challenge in a land readjustment project. When investors realize the area is to be redeveloped, they buy up land cheaply, hoping to sell it later at a higher price. Some residents may be encouraged, or even forced, to leave the area, making the project less inclusive.

Some ways to minimize this risk (some of these depend on an appropriate law being in place):

Box 33 A patchy hierarchy of plans

The planning hierarchy established in law is often not reflected in practice. For example, in Mozambique and Rwanda, the law recognizes six or more levels of plans, cascading from the national down to the project level. But in both countries only one or two levels are consistently developed, and these serve as the main instruments for action by the public and private sectors. Land readjustment projects need to accommodate such realities.

- Communicate to the community the benefits of not selling early on, and of staying in the area to take advantage of the improvements of the area.
- If the land value is chosen as the basis of calculating the land contributions (Chapter 9), use the value at the start of the project, regardless of the sale price agreed to by the landholder and the new buyer.
- Consider freezing land prices before the project intervention.
- Do not compensate for any new developments after the project is launched.
- Allocate the right of first refusal to the municipality if a landholder wishes to sell.
- Use the national expropriation regulations to prevent speculation.
- Explore the use of taxes and fees to discourage speculation.

LAND CONTRIBUTIONS

Land readjustment relies on landholders giving up a portion of their land and getting a smaller, but more valuable piece of land in return. But how much should they give up? The amount may be hotly debated, and deciding can be a big hurdle to getting broad approval.

From a regulatory point of view, the choice is between a fixed contribution of (say) 30%, or to set the amount in some other way.

Fixed contribution levels have several advantages:

- They can be established according to national policy
- They are objectively applicable to all projects and individuals
- If widely accepted and consistently applied, they remove a contentious issue from the list of points to be agreed.

However, they may also provide a focus of objection and prevent projects from being developed. They may also lead to perverse outcomes. Historically privileged areas that are relatively well supplied with public space may be required to surrender more land than is necessary. Less privileged areas may not obtain the land necessary to develop vital services and infrastructure. Fixed contribution levels tend to be set as minimum contribution levels, because of political expediency, and then become maximum contribution levels because of resistance to going beyond what is legally required.

Not having a fixed contribution level opens up various possibilities, including devolving

the decision to the municipality, and allowing contribution levels to be negotiated case by case. Such approaches also have several advantages:

- The contribution level can be set for a particular city, area or project, preferably according to transparent criteria
- Politically and socially acceptable levels of contribution can be agreed
- They may avoid entrenched objections by allowing other aspects of a project to develop while the contributions are discussed.

But a variable approach can present major obstacles.

- **Contributions too low** The level of contributions may be set fairly low: enough to address immediate local needs but not enough to address broader public objectives. This will undermine a large part of the rationale for land readjustment, because the land necessary to achieve public purposes will not be available.
- **Free riders** Some subdivisions will be developed with almost no land contributions and will seek to rely on neighbouring initiatives for public space or finance, or the idea that the public will be forced to expropriate anyway.
- **Preferential treatment** Those with knowledge and resources may try to negotiate preferential treatment.
- **Lack of transparency and risk of elite capture** Land contributions may be used to further the interests of the elite

rather than the project's public objectives.

Overall, the use of case by case variable land contributions seems to be both vulnerable to manipulation and to lead to levels of contribution that are too low to meet public needs. Unless they are supported by very clear and robust criteria and strong public oversight, they will be inadequate. Nationally imposed fixed contribution levels will probably be the most practical, particularly in resource-poor settings. If the municipal governments are reasonably capable, devolving decisions on land contribution standards to this level may be the most appropriate approach.

PROJECT-LEVEL ISSUES

SITE SELECTION

Sites for land readjustment projects are generally identified either ad hoc or on the basis of municipal-level plans. This approach is flexible, sites can be identified quickly, and there is relatively little risk of delays due to legal challenges. However, flexibility must be balanced with accountability. It is best to consider the objectives of the intervention using predetermined criteria and a transparent prioritization. Deviation from the criteria should be allowed, but only on the basis of broad agreement and written justification. The criteria should be published. Shortlisted sites should be kept confidential until a



Figure 44 Fragmentation of land tenure in La Candelaria, Medellin, Colombia

speculation strategy has been decided. This approach applies whether or not the law specifically requires it. Usually there is no bar to the authorities exceeding minimum requirements in this type of issue.

When identifying project sites, legal factors that should be considered include:

- Can the legal criteria be met for choosing the site, embodied in policy or otherwise?
- Is land tenure not too controversial? Are there not too many conflicting rights over the same land?
- Is it possible to regularize the tenure at the end of the readjustment?

- Is it possible to improve the land information and administration system?
- Is it possible to rezone the land from rural to urban or from lower to higher density, so as to increase its value?

LAND AND PROPERTY REGISTRATION AND TENURE

The legal side of the process of registering, consolidating and subdividing land needs to be considered. The land registration process itself contains the relevant mechanisms.

Tenure types You will have to decide how to recognize various types of tenure: the documents or other types of evidence

that can be accepted (such as title deeds, utility bills, actual occupancy, say-so of neighbours). The continuum of land rights (Chapter 3) is relevant here. Understanding the nature of the tenure may be more important early on in the project than trying to address the challenges revealed.

Overlapping interests These may need to be recognized. At first, it is more important to map out the interests that exist rather than trying to resolve any conflicts. The land readjustment process itself may be used to resolve the conflicts in a non-confrontational way.

Absentee and non-responsive owner or landholder You will need to decide early on how to treat unidentified or non-responsive owners. For example, a non-responsive owner could be deemed to consent to a project after a fixed period of time. Non-responsiveness may be used as a justification for expropriation provided there is evidence of efforts in good faith to contact the individual concerned.

Rights of informal residents National law may give tenants and informal residents rights to be part of the project approval process. Or it may give them nothing more than a right to more than compensation for disturbance. However, international law guarantees prohibits forced eviction – and this is often reflected in national laws too. That gives the municipality and landowners a strong incentive to try to achieve consensus with the informal residents.

Rights of women Land and property is often vested in the name of the man (the “head of household”) alone. It may be pos-

sible to take advantage of the land readjustment process to correct this by giving formal land documents for the new legal plots as a joint holding.

LAND CLASSIFICATIONS

The size and boundaries of the site are important. The legal requirements for infrastructure, public space and green areas may depend on the size and location of the site.

Check the approved urban plan for how land in the site is classified. It should allow the land use types (residential, commercial, services) and densities needed to make the project financially viable. The existing planning standards on densities, zoning, minimum plot size, road widths and public space requirements may prevent the planning proposal from being financially viable or adequate for the community’s needs. It may be possible for the municipality to adjust these standards, providing minimum technical, safety and due process standards are met. If the area contains public land, the agency responsible may be able to determine how it is used and whether it can be included in the readjustment. Similarly, external factors, such as the environmental situation or proximity to important public facilities may have significant legal impacts on particular pieces of land.

TYPES OF DOCUMENTS

What kind of documents to allocate to the owners of the reapportioned land? Table 17 shows some possibilities.

TABLE 17 TYPES OF DOCUMENTS

Type of document ^a	Description	When useful in PILaR
Individual	Granted to a single person or organization (such as a company)	Where the original plot was in a single person's name
Joint	Granted to two or more people jointly	For couples: ensures that the woman and man have equal rights to the land For families where the original document holder has deceased
Group	Granted to a group of unrelated people. Ownership is shared	When allocating an undeveloped plot for building. Useful if plots would otherwise be too small to build separate houses; the group can construct a multi-storey dwelling and subdivide it into apartments. Ownership may then be converted into sectional titles
Sectional or condominium	Granted to a group of unrelated people. Individual ownership of apartments; shared ownership of common spaces	When allocating buildings to a group. Each individual or couple gets a separate title to an apartment, along with a share of common spaces such as entrances, hallways, a garden and playground
Other rights	Rental or usage rights	People may be granted the right to rent or use property for a set amount (e.g., for no more than the amount they had been paying until now)

^a This is not an exhaustive list

The land readjustment should aim to enhance (or at least maintain) the rights of the people affected. For example, it may regularize informal documents as formal titles, or convert them into sectional rights. See also the section on the continuum of land rights (Chapter 3).

LEGAL COMMUNICATION AND ADVICE

The project has a responsibility to ensure that the community and other stakeholders are aware of their rights and can contribute to decisions that affect them. And community members are a vital source of informa-

tion about the legal status of the land. For example, they may be able to alert the project to fraud by powerful individuals, or the identity of the owners of particular plots.

Legal issues must be communicated in a simple and clear manner to community members and other stakeholders. Mechanisms include presentations, discussions, individual meetings, the internet and the mass media. A legal clinic – perhaps run by an organization other than the implementing agent – could be established to provide independent advice and resolve disputes over titles.

FINANCE

You will need to ensure that the financial aspects of the project are legal. For example:

- Is it permissible to impose the intended taxes and fees? What are the mechanisms for ensuring they are paid?
- Can certain financial instruments be applied for the project? Can a particular source of funding be used?
- What taxes and fees must be paid (and by whom) for the land transactions?
- What financial rules must be followed in dealing with property developers, private investors and other private sector companies?

MITIGATING GENTRIFICATION

A PILaR project aims to benefit the area's current residents. But rising land prices and better infrastructure can push up rents and attract people from outside, pushing out today's residents, especially the poor. Possible legal mechanisms to prevent this include:

- Limit the right to sell properties for a certain number of years.
- Allocate a proportion of the new development for low-cost housing.
- Ensure that an adequate amount of low-rent accommodation is available, and allocate it to current residents. Include rent controls to prevent the residents from being priced out.
- Ensure that the regulatory framework does not hinder the development of small businesses and semi-formal enterprises.

9

FINANCE

FINANCE IS VITAL for a successful PILaR project. Get it right, and everyone has an incentive to participate in and contribute to the process. Get it wrong, and both political and financial problems can be overwhelming!

PILaR should benefit everyone financially. Landowners and landholders should get a more valuable piece of land. Informal residents and tenants should get some form of legal land document. When there is large scale informality, everyone should get a better place to live, including a more pleasant pleasant urban environment, with more services and amenities. Informal settlements should reap the benefits of regularization. For the municipality, land readjustment will ideally pay for itself – or it should at least not impose unacceptable costs. It should be cheaper (and politically more acceptable) than expropriation or forced land sales.

The most successful land readjustment efforts are cost-neutral to the public sector in the short term and make it possible to generate revenue in the long term. But PILaR differs from conventional land readjustment in that the financial benefits to the public sector must not undermine the participatory process or social inclusivity.

This chapter covers five topics:

- Guiding principles for finance
- The possible sources of finance for the municipality and residents
- Calculating total costs and benefits of the project
- Calculating the amounts of land that each stakeholder must contribute and will get back
- Organizing the finance function of the project.

GUIDING PRINCIPLES FOR FINANCE

Here are some guiding principles for a PILaR project from a financial point of view.

SHARE BENEFITS AND COSTS FAIRLY AND EQUITABLY

It is not possible to prescribe a universal standard for who pays what and who gets what. But the burdens and benefits should be allocated as fairly and equitably as possible.

This may be taken to mean different things.

- It could mean that each person or household receives benefits that are directly proportional to their contributions. When assigning final plots, allocations should be based on the landholder's original proportion of the land.
- Or it might mean that costs should be distributed based on the ability to pay or contribute. If so, better-off groups will bear a greater share of the costs: large landholders will be asked to contribute more, and small landholders less. Tenants and informal residents may receive housing or land rights that they did not have before.
- Residents (and especially those who are vulnerable) might receive proportionately greater benefits than absentee landholders or external stakeholders.

What is meant by fairness and equity should be determined early on in the project, agreed by all concerned, and made public. They can then be used to calculate the contributions that each person or household makes and the benefits they can expect.

Even so, equity can be hard to maintain. Some landholders may be able to continue using their property, while others will not. Businesses may be disrupted or have to relocate. They may have to be compensated for such upsets.

How should costs be divided between the municipality and the landholders? That will depend on the policy goals and available funding sources. Protecting the most vulnerable may require the municipality to bear

more of the overall costs. Landholders may be willing to cover the costs if they get more or better development rights.

ENSURE THAT EVERYONE BENEFITS

The project should aim to benefit everyone involved, so all have an incentive to participate and reach agreement.

Each **landholder** should receive a plot that is smaller but worth more than his or her original plot.

Residents of the area who choose to participate should benefit, regardless of their tenure status. They should not be displaced through forced eviction or by overt or covert market forces. Remaining in the project area should be a viable option for them. That means they should be able to afford the contributions and investments needed, and will not have to pay more rent than at present for a fixed period. Ways to do this:

- Have the municipality construct social housing in the area, and reserve it for current tenants and informal residents.
- Grant land documents to informal residents.
- Require landlords to continue renting out property to their existing tenants at the current rent.
- Designate some reserved land to build social housing.
- Encourage private developers or non-governmental agencies to invest their capital and knowhow in the project for social good with a reasonable return on investment. For example, grant a density

bonus as an incentive to build affordable housing for low-income families.

MAKE THE PROJECT SELF-FINANCING

Land readjustment costs money. The municipality will have to pay for:

- The **project administration** costs, including purchasing land that has to be acquired compulsorily, compensation for landholders who receive less than their agreed plot, and compensation for businesses disrupted by the project.
- **Infrastructure** such as roads, sewers and electricity
- Any **building** needed, such as for social housing.

The trick is to ensure that these costs are covered by the project itself (Figure 46). That will depend on:

- The area that landholders contribute as “reserve land” that the municipality can sell.
- The increase in the price of land as a result of the readjustment and servicing.
- Other sources of funding (see below).

If land values in the area are not expected to rise significantly after the readjustment, the municipality will not be able to cover its costs, and landholders will not be interested in participating.

At a minimum, the municipality should receive the land required for roads and public spaces without cost.

INCLUDE INFRASTRUCTURE AND CONSTRUCTION COSTS

Some countries (e.g., Germany and Turkey) do not include the cost of infrastructure and building in the project cost. Others do include these costs (e.g., Gujarat, India). Including the costs reduces the burden on the municipality’s finances and may speed up the project.

Not including the infrastructure in the project costs creates two risks:

- **Delays in building infrastructure** If the project itself does not cover the infrastructure costs, the municipality will have to find the money from other sources. That may lead to delays.
- **Plots are worth less** The increase in land values depends at least in part on the infrastructure being installed. A plot with a paved road, sewer, water supply and electricity will be worth more than one without these services. If landholders are not confident they will get them, they will be less interested in taking part in the project.

It may be that infrastructure is not included because of the municipality’s financial limitations. If so, this should be made clear to all stakeholders early on. A plan and schedule for raising the needed funds should be completed as well.

If infrastructure is to be installed as part of the project, a plan to fund it must be part of the project design. Options include:

- The municipality can retain “reserve” land beyond that required for roads and

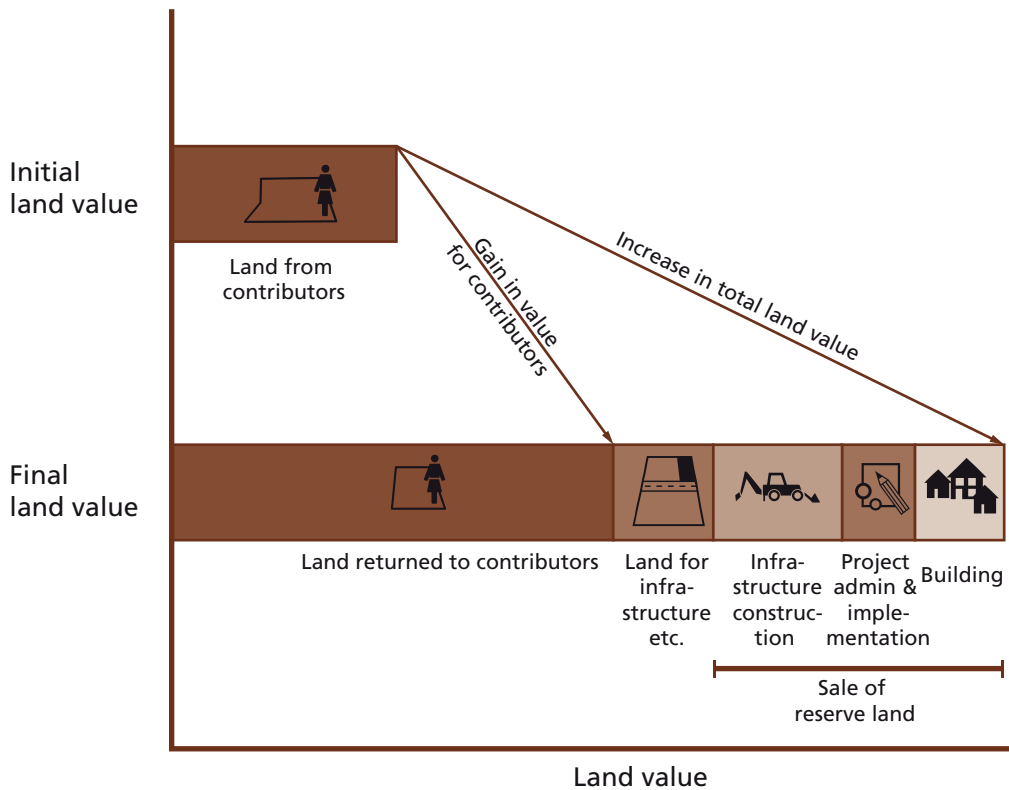


Figure 45 Ideally, the cost of land readjustment project will be covered by rising land values

public spaces. It can sell this to raise some or all of the needed funds.

- A share of the infrastructure costs can be assigned to each landholder in proportion to the increase (“betterment”) in their land values.
- If the project includes housing, then a portion of the new housing can be sold to generate revenue.
- Other land-based financing options (see below).

Of course, this is not an “either-or” situation. Infrastructure and other construction costs need not be either completely included in the project or completely excluded

from it. Some costs may be included that can be self-financed. Others may be important investments to meet other policy objectives and may be financed from other sources. Still others may be deferred. Transparency and clarity are essential on what is included and what is not.

UNDERSTAND STAKEHOLDERS’ FINANCIAL SITUATIONS

In order to develop a viable financial plan, you will need to understand the stakeholders’ financial situation. This will tell you:

- Which stakeholders are poor enough to qualify for support – for example, for social housing?
- How much (if anything) can the stakeholders afford to invest, for example in rebuilding their houses after the land readjustment?
- What types of financial assistance might they need?

You can gather this information from a range of sources, including the census, welfare records, participatory enumeration and poverty scorecards (see Chapter 6).

You will need information on:

- Employment status
- Formal and informal income levels, perhaps through household assets
- Outstanding loans or mortgages.

INCLUDE THE COMMUNITY IN FINANCIAL AND PLANNING DECISIONS

In conventional land readjustment, finance specialists collect information, do their sums, and come up with a proposal that they present to the stakeholders as a *fait accompli*: take it or leave it. There is little opportunity for consultation, and the experts make the decisions.

In PILaR, the finance specialists work closely with the local community (and with other team members), try to understand their situation and needs, and develop a financial plan that the community can support. Here is one way to organize this.

Gather information

The participatory enumeration and other techniques should gather information on the financial situation of local residents (see Chapter 6). This will indicate their needs and what they can and cannot afford.

Develop several scenarios

Based on these initial exchanges, the finance specialists draft several possible scenarios for the project. These could be based on different parameters: different levels of land contribution, different development densities, various amounts and types of infrastructure investment, and land allocation for different uses such as commercial development, open space and public facilities. Each scenario should include the financial costs and benefits for the stakeholders.

Prepare preliminary site designs

The planners use this information to prepare a series of sketches for each scenario – with inputs and advice from local people. The cost estimates are refined based on planning considerations.

Present to the stakeholders

The team presents the designs and associated financial plans to the community and other stakeholders, and asks for their comments. The team should explain that more and better facilities (e.g., a bigger park) will have financial implications: the landholders may have to give up more of their land in order to pay for it. A series of meetings with different groups in the community

may be needed in order to solicit everyone's comments.

The community chooses one of the plans for further development and refinement. The team incorporates their comments and presents it to them again. Several rounds may be necessary before a final plan can be agreed.

SOURCES OF FINANCE

FINANCE FOR THE PILAR PROJECT

A PILaR project may be financed in various ways:

- One-time fees and charges
- Ongoing revenue sources
- External funding.

The first two of these use the land in the project area to generate funds. The options

TABLE 18 REVENUE SOURCES FOR PILAR

One-time fees and charges	
Development or redevelopment	Development fees and charges
	Betterment charges intended to recover specific costs
	Betterment charges intended to share in land value gains beyond cost recovery
Land sales	Residential
	Commercial
Ongoing revenue	
Land-related	Annual taxes on land and buildings
	Supplemental tax on land (improvement district)
	Land lease payments
Other	Rental income from public facilities (markets, parking, social housing)
	Public-private partnerships
External funding	
	Public subsidies from the municipality
	Transfers from other levels of government or government departments
	Development partners (most likely for pilot projects)
	Debt

are summarized in Table 18 and below. Additional information on each can be found at the toolkit on land-based financing (to be made available at www.gltm.net).

Development or redevelopment fees

Developers are often assessed charges to offset the impact of their proposed development on the larger community. Such charges are called “developer exactions” or “impact fees”. In many countries the fee structure is limited to the actual estimated cost of the development impact. In some, municipalities are not allowed to accept development or redevelopment fees.

Betterment charges (Box 14, Chapter 4) can be assessed in two ways. Most commonly, they are levied to recover the cost of specific infrastructure investments by the municipality. A second, less-common, approach levies a percentage of the increased land value resulting from public investments.

Land sales If the municipality has retained “reserved” land beyond what is needed for roads and other public spaces, it can sell it to generate revenue. **Commercial** land tends to be more valuable than **residential** land. If the land readjustment sites happen to be in a good location, residential housing can also attract buyers and can be a source of funding. The municipality also has the option of promoting affordable housing by selling residential land at below-market prices.

Land-related ongoing revenues The **annual tax** on land and buildings is an important potential source of revenue. It is often underused, but can be strengthened. It is also possible to impose a **supplemental**

tax on land (and buildings) earmarked to fund specific improvements. Such taxes are limited to specific “improvement districts” within the city. Rates are set to recover costs over time rather than all at once (as in a betterment charge). The approach makes cost sharing much more affordable for the residents.

If the government owns all or a significant percentage of the land, **land lease** revenues are a potentially important source of revenue. Leases should be structured so they can be reviewed regularly and adjusted to reflect current market conditions.

Other ongoing revenues Two other potential sources are worth noting even though they are not directly tied to land. The first is the **rents** from letting public property such as markets and social housing. If there are such properties in the PILaR area, the revenues could provide additional funding for site improvements.

Second, some municipalities contract with private entities to install or manage public infrastructure. Such **public-private partnerships** can be an important source of investment capital with a very low up-front cost to the municipality. The terms of the contract need to be reviewed carefully to assure that the long-term results for the municipality are acceptable.

External sources The PILaR project may also receive funding from external sources. These may come directly from the **municipality**, from **other levels of government**, or even come from **development partners** (though such funds are most likely be for a pilot project). Project managers should be

cautious in relying too heavily on such subsidies since priorities and fiscal constraints change frequently.

Debt A final possible source is debt. Major infrastructure investments can pose a substantial burden on both governments and residents in a land readjustment area. Long-term borrowing may make it possible to spread the costs over a number of years. Care must be taken to match the debt service requirements with a stable revenue source, such as the annual property tax or a supplemental property tax.

FINANCIAL ASSISTANCE FOR RESIDENTS

Various options exist to provide financial assistance directly to residents. Some jurisdictions have subsidized or guaranteed loan programmes for low-income residents (see Box 34 for an example). Such loans are obtained directly from local banks or government agencies. The residents repay the loans to the lenders. If the loans are subsidized, the borrower receives a below-market interest rate on the loan. If they are guaranteed, a government agency steps in if necessary to repay the loan.

TRACKING TOTAL COSTS AND BENEFITS

CASH FLOW SHEET

A cash flow sheet is simply a calculation of the project's costs and revenues. It shows the types of costs and revenues and their expected levels. More complex cash flow sheets break this information down by year or month, geographic area, beneficiary group or household (Box 35).

The cash flow sheet must be compiled by the public agency in charge of implementation. Depending on the implementation arrangements, it may also need to be done for private firms or developers for the sake of public-private partnership or feasibility analysis.

Box 36 lists possible types of costs to the project. The exchange model (see below) and the urban design will determine whether these costs should be included in the cash flow sheet.

Box 34 Housing subsidies in Ethiopia

Ethiopia has several government-sponsored housing-subsidy programmes. The Ministry of Urban Development and Construction has introduced one such programme as a saving scheme for low-income home seekers.

A buyer deposits a percentage of the cost of a house with the Commercial

Bank of Ethiopia. This deposit earns an above-market interest rate for up to 5 years. The borrower then gets a loan at a below-market rate, repayable over 17 years, to use to pay for the house.

About two-thirds of the total cost of the house comes from the government in the form of a direct subsidy.

Box 35 Data needed for a cash flow sheet

Minimum data needed:

- Willingness/ability to pay for neighbourhood upgrades
- Number of project participants and households
- Cost of desired neighbourhood upgrades
- Amount of buildable land and existing built space in the project area
- Government taxes, fees, and subsidies that may apply to the project
- Tenure status of participants
- Specific social characteristics of project beneficiaries (e.g., family size, income level)
- Market value of land in project area
- Market value of new units to be built under project
- Rents currently paid by renters
- Qualification of project participants for specific government subsidies
- Estimates of the specific costs and benefits calculated in the model

Additional data needed will depend upon the structure of the exchange model. It may include the following:

- Size and value of residential and non-residential units

Acquiring the above data may be time-consuming or costly. Have a clear idea of precisely how the data will be used before going to collect it.

Box 36 Types of costs incurred by a project

- **Project design and management costs**, including cost of data collection and analysis
- **Stakeholder engagement** and communication
- **Infrastructure capital costs** (roads, public space, drainage, lighting, electrical, communications, sewerage, etc.)
- **Ongoing public sector costs** (operations and maintenance of infrastructure, service provision including solid waste management, public transport, electricity, etc.)
- **Costs to acquire land**, including through expropriation
- **Costs of temporary housing** for project participants
- **Demolition** and clearing
- **Building costs** for new residential and non-residential units for **existing residents**, including social housing
- **Building costs** for new residential and non-residential units for **external rent or sale**, including social housing
- **Marketing** and sales of new units, and management of new rental units
- **Taxes**, fees, and public obligations
- **Interest** and borrowing fees.

COSTS AND BENEFITS

It is also important to consider the distribution of costs and benefits between the municipality and landholders. Table 19 shows how these costs are generally divided and the likely benefits for each. Beyond the financial costs and benefits, both the municipality and the landholders should enjoy significant social benefits from PILaR.

You can use benefit–cost analysis and other fiscal analysis methods to evaluate a PILaR project. The costs will fall on the city, the landholders and all residents. The landholders may seem to benefit most financially, because of higher land values. But the municipality also gains because PILaR is cheaper than other ways of redeveloping the area, such as land acquisition and expropriation. Both the municipality and the local community benefit from strengthened communities, better services and improved urban governance.

Box 37 Covering costs in La Candelaria

How to cover the cost of neighbourhood upgrades? In La Candelaria, Medellín, one possibility was to have the project participants pay fees or betterment charges. The fee would depend on the difference between their current value of the land or building and the new, higher value after the project.

But people in the district are poor, and they have little cash to spare. So it was decided that they should contribute land instead of cash.

In some countries, a formal economic and financial analysis (including a cost-benefit analysis) by an independent consultant is necessary. Other countries permit government-employed professionals to do such an analysis.

TABLE 19 THE COSTS AND BENEFITS OF PILAR

	Municipality	Landholders	Other residents
Costs	Direct project support	Participation costs	Participation costs
	Infrastructure investments	Land value contribution	Relocation costs
	Relocation costs during construction	Betterment charges Relocation costs	Possibly increased housing costs
	Expropriation costs	Land registration and land documentation fees	Disruption
	Operation & maintenance	Disruption	
Benefits	Increased revenue from land tax and fees	Increased unit land value	Improved infrastructure
	Efficiently serviced land	Improved infrastructure	Improved urban services
	Stronger neighbourhood and community	Improved urban services	Enhanced engagement and support
	Improved urban governance	Enhanced engagement and support	

Coloured: Financial costs and benefits; black: non-financial

ASSESSING INDIVIDUAL OUTCOMES: THE EXCHANGE MODEL

The exchange model shows what each type of stakeholder contributes to and can expect to obtain from the project. It should clearly spell out:

- What project participants give
- What project participants receive
- What criteria are used to determine the two points above.

The exchange model will determine the distribution of costs and benefits, and therefore must be designed with fairness and social equity in mind. The ability of the stakeholders to pay for the project outcomes (which you will have checked as part of the participatory enumeration) will help determine the exchange model.

The cash flow sheet reflects the financial implications of the exchange model. The two can be developed together in a participatory

manner. As the stakeholders discuss the appropriate exchange model, the financial implications can be shown through the cash flow sheet and become part of the criteria for deciding how the exchange model will function.

Box 38 and Table 20 show the exchange model agreed on in the La Candelaria project in Medellin.

LAND VALUES AND LAND CONTRIBUTIONS

The assumption is that land values will be higher as a result of the PILaR process. But there are limits to how much land the municipality can require without harming the landholders. The practical limit is set by market conditions. If the city requires a larger share of the land than will be offset by increased land values, at least some landholders will be worse off as a result of the project. The greater the likely gain in property value, the higher the percentage of land the city can require.

Box 38 Example of an exchange model: La Candelaria, Medellin

Key features of the exchange model for La Candelaria include the following:

- The size of the house beneficiaries receive depends on the size (in m²) of their original house, not the property value.
- Large families are entitled to a house that can accommodate them without overcrowding.

- Renters retain the right to continue renting for a period of years; this right supersedes the right of absentee owners to make a profit from the project.

The categories within the exchange model were based on each family's tenure status (Table 20).

Figure 46 shows the relationship between the required land value contribution and the increase in land value needed to ensure that all landholders gain from the readjustment. The horizontal axis shows different percentages of required land contribution. The vertical axis shows different land price increases that follow the readjustment process. The line on the graph is the break-even level.

For example, if the required level of required land contribution is 30% (red line in the graph), land prices must increase by at least

43% in order to assure that all landholders gain in value. If the final price increase is less than 43%, landholders will be worse off. If the price rises above 43%, they will be better off.

Box 39 gives a hypothetical example that makes the same point. In determining the amount of land to require for public purposes, you cannot ignore overall market conditions if you expect support from the landholders.

TABLE 20 EXCHANGE MODEL USED IN LA CANDELARIA

	Beneficiaries	What they get
A	Informal and formal owners living in their homes	A house of a size comparable to the one where they are living now
B	Informal and formal owners who rent out their homes	A house of a size comparable to the one they currently rent out, with the obligation to rent to the current tenant for a fixed time
C	Informal and formal owners who own additional property outside La Candelaria, so are ineligible to receive a government subsidy	A house of a size comparable to the one where they are living now. They must pay to the project the amount of the subsidy they receive in the form of housing
D	Renters of all types	A right to one of these: <ul style="list-style-type: none"> • Buy a house in La Candelaria of a size comparable to the one where they are living now • Lease a house in La Candelaria of a size comparable to the one where they are living now, with a later purchase option • Rent a house in La Candelaria, paying what they are paying now
E	All people in A, B, and C above who choose not to participate in the project	
F	People purchasing property in La Candelaria or entering groups A, B, and C above after the official project announcement	Compensation based on the property values at the time of the official project announcement

ORGANIZING FINANCE

This chapter has given an overview of principles and selected methods that will likely form the financial plan of a PILaR project. Each project is different: each has a unique context and financial implications.

However, a reasonably trained finance specialist (accountant, public finance expert, etc.) should be able to develop a good financial plan for a PILaR project using the guidance provided in this chapter.

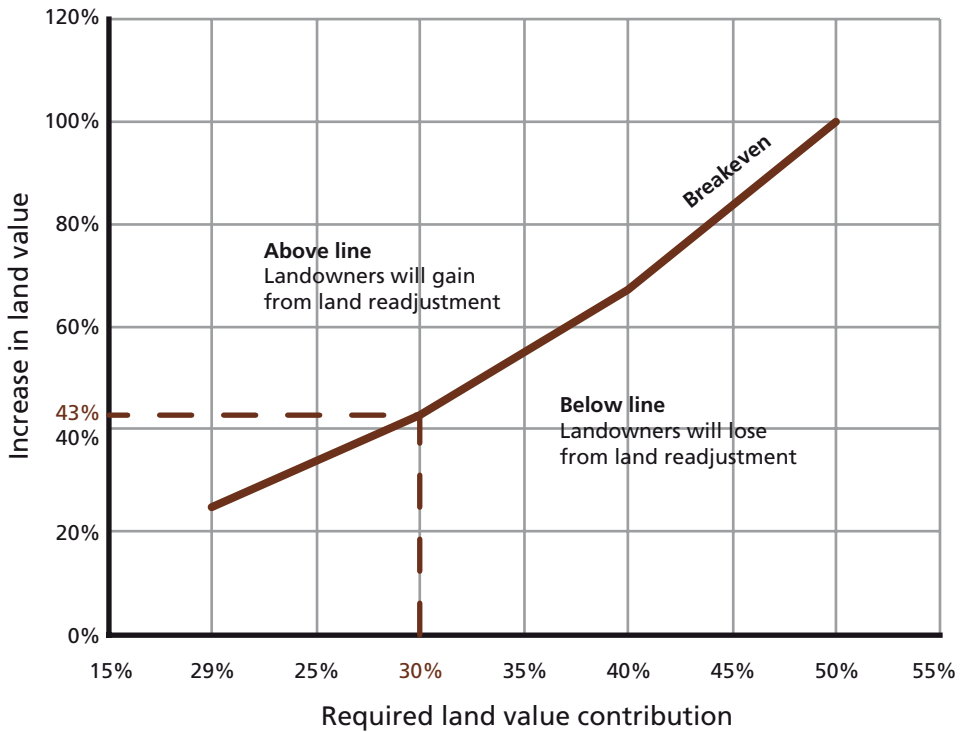


Figure 46 Relationship between land value increase and land contribution required

Box 39 Balancing land contributions and the expected land value increase

A municipality wants to do a PILaR project on a one-hectare piece of land. The area consists of 15 plots of varying sizes, each with a different owner. The municipality owns no land in the area.

Several landholders have small plots and very low incomes. Several others are well-off and have large plots they would like to subdivide and develop. The municipality needs 30% of the area for roads and public spaces. It also wants an additional 10% to sell in order to cover some infrastructure costs.

To distribute the costs equitably, it is agreed that not all landholders will contribute the same proportion of their land. Small plots will contribute less, large plots more. The smallest (already

too small for development, according to the planning bylaws) will be completely exempted from any contribution.

To arrive at a total 40% contribution to the municipality, each landholder will contribute the amount of land shown in Table 21.

In this situation, land values must increase by at least 75% if all landholders are to be protected from loss. If values increase by that amount, all but two landholders will be better off. If prices increase by only 50%, most will be worse off.

Note also that because of the contribution ratios chosen, landholder M ends up with a slightly smaller plot than landholders N and O.

TABLE 21 FICTIONAL EXAMPLE OF PLOT SIZES AND LAND CONTRIBUTIONS

Landholder	Initial plot size	Contribution ratio	Final plot size	Change in land value if land price increases by	
	m ²		m ²	75%	50%
A	3,000	43%	1,713	0%	-14%
B	2,000	43%	1,142	0%	-14%
C	1,000	43%	571	0%	-14%
D	750	43%	428	0%	-14%
E	500	43%	285	0%	-14%
F	400	37%	251	10%	-6%
G	350	37%	219	10%	-6%
H	350	37%	219	10%	-6%
I	300	37%	188	10%	-6%
J	300	37%	188	10%	-6%
K	300	37%	188	10%	-6%
L	250	32%	171	20%	2%
M	200	32%	137	20%	2%
N	150	0%	150	75%	50%
O	150	0%	150	75%	50%
Municipality	0		4,000		
Total	10,000	40%	10,000		

10 COMMUNICATION

COMMUNICATION IS IMPORTANT at all stages of a land readjustment project. In the preliminary and planning stages, it is important to keep all the stakeholders informed about the project's aims, how the project may affect them, and how they can contribute to it. During implementation, people need to know about the achievements, the current status and plans for the future.

In a participatory and inclusive land readjustment, communication has an additional role: it is vital for participation and stakeholder engagement. It enables stakeholders to learn about the project, share their knowledge, and participate in the decisions made and follow up of the project. This means that communication is not just one way, from project to stakeholders. Rather, it should be two-way, both help the stakeholders to understand the project's goals and activities, and to enable them to participate in and help design them.

The project will need a **communication strategy** to guide its work. This should:

- State the project's communication goals and objectives. **Why are we communicating?**
- Identify the major stakeholders and audiences the project needs to communi-

cate with. **Who are we communicating with?**

- Determine the messages to be communicated. **What are we communicating?**
- Describe the communication channels it will use. **How are we communicating?**
- Break the communication effort into steps that support each stage in the project. **When do we communicate?**
- Monitor its effectiveness and adjust it as required. **Are we communicating in the right way?**

We will discuss each of these in turn.

COMMUNICATION GOALS AND OBJECTIVES

The communication goals may include:

- Clarifying the role of the stakeholders within the project.
- Generating trust among the stakeholders.
- Informing and persuading stakeholders about the project's goals and activities.

Remaking the urban mosaic

- Ensuring the stakeholders can make their views heard.
- Facilitating the exchange of information and coordination of activities among the stakeholders.
- Facilitating the stakeholders to make decisions about the project.
- Informing other interested parties – such as the national government, other municipalities and the wider public – about the project's achievements.

Good communication is a tool to improve the project management and governance.

Communication is fundamental for **accountability**, to enable stakeholders to check on the activities and results and ensure that the project is achieving its goals.

Transparency should be a major aim. Information should be freely available to anyone who needs it. The project should make active efforts to reach its audiences, especially

the vulnerable groups, who may be in no position to seek information themselves.

There are, however, exceptions to the principle of transparency:

- One is the need to prevent land **speculation**. Certain decisions, such as the location of the site, should be withheld until a formal announcement is made in order to prevent speculators from buying up plots in the location in the hope of making a quick profit (see Chapters 3 and 8).
- Another is the need for **privacy**. The project may gather information on things like family size and income. It may not divulge this information without the permission of the individuals concerned (see Chapter 6).

“Communication does not just mean transmitting information but establishing an interaction process with all the stakeholders involved in the project.”

Oihana Cuesta, Coordinator, PILaR pilot project, UN-Habitat, La Candelaria, Medellín, Colombia



Photo: Rainer Müller-Jökel



tinyurl.com/pilar-cuesta

AUDIENCES

From a communication point of view, we can identify six main audiences in a PILaR project (Figure 48):

- **Project implementing agency:** Internal communication within the project group itself.
- **Collaborating organizations,** such as other units in the municipality and other branches of government.
- **Policymakers and donors** at the municipal and national levels, as well as foreign sources of funding.
- **The community:** the landholders and residents in the area to be redeveloped.
- **The media:** the press, television and radio, plus social media, who serve as channels to all the other stakeholders and audiences.
- **Others,** including the public in other parts of the city and elsewhere in the country, and other organizations that are interested in doing land readjustment, perhaps abroad.

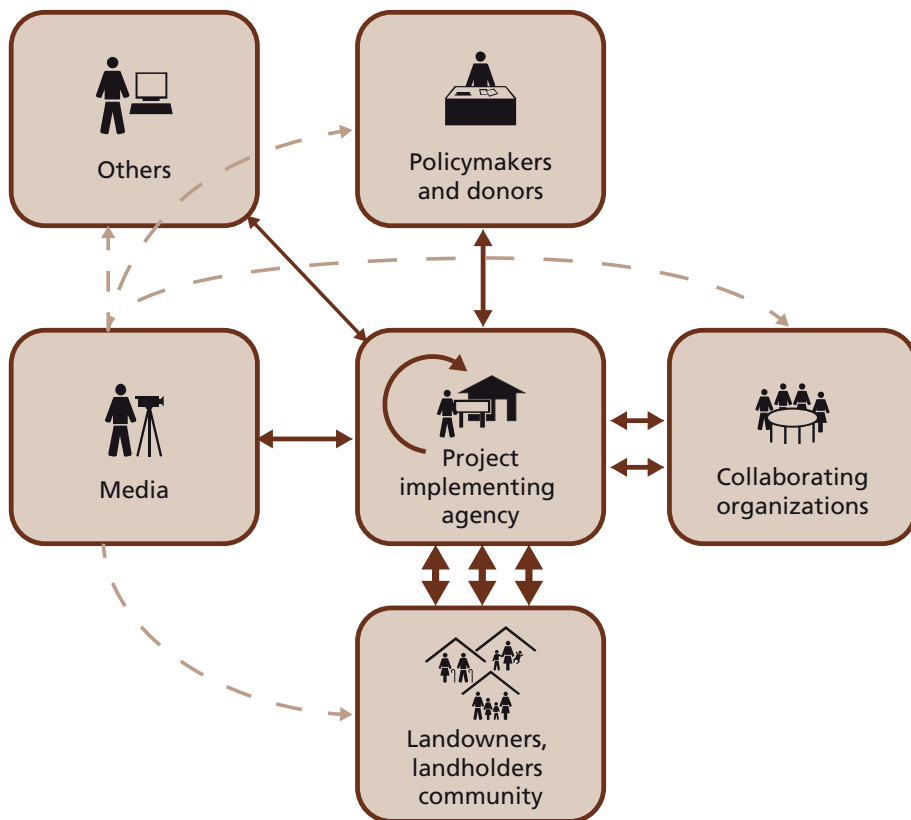


Figure 47 Stakeholders for communication

All these have a direct interest in it and are involved in various aspects of it.

Below we discuss each of these audiences in turn, and suggest some communication channels that may be useful for each one, drawing examples from a PILaR project in La Candelaria, Medellin, Colombia. This list is by no means exhaustive. Projects may identify additional audiences, and different techniques may be useful in different situations. Some techniques (such as websites or newsletters) can be useful to reach several different audiences.

PROJECT IMPLEMENTING AGENCY (INTERNAL)

This is communication within the organization or team that is charged with developing the project. The management staff needs to communicate among themselves the project goals, rules, working procedures, current status, etc. Lawyers, finance specialists, planners and community workers have different skills, backgrounds and priorities, and they sometimes find it difficult to talk and learn from each other. Techniques include:

- **Working together as a team** The team should share an office, or at least work in close proximity to each other. This helps the members get to know each other and understand their tasks and roles. Many aspects of PILaR require simultaneous inputs from several team members. The project will work much more efficiently if they are all in the same room.

- **Exploratory workshops** to enable staff to present and learn about the issues related to the project. The staff share their professional experiences, learn about land readjustment in other situations, learn about each other's skills and competencies, share information about regulations, etc.
- **Planning and coordination workshops** to plan, exchange information and develop proposals.
- **Evaluation workshops** to review the process of the project, communicate progress and make adjustments as appropriate.
- **Online platforms** to enable document exchange and continuous consultation.
- **Documentation of activities and outcomes** to record and share project challenges and lessons, and make recommendations to stakeholders to inform decision making.

COLLABORATING ORGANIZATIONS

The project agency will need to collaborate with a wide range of other municipal and government organizations: cadastral offices, the legal department, finance office, infrastructure development agency, local land professionals, the police, etc. It also needs to communicate with NGOs active in the area, private-sector organizations such as contractors, service providers, banks and lawyers, and academics. All these need to know what the project aims to do, the procedures it follows, and the type of collabo-

ration required. Many will have (or want) a say in particular aspects of the project, so they have to be part of the decision-making process. Their collaboration may not be automatic: it may be necessary to win their support for the project.

Some useful communication techniques for this category of audience include:

- **Negotiation workshops** at the start of the project to improve the initial proposal. Such forums should involve technical representatives and decision makers from the institutional stakeholders. Each organization agrees on the role it will to play in the project.
- **Regular executive meetings** with senior managers to make strategic decisions and cooperation agreements and to guide and monitor progress.
- **Coordination workshops** to give and receive feedback on project progress, and obtain information on decisions made by the different institutions involved.
- **Specialist workshops** to present and discuss particular aspects of the project. These involve the specialists in that area; they aim to foster partnership and find ways of working together smoothly.
- **Internal reports and website** to make key information available in real time.

POLICYMAKERS AND DONORS

The support of policymakers and donors is vital if the project is to be approved and funded. They may need to be convinced of

the value of the project and the approach that is proposed. Policymakers are often elected officials who may be voted out of office at the next election. They may wish to leave a strong legacy in the form of a successful project. After the election, it may be necessary to educate an incoming batch of officials about the project and its activities.

Donors will want to monitor their investment and ensure that it is being put to good use. They will require a series of reports at regular intervals throughout the project to detail progress and alert them to any major problems.

Both policymakers and donors need concise information about the project's work, focusing on its benefits, impacts and costs.

Useful techniques for these audiences include:

- **Presentations and workshops** to introduce policymakers and donors to the project's goals and approaches and get their guidance on the direction to take.
- **"Champions"** (respected individuals with good contacts) who can promote the project approaches.
- **Regular reports** giving updates on the project status and alerting them to issues that need attention.
- **Booklets and information sheets** summarizing the project's work.
- **Site visits and meetings with beneficiaries** so the policymakers and donors can see the problems for themselves, hear local people's opinions, and see what the project is doing on the ground.

Box 40 La Candelaria project website

The Medellin project website sends clear, consistent and up-to-date messages about the project to a wide range of audiences in a user-friendly way. It improves communication and saves staff time because they can refer people asking about the project to the website. Journalists use it to get accurate information and quote it in their articles.

More information:
www.pilarlacandelaria.org/



Figure 48 The La Candelaria project website

- **Public events on site with visiting dignitaries** can be very effective in creating support among officials and visibility among the public.
- **A regularly updated project website** can carry brief news items about the project (Box 40).

THE COMMUNITY

The community may include formal landowners, other landholders, tenants and informal residents, the owners of local businesses and residents of neighbouring areas. Particular attention is needed to ensure that vulnerable groups, such as women and the elderly, are fully informed and can participate on an equal basis with other community members. Community organizations, formal or informal, are important interlocutors in this effort.

The community members need to know what the project aims to do in general, and how they will be affected. The project also must give them a voice so they can share

their knowledge about the community and the location and make decisions that affect them.

A wide range of communication methods can be used to engage with these audiences.

- **Workshops, participatory enumeration** and other techniques to gather information from local people and enable them to give their inputs into the plans.
- **Capacity development workshops** so community members understand how land readjustment works and to prepare them for the process.
- **Focus groups** with different interest groups in the community to facilitate dialogue, negotiate and consensus.
- **Collaboration with existing community organizations**, and helping organize new organizations if necessary.
- **Community assemblies** to bring together residents to consider different aspects of the project.

Box 41 Community information centre in La Candelaria

The PILaR project in La Candelaria, Medellín, set up a community information centre in the project area. This acted as a source of information and provided a place where people could find out about the project and express their views.

Wall newspapers were one way to keep the local community informed and involved. The content and design of the

wall newspapers take into account the community's interests, wishes and concerns. The information came from a workshop with local residents, who posed questions such as "How would you like La Candelaria to be?" and "What should we remember about this place?" A local artist, assisted by residents, painted a design on the façade of the community liaison office.



Figure 49 Communication activities at the information centre in La Candelaria, Medellín

- **A community liaison office** located in the intervention area to provide direct and personal assistance to community members.
- **Wall newspapers**, created in collaboration with local people, in strategic locations. Postings can be updated each week; they give details on meetings, workshops, the various project components, and updates on progress (Box 41).

THE MEDIA

The media include the local newspapers, television and radio stations. They digest, rework and transmit information about the project to various audiences, both inside and outside the local area.

You cannot control the media. Journalists are trained to seek and report on various sides of an argument. Conflict, controversy and failure are newsworthy; smooth, efficient, uneventful success is not. Nevertheless, supportive media coverage can be a great help in persuading people to support and collaborate with the project (Box 42). Hostile coverage (or reporting that gives the impression that the project is secretive or not working in the interests of local people) can have the opposite effect.

Useful methods include:

- **Developing a relationship** with reporters and editors and inviting them to cover key events.

Box 42 La Candelaria project in the media



Figure 50 El Colombiano features the land readjustment project in La Candelaria

On 29 May 2014, PILaR was featured on the front page and two inside pages of *El Colombiano*, a national newspaper. The articles were comprehensive and fairly objective.

- **Organizing press briefings and tours** to show them what the project is doing and to introduce them to beneficiaries.
- **Producing press releases** with news about significant activities.
- **Producing a press kit** with information about the project, contact details, etc.

OTHER AUDIENCES

Other audiences include the general public in the city and elsewhere in the country, the managers and staff of other organizations that may be interested in implementing a land readjustment project, academics and land professionals worldwide. While land readjustment is a fairly old and well-established practice in some countries, there is still little experience in doing it in a participatory and inclusive way. That means there

is considerable interest in learning from project experiences.

Useful methods include:

- **Press releases and media events** to generate coverage in the national and international media.
- **Academic research** on the project, leading to working papers, research articles and theses.
- **Videos, presentations and posters** at professional conferences and events (Box 43).
- **Brochures, information sheets and briefing papers** summarizing the project or highlighting particular aspects of it.

Box 43 La Candelaria project at international events



The World Urban Forum is a biennial event convened by UN-Habitat. In April 2014 it was held in Medellín, Colombia. The PILaR project in La Candelaria took Forum participants on a tour of the intervention area and the community liaison office. The project was also featured in the Medellín municipality stand and during the Forum's launch.

More information: wuf7.unhabitat.org/



In June 2014, the Medellín project participated in the launch of Connective Cities, a platform supported by GIZ and other German organizations to spread good practices in urban development. Two representatives from the Medellín project presented the PILaR idea at the platform launch in Leipzig.

More information: www.connective-cities.net/en/

Figure 51 Communication activities by the La Candelaria PILaR project

INFORMATION PRODUCTS

The project should consider producing a range of information products aimed at its various audiences. Each type of product is suited to a different type of audience, but if designed carefully, they can be used with several. For example, a booklet outlining the project can be used both with local residents and with outside visitors. More spe-

cific types of products can be designed for more specific audiences. For example, you may need one factsheet with information for landholders and another for tenants.

Here are some of the main types of information products you might consider producing.

- **Elevator pitch** This is a short summary of the project, in conversational language, that you can use to introduce the project (Box 44).

Box 44 Elevator pitch

An elevator pitch is a short, persuasive and informative summary of the project's goals and activities. It is so called because it is brief enough – between 30 seconds and 2 minutes – to deliver to someone during an elevator ride. It is in conversational language, without jargon or lots of numbers. Elevator pitches are especially useful to introduce the project idea to policymakers and others who are pressed for time and who are not land administration specialists.

You will need to tailor the elevator pitch to the person you are talking to and your reason for talking with that person. Try to relate it to that person's own interests and experiences. For example, you can vary the start: talk to a commuter about traffic problems, to a financial specialist about costs, an environmental specialist about the need for green space – as a way of leading into the main pitch. The contents of the pitch will also change depending on the stage that the project has reached.

The idea of an elevator pitch is to create interest in and support for the project. Be ready to back it up with more detailed information – such as a handout or presentation.

Here's an example of an elevator pitch:

We are trying to improve the infrastructure and housing in XXX. The roads are too narrow, so they are always clogged. Most of the houses are tiny, and they don't have mains water or sewerage. The only way to improve the situation is to do a "land readjustment". That means treating the whole area as a single unit so we can plan new streets, water pipes and drains. We are working closely with the landholders and the residents. All the landholders contribute land into a big pot. The municipality demolishes any buildings that are in the way, and puts in the infrastructure. The plots are then divided up among the landholders again. Each one gets back a more valuable piece of land because it has road access and services. The residents – both the tenants and the informal residents – get an apartment for the same rent as they were paying before. We expect it to be finished in 3 years, and people can look forward to much better living conditions.

168 words – a little over one minute when spoken

Of course, you should come up with your own elevator pitch – don't just copy the one above!

- **Public announcements** The law may require that certain types of information (such as plans and building proposals) be announced publicly on noticeboards or in newspapers, giving people a chance to express their views or to object to it.
- **A monthly newsletter** in electronic or print form can provide regular information on the project to the community and to other stakeholders.
- **Booklets and information sheets** provide information in a brief, easily understood form. They can be handed out to community members through the community assistance office, and at workshops and other events.
- **Videos** can be extremely effective in communicating the key objectives of the project. They can also help explain who is involved and what an inclusive outcome means. See www.pilarlacandelaria.org/videos for an example.
- **A website** is a good way to make information readily available to a wide range of people on demand.
- **Social media** such as Facebook and Twitter enable you to give frequent updates on the project, and make it possible for people to ask questions, express their own views, and get organized. In places where many people have smartphones, this is a valuable way of keeping in touch with them and allowing them to express their views.
- **Exhibits and events** may be local (aimed at the community), or national or international, public or within institutions, to inform people about the project and its work (Box 45).

Box 45 Announcing an agreement on PILaR in Medellin, Colombia

On 18 April 2013, the city of Medellin signed an agreement with UN-Habitat to implement a PILaR project in the city.

The agreement was signed by the director of ISVIMED (the Medellin Social Institute for Housing and Habitat) and UN-Habitat's Executive Director. The official announcement online underlines the commitment of both organizations at the highest level.

Six months later, the district of La Candelaria was selected as the project site.



Figure 52 Announcement of the Medellin agreement on the UN-Habitat website

STAGES IN COMMUNICATION

The communication effort should support the other activities at each stage in the project.

- In the **conceptualization stage**, it should inform the relevant stakeholders about the goals and process of land readjustment, and help motivate and organize community members to participate in the project.
- During the **data-gathering stage**, it should raise community awareness about the project and gain their cooperation in the participatory enumeration.
- In the **draft-planning stage**, it should ensure that people can contribute to the plan and make suggestions for improvements.
- When the **plans are being finalized**, it should ensure that community members understand and can suggest revisions to the plan, and approve it when it is complete.
- During **implementation**, it should ensure that all concerned are aware of current activities, how they will be affected and how they can contribute.

ORGANIZING COMMUNICATION

In one sense, communication is the responsibility of everyone in the project team. But depending on the size of the project, it may be a good idea to have one or more staff members with the relevant skills to coordinate the communication work. In a small project, the communication work can be handled by the staff responsible for community liaison. Larger projects may need a dedicated communication unit.

Some of the communication functions can be subcontracted out to specialists: examples include video production, website design, and the design and production of printed materials. Others are best kept in-house, such as liaison with the community and the press, conceptualizing and writing documents, and making presentations about the project.

The communication effort is not a stand-alone component: it must be an integral part of the project. In particular, it must work hand-in-hand with the stakeholder engagement strategy.

11

WHAT NEXT?

LOOK AT A map of plots in a city, and it appears to be made up of a patchwork. Many plots are small and irregularly shaped. Land rights are often unclear and disputed. That means that growth is haphazard, streets are narrow and clogged, and the residents are starved of vital services. Sustainable cities need to be able to readjust the patchwork so they can grow and develop in an orderly way.

But cities are also made up of the people who live and work there. To make cities a better place to live, it is not enough to rearrange the plot boundaries or their physical layout. It is also necessary to work with the people to make sure the new arrangement fulfils their needs and gains their support. This book has outlined some ways of doing this involve stakeholders in decision-making and that address the needs of the poor and vulnerable.

APPLYING PILAR IN YOUR COUNTRY

If you think PILaR is worth exploring further (and we hope there are many of you), the following suggestions may prove useful.

- If the options fit the situation in your country, you should adapt them as required. You will need to fill in the gaps and get the expertise you require. Start small. Document your experience and share them with others. If it works, scale it up: repeat the process in another, bigger area.
- Do not adopt the approaches described here without first testing them and adapting them to the particular conditions in your country. Contact UN-Habitat or another organization with experience in PILaR for advice.
- Begin by assessing the **legal environment**. Find out whether land readjustment is permitted under current law. If so, how are such projects initiated, and by whom? What special provisions govern the process? If land readjustment is not specifically permitted, will it be difficult or impossible to carry out land

readjustment under current law? What changes, if any, may be required?

- It is probably premature at this stage to attempt to identify a specific project. But you should organize **political support** for a participatory approach to land readjustment. Form a coalition of senior municipal and community leaders to support a PILaR pilot project. Quite likely, a “champion” will be required to provide the sustained energy to carry the project forward.
- When the legal environment permits and supportive leadership is identified, organize an **advisory committee**. The committee should arrange for any technical assistance required, propose a preliminary budget, and begin training and soliciting inputs from community groups to increase awareness of PILaR ideas and to seek a possible pilot site.
- The work of the advisory committee should then proceed as outlined in the governance chapter.
- You can apply land readjustment in a city in several stages. Start off with a **small, simple project** to develop, test and learn the procedure. Adapt the process as necessary, then proceed with a series of PILaR projects to readjust land in neighbouring areas of the city, in conformity with the urban plan. Consider dividing up a large area into smaller projects to make the task manageable.

DEVELOPING PILAR FURTHER

Although land readjustment is more than a century old (Chapter 1), PILaR – **participatory and inclusive** land readjustment is a new technique that is still being developed. Some ways of developing it further include the following.

- Develop the capacity of organizations in interested countries, as well as of international organizations, partners in the Global Land Tool Network, NGOs, consultancies and individuals.
- Conduct pilot projects in various countries, monitor and evaluate them carefully, and document the lessons. Adjust successful approaches in cities and countries with similar conditions.
- Introduce PILaR to national and municipal governments.
- Facilitate peer-to-peer learning among countries and municipalities for example through joint meetings and cross-visits.
- Communicate successful PILaR cases and techniques at global events, through Global Land Tool Network partners and other activities.
- Create links between PILaR and other land tools being developed by the Global Land Tool Network. For example, a tool for valuing unregistered land (expected to be ready in 2016) will be a useful complementary technique.

- Update this document with new lessons as they emerge.

Sustainable cities urgently require a range of tools and instruments to better manage their land, avoid displacing people during urban development, and be inclusive for all, including vulnerable groups. PILaR could be one of these tools. Cities in developing

countries have not yet succeeded in implementing this approach at any scale because of inappropriate approaches. Doing so will require committed leadership, sustained commitment and creativity. But the goal of building better communities within cities is well worth the effort in time and treasure.



GLOSSARY

THIS GLOSSARY EXPLAINS some of the technical terms used in this book. The explanations given here aim to be clear and easily understandable, and apply to the context of land readjustment. They should not be seen as formal definitions.

Cross-references to other terms in the glossary are given in SMALL CAPITALS.

Betterment The rise in value of a private landholding as a result of an action by the government or local authority (not by the LANDOWNER). For example, improving the infrastructure or building a new road may increase the value of a piece of land without the landowner having to do anything. The government or local authority may charge a betterment tax to capture some of the gain in value. See Box 14.

Cadastre A map of the land PARCELS in an area, showing their location and boundaries. Each parcel has a unique identification number which is linked to a LAND REGISTER showing who owns or controls the parcel.

Clearance An official permit to do something with a landholding that would otherwise not be allowed. For example, an environmental clearance may permit the LANDOWNER to cut down trees on the land. See Box 18.

Community The people living and working in a neighbourhood.

Community character The makeup and history of the neighbourhood and the people who live there, along with their perceptions of these. It is shaped partly by the built environment. See Box 21.

Community engagement The process of working together with people in the community to plan and implement a project. See Box 26 and STAKEHOLDER ENGAGEMENT.

Compulsory acquisition Compulsory purchase, expropriation, eminent domain, resumption. The process by which the government acquires land without the consent of its owner or occupant in order to benefit society. It includes a procedure to compensate the owner or occupant for the loss of rights to the land.

Compulsory purchase See COMPULSORY ACQUISITION.

Consensus ratio The proportion of landholders who must agree to a LAND READJUSTMENT project before it can go ahead. See Table 13.

Continuum of land rights Rights to access, use, occupy and transfer land come in many forms. They lie on a continuum: at one end, full ownership with clear ti-

title (“registered FREEHOLD”) gives the holder strong rights, recognized by all. At the other end, people may occupy the land informally, without any title. In between lie a range of possibilities, such as adverse possession (rights acquired by someone holding the land for a minimum period), customary tenure, group tenure, etc. See Figure 10.

Customary tenure The communal possession of rights to use and allocate land by a group sharing the same cultural identity. A single person, often a family or lineage head, may be responsible for allocating and administering the land rights on behalf of the group.

Eminent domain See COMPULSORY PURCHASE.

Encumbrance A claim on land or property that diminishes its value but does not prevent ownership from being transferred. If the land is sold, it will be bound by the encumbrance unless the party holding the encumbrance releases it. It is therefore important for a purchaser to enquire if there are any encumbrances on the property before purchasing it. For example, someone other than the owner may have the right to graze livestock on the land. See Box 18.

Environmental impact assessment A procedure to assess the likely impacts on the environment of a particular project. See Figure 36.

Exchange model A table showing the contributions that each type of stakeholder is required to make to a land readjustment project, the benefits that he or she will receive, and the criteria used to determine these. See Box 38.

Expropriation See COMPULSORY ACQUISITION.

Formal tenure The documented right, recognized by the state, to occupy a landholding.

Freehold Private land ownership. The right to full, private ownership of land, free of any obligations to the state other than paying taxes and observing land-use controls imposed by the state in the public interest.

Gender evaluation criteria A framework developed by the GLOBAL LAND TOOL NETWORK to test the gender responsiveness of land-related procedures. See Box 27.

Gentrification The buying and renovation of buildings in a rundown urban area by wealthier people. This increases property values but can displace poorer residents and small businesses.

Global Land Tool Network An alliance that aims to develop a set of techniques to promote pro-poor land reform and improve land management and security of tenure. The alliance is coordinated by UN-HABITAT.

Guided land development Acquiring rights of way and providing infrastructure (or indicating where it will be provided) as a way to guide urban development.

Holdout Someone who rejects the terms of an agreement negotiated with the majority, often in the hope of getting a better deal.

Inclusive Refers to the outcomes of a project: all stakeholders share in both the costs and benefits in a fair and equitable manner. See also PARTICIPATORY.

Informal resident Someone who resides on a piece of land without formal authorization. Some informal residents are **SQUATTERS**; others base their right to occupy the land on **CUSTOMARY TENURE** or other rights.

Informal settlement A settlement where the housing is built on land that the occupants have no legal claim to, or occupy illegally; or an area where housing is unplanned or does not comply with current planning and building regulations. Some (not all) informal settlements are **SLUMS**.

Institutional mapping Identifying the organizations and institutions within the neighbourhood (or that are relevant to it), along with the relationships between them.

Land administration The procedures used by the state to supervise the tenure, value, use and transfer of land. Land administration functions include juridical (managing tenure and transfers and resolving disputes), regulatory (controlling use), fiscal (collecting tax) and information management (recording, maintaining and making available information).

Land contribution ratio The proportion of land that a landhold is required to give up in a **LAND READJUSTMENT** project. See Table 6.

Land governance The rules, processes and structures through which decisions are made about the use of and control over land, how the decisions are implemented and enforced, and how competing interests in land are managed. See Box 7.

Landholder The person or entity that has a substantive claim (often based on **CUSTOMARY TENURE** OR **OCCUPANCY**) to a piece of land.

It includes **LANDOWNERS**, formal and **INFORMAL RESIDENTS** and **TENANTS**. It covers land that is in **PARCELS** and un-parcelled land, and plots which are legal and non-legal. See Box 3.

Landowner The person or entity that have the recognized legal right to a particular piece of land. See Box 3.

Land planning Determining the locations and layout of buildings, streets, open spaces and infrastructure in an area. See Chapter 5.

Land pooling A form of **LAND READJUSTMENT** where the **LANDOWNERS** and **LANDHOLDERS** transfer their land to a community land trust. Each owner and holder receives a share in the trust. The readjusted plots are allocated back to the **LANDHOLDERS** and **LANDOWNERS** in proportion to the amount that each one contributed. See Figure 44.

Land readjustment Conventional land readjustment is a way of reallocating the ownership of land. A group of contiguous land **PARCELS** belonging to different owners are brought together and treated as a unit for the planning of new buildings and infrastructure. The unit is re-divided into parcels and re-allocated to the owners according to the size or value of the land that each has contributed. The costs and benefits are shared equitably among the landowners. See Box 1.

Land register A public register maintained by the government that records the **TITLE DEEDS** to each **PARCEL** of land. It is often linked to the **CADASTRE** through a unique identification code for each parcel.

Land-use planning For a large area such as a region or a city, the systematic assessment of physical, social and economic factors to enable land users to choose how to use the land productively, sustainably and in a way that meets the needs of society.

Land valuation The determination of the value of a landholding or property. It may be determined in various ways: on the basis of the area of the landholding, on its market value, or using proxies such as accessibility. Land valuation is normally done by a professional appraiser. See Chapter 4.

Leaseholder Formal TENANT, someone who has made a contractual agreement with a LANDOWNER to occupy or use a piece of land for a specified period.

Linear project A project that builds or expands linear infrastructure, such as a road, railway or pipeline.

Municipality The municipal administration, or that branch of it that is responsible for LAND READJUSTMENT.

Parcel A PLOT of land that is recognized legally and entered into a CADASTRE or land registration system.

Participatory Refers to the process followed by a project: the people have a say in decisions that affect them. See also INCLUSIVE.

Participatory and Inclusive Land Readjustment PILaR. A LAND READJUSTMENT process that uses PARTICIPATORY methods and aims for INCLUSIVE outcomes. See Box 4.

Participatory enumeration A data-gathering process which is to a significant extent jointly designed and conducted by the people who are being surveyed.

Participatory mapping Making a map of an area with the participation of the people who live there.

PILaR PARTICIPATORY AND INCLUSIVE LAND READJUSTMENT

Plot An area of land held by a particular landholder, or with a particular land use or other characteristic. It may be legally recognized or not. See also PARCEL.

Poverty scorecard A short checklist used to judge quickly whether a household is poor. See Box 25.

Private land ownership See FREEHOLD.

Renter TENANT

Reparcellation In conventional LAND READJUSTMENT, the division of a consolidated area into individual plots and their allocation to specific LANDOWNERS.

Reserved plot A plot of land reserved for use by the municipality – for example for rental, sale, or for building affordable housing.

Resumption See COMPULSORY PURCHASE.

Slum An area with a large number of households who lack at least two of these elements: access to improved water, access to improved sanitation, security of tenure, durable housing, and an adequate living area.

Slum improvement SLUM UPGRADING

Slum upgrading Slum improvement. A way to improve the housing and living conditions in a slum by involving the people who live there. See Chapter 1.

Social capital The network of linkages within a community. See Box 21.

Social Tenure Domain Model A PARTICIPATORY method of recording who has what rights to what piece of land. See Box 10.

Spatial mapping Plotting locations and boundaries of an area on a map.

Squatter Someone who takes unauthorized possession of an unoccupied piece of land or building. Regarded as derogatory in some locations; this book uses the more neutral term INFORMAL RESIDENT.

Stakeholder engagement The process of working together with LANDOWNERS, LANDHOLDERS, people in the community and other stakeholders to plan and implement a project. See Chapter 7 and COMMUNITY ENGAGEMENT.

Stakeholder mapping Identifying the STAKEHOLDERS in a project, along with the relationships between them.

Stakeholders Individuals and organizations that are affected by a project or who have an interest in it.

Subsidiarity The principle that decisions should be taken and services provided at the lowest appropriate level.

Tenant Renter, leaseholder. Someone who pays a LANDOWNER OR LANDHOLDER to occupy or use a piece of land or building.

Title deed A formal document, recognized by the state, giving rights to the holder to occupy and use a piece of land.

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Remaking the urban mosaic

Participatory and inclusive land readjustment

Participatory and inclusive land readjustment, or **PILaR** for short, is a way of reorganizing the ownership of land in and around cities in a pro-poor way. It brings together land parcels belonging to different owners and treats them as a single unit for planning and infrastructure provision. The municipality reserves a portion of the land for roads and other public infrastructure, and returns the rest to the original owners. Each owner gets back a smaller parcel, but it is worth more because it now has road access and other services. PILaR involves all the stakeholders – landowners, the municipality and residents – in planning and managing this process. Everyone has a say, and everyone benefits.

This book describes how to implement PILaR. It guides the reader through the various aspects of this complex process: governance, land management policies, planning and design, collecting and analysing data, engaging with stakeholders, legal issues, finance and communication. It will be of interest to urban managers, land professionals, landowners, representatives of residents and other stakeholders who are considering or are involved in land readjustment projects.

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