Merits and Benefits of Effective Land Administration

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Paula Dijkstra
Director Kadaster International
Mexico, 9 April 2024

The Netherlands

12 Provinces
342 Municipalities
21 Water Authorities
~40.000 km^2
~17,8 million inhabitants

**Country**: e-Government spatial data infrastructure

Provinces: Spatial planning, environment and conservation

Municipalities: land management, zoning, local development
Key partner in e-Government and SDI

System of Key Registries

- Key register = Authentic registers
- Single registration of authentic data
- Mandatory re-use of the data by all governmental bodies
- Citizens do not have to supply data over and over again
- Known quality and source of data
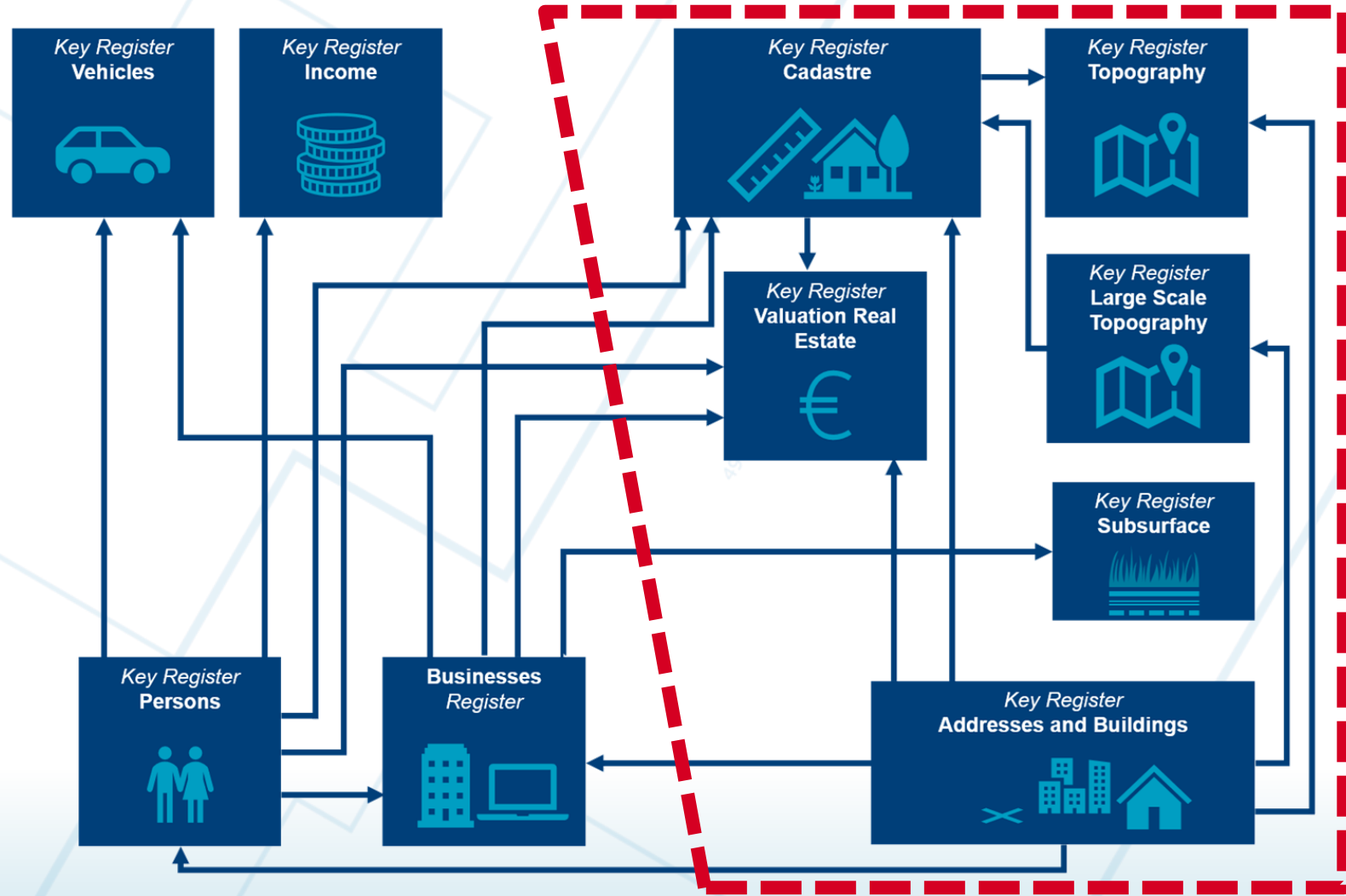
Mission Kadaster

As an independent body, Kadaster provides certainty with transparency regarding ownership and the use of property and space. This provides an important basis for economy and contributes to prosperity. On a daily basis.
We provide overview and support in decision making.
In the Netherlands and abroad.

Information from the Key Registry Cadastre
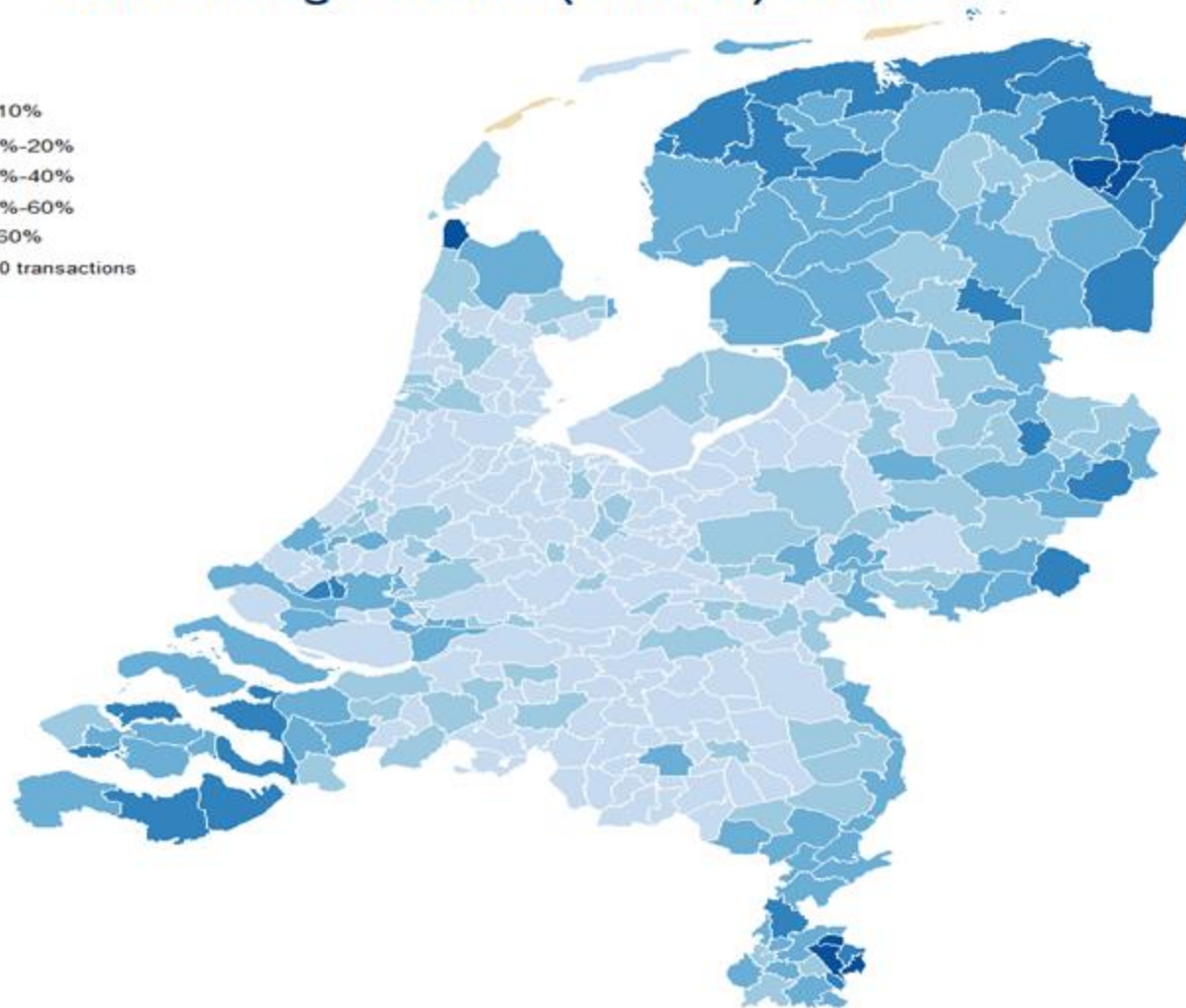

Average housing price per municipality - 2023

< €300.000
€300.000 tot €375.000
€375.000 tot €450.000
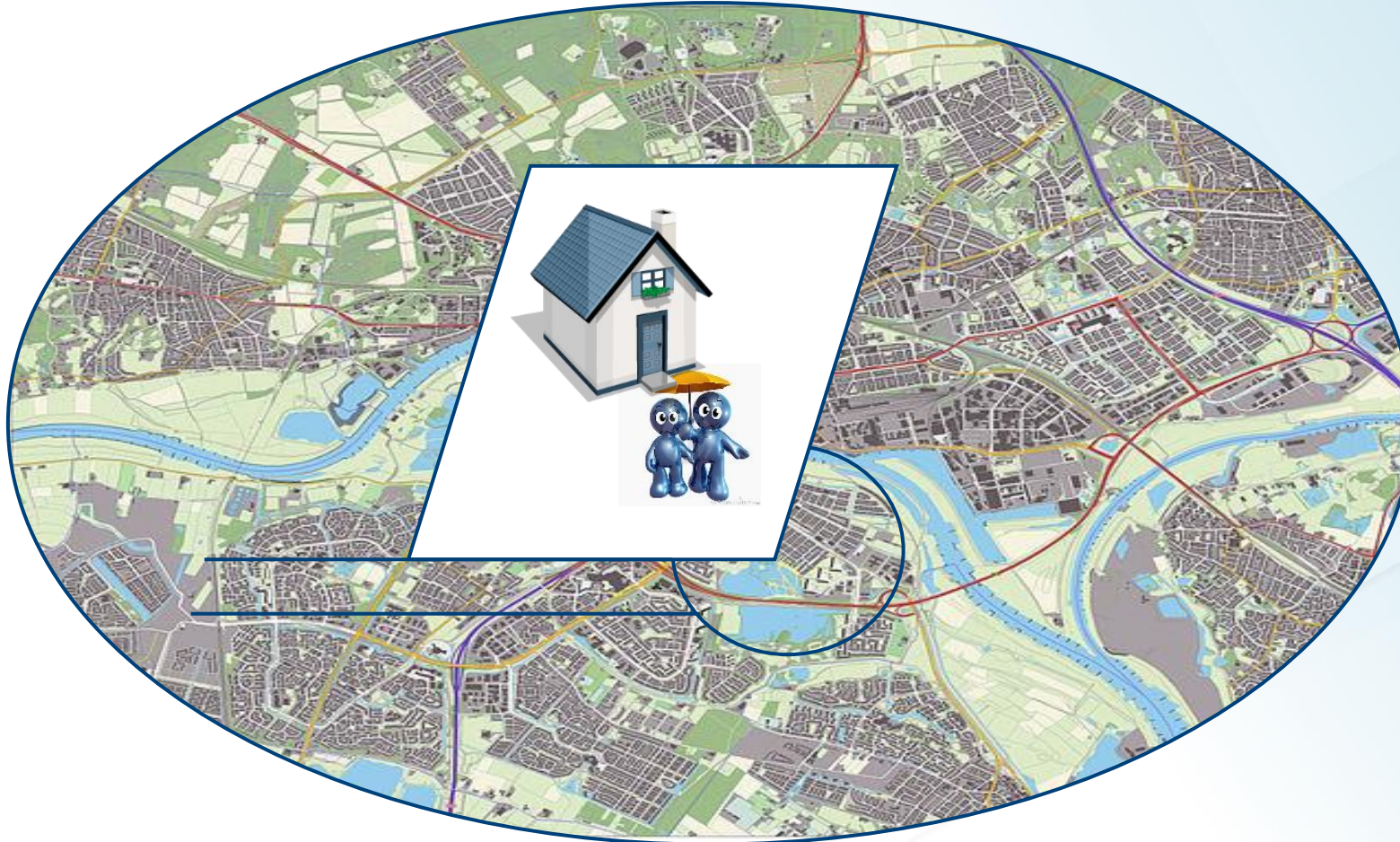€450.000 tot €550.000
> €550.000
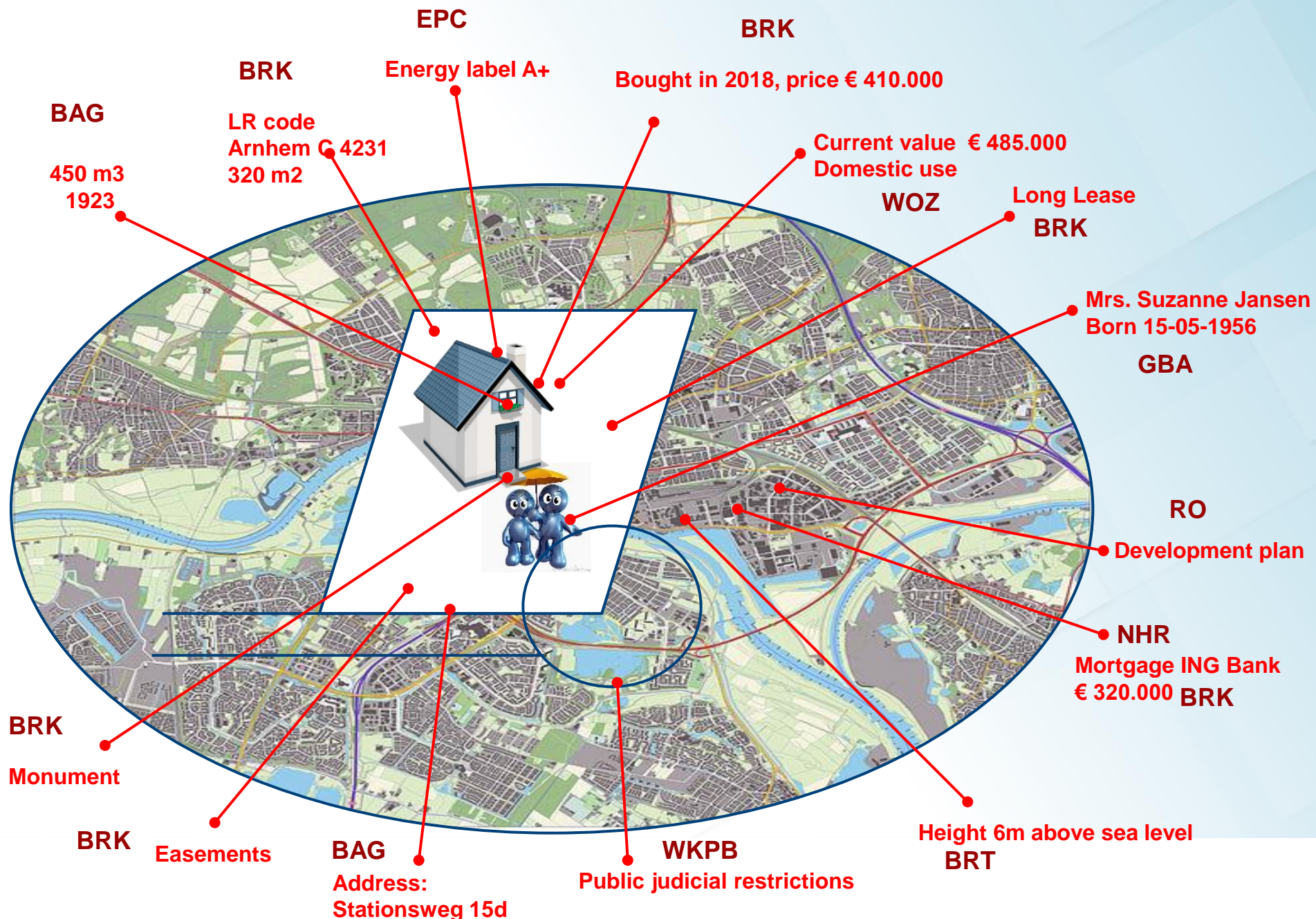<10 transactions
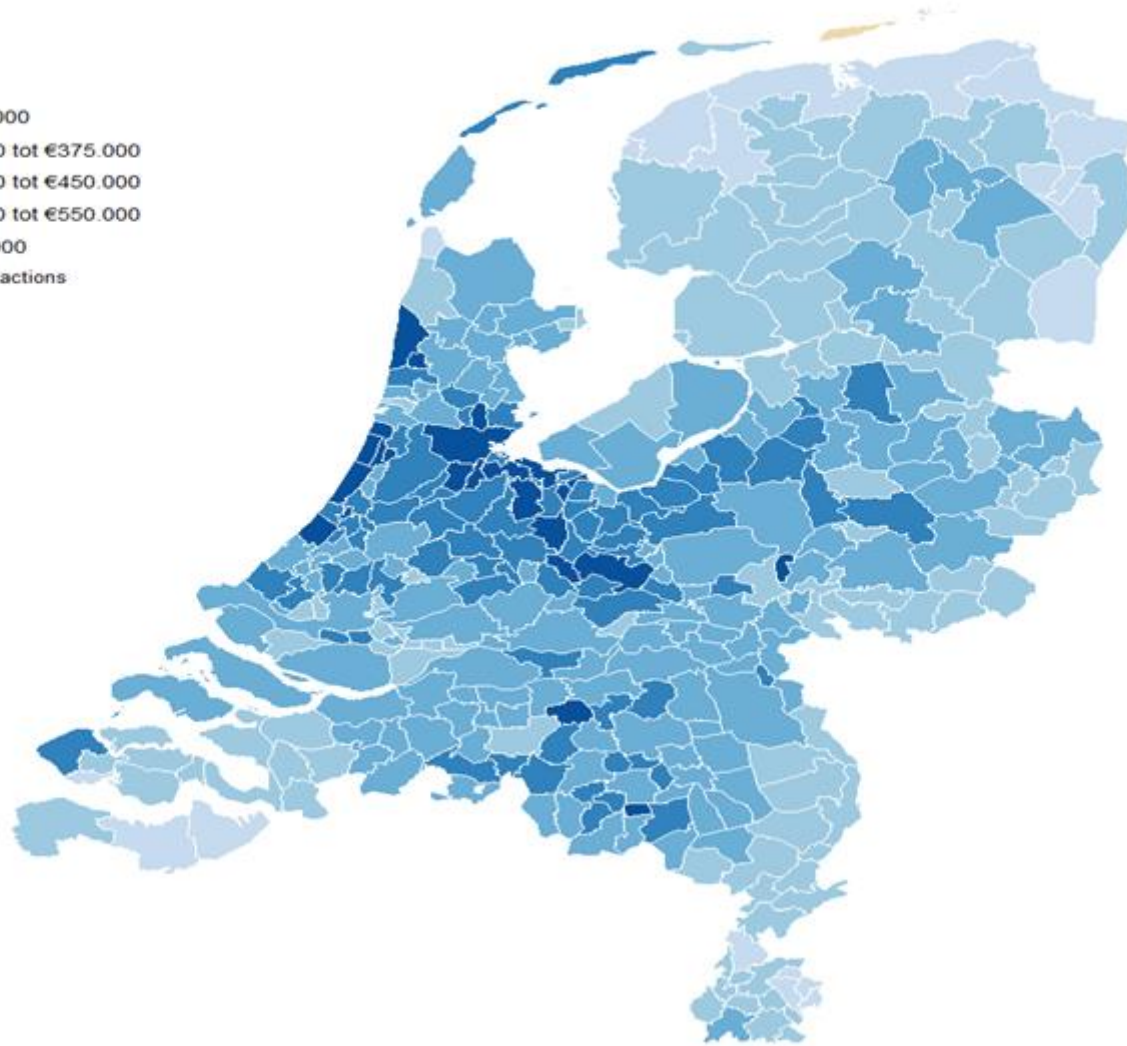
Combining Mortgage data with income

Percentage of transactions attainable with average income (€60.000) in 2023

Kadaster information hub in eGovernment

Customers just like to know 'everything'...

BAG
450 m3
1923

BRK
LR code
Arnhem C 4231
320 m2

EPC
Energy label A+

BRK
Bought in 2018, price € 410.000

Current value € 485.000
Domestic use
WOZ

Long Lease
BRK

Mrs. Suzanne Jansen
Born 15-05-1956
GBA

RO
Development plan

NHR
Mortgage ING Bank
€ 320.000 BRK

Height 6m above sea level
BRT

WKPB
Public judicial restrictions

BAG
Address:
Stationsweg 15d

BRK
Easements

BRK
Monument

Advocacy & Àpplication of FELA

Advocacy
Research EuroSDR on FELA

A project to raise awareness of the merits and benefits of Effective Land Administration

Share knowledge and experiences about leveraging FELA as an overarching policy guidance

- Stage one: focus on pathways Governance, Law and Finance
- Stage two: focus on Data, Innovation and Standards (18 questions)

EuroSDR

European Spatial Data Research

February 2023

EuroSDR Advancing FELA –
The Framework for effective
Land Administration

Eva-Maria Unger, Rohan Bennett, Joep Crompvoets,
Anka Lisec, Frédéric Cantat

Implementing the Framework for Effective Land Administration

Sustainable development demands effective land administration

The selection of participants was restricted to European countries, with an existing relationship with EuroSDR and/or UN-GGIM Europe.

Participating countries:

- Austria,
- Belgium,
- Bosnia & Herzegovina,
- Bulgaria,
- Cyprus,
- Czech Republic,
- Denmark,
- England and Wales,
- Estonia,
- Finland,
- Germany,

- Italy,
- Latvia,
- Luxembourg,
- the Netherlands,
- Portugal,
- Scotland,
- Slovenia,
- Spain,
- Sweden
- Switzerland,

In total
21
countries participated

The participating countries represent all regions of Europe: Central and Eastern, Northern, Southern and Western Europe.

Source: https://www.eurosdr.net/sites/default/files/uploaded_files/eurosdr_publication_ndeg_74.pdf

EuroSDR

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Implementing the Framework for Effective Land Administration

Sustainable development demands effective land administration

- Online survey approach aimed to create an **overview of the different stages of awareness and uptake** of the FELA by the Members of EuroSDR and/or UN-GGIM Europe

- Done by **converting the FELA framework into a series of questions**

- Each FELA strategic pathway question set would allow for a **mix of quantitative and qualitative data** to be collected

- Questions were created **based on insights** provided through the development of the FELA, as well as the specific context and discussions during the various EG-LAM meetings

- Survey included **both closed and open-ended questions**
  Closed-ended question provided multiple choice answer option, therefore a set of answers was offered
  (Whilst this might be considered a constraint, it was felt the benefits of enabling comparison between countries outweighed the prescriptive nature of the responses provided)

  Open-ended questions provided for **more in-depth insights** at a country-specific level to be provided

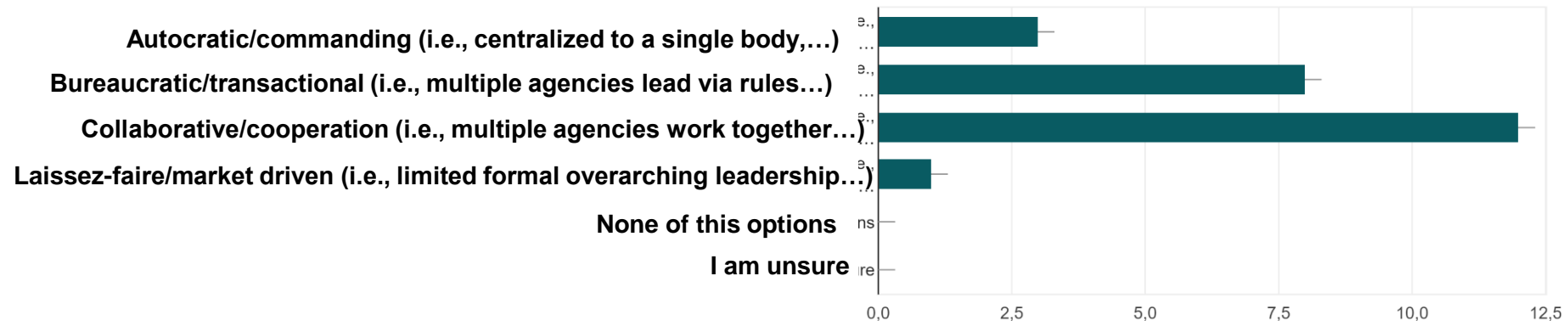Source: https://www.eurosdr.net/sites/default/files/uploaded_files/eurosdr_publication_ndeg_74.pdf

Implementing the Framework for Effective Land Administration

Sustainable development demands effective land administration

This question relates to the FELA Pathway I 'Governance, Institutions and Accountability' – FELA calls for clear governance models, leadership, institutional structure and a clear value proposition. FELA describes the importance of the political endorsement to strengthen the institutional mandate.

Which option best describes leadership in the land administration sector in your jurisdiction?

Both bureaucratic and collaborative leadership styles were the two most frequently mentioned, (collaborative way being the main trend). Going further, qualitative answers revealed there is cases of mixed leadership with some tasks being defined through laws (most of the time the overall mandate) and others by collaboration with other key stakeholders.

Source: https://www.eurosdr.net/sites/default/files/uploaded_files/eurosdr_publication_ndeg_74.pdf

Implementing the Framework for Effective Land Administration

Sustainable development demands effective land administration

Appears to be a level of homogeneity in the surveyed countries with respect to governance structures, leadership, laws, and finance. Perhaps expected due to historical origins of systems and the recent influence of European Commission

There are outliers though. These could indicate different interpretations of the question, or that a given jurisdiction is taking a substantially different approach to land administration – therefore in-depth interviews

In general, it could be assumed that most countries are (or until now) have been moving towards a more collaboration and diversification in land administration decision making and mandate.

Need to analyze thoroughly the qualitative data, and assess its alignment with the quantitative results, the need to refine the survey further, apply inferential statistics

It has been shown that it is possible to convert FELA into a tool for assessment and awareness raising

This work is part of a broader activity/collaboration between UN-GGIM Europe and EuroSDR. It is positive to see this kind of policy transfer work taking place
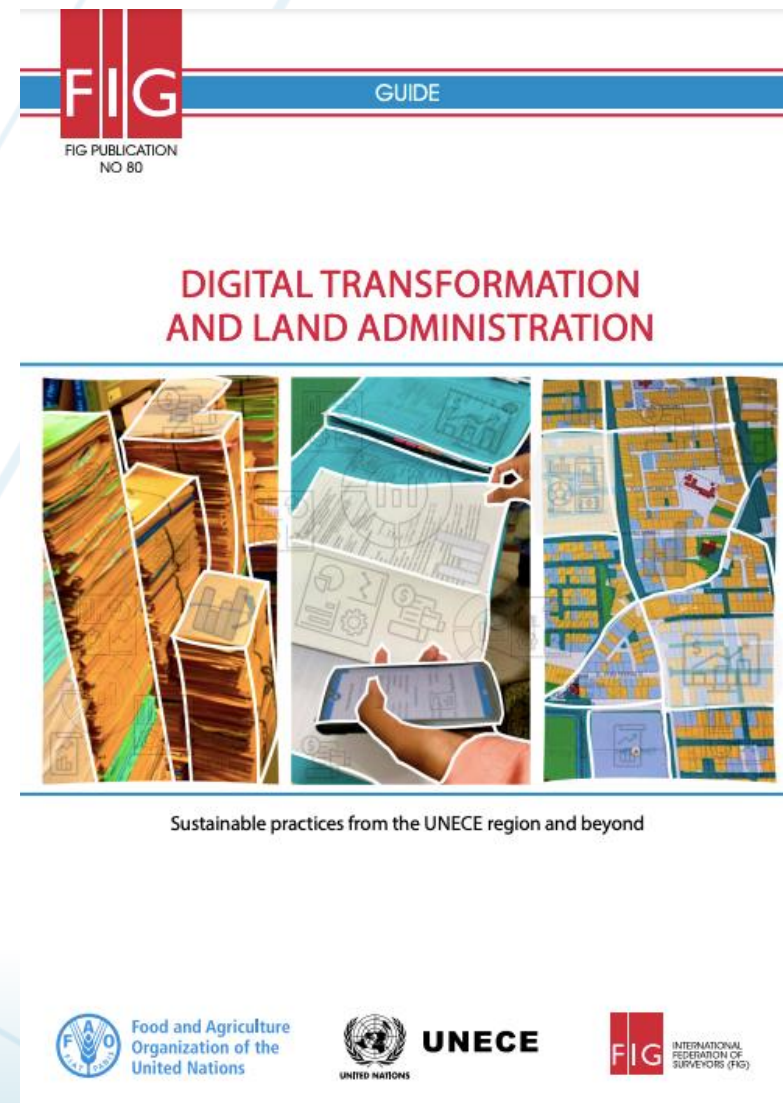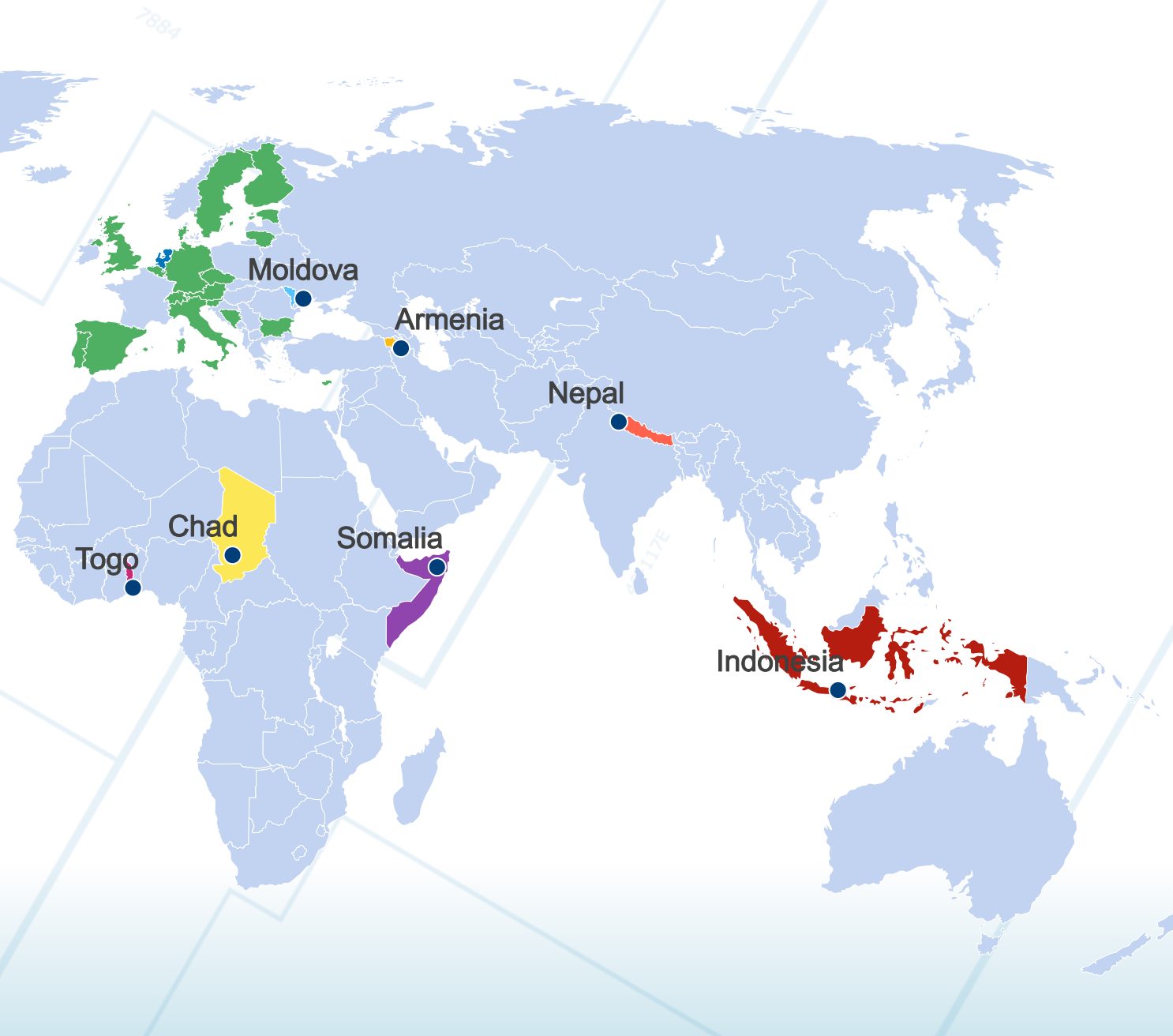
Partnership with FIG

Joint Publication FAO, UNECE, FIG

Includes country examples

FELA used to identify recommendations

Application of FELA in projects of Kadaster International

Moldova

Armenia

Nepal

Chad

Togo

Somalia

Indonesia

Indonesia

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Indonesia: Improving modern land administration

Kadaster supports the Indonesian National Land Agency, representing the Ministry of Agrarian Affairs and Spatial Land Planning (ATR/BPN) with institutional and technical change. This is needed to deliver a modern land registration system in Indonesia by 2024.

In this way, Indonesia is moving towards a land administration system that meets the social, economic and environmental needs. The agency has been undertaking continuous improvement initiatives, particularly relating to increasing map coverage and digitalisation over recent decades.

Table 1. Digital Transformation opportunities and challenges

Pathway	Opportunities and Challenges
Governance, Institutions and Accountability	**Vision** for ATR/BPN digital transformation that is holistic Digital transformation **champions** at multiple levels **Alignment** of digital strategies withi ATR/BPN and with external stakeholders
Law and Policy	Legislative and regulatory **harmonisation** Assessment of a **positive system** of land registration Ensuring workable, enforceable, and are adequately **resourced** law
Finance	**Sustainable business model** post-2025 **Government business enterprise** model exploration Audit and assessment of **PPP** service models **Performance metrics** redesign around benefits realisation and SDGs
Data	**Vision** for data governance across ATR/BPN, post-2025 **R&D** audit and review on cadastral and land registration data **Fast-tracking** mapping 126M parcels by 2025 (keep going!) Developing and implementing better **quality assurance** standards Ensuring a robust federated **database infrastructure** is developed
Innovation	Formalised innovation **bench making** program across ATR/BPN **Incentive schemes** at all levels Formalise **R&D** collaborations across sector **Digital divide** audit
Standards	Audit **governance** of standards in ATR/BPN Assess range of **technology** and data initiatives in terms good practices Development of both internal and industry-wide **certification** protocols Fostering of a **community of practice** to support awareness raising
Partnerships	Reviewing partnership and establishment new partnership **ecosystem** (NGOs) Assess PR 38/2015 with regards to land sector **PPPs** **PaLaR** (i.e., FFPLA) review on embeddedness into PTSL **Donor-working group** creation for optimisation
Capacity and Education	Plan for **keeping capacity** in ATR/BPN **Fast-tracking skill areas** for maintaining the data Support professional bodies and encourage **self-accreditation**
Communications and Awareness	Revisit key **stakeholder** lists and related communications plans Ensure **World Bank project** comms are institutionalised Examining the current **monitoring and evaluation** mechanisms

Armenia
FELA & 5 year plan

▌ Aim of Cadastre Committee to be have a transparent, secure, unified and citizen-oriented cadastral system.

▌ The 5-year plan takes a broad FELA-like perspective, involving

⌂ legislative

⌂ administrative

⌂ institutional

⌂ technological activities

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Armenia: digitizing archives

Armenia is moving towards a more transparent, secure, unified, and citizen-oriented cadastral system. A core activity of this transition, which is manifested in the 5-year reform plan of Cadastre Committee (CC), is the digitalisation of the cadastral archives in Armenia.

Digital cadastral archives facilitate the creation of modern online, streamlined self-services, and a paperless environment for the CC. In addition, it supports land allocation, including qualitative and quantitative analysis, monitoring, land appropriation and the management of other types of property rights on land.

Land at Scale Programme Chad

Improved land tenure security for all (including vulnerable groups like women and youth) and reduced conflict over land in the intervention regions.
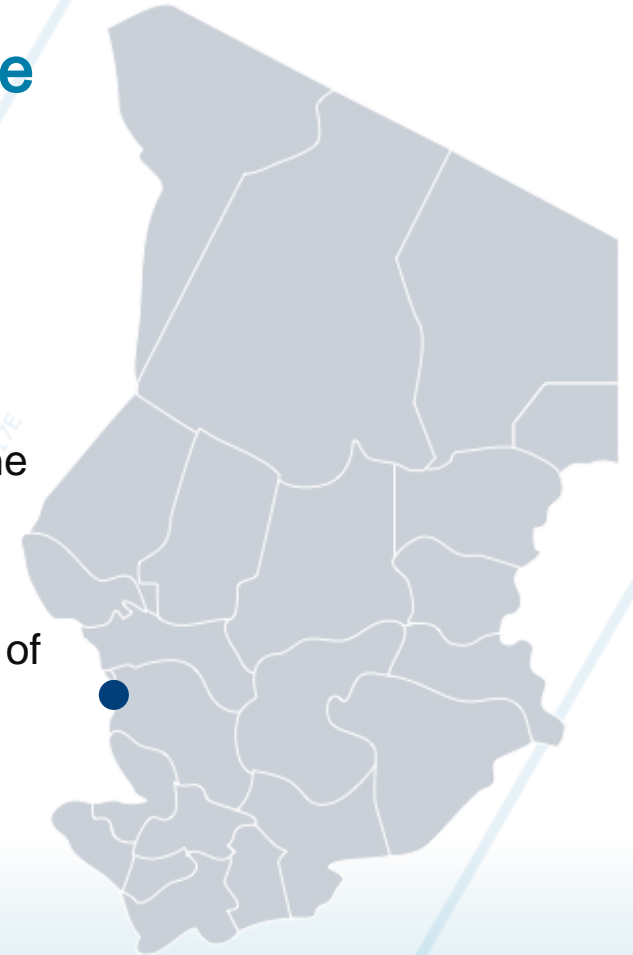
Statistical Information

- Population: app. 17 million (app. 2 million in N'Djamena)

Landlocked country (desert north - Sahara, Sahelian belt – center, Sudanian Savanne south)

Chad's land legislation dates back to 1967 and the body of law is poorly applied

Reflected in no. of land conflicts in both urban and rural and also reflected in low no. of existing land titles

Instable political situation – change of leadership

FELA Pathway	Opportunities and Challenges in Chad	
Governance, Institutions and Accountability	• Political stability is needed for a holistic transformation towards a sustainable land administration; • Unclear mandates and changing leadership in ministerial posts;	• Political will is existing and can be leveraged • Networks amongst different ministries established;
Law and Policy	• Absence of Land Policy causing lengthy processes; • Legal framework to be in place for piloting/a complete role out in Chad;	• Int. examples on successful land policies can support developments; • Development of policy can consider lessons learnt from case study;
Finance	• Sustainable business model for land administration is not existing; • Donor support in the future is likely;	• Governmental interest to explore Public Private Partnerships is given;
Data	• Available data is segmented and paltry; • Lack of vision for data governance and geospatial data strategy across ministries;	• Developing and implementing data quality and open data standards; • Establishment of a robust IT infrastructure;
Innovation	• Combination of different methodologies to address the various land realities on the ground envisioned;	• Innovation limitations based on hardware, electricity, connectivity, etc.
Standards	• Lack of data standardisation program; • Capacity around standards;	
Partnerships	• Donor-working groups coordination; • Extension of the network of partners (NGOs, CSOs, private sector etc.);	
Capacity and Education	• Capacity and level of literacy in specific areas; • Capacity development programs will be needed for piloting;	• Enthusiasm of the local team; eagerness to learn; • Agreement on the need to involve the local team in the implementation of future initiatives;
Communication and Awareness	• Communication and awareness programs need to consider differences • Monitoring and evaluation indicators may vary for the pilots	• Gender responsive approach and particular attention to vulnerable Awareness at all ministerial/governmental level that community involvement is imperative;

Strengthening land administration in Nepal amidst climate change

March 26, 2024

From February 27 to 29, 2024, the workshop "Effective Land Administration in Nepal: Navigating Governance, Legal and Financial Pathways within the Climate-Change – Land Nexus" took place at the Land Management and Training Center (LMTC) in Dhulikhel, Nepal. It brought together 20 participants involved in land issues from various sectors, including federal and provincial land ministries, NGOs/ CBOs, academic institutions, and UN-Habitat. Experts from Kadaster, UN-Habitat, the training center, the Ministry of Land Management, Cooperatives and Poverty Alleviation, and local NGOs provided insights on national and international strategies for land administration within the context of climate change.

Example of Group Work on Land – Climate Nexus Supported with FELA

| 2030 Agenda - FELA 5 Ps	Climate Objective	Evidence from Policy	Land Administration theme	FELA Pathway	Stakeholders in Nepal	Success Indicator for Nepal	Supporting (New) Initiatives	Means of Verification in Nepal	Action/Project Idea
Partnership Planet	Build the climate resilience of vulnerable communities in rural and urban sectors (p.23)	NAPA2020	Climate Change – Land Nexus	Governance, Institutions, and Accountability	...	Degree of inter-agency and cross-sectoral collaboration	...	Number and nature of collaborative initiatives or platforms established for coordinating the climate land nexus across different sectors and levels of government	Task Force for inter-agency and cross-sectoral collaboration ...
Partnership Planet	Build the climate resilience of vulnerable communities in rural and urban sectors (p.23)	NAPA2020	Climate Change – Land Nexus	Legal and Policy	...	Number of climate policies or action plans revised to include land.	...	Count of national, regional or local climate policies or action plans that have been updated to integrate land explicitly	Legal Framework Harmonization Nepal Expert Group Meeting ...
Prosperity	Build the climate	NAPA2020	Climate Change – Land Nexus	Finance	...	Level of economic	...	Increase in the number of land	

Renew our Vision Key Registry Cadastre (BRK)
Why?

- Increasing pressure on public access to BRK & public records
- Assessment of our role within the system of keyregistries and real estate sector
- Quality improvements to adapt to the needs of society to tackle complex societal issues

- First round is with consultations and a needs assessment
- FELA provides a structure for the approach and is helpful to compare with other countries
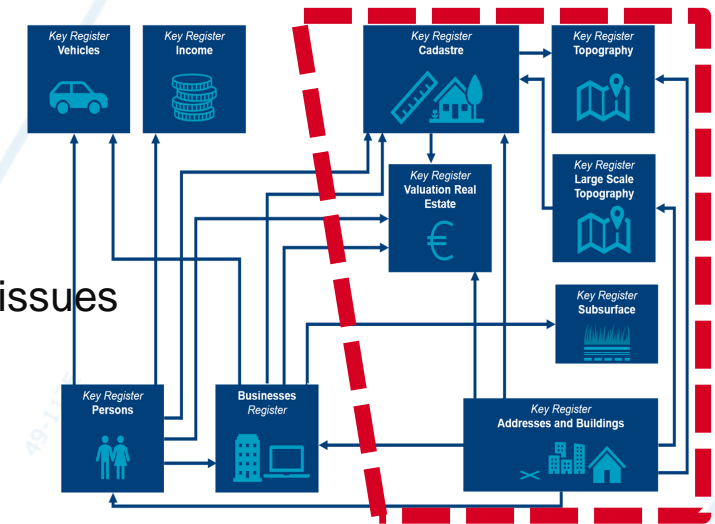
Highligthing FELA Parthway VI: Standards

FELA – Pathway Standards
Land Administration Domain Model

- Standards assist in cost reduction and support removal of duplication and maintenance efforts.

- The Land Administration Domain Model (ISO 19152) provides an ISO endorsed data model.

- The Social Tenure Domain Model (STDM), in Annex I of the LADM, provides a concept and data model to record all people to land relationships.
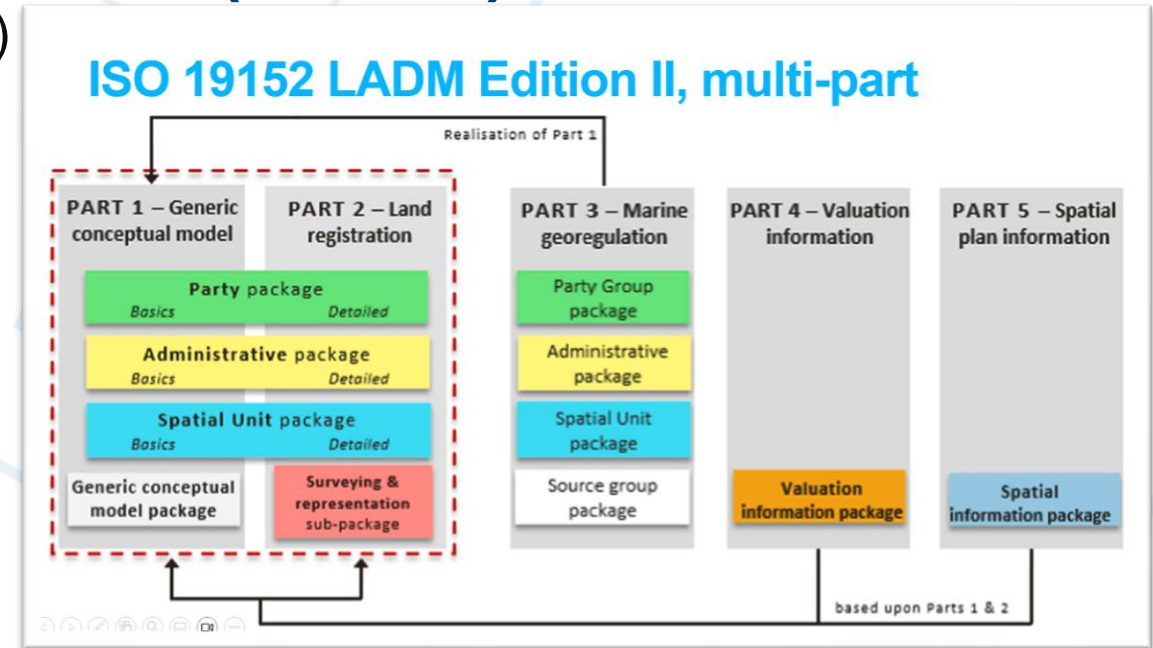
Land Administration Domain Model (LADM) Parts

- Part 1 – Generic Conceptual Model (published)
- Part 2 – Land Registration
- Part 3 – Marine Georegulation
- Part 4 – Valuation Information
- Part 5 – Spatial Plan Information
- Part 6 – Implementations (OGC March '24)

News in 2024

Publication of the first part of LADM Edition II

February 2024

The Land Administration Domain Model (LADM) is an internationally recognised ISO standard (ISO 19152) that provides and supports responsible innovation and partnerships, for effective land administration.

ISO 19152 LADM Edition II, multi-part

Realisation of Part 1

PART 1 – Generic conceptual model	PART 2 – Land registration	PART 3 – Marine georegulation	PART 4 – Valuation information	PART 5 – Spatial plan information
Party package		Party Group package		
Basics Detailed				
Administrative package		Administrative package		
Basics Detailed				
Spatial Unit package		Spatial Unit package		
Basics Detailed				
Generic conceptual model package	Surveying & representation sub-package	Source group package	Valuation information package	Spatial information package

based upon Parts 1 & 2

LADM v2 Part 6: Implementation Aspects

LADM v2 Part 6

- OGC SWG Land Administration standard components:

  1. **Methodology for developing a country profile**
  2. Technical model / encodings (JSON, XML, INTERLIS, RDF, IFC, ..)
  3. Management and maintenance of semantically rich code list values (SKOS)
  4. Procedures / workflows (land registry, marine georegulation, valuation information, spatial plan information)

- OGC SWG LA standard(s) will become ISO LADM part 6

- ISO TC211 standards become CEN TC287 standards by parallel voting (Vienna agreement)

STDM

The Social Tenure Domain Model (STDM) is an approach to compliment conventional approaches in land administration.

STDM is a normative annex in LADM.

Under development ...

Proposal STDM 'Valuation of Unregistered Land'

Based on discussion during LADM Workshop 11th October 2023

Participants @ event:
Abdullah Kara, Chris Body, Dubravka Sladic, Eva-Maria Unger, Jaap Zevenbergen,
Peter van Oosteroom

Participants @ e-mail discussions:
Abdullah Kara, Chrit Lemmen, Eva-Maria Unger, Jaap Zevenbergen, James Kavanagh,
Kwabena Asiama, Peter van Oosteroom

https://unhabitat.org/valuation-of-unregistered-land-a-practice-manual

VALUATION OF
UNREGISTERED LAND
A PRACTICE MANUAL

A world in which everyone enjoys secure tenu

Protect our planet's natural resources and climate for future generations. The changing climate and growing population increases the number of natural disasters, affects the resilience of the vulnerable and marginalized, who are typically not addressed through any land administration and land management system. The increasing pressures on communities, and on natural and built environments, including marine areas, challenge the achievement of the SDGs. Current approaches to the delivery of land-based ecosystem services are often poorly managed and planned. **Effective land administration systems should play a role in supporting improved land-based services, contribute to mitigating climate change, and supporting both integrated ecosystem and landscape based approaches. Effective land administration ensures preparedness and resilience, participatory and inclusive land use planning, monitoring of land-cover change , sustainable resource management, building back better, and the protection of our planet's natural resources and environment for future generations.**
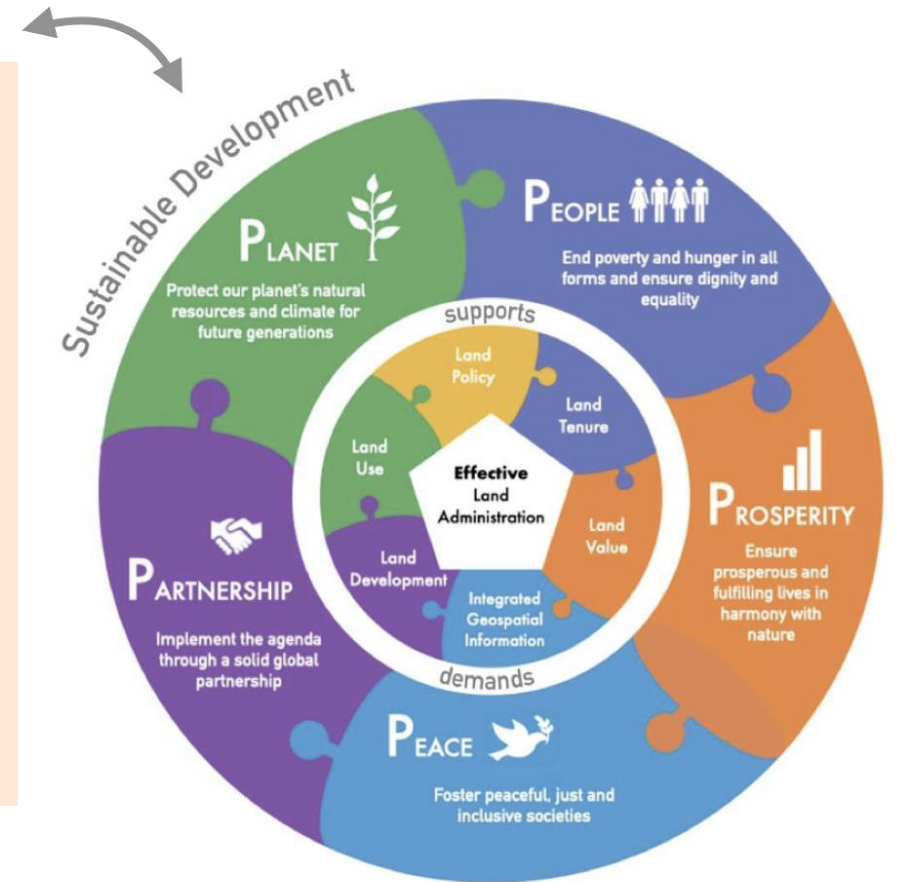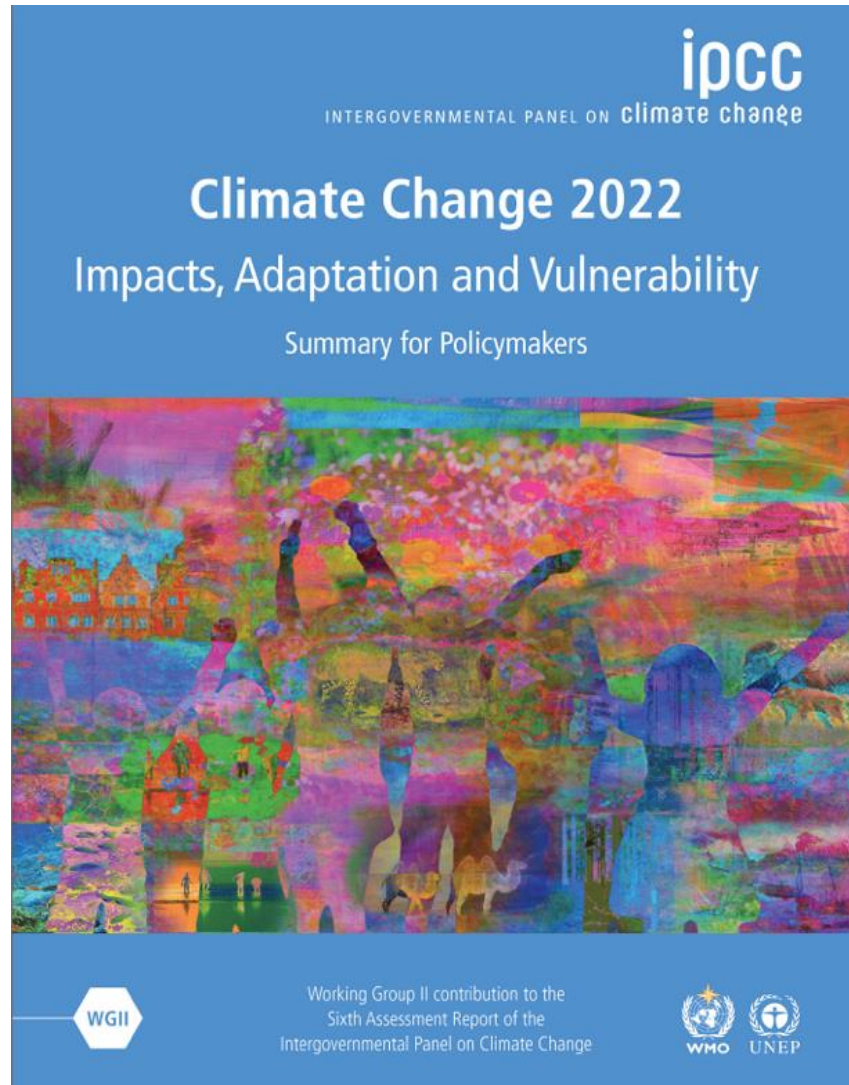

Source: https://ggim.un.org/meetings/GGIM-committee/10th-Session/documents/E-C.20-2020-29-Add_2-Framework-for-Effective-Land-Administration.pdf

The Framework for Effective Land Administration

Sustainable development demands effective land administration

ipcc
INTERGOVERNMENTAL PANEL ON **climate change**

Climate Change 2022
Impacts, Adaptation and Vulnerability

Summary for Policymakers

WGII — Working Group II contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

WMO UNEP

Climate and weather extremes are increasingly driving displacement in all regions (high confidence), with Small Island States disproportionately affected (high confidence).

Increased weather and climate extreme events have exposed millions of people to acute food insecurity and reduced water security, with the largest impacts observed in many locations and/or communities in Africa, Asia, Central and South America, Small Islands and the Arctic (high confidence).

Terrestrial and aquatic ecosystems and species are often less degraded in land managed by indigenous peoples and local communities than in other lands (medium confidence).

Including indigenous and local institutions is a key element in developing successful adaption strategies.

Vulnerability of ecosystems and people to climate change differs substantially among and within regions (very high confidence), driven by patterns of intersecting socioeconomic development, unsustainable ocean and land use, inequity, marginalization, historical and ongoing patterns of inequity such as colonialism, and governance (high confidence).

Source: https://www.ipcc.ch/report/ar6/wg2/

Source: presentation by Unger, FIJI, UN-GGIM Conference

**International Office for Cadaster and Land Records
OICRF is a permanent institution in FIG**

Kadaster is hosting OICRF since the start in 1958

A repository for FELA

To conlude

Merits and Benefits of Effective Land Administration

FELA has since its adoption been recognized as a comprehensive framework for countries to **strengthen their land administration systems**, promote sustainable land management practices, and support inclusive and equitable development.

By using the structure of FELA as described in the document, countries can **unlock the potential** of their land resources to drive **inclusive and sustainable development**.