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Global policy transfer for land administration and disaster risk management

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ABSTRACT

Contemporary global policy development is increasingly shaped through the Sustainable Development Goals (SDGs). In parallel, the United Nations initiative on Global Geospatial Information Management (UN-GGIM) plays a leading role in the development and diffusion of policy frameworks with regard to geospatial information. Specifically, two frameworks, the Framework for Effective Land Administration (FELA) and the Strategic Framework for Geoinformation Services for Disaster (SFGISD), are under development to tackle global issues in relation to tenure security and natural disasters. In order to harmoniously diffuse those global goals and frameworks into national laws and regulations, and to local community initiatives and policies, policy transfer is required to occur between governance layers. This paper seeks to assess 'whether' and 'how' this policy transfer occurs, focusing specifically on identifying limitations and its opportunities for its enhancement. Results reveal that the approach so far used for policy transfer is taking conventional institutional means to do this in both domains land administration and disaster risk management (DRM) domains. There appears to be an opportunity to utilize a networked approach instead of the conventional institutional for a more robust and further-reaching uptake of the policies. This could also give space to provide better mechanisms for feeding results from local level initiatives and successes into the global frameworks.

1. Introduction

According to Dolowitz and Marsh (1996), the construct 'policy transfer' is:

> "…the process by which actors borrow policies developed in one setting to develop programs and policies within another."

The concept gains importance at the global level, where politically and institutionally speaking, broad agreement exists in policies, goals, and indicators with regard to the achievement of global sustainability (United Nations, 2015a). Methods for transferring the agenda to national level are a logical next step in the implementation of the 2030 Agenda for Sustainable Development and its seventeen Sustainable Development Goals (SDGs). The United Nations Committee of Experts of Experts on Global Geospatial Information Management (UN-GGIM) (UN-GGIM, 2019), was established by resolution of the Economic and Social Council of the United Nations (ECOSOC), E/RES/2011/24, in July 2011 and comprised all Member States of the United Nations. ECOSOC adopted another resolution in 2016 entitled "Strengthening institutional arrangements on geospatial information management" (E/RES/2016/27) broadening and strengthening the mandate of the Committee of Experts as the relevant body on geospatial information consisting of government experts, and to report to ECOSOC on all matters relating to geography, geospatial information and related topics. UN-GGIM is the apex intergovernmental mechanism for making joint decisions and setting directions with regard to the production, availability and application of geospatial information within national and global policy frameworks. Led by Member States, UN-GGIM aims to address global challenges regarding the use of geospatial information, including in the development agendas and the wellbeing of people, planet, peace and prosperity, and to serve as a body for global policy-making in the field of geospatial information management. Within UN-GGIM's programme of work are the domains of land administration and management, and disaster risk management (DRM). This offers policy diffusion opportunities between Disaster Risk Management (DRM) and Land Administration (LA), amongst others.

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In 2016, plans for The Framework for Effective Land Administration (FELA) (UN-GGIM, 2018a) and the Strategic Framework for Geospatial Information Services for Disasters (SFGISD) (WG GISD, 2017) were instigated. The development of both policy frameworks was driven by the SDGs (United Nations, 2015a) through negotiations and discussions around them, and are developed through a formal global consultation process with agreement amongst member states within the UN. Detailed examination of both draft frameworks refers to the SDGs in each of their priorities, strategic pathways and pillars. The SFGISD builds from the Sendai Framework for Disaster Risk Reduction (2015–2030) (United Nations, 2015b) and aims to support the prevention of the human, socio-economic and environmental risks and impacts of disaster. Through the use of geospatial information and services, the FELA uses globally accepted concepts and approaches, such as Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security, New Urban Agenda, Land Governance Assessment Framework, ISO 19152 Land Administration Domain Model etc., with a view to effectively and efficiently link people to land - recognizing, documenting and recording people to land relationships in all their forms – and, in this way, securing land and property rights for all. A key benefit of the two policy frameworks is that they constitute important steps in creating shared understanding and knowledge in the creation and use of geospatial information for LA and DRM. The transfer of the policies could support better collaboration between institutions with increased interaction at global policy level as well as local level harmonization, and ultimately help to achieve the SDG ambitions.

This paper seeks to assess the approaches being taken to develop and transfer (a) FELA and SFGISD frameworks to national, regional and global laws and policies – hence between governance layers, and (b) the policy harmonization between FELA and SFGISD – hence between functional areas[1], specifically considering the policy development processes, harmonization, implementation and integration of local feedback loops. With these objectives in mind, the main research question is to determine the type of policy transfer being used. In order to tackle these objectives and research question, the paper is structured in the following way. First, the SFGISD and FELA frameworks as policies are introduced in more detail in the Background section. This is followed by an outline of the methodology explaining the action research approach adopted. Subsequently, adapted policy transfer assessment parameters, as described in the background section, are applied to the two frameworks. The findings and the result of the assessment are shown in a table where an ample system indicates which mode is currently used for each parameter. Stemming from the results, the discussion section articulates potential strategies for enhancing and scaling up the policy transfer processes in regard to LA and DRM, preceding the conclusion and recommendations.

2. Background

As demonstrated below, two challenges for the transfer of global policy frameworks emerge from literature: 1) awareness, feedback and minimization of fragmentation between institutions themselves at global, national level, regional, and the local levels as well; and 2) policy harmonization, alignment, and coordination across functional areas.

2.1. Background on policy transfer theories

The above-mentioned challenges find scholarly roots in the concept of ‘policy transfer’. The concept is defined by Stone (2004) and Knill (2005) as the transformation of policy frameworks into regional and national policies. The study area also examines how policies can be further implemented in the field, and how implementation lessons may feed back into the original policies.

The concept takes into account the cyclic development of policies as an idealized process that explains how policy should be drafted, implemented and assessed. Stages of the policy cycle that can be recognized are: Agenda setting, Formulation, Adoption, Implementation, Evaluation, and Support/Maintenance (European Geosciences Union, 2020; Janssen and Helbig, 2018). This paper deals mainly with the first three stages.

The concept is part of a broader ‘public policy’ and ‘public administration’ study area and is also seen to incorporate concepts related to policy harmonization and policy diffusion. According to Stone (2004) *policy diffusion* describes a trend of successive or sequential adoption of a practice, policy or program or dispersion of models or practices from a common source or point of origin. Further diffusion patterns can emerge from, national networks, geographical proximity of neighbouring states, ‘pioneer’ states that lead the adoption of a policy, or national government exerting top-down influence according to Berry and Berry (1999) as cited in Stone (2012).

Both ‘policy diffusion’ and ‘policy transfer’ share the assumption that governments do not learn about policy practices randomly, but rather through common affiliations, negotiations and institutional membership Knill (2005) & Elkins and Simmons (2005). Those processes can be global international and transnational sources of policy exchange informing state–to–state relations, as for example done by the UN.

When describing policy transfer terms such as ‘harmonization’, ‘convergence’ and ‘divergence’ are used. Whereas harmonization may be defined as making the regulatory requirements or governmental policies of different jurisdictions identical or at least more similar according to Majone (2014). Convergence places particular emphasis on effects, and not on processes as in policy transfer according to Knill (2005). According to Stone (2012), divergence can be drawn from negative lessons elsewhere, and those experiences contribute to active pursuit for counter or alternate policies.

Ladi (2011) differentiates ‘hard’ and ‘soft’ policy transfer. Officials are more involved in ‘hard’ transfer of policy practices and instruments involving formal decision-making, legislation and regulation. Whereas the ‘soft’ transfer of ideas and information via networks can be personal, professional or electronic and is proposed to be rapid and frequent, see also Stone (2012).

Going beyond broad definitions and generalizations, Stone (2004) identified three modes of policy transfer: 1) **ideational**, which can be described as the transfer of ideas and ideologies. Those are difficult to map but can be distinguished, as they tend to be more input oriented for policy development, rather than for output; 2) **institutional**, which is the most familiar understanding of policy transfer and involves the creation of similar structures, or constitutional apparatus, and is led by organizations and institutions through processes of institutional isomorphism; and 3) **networks**, which includes transnational actors and structures such as global networks, international task forces and or commissions.

Policy transfer can occur in all three modes. Additional to the modes as introduced by Stone in 2004 and in a later article in 2012, the originally three modes, ideational, institution and networks changed into five modes (Stone, 2012), however, the original modes were considered detailed and robust enough to apply to the case at hand. The development’s in Stone’s models suggest that policy transfer is a dynamic study area, particularly driven by societal changes such as mass media, increasing political awareness and participation, and accessibility to information. Nevertheless, for the assessment in this paper, the two modes, institutional and network modes are used, as those are the most appropriate and applicable to assess policy transfer between governance layers, and between functional areas of FELA and SFGISD. Fig. 1

[1] Functional areas are considered disciplines, study areas, or domains constituted of practitioners, champions, standards, accrediting bodies, academic discourse, curricular, amongst other elements

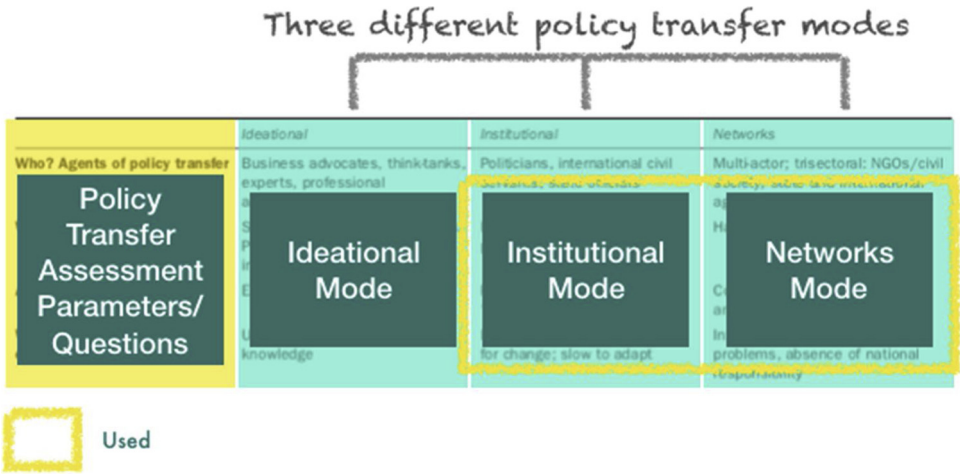

Fig. 1. Policy Transfer Assessment Parameters and Modes (adapted from (Stone, 2004)).

represents a generic representation of the three different policy transfer modes and highlighting the two modes used within this paper.

Typically, the institutional mode finds footing with international organizations such as the UN, e.g. with its committee of experts. In this vein, UN-GGIM at a first look appears to be following the institutional mode, making use of consultation and dissemination among the UN member states. The policy transfer assessment parameters as defined by Stone (2004) are, in an adapted version used to assess the policy transfer processes in this work.

2.2. Policy transfer challenges

Referring back to the two introduced challenges: On the first challenge, at local level (national, regional and community), within country contexts, targeted initiatives and tool applications seek to respond to local challenges – and these may or may not be driven by, (n)or linked to, global level policies and monitoring. Whilst (Antonio et al., 2017) show that local initiatives in Kenya and Uganda can impact the policy level, the lessons of other local interventions often do not necessarily feedback into the policy development loop. Indeed, Evans and Yen (2006) emphasize the importance of awareness raising and community feedback when it comes to the implementation of national policies. Hence, there lies the potential for local initiatives to benefit from globally developed policies, standards and tools – but, also for the global level to utilize the outputs, lessons, and data emanating from local projects – for aggregation into national and global monitoring mechanisms. But examples of successful bottom-up approaches in regard to LA and DRM are limited.

On the second challenge, even within a thematic area, for example ‘climate change’, there exists the potential risk of different but related policies, from different functional areas, to overlap and or lack harmonization. For example, Schipper and Pelling (2006) identify a redundant and sometimes conflicting policy response to climate change due to non-developed coordination and institutional overlap. This potential incongruence can confound decision making and intervention planned at global, national, regional and local level(s).

One way to address both challenges can be through the consideration of ‘policy transfer’ theory, tools and initiatives (Dolowitz and Marsh, 1996).

2.3. Overview of the frameworks

Both the FELA and the SFGISD frameworks were developed based on an emerging need to address global issues supported by international consensus between member states on the significance of geospatial information for sustainable development.

The UN-GGIM Expert Group on Land Administration and Management (EG-LAM) seeks to tackle the challenge that an estimated seventy percent of humanity do not enjoy recognized and secured land and property rights. There is a need to accelerate efforts by developing the FELA (UN-GGIM, 2018a). The FELA is developed for all countries and jurisdictions. The framework is composed of two parts with: the first part describing the contextual background, definitions, vision, goals and objectives and the second part elaborating on nine pathways for effective land administration. Those pathways (Governance and Institutions, Legal and Policy, Financial, Data, Innovation, Standards, Partnerships, Capacity and Education, and Communication and Engagement) of FELA directly relate to the overarching Integrated Geospatial Information Framework (IGIF) as adopted by UN-GGIM at its eight session in August 2018. FELA implements the IGIF for the land sector emphasizing that effective land administration supports sustainable development. The FELA promotes the documentation, recordation, and recognition of people-to-land relationships in all forms. The FELA further includes references to existing concepts, approaches and mechanisms, such as the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGTs) in the Context of National Food Security (FAO, 2012), the continuum of land rights (UN-HABITAT, 2008; Barry and Augustinus, 2015), and the Land Governance Assessment Framework (Deininger et al., 2012). The framework also considers standardization developments by international bodies such as the Land Administration Domain Model (LADM) (ISO, 2012; Lemmen et al., 2015) and defines a reference for the development, improvement and modernization of national and regional land administration and land management systems.

The UN-GGIM Working Group on Geospatial Information and Services for Disasters (WG-GISD) developed the SFGISD (WG GISD, 2017) bringing together stakeholders and partners involved in Disaster Risk Reduction and/or Emergency Management that deal with geospatial information. It is based on the principles included in the Sendai Framework for Disaster Risk Reduction (2015–2030) (United Nations, 2015b) with a focus on geospatial information. The use of geospatial information and services are expected to prevent or reduce the social, economic, and environmental risks and impacts of disasters. The SFGISD aims for geospatial information and services to be available, at an appropriate level of quality, and accessible in a coordinated way, in support of decision making and operations prior, during and post disaster, in order to formulate policies on and manage risks and impacts of disasters. The framework emphasizes the fundamentals of sustainability, accessibility, complementarity and interoperability, while taking into account national circumstances of the concepts of open data and Spatial Data Infrastructure. The SFGISD defines five priorities for action (Governance and Policies, Awareness Raising and Capacity

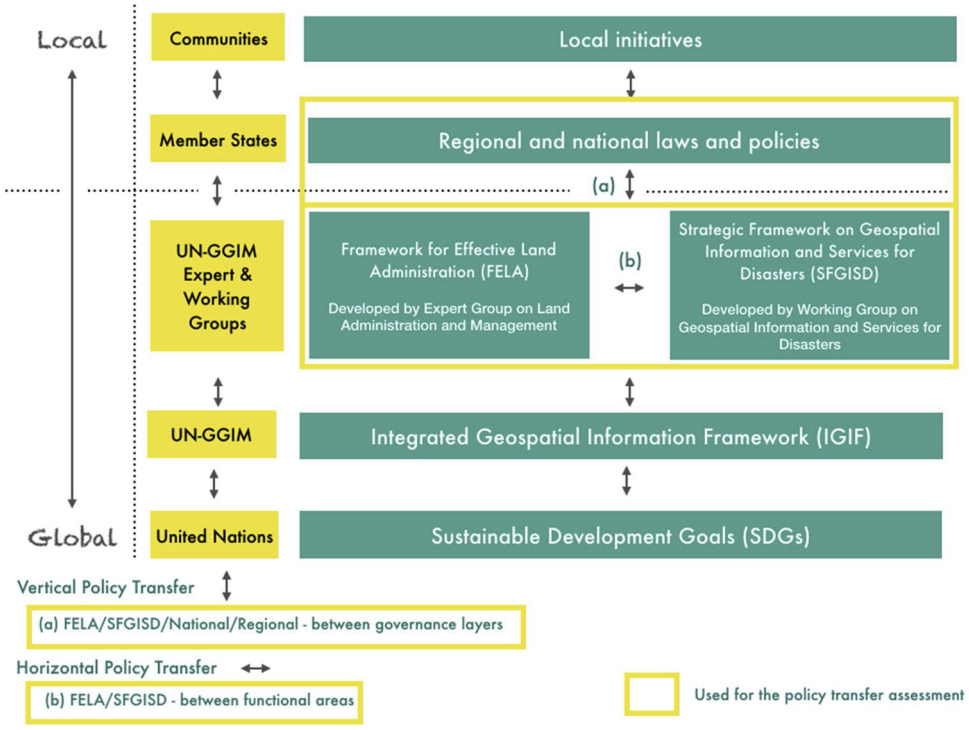

Fig. 2. Policy Transfer from Local (national, regional and community) to Global Level.

Building, Data Management, Common Infrastructure and Services, and Resource Mobilization) for member states. International cooperation is recognized as a critical element in managing geospatial information across all phases of the DRM and thus implementing this strategic framework.

2.4. Policy transfer in regard to FELA and SFGISD

Regarding the two investigated frameworks, FELA and SFGISD, policy transfer can be witnessed in various ways (Fig. 2). In Fig. 2 the major possible policy transfer flows are shown and are indicated through arrows in both directions. In relation to Fig. 2 it needs to be noted that policy can be transferred in other ways (e.g. with no influence from FELA and SFGISD) and that sometimes national, regional, and local policies will not be influenced by frameworks such as FELA and SFGISD: Fig. 2 shows a more idealized view. Further, this paper only focuses on the assessment of two policy transfers: between governance layers and between functional areas. Stone (2004) suggests that the process of policy transfer is considered to include the transformation of frameworks into regional and national policies, which can occur horizontally or vertically. Whereas horizontal transfers occur between states or between functional areas within states, vertical transfers occur between states and international organizations. It is possible to learn from more than one jurisdiction at a time, and to take away a multiplicity of lessons, which leads to adaptive innovation to make policy development better fit to local conditions and communities. These horizontal and vertical policy transfer processes are graphically shown in Fig. 2 indicated through arrows. Further, as shown in Fig. 2 a differentiation between the global and the local level can be made. This differentiation highlights the difference in capacity and knowledge relating to global policies, and hence the implementation at national and regional levels. Such a national policy transfer implementation is explained in Unger and Chatkuli (2019), which describes the Fit-For-Purpose Land Administration application in a post disaster context in Nepal. Within this research the focus is primarily on the policy transfer of (a) FELA and SFGISD to national and regional laws and policies – hence between governance layers, and (b) the policy harmonization between FELA and SFGISD – hence between functional areas, which are also indicated and highlighted through polygons in Fig. 2. The other transfers, indicated by the arrows, are also variously considered where they are seen to add to the discussion.

2.5. Putting it together

The theoretical basis for the work at hand, is drawn around three overlapping study concepts, see Fig. 3, indicated through numbers (1–7). The above-mentioned challenges and policy transfer solutions manifest themselves in the related knowledge domains of *LA (1)* and *DRM (2)*. Contemporary research shows the interrelated effects of natural disaster on LA, and how the obstacles inherent to an ineffective LA have impact on DRM, before, during and after the specific event

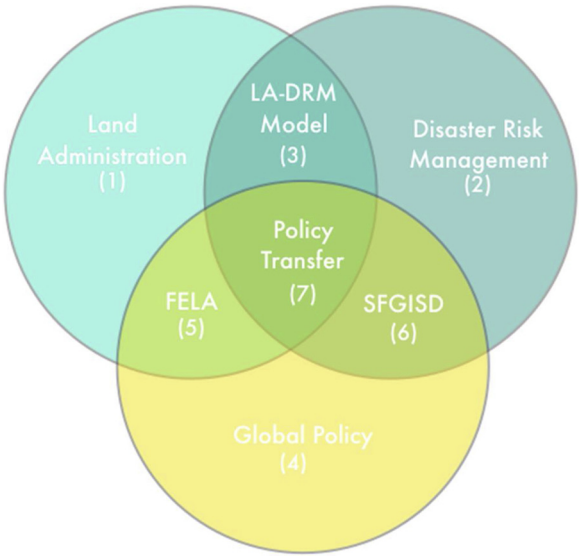

Fig. 3. Research Setting: LA - DRM - Global Policy.

(Unger et al., 2019a, 2019b; Zevenbergen et al., 2014; Mitchell, 2011), and flow, for example, into patterns of migration (Mitchell et al., 2018). In response, Mitchell (2011) assesses and identifies ways to respond to land tenure issues in DRM. Likewise, other approaches investigate a conceptual link between LA and DRM, with a view to enhancing practice (Khezri et al., 2018; Potts, 2012; Rajabifard et al., 2018).

Going further, Unger et al. (2017) developed a conceptual model, using constructs and terminology common to both domains, creating a shared viewpoint and language for analyzing approaches that might better address the needs of the poor and vulnerable people living in disaster prone areas. The development of the conceptual model reveals the importance of the availability of reliable data relating to natural disasters and land, and how integrated datasets, available to local communities and higher levels, could enhance both LA functions and also DRM processes. Within (Unger et al., 2019a) the conversion of the conceptual model into a data model, the *LA-DRM model (3)* is shown. This model is aligned to an internationally agreed standard, the Land Administration Domain Model (LADM). A resultant application in Dolakha, Nepal reveals the benefits of applying tools and models to generate data to identify levels of tenure insecurity, gender related land issues, and vulnerability levels (Unger et al., 2019b). The data and information gathered in Dolakha could be shared at community, regional level and be aggregated to national and global level. However, whilst (Unger et al., 2019b) demonstrated the benefits of tool linkage within LA and DRM for a specific case, the broader introduced challenges in regard to policy transfer had until recently remained to be tackled.

Recent *Global Policy (4)* development and the establishment of the two frameworks *FELA (5)* and *SFGISD (6),* created an opportunity to assess the *Policy Transfer (7)* processes at various levels.

Applying the experiences that six[2] of the researchers gained first hand while participating in the development of the frameworks, supports the assessment of policy transfer at the global level and experiences from the application in the field supports the assessment of policy transfer at local level.

3. Methodology

In order to determine 'whether' policy transfer occurs, as per Stone (2004), several policy transfer assessment parameters were concentrated upon: i) 'who' are the transfer agents; ii) 'what' policy is transferred; iii) 'how' is the policy transferred; iv) 'where and when' does transfer occur, v) 'why' and 'why not' is the policy transferred. This led to an assessment of 'which' mode of transfer - institutional or network – was being adopted, with regards to the transfers described as being (a) between governance layers and (b) between functional areas (Fig. 2).

To provide data to support the application of Stone's (2004) assessment parameters, an 'action research' inspired approach was adopted, whereby the concept of 'reflexivity' was considered central. According to Reason and Bradbury (2008), action research is: *"… a participatory process concerned with developing practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities."* Within (Reason and Bradbury, 2008) 'Reflexivity' in action research is about reflecting on the researcher's power to perceive, interpret and communicate about their research participants. As shown in Stringer (2008), who undertook action research relating to policy development in East Timor, the methodology was central at each stage of the policy development. Several consultations with various stakeholders were conducted and fed into the action plans that emerged to the developmental process, based on the reflexivity principle.

For this work, the concept is relevant as six of the researchers were both observers and subjects in the work undertaken, during the development of the two policy frameworks. The action research approach was used because the researchers of this paper and the authors of the researched frameworks share their knowledge as equals, which is a basic principle according to Swantz (2008). Both frameworks were developed under various consultation processes since 2016, which then feed back into the frameworks. The researchers are actively involved in the development of the frameworks and are also undertaking this and related research. The researchers and their associated institutions are participating in the Expert/Working Group meetings, workshops and seminars during those the frameworks are developed.

Since the global consultation process for FELA was finished in March 2020, no implementations of FELA are conducted. Hence the assessment is a theoretical assessment based on the development process of the frameworks and further based on project work which was conducted in parallel. Through this limitation the development of the FELA and SFGISD framework was assessed in terms of policy transfer and diffusion between them and the integration of feedback loops from local levels, as it was observed in a case study in Nepal. Though the case study in Nepal was not specifically applying the two frameworks, which were under development at this time, lessons learnt, and experiences gathered could be used on the basis of 'reflexivity'. Therefore, this research assesses which mode the policy transfer most follows and subsequently discussing the implications in regard of the two issues.

The proposed assessment parameters were considered the most appropriate for analyzing the policy transfer mode because it represents consistency between the assessment objectives and the chosen methodology. Further the number of policy assessment frameworks with clear structured assessment parameters is limited and others as, for example, in Dabrowski et al. (2018) seemed less correspondent to the research objectives. The use of the policy transfer assessment parameters as a means to assess specific case applications in the land administration and spatial domain is justified through similar research related to policy development. Within the domain of Land Administration, the usage of the policy transfer assessment parameters developed by Stone (2004) is new, but, similar approaches can be found in literature for example in various Spatial Data Infrastructure (SDI) literature such as Rajabifard (2002) where diffusion of regional SDI is discussed but also in others as for example McDougall et al. (2009), Cho and Crompvoets (2018). In more recent research according to Crompvoets et al. (2009) SDI-assessment will become a performance focus for public management and policy. Bennett et al. (2012) investigate how global drivers, in addition to others, can drive the development and upgrade national land administration infrastructures, specifically the creation of data and services relating to land tenure, use, value, and development.

The assessment uses a tabular representation to synthesize and visualize the result. Table 1 shows the assessment parameters as well as related assessment questions, which plot how policy transfer mechanisms can differ between different modes. The assessment parameters utilize a core set of questions and broad answers under each transfer mode, aimed at enabling readers to better understand the form of that particular mode.

Limitations of the applied method including data utilized need to be outlined. First, Stone's (2004) assessment parameters required adaptation in order to ensure phrases and questions were complete enough to apply. This involved adjustment, rephrasing and reshuffling of the assessment parameters according to the researchers' expertise, which necessarily introduces a level of bias to the assessment parameters. Other limitations include: the incompleteness of FELA as being launched in August 2019 and undergoing global consultation since the, limited data sources as country implementations of the SFGISD is ongoing; lack of recorded information on the development process - as a lot of consultations taking place during formal UNGGIM meetings and workshops in discussions - which are not documented and only partly reflected in the summary reports. Another limitation of policy transfer

[2] Unger, Bennett, Lemmen, de Zeeuw, Crompvoets and Teo

Table 1
Policy Transfer Assessment Parameters (adapted from (Stone, 2004)).

Parameters	Assessment Questions	Mode	
		Institutional	Network
Transfer Agents (Who?)	Who are the agents of policy transfer?	Politicians, international civil servants, state officials	Multi-actor, NGOs/civil society, state and international agencies, business
	What is their authority basis?	Political/bureaucratic, 'de jure'	Collective: pooled responsibility among 'stakeholders', 'de facto'
Transfer Content (What?)	What is transferred?	Hard: instruments, legislation, policy approaches	Hard and soft
	Where are the lessons taken from?	Dominant institutions, psychologically proximate jurisdictions	Experience of network members, i.e. network bounded rationality
	Which languages were used where?	Diffusion, mimetic isomorphism	Collective action, multilateralism
Transfer Process (How?)	How is change imposed?	Structural power	Network power
	How is the policy searched for (character)?	Path dependent, incremental	Problem-solving, organic (initially) as goals are unclear
	Which mechanisms were used?	Legislation, regulation, standards setting, aid conditionality	Partnerships, alliances for implementation
Transfer Outputs (Where and When?)	Where are the policy lessons realized?	Decision-making, resource allocation, implementation	Implementation, service delivery and monitoring
	How is change enacted by users? (voluntarily)	Rules and regulations	Organized anarchy, trial and error
	Where are the lessons applied/ implemented?	In nation-states, multilateral venues	Between and above states, transnationally via networks
Transfer Outcomes (Why?)	What factors prompt the re-evaluation of policy?	Institutions refract pressures for change, slow to adapt	Intractable cross-border policy problems, absence of national responsibility
	Which outcomes are aimed to be achieved?	Harmonization, convergence and divergence	Shared identity and common preference through action
	Which outcomes were imposed?	Penetration and resistance, divergent outcomes	Lack of recognition of network authority
Transfer Limitations (Why Not?)	What might prevent policy transfer?	Lack of institutional 'fit'	Lack of shared vision, network disunion
	What might undermine nation-state convergence?	Exogenous pressures on the political economy	Networks shape the search process and constrain implementation cross-nationally
	What might be reasons for divergence?	Internal determinants, e.g. bureaucratic resistance	Absence of coordinating and consensus-making in networks

is the capacity and knowledge about ongoing global policy development, at national but especially at local level.

4. Assessment

4.1. Overview of the policy transfer assessment

The determination of the six assessment parameters used in the policy transfer: 'Who' - Transfer Agents, 'What' - Content, 'How' - Process, 'Where and When' - Outputs, 'Why' - Outcomes and 'Why Not' - Limitations are presented in Table 1. Each of the assessment parameters are first explained, related questions are outlined and then applied for the two frameworks with respect to the policy transfer occurring at (a) between governance layers and or (b) between functional areas as shown in Fig. 2.

4.2. Transfer agents

In this subchapter the focus is on the 'who' – this relates to the transfer agents. *Transfer agents* refers to '*who*' and is about the individuals, networks and organizations involved in the policy transfer. According to Stone (2004) key actors are historically international organizations and non-state actors such as non-governmental organizations (NGOs) but also increasingly less 'traditional' actors such as think-tanks, consultant firms and other cooperate businesses. Keck and Sikkink (1998) as cited in Stone (2004) further highlight the considerable agenda-setting influence of these non-state actors in some contexts. Meanwhile, the subordinate concept '*authority basis*' referring to 'what' is the so called 'steering capacity' (Jörgens, 2000) of the transfer agents. It differentiates whether the rules and regulations are set in a political/bureaucratic environment or in a more networked environment, where responsibility is pooled amongst stakeholders. The authority basis is dependent on whether the policy is driven by national rules and regulations. If this is the case, then it can be clearly categorized into the institutional mode. If the policy is driven by a social movement or more economically driven, resulting in conversion of practice and field work approaches into guidelines, instead of rules and regulations, then the transferred policies can be categorized into the network mode.

With regards to the policy transfer between governance layers and between functional areas, for FELA and SFGISD, the definable transfer agents are the members of the WG-GISD and the EG-LAM. These groups focus on progressing the work items as defined in the Working plans of the Expert/Working groups and following up decisions adopted at the annual UN-GGIM session (UN-GGIM, 2019). The Expert/Working group composed of experts from member states, international organizations, international geospatial societies, academia, private sector and United Nations system. The memberships are dominated by expert representatives representing Member States with due consideration for broad geographical representation and development context. Within the EG LAM, some limited networks are also represented including the Global Land Tool Network (GLTN) (facilitated by UN-Habitat), international geospatial societies including International Federation of Surveyors (FIG), and corporate members, for example Esri, are represented. The members of the Expert/Working group are in this sense the transfer agents. Under UN-GGIM Rules of Procedures[3], the decisions of its annual session are made by a majority of the representatives present and voting when adopting or endorsing developed polices, though it has been observed that decisions have all been unanimous: policy transfer between governance layers is then realized through the member states participating in UN-GGIM. The annual session takes place in the UN Headquarters in New York and so far UN-GGIM held

[3] http://ggim.un.org/meetings/GGIM-committee/8th-Session/documents/E_C.20_2018_3-Rules_of_procedure.pdf

eight sessions. In terms of the *authority basis*, referring to policy transfer between governance layers, this appears in a more conventional nation-state transfer, utilizing political/bureaucratic structures, that can be described as 'de jure' in the institutional mode. That said, the consultation involves some characteristics of the network mode, where policy transfer is driven in a collective and multilateralism approach. This is particularly the case for policy transfer between functional areas. Within the EG LAM, the GLTN, participates in the consultation, but still the policy transfer and endorsement for the FELA occurs primarily through governmental institutions at national level, which means between governance layers. Also, within the SFGISD it is recommended to include the role of geospatial information and services in DRM in national laws on SDI. Overall, for both frameworks the policy transfer is considered to be institutional rather than networked: participation outside of the UN-GGIM members is limited.

4.3. Transfer content

Here the subchapter describes the 'what' is the transfer content. *Transfer content* refers to '*what*' is transferred, which can be considered the distinction between so-called 'soft' or 'hard' policy transfer. Another part of the transfer content is '*where*' are the lessons taken from, which describes if the lessons are taken from field experiences which is an indicator that the transfer content is related to the network mode. On the other hand, if the lessons are taken from jurisdictions that would describe a typical institutional mode. Another element of transfer content is *'which' languages* were used and where. The institutional mode, for example, promotes a mimetic isomorphism which appears through common ontology (Knill, 2005). Further, the institutional mode promotes the existence of longstanding, often historical based legacies that are embedded economically, socially and culturally (Stone, 2004) - whereas the network mode relates more to a collective action.

Within both policy frameworks, hard policy transfer is proposed but since other stakeholders, for example, corporate members, networks and academia also participate in the Working/Expert Group, instruments from the network mode are also applied. Members of the EG-LAM are involved in the development of the LADM standard (ISO, 2012). Within FELA, standards are mentioned as a recommendation to address interoperability, but are not described as a necessity or as being mandatory. The two frameworks investigated are, in their core, strongly institutional. However, within the consultation of, for example FELA, lessons learnt from the field and presented in workshops and seminars in September 2018 in Deqing, China – assisted the transfer at both between governance layers and between functional areas: through global consultation, inclusion of cooperate members, and network activities field experiences gained traction in the policies. In regard to the language used, for both investigated frameworks, a formal language common to UN institutions and documents is used. The frameworks are built on already approved, existing and validated guidelines and principles. This again suggests the institutional modality is applied for both FELA and SFGISD. Overall, for transfer content, it can be concluded that the two investigated frameworks, and the two policy transfers between governance layers and between functional areas, lie in between the institutional and the network modes.

4.4. Transfer process

In this subchapter the 'how' of the transfer process is described. *Transfer process* refers to *'how'* the policy transfer imposes change. According to Stone (2004), that can be either through structural power for the institutional mode, or through network power for the network mode. Further, it is about *'how'* the policy was identified or searched for. If the policy was established in an incremental and path dependent way this suggests the institutional mode is at play. Whereas, the network mode would describe an organic (initial) approach, where the goals would be unknown up front, and the process would be more problem-solving oriented. Finally, transfer process also refers to 'which' mechanism is used for the policy transfer. The institutional mode promotes a legislative and standard setting approach, whereas the network mode promotes alliances for implementations. According to Stone (2012), 'think tanks' are a typical mechanism for the network mode.

Since both the FELA and SFGISD frameworks are strongly orientated in the institutional mode, it can be expected that the *change is imposed* through structural power between governance layers. The endorsement of global frameworks such as the FELA and the SFGISD, which were developed through the United Nations inter-governmental mechanism, is neither rigid nor imperative, but can be relevant and useful as a basis or a reference for country-level policy formulation, program design and implementation. For both frameworks, the *character of search* is path dependent as both policies are based on the IGIF, itself driven by clear goals, closely linked to the SDGs, suggesting both FELA and SFGISD policy development and later transfer are associated towards the institutional mode. The mechanism they are promoting appears to be focused on legislation, regulation, policies, and standards between governance layers as well as between functional areas. But through the participation of related domains, corporate members and networks there is a tendency towards the network mode. Regarding the transfer process it can be concluded that the two investigated frameworks are in between the institutional and the network mode.

4.5. Transfer outputs

Here the subchapter focuses on the 'where' are the transfer outputs applied. Transfer outputs refer to '*where*' are the *policy lessons realized,* which for the institutional mode, may be either nation-states or at multilateral venues, or for the network mode between and above states, or transnationally. It also refers to '*how*' the change is enacted by the users which can be either through rules and regulations for the institutional mode, or through trial and error, which would be an indicator for the network mode. Further transfer outputs referring to 'where' are the lessons applied and implemented. This can either be through decision-making and resource allocation for the institutional mode, or as described in Hall (1993), through the development of new institutions. Further, 'implementation' through service delivery systems and monitoring mechanisms are indicators that the network mode is applied. As for example, the Kyoto protocol (UNFCCC, 2008) represents a full institutional mode in regard to policy transfer output, whilst the VGGTs (FAO, 2012) appear to be more of a network mode.

In terms of FELA and SFGISD policy transfer and the relationship with local levels or between governance layers, the outputs of a project conducted in Dolakha, Nepal, and how they interacted with FELA is worth examination. The project conducted in 2017/2018 recorded around 1800 spatial units and aimed to support the Nepalese government in their draft of a National Land Policy, by conducting a Fit-For-Purpose Land Administration in an earthquake affected region (Unger et al., 2019b). The project tackled both LA and DRM measures. The lessons learnt provided the Nepalese land agencies with a summary of the challenges rural communities faced in the aftermath of the disaster. In addition, the results showed the link between security of tenure, vulnerability, exposure and hazard of natural disasters, by assessing and analyzing the collected information on tenure and basic household economy. The result also informed the current development of the National Land Policy and also fed into global policy discourse via UN-Habitat (UN-Habitat, 2018). Subsequently, these findings fed into the discourse and development of FELA and SFGISD during their development phases in 2018/19. This implementation can be seen as a good example where policy transfer was happening between global to national to community levels, hence between governance layers.

Overall, in terms of transfer outputs, the two policy framework transfers investigated tend towards the institutional mode. Despite practical demonstrators and trials, the aims of FELA and SFGISD are not

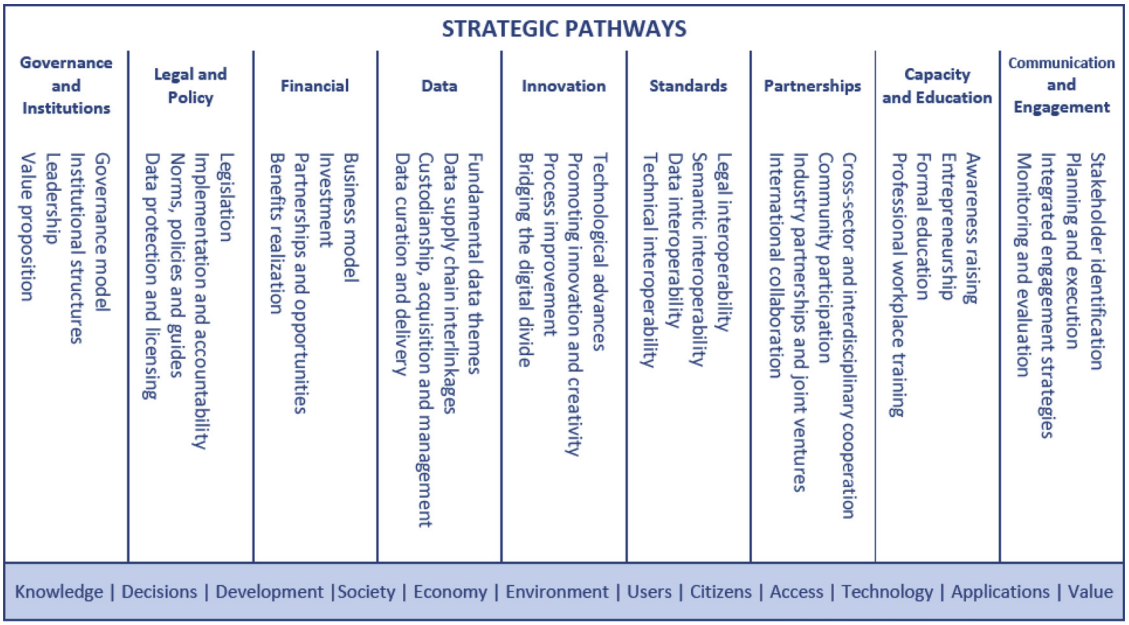

Fig. 4. The nine strategic pathways of the United Nations Integrated Geospatial Information Framework Source (UN-GGIM, 2018b).

to build software and/or provide service delivery and monitoring mechanisms. The frameworks are seen to be guiding principles which can be followed by member states in the development of national policies and regulations, which refers to governance layers. Change through the application/implementation of the policy frameworks will be enacted voluntarily, as member states sign up or endorse the frameworks. In contrast, with regard to the enacting 'power', the two frameworks tend towards the network mode, since they are not promoting rigid rules and regulations, but promote flexible approaches. Though UN-GGIM is an inter-governmental mechanism, within its construct are four networks, namely academic, geospatial societies, private sector and UN system, thus affording a multi-stakeholder setting in its workings. Nevertheless, the implementation of both frameworks will be seen in or via nation-states and multilateral venues, instead of transnational via networks.

4.6. Transfer outcomes

This subchapter analyses the 'what' factors, pressing issues initiated the transfer outcomes. Transfer outcomes refer to 'what' factors prompted the initial re-evaluation of policies (i.e. what societal outcomes were the transfer agents looking to change), and accordingly whether those are achieved. Factors that can prompt a re-evaluation from the network mode are cross-border policy problems or the absence of a national responsibility according to Stone (2004). Further, transfer outcomes refer to 'which' outcomes are aimed for. For the institutional mode, these could be either harmonization, convergence or divergence of policies. Regarding the network mode, these could be a shared identity through shared actions during policy implementation. Finally, transfer outcomes also refer to 'which' outcomes are imposed and 'why'. Within the network mode outcomes are imposed when there is, for example, a lack of recognition of the network authority, or for the institutional mode, for example when there is institutional resistance and divergent outcomes.

In terms of governance layers and functional areas policy transfer outcomes in relation to 'what' factors prompted the initial re-evaluation of policies, the development of the two policy frameworks were driven by emerging global issues as described in Unger et al. (2017), both with a significant geospatial component, and both of which partly address cross border issues such as natural disasters or tenure security when it comes to migration. Cross-border policy problems, manifest between governance layers, are described as typical network mode drivers, but the national responsibility for the issues which are addressed by the two frameworks, natural disasters or tenure security, are governed by national bodies and agencies (i.e. the institutional mode). Though through the participation of corporate members and network institutions in the UN-GGIM Expert/Working group, it can be argued that both frameworks cannot be clearly categorized into either the institutional or network mode in terms of policy outcomes, but the policy transfer approach does appear to lean more to institutional. The aimed outcomes of both frameworks are very similar: both have typical institutional aims between governance layers, such as alignment of policies amongst government bodies and supportive agencies. Alignment efforts in regard to FELA and SFGISD in terms of functional areas can further be justified through cross boundary effects of both the impacts and economic loss of natural disasters and an inefficient land administration system. 'Which' imposed outcomes could be for governance layers for example national laws, rules and regulations, but in this case the imposed outcomes cannot be named directly for both frameworks. But what could be shown through the development of both frameworks is that the negotiation process is key when it comes to the endorsement of such policies. Regarding the transfer outcome it can be concluded that the two investigated frameworks are in between the institutional and the network mode.

4.7. Transfer limitations

This subchapter focuses on the 'what' limits the policy transfer. Transfer limitations refer to 'what' might prevent the policy transfer. For the institutional mode, this could be a lack of institutional 'fit'. For the network mode, this might be a lack of shared vision amongst stakeholders. According to Stone (2004), further it refers to 'what' might undermine nation-state convergence which can either be an exogenous pressure on the political economy for the institutional mode. Also, it refers to 'what' might be reasons for divergence which can be for the institutional mode, internal determinants as for example, bureaucratic resistance. Regarding the network mode it could be an absence of co-ordinating and consensus-making in networks.

Regarding the FELA, limitations which can prevent the policy transfer and undermine nation-state convergence appears inherent in the institutions governing and delivering land administration. As seen in the FFP LA approach, bureaucratic resistance was formed not because of a lack of a shared vision, but because of internal determinants

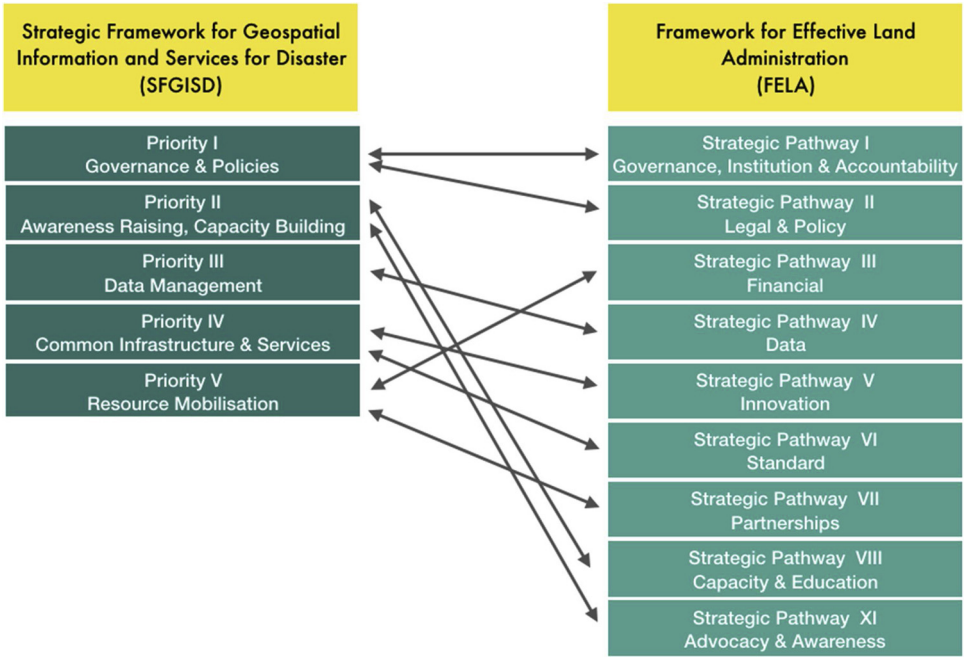

Fig. 5. Alignment between SFGISD and FELA.

and vested interests. Comparative analysis on the thematic themes reveals that the transfer limitations cannot be put down to differences between the two investigated frameworks i.e. a lack of alignment. Fig. 4 shows the headings as well as the key terminologies used in its strategic pathways.

Fig. 5 graphically presents the alignment between SFGISD and FELA, based on the terminologies and definitions used in the IGIF and the two investigated frameworks. Both frameworks are clearly and necessarily based on the United Nations Integrated Geospatial Information Framework (IGIF) (UN-GGIM, 2018b), and when merging/aligning those as shown in Fig. 5, it is clear that the priorities as defined in the SFGSID align with the strategic pathways as defined in the FELA. Further exogenous pressure, as for example the achievement of the SDGs, is stated as an indicator for the institutional mode. Another exogenous pressure caused through natural disasters is the economic loss experienced by countries. Further limitations regarding both frameworks, influencing both the policy transfer between governance layers and between functional areas are lack of awareness of FELA and SFGISD, very limited national/regional/local capacity, limited global policy awareness, and qualification of governmental employees. Current investigation shows that both frameworks are more leaned towards the institutional mode which could bring the above-mentioned limitations.

The findings and the result of the assessment is viewed in Table 2 where an ample system indicates which mode is currently used for each parameter. Table 2 presents an overview of the textual description above. This assessment is relevant to discuss the transfer and diffusion of the two frameworks and its integration of local feedback loops.

5. Discussion

This section is built around several comparisons stemming from the results in terms of 1) the initial issues as identified at the beginning of the paper, namely policy transfer and diffusion between the two policies, FELA and SFGISD, in terms of functional areas and the integration of feedback loops from local levels between governance layers (i.e. horizontal vs. vertical); 2) confirming the extent of usage for the two modes identified (i.e. institutional or network); 3) considering the relative strengths, limitations and obstacles of those approaches in the context of LA and DRM (i.e. LA vs. DRM); and 4) the relevance of policy transfer theory generally in the practical domains of LA and (i.e. theory vs. practice).

5.1. Vertical versus horizontal

Referring to the two initial issues: i) awareness, minimization of fragmentation, and feedback between institutions themselves as well as to the local levels; and ii) policy harmonization, alignment, and coordination across functional areas, several points can be made.

First, UN-GGIM through the inclusion of both DRM and LA functions, assists in policy harmonization: **transfer agents** and experts from the different functions are part of the same setting. Through a combined and coordinated policy transfer, by **transfer agents**, FELA and SFGISD implementation at national level can be harmonized, with less chance of conflicting and overlapping policies and institutions. **Transfer agents**, as represented by the Working/Expert group members, both at global and national levels, are imperative for scaling up efforts. The importance of transfer agents is highlighted in the Nepal case study, as the national government is well informed and contributes to the global policy development in both – land administration and disaster risk management. It can be argued that capacity development at local level and well-informed policy makers at national level are critical for any kind of policy transfer.

Second, through the utilization of standards, a common language and harmonized ideas and approaches between institutions, shared in the **transfer content,** can minimize fragmentation and ensure the feedback loop in policy development. Further harmonized **transfer content** can support nation-nation cooperation and in case of a natural disaster support response and relief efforts. During the case study in Nepal an increased interest from neighboring communities was recognized to also participate in such an initiative. Through the application of standards in such initiatives, data and information from future applications can be merged and so enhance decision making.

Third, through the inclusion of local initiatives, which are realizing the FELA and SFGISD at local level, in global policy development and monitoring processes the **transfer process and outputs** enable a mutual understanding between institutions and local levels. This can be especially relevant for the realization and monitoring processes for the

Table 2
Policy Transfer Assessment Parameters adapted from (Stone, 2004).

Assessment Parameters	Assessment Questions	Mode (i.e. institutional vs. network)	
		FELA	SFGISD
Transfer Agents (Who?)	Who are the agents of policy transfer? What is their authority basis?	Inst	Inst
Transfer Content (What?)	What is transferred? Where are the lessons taken from? Which languages were used where?	Inst/ Network	Inst/ Network
Transfer Process (How?)	How is change imposed? How is the policy searched for (character)? Which mechanisms were used?	Inst/ Network	Inst/ Network
Transfer Outputs (Where and When?)	Where are the policy lessons realized? How is change enacted by users? (voluntarily) Where are the lessons applied/implemented?	Inst	Inst
Transfer Outcomes (Why?)	What factors prompt the re-evaluation of policy? Which outcomes are aimed to be achieved? Which outcomes were imposed?	Inst/ Network	Inst/ Network
Transfer Limitations (Why Not?)	What might prevent policy transfer? What might undermine nation-state convergence? What might be reasons for divergence?	Inst	Inst

SDGs. **Transfer outputs** and lessons learnt from local projects can be imperative when developing policies. The findings and lesson learnt from the Nepal case study were shared at multiple occasion at the global level, which ensured part of the investigated feedback loop.

Fourth, through sharing the **transfer outcome** with and between institutions, but also at local levels, awareness and an understanding of global issues can be raised. This further support scaling up efforts in promoting the importance of tenure security as mitigation measure to increase the resilience towards the impacts of natural disasters.

Finally, **transfer limitations** can occur through rigid rules and regulations and in silo institutional settings. Across functional areas these can be addressed through harmonization and alignment at an early stage in policy/framework development. Further, this transfer limitations are strongly influenced by a lack of awareness of FELA and SFGISD, very limited national/regional/local capacity including knowledge about ongoing global policy development and qualifications. Also, policy can be transferred in other ways e.g. with no influence from FELA and SFGISD in regard to LA and DRM.

5.2. Institutional versus network

Confirming the extent of usage for the two modes identified (institutional or network), using Stone's (2004) assessment parameters, it is apparent that a more conventional 'institutional' approach to policy transfer is being applied – for both the development of the global policies (i.e. FELA and SFGISD), and the dissemination of those to national and local levels. Albeit, some evidence for a network approach is evident. A caveat here is that the policies are still being developed (in the case of FELA) or early stage of implementation (in the case of SFGISD), and in particular, outputs and outcomes of those transfers may reveal more evidence that a networked approach is being sought.

5.3. LA versus DRM

Considering the relative strengths, limitations and obstacles of those approaches in the context of LA and DRM, in terms of justifications for the institutional approach, the two frameworks are developed and intended for technical domains, those typically comfortable to the development of an adherence to technical standards, regulation, and even legislation. On the other hand, more recently successful policy transfers, at least in terms of policy development, the SDGs for example, were heavily driven by network modalities – albeit with obvious alignment to some of the institutional elements. The negotiations around the development of the SDGs were multidisciplinary and inclusive, that has at least led to widespread awareness and consideration in Western contexts. Indeed, in general, policy transfer research points to put more of an emphasis on the network approach – driven by technological and social developments. It is the authors view that policy transfer is more likely to be achieved through policy transfer following the network mode, at least in the contemporary era. In general, this would suggest there is opportunity for UN-GGIM, with better participation from its networks, to move towards more of a network approach.

Depending on the mode different obstacles for the success of policy transfer need to be taken into account. One obstacle could be, the institutional memory, which is described according to Marsh and Evans (2012) as the process where jurisdictions do, or do not, learn from their own past, which can influence the policy transfer. This obstacle can occur especially in countries with a long history of land administration processes and in countries where disaster risk management is well established. This can be addressed through policy harmonization including all stakeholders. Further as described in Drezner (2005) it is believed that regulatory harmonization at global level will be increasingly difficult over time with the ongoing growth of for example, India and China. This is justified through a globalizing economy, whereas governments who are possessing large internal markets are seen as important factors contributing to regulatory convergence. Further through the development and dissemination of guidelines and best practices policy coherence can be achieved which is described in OECD (2016) to support policies for sustainable development. Nevertheless, these kinds of policies, FELA and SFGISD, are best to be developed within the UN systems where member states are invited for discussion and negotiations. The research by Dussauge-Laguna (2012) argues for a more systematic consideration of temporal factors to broaden the understanding of how cross-national policy transfers develop. This argument is well founded and with the SDGs as a base and as a driver for the developed policy frameworks serves as the best temporal setting.

5.4. Theory versus practice

In terms of considering the relevance of policy transfer assessment theory generally in the LA and DRM domains, it is for the first-time policies focused on geospatial information management are developed at the United Nations. This development is driven in part by the need to scale up efforts in regard to tenure security for all, and the increasing frequency and economic loss of natural disasters. Policy transfer assessment is not a common approach in both domains, it appears increasingly important in domains that are interrelated or whose implied effects cross national borders. With the development of the SDGs it is clear that no disciplinary domain works in a silo, and that it is likely that in the future, applications of such policy transfer assessments will increase. Indeed, both disciplines are integrated and intrinsic to other study areas such as poverty reduction, food security, gender equality etc. Overall, the assessment of the policy transfer of the two frameworks established by UN-GGIM and their feasibility to integrate local feedback

loops serves scaling up efforts which are needed for both domains, LA and DRM. Policy transfer theory, tools and initiatives are a powerful tool to understand, assess, and potentially redesign the policy transfer process. The impact of global frameworks such as FELA and SFGISD can be enhanced with greater awareness of policy transfer theory and methods.

6. Conclusions and recommendations

Contemporary global policy development is increasingly shaped through the 2030 Agenda for Sustainable Development. UN-GGIM plays a leading role in the development and diffusion of policy frameworks with regard to geospatial information. Two policy frameworks, FELA and SFGISD, are developed to tackle global issues in regard to tenure security and natural disasters.

This paper sought to assess policy transfer at different levels and across functions, and which mode, institutional or network, these two policy frameworks follow. As far as the researchers are aware such an assessment has not been completed previously in both domains, and therefore this work acts as a starting point to specify future policy transfer processes for LA and DRM, but also for others which are relevant for the SDGs. In this regard, especially with increasingly multi-disciplinary approaches in the domains, LA and DRM, policy transfer processes may need to be assessed on a regular basis. This is further stressed through an increasing speed of emerging technological but also socio-economic developments. Further work should focus on the refinement of policy transfer assessment parameters tailored for current trends and communication patterns. Further policy coherence as a mean to achieve sustainable development in policy development needs further investigation.

With the focus on policy transfer and the two policy frameworks also previous research of the researchers could be integrated and combined, which draw a holistic picture on the policy transfer from global to local level, which were fed back to the global development. When it comes to policy transfer, all different levels of the transfer need to be assessed and incorporated in future negotiation processes. Nevertheless, results reveal that the approach used for policy transfer is taking conventional institutional means for both LA and DRM domains. That said, UN-GGIM incorporated, through its networks, the knowledge and experiences from the field in the development of the frameworks: characteristics of a more networked approach are therefore apparent and there appears the opportunity to utilize a networked approach for more robust and far-reaching uptake and diffusion of the policies. On this, there also lies the opportunity to provide better mechanisms for feeding results from local level initiatives and successes into the global monitoring mechanism.

In summary, the research introduced the two policy frameworks, the policy transfer assessment parameters, its application, and also its limitations and obstacles. The research also highlighted that a global approach for policies especially for the two domains is relevant and should be strengthen through field experiences at the national and community level. The developed frameworks were assessed specifically considering the policy creation processes (i.e. from where the policies are derived), harmonization (i.e. the alignment between the two policies), and integration of local feedback loops.

CRediT authorship contribution statement

Eva-Maria Unger: Conceptualization, Methodology, Validation, Investigation, Writing - original draft, Writing - review & editing, Visualization. **Rohan Bennett:** Conceptualization, Methodology, Validation, Investigation, Writing - original draft, Writing - review & editing, Visualization, Supervision. **Christiaan Lemmen:** Conceptualization, Writing - original draft, Writing - review & editing, Supervision. **Kees de Zeeuw:** Conceptualization, Writing - review & editing. **Jaap Zevenbergen:** . **CheeHai Teo:** Conceptualization, Writing - review & editing. **Joep Crompvoets:** Writing - review & editing.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.landusepol.2020.104834.

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