## **Governing Access to Essential Resources**

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The allocation of scarce resources is what according to standard textbooks defines the field of economics. This book is also concerned with the allocation of scarce resources, but its emphasis is on essential resources: Resources that are either absolutely necessary for the survival of every human being, such as drinking water and basic food, or indispensable for minimum existence in a given society. The shift of focus from goods in general to essential resources brings to the fore basic norms of justice and equity for assessing governance regimes.

Our point of departure is three widely observable trends in the allocation of scarce, essential resources today and around the world. First, essential resources, in particular drinking water and arable land are becoming ever more scarce. The dire predictions made most famously by the Club of Rome 40 years ago (Meadows et al. 1972) – that economic growth would surpass the carrying capacity of the planet without changes in the management of scarce resources – may well be materializing in our century (Millennium Ecosystem Assessment 2005). Second, human-made constraints, including legal institutions and social practices contribute to relative scarcity for some even as others continue to enjoy them in abundance. Third, the market mechanism has become the preferred mechanism for allocating scarce and even essential resources, not the least because of its seemingly politically neutral operation. The smooth operation of the market in turn depends on legal arrangements that facilitate exclusion thereby setting

<sup>&</sup>lt;sup>1</sup> In societies that rely on subsistence farming without alternatives for displaced farmers to make a living

land can be considered an essential resource, but not in societies where people can readily earn their living as wage labor.

the stage (without further interventions) for pricing out those with lack of purchasing power.

We posit that jointly these trends threaten to exclude the most vulnerable members of humankind from access to essential resources. This is intolerable on normative grounds. A just society, and a just world require that all humans have the capability to live the lives they have reason to value (Sen 1999; Nussbaum 2011). Realizing this normative goal, we contend, is possible, but depends on governance regimes that embrace as guiding principles Voice, defined as the ability to collectively choose the rules by which one wishes to be governed; and Reflexivity, which stands for the ability to recognize competing claims as legitimate and the willingness to accommodate them.

This introductory chapter introduces the notion of "essential resources", develops the case for policy interventions and identifies institutional and political strategies for their implementation. The insights expressed in this chapter rely extensively on other contributions to this book that offer ample empirical material in settings as varied as the slums of Mumbai and communities in the South West of the United States. They demonstrate that context matters, and that no single-institutional device will ensure just allocation of essential resources. And yet, from the wealth of materials and analyses we can discern general lessons about ways for governing essential resources.

#### **Essential Resources**

We label resources essential if they are indispensable for survival; at a minimum, this includes drinking water, adequate food, and shelter.<sup>2</sup> For rural households in the developing world, where many still reside in extreme poverty, access to these resources is inextricably linked to land for growing or harvesting food or collecting water; in such

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<sup>&</sup>lt;sup>2</sup> A broader definition could include what the International Labour Organisation identified as 'basic needs' in 1982: 'First, certain minimum requirements of a family for private consumption: adequate food, shelter and clothing, as well as certain household equipment and furniture. Second, they include essential services provided by and for the community at large, such as safe drinking water, sanitation, public transport and health, educational and cultural facilities' (International Labour Organisation (ILO), *Target Setting for Basic Needs*, Geneva: ILO, 1982, at 1).

conditions, land itself becomes an essential resource. The qualification as "essential" beyond the most basic needs for survival is thus context specific. In more affluent societies, education, healthcare or electricity may be considered essential resources as well. Their classification as "essential" is determined not only objectively (survival literally depends on them), but on shared intuitions about what resources a just society should make available to all irrespective of purchasing power (Elster 1993) (Walzer 1983). Fur the purpose of the argument developed in this introductory chapter, we mostly abstract from resources that are not objectively essential; not because we do not believe that the argument cannot be extended to them (we do), but mostly for purposes of analytical clarity.

The notion of essential resources contrasts with the dominant approach to property that links principles of allocation not to normative principles, but to the nature of the goods in question. <sup>3</sup> Subtractability and excludability are the criteria used for determining the nature of goods (Ostrom 2003). A good is subtractive if consumption by one person subtracts from the consumption of others (Musgrave 1959; Samuelson 1954). It is excludable if, because of its nature, institutions or technology, it is feasible to exclude others from access to and use of the good. Collective action problems arise, according to the classic account, when goods are subtractive but not excludable, resulting in the 'tragedy of the commons' (Hardin 1968) where resources that all can freely access will be overexploited and eventually depleted to the detriment of all. The common answer to this problem is to privatize the commons and vest the owner of the asset with the right to exclude.

Table 1 classifies goods building on Ostrom (2003, 241), but differentiates between excludability that is economically inefficient – what Michael Heller has termed the 'tragedy of the anticommons' (Heller 1998) – and excludability that is not desirable

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<sup>&</sup>lt;sup>3</sup> Note that this approach is in tension with classical philosophers often used to justify this position. For a critique of the association of John Locke with neoclassical approaches to property, see (Waldron 2012); for a restatement of Adam Smith's conception of individuals and markets in light of his broader conception of justice and metaphysics, see (Herzog 2013).

because it deprives fellow human beings of resources that satisfy basic needs, i.e. essential resources.

Table 1: Typology of Goods

	Consumption is subtractive	Consumption is <i>not</i> subtractive
Exclusion is feasible	Private goods	
Exclusion is not feasible	Common-pool resource	Public goods
Exclusion is economically inefficient	Anti-commons	
<b>Exclusion threatens survival</b>	Essential Resources	

Source: Authors' compilation following Ostrom (2003), Figure 1 at 241.

The governance of essential resources raises issues that extend further than the need to ensure increased productivity in the exploitation of the said resource. It calls attention to distributional equity as well as the sustainability of current uses to ensure that future generations can also meet their basic needs. Nobody should be excluded from resources to satisfy basic needs, and the exploitation of the resource today should not jeopardize the ability of the next generation to satisfy its own needs. Governing access to essential resources therefore requires different approaches than those associated with conventional classifications of public, private or common goods. In fact, the standard governance regimes applied to private or public goods tend to fall short when applied to essential, scarce resources.

To illustrate, we present a taxonomy of different governance regimes associated with different types of goods (see Table 2 below). Private goods are typically slated for individual property rights to ensure their efficient use; public goods for centralized (state) property regimes; and common pool resources for centralized or communal property regimes. Finally, the problem of the anti-commons (when exclusion is technically feasible but creates inefficient holdups) is addressed by central intervention with private property rights, i.e. by the state exercising the power of eminent domain

(Heller 2008). However, communal forms of property could feasibly address this problem. These governance regimes constitute the repertoire of regimes under which all resources are most commonly managed. It is important to understand the limitations that this classical approaches face, and why the dominant regimes leave a number of questions unanswered.

Table 2: Typology of Property Rights Regimes

	Individual Property	Centralized Property	Communal Property
Private Goods	X	X	Х
Public Goods	0	X	X
Common-pool	0	0	Х
resources			
Anti-commons	0	X	X
<b>Essential Resources</b>	0	0	0

Source: Authors' compilation.

Note: 'X' is used to indicate the compatibility between a good and a governance regime, and '0' for incompatibility.

As can be seen, some goods are compatible with more than one governance regime. Specifically, private goods can be governed in the alternative by individual, centralized, or communal property rights regimes. This is true particular for land. After having been treated for much of human history as a common and unlimited resource, it has also been governed as centralized state, communal, and individual property. The versatility of private goods in relation to governance regimes contrasts with the incompatibility of essential, scarce resources with *any* of them (see Table 2 above). Individual property rights over such resources are problematic because their dominant mechanism, i.e. the ability to exclude others (Demsetz 1966; Coase 1960), is morally repugnant when exclusion violates basic needs. Centralized property rights pose their own problems, because the power of central control does not guarantee universal access nor effective use (Campbell and Lindberg 1990; Umbeck 1981; Firmin-Sellers 1995). Finally, communal property rights presuppose communities with the capacity of collective

governance (Ostrom 1990; Ellickson 1991; Schlager and Blomquist 1998)<sup>4</sup> – conditions that may not be present where constituencies with heterogeneous interests and varying power seek access to the same resource, whether locally or globally.

Over the past 30 years, individual property rights have been favored as the optimal governance regime for many essential resources, including land (Deininger 2003). Zoning and titling programs promoted by multilateral and bilateral development agencies have extended the geographical remit of individual property rights by penetrating a larger number of countries in the developing world (World Bank 2010). Control rights over land are increasingly allocated to the highest bidder across national boundaries in a market-driven process (Coase 1960). Under private property rights regimes, individual control rights over land will determine who has access to these essential and increasingly scarce resources, and whether they are harvested in a sustainable fashion.

Experience with land privatization suggests that this can take a substantial toll on millions of peasant small holders and forest dwellers, who have been deprived of the basis of their sustenance (Cotula et al. 2009; Zoomers 2010; De Schutter 2011). Moreover, while private property regimes have been traditionally justified by their contribution to increases in productivity, they provide no assurance of sustainability, i.e. preservation of essential resources in the interest of future generations (Beddoe et al. 2009); nor has private ownership and the allocation of land through market mechanisms meant to ensure that land goes to the highest bidder always translated into higher productivity, as some owners may be tempted to hoard land without using it to increase total output (De Schutter 2011).

The alternatives to individual property regimes in the classic repertoire do not fare much better when applied to essential resources. Centralized control is the *ultima ratio* for dealing with the problem of scarcity as demonstrated time and again in times of war

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<sup>&</sup>lt;sup>4</sup> Note that according to Schlager and Blomquist heterogeneous groups can engage in collective governance if there is substantial jointness in the production of governance outcomes and capturability is minimized. See (Schlager and Blomquist 1998).

or emergencies, when governments requisition critical assets and resort to rationing. These cases also exemplify the problems associated with centralized control: abuse of power and mismanagement of resources. Any government that has the power to decide on the allocation of resources also has the power to determine who may benefit from them and to exclude others at its whim (Binswanger, Deininger, and Feder 1995). Moreover, government control often suffers from mismanagement as bureaucratic management and accountability structures frequently fall short of the governance tasks at hand.

Communal property regimes also face limitations when applied to essential resource management. Governance mechanisms that ensure the survival of the community do not always ensure that its weakest members have equal access to essential resources. Discrimination of girls and women, minorities, or others deemed 'outcasts' remain only too common. 5 Communal property regimes face another problem in today's world. The scarcity of essential resources now plays out at the global level: with the emergence of a transnational market for land (Worldbank 2010; De Schutter 2011), water and carbon, the competition for control of these resources pits against one another actors located in different jurisdictions; similarly, with climate change and increasing pressure on natural resources, the management of essential resources must take into account not only the interests of local users, but also of constituencies far afield whose basic needs would otherwise be difficult to meet. Furthermore, externalities may result from how one community chooses to manage the resources over which it exercises control. The unsustainable use of a resource may, for example, affect the ability of other communities to satisfy their basic needs (i.e. where shifts in land use increase greenhouse gas emissions or where agricultural production result in the pollution of shared groundwater reserves). To be effective in the global context, communal governance regimes would therefore have to expand their remit to the global community. In other words, even when localized communal regimes may ensure

<sup>&</sup>lt;sup>5</sup> See, however, Chiweshe in this volume, who suggests that African chieftains may offer advantages over formal institutional solutions.

effective governance of essential resources for a given community they do not address the problem of uneven distribution of these resources around the globe.

In addition, each of the property regimes associated with the classic approach assumes institutional arrangements for its operation that may or may not be present in a given context (see Table 3 below). The efficacy of individual property regimes depends on their delineation and legal validation (Hodgson 2003; Benda-Beckman 1995) as well as on markets and a meaningful price mechanism. Yet, property deals are made typically not in transparent, liquid markets but in private deals characterized by asymmetries in information and power: the value that is attached in such deals to the resources exchanged is typically determined not by some objective standard related to the relative use to the transacting parties, but by the power that each can exert on the other.

Table 3: Conditions for Effective Property Regimes

Individual Property	Centralized Property	Communal Property
Clear delineation of rights	Effective management	Shared norms of reciprocity and community
Market	Information	Information
Enforceability	Authority	Long time horizon
		Low monitoring and compliance costs

Source: Compilation by authors.

Effective public asset management and accountability systems must be in place to avoid the typical pitfalls of centralized regimes, i.e. arbitrariness and waste. Resources should instead be managed in the public interest and opposing interests of different communities or geographically dispersed groups should be reconciled (De Schutter 2012). This requires information about how resources are managed, knowledge about how to improve their management, and mechanisms for implementing reforms. Moreover, the central manager must have both the authority and legitimacy to manage these resources, lest shirking, corruption, and theft will undermine it. At the global level, no such regime exists.

Finally, decentralized communal property regimes may not be transposable to the global governance of essential resources. This would require the development of shared, general norms of reciprocity and community on a global scale. Experience with divided jurisdiction over the same watershed or lake system suggests that common management of such a resource is difficult. While powerful arguments have been made that cosmopolitanism is feasible (Appiah 2007), the challenges facing multilateralism today suggest that its full realization will remain aspirational for some time to come. The efficacy of communal property regimes depends on a fairly long-term horizon as well as sufficiently powerful incentives or motivations for a community to invest in collective governance regimes — a substantial challenge in a world characterized by high levels of heterogeneity, mobility, and the absence of institutional arrangements that would give voice to the diverse interest groups affected by governance choices.

In summary, the classical approach is dominated by considerations of efficiency and neglects considerations of distributive justice. Moreover, it makes heroic assumptions about the rationality of individuals and about their tendency to be motivated by selfish considerations in choosing their course of conduct. We challenge this approach by relating resources, goods and services to the needs of individuals and groups in a context-specific fashion and by assessing various means of governing essential resources not only against their physical characteristics, but also against shared conceptions of justice.

# **Determinants of Scarcity**

Scarcity is ubiquitous and the very essence of a competitive market economy. Scarcity of essential resources, however, can be deadly – for those denied access or others engulfed in riots and warfare over access. Governing access to essential resources in a peaceful and equitable manner is of utmost importance, but in order to develop

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<sup>&</sup>lt;sup>6</sup> In her work on common pool resources, E. Ostrom questioned the rationality assumption but she did remain wedded to a certain extent that the physical nature of the good (including the common pool resource such as the fishery) should be the departure point to determine how the good should be governed.

workable solutions it is critical to understand the determinants of scarcity. For analytical purposes it is useful to distinguish between absolute and relative scarcity; and between natural and human-made scarcity. We note that most scarcity is local and relative rather than absolute; and that by implication scarcity is almost always the product of human intervention. Nonetheless, there is strong evidence that clean drinking water and arable land are in decline globally. This is not to say that other sources for food might be found or that it may become feasible in the near future to turn salt water into drinking water at reasonable costs. It does mean, however, that the most obvious solutions to meet demand for essential resources are diminishing. Estimates suggest that less than 450 million hectares remain and that this resource is likely to be exhausted within the next several decades (Lambin and Meyfroidt 2011).

Beyond these rare instances of absolute scarcity essential resources are scarce only in relative terms. Even if flooding destroys crops or draughts deplete drinking water in some parts of the world, these resources continue to be available elsewhere. Supplying them to people in distressed regions of the world is a matter of logistics, transport costs and political will, not impossibility. The most effective response to acute scarcity, namely self-help in the form of migration to parts of the world where essential resources are still abundant, is severely restricted. Where essential resources can be found other peoples reside and protect their interests by legal or physical boundaries. Virtually all territory and most shorelines have been enclosed by nation states that guard entry to their territories and increasingly by physical fences and walls.

Pointing out that scarcity of essential resources is mostly human-made is not new. Amartya Sen famously asserted that famines are rare in democracies (Sen 1999). Yet, in many countries those most vulnerable to conditions of scarce essential resources lack effective voice because the political regime does not allow for elections or suppresses public opinion. The countries that house most of the world's poor today tend to be difficult to dislodge autocratic regimes (Collier 2007). Transitions to democracy are fragile especially at the lower end of the income scale. Young democracies tend to stabilize only after about 10 years into the democratization process (Przeworski and

Limongi 1993). Less well understood is why some countries make it against these odds and why others revert to autocratic regimes or collapse into "failed" states. This is often attributed to internal problems (bad institutions), but as we will further discuss below, geopolitical interests and the structure of international legal regimes also need to be taken into account. Further, social norms can at times contribute to relative scarcity of essential resources. Even in a country like India, where democracy has long been established and famines have indeed been rare, Sen's own research has pointed to the "missing 100 million women" (Sen 1990) – i.e. the highly unequal treatment of females, which goes hand in hand with sex-related abortions, stunted growth and premature death. A long list of statutory interventions in India since independence has brought about some change but has not fundamentally altered the social norms that condone sex-based discrimination (Pistor, Haldar, and Amirapu 2009). Comparative research on property in land in different parts of the world similarly shows that women often have inferior rights that are derived from and subordinate to husbands, fathers, brothers, even sons, and may lose access to land altogether in the event of their death (Deininger 2003). As a result, some multinational organizations are now advocating women empowerment as a means to alleviate hunger (ADB 2013).

Waste is another human-made contributor to scarcity. Leaking water pipes, unnavigable rural roads to transport food from the villages into the cities, or the lack of cooling facilities to preserve harvested food on its way to consumers are its observable manifestations. They are symptoms of dysfunctional institutions: The misallocation of resources that would otherwise be available to maintain infrastructure; the inability to collect tax or other revenue to fund infrastructure and its maintenance; or the ill choice of governance structures that are not operable in a given context.

Excessive reliance on the market mechanism too can result in relative scarcity. Many countries with highly volatile agricultural production cycles have abandoned storage facilities in the expectation that global commodities markets would always grant them access to food. Moreover, the practice of hording goods for rainy days was known for abuse as actors in control of the storage process can manipulate scarcity to increase

monopoly rents (Bates 1981). The market mechanism seems more benign in comparison, but in its unfettered operation it exposes those most desperate for food to the volatility of global market prices as evidenced by the global food crisis of 2007. Market mechanisms can be put to use in the allocation of scarce resources, but they must be embedded in a normative and institutional framework that limits it. An example is the management of water markets in Europe where market mechanisms are part of a broader normative framework that allows for the transfer of access and use rights while assuring universal access and preventing monopolization (see Casado Pérez in this volume). Effectively restricting market mechanisms requires well functioning political and legal institutions. Where these are lacking the combination of demographic shifts, urbanization, and the market mechanism can result in the wide-spread reallocation of access to essential resources form the destitute to the well-off and well-connected (Durand-Lasserve this volume)

Legal rules also contribute to scarcity, and intentionally so. The delineation and allocation of property rights over resources is meant to exclude many from access so as to enable owners to put the asset to the most highly valued use. Any property regime, including communal property, excludes some to the benefit others. Exclusion is thus at the very core of property (Hall, Hirsch, and Murray Li 2011). However, it does not have to be absolute. Indeed, most formal legal systems attenuate the right to exclude to take account of competing claims and normative concerns. Hanoch Dagan has shown in his work on common law property (Dagan 2012) that courts and legislatures developed property law in ways that was responsive to competing claims; they have endorsed access and sharing constraints in areas as varied as intellectual property rights (mandatory licensing rules), marriage (sharing obligations in marriage and upon divorce), and land (the right to passage). This is not a unique feature of the common law but can also be found in civil law jurisdictions (Ajani and Mattei 1995). Neither, however, is the development of a thick, contested and adaptive property regime universal. Such a regime is more likely to emerge in a political and social context that

allows for contestation of norms and institutional arrangements and where bargaining powers are not too uneven.

This raises questions about the process of institutional and social change that may bring about alterations in existing property regimes and adapt them to changing circumstances. Institutions are path dependent (North 1990) and it often takes a dramatic event, such as wars or revolutions to profoundly change historical paths (Olson 1982). The lack of responsiveness can prove fatal for a regime and destabilize entire societies. Karl Polanyi famously attributes the rise of totalitarian regimes in the first half of the 20<sup>th</sup> century to displacement of the rural poor in pre-industrial England and their plight in the process of industrialization (Polanyi 1944). Terra Lawson-Remer makes a similar point by showing that while strong property rights for the elites are positively correlated with economic growth and development, those of marginalized groups are negatively correlated. This has resulted not infrequently in civil unrest or war, which has undone the growth benefits associated with strong property rights of elites (Lawson-Remer 2011). These findings call for change in the initial allocation of rights – but such change might prove difficult if not impossible once institutions have been locked in (see Michael Cox, this volume).

# **Scarcity in International Context**

It is only a small step from the insight that scarcity of essential resources is primarily local and as such relative and human-made to ask how international law affects scarcity of essential resources. The existence of sovereign nation states and their tendency to guard entrance and restrict migration takes away one of the most powerful devices to deal with scarcity at the local level, namely migration to places where the relevant resources are abundant or access to them assured by more equitable norms. While countries have opened their borders to the free flow of goods, services and capital, restricting migrants is the one undisputed power of sovereigns in a globalized world. Thomas Pogge has taken the argument a step further and argued that our international legal order violates the very same human rights it endorses as universal (Pogge 2005).

He attributes this state of the world to the global economic order as condoned by international treaties and organizations. His critique starts with the principles of international law about the recognition of states and their governments irrespective of the means they used to acquire power, and ends with the treaty on the World Trade Organization, which commits member states to free trade and compels them to grant access to foreign entities at the expense of local entities and citizens. In its sweeping nature, however, this critique fails to recognize positive contributions that states and international regimes make to the protection of essential resources. The greatest impediment to prosperity is violence and the lack of basic security (Bates 2001). Order, even a normatively imperfect order, tends to be superior to no order, or anarchy. The creation of any order implies the drawing of boundaries, the privileging of insiders and the exclusion of outsiders (see also Hall in this volume). We maintain that denying humans access to essential resources is morally repugnant; but we do not go as far as claiming that all regimes that exert exclusionary effects are therefore objectionable. The same applies to international regimes. We agree with Pogge that some instruments arbitrarily entrench existing power relations to the detriment of the world's poor – such as TRIPs with regards to intellectual property rights or bilateral investment treaties (BITs) to the extent they allow foreign investors to hold hostage states for general welfare enhancing policies.

The effects of many other international rules or instruments, however, are often more ambivalent. The rules on state recognition may frequently end up endorsing a group of robber barons that were successful in their power grab. Charles Tilly quite accurately described the process of state making as organized crime (Tilly 1985). However, in other instances recognition has helped more benign groups to accede to power, even as the ousted rulers decried them as terrorists. Moreover, while it is the case that the global trade regime makes it more difficult for countries to protect domestic producers and markets, this can cut both ways. It can help eliminate protectionism in favor of the most

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<sup>&</sup>lt;sup>7</sup> Witness the rise of Nelson Mandela from terrorist to president in South Africa.

entrenched economic interests that hurt the domestic poor, but it can also expose the poor to global competition that undermines their livelihood.

The point is that a legal rule or regime as such does not necessarily produce the deplorable outcome of denying the global poor access to essential resources and thereby contributing to their destitute or death. Rather, this is accomplished by the absence of contestation over competing access rights, which is a function of the political not only the legal regime.

## **Governing Access to Essential Resources: The Evidence**

Allocating essential resources under conditions of scarcity has been a challenge for societies throughout history. As the previous analysis suggests discrimination has been only too common. Our contemporary domestic and global legal regimes have perpetuated such practices by taking a highly uneven distribution of essential resources as given and by failing to respond to competing claims for what those in control claim as 'theirs'. Any change of the self-re-enforcing status quo requires redistribution, which is fraught with conflict inherent in any attempt to dislodge existing interests. Conflict is also a necessary part of governance regimes that have succeeded over time by responding to new challenges. Much depends on how conflict is dealt with; whether it is mitigated through institutional arrangements that allow for contestation and legitimate means for settling disputes, or whether it is suppressed by the power of the gun or the largest purse. Based on the evidence presented in the contributions to this volume, we distinguish different approaches for mitigating conflicts over access to essential resources: Limited access and control rights; corrections ex post; and self-help.

First, social or legal practices frequently limit the scope of control rights vested with any rights holder. The allocation of water rights among acquia farmers in New Mexico (see Cox in this volume) is an example for time-limited rather than absolute rights. These norms have been monitored and enforced by community members for centuries – a good example of common pool resource management (Ostrom 1990). To ensure the

sustainability of the common resource no one can exercise exclusive rights. Instead, access, usage and subtraction rights for all members of the community are limited and monitored collectively. Communal governance regimes may not always treat all members equally (see supra), but its core features are not incompatible with equality. It is at least imaginable that institutions that were associated in the past with discriminatory practices can be used to further more equitable outcomes (see also Chiweshe in this volume).

Another, perhaps more surprising, example for limited rights is the common law of property (see Hanoch Dagan in this volume). The principles governing personal, real, marriage, corporate an intellectual property as developed and interpreted by common law courts over time are imbued with values that impose some limits on exclusivity. The concept of "personhood of property", for example, implies that items deemed to be constitutive for the identity of one person cannot be claimed by another at the exclusion of the first. This may seem at odds with the widely held claim that property rights are 'inalienable' entitlements qua natural law. However, it is important to understand the context in which such claims were made. John Locke and his contemporary natural law theorists viewed property as wrestled from nature or generated by labor and exchange (Waldron 2012, 26). In contrast, most claims to property today are derived from other holders of such rights, not the process of originating property through an act of labor or exchange. They have been contested, granted or denied by courts and/or legislatures revealing them as legally and social constructed, not natural; they evolve through processes of contestation and institutional change. Some constitutional protections of private property are very explicit about this. The German constitution of 1949, for example, holds that ownership entails not only rights, but also obligations; and further stipulates that the contents and scope of property shall be defined by the legislature.8

<sup>&</sup>lt;sup>8</sup> See Art. 14 Grundgesetz für die Bundesrepublik Deutschland (Basic Law of the German Federal Republic). Available in English at [].

Second, legal change may seek to correct the allocation or scope of existing control rights to ensure more equitable access to essential resources. An example is the recognition of customary land use rights in India in the form of administrative procedures that allow tribes to partake in decisions that affect their traditional land usage. Further, India is enacting a new water management regime designed to give citizens down to the village level a voice in water management (Krishnaswamy in this volume). The modification of existing regimes, even if done by the state and couched in the authority of the law tends to be less effective than the creation of limited rights ex ante because entrenched entitlements are difficult to dislodge ex post. Vamsi Vakulabharanam shows in his contribution, for example, that differences in the legal empowerment of tribes vs. peasants had little impact on final outcomes. Tribal rights recognized by state law may help them win the occasional court battle, not, however, the war over the exploitation of economically valuable resources. If the economic stakes are sufficiently high, powerful economic and political interests tend to align irrespective of ex post legal constraints.

Path dependence of existing regimes is a serious concern especially in light of the legacy of colonialism, which created and entrenched highly equal rights. There is some empirical evidence that not all colonial regimes were equally exploitative and that the lack of meaningful property regimes was particularly acute in places that proved inhospitable to European settlers and were therefore governed through indirect rule (Acemoglu, Johson, and Robinson 2001). Still, even the more benign colonial regimes privileged colonizers and set the stage for unequal property regimes (Mamdani 1996). Attempts to alter this initial allocation of rights has proven difficult and only few countries have implemented successful land reforms after independence.

Nonetheless, there are examples that change is possible. Typically change has been accomplished not by legal or institutional reforms alone, but by legal change embedded in broad political and social transformations. The importance of a comprehensive strategy is evident in Morocco, a country dominated by agriculture where access to land and water are deeply intertwined. A policy aimed at improving women's access to land

and water started with changes in the Islamic Code of Personal Status (Mudawana), but, importantly, did not end there. Legal change was embedded in a broad reform strategy that included state agencies as well as NGOs, improved information and grassroots mobilization (see Hursh in this volume). Change has been gradual, but this may be the key to success. Research on women's rights in West Africa (Aldashev et al. 2012) has shown that top-down legal change that departs radically from existing norms tends to be resisted not only by those directly challenged by the reforms, but also by others whose defection from entrenched norms is critical for achieving change. In contrast, more measured departures from prevailing norms are more likely to trigger enough defections to bring about gradual change (ibid). In a similar vein land reforms in Kenya introduced in the aftermath of the tumultuous and bloody 2007 elections may turn out to be more successful than previous efforts, because they were backed by broad political consensus forged by the experience of political chaos and bloodshed (see Laila Macharia in this volume). Camdodia presents another example that zoning and titling alone cannot resolve contest over essential resources. To the contrary, aggressive zoning and titling programs advocated by the World Bank and other development agencies were rolled back to make way for a more pluralistic, community-based resolution of disputes over land (Mike Dwyer in this volume).

Third, victims of exclusionary rights may take matters into their own hands to obtain physical access to essential resources, and possible recognition of their access and use rights. The distinction between physical control and legal right is important. Physical access once obtained whether by means of violence or otherwise needs to be guarded by physical force, which is costly (De Soto 1990). Evidence from successful titling programs in the squatter cities of Lima suggests that the greatest benefits from granting squatters legal title to their land was to remove the need to physically guard the squatted possession day and night (Field 2007). Prior to titling adult members of the household took turns guarding the home and sent their children to the streets to help

<sup>&</sup>lt;sup>9</sup> Indeed this was contrary to expectations that titles would be used primarily for purposes of obtaining credit. See (De Soto 2003).

earn the family income. Once informal possessions were recognized in law as property, children were sent to school and workforce participation of adults increased significantly (ibid).

Those seeking access to and control over land tend to be acutely aware of the difference between possession and property, between physical control and legal entitlement. In Indonesia, peasant movements have successfully occupied land and claimed it as theirs (See Lund in this volume). They have collectively organized the initial seizure and physically guarded land once occupied. And yet, this has left the peasant movement vulnerable to defection and the new occupiers to less than reliable protection. Individual peasants have therefore sought to legalize their possession by paying property tax on the land they occupied (ibid). Just as the squatters in Lima, Indonesian peasants have sought legal protection against any and all 'predators': displaced owners, competing peasants and the state. The act of paying tax creates an expectation that their new possession will sooner or later be granted the privilege of legal right defendable against third parties, a privilege only state law can bestow (Deakin et al. 2013).

Obtaining full legal title may be the most desirable outcome for those seeking access to essential resources; but even short of that some official recognition of access rights is valued highly and much energy goes into obtaining it. This emerges from Nikhil Anand's account of water management in the settlements of Mumbai (this volume). Mumbai's water system was built during colonial times and privileged parts of the city occupied by colonizers. The city has long outgrown this system, but adjustments to the infrastructure have been slow. The majority of settlers do not have access to running water and only settlers who can document occupancy prior to 1995 have a legal claim to be granted access to the municipal water system. Other settlers are, of course, equally dependent on access to water for their survival. Many resort to self-help by drilling holes into existing pipes or in the ground to obtain underground water resources. Others navigate relations with elected councilmen and water engineers to be granted access. An important bargaining chip for the settlers is their vote in municipal elections. Indeed,

water pipes tend to be most forthcoming in the run up to an election (Anand 2011). The threat of violence or the actual beating of engineers also plays a role (ibid). In the grey zone between legal entitlement and dispossession settlers are never completely excluded from drinking water; but neither is access ever secure. It is more secure the better-connected settlers are, and the greater their ability to organize fellow settlers for their common cause, but even then, access is far from certain.

Self-help that results in partial recognition needs to be distinguished from the limited entitlements discussed above. In the case of limited entitlements control rights are vested with the community and access rights are determined, monitored, and enforced by governance rules internal to that community. The informal water management system in New Mexico and the common law are both self-referential governance regimes that have in-built mechanisms for adaptation. In contrast, in the case of Mumbai's water management there is a clear divide between those operating inside the official regime and those seeking access from the outside. Legal entitlements created the demarcation between the two groups. Outsiders cannot sue for their rights to be enforced, because they do not have legally enforceable rights. But they can use violence, their right to vote, or their willingness to pay taxes to bargain for partial recognition. This blurs the lines between legal and illegal and creates greater certainty than physical control alone.

# **Regulatory Capabilities & Reflexivity**

Two factors for governing access to essential resources in a more equitable fashion can be derived from the above analysis: Voice and Reflexivity. Voice captures the ability of *all* members of a group, community or society to claim their share in resources that are essential to their survival. Reflexivity is the mirror image of voice; it stands for the commitment of those with superior access to resources to recognize competing claims as legitimate and participate in developing governance regimes to accommodate them.

Voice is not identical with voting; the case of water management in Mumbai's slums suggests that the right to vote does not guarantee access to drinking water. In democracies, however, the right to vote can become a critical bargaining chip, provided that claimants are able to organize. Settlers are acutely aware of the power of the vote. This is why they opposed the privatization of water, which would price them out of the market and eliminate political pressure as their most powerful weapon (Anand 2011). More generally, voice stands for the normative proposition that people should have a say in the rules by which they are governed, especially with respect but not limited to essential resources. Cafaggi and Pistor use the term "regulatory capabilities" to capture this principle of regulatory self-determination (Cafaggi and Pistor 2014). Regulatory capabilities are the correlate to individual capabilities, i.e. the right to live the life one has reason to value, as defined by Sen and Nussbaum (supra). Individual capabilities can be effectively realized only if institutions are in place that enable individuals to develop their innate abilities. Leading a healthy life requires access to clean water, basic food, shelter and health; education is a prerequisite for knowledge, reasoning and participation in public life. Developing these institutions as the prerequisite for the realization of individual capabilities is a collective not an individual undertaking. This is what makes these institutions 'public goods' in the true sense of the word.

Whoever is in a position to frame a regulatory domain and shape its governance regimes can determine the conditions for access. The power of governance regimes developed by private parties often rests on their recognition by states and the ability to enforce them in courts (Cafaggi 2011). The classification as private or public, however, is less important than the ability of actors to assume positions of authority and bestow entitlements on others (Lund 2006). The authority to recognize property or access rights is often associated with statehood. However, this need not be the case; local chiefs, leaders of peasant movements or workers' unions can fulfill similar functions. Authority can have different sources of legitimacy as Max Weber has argued; state law being one, charisma, and tradition the other two (Weber 1980, 822).

The regulatory capabilities approach holds that the principle of self-determination should govern the making of laws, rules and regulations. Traditionally this principle has been reserved for "a people" or "a nation", and relatedly the right to establish a nation state as the means for self-govern. Nation states remain critical agents of governance, but they are both over- and under-inclusive when it comes to the governance of essential resources because the boundaries of a nation state are not necessarily concomitant with the essential resources necessary to sustain its people: States are over-inclusive in cases where the territory of a state harbors essential resources well beyond the needs of its own citizens while people in other parts of the world suffer or die for lack of access; and under-inclusive because many states lack those resources or the financial means to acquire them. Historically the constraints posed by territorial boundaries were resolved by mass migration or conquest. Both avenues have been largely closed off by international law that protects state borders and limits legal wars to self-defense. Shortages in essential resources therefore need to be overcome by other means.

The regulatory capabilities approach recognizes that in today's world states are not always the primary actors in governing critical policy domains, including essential resources. It redirects the normative claim to self-determination at any actor – private, public, or hybrid – with the power and influence to frame regulatory domains that affect others. Applying this principle in practice will require new approaches to governance that take into account the specifics of the regulatory domain (i.e. a water reserve, a lake or forest that offers economic opportunities to some and is the basis of subsistence for others) and the stakes involved. For essential resources any governance regime must include access rights by others. Depending on circumstances, such access rights may be defined temporally or geographically or in quantitative terms, provided that quantities are adapted over time to reflect actual scarcity. The choice of the exclusion benchmark will affect the relative inclusiveness of the governance regimes. As noted previously, every property regime is necessarily based on exclusion; the critical question is not only where, but (also) how to draw the line. As Edda Schlager points out, some regimes use

quantitative benchmarks ("how much can be harvested") while others apply pluralist approaches ("how many different uses can be sustained") (see Schlager in this volume). The latter has greater potential to evolve into and "architecture of inclusion" (Sturm 2006) than the former because it invites pluralism and contestation.

The domain's scope, not predetermined jurisdictional or territorial boundaries, citizenship or membership, determines its stakeholders. Voice does not necessarily call for direct participation just as democratic governance is not equivalent with direct democracy; at a minimum it requires that the interests of all affected by the regime are taken into account. If the use of underground water resources depletes the reserves on which many others depend, then actual use must be moderated so as not to deprive others of access to water. If land is expropriated for infrastructure projects then the dispossessed who lived off the land should be able to choose among different options of compensation: current market value, a stake in the project, or compensation in kind, such as reallocation. This would allow them to choose the option most suited to their circumstances including any employment or migration options they have (Lehavi and Licht 2007). Most countries offer "adequate compensation" for expropriation based on the market value of the claimed property. Realizing alternative forms of compensation presupposes that the to-be-dispossessed are sufficiently organized to express their preferences – a difficult task especially when they have heterogeneous interests and face collective action problems (Olsen 1996). To effectuate voice in these cases, arrangements for overcoming collective action problems are required to ensure selfdetermination. An interesting example comes from India, where in the aftermath of violent uprisings against large-scale expropriation for the benefit of infrastructure development rural land departments encouraged landowners to join cooperatives as a means for increasing their bargaining power (Balakrishnan 2013).

This example points to the mirror image of Voice: Reflexivity defined as the self-critical assessment of how one's own actions affect others and the willingness to respond to legitimate access claims (De Schutter and Lenoble 2010). Reflexivity depends on collective learning processes but moves beyond learning as the foundation for new

governance (Sabel and Zeitlin 2008) to focus on the actual implementation of solutions. The concept is applicable well beyond essential resources but is particularly pertinent in this context. Ensuring that all humans have access to essential resources is not a matter of choice or individual preferences; neither is new, experimental governance a goal onto itself. Rather, access to essential resources is a moral imperative and reflexive governance a response to it.

Reflexive governance sounds utopian, but as discussed previously there is ample evidence that social groups are quite capable of governing resources in ways that ensure limited access while also striving for sustainability. Neither is dealing with competing claims that do not stand in a clear hierarchical fashion to one another new to social practice or law. Common pool resource management offers ample practical examples. Moreover, courts in different jurisdictions have recognized the need to reconcile competing claims and have developed appropriate doctrinal vehicles. A prominent example is the doctrine of practical concordance Germany's Constitutional Court has developed. It holds that in cases where competing claims are each protected by constitutional rights and values, yet the conflict cannot be resolved by prioritizing one over the other, each has to give but none shall be hallowed out. Practical concordance is, of course, no silver bullet, but a way of reconciling inevitable conflicts between rights and values that cannot be resolved through bargaining or balancing. If it was always possible to unbundle competing normative goals and subject them to different policy strategies (Tinbergen 1956) there would be no need for practical concordance. Unbundling, however, is infeasible where conflicts among competing claims are "inherently unresolvable" (Arrow 1958, 91) from a welfare optimization perspective. Normatively rather than efficiency grounded reconciliation has to take the place of resolution based on the recognition that no claim is absolute.

Essential resources are, of course, a malleable category. Drinking water is the most clear cut example for "essentiality" because denial of drinking water leads unavoidably to death within days. Still, even drinking water is not clearly defined as the lengthy negotiations in the UN and World Health Organization about how to define "clean"

drinking water suggest. More generally, the kinds of goods or services that should be recognized as essential in a given society may vary depending on shared normative values and intuitions of justice. Norm development takes a community, not a market; in the case of essential resources of global significance it takes something akin to a global community. Benedict Anderson has labeled the nation state an imagined community (Anderson 1993). For people living in villages and small townships with little information about villagers and townspeople further away than the nearest market place the notion that they were part of a single "nation" must have indeed appeared as a far-fetched concept; perhaps even more so than claims about the emergence of a global cosmopolitan community (Appiah 2007) today. The rise of the nation state thus required not only new forms of governance and organization, but (also) the idea of a shared identity and community.

Voice and Reflexivity depend on such an imagined (global) community, but not necessarily a global state. Just with nation states, such communities are not given, but must be formed. Community boundaries will be defined by access rights and access needs to a given essential resource. Currently, such claims are made, if at all, by existing polities: municipalities, states or federations. However, as discussed previously, they tend to be over- and under-inclusive with regards to essential resources and don't adequately represent those with legitimate access rights. It is therefore critical to establish mediating agents that operate beyond existing polities where such claims can be launched and enforced. Examples include regional human rights courts, such as the Inter-American Human Rights Commission or the European Court of Human Rights. These bodies have been used in the past to voice claims of domestically underrepresented groups - often with the help of foreign or international NGOs. Unfortunately, their current institutional and legal set-up makes for rather weak mediators. Access to regional human rights courts is contingent on exhausting all domestic remedies, which can take many years and may come too late in the case of claims to essential resources. Moreover, enforcement is weak as most human rights tribunals rely on the power of shaming backed by fines, which are often paid even as the causes that gave rise to the litigation are not rectified.

It is, however, not impossible to strengthen enforcement in global affairs. Take, for example, the legal regime for investor-state disputes in bilateral investment treaties, which gives private investors the right to take disputes straight to arbitration tribunals outside the jurisdiction where the alleged harm was afflicted. In fact, investors have been able to extract compensation for damages in the hundreds of millions of dollars. States apparently pay up for fear of loosing foreign investment flows. Governance regimes for essential resources will face a more complicated task: They need to nudge economically powerful actors – private and state – to share access rights with less powerful ones. By definition, financial inducements are unlikely to work and retaliation along the lines of WTO enforcements (where the winning party may counter by imposing similar trade restrictions on the losing party) will be difficult to implement. Appealing to principles of justice will, however, not suffice. An important first step would be the creation of open fora for resolving disputes over essential resources, into a court of public opinion where not only economic stakes but normative principles can be contested.

#### Conclusion

This introductory chapter has developed the concept of essential resources and discussed Voice and Reflexivity as the key governance principles grounded in principles of equity, self-determination and other-regarding behavior. We have argued that existing conceptualizations of property rights are insufficient to deal with the vexed problem of increasing scarcity of resources that are essential, i.e. critical for survival and well being of all members of humankind. Our current system of international law offers some solutions, but it is by and large ill-equipped to deal with the challenge this poses. States are unlikely to respect rights of those outside their borders and neither private nor public actors will willingly share resources they have acquired at substantial costs. The cost of denying others access to essential resources, however, outweighs such

concerns and calls for a reorientation of current debates. Most importantly, we need a new normative foundation for conceptualizing governance beyond notions of efficiency. This does not rule out market mechanisms but questions the assumption that markets are always the best mechanism for addressing scarcity. Similarly, while states remain the dominant institutional arrangements for resolving collective action problems at scale the mismatch between resource location and the jurisdictional boundaries of states calls for a broader normative and institutional framework.

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