

# **Cadastral Mapping of Water as an Individualised Human Right: Water, Water Everywhere, nor Any Drop to Drink**

**Leslie Downie (South Africa)**

**Key words:** Access to land; Affordable housing; Cadastre; Digital cadastre; Risk management; Security of tenure; human rights; potable water; poverty reduction; peace and justice

## **SUMMARY**

Water is a scarce resource worldwide. Unequal allocations of potable water must be anticipated and managed to avoid disease and conflict. An information system that records each human's right to water can be used as a risk management tool. The South African cadastre was implemented by the Dutch in the late 1600's, but is now at a watershed. In 2019 a Presidential advisory panel recommended the creation of a new integrated and consolidated land administration and information system, with all land-related records held in one data portal. If this new system is developed, it will be under very different circumstances, in a fully democratic, constitutional society. Due to South Africa's racially-based land titling history, a draft Bill to amend the Constitution is now open for public comment. If passed, it will permit expropriation of land for land reform purposes without payment of compensation to the owners of the land. Notably the three most basic land-related human rights are for shelter, food and water. Later in the 21st century imperialistic wars may be fought over who is given title to water, rather than over land. So while South Africa is still dealing with the fallout of past land titling, the world is at the beginning of a new titling challenge. We must learn from the past. This paper raises certain failures of past land titling, dating from colonial times and thereafter, that speak into this. It then compares this with equivalent problems seen in recent titling for state-subsidised housing that provides shelter for the poor. Free municipal service benefits for indigent households that are listed in the name of a household representative alone mirror past titling of land in the name of a man alone. Relationships between people must also be mapped. If an integrated cadastre recorded water benefits for each member of a household, instead of in the name of a household representative, this would avoid the loss of rights seen in past systems. Proper balancing of group water rights with individual rights could diminish inequality, improve health and promote peace and justice. Ideally the human right to water should be defensible not only by vulnerable individuals, but by every human being. Indigent water benefits offer an opportunity to design an integrated cadastral model for entitlements to potable water that would enable fulfilment of the United Nations Sustainable Development Goals. While rights to water are contested, they are currently less contested than rights to land. If this endeavour is successful, it could shine a light on the way land records should be structured in the integrated land information systems of the future.

---

Cadastral Mapping of Water as an Individualised Human Right: Water, Water Everywhere, nor Any Drop to Drink  
(10473)

Leslie Downie (South Africa)

FIG Working Week 2020

Smart surveyors for land and water management  
Amsterdam, the Netherlands, 10–14 May 2020