

A GENDER SENSITIVE APPROACH TO UNITING INDIGENOUS VIEWS ON NATURAL LAW WITH RELATIONAL GOVERNANCE FOR PROTECTING THE COMMONS

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Abstract

The key theme of this paper is that climate change, high costs of living and movement to the cities threaten food security but this does not mean that small farmers should be threatened by the corporatisation of food production or factory farms. Localisation and food sovereignty is about *owning the means of production of the food cycle and preventing the monopolisation of seed.*

The paper discusses learning within nature's classroom in the Limpopo region of South Africa, through on line and face to face facilitation supported by University of South Africa, the University of Venda, Adelaide University and PGS^{xii} (an organic farmers network). This research aims to contribute to the literature by uniting indigenous views on natural law with earth jurisprudence and Wild Law to protect the commons and habitat for multiple species. Law is first and foremost a construct according to Peter Burdon. *Firstly*, we make a case for systemic principles and a systemic approach to protecting multiple co-dependent species and a shared habitat that supports living systems. Jurisprudence, rights and wild law concepts underpin the discussion which also addresses land rights, dispossession, displacement and the dangers of land claims by mining companies. *Secondly*, we make a contribution to the discussion on the draft policy on South Africa's Biodiversity, Conservation and Sustainable Use. *Thirdly*, we explore ways in which principles could be applied through education and community governance to protect living systems. *Fourthly*, we discuss the activities of a (growing) community of practice that supports intergenerational learning, learning and growing a future by protecting people and the environment through social enterprises to support growing food in ways that protect and nurtures people, community and the natural environment. We are building on the established networks of the team members who are pooling our knowledge and resources. Members of the community recently reported on how much we have learned from one another already and how many enterprises they have set up and that are continuing to grow. Meanwhile we have also benefitted from the involvement of PGS (learning about organic farming and drawing also on traditional wisdom regarding this). In this way we have focused on avoiding a green washing approach which suggests that growth can be sustained or that commodifying every step of the food production process is justifiable. Sustainable Development Goal no 8 stresses *Decent work and economic growth*, but growth is the issue which William Rees, who coined the 'ecological footprint' warns us against (2021, 2022) when he stresses that overshoot is more than a problem associated with climate change. *It is a problem linked with human-centred thinking.* Vandana Shiva (2022 a,b) stresses the importance of working with young people and empowering women farmers (Shiva, 1989) so that the soil and communities remain healthy. By protecting *business as usual, monocultures* (Shiva 2012,2016) and *destruction of small farmers* through setting up *agro industries* that destroy multiple species – we will destroy the cycle of life which depends *on photosynthesis to make oxygen out of carbon and to create the molecules of life.* The commodification of seeds, the use of chemical fertilisers and the promotion of *fake food* will only hasten desertification through destroying the soil as stressed in the launch of 'growing life' at the International Food Summit in 2022 and at the Feminist Food Summit in 2023.

Keywords: *empowerment of the marginalised, small farmers, biodiversity, localisation, food security through protecting soil and multispecies habitat.*

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1. INTRODUCTION AND BACKGROUND

Communication occurs across all living systems which is recognised by Indigenous knowledge systems and increasingly by scientists today (McIntyre-Mills, 2021a,b). Importantly, policy needs to catch up in ways that recognise the importance of multispecies relationships and the need to protect the habitat of multiple species. In the aftermath of Cop 15, leaders (even those with ‘patchy’ records) are making pleas to countries such as China, Russia and Brazil to protect larger areas of land (Greenfield et al 2022). They continue by summing up and citing President Trudeau, as follows:

“Indigenous communities leading on this is a really good thing. What we’re able to do here is not just show a story of conservation, but a story of reconciliation, about recognising that it’s these partnerships that are going to be essential going forward.”^{xiv}

This paper is one of a series of papers on collaborative research in Venda. Instead of rehearsing the current issues facing South Africans (and the global community) the paper discusses a case study that makes a difference to the lives of participants at a personal, local and regional level in Venda by focusing on food security, job creation and empowering the participants to work together across villages within the region. This paper discusses two communities: Tshidzivhe located in the lush Thathe Forest and threatened by mining and other developments. This is a sacred habitat(known as ‘Zwifho zwa Thathe Forest’). The other community is called the Mabveṭe^{xv} which is located in an arid region close to the Zimbabwe border. It was described by an agricultural extension officer as a “famine community.” During our fieldwork visit in October last year each community showed us how residents strive to live off the land and to rely on local food production. They shared local foods with us that were well presented and served as beautiful buffets to demonstrate the potential and achievements within the community. Our praxis involves learning within nature’s classroom, through both on line and face-to-face facilitation supported by University of South Africa, the University of Venda, Adelaide University and the Participatory Guarantee System, South Africa (known as PGSA, an organic farmers network). The case studies are supported by a community of practice led by the University of South Africa and supported by NRF funding and with links to University of Adelaide and University of Venda. Through PGSA Butshabelo Mabunda and Conny Mbodi^{xvi} have played an important role in providing *hands on* education on how to make fertilisers, prepare the soil and to plant in ways that produce nourishing food. Their message is the importance of healthy food for a healthy planet and the dangers of destroying the soil with toxic pesticides. They link this message with the importance of protecting the wellbeing of women who are sometimes also “ caught in toxic situations” and the importance of protecting the wellbeing of all farm animals. Promoting wellbeing is linked with preventing all forms of violence and promoting the wellbeing of multiple species. In the workshops discussed in this paper we refer to our goals, namely to:

- Learn about Sustainable Development Goals and improve upon SDG 8 through creating decent work through better balance rather than growth

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- Learn how to identify what skills and resources participants can use to earn a living and to create social enterprises
- Work with Organic Farmers Assoc PGSA and report on our collective activities^{xvii}. Together we address ‘growing life’ (see the International Food Summit, 2022, Shiva and Leu, 2014, Leu, 2021, Leu, Shiva and Cummins, 2022) through working with the organic farmers network in South Africa and Feminist Food System, 2023).

Mphatheleni sums it up our praxis as follows:

“ Seed banks will save the food systemsWe must raise a voice on Mother Earth’s Rights. The ecological approach set up by Mupo requires revival of Ancient Wisdom. As Vandana Shiva says, seed is a symbol of the continuation of life....”

Stef Swanepoel of PGSA stresses (2022, pers. comm. in preparation of our joint grant application for coastal and inland seed banks):

“Successful agricultural adaptation to climate change relies significantly on availability of, access to and knowledge about seed – in particular, open-pollinated and locally adapted seed. South Africa’s seed system operates from a dominant ‘memory’ of colonisation, Apartheid and neoliberal globalisation economics. The emphasis as regards the seed system has been on providing support (economic, infrastructural, legislative, and research) for a ‘modernistic’ take on farming in terms of provision of hybrid and genetically modified crops, to be used in a system reliant largely on high use of external inputs. This mode of farming has increased soil salinisation and grown resistance to chemicals among pest populations. This approach has been widely supported adoption of which has led to the erosion of traditional knowledge and culture related to sustainable production throughout the country. This has significant implications for South Africa’s ability to adapt to climate change.”

2. TWO CONTRASTING COMMUNITIES WITH VIABLE CIRCULAR GREEN ECONOMIES

Janet: One of the intended purposes of our partnership is to learn from one another and to share knowledge with participants about organic food farming drawing on indigenous knowledge. Our aim is to further action learning and research and the outcome is supporting our work together with PGS in the process of developing organic fertiliser and pest management. The participating communities understand the importance of practicing organic farming and this is now influencing other communities to embark on organic farming including seed banking using organic seeds. Despite the varying conditions of the Tshidzivhe and Mabveṭe communities (located in the Vhembe Biosphere Reserve) both manage to live off the land and have been able to set up a circular green economy using local products.

In the lush subtropical forest Tshidzivhe the community members are able to gather avocados, bananas, paw paws, mangoes, sweet potatoes, termites, locusts, pumpkin plants, cow peas, mallows, finger millet, wild natural honey. Animal husbandry includes indigenous chickens, cows and pigs and the forests have many indigenous animals protected by totem holders who act as stewards of the forest and custodians of their totem animals. Their socio-economy is linked with places of education, tourism and local town of Thohoyandou with strong supportive links built through Dzomo la Mupo and PGSA, for example.

In contrast Mabveṭe is located in an arid region and the local residents are able to gather marula fruit, baobab seeds, mopani worms and termites. Both communities grow pearl or finger millet, sorghum, water

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melons and in this region they have indigenous goats and cattle. The region is located close to the Kruger National park with the potential to create eco-tourism opportunities through history tours and marketing organic products and cultural artefacts. Towards the north the Limpopo Province borders Zimbabwe and Botswana, known as the confluence at the Limpopo and Shashe rivers where the ancient Mapungubwe ruins and landscape have been declared a UNESCO heritage site^{xviii}

A study of some of the literature^{xix} (Caton-Thompson, 1939, Murimbika, 2006) on this site explains that the people who lived here in the 12th -13th centuries engaged in trade that extended to India, Indonesia and China and that the ruins of a city and the artefacts evidence a highly developed, stratified society and that climate changes could have played a role in its decline along with wars with rival groups competing for resources. The rain rituals to protect the harvest and oral history (Murimbika, 2006) also underline the intergenerational concerns about food security.

Research on the origins of life and migrations (Bard, 2022) also reveals that migrations from Africa populated many parts of Asia through a land bridge. It is interesting that in West Java over 600 years ago and in India the story/texts on Green or Black Tara, a queen or deity who protected the Acacia Forest has remained sacred.

Mphatheleni, do you know the origin of the Venda greeting ‘Aa’? In Tibetan Indigenous cultures ‘Ah’ means Heart.... It is one of the key words in their spiritual vocabulary along with Om (crown of head and it pertains to all phenomena). Interestingly a conversation with Shabola (whose name means ‘peace’) a migrant worker from Zimbabwe, now resident in Cape Town revealed that his way of saying ‘thank you’, is by placing his hand on his heart. He says some of the words in Shona are similar to Venda and that his sister lives near Thohoyandou in Venda.

Mphathe: “Aa. is the way we salute or a response when our names are called and a way to show respect in communication as well as a way to knock when entering a place.”

3. OUR PRAXIS

Janet: We support and advocate a relational world view that appreciates the cyclical nature of organic and inorganic life spanning many species of which human beings are co-dependent. This is echoed in the following South African draft policy paper on Biodiversity 2022:39^{xx}:

“Animal welfare is closely linked to animal health, the health and well-being of people, and the sustainability of socio-economic and ecological systems.... associated ethical responsibility to ensure any such use is humane, as defined through ... international standards for animal welfare, in recognition of the sentience of animals”. Many still perceive animal welfare as a cost rather than a benefit. In a similar way to the relationship between animal and human health, there is a strong link between good animal and human welfare.Animal welfare is a common good and, as such, a shared responsibility and an ethical obligation. A common good is typically achieved through actions of a community that result in uplifting the well-being of its members. It can be manifested through a sense of shared values such as the welfare of animals. ...There is a need to harmonise animal ethics and conservation within a single framework rather than having them as separate or competing interests, rather than trying to classify a problem as a conservation problem or an animal welfare problem, they are different levels from which to look at the same problem.^{xxi}

The same South African draft White Paper on Biodiversity (2022:21) stresses:

“ ...: The well-being of wild animals must form an integral part of all wildlife-based practices, recognising wild animals are capable of suffering and of experiencing pain, and that sentience requires a higher level of consideration of the impact of actions on the well-being of wild animals.”

We argue that animals need a *rights based* approach based on sentience, rather than ‘ protection of their wellbeing as a way to protect human wellbeing or merely as a resource. The relational approach (McIntyre-Mills, 2021:1 and 2022) is a starting point for our approach summed up as follows:

“The relationships across living systems are co-determinant, a truism that seems to have been forgotten by policy makers and economists...”

Romm (2021:251) explains our community of practice approach as follows:

“Manifestly, McIntyre-Mills and others’ intent is to (performatively) ask people to “think carefully” about a relationality with people, animals, and the land, based, inter alia, on concern for the vulnerable (who may be relatively voiceless) and for the land (a metaphor for eco-systemic living).”

Janet: Relationality from this perspective is about empathy with sentient beings (De Waal, 2009) including other forms of life (Rayner 2010,2017, 2020, Gagliano et al, 2018, Meijer 2019) and a deep understanding that our mutual wellbeing is co-determined by our praxis (McIntyre-Mills 2021) and relation to place (Bartel 2022) along with the rights of all the creatures within a region if we are to prevent ecocide (Higgins et al 2013). These principles are also expressed in the agroecological approach used by the organic farmer’s association (PGS) to which we are linked. Clearly a new narrative is required which we are working on through team work and face to face knowledge sharing – by enabling local participants to travel to a specific location which has infrastructure. Fortunately, some of the facilitators have also been able to rely on smart phones. We weave together our strands of experience in Zoom meetings which are mindful to close the gap of culture differences and to connect in terms of shared values. Our aim is to engage in transformational research that aims to change our mind set and to deepen our understanding of our place in nature, for instance according to Rees (2021) in 2019 we were:

“using more than 73 % of the earth’s resources and displacing other species.” He stresses that “we could become the best informed extinct species – because we are in denial and trying to maintain business as usual.”

To sum up our approach is as follows:

3.1.1 Summary of our Praxis	
Axiology	Human beings are one of many species on which we depend. In a priori terms we consider that our rights and responsibilities should be to respect and protect living systems and to move towards an ecological and regenerative approach (Chilisa,2017, Scharmer, 2018, 2022) which supports ‘Earth Rising’.
Ontology	A non dualistic relational view of the world in which human beings are co-dependent on multiple other species. We recognize that consciousness is a continuum. Earth is living, all species are intelligent and human beings are just one strand in the web of life.
Epistemology	Many ways of knowing need to be appreciated along with a recognition that human beings, other animals and nature have consciousness. Our approach is to create inter-generational partnerships with all age groups to support multispecies habitats and relationships is core to our praxis to extend the UN SDG 17 to create partnerships. We pool many ways of knowing in the way we interact with our students at undergraduate and postgraduate level and most

	importantly instead of polarizing the ecocentric and post national continuum – drawing on Studley (2022:12)— we extend a relational understanding that acknowledges the work of Thomas Berry and the Indigenous, spiritual roots of animism. Instead of a merely “enlightened anthropocentrism”, we take up the relational idea that we need to see all Earth Beings as our relatives for whom we must care as relatives (as we have a spiritual connection with them). Our “knowing” implies being alive to our relational existence (Escobar, 2016: 18).
Methodology	Case study, focus groups, field visits and participant observation by members of the team who act as local facilitators. We are using a specific way of doing action learning - where people come together to learn from one another through stories, dialogues to explore many ways of knowing and experimenting with collaborative options in action.

3.2 Women and youth

Vandana Shiva (2022) stresses the importance of working with young people and empowering women farmers (Shiva, 1989). Shiva (2022) explains that by protecting *agro business as usual* and *factory style farming* based the destruction of small farmers (most of whom are women) through setting up agro industries that destroy multiple species – we will destroy the cycle of life, because life depends on photosynthesis to make oxygen out of carbon to create the molecules of life. Plants and trees are vital for sequestering carbon and thus helping to lower emissions. The commodification of seeds, the use of chemical fertilisers that and the promotion of fake food could lead to factory style agriculture that destroys habitat and thus only hasten desertification.

According to the South African White paper on protecting biodiversity through more sustainable living (2022: 67)^{xvii}

“ Women, and rural women, play a vital role in conservation and sustainable use of biodiversity. Often being responsible for gathering fuel wood, building materials, medicine, food, and water, they are frequently most directly affected by a local loss in biodiversity. Their involvement in the implementation of this policy and strategy will be key to ensuring that the use of resources for subsistence purposes is sustainable, and that livelihoods are secured. As mothers and educators, women together with men, also have a central role to play in raising awareness amongst future generations as to the importance and value of conserving and sustainably using the country’s biodiversity. Similarly for youth, which represent the future, and their voice, perspectives, and aspirations need to inform the implementation of this White Paper.”

Janet: Members of the community recently reported on how much they have learned already and we as members of the community of practice have learned a great deal from one another. Our gender sensitive approach focusing on intergenerational learning has supported setting up many enterprises which continue to grow. Meanwhile we have also benefitted from the involvement of PGS (learning about organic farming and drawing also on traditional wisdom regarding this). In this way we have focused on avoiding a greenwashing approach (Thunberg, 2022) which suggests that growth can be sustained. Instead of measuring development in terms of a growth economy it needs to be measured in terms of an inclusive wellbeing (including people and planet). This means that the capitalist-inspired ever-expanding growth needs to be reconstituted in theory and practice (see Shiva, 2013). This implies a different approach to greening. A demographic transition could be achieved through empowering a grass roots movement so that people learn to make better decisions.

The so-called Sustainable Development Goal no 8 stresses *Decent Work and economic growth* is exactly the issue which William Rees is warning against (2021, 2022) when he stresses that overshoot is more than a problem associated with climate change. It is a problem linked with business as usual and the destruction of multiple species linked with overpopulation.

The latest environmental reports globally and in Australia show that the rate of species extinctions is rising and Australia has one of the worst environmental protection records. The notion that nation states (together with market interest groups and associated companies) should be allowed to plunder the environment for profit poses an ‘existential risk’ (Bostrom, 2011) because our current way of life is unsustainable.

This paper makes the case for supporting Wild Law, Earth Jurisprudence, the Ecocide Bill and Indigenous laws (such as Uluru Statement of the Heart and Venda notions of living systems known as Mupo).

Mphatheleni:

“Our action to protect Mupo includes mapping and preventing its destruction as detailed in the Mulambwane Ecological Mapping Process (see Makaulule, 2021) which details the mission of Voice of the Earth (Dzomo la Mupo to advocate against the destruction of the environment and the sacred sites (Zwifho) and in the report explains that the workshop is first dedicated to their ancestral spirits and The Creator.”

Mphatheleni explains that the mapping is used to advocate for the protection of their land which is at risk of mining development by an international company as follows:

“Dzomo la Mupo, We as custodians of the Network of Zwifho in Venda, have the task to protect both Zwifho and our birth-roots homes in the Venda territories from being destroyed. If Zwifho are destroyed, the ecosystem will collapse, because these are the vital organs of life systems. It is our responsibility to do all we can to prevent ecocide happening in this current phase of our generation. We shall continue to raise our voices and say mining minerals in our root-homes territory is wrong... We are the voices of our ancestors’ spirits... We are Dzomo la Mupo, The voice of Mupo, voice of all natural creations of the Universe....Ndaa. Aa.”

The report (2021: 12) reports the views of the community, for example:

Makhadzi: "I am the granddaughter of Mulambwane. What is happening at Mulambwane is painful. Where will our children work while our land is being taken unlawfully? We do not want those people. They should go back and leave the land of our forefathers alone. Our grandparents and fathers brought us up in that land of Mulambwane. We used to eat what we wanted, like mopani worms and today's youth do not like to eat mopane worms, they do not even know it. We were banished from our land which is the home of mopane worms and land which is full of trees that is useful for traditional medicine. We do not want those people on the land of our forefathers, they should leave. I grew up at Mulambwane, and I know the location of the house of my father, next to the Steep hill. My forefathers are buried there. Now we cannot access the graves because it is fenced so that people cannot enter. Our forefathers no longer see us, That is what I am here for, we always feel pains in our hearts.

Makaulule (2021: 4) explains:

“This workshop was held as a response to the Musina Makhado Special Economic Zone (MMSEZ) plan, a plan that will cause immense damage to natural and Zwifho sacred sites and ancestors graves of the Mulambwane clan. We therefore have to raise our voices against the disturbances and environmental injustices that continue ...to threaten the land of our community and our ancestors’ spirits. The devastation of the natural environment in Mulambwane will affect interaction of compound livelihoods in the Vhembe District, Limpopo Province...”

Makaulule continues by (2021: 5) citing a participant as follows: “

The government has returned our land back but there are those who want to steal it again. MMSEZ, we do not want it, it is just bringing hunger to our people.”

The report (2021: 11) sums up some of the contributions as follows

“... people who are doing the MMSEZ plans will benefit a lot in the project which they want to do in our land. The jobs which they are promising with MMSEZ are not jobs that can give them well-being. It was emphasised that the most important aspect is wellbeing for the health and lives including future generation lives. Not jobs that will destroy well-being”.

... Youth emphasise that the MMSEZ has advantages and disadvantages, yet disadvantages are dominating the advantages.”

The report advocates to protect the indigenous forests and their heritage by invoking the Heritage act and the prevention of the loss of their heritage.

3.2.1 Summary table of pathways to wellbeing: Fostering distributive leadership and governance through jurisprudence to support multispecies relationships based on fairness, transparency, and accountability	
Self-awareness of earth rights and responsibilities and considering the consequences of our thinking and our actions for ourselves, multiple species and our shared habitat	Awareness of our relationship with all living systems a deep understanding of our role and place within a living system
Self-management based on an understanding of the consequences of praxis for Mupo (living systems)	Relationship management requires regeneration and not the degeneration of the living system of which we are a strand.

Sources: Members of the community of practice reflecting on Shiva (2016, 2022), the agenda and mission of IFOAM which is in line with the work of Shiva, Andre Leu (2021) and Ronnie Cummins (2016). We also draw on Daniel Goleman (1995, 2016) on emotional intelligence and his work on the similarities with the Mahayana philosophy (HH Dalai Lama, 2022) and Stiglitz et al (2010) on wellbeing and accountability. The ground breaking work of the earth jurisprudence movement and wild law institute underpins the approach to habitat protection. Mphatheleni discusses this with reference to protecting sacred sites and how this can also help to protect water sources and a viable habitat for many life forms.

Mphatheleni: “Our focus is on *zero hunger and partnerships and protecting Mupo (living systems) ”.*

Janet: “Yes, this sums it up and it therefore also entails looking at water security which we are addressing through the partnerships we are making locally with Prof Vhonani, furthermore your work demonstrates your deep understanding of how to work well with others through building relationships” (see McIntyre-Mills, Makaulule et al, 2022.”

Mphatheleni: Yes, Prof. Vhonani Netshandama has played a huge role in helping communities to be comfortable in the University. I know she will be happy to work with us in this area of transformative education together with communities. For example this week on Wednesday, she created opportunities for us to exhibit the food which we were eating during the workshop, and she explained, intergenerational learning spaces is happening in rural communities, food security, food programmes

children initiate it when they are still young, children are picking wild greens and go house to house selling these wild greens and those kids already show that they are holders of knowledge about food, etc of their communities. Subsistence farming is happening from children to elders as a way of living while the government and other stakeholders pay attention to big commercial farmers when thinking about food security. Pat and Prof Netshandama, as they grow like that with knowledge from childhood they can share their experiential stories and then combine with today's trends where it is said zero hunger and partnership while that was in my understanding communities have ways of making that there is zero hunger, partnership is also how communities partners from relatives, neighbours community village at large as that was when communities share seeds, harvests, but capitalism comes and disrupt that partnership. That is my understanding... Pat and Prof Netshandama understand what I am saying. Also Ravhuanzwo Fhumulani Madoc and Bunki (Dr Pitsoane) from her Tswana culture, Prof Akwasi can also add on that and I hope you Janet and Norma somewhere you have it in your indigenous cultures?

Akwasi: Yes, the culture in Ghana also stresses protecting nature and in particular the forest habitat (Arko-Achemfuor, 2021)

Janet: A prior question is what is my own Indigenous culture? Some of my ancestors came to Africa as Huguenots, another ancestor came as a Member of the London Geographical Society and advocated for Freedom of the Press and for human rights (Thompson, 1827)^{xxiii}. He was known by the Batswana as 'one on whom the light of day may shine'. Some on my Dad's side are from the UK who came to the Eastern Cape, many years after the arrival of the 1820 settlers. Personally I have been influenced by my mother who claims to be 'a Pantheist', a believer in nature (and as a Sunday School teacher she emphasised kindness to animals) and I was influenced by the beliefs of St Francis through my Mum and Dad. I study Mahayana philosophy and the wisdom of Indigenous people in Africa, Australia, Asia (including Tibetans and Sundanese) and the Americas and have been influenced through relationships with Indigenous wisdom growers as a researcher. From these experiences I learned about the Indigenous nature of relationality. Both Norma and I work on 'ubuntu', relationality and totemism in our joint work with Indigenous scholars and practitioners.

Norma: Yes, like Janet, I also have a non-homogenous cultural background – with many influences from different parts of the world. My grandparents immigrated from Eastern Europe to South Africa (due to discrimination against Jewish people). As far as multi-species relationships are concerned, my mom allowed me to keep many cats when I was young (about a dozen): I loved their company and think the feeling was mutual as they used to follow me around! My father was a very keen gardener and loved looking after the trees and vegetables too – he produced far more vegetables than we needed and he used to feed the children in the community who came to visit! He also decided to learn Zulu although he did not need it for his work in any way. It was so that he could communicate with people on the street when we used to go for walks in the neighbourhood. So I learned about good energies between people and between people and other life forms. And as Janet said, we were both keen to learn from Africans about the spirit of Ubuntu.

Mphatheleni: "Yes, Mupo created commons and interrelated spaces and ways...we all come from the same sources as human beings [as are all] other creations on Earth. But for me I understand that we should look back at the past, knowledgeable elders. Mupo gave them spirit to remember the origin of their experiences before capitalism drove people. The order [balance] was in the past ... indigenous ancestors far back... [Now] elders can remember how their ancestors lived well. I trust the origins [of Indigenous wisdom]".

Mphatheleni also mentions that:

"The purpose of cooking thophi and tshidzimba is for sharing purposes with family and neighbours. (Thophi is a Venda indigenous cuisine made of pumpkin and mealie meal combined) and tshidzimba (tshidzimba is made of traditional beans, mealie samp, raw peanuts, grind peanuts, or marula nuts). She also mentions that davha (community take turns on working together, to accomplish certain tasks like planting maize, and peanuts (for an individual family) and dzunde (is ploughing a field of the chief or

king with the community without being compensated). The purpose is to enable the chief or king to share the farming products with ... poor people, orphans, to curb hunger.”

Mphathe refers to the above as partnership of promoting zero-hunger.

“Thophi a yongo vhuya ya pfi muthu u bika aḷa e eṭhe, na tshidzimba. Davha, dzunde na zwiliwa zwa hone zwa mishumo iyo yo vha I si yone partnership naa u lwa na nḡala-zero hunger. Zwavhudi and many thanks grandmother Janet (makhulu)...hu pfi makhulu ndi tshiulu ri tamba ri tshi gonya..that is grandmother. role of action by grandchildren.”

Mphatheleni concluded by wishing goodness and thanked Janet who strives to work with *the students of her students* (like a grandmother) in many contexts. This links with the space and networks created by the team at Dzomo la Mupo, University of Venda (see Vhonanai and Nevhudoli, 2021) and University of South Africa.

Janet: “Thank you, we are working together as fellow nurturers who will hopefully be able to learn with a new generation of wisdom growers and to share what we can with them (and one another) by drawing on our own experience. ..”.

3.3 Relationality, caring and community education to protect the commons

Our research relies on focus group discussions and community based research. We hoped (and this has come to fruition) to encourage more enterprise in the community along the lines of regenerating a circular economy. We are using a specific way of doing action learning – where people come together to learn from one another through stories, dialogues to explore many ways of knowing which respect non anthropocentric ways of knowing and being. Furthermore we are experimenting with collaborative options in action. We are also collaborating and partnering with other organisations to increase our impact towards achieving our set goals and objectives. The commons is understood as both a process and a sense of connection to living systems, rather than merely a resource ‘held in common’, to cite Bollier (2011). Bollier and Helfrich (2012: xii) also stress the need to create:

“a culture of stewardship and co-responsibility for our common resources while at the same time defending our livelihoods... It asks us to think about the world in more organic, holistic and long-term ways.

Our community of practice is informed by the notion of relationality and ubuntu. As Romm and Lethole (2021:81) explain:

“Some authors emphasize that the African concept of Ubuntu intimates that humans need to care for other humans as well as animals, trees and rivers (as the biophysical world). We point out how this interpretation of Ubuntu, which implies a (spiritual) orientation towards furthering “cosmic harmony”, is tied to a moral standpoint to create more connectivity in seeking regenerative sustainability.”

Janet: “I particularly like the notion of distributive leadership where we all pool our knowledge and understanding in a respectful way to grow partnerships and to achieve common ground as this supports transformation. It is fortunate that our team shows considerable ‘emotional intelligence’, to use Goleman’s (1995) concept.”

3.4 Transformative regenerative education based on different ways of knowing

In terms of our praxis we see assumptions and values shaping all aspects of our work, thus following Wilson 2008:70 in his book “Research is Ceremony”. We see axiology, ontology, epistemology and methodology as a circle. Quite literally we draw together in a circle to emphasise collegiality, sharing and mutual support which in the African context is sometimes described as Ubuntu which encourages generosity as opposed to greed. Shawn Wilson also works in the area of health, identity, healing, education and wellbeing. Our basic assumption is that: We belong to the land and waters and we are one of many interdependent species. This has implications for the custodial and stewardship role of the Makhadzi (leaders), the chief and other members of the community. Our approach to community learning to reconcile oppositional us/them thinking is through participatory engagement using a combination of face- to- face facilitation, setting up demonstration projects and supporting opportunities for the communities to support one another and to share their learning more widely through workshops within a university environment, with organisations such as Dzomo la Mupo and PGSA (an organic farmers network) and through international conferences, such as the International Systems Sciences. We are relying heavily on learning from Indigenous elders and drawing on ancient wisdom, including the value of ecosystemic living (connectedness through the energy of Mupo). Our community of practice is inspired by the Makhadzi (women leaders) who have a great deal to teach others. In a recently submitted paper entitled ‘Earth jurisprudence, consciousness and knowing our place’ (McIntyre-Mills et al submitted 2023):

“Indigenous knowledge systems and systemic ways of knowing are so important in refuting the inevitability of poor decision making and case studies such as this one could help to develop new ways of understanding and a deeper understanding of what raising awareness and consciousness entails (Barlo et al, 2021)... Systemic engagement draws on a combination of ways of knowing (see Midgley, 200, 2014) and drawing on Rajagopalan and Midgley(2015)”, such as:

- *Experiential learning* based on years of practice recorded in myth, story and dance, such as the Dzomo la Mupo song, the ceremonies and rituals to protect sacred sites which helps environmental protection and can act as a form of governance (Studley,2019).
- *Practical hands on engagement to learn new skills*, such as preparing the soil and planting.
- *Propositional learning* based on Indigenous philosophies, western and eastern ideas expressed in oral histories and in community and NGO legislation as well as through innovative re-interpretations of culture, such as naming the food gathered from the forest, Makhadzi *fast food*, which they advertise on t-shirts with a phone number for marketing their organic food.
- *Presentational learning* based on arts, crafts, sciences and recordings.



Photo 1: Display of organic food grown and prepared by the community (Source: Enid Pitsoane, 2022)

All these ways of learning help people to make informed decisions are used co-creatively by the participants as detailed in this paper through the community of practice to make informed decisions as detailed below:

3.5 A learning community based on mentoring and co-learning

Volunteering by PGS, the community and academics helps to create a learning community based on mentoring around the practical and philosophical aspects of food (see McIntyre-Mills et al 2022c). In *Social Engagement to Protect Multispecies Habitat: Implications for Re-Generation and Food Security* (McIntyre-Mills et al 2021:315) and *Biopolitics and Food Security to Protect Social and Environmental Justice* (McIntyre-Mills 2021: 575) the nature of food security is explored in terms of relationality:

- What does food security entail?
- How does food security relate to human, animal and plant security?
- Why are multiple species relevant to food security?
- What is our relationship as human beings to food and the supply of food?

Some of these questions are also explored further in this paper and are dealt with more extensively in the detailed case studies discussed in the forthcoming volume.

3.5.1 A metalogue approach to weave together many strands of experience

Janet: “Part of the paper is written as a metalogue, which means an iterative conversation through which concepts can be explored to enable co-creation and weaving together our ideas spanning many ways of knowing. A metalogue approach also enables sharing our learning with one another and a wider audience in ways that respect one another’s different, but complementary forms of thinking through our shared praxis to try to find ways to regenerate the environment. In this way we extend *an ecology of mind* by drawing on the systemic approach of Gregory Bateson using this metalogue approach which he pioneered and through rich intertextual ‘warm data’ (see Nora Bateson, 2021). Together we follow stories (Tsing, 2015) of how food networks can help to re-generate people and places. Our ongoing

McIntyre-Mills J.J.¹, Makaulule, M.¹, Lethole, P.¹, Pitsoane, E.¹, Mabunda, B.¹, Mbodi, T.C.¹, Romm, N. ¹
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metalogue on culturally inspired custodianship spans many ways of knowing including the arts, social and natural sciences, spirituality and governance studies. As such our learning community network (Wenger et al, 2009, Senge, 2006) has serendipitously carried forward the notions of earth jurisprudence and wild law through focusing on food as a way to empower, educate and protect multiple species.^{xxiv}

In conceptual terms we extend the work of Freire (1970) through focusing on gender mainstreaming, multi-species relationships and the environment. Social and environmental justice need to be supported through jurisprudence and law. This paper builds on our previous papers^{xxv} (Lethole et al (2022), McIntyre-Mills, J.J. et al (2022a,b) and makes a plea for better governance based on Indigenous law (including the Uluru Statement of the Heart and Venda notions of Mupo, Living Systems), the Ecocide Law, Earth Jurisprudence and Wild Law. Each of the approaches will be discussed in turn and our joint paper will draw on the workshops and engagement through the community of practice. The case will be made that applying these governance principles is overdue.”

3.5.2 Earth Jurisprudence and Wild Law

Janet: “There is indeed nothing inevitable about imposed human laws that privilege the rights of some at the expense of this generation of living systems and the next. Lampkin (2022:30) explains that although the terms earth jurisprudence and wild law are used interchangeably *earth jurisprudence* is usually regarded as more philosophical than *wild law* that codifies the principles discussed in earth jurisprudence. Law is first and foremost a construct (see Burdon, 2010) that needs to be more systemic (Burdon, 2011: 159) and through engaging in our community of practice we explicate ways in which principles could be applied through education and community governance to protect living systems. One of the ways in which this systemic way of thinking is conveyed is through the ecological calendar using a form of soft systems (Checkland and Scholes, 1991) mapping and intergenerational engagement^{xxvi} with the support of traditional community leaders and custodians (Lethole et al, 2022, McIntyre-Mills et al 2022) which provides an innovative way of mapping and engaging.. across the generations. Mphatheleni explains that she has trained young facilitators who are now able to conduct the mapping process and to train others. “

Photos 3 and 4: Teaching and sharing knowledge on the systemic nature of all life through the ecological calendar



Source: Photographs taken by Lethole in 2022

A diagram of the calendar showing the past and the present was displayed on the side of the combi van. Mphatheleni has taught team members to gather data for the calendar and her helpers showed how the first ring addressed the sky, the second, the mountains, the third addresses planting and agriculture, the fourth

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the rivers and waterways and the 5th the areas where human beings make their dwellings. The mapping process has been discussed elsewhere^{xxvii} and enables an in-depth understanding of relationality across multiple species within a shared habitat.

Teaching is supported by engaging members to learn the mapping skill and then to apply them and to report back to the community. Action learning is supported through dance and story telling that includes and honours all the contributions by the participants.

Photo 5: Distributive leadership honours all the voices in a group



Source: Mphatheleni Makaulule, Dzomo la Mupo (2022)

Mphatheleni Makaulule stresses that Africa has a wealth of biodiversity and as a child she was taught by her father, an indigenous healer that they could collect herbs and many different fruits from the forest and stresses that the problems go beyond food insecurity – the problems are the result of destroying the fabric of life^{xxviii}. Thus, Earth Jurisprudence is the passion of Mphatheleni Makaulule who was invited to participate in the Wild Law Institute^{xxix} as a result of her role as protector of Mupo (living systems) together with others from other provinces in South Africa as an advocate for Wild Law and the Wild law Institute.^{xxx} Mphatheleni explains:

“all our sharing and commitment is to raise our voices and to contribute to common understanding. This is a way of life to protect the creatures. Children are told not to kill the creatures – to live with them. The Wild Law Institute supports intergenerational learning and ‘revisoning relationships’ to support ‘harmonious co-existing with nature’. It stresses the importance of protecting rights at every level – human beings should not dominateRivers have rights, birds have rights, insects have rights – these are the words of Thomas Berry We need to support the freedom of the wild animalsThe leopard skin, the horn of a rhino are being turned into a market. According to Vhavenda culture, it is not a new leopard skin that a chief or traditional leader wear when taking a throne, that leopard skin is a very old skin...Wild law teaches us to care and wild law teaches us to be guided by the spirit of our ancestors. We are reminded of how our ancestors lived in the times when they were on alive on Earth. If we look back, we will see the order which they were in, they were living in harmony with Nature, with other communities of lives, they respected animals, they respected rivers, they respected forests, they lived well governed by the notion that the commons must be protected. Wild law is about commons, every society every tribe has commons...that is how I understand and I hope this understanding is not individual understanding...life is about listening and learning when the spirit guides... sit in the forestsspirits will guide you our ancestors spirit is there in Nature to guide us....Aaa.”

Janet: “Thank you Mphatheleni for your wise words. Loizidou (2007:132 citing Judith Butler) speculates (drawing on Hannah Arendt too) that the political is always human centred; hence the phrase

‘the personal is political’. Human-centred (anthropocentric) choices are part of the problem. Biocentrism and ‘knowing our place’, is the first step if we choose survival. Our use of resources has overreached the biophysical limits and our species is quite literally cannibalising our future. Human politics is about who gets what, when, how and to what effect. It comes as a surprise for anthropocentric mindsets to discover that no matter what we decide, we are subject to nature’s rules.

Perhaps renewed humility and a realisation of urgency will ensure COP 27 is not another missed opportunity to address multispecies rights and a greater realisation of the need to do things differently. Greta Thunberg (2022) has also made a statement that human rights should not be abandoned when addressing climate change, a message which needs to be underlined in Egypt which has a poor human rights record in a sea side resort where there are 60 000 political prisoners (Uddin, 2022), but more effort also needs to be made urgently to address multispecies rights which includes addressing the cruel incarceration of animals who are commodified and trafficked. Furthermore, developed nations will need to reduce their use of resources by 80-90% (Rees, 2022, UN 1992) and time is running out.

Achieving a human demographic transition is premised on gender studies and empowerment which the organic farmer’s association (PGS^{xxxix}) has linked with their agenda and with whom our community of practice and the local communities are linked. Initiating a demographic transition through empowering women so that they have agency and are able to make decisions about how they live their lives, how many children they can cope with and the right to voice their ideas at home, the community, market and in governance could help to contribute to lowering the growth in the human population supporting de growth and rewilding. Action to bring about transformation through education, praxis and law provide the best hope for the future.”

Drawing on the Wild Law website^{xxxix} (of which Mphatheleni is one of the non-executive directors), earth jurisprudence can be explained as follows:

“While this concept is in many ways new and has grown substantially over the past 20 years, it can also be found in ancient traditions, particularly in indigenous laws and cosmologies. In practice, there is no single Earth Jurisprudence but a diversity of ‘bio-culturally specific’ Earth Jurisprudences, each of which reflect a particular human community’s understanding of how to regulate itself as part of the Earth Community.”^{xxxix}

3.6 Policy context: extending the United Nations Sustainable Development goals through regenerative praxis

Despite the worsening global situation there are a few glimmer of hope for example: the alliance across Brazil, Indonesia and DRC to protect forests and the tree planting efforts in Africa to which Dzomo la Mupo is contributing. Macron et al (2022)^{xxxix} stress that:

“Though no corner of the globe is safe, Africa is more vulnerable than any other continent to this planetary crisis...For Africa, climate change is an irreversible reality. It’s too late to turn back the clock. But we have a very narrow window to put coping mechanisms in place. That is why we have two priorities for the coming UN Cop27 climate summit in Egypt: keep the 1.5C warming target within reach, so as to avoid even worse impacts of climate change, and to radically accelerate climate adaptation action in Africa and in all vulnerable developing countries across the globe.”

A further concern is that renewables do not put corporation’s interests before the interests of social and environmental injustice as a result of displacement (Lakhani, 2022). Shiva (2022) warns in her plenary speech at the International Food Summit that farmers in Africa are at risk from large corporations who wish

to commodify the food cycle. Sadly, as I [Janet] finalise this paper, Cop 28 appears to be avoiding a major decision to phase out fossil fuels.

3.7 Statement of the problem: living beyond our limits

Janet: “Thank you Mphatheleni. Yes, as older participatory action researchers we need to think about the legacy our generation will leave to the next generation. The points you raise about living systems resonate strongly with my own views on the world informed by my values, experience and research. But let me start by citing Prof William Rees, the originator of the concept of the ecological footprint makes the case convincingly in an ISSS plenary (2022) that we are indeed living beyond our limits (Meadows et al, 1972). The latest environmental reports on Australia show that the rate of species extinctions is rising.

The notion that nation states together with market interest groups and associated companies should be allowed to plunder the environment for profit poses an ‘existential risk’ (Bostrom, 2011) or ‘existential dilemma’ Rees (2021)^{xxxv}: Rees (2021, 2022) makes the plea to address delusion and stresses the need to change our mind set and know our place in nature. He emphasises that in 2019 we were using more than 73 % of the earth’s resources and displacing other species and human beings.

4. WE EXPLORE POTENTIAL WAYS FORWARD

Janet: “A meeting with Stef Swanepoel of PGS explored some of our potential ways forward through participatory action research using systemic intervention in 2023 to focus on seed and soil protection whilst supporting engagement that addresses zero violence. This generation cannot look children or grandchildren in the eye and say “ we have done our best”.

The solution is to value what matters. We depend on nature, not vice versa. We need to “ know our place” and re-conceptualising ethics, governance and relationships(see McIntyre-Mills et al, forthcoming in affirmative intervention to support multispecies relationships). We have to begin with ourselves and realise that governance constructs need to honour, protect and defend the rights of earth, oceans, rivers and all forms of life that depend on a shared global habitat. One of the greatest current risks is colonising Wild Law and the sustainability agenda to support technology to grow the economy and ‘business as usual’. Some of the so-called ‘green washing’ is subtle and some quite blatant. Instead we need approaches that enable us to get off the current tread mill by re-generating our shared habitats and knowing our place. In South Africa many systems are not functioning including infrastructure for water, energy (electricity) and transport. The battle by civil society and NGOs to prevent the opening of new coal mines in Limpopo continues (Bega, 2022), despite the fact that this would be against the UN Sustainable Development Goals and the need to avoid fossil fuels, the article stresses that:

“Until January last year, the proposed mining area fell within the 8772 hectare Mabola Protected Environment, an area declared under the Protected Areas Act in 2014. But Mpumalanga MEC Vusi Shongwe revoked the protected area status...’

Bega (2022) explains that the civil society group has been working to halt the mining as it will jeopardise water security and they are also trying to re-instate the protected status of the area. Food prices are high in South Africa and unemployment is high. Adams (2022:13) poses three scenarios in which A nothing is done, B some interventions are made and C that “ short, medium and long term” plans are made and implemented to address all three sectors of water usage: agriculture(63%), municipalities (26%) and industrial sector(11%). Bega concludes that immediate action is required:

“ The water shortages and day zeros, the sewage and industrial effluent and limited access to clean water for millions of people should be evidence enough...”

Perhaps the greatest asset of is the potential for the Tshidzivhe community and other communities linked with the project is to achieve food sovereignty, in other words to become self-sufficient. Local food production and could be more important than anything else as the social, economic and environmental conditions in the world worsen. Strong, local communities that protect biodiversity could be more resilient than local communities that have to rely on their links to others for food – as they will face food insecurity. Ironically localisation and weak connectivity will be better /more resilient than globally networked communities reliant on external markets. This is a key point made by George Monbiot (2022) in his latest book ‘Regenesi’.

In this paper we explore this notion in terms of food, energy and water, unfortunately after providing a useful summary of research on the need to maintain biodiversity and the health of soils he seems to advocate for so-called ‘fake food’ which would open wide the potential for commodification and patenting all the aspects of the food system, from chemical fertilisers, to GMO seeds and finally to controlling the production of ‘fake food’. Vandana Shiva (2022) in her address to the World Food Summit exposes the dangers of reducing the number of small farms that continue to foster biodiversity and stresses that this is just another aspect of the same monocultural approach that destroys life, the very opposite of the argument for ‘growing life’ (Leu, 2021). Any process that breaks the regenerative cycle of farming with nature is problematic not regenerative.

William Rees discusses the concept of over reach in terms of the Ecological Footprint and makes a convincing case that humanity faces extinction. Rees stresses that the human population needs to decrease in size and in this paper we discuss their contentious view in relation to enabling a demographic transition (lower mortality and fertility) through empowering women to have more agency over decisions in their own lives at the domestic, community, market and state level (see Kabeer, 1999, Nussbaum, 2011).

Single celled (plant) proteins provide a way forward for food security to provide a base load for feeding humans. Monbiot stresses this shift will be essential along with localisation of food production (where this is still possible). This is a dangerous argument and one that is dismissed by Shiva (2022) as it commodifies food.

An important focus is on caring for the soil and developing a circular economy (as much as possible to protect local food security). Whilst Rees and Monbiot stress the need to rewild the forests and protect biodiversity, Monbiot does not explain the risks associated with trying to control the food production cycle in ways that ultimately destroy biodiversity by moving food production away from nature into factories. Life depends on photosynthesis which uses carbon to make food and thus removes carbon from the atmosphere whilst retuning life giving oxygen to the atmosphere.

Andre Leu engages in conversation with Vandana Shiva and they stress that it is possible to have a natural (not fake) vegetable diet (based on pulses or for example Jack Fruit for protein) and that the emissions from herbivores are reduced when they are free ranging and fertilising the soil.

Feeding herbivores grain in grain lots is the problem as it is not easily digestible and it is not their natural food. Whilst *some* argue that animal husbandry will need to decrease in the future, because emissions by farm animals are unsustainable – as a result of the inability to sustain the current (growing) footprint --*others* argue that free ranging animals fertilise the soil. There is place for free ranging animal husbandry but not food lots as Alan Savory suggests. We have already made this argument elsewhere (McIntyre-Mills et al 2021) and emphasise that wild animals play a vital role as well in fertilising and protecting habitat for photosynthesis - the basic process that ensures we have air to breathe and food to eat.

Taking the lead from their approach, this paper details ways to engage in localising food production which is the mission of the Tshidzivhe Community.. According to the South African policy paper (2022)^{xxxvi}

“ Biodiversity forms part of South Africans’ national identity and heritage. Biodiversity is also an important national asset and a powerful contributor to inclusive growth and job creation. Biodiversity, therefore, contributes to the goals of the National Development Plan (2030) by reducing poverty and inequality in South Africa though stimulating the economy, improving employment figures, building an

inclusive rural economy, and providing affordable health care, which all rely to some extent on biodiversity, health ecosystems, resilient ecological infrastructure, and environmental sustainability. Every decision taken, whether by government or individuals, effects the future of biodiversity. By investing in the restoration, protection and conservation of biodiversity assets and ecological infrastructure, and environmental sustainability. By investing in restoral, protection and conservation for biodiversity assets and ecological infrastructure, social and economic development is enhanced, while at the same time contributing to human wellbeing.”

It should be added that human wellbeing depends on the wellbeing of many plant and animal species which in turn depends on the wellbeing of our shared habitat.

4.1 Earth jurisprudence and Governance options

4.1.1 The importance of Mupo

Mphatheleni Makaulule explains that:

“Mupo” is a Venda word meaning “all of creation – the natural world”. According to Mphatheleni, “Mupo is life” and people cannot be healthy if Mupo is not healthy. The Mupo Foundation was founded with several goals in mind: to protect seed diversity and ensure food sovereignty; to restore the traditional power of Venda women; to empower youths by reconnecting them with their elders and heritage; and to protect Mupo by strengthening the Indigenous Venda knowledge system in which spirituality is rooted in ecology....”

Mphatheleni emphasizes the importance of trying to return to this value system, even if government officials and mining interests may not move to do so any time soon.”^{xxxvii}

4.1.2 Ecocide bill

Janet: “As detailed in our work on earth jurisprudence, consciousness and knowing our place, the ecocide bill reconceptualises the way in which human beings relate to one another and other species (McIntyre-Mills, 2021: 144) as follows”:

“The definition of ecocide has been recently reformulated (and extended from its original formulation) as follows by Higgins (2012) as the 5th Crime Against Humanity in her Tedex lecture:

“The extensive damage to or loss of ecosystems of a given territory, whether by human agency or other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished.”

Higgins (2016) develops the argument and summarises it at the 2018 Hague Peace Lecture (Higgins, 2018). In Planetary Passport (McIntyre-Mills, 2017) I suggest that a way to achieve rapid transformation is through enabling people to understand the importance of supporting a law that could help them to prevent the disruption of water, food and energy security through the introduction of more sustainable approaches through (a) on line engagement and (b) better balance between rural and urban areas. I draw on Higgins who explains that the national or post national federal level could support the law and pursue it through the International Criminal Court. In Planetary Passport I suggest that the ICC could also support change through scaling up the Aarhus Convention (1998, see McIntyre-Mills, 2014: 21) and that this could remedy

the way in which the nationalist social contract is currently framed by developing a planetary passport for ecological citizens who work together at multiple levels to protect their environment.”

Building on this research background the purpose of the paper is to make a contribution by speaking out on the need for transformation and the value of praxis to support localisation and social movements led by Indigenous leaders together with a learning community. Human beings tell stories and constructs make our world. We need a new story that draws on many ways of knowing to reframe governance based on knowing our place within living systems.

Peter Burdon explains the need for a systemic orientation (2011: 159) and that this entails drawing on:

“...principles uncovered in the scientific discipline of ecology, which is the "study of relationships, energy transfers, mutuality's, connections and cause-and-effect networks within natural systems" (Snyder 1995: 75). One example referenced by Berry and Cullinan is interconnectedness. Speaking to the consequence of this principle for human law, Cullinan notes that that ecological principles represent qualities of the universe and should be "understood as the design parameters within which those of us engaged in developing Earth Jurisprudence for the human species must operate" (Cullinan 2003: 84-85). ...The validity of any law depends on whether the authority that issues it has the power to do so. Earth Jurisprudence advocates a similar framework but recognises nature as the ultimate.”

4.1.3 Table: Transformative research for multispecies relationships – implications for rights across human beings and other species when considering policy on food, water and energy	
<p>Boundaries</p> <ul style="list-style-type: none"> The links across loss of habitat and pandemics and implications for multispecies relationships stressed by Jane Goodall^{xxxviii}, Donaldson and Kymlicka 	<ul style="list-style-type: none"> Where do we draw the line of inclusion and exclusion when we make policy? How could earth jurisprudence protect excessive misuse of resources that pose an existential risk?
<p>Perspectives</p> <ul style="list-style-type: none"> Need for re-framing what constitutes ethical thinking and practice. 	<ul style="list-style-type: none"> How can the size of the current ecological footprint be addressed ? Power imbalances need to be addressed to ensure that resources are not captured, stockpiled and misused at the expense of the majority of living systems in this generation and the next.
<p>Relationships</p> <ul style="list-style-type: none"> Frans De Waal - animals have a sense of empathy, fairness and ability to reciprocate Eva Meijer – animals communicate Susanne Simard, Monica Gagliano, Peter Wohlleben and Allen Rayner stress that plants communicate 	<ul style="list-style-type: none"> What are our relationships with others (human, animal, environment)? How can totemic relationships help to protect plants, animals and the landscape?^{xxxix} What can we learn from the teleonomy of Covid-19 about climate change, habitat loss, trafficking and containment of sentient beings? How can sentient beings be assured that they can express their capabilities so that they live a life worth living(Nussbaum, 2006, 2011)
<p>Systems</p> <ul style="list-style-type: none"> Social and environmental justice needs to underpin designs, that is, non - anthropocentric designs (e.g., Burdon,2011, Chilisa, 2017) 	<ul style="list-style-type: none"> How can we design our systems, our infrastructure and technology in ways that ensure we do not exceed our boundaries?

Source: This table is adapted from the version that appears in McIntyre-Mills et al (2022:463-4) in Transformative Education.

5. DISPLACEMENT, DISPOSSESSION AND RIGHTS

McIntyre-Mills et al (2022:463-4 and 2024 forthcoming) we explore the following questions:

- What potential pathways can promote opportunities and redress the food and water insecurity associated with a growing population and environmental destruction? (see McIntyre-Mills et al 2019b).
- What motivates people to transform their thinking and practice at a personal and political level? This is a central concern informed by a critical systemic approach (Midgely, 2000, 2021, Churchman,1971).

5.1 Land rights and Displacement

Our conversations explored colonial dispossession and land claims (by several families who claim rights to land on which the Kruger Park is located), the challenges by Mining companies targeting minerals such as diamonds and coal which would destroy the sacred Thathe Forest¹ and the fragile water sources in Limpopo.

Janet: To what extent could the Kruger Park perhaps become protected as a sacred site? To what extent could it serve to support the local communities through providing a market for their organic food, arts and crafts? The rights of mines to displace people has been challenged:

“The recognition of customary land rights is just a starting point. It’s crucial for the law, courts, the state and mining capital to take into account the history of African land dispossession. This is not only rooted in the non-recognition of African land holding systems, but also perpetuates the continued disposition of poor communities by the new rural frontiers of mining expansion.” Sonwabile Mnwana (2018) stresses that mining companies need to recognise rights, but in the case of the Kruger Park, a conservation area more collaboration is needed on sharing heritage and more conservation areas need to be declared.

Vhonani Netshandama: In 1998, following the Restitution of Land Rights Act 22 of 1994, the Makuleke community won back The Pafuri Triangle after protracted and complex negotiations with the South African National Parks (SANParks) in the South African Land Claims Court. A globally celebrated agreement called the Pafuri Triangle agreement was signed with SANParks whereby the community and SANParks would co-manage the land and thereby derive economic benefits from it, instead of returning to resettle there. However, it does seem like 20 years later, the implementation of the Makuleke co-management agreement is below expectations as a result of a plethora of challenges... Some of the challenges include: 1) intentions-dominance- not listening, negotiating in bad faith, lack of trust, etc. 2) Contractual arrangements that perpetuate dependence, rather than sustenance or independent social enterprises, etc. One of the main challenges is the issue of trust between the two parties involved; the Kruger National Park and the Makuleke community through the Communal Property Association (CPA)(see Weinberg (2021) on a ‘history of Communal Property Associations in South Africa. For example, in the year 2000 the CPA wanted to harvest their natural resources through the hunting of two elephants and two buffaloes to raise some much-needed funds. The KNP objected to this idea though the agreement states unequivocally clear that it is within the rights of the community to do so, as stated in the co-management agreement. This was viewed by the Makuleke as an attempt by the KNP to cling to power and to display this power in a way that was contrary to the agreement. One official of the CPA reminded that the KNP did not give up ownership of the Pafuri region without a fight and therefore the bitterness was displayed in almost all the initial meetings of the Joint Management Board (comprised of three officials from the CPA and three officials from the KNP). The CPA official said that the meetings were characterized by a zero sum; it was a “you win I lose situation”. There was no room for compromise from either party. This situation was exacerbated by the imbalance in expertise and capacity in the Joint Management Board (JMB). In the year 2000 the KNP was celebrating 100 years of existence-this is a hundred years of experience in conservation and

management whereas the Makuleke component of the JMB had no capacity nor expertise in the issues that were discussed in these highly skewed meetings. This gap in expertise was unfairly exploited by the KNP component of the JMB and hence the almost non-existent implementation of the co-management agreement in the first few years after the signing of the co-management agreement.”

Fhatuwani explained that each year he and his family are invited to visit Kruger so that they can perform ceremonies for their ancestors and a way to support the African heritage of the region could be to support the local organic farmer’s network. We also discussed rights of nature and built on our previous discussions about relationality and responsibility for Mupo spanning organic and in organic systems and custodianship for many species (see McIntyre-Mills et al, submitted, 2021,2022) which are now increasingly under threat as habitat is destroyed. Prior to our field visits a combination of face to face and zoom meetings laid the groundwork:

6. SUMMING UP AND CONCLUSION

The development problem addressed through the project focused on our concern that often migration from rural to urban areas results in rural-urban imbalance, youth (as well as other) unemployment and food insecurity. Our approach to addressing the problem is on working with various communities (under the auspices of Indigenous community leader Mphatheleni Makaulule) to encourage young people and others to set up enterprises that will serve them as well as their communities through a community of practice.

Food security needs to be supported through less reliance on animals for protein and more reliance on *local natural* plant based options. Participants discussed how algae is already used by local communities as rich protein source that was accessed in times of scarcity and which has also recently been marketed as a health food.

We are addressing poverty and gender issues that relate to power relations as well as food water and energy insecurity by encouraging re-wilding along with circular green local and regional economies along with a reliance on harvesting from the natural environment. This will also need to be supported on a greater reliance on alternative forms of protein.

Janet: We could use the ISSS panel opportunity in 2023 to raise the regional profile of the Limpopo region with PGS, Dzomo la Mupo and our community of practice and to stress the importance of localisation and creativity to support plant based diets. The physical location of the conference is in Kruger Park. We focus on multispecies relationships, wild law, governance and the organic circular economy within the region and the potential for post national regional partnerships to protect the commons. It could provide an opportunity to discuss the need to protect wild life and farming through protecting local farmers and not driving them off the land using the excuse of ‘re-wilding’ as a way to further commodify food and support the displacement of small farmers. The general idea is to create local economic development in line with the two Sustainable Development goals, namely: Zero poverty and No hunger. This is also in line with a concern to regenerate the community, including "nature" as part of the community (through the energy of MUPO in Venda).

Team: We measure success in terms of people's increased sense of wellbeing and sense of belonging to a community, including connectedness with all that exists (being part of a living system). We also measure it through the extent to which we help to create new social enterprises that support the circular green economy. We also measure it through the extent to which we help to create new social enterprises that support the circular green economy. The baseline against which we measured the success of the project is that before we started the project there were very few initiatives to work together to strengthen community resilience and regeneration of all the forces of life through co-operative social enterprise.

Pat Lethole and Mphatheleni: In Limpopo the Dzumo la Mupo network of villages includes Mabvete, Tshidzi, Ha Gumbu, Malambwana, Vhutanda, Mudzidzidzi, Vhutalu, Vuvha and Tshidzivhe and their Bamboo co-op

Vhonani: We also measure success through the living learning across the board (communities, students, learners, faculties, etc), across colour, gender and status, across disciplines – of an holistic one health approach – as humans interacting with the environment ... and we may track and report how the learning evolved or is evolving in years to come. It is a way of learning that requires unlearning as it still unsettles the dominant university way of learning...”

Hector describes the learning journey as deepening his understanding, a comment which we can all endorse:

“ I have learnt a lot on Vhavenda cultures, I witnessed life without financial ecosystem, while people lived happily without crime, without food from commercial grocery stores. ... I saw [t]he Mapungubwe ruins... The ancient village.. borders and meets three Southern African countries (Zimbabwe, Botswana and South Africa.”

Janet: “Yes Hector, this is an ancient trading route and perhaps one that needs to be restored ... Food security entails protecting many other species and it is dependent on how human beings relate to one another and Mupo. Our choices and decisions indeed shape our future.

Vive sums up the challenge as follows: “I would like to stress the need to strike a balance between ‘conserving nature’ and ‘preserving humanity’. So that, the new drive on ‘earth jurisprudence’ is not seen as posing threat to completely displace humans from ownership (since elements or parts of the earth are no longer [regarded as]objects but attained the same status equal to human subjects) and belonging into a community they are able to identify as home. Their dethronement from being the sole custodians of the earth should not be seen as attempt to displace (to give comfort to de-colonialists as well) but to attain the noble idea of co-dependence....”

Janet: We look forward to extending the dialogue and our networks to address the needs of people and the planet with you, Dzomo La Mupo and PGS.....We all see the potential for strengthening organic trade networks and spreading the wisdom of Mupo starting one village at a time to set up circular networks that are in the interests of local people, rather than in the interests of big corporations that place profits before the environment. We need to engage in projects that *do not* follow the rules of *business as usual* through greenwashing (Rees, 2022).

This is an issue that has been raised at COP 27, for example exporting energy, displacing people (Lakhani 2022a) and using the wrong kind of agricultural practices which degrade the soil, air and water systems. The silencing of four activists who interrupted Biden’s speech (Lakhani 2022b) responded to their ban:

“We’ve been locked out, our voices silenced,” said Johns, 39, a Washington state-based community organiser: “The climate collapse is coming, we are literally fighting for our lives. If we’re not allowed to advocate for our future, who will? ...”

Mphatheleni: “Aa....Greetings from Egypt We had a deep dialogue on Ancient wisdom for the pre Cop 27 ...what took us to the deepest level is wisdom of our ancestorsthe elements of life are water, air, earth and fire.

The challenge we are facing requires our presence, calmness...

Nature is the greatest healer... ceremonies help to focus our minds

The spirit, the cosmos the wisdom of our ancestors is the path to walk ... and find ways for education systems to connect with nature ... the future generations must not be disconnected from Nature.

Mupo is awakening – for Wild law, for Nature law to realize the sacredness of Mother Earth...”

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- ^{xiv} Greenfield, P. Weston, P. and Cecco, L. 2022." Cop15: Trudeau pledges £510m for Indigenous-led conservation projects Canada's prime minister calls on China, Russia and Brazil to expand protected areas for nature." <https://www.theguardian.com/environment/2022/dec/08/cop15-trudeau-pledges-510m-for-indigenous-led-conservation-projects>.
- ^{xv} Mabvete Community is in the arid Niani area.
- ^{xvi} Together Conny and Butshabelo formed Giyani PGS which is a volunteering organisation which was started in 2016 after Butshabelo and Conny graduated from 17 Shaft in Crown Mines, Johannesburg where they were trained as Agroecology Practitioners by Baba Mosa and Baba Alan Rosenberg. Giyani PGS was started at Nkomo Village The mandate of Giyani PGS is to empower women in the Limpopo Province to start their own backyard garden to produce their own poison-free vegetables as well as to graduate to commercial farming.
- ^{xvii} So far we have not used technology to mobilise findings – but we have involved the University of Venda and did have a panel discussion where community members participated so that we were not just disseminating but indeed discussing and dialoguing around our "findings. We have also had a panel discussion at the ISSS conference in July and we had a panel discussion at Univen, and we have been presenting findings in the women's forum at Unisa.
- ^{xviii} World Heritage Scanned Nomination File Name: 1099.pdf UNESCO Region: "Africa site NAME: Mapungubwe Cultural Landscape DATE OF INSCRIPTION: 5th July 2003 State party: South Africa criteria: c (ii)(iii)(iv)(v) decision of the world heritage committee: Excerpt from the Report of the 27th Session of the World Heritage Committee (Mapungubwe means place of black back jackals as given by chief Makahane).
- ^{xix} Sian Tilley-Nel The%20History%20of%20the%20mapungubwe%20Collection at the University of Pretoria %20STilleyNel.pdf
- ^{xx} Forestry, Fisheries and the Environment, Department of / Policy 2252 South Africa's Biodiversity 2022: Consultation on the Draft White Paper on Conservation and Sustainable use Report 46687
- ^{xxi} This paragraph draws on Garcia, R. 2017. 'One Welfare': a framework to support the implementation of OIE animal welfare standards. OIE Bulletin 2017: 1-8. Available at: https://www.onewelfareworld.org/uploads/9nt5/4/97544760/bull_2017-1-eng.pdf
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- ^{xxii} South African Government Gazette (2022) South Africa's Biodiversity: Consultation on the Draft White Paper on Conservation and Sustainable Use 46687
- ^{xxiii} His writing focused on the plants and animals whilst travelling with an escaped slave. This chance meeting possibly saved both their lives as they looked out for one another sharing their different skills. Thompson abhorred violence of any kind and helped to intervene in negotiations between rival groups.
- ^{xxiv} See Earth jurisprudence, consciousness and knowing our place: Protecting the commons (food, water, energy) through non anthropocentrism (McIntyre-Mills, J.J. Makaulule, Lethole, Achemfuor, Pitsoane, E). Note this will be submitted to SPAA by November 2022
- ^{xxv} Lethole, P. Makaulule, M. McIntyre-Mills, J. and Wirawan, R. (2022a) Chapter 18: Aa!! Venda women and social enterprise: Stepwise progress to regenerative and sustainable living by In McIntyre-Mills, J and Corcoran-Nantes (Eds) Transformative Education for Re- generative Development: Pathways to Sustainable Environments, Springer Nature. Singapore. Pp 353-372

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- ^{xxvi} See https://www.researchgate.net/figure/Supplied-by-Mphathe-Makaulule-shows-members-of-the-community-creating-their-ecological_fig5_362874291 to videos showing Makaulule explaining the ecological calendar and how it helps to re-generate systemic thinking and practice. Makaulule, 2021 and <https://www.youtube.com/watch?v=IszP5Uq-X50> cited in McIntyre-Mills, J.J. Lethole, P.V, Romm, NRA, Makaulule, M and Wirawan, R. (2022a) 'Re- designing education for regeneration and wellbeing: Exploring the potential of digital engagement' in Alain L. Fymat (Editor) The COVID context Society for the Advancement of Science in Africa, proceedings from 2020, 7th annual conference: COVID-19: Perspectives across Africa, page 277.
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- ^{xxviii} UNDRIP is vital to protect habitat as many indigenous peoples continue to feel and recognise their kinship with nature threatens the wellbeing of the sacred Thathe forest, for example in Venda.
- ^{xxix} <https://www.wildlaw.net/team-board-of-directors>
- ^{xxx} Founded by Environmental lawyer and Wild Law author, Cormac Cullinan.
- ^{xxxi} PGS body is PGS SA <https://www.pgssa.org.za/>
- ^{xxxii} <https://www.wildlaw.net/> ccessed 16th November
- ^{xxxiii} Wild Law <https://www.wildlaw.net/>
- ^{xxxiv} Macron et al (2022) stress that : “Africa is the continent most vulnerable to the climate crisis, but with the right support at Cop27 it can build a stronger, greener future. Emmanuel Macron as president of France; Macky Sall as president of Senegal and chair of the African Union and the PM of the Netherlands, Mark Rutte are making an effort to form partnerships to support tree planting in Africa.
- ^{xxxv} In a lecture titled Our human-caused Existential Dilemma. Prof. William Rees.: Competitively displaced other species https://www.youtube.com/watch?v=3Hy_soodK3U
- ^{xxxvi} Government Gazette (2022) South Africa’s Biodiversity: Consultation on the Draft White Paper on Conservation and Sustainable Use 46687
- ^{xxxvii} <https://www.wildlaw.net/board-of-directors-and-team/mphatheleni-makaulule>
- ^{xxxviii} <https://www.cnn.com/videos/us/2020/03/19/coronavirus-jane-goodall-acfc-full-episode-vpx.cnn> a b)
- ^{xxxix} Totemism is discussed in detail in McIntyre-Mills et al in ‘Earth jurisprudence, consciousness and knowing our place’ submitted to Systems Research and Behavioural Science.
- ^{xl} [Thathe Vondo Holy Forest, Limpopo | South African History Online \(sahistory.org.za\)](http://ThatheVondoHolyForest.Limpopo|SouthAfricanHistoryOnline(sahistory.org.za))