Webinar on

Issues raised by Digital Sequence Information on Genetic Resources for the rights of Indigenous Peoples and Local Communities to their Traditional Knowledge associated with Genetic Resources

> **Pierre du Plessis** 12 May2021

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IPLC rights and roles

IPLC rights to territories, resources (GR), knowledge (aTK), innovations and practices are recognised and protected to varying extents under:



- Customary law
- National law
- CBD
- Nagoya Protocol
- UNDRIP
- Right to grant or refuse FPIC for utilisation of GR and aTK (subject to domestic legislation)
- Right to benefit fairly and equitably from utilisation, on mutually agreed terms
- Increasing global recognition of crucial role in safeguarding biodiversity (not clear yet how included in P2020 GBF)

Traditional ABS model



Problems created by DSI creation

- FPIC is granted > GR and aTK accessed and used
- Genetic sequencing has become cheap, quick, ubiquitous
- Sequences (DSI) are shared on open-access databases (requirement for research funding, publishing results etc)
- DSI can be used to identify "embodied aTK" e.g. useful traits of traditional breeds, cultivars, medicinal plants (to the extent these are genetically encoded)
- Databases have no provisions or technical capacity for recording aTK (and resist efforts to add such information, even though it could easily be done)
- Most national ABS laws don't apply to DSI, no ABS user compliance regulations currently cover DSI

Problems created by DSI utilisation

- INSDC databases provide "open and free" access to DSI refuse to add terms and conditions, have disclaimers about possible existence of rights to the sequences
- Have "Country of Origin" labels, but these are not used consistently and never verified (issues of capacity, cost, legal liability, ...)
- DSI originating from IPLC GR (embodying aTK) ends up "mixed in" with, and not easily separated from, other DSI
- Large part of the value of DSI collections derives from ability to easily search large datasets for similarities and differences – "compare and contrast"
- Some uses involve thousands of sequences/accessions for reference and discovery, with none used in the eventual application

DSI – Third Party (Commercial) Use – Benefit sharing



"Invisible aTK"

- Genetic sequences that correspond to "embodied aTK" traits of value can only be identified by comparison with similar sequences from other accessions
- Discovery of sequences linked to "aTK traits" does not require reference to the specific aTK associated with any particular accession or sequence – researchers can e.g. identify a sequence that codes for higher protein content, or enhanced nitrogen fixation, from genebank materials, then search for similar sequences in databases
- Matching sequences may be found in GR sourced from IPLCs, without reference to the providers or their aTK
- Current "DSI ecosystem" enables users to bypass aTK and FPIC > makes recognising and respecting IPLC rights much more expensive and difficult than simply ignoring them

Are there better options?

- Provider countries and IPLCs face the same dilemma: DSI can be used to bypass ABS and negate their rights, but also create benefits to share
- Bilateral, negotiated "FPIC and MAT" solutions can only work in very specific cases, where the high value of an individual accession is recognised before access and sequencing, and use of the sequence restricted in MAT
- There seems to be an emerging consensus in the DSI discussions that a multilateral system for DSI benefit sharing would be the best option > IPLCs are potentially major beneficiaries because they provide(d) much of the most useful material, and they have the most credible claim to benefits directed at supporting sustainable use and conservation

For discussion by the panel:

- What are the issues?
- What are the options?
- How to ensure IPLC voices are heard and concerns addressed?