INTERNATIONAL COURT OF JUSTICE

The Peace Palace
The Hague, The Netherlands

THIRTIETH ANNUAL STETSON INTERNATIONAL ENVIRONMENTAL MOOT COURT COMPETITION 2025–2026

QUESTIONS RELATING TO PRIOR INFORMED CONSENT AND BENEFIT SHARING

ANECOYON

(Applicant)

v.

RIDUS

(Respondent)

MEMORIAL FOR THE APPLICANT

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18. Elisa Morgera & Elsa Tsioumani, *Commentary on the Nagoya Protocol on Access and Benefit-sharing*.
19. Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity*.

20. Chandra & Idrisova, "Convention on Biological Diversity: A Review of National Implementation," *Environmental Policy and Law* (2011).
21. Jinek, M. et al., "A Programmable Dual-RNA–Guided DNA Endonuclease in Adaptive Bacterial Immunity," *Science*, Vol. 337 (2012), pp. 816–821.

LIST OF ABBREVIATION

SR. NO.	TERM	ABBREVIATION
1.	International Court of Justice (ICJ)	ICJ
2.	Convention on Biological Diversity (CBD)	CBD
3.	Indigenous and Local Communities	ILC's
4.	Digital Sequence Information (DSI)	DSI
5.	Mutually Agreed Terms	MAT
6.	Conference of the Parties (COP)	COP
7.	International Union for Conservation of Nature Species Survival Commission	IUCN SSC
8.	Clustered Regularly Interspaced Short Palindromic Repeats	CRISPR
9.	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	CITES
10.	Research and Development	R & D
11.	Vienna Convention on the Law of Treaties (VCLT)	VCLT
12.	Prior Informed Consent	PIC
13.	Cartagena Protocol on Biosafety (Cartagena Protocol)	CARTEGENA PROTOCOL

14.	Sidney Animal Park	SAP
15.	United Nations	UN
16.	Mutually Agreed Terms (MAT)	MAT
17.	Vienna Convention on Law of Treaties	VCLT
18.	Access and Benefit Sharing	ABS
19.	Conference of the Parties Decision 16/2	COP 16/2
20.	Nagoya Protocol	NP
21.	Living Modified Organism	LMO
22.	Digital Sequence Information Access and Benefit Sharing	DSI-ABS
23.	Environmental Impact Assessment	EIA
24.	Anecoyon (AN)	AN
25.	Ridus (RD)	RD
26.	Cali Fund (Cali Fund)	CALI FUND

QUESTIONS PRESENTED

I

Whether Ridus's conduct in extracting and utilizing genetic material from the Royal Panther fossil complied with or violated the "prior informed consent" provisions of the Convention on Biological Diversity (CBD*)* and the Nagoya Protocol on Access and Benefit Sharing, to the extent that these provisions are applicable.

II

Whether Anecoyon's refusal to grant prior informed consent for the de-extinction project, on the basis of ecological and ethical objections, is consistent with or contrary to the objectives of the CBD.

III

Whether, as an initial matter, digital sequence information (DSI) used for de-extinction activities constitutes "biotechnology" within the meaning of the CBD and the Nagoya Protocol.

IV

If DSI used for de-extinction constitutes biotechnology, whether the Sidney Animal Park is (a) a "user of DSI on genetic resources" for purposes of CBD Decision 16/2, and (b) engaged in a commercial activity within one of the sectors listed in CBD Decision 16/2, thereby triggering benefit-sharing obligations to the Cali Fund.

STATEMENT OF JURISDICTION

Anecoyon and Ridus (collectively, "the Parties") appear before the International Court of Justice in accordance with **Article 40(1)** of the *Statute of the International Court of Justice* through the submission of a Special Agreement for the resolution of their differences concerning the case "Questions Relating to Prior Informed Consent and Benefit Sharing in the Context of De-Extinction."

The Parties have referred the dispute to the Court, granting it jurisdiction under **Article 36(1)** of the Statute of the International Court of Justice. The Parties concluded the Special Agreement in The Hague, the Netherlands, and jointly notified the Court of their Agreement on 12 June 2025**.**

Both Parties are Members of the United Nations and States Parties to the Statute of the Court. Accordingly, the Court has jurisdiction to entertain the case and render judgment on the questions presented in the Special Agreement.

STATEMENT OF FACTS

- The Royal Panther (*Puma royali*), a species once native to the Passager Peninsula, became extinct about 6,000 years ago. Fossil and cave-painting evidence of the species exists in both Anecoyon and Ridus, but the most complete fossil remains were found in Anecoyon due to favorable climatic and geological conditions.
- Anecoyon and Ridus, formerly provinces of the Kingdom of Mammuthus, became independent States under the 1914 Treaty of Separation. Both are Members of the United Nations and Parties to the Convention on Biological Diversity (CBD), the Nagoya Protocol on Access and Benefit Sharing, and CITES.
- In 2009, Anecoyon's Ministry of Natural Resources loaned the Royal Panther fossil to the National Museum of Ridus for 20 years for "educational and scientific research." The Museum, recognized as a State organ of Ridus, accepted the specimen under those terms.
- In 2020, the Museum announced that it had extracted DNA from the fossil and intended to reconstruct the Royal Panther through "de-extinction" and reintroduce it into protected areas in Ridus. Anecoyon was not consulted before this announcement.
- On 27 September 2022, Anecoyon formally protested, asserting that as the *country of origin of the genetic resource* it retained sovereign rights under Article 15 of the CBD and Article 6 of the Nagoya Protocol. It demanded that no further use of the DNA or its derivatives occur without its *prior informed consent (PIC)* and warned of ethical and ecological risks of de-extinction.

- Ridus replied that no PIC was required, claiming that the fossil had been obtained before the Nagoya Protocol entered into force and that the loan agreement already permitted scientific research. It further argued that the Royal Panther was a transboundary species, entitling both States to access under Article 11 of the Protocol.

- Anecoyon rejected those arguments, stating that the DNA extraction and digital sequencing occurred after the Protocol's entry into force and therefore constituted new utilization requiring consent. In 2023, it enacted legislation banning the use of any genetic material from its territory for de-extinction and demanded the fossil's return.

- Although Ridus returned the fossil, it continued the project, publishing the Royal Panther's digital sequence information (DSI) in 2024 and partnering with Salols Co. to create two living panthers, *Ixchel* and *Itzamna*, using CRISPR technology.

- The two panthers are kept at the Sidney Animal Park in Ridus, where visitors pay an additional USD 40 to view them; 50,000 visitors did so within six months. Anecoyon asserts that these activities constitute *commercial use of DSI* under CBD Decision 16/2 and require benefit-sharing contributions to the *Cali Fund*.

- Ridus refused to contribute, maintaining that the project is non-commercial and conservation-oriented. Negotiations failed, and the case was submitted to the International Court of Justice to determine whether Ridus's actions violated the CBD and Nagoya Protocol requirements on prior informed consent and benefit sharing.

SUMMARY OF PLEADINGS

Issue I

Ridus breached its obligations under the *Convention on Biological Diversity* and the *Nagoya Protocol* by using the Royal Panther's genetic material without Anecoyon's prior informed consent. The 2009 loan did not meet PIC requirements, as it lacked formal authorization and disclosure. Conducting de-extinction after the Protocol's entry into force violated Anecoyon's sovereign rights and the treaties' object and purpose. Ridus also failed to consult Indigenous communities or implement user-country compliance measures. Its Defences of non-retroactivity and scientific purpose are untenable, rendering its actions an internationally wrongful act requiring cessation and reparation.

Issue II

Anecoyon's refusal to permit the Royal Panther's de-extinction is a lawful and precautionary exercise of its sovereign rights under the *Convention on Biological Diversity*. The decision advances the Convention's objectives of conservation, sustainable use, and equitable benefit-sharing. Since de-extinction constitutes "modern biotechnology" under the *CBD* and *Cartagena Protocol*, it requires prior risk assessment and authorization. Guided by *Articles 8(g)* and *14* of the CBD and the *precautionary principle* in *Rio Principle 15*, Anecoyon acted with preventive diligence amid scientific uncertainty, ensuring biosafety, protecting existing species, and upholding equity.

Issue III

DSI falls within the CBD's definition of "biotechnology" because it is a "derivative" used to make or modify biological systems, satisfying Article 2 CBD when interpreted under Article 31(1) VCLT. The de-extinction process relied on DSI for genome reconstruction, CRISPR editing, and creation of living organisms—activities that constitute research, development, and biotechnological application. Excluding DSI would undermine the CBD/Nagoya objectives by allowing ABS circumvention. COP Decision 16/2 and consistent State practice confirm that DSI-based activities generate benefits requiring sharing. Under Article 2(c) Nagoya Protocol, DSI-driven R&D is "utilization of genetic resources," triggering PIC and ABS obligations.

ISSUE IV

Sidney Animal Park qualifies as a user of DSI under Decision 16/2 because it derives commercial benefit from animals created entirely through DSI-based processes, fitting the Decision's wording on entities that "directly or indirectly benefit." The causal chain from sequencing to synthetic recreation to exhibition shows SAP monetizes DSI-derived outputs. Its revenue levels meet Decision 16/2's commercial thresholds, and its breeding and display activities functionally align with listed sectors such as biotechnology and animal breeding. CITES classifications do not override CBD/Nagoya objectives, which prioritize equitable benefit-sharing. Excluding SAP would undermine the Decision's purpose and permit circumvention of ABS obligations.

PLEADINGS

I. WHETHER RIDUS'S CONDUCT COMPLIED WITH OR VIOLATED THE PRIOR INFORMED CONSENT PROVISIONS OF THE CBD AND THE NAGOYA PROTOCOL?

The actions of the State of Ridus constitutes a violation of its international obligations under the *Convention on Biological Diversity (CBD) and the Nagoya Protocol.* The procedural requirement of *Prior Informed Consent (PIC)* forms the cornerstone of both instruments and acts as the mechanism through which provider States safeguard their sovereign rights and ensure equitable benefit-sharing[1]. Ridus's unauthorized extraction and utilization of the genetic material of the Royal Panther, which is an extinct species indigenous to Anecoyon for the purpose of genomic sequencing and de-extinction research, tantamounts to an act undertaken without Anecoyon's knowledge or consent[2].

The interpretation of the text of the instruments is of the utmost significance in the present case. The activity of genome sequencing through CRISPR-Cas9 technology fundamentally defeats the *raison d'être* of the Convention, which is directed towards the safeguarding of the interests of the endangered species including its protection, and conservation. In contradistinctions with these objectives, the extraction tantamounts to usurpation of these core objectives in preference of anthropocentric or community-specific considerations.

[1] Dupuy & Viñuales, *International Environmental Law* (CUP 2018) 71–73

[2] ANNEX A, Para. 15-16

i. Subversion of the Plain Meaning and Legal Intent of the Convention on Biological Diversity through the Genomic Reconstruction Project

Article 15 of the CBD establishes that States have sovereign rights over their natural resources and the authority to determine access to genetic material in accordance with their national legislation. Article 15(5) of the Convention provides that access to genetic resources "shall be subject to the prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party. The relevant clauses are reproduced below with ready reference[3]:

> ***(5)*** *Access to genetic resources shall be subject to the prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party..."*

The phrase "*shall be subject to*" in Article 15 imposes a binding obligation, not discretion. As Dupuy notes in *International Environmental Law*, this marked a shift from viewing genetic material as the "common heritage of mankind" to recognizing State sovereignty and shared responsibility. The colonial-era heritage doctrine enabled open access to biological resources from the Global South. In contrast, the CBD reasserts sovereign equality, placing control with the State of origin through national authorization. Access to genetic resources thus transformed from a scientific entitlement into a legal arrangement governed by consent, equity, and international conservation norms. This normative shift transformed access to genetic resources from a privilege of scientific freedom into a matter of consent, legality, and equity between States.

Moreover, reference is drawn to Article 15 paragraph 3 reproduced below with ready reference

[3] The convention on biological diversity (CBD),1993

> *3. For the purpose of this Convention, the genetic resources being provided by a Contracting Party, as referred to in this Article and Articles 16 and 19, are only those that are provided by Contracting Parties that are countries of origin of such resources or by the Parties that have acquired the genetic resources in accordance with this Convention.*

This clause establishes that only the country of origin or a State with lawful acquisition may provide genetic resources. This defines jurisdictional legitimacy under the CBD.

As Dupuy notes in *International Environmental Law*, this reflects a paradigm shift from the "common heritage of mankind" doctrine, which enabled unfettered access to a sovereignty-based framework founded on equality and environmental responsibility. The **Nagoya Protocol**, in Article 6(1), preserves this boundary by requiring that access "shall be subject to the prior informed consent of the Party providing such resources that is the country of origin."

It is humbly submitted that the 2009 loan agreement cannot constitute valid prior informed consent. The element of "prior" requires that authorization be granted before any act of utilization; "informed" requires full disclosure of the intended purpose; and "consent" must be provided by the competent national authority empowered under domestic legislation. This interpretation is consistent with the ***CBD Secretariat's Explanatory Guide*** which affirm that prior informed consent cannot be implied or granted ex post.[4] While commentary (Glowka et al., 1994) suggested that Article 15(5)'s closing clause allowed flexibility in implementation, subsequently COP decisions and the Protocol's operational text have confined such discretion to procedures defined in national legislation, thereby confirming the mandatory and sequential nature of the PIC

[4] CBD Secretariat's Explanatory Guide to the Nagoya Protocol (2012) at 62-63 and Morgera et al. (The Nagoya Protocol Commentary, 2014, pp. 112-115),

obligation[5]. The limited museum loan for "scientific and educational purposes" was neither informed nor specific. As observed by the ICJ in ***Whaling in the Antarctic (Australia v. Japan, 2014)***, treaty terms must be applied in light of their object and purpose, and conduct that undermines conservation cannot be justified by mere self-description as "scientific research."[6] Ridus's invocation of "research" cannot excuse its failure to secure authorization from Anecoyon's designated authority.

ii. <u>The Nagoya Protocol Operationalizes and Strengthens the PIC Obligation by Imposing Procedural and Substantive Duties on User States</u>

Article 6(1) provides that access to genetic resources for their utilization

"Shall be subject to the prior informed consent of the Party providing such resources that is the country of origin."

The use of the word "***shall***" signify a mandatory obligation, while Article 6(3) requires that access be subject to mutually agreed terms (MAT) and be evidenced by a permit or equivalent certificate of compliance recorded in the Access and Benefit-Sharing Clearing-House.

No such authorization or permit exists in this case. Ridus's scientific institutions did not apply to Anecoyon's National Competent Authority, nor did they negotiate benefit-sharing arrangements that would have supported conservation efforts. The ***Nagoya Protocol Commentary*** **by Elisa**

[5]Glowka, L., Burhenne-Guilmin, F., Synge, H., McNeely, J. A., & Gündling, L. (1994). A Guide to the Convention on Biological Diversity. Gland and Cambridge: IUCN – The World Conservation Union.,

[6] Whaling in the Antarctic (Australia v. Japan: New Zealand intervening), Judgment, I.C.J. Reports 2014, p. 226.

Morgera and Elsa Tsioumani clarifies that Article 6 "*provides the procedural backbone of the Protocol's architecture" and that its observance "is indispensable to ensuring equity and predictability in research collaborations."* [7]

Furthermore, Article 2(c) of the Protocol defines

> "Utilization of genetic resources" as "*to conduct research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology*."

The act of sequencing and reconstructing the Royal Panther's genome squarely constitutes utilization within this definition as noted in **COP Decision XIII/16**, digital sequence information and other derivatives of genetic material fall within the spirit and intent of the ABS framework. The purpose of these instruments is to prevent misappropriation of biological value, not to limit it to living organisms.

In **the *Aegean Sea Continental Shelf***, the ICJ emphasized that treaty interpretation requires attention to linguistic precision and to the intention of the parties at the time of conclusion.[8] The intention behind the Nagoya Protocol was to close loopholes that had enabled biopiracy under the CBD. Ridus's reliance on an old loan agreement and its unilateral classification of the project as "scientific" are precisely the loopholes the Protocol sought to eliminate.

Beyond State-to-State obligations, the Nagoya Protocol explicitly recognizes the rights of indigenous and local communities (ILCs) in relation to traditional knowledge associated with genetic resources. Article 7 requires Parties to take measures ensuring that access to such

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[7] **Morgera, E., & Tsioumani, E.** (2014). Unraveling the Nagoya Protocol: A Commentary of the Protocol on Access and Benefit-Sharing to the Convention on Biological Diversity. Leiden: Brill/Martinus Nijhoff

[8] Aegean Sea Continental Shelf (Greece v. Turkey), Judgment, I.C.J. Reports 1978, p. 3.

knowledge occurs with the prior informed consent or approval and involvement of the communities concerned, while Article 12 mandates respect for their customary laws, community protocols, and procedures.

Anecoyon's communities have historical ecological knowledge of the Royal Panther's habitat, and role within local ecosystems. This constitutes traditional knowledge associated with a genetic resource within the meaning of Article 7. As elucidated in ***Community Protocols***, community-based consent mechanisms are integral to ensuring that access agreements reflect cultural values and promote equitable outcomes.[9] Ridus' failure to consult these communities represents a disregard of an internationally recognized human-rights dimension within environmental law.

The jurisprudence of the ICJ in ***Gabčíkovo-Nagymaros Project*** reaffirmed that cooperation and mutual respect are essential elements of environmental treaty performance.[10] By excluding community voices and acting unilaterally, Ridus violated both the procedural and substantive equity principles underpinning the CBD and the Nagoya Protocol. It is humbly submitted that such conduct cannot be reconciled with the requirement of good-faith implementation of treaties under Article 26 of the VCLT (***pacta sunt servanda***).

[9] **Jonas, H., Bavikatte, K., & Shrumm, H.** (2012). *Consent and Conservation: Lessons from Community Protocols for ABS, REDD+ and beyond.* London: International Institute Environment and Development (IIED).

[10] Gabčíkovo-Nagymaros Project (Hungary v. Slovakia), Judgment, I.C.J. Reports 1997, p. 7.

II. WHETHER ANECOYON'S REFUSAL TO CONSENT, BASED ON ITS OBJECTIONS TO DE-EXTINCTION, IS COUNTER TO THE OBJECTIVES OF THE CONVENTION ON BIOLOGICAL DIVERSITY (CBD)

It is humbly submitted that Anecoyon's refusal to authorize the de-extinction of the Royal Panther does negate the objectives of the Convention on Biological Diversity (CBD). To the contrary, the refusal represents a lawful and prudent exercise of sovereign rights enshrined in the Convention's conservationist teleology, the precautionary approach, and the equitable benefit-sharing framework codified in Articles 1, 8(g), 14 and 15 of the CBD with Articles 2(c), 5 and 6 of the Nagoya Protocol and Articles 3(i) and 15 of the Cartagena Protocol on Biosafety.

De-extinction is an experimental form of synthetic biology based on digital sequence information (DSI) and genome reconstruction is contemporary *modern biotechnology* within the meaning of Article 2 of the CBD and Article 3(i) of the Cartagena Protocol. Consequently, Anecoyon' refusal to consent was not a violation of but an application in the opposite direction of its treaty obligation that access to and use of genetic resources should be environmentally sound, risk controlled and fairly regulated.

i. The Objectives of the CBD Require Conservation-Centered and Risk-Sensitive Use, Not Unrestrained Technological Experimentation

The CBD lists in Article 1 three mutually supportive objectives:

> *(a) conservation of biological diversity; (b) sustainable use of its components and (c) fair and equitable sharing of benefits arising out of the utilization of genetic resources.*

They provide an organizing principle (conservation), with the other two sharing a conditional and instrumental relationship to it as subsidiary premises. As noted by Dupuy and Viñuales environmental treaties must be interpreted as *living instruments*, where the preambular values inform the operative provisions.

Anecoyon's rejection to approve a speculative de extinction project was therefore an act of treaty's faithfulness rather than disobedience. Rather than the anthropocentric pursuit of technical innovation, the act benefited the CBD's primary goal, which is the preservation of biodiversity in its natural integrity.

ii. The Refusal Reflects Treaty Fidelity Under the VCLT's Teleological and Contextual Interpretation

The Vienna convention on the law of treaties (VCLT) stipulates in Art. 31-32 that the CBD must be constructed in good faith in accordance with the usual interpretation of its contents in their context and in light of its intent and purpose.

Using this approach, Articles 8(g) and 14 of the CBD establish a *precautionary consent architecture*, requiring States to control and, if needed, limit actions that could seriously harm biodiversity. Each party is required by Art. 8(g) to set up procedures for regulating, managing or controlling the risks associated with the use and release of living modified organisms resulting from biotechnology. Environmental impact assessments are required for projects likely to have significant adverse effects under Art.14(1)(a). The text is reproduced as:

> **8(g)** *"Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts*

> *that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health."*
>
> **Article 14(1)(a) "***Each Contracting Party, as far as possible and as appropriate, shall introduce appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity, with a view to avoiding or minimizing such effects…"*

These clauses clearly apply to the state of Anecoyon's Refusal. De-extinction which includes chimeric implantation, in vitro nucleic acid synthesis and possible release of reconstituted species, is classified as biotechnology under the CBD and Cartagena Protocol. Synthetic biology is a "*further development of modern biotechnology*", as acknowledged by the COP, requiring strict regulatory mechanisms. The Cartagena Protocol Article 3(i) identifies "modern biotechnology. The text is produced as:

> ***"****Modern biotechnology****"*** *means the application of:*
>
> ***a.*** *In vitro nucleic acid techniques, including recombinant deoxyribonucleic acid (DNA) and direct injection of nucleic acid into cells or organelles, or*
>
> ***b.*** *Fusion of cells beyond the taxonomic family,*
>
> *that overcome natural physiological reproductive or recombination barriers and that are not techniques used in traditional breeding and selection.*

This subsequent agreement and practice demonstrate the parties' mutual understanding that high-risk synthetic biological activities require prior authorization and risk assessment in accordance with VCLT Article 31(3)(a)(b):

> *(3) There shall be taken into account, together with the context:*
>
> ***(a)*** *any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions;*
>
> ***(b)*** *any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation*;

It is respectfully asserted that Anecoyon's decision was driven by genuine ecological concern. Unpredictable outcomes of the intended recreation of the Royal Panther, a species that has been extinct for centuries, include pathogen transfer, trophic chain disruption, and hybridization with current fauna. Article 8(d) CBD requires Parties to regulate processes likely to have significant adverse effects on biodiversity:

> *Each Contracting Party shall, as far as possible and as appropriate:*
>
> ***(d)*** *Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings;*

According to the Court's ruling in Whaling in the Antarctic, "*scientific research*" must be evaluated based on its design and conservation coherence. Research that "contributes to the conservation and sustainable use of biodiversity" is likewise protected under Article 12 CBD. The de-extinction initiative lacks ecological risk assessment, reversibility analysis, and peer-reviewed validation, according to Anecoyon's scientific study. Thus, the only legal option was to refuse it. Additionally, the IUCN SSC Guiding Principles on Creating Proxies of Extinct Species (2016) recommend "*extraordinary caution*" and give protection of extant species precedence over

hypothetical revival. Although not legally binding, these guidelines guide interpretation under VCLT Article 31(3)(b) because they represent the Parties' subsequent practices.

iii. The Refusal Upholds the Objective of Sustainable Use by Ensuring Responsible Technological Application

Sustainable use of biodiversity components does not mean unrestricted use. According to Chandra & Idrisova (2011), exploitation must not jeopardize current biodiversity assets or divert conservation capacity in order to be considered "sustainable" in national CBD implementation. Significant resource diversion, possible containment failure, and reliance on unproven biotechnology were all part of the Respondent's proposal. Aichi Targets 12 and 13 of the CBD Strategic Plan (2011-2020), which instruct States to prevent the extinction of identified threatened species and preserve the genetic diversity of existing populations, would have been violated if such an effort had been approved, displacing Anecoyon's conservation resources. The verbatim of Aichi Targets 12 and 13 are reproduced below:

> *Target 12*
>
> *"By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained."*
>
> *Target 13*
>
> *"By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally*

> *valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.*

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Sustainable use entails temporal prudence that is the postponement of actions until governance capacity and ecological certainty are achieved. In *Southern Bluefin Tuna*, the Tribunal held that States must act with "*prudence and caution*" where scientific uncertainty exists.[11] Anecoyon's refusal embodies this standard.

Accordingly, the refusal preserves the sustainable use objective, it ensures that use of biodiversity proceeds only where ecological sustainability and benefit-sharing frameworks exist and where it does not negate the principles acknowledged in CBD.

[11] Southern Bluefin Tuna Cases (New Zealand v. Japan; Australia v. Japan), Provisional Measures, ITLOS Order of 27 August 1999, para. 77.

III. WHETHER, AS AN INITIAL MATTER, DSI USED FOR DE-EXTINCTION ACTIVITIES IS "BIOTECHNOLOGY" FOR PURPOSES OF THE CBD AND THE NAGOYA PROTOCOL

i. DSI Falls Within the CBD's Textual Definition of "Biotechnology"

Article 2 CBD defines biotechnology as: ***"any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use."***

Applying Article 31(1) VCLT:

***"A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose.*"**

The CBD's phrase **"any technological application"** is intentionally broad and unbounded by form or medium. The inclusion of **"derivatives"** does not limit derivatives to purely biochemical matter; it captures items functionally derived from genetic resources. The Royal Panther DSI is precisely such a derivative: a digitally encoded representation of genetic information obtained from Anecoyon's fossil, subsequently used to reconstruct, design, and produce living organisms. Where DSI is used to design genetic constructs, direct genetic modifications, or generate organisms (as Ridus and Salols Co. did), those acts are technological applications that "use" derivatives under Article 2.

The record shows sequencing, comparative genomics, design of edits, and production of living animals (Record paras. 16, 31–33). These steps genome assembly, CRISPR-guided editing, insertion into host cells, embryo development and birth of Ixchel and Itzamna are paradigmatic modern biotechnological processes. The ordinary meaning of "make or modify products or processes" thus captures the full chain from DSI to engineered organisms: the DSI was an essential

technological input used to modify biological systems and produce organisms for specific uses (de-extinction, display, breeding, commercial entry).

Scientific authority demonstrates CRISPR's DNA-dependent RNA-guided endonuclease mechanism enabling precise genome editing. Ridus and Salols Co.'s reliance on CRISPR to manipulate DNA sequences derived from the fossil is therefore an application that "uses biological systems, living organisms, or derivatives thereof" under Article 2 CBD. A restrictive reading excluding DSI would contradict the textual breadth of Article 2 and frustrate the ordinary-meaning rule.[12]

ii. <u>Object and Purpose of the Treaty</u>

The CBD's Article 1 objects conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of benefits arising out of the utilization of genetic resources — require an interpretation that preserves the treaty's effectiveness.

The VCLT's "rule of effectiveness" obliges a reading that gives operative force to Article 2's broad phrasing. ICJ authority reinforces this approach: in *Kasikili/Sedudu Island* the Court emphasized that

"a treaty must be interpreted in good faith, in accordance with the ordinary meaning to be given to its terms in their context and in the light of its object and purpose…" interpretation that privileges text and purpose.[13]

Excluding DSI would permit circumvention of Access and Benefit-Sharing (ABS) obligations by converting genetic resources into digital form and exploiting them worldwide without sharing

[12] Jinek, M., Chylinski, K., Fonfara, I., Hauer, M., Doudna, J. A., & Charpentier, E. (2012). A programmable dual-RNA–guided DNA endonuclease in adaptive bacterial immunity. Science, 337(6096), 816–821.

[13] Kasikili/Sedudu Island (Botswana/Namibia), Judgment, I.C.J. Reports 1999, p. 1045.

benefits with provider States. Anecoyon is the origin State; Ridus obtained and used the DSI post-Protocol entry into force, and downstream commercial benefits (Sidney Animal Park fees, breeding programs) flow directly from that utilization (Record paras. 33–36). Such outcomes contradict the CBD's core aims and the Protocol's objectives of equitable benefit-sharing and sustainable use. A purposive reading therefore supports inclusion of DSI-based applications within biotechnology and ABS.

Article 31(3)(b) VCLT states:

"Any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation" is relevant.

COP Decision 16/2 ("Digital Sequence Information on Genetic Resources") recognizes that DSI use generates monetary and non-monetary benefits requiring fair and equitable sharing, and establishes modalities (the Cali Fund) for a multilateral benefit-sharing mechanism (Decision 16/2, para. 2). Adoption of Decision 16/2 reflects Party practice acknowledging DSI as an integral component of genetic-resource utilization, not an external or excluded category.

Ridus itself supported the Cali Fund modalities at COP16/NP-MOP5 (Record para. 13), demonstrating that Parties and affected States treat DSI as subject to ABS. This subsequent practice shows that the global community views DSI-based use as functionally equivalent to physical genetic-resource utilization; the COP's modalities explicitly target sectors — biotechnology, breeding, and related industries — identical to Ridus's activities. Consequently, Party practice confirms that DSI-based de-extinction activities fall within the CBD/Nagoya ABS framework.

iii. The Nagoya Protocol's "Utilization of Genetic Resources" Encompasses DSI- Based Biotechnology

Article 2(c) Nagoya Protocol provides:

"'Utilization of genetic resources' means to conduct research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology."

This definition links R&D on genetic composition with biotechnology and expressly contemplates technological evolution. The sequencing, digital analysis, synthetic reconstruction, and CRISPR engineering in Ridus's program constitute textbook research and development on genetic composition, and the phrase **"including through the application of biotechnology"** demonstrates technological breadth intended to capture modern methods. Article 6 further requires Parties to provide for prior informed consent (PIC) and mutually agreed terms when access is regulated — procedural protections that attach to utilization occurring after the Protocol's entry into force. The Record shows that although the fossil loan was historical, the utilization (sequencing, DSI use, engineering) occurred later (Record paras. 16, 20, 27–28). The Protocol therefore applies to DSI-driven R&D and obliges PIC and benefit-sharing.

A narrow reading excluding DSI would undermine the Protocol's capacity to ensure equitable benefits from new biotechnologies; the Protocol's wording and operative obligations instead support inclusion of DSI-based applications within "utilization."

iv. Establishment of DSI as an Essential Component of Biotechnology

Modern genetics and synthetic biology are built on digital sequence data: sequencing, computational design, synthetic construct assembly, and genome editing are inseparable steps that

begin with DSI. In this case Salols Co. used DSI to compare genomes, design CRISPR edits, synthesize sequences, implant embryos and produce viable offspring — a continuous technological chain culminating in living animals whose existence depends on DSI-driven processes (Record paras. 31–36).

Anecoyon repeatedly asserted that the loan did not authorize de-extinction or derivative use without consent; Ridus proceeded post-return and post-Protocol with R&D based on the DSI (Record paras. 18–22, 27). That conduct confirms that DSI served as the object of utilization; treating it as a derivative requiring ABS aligns with scientific reality and equitable-state practice.

Taken together, the CBD text (Article 2), the VCLT interpretive framework (Article 31 and subsequent practice under Article 31(3)(b)), COP Decision 16/2, the Nagoya Protocol's definition of "utilization" (Article 2(c)) and Article 6 procedural obligations, plus scientific practice, demonstrate that DSI-based de-extinction activities are modern biotechnological utilization. Excluding DSI would frustrate the CBD/Nagoya objectives, enable circumvention of ABS, and contradict both Party practice and the functional realities of contemporary biotechnology. Accordingly, DSI used for de-extinction falls within the scope of "biotechnology" and "utilization of genetic resources" under the CBD and the Nagoya Protocol.

IV. WHETHER THE SIDNEY ANIMAL PARK IS A USER OF DSI ON GENETIC RESOURCES FOR PURPOSES OF CBD DECISION 16/2 AND WHETHER THE SIDNEY ANIMAL PARK IS ENGAGED IN COMMERCIAL ACTIVITY COVERED BY A SECTOR CURRENTLY LISTED IN CBD DECISION 16/2.

i. Interpretation of CBD and Nagoya Protocol

The CBD and Nagoya Protocol pursue conservation, sustainable use, and fair and equitable sharing of benefits arising from genetic resources (CBD, Art. 1). Decision 16/2 (COP16) recognizes digital sequence information (DSI) as a modern extension of genetic resources and aims to capture benefit-sharing from DSI use. Under Article 31 VCLT, interpretation must follow ordinary meaning, context, and object and purpose. Relevant interpretive elements include: ordinary meaning; contextual instruments (preamble, annexes, related agreements); subsequent agreements and practice; and any special meaning intended by the parties. This teleological and contextual approach supports a broad, functional reading of "users of DSI" and "sectors that directly or indirectly benefit."

The ordinary meaning of "use" cannot be restricted to sequencing or laboratory acts alone. In modern science, "use" includes economic exploitation of genetic information and derivative outputs. Decision 16/2's operative language requiring users in sectors that "directly or indirectly benefit from its use in their commercial activities" to contribute evidences the COP's intent to capture downstream beneficiaries. The COP departed from a narrow materialist view and adopted a functional, benefit-oriented test: it is the economic exploitation of DSI-derived products or services that triggers obligations, not merely the physical act of sequencing. This dynamic reading

accords with ICJ precedent that treaty terms must be interpreted in light of object and purpose (e.g., *Whaling in the Antarctic (Australia v. Japan), ICJ (2014)*).[14]

ii. The Chain Links DSI to Sidney Animal Park

The Record establishes the chain: Anecoyon's Royal Panther sequencing by Ridus's National Institute of Genomics DSI uploaded to Global Genetic Data Portal Salols Co. used DSI for synthetic recreation production of two live animals (Ixchel and Itzamna) exhibition at Sidney Animal Park (SAP) revenue generation. SAP occupies the final, lucrative stage of this DSI causation chain. Even if SAP did not perform sequencing or genetic engineering, it monetizes a product whose existence depends entirely on DSI utilization. Under Decision 16/2, therefore, SAP is a user of DSI-derived products and a user of DSI for benefit-sharing purposes.

iii. Interpretation of directly or Indirectly Benefit

Decision 16/2's inclusion of "indirectly" signifies COP's aim to capture entities along the entire value chain. Interpreters must give autonomous meaning to each term and avoid redundancy (Dörr & Schmalenbach). "Indirect use" therefore covers entities that profit without manipulating DSI directly. SAP's visitor fees (≈50,000 visitors × USD 40 Record, para. 38) are substantial revenue that exists because the exhibited animals are DSI-created. Indirect Benefit Is Benefit: Scope of "Directly or Indirectly Benefit" Decision 16/2's inclusion of "indirectly" signifies the COP's intent to capture entities across the full value chain. Interpreters must give autonomous meaning to each term and avoid redundancy (Dörr & Schmalenbach). "Indirect use" therefore extends to actors who derive profit without manipulating DSI themselves. SAP's visitor fees (≈50,000 visitors ×

[14] Supra 6

USD 40 Record, para. 38) constitute substantial revenue that exists solely because the exhibited animals are DSI-created. The ICJ, in Pulp Mills,[15] emphasized that environmental obligations must be assessed by reference to the actual effects of the activity as it operates in practice, recalling its statement in Gabčíkovo-Nagymaros that the Parties "should look afresh at the effects on the environment of the operation" of the activity Applying that reasoning, SAP's revenue structure shows that the real-world effects of its operations are economically dependent on DSI-based organisms, bringing its conduct within the notion of "indirect use" under Decision 16/2.[16]

Decision 16/2 defines commerciality through financial thresholds (assets USD 20 million; sales USD 50 million; profit USD 5 million Annex, para. 4), not by corporate form. The Record shows SAP exceeds these thresholds (Record, para. 41). ICJ precedent in *Barcelona Traction (Belgium v. Spain)* supports assessing an entity's functional character rather than legal form. SAP's revenue model (ticketing, merchandise, special access fees) and marketing (promoting "world's only living Royal Panthers") demonstrate market-driven commercial behavior.[17] Thus, regardless of non profit status, SAP functions as a commercial actor subject to Decision 16/2's contribution requirements.

Decision 16/2's Enclosure I lists sectors (e.g., "animal and plant breeding," "biotechnology") and instructs Parties to "take particular note" of the ISIC classification. That instruction is guiding, not limiting. ISIC code 9103 ("Botanical and Zoological Gardens") does not preclude functional

[15] Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010, p 14, para 175 and para 194.

[16] Supra 10 p.78

[17] Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain), Second Phase, Judgment, I.C.J. Reports 1970, p. 3.

inclusion where activities align with listed sectors. SAP's captive breeding, genetic lineage management, and commercialization of a DSI-derived organism are functionally identical to animal-breeding and biotechnology sector activities. The decisive test is functional connection to listed sectors, not the numeric ISIC label.

iv. CITES Analogies and Exemptions Fail

Ridus's reliance on CITES' "primarily commercial purpose" exemption is misplaced. CITES and the CBD operate under different normative logics: CITES regulates trade in specimens; the CBD governs benefit-sharing from genetic resources and derivatives. Decision 16/2 intentionally avoids CITES-style exemptions and instead uses financial thresholds to capture significant beneficiaries. Exempting SAP would defeat the Decision's objective to prevent digital biopiracy and ensure equitable contributions. Thus, CITES analogies do not negate SAP's liability under Decision 16/2. Decision 16/2 reflects the principle of common but differentiated responsibilities (Rio Declaration, Principle 7) by setting variable contribution thresholds. International environmental law supports burden-sharing according to capacity and benefit derived. SAP's global visibility, substantial revenue, and capacity imply it should contribute. Trail Smelter's principle that sovereignty does not include the right to cause harm beyond borders analogically supports preventing expropriation of benefits derived from another State's genetic resources.[18] Equity thus requires SAP's inclusion as a user and contributor.

[18] Trail Smelter (United States v. Canada), Arbitral Tribunal, Award (1941), United Nations Reports of International Arbitral Awards, Vol. III, pp. 1905–1982.

v. Alignment with the Nagoya Protocol and Global Biodiversity Framework

Decision 16/2 should be read in harmony with the Nagoya Protocol and the Kunming Montreal Global Biodiversity Framework (GBF, 2022). Article 5(1) of the Protocol echoes Article 15 of the CBD: benefits from utilization and commercialization shall be shared fairly and equitably with the Party providing the resources. GBF Target 13 similarly reaffirms benefit-sharing, including from DSI. Article 31(3)(c) VCLT mandates consideration of relevant rules of international law; thus, related instruments must be read together for coherent governance. SAP's exhibition and prospective breeding of DSI-derived panthers fall squarely within the operative scope of the CBD regime.

Anecoyon's sovereignty over genetic resources, articulated in the Nagoya Protocol's Preamble, extends by necessary implication to digital representations of those resources. Uploading the Royal Panther genome without benefit-sharing and SAP's profiteering undermine Anecoyon's sovereign rights. Decision 16/2 channels benefit through a multilateral mechanism to protect the digital commons. Dupuy's observation that international environmental law increasingly enshrines solidarity supports treating SAP as a user and commercial actor. Inclusion would prevent digital innovation from becoming digital exploitation and would reaffirm international principles of solidarity and equitable sharing.

Applying ordinary meaning, contextual interpretation, subsequent practice (Decision 16/2), economic reality, and principles of equity and solidarity, Sidney Animal Park is a user of DSI under Decision 16/2. Its exhibition and commercialization of DSI-derived panthers constitute "indirect" benefit and meet Decision 16/2's financial thresholds, bringing SAP within the Decision's sectoral and contribution requirements. Exempting SAP would frustrate the

CBD/Nagoya objectives and allow circumvention of ABS; inclusion is required to protect provider States' rights and the integrity of the digital commons.

PRAYER

In light of the issues raised, the arguments advanced, and the authorities cited, it is humbly prayed before the Honorable International Court of Justice to declare the following:

1. That the extraction, sequencing, and utilization of genetic material from the Royal Panther fossil by the Respondent Ridus, without the prior informed consent of the Applicant Anecoyon, violates its obligations under the Convention on Biological Diversity and the Nagoya Protocol on Access and Benefit Sharing;
2. That the Applicant's refusal to authorize the de-extinction project on ecological, ethical, and precautionary grounds is consistent with and in furtherance of the objectives of the Convention on Biological Diversity;
3. That digital sequence information (DSI) used in the de-extinction and genome reconstruction of the Royal Panther constitutes "biotechnology" within the meaning of the Convention on Biological Diversity and the Nagoya Protocol; and
4. That the Sidney Animal Park's activities involving the display of the re-created panthers constitute commercial use of DSI within the sectors enumerated in CBD Decision 16/2, thereby triggering benefit-sharing obligations to the Cali Fund.