



# ARTS & THE ASSESSMENT PROCESS

IM



GINE



*Biophysical and economic assessment methods alone are not enough to fully understand the **past**, evaluate the **present**, and explore the **future** of biodiversity, ecosystem services and their contributions to human wellbeing*



*“Knowledge is empty without imagination, without spirit, without the heart... no civilization ever became great on knowledge alone”*

*Ben Okri*

*The Mystery Feast: Thoughts on Storytelling (2015)*

---

RESEARCH ARTICLE

# Building capacities for transformative change towards sustainability: Imagination in Intergovernmental Science-Policy Scenario Processes

Laura Pereira<sup>\*,†,‡</sup>, Nadia Sitas<sup>\*,§</sup>, Federica Raverall<sup>||,¶</sup>, Amanda Jimenez-Aceituno<sup>‡</sup> and Andrew Merrie<sup>‡</sup>

Pereira, L, et al. 2019. Building capacities for transformative change towards sustainability: Imagination in Intergovernmental Science-Policy Scenario Processes. *Elem Sci Anth*, 7: 35. DOI: <https://doi.org/10.1525/elementa.374>

---

# CHALLENGES

- Current scenario processes are **limited** in capturing **complexity** and engaging with **uncertainty**
- Need for **more imaginative approaches** in biodiversity and ecosystem services
- Addressing the **"imagination gap"** in future thinking

---

*Pereira, L, et al. 2019. Building capacities for transformative change towards sustainability: Imagination in Intergovernmental Science-Policy Scenario Processes.*

# CHARACTERISTICS FOR IMPROVED SCENARIOS

- Appropriate for diverse local contexts + applicable across different regions
- Promotes meaningful engagement + recognises power imbalances
- Inclusive of diverse knowledge & values
- Promotes individual and collective thinking
- Able to handle uncertainty
- Relevant to policy-making

---

*Pereira, L, et al. 2019. Building capacities for transformative change towards sustainability: Imagination in Intergovernmental Science-Policy Scenario Processes.*

# ARTS-BASED APPROACHES



**Literary approaches:** narratives, storytelling, poetry



**Performances** – applied theatre, role-playing, dance



**Visual arts** – painting, handicrafts, textiles



**Music & sound art** – songs, sound installation



**New media** – videos, podcasts, virtual reality



**ARTS-BASED APPROACHES**

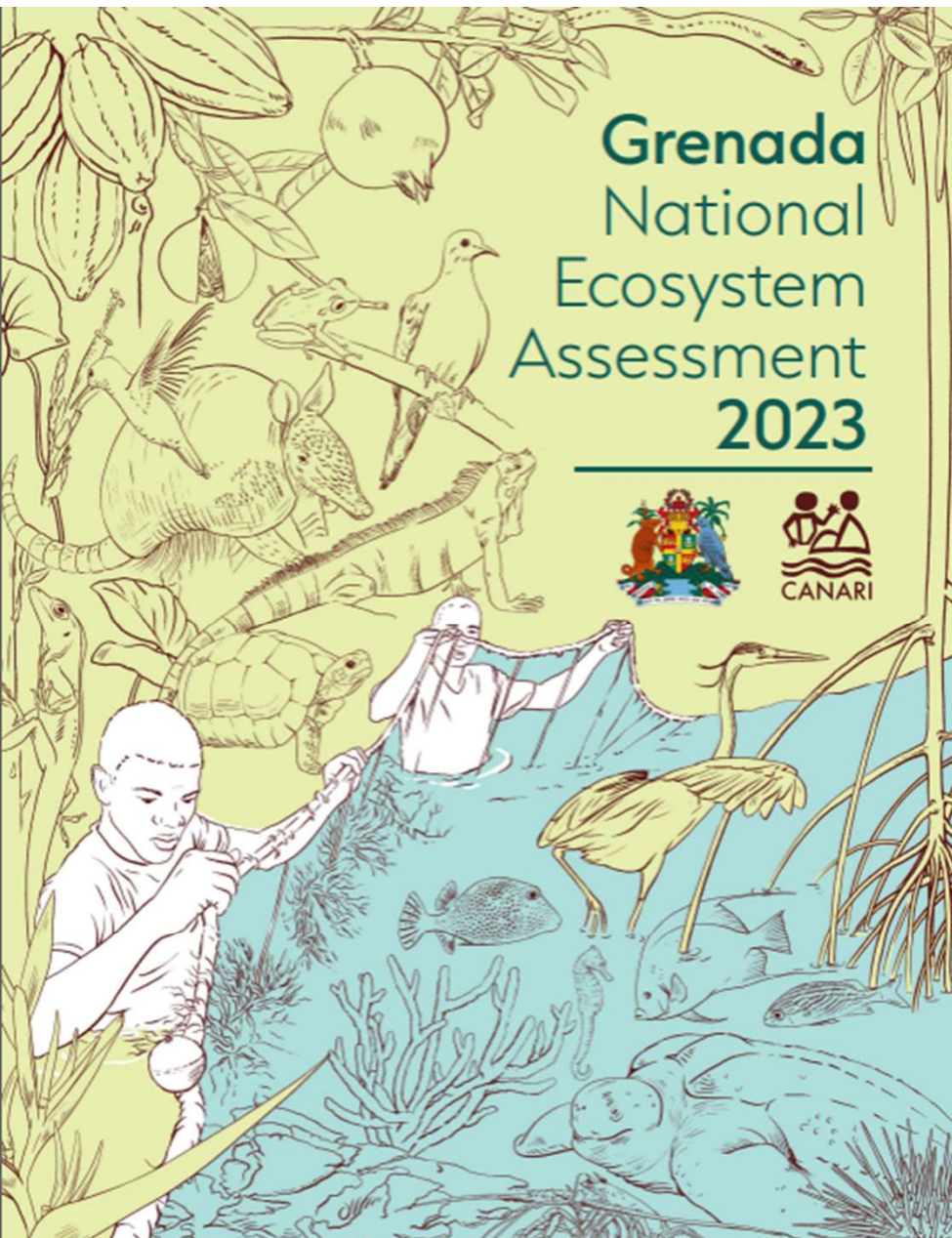
**TO**

**CONNECT**

**(CO)CREATE**

**COMMUNICATE**

*Engaging emotions, fostering empathy, stimulating critical thinking*



## 6.3. Scenario narratives

In this section, we provide a synopsis of the three scenario narratives: the Grenada Greens scenario, which envisions a sustainable future with low material growth, reduced energy intensity and greater focus on human well-being; the Grenada Goes scenario, which highlights demographic and developmental changes globally that have implications for Caribbean Small Island Developing States (SIDS), including Grenada, in 2050; and Grenada Grows, which is appropriately named because it highlights the country's growth and resilience in the face of environmental, political and economic challenges. Figure 6.7 provides a visual representation of the main features of each

scenario. More detailed descriptions of the scenarios can be found in Appendix 1. The narratives and their subsequent implications for biodiversity and ecosystems services align with the Nature Futures Framework (Pereira *et al.*, 2020) scenarios proposed by IPBES, and shown in Box 6.1.

### 6.3.1. Grenada Greens scenario

In this scenario, at a global level, efforts to reduce greenhouse gas (GHG) emissions have been successful along with reductions in extractive resource use in favour of resource recovery and inclusive

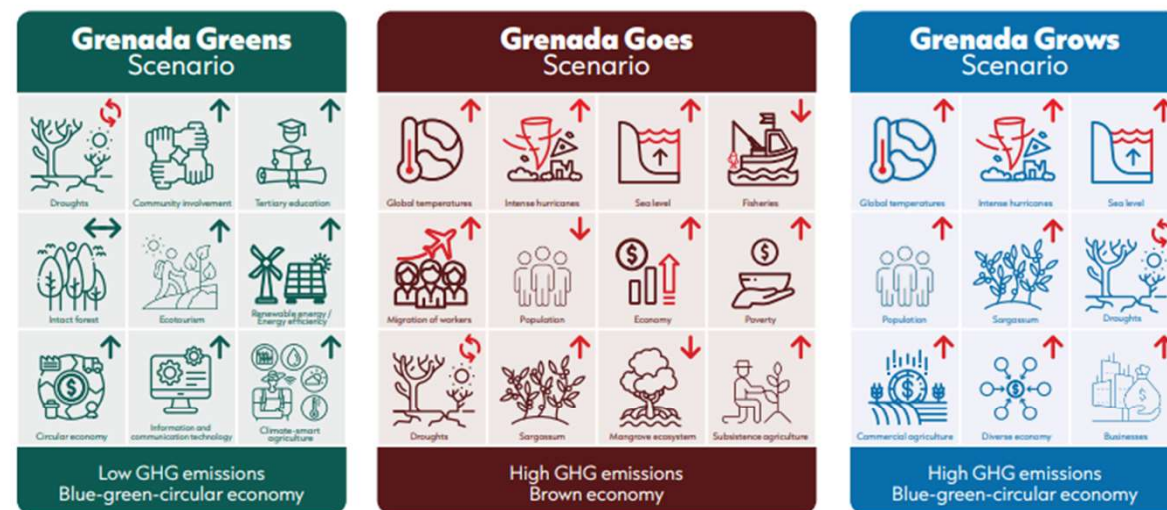


Figure 6.7. Graphic encapsulating the three scenarios

- Literary approaches:** narratives, storytelling, wordplay
- Visual arts** – illustrations, graphic design, colours, iconography



ASSESSMENT OF THE STATE OF  
NATURE AND GOVERNANCE OF  
NATURAL RESOURCES IN  
**BOSNIA AND HERZEGOVINA**

► SUMMARY FOR POLICYMAKERS  
**2023**



**Visual arts** – illustrations, graphic design, colours, iconography

- 1.0 INSPIRATION**
  - 1.1 Colours and Graphic Elements Inspiration
- 2.0 COLOUR**
  - 2.1 Primary Colour Palette & Tints
  - 2.2 Secondary Colour Palette & Tints
- 3.0 TYPOGRAPHY**
  - 3.1 Primary Typeface
  - 3.2 Replacement Typeface
- 4.0 ICONS & PHOTOS**
  - 4.1 Iconography Style
  - 4.2 Photography Style
- 5.0 GUIDING GRID**
  - 5.1 Grid Template

# VISUAL IDENTITY & CULTURAL HERITAGE

## 1.1 PRIMARY COLOUR PALETTE

NEA BIH GRAPHIC GUIDES 3

A primary colour palette has been specially chosen and picked from the cultural pictures below to guarantee design consistency and to ensure that the NEA BiH documents and reports are easily recognisable.

Never use colours outside of this palette.

Headings, sub-headings, charts and infographics can be set in colour, main body text should be set in black, notes and appendices in secondary colour or shades from primary colours.



CMYK

C / 10  
M / 100  
Y / 90  
K / 0

C / 100  
M / 30  
Y / 50  
K / 0

TINTS

75%

50%

25%

100%

100%

# VIDEOS & DIGITAL MEDIA

## Documentary: Working with Indigenous & Local Knowledge in Malawi

Resource

Malawi's journey of weaving indigenous and local knowledge in the scoping process of their national ecosystem assessment



## Five videos on local and traditional knowledge in the Dominican Republic (EN/ES)

Resource

*Spanish version below / Versión en español debajo*

In the context of the National Ecosystem Assessment (NEA) of the Dominican Republic and its work with local communities closely related to terrestrial, coastal, and/or marine ecosystems, the NEA team of the Dominican Republic, led by the Consorcio Ambiental Dominicano (CAD) – working in close coordination with the Ministry of Environment and Natural Resources of the country – has created five videos that tell the stories of some participants in the national framing workshop on local and traditional knowledge held in 2022. The workshop, conducted by the NEA team of the Dominican Republic, was supported by UNESCO, UNEP-WCMC, and UNDP to frame the key topics and/or questions related to local and traditional knowledge and to inform the national ecosystem assessment through consultation and participation of holders of local and traditional knowledge regarding the incorporation of such knowledge into the assessment process.



## Grenada Ecosystem Assessment- Cell phone video competition





# IPBES ARTWORK, VISUALIZATION & ILK

- The IPBES **Global assessment** (2019) SPM: included Indigenous artwork (not done for the assessment)
- The IPBES thematic **Transformative Change assessment** (2024): has some ILK art
- The IPBES thematic **Nexus assessment** (2024): has a graphic co-produced with IPs

# IPBES ARTWORK, VISUALIZATION & ILK in Pollinators Assessment

FIGURE 5-24

Mayan Codex and art representing Xunan Kab (*Melipona beecheii*).



▲ A) Ah Mucen-Cab, God protector of bees and the crops. © Luis A. Medina. Museo Palacio Cantón, Mérida, Yucatán. Reproduced with permission.



▲ B) Ah Mucen Kab by removing honey from a nest of stingless bees. Codice 104 Maya Itzá de Mayapán. © Juan C. C. Medina. Reproduced with permission.

▲ C) Parts of the Mayan Codex and the bee (*Melipona beecheii*)



CASE EXAMPLE 5-16

**SOCIAL ORGANIZATION OF BEES AS A MODEL FOR HUMAN SOCIETY AMONG PRE-COLUMBIAN MAYA PEOPLE**

Location: Mesoamerica  
Mayan peoples

Evidence of the economic and religious importance of the bee *Melipona beecheii* (*Xunan-Kab*) is seen in the various manifestations of Mayan art that have reached us. The most important is the codex of Madrid, one of the three surviving Maya codices, in which stylized images of *Xunan Kab* bees

2001) (Figure 5.30 C). The Mayan *Miatschahakte* (philosophers) used stingless bee (*Melipona beecheii*), as a model for adequate social organization as well as ecological and political ethics. Thus, several values and strategies are explicitly modelled on *Melipona beecheii*'s social organization. Among these are:

### 5.2.3 Cultural ecosystem services: sources of inspiration (socio-cultural valuation)

Pollinators, particular bees, have long been a source of inspiration for art, literature, folklore and religion (de Gubernatis, 1872; Andrews, 1998; Kristy and Cherry, 2000; Bastian and Mitchell, 2004; Werness, 2006). Rock art of honey bees has been identified at 380 separate sites in 17 countries across Europe, Africa and the Indian sub-continent, showing 25 representations of honey harvesting or associated activities (Crane, 2001, 2005) (Figure 5-8). The earliest records come from rock art in southern Africa dated to 10,000 years ago, with some sites possibly older, and in Europe dated to 8,000 years ago (Crane, 1999; Lewis-Williams, 2000). The wax from honey bees was used to preserve the colors of ancient wall paintings more than 2000 years ago in central Asia and Crimea (Birshtein et al., 1976).

Art associated with 'sugarbag dreaming', the term for sacred stories, ceremonies and other practices associated with stingless bees among Aboriginal Australians, is common in both rock-art sites and contemporary bark and other media paintings (Morphy, 1991; Prideaux, 2006) (Figure 5.9 A). Rock art with beeswax, although relatively young in Australian terms, is commonly used for dating in that continent; the oldest beeswax figure known from Australia is a turtle motif dated from 4000-4500 BP, at Gumbingmurrung, Northern Territory (Langley and Tapon, 2010).

Pollinators, particularly bees, are also inspirations for many sacred and religious traditions, including within Islam, Christianity, Hinduism, Buddhism and traditional Chinese teachings. For example, the coat of arms of Pope Urban VIII, Maffeo Barberini, features three bees as the central symbol, which can be found in various ornamentations including the fresco ceiling of the Barberini Palace (National

FIGURE 5-8

Rock art of bee-hunting. Mesolithic (c. 10,000/8000-c. 3000 bce). Cueva de la Arana, Spain. © Museum of Prehistory, Valencia, Spain. Reproduced with permission.



2009) (Figure 5-9 B). Moroccan and many other societies' interactions with bees and honey today are guided by the religious principles set out in the Qur'an, the sacred text of Islam, which includes a passage devoted to bees, the *Surat An-Nahl* (Adam, 2012) (Figure 5-9 C). Chuang Tzu (Zhuangzi), a defining figure in the religious traditions of Chinese Taoism, writes of the blurred distinction between a man dreaming of being a butterfly, or a butterfly dreaming of being a man, symbolising spiritual transformation of the material (Wu, 1990). In Buddhist text and teaching, bees and pollinators symbolize the enactment of compassionate and conscious living (NAPPC Faith Task Force, 2012). Many

FIGURE 5-9

Pollinators in sacred traditional and religious art from three continents



▲ A) Sandra Mungulu (b.1960), 'Wandjina and Waanungga' acrylic on canvas. Australia. © Sandra Mungulu/Licensed by Viscopy, 2015.

Artist Sandra Mungulu explains, "Waanungga is a word for various forms of bush honey, 'sugarbag', found in trees and termite mounds. The Wandjinas (ancestral beings from the dreaming, present in the landscape today) keep the countryside fresh and healthy which allows the native bees to produce high quality honey. My mother is called 'Guduwoolla', the Ngarrinyin name of a particular tree which produces white pollen in early summer, and is the main source of sugar bag in the Kimberley region of north-west Australia".

# BES Solution Fund: Uptake of Colombia NEA & IPBES Sustainable Use assessment through Indigenous filmmaking



@Resguardo Kofan Santa Rosa del Guamuez



# Artwork visualization: IPBES 2021 Workshop Asia-Pacific session

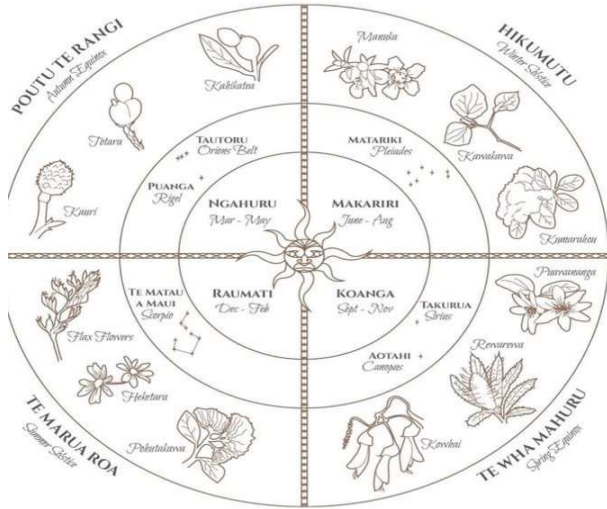


Representation of the Asia-Pacific session of the workshop, created by Anjali Choudhary.

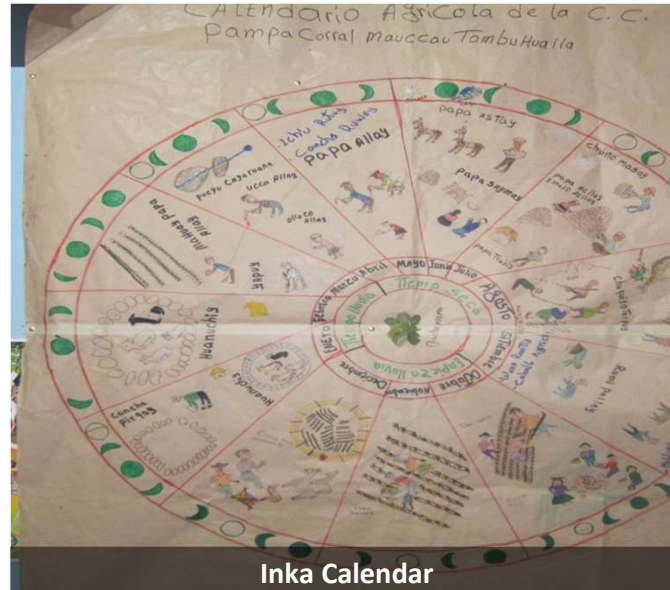


unesco

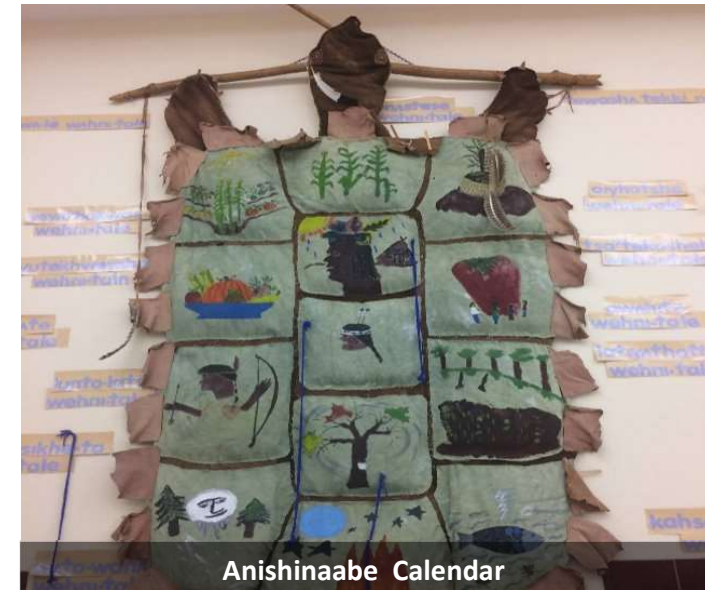
# Visualization: Indigenous Calendars



Māori Calendar



Inka Calendar



Anishinaabe Calendar

- Aotearoa: Maramataka (Moon calendar)
- Peru: Inti and Killa Calendar (Sun and Moon calendar)
- Mayan Calendar: Mexico & Guatemala
- Menominee: 13 Moons Calendar



unesco

IM A



GINE

