

the river as endless territory

*restoring the social-ecological
continuum in the Philippine Archipelago*

“Have you also learned that secret from the river; that there is no such thing as time?”

That the river is everywhere at the same time, at the source and at the mouth, at the waterfall, at the ferry, at the current, in the ocean and in the mountains, everywhere and that the present only exists for it, not the shadow of the past nor the shadow of the future.”

- H. Hesse (1951)

“For Filipinos, the point is to remember that we were victims of that barbarity and we had to survive it. It’s a country produced from the needs of surviving.”

- G. Apostol (2018)

“The greatest asset of the Philippines is its people... We are passionate and resilient. We have gone through many difficulties, but we have always managed to shine.”

- L. Robredo (2022)

“Progress is never permanent, will always be threatened, must be redoubled, restated and reimagined if it is to survive.”

- Z. Smith (2018)

The River as Endless Territory: Restoring the Social-Ecological Continuum in the Philippine Archipelago

Master Thesis - P5 Report

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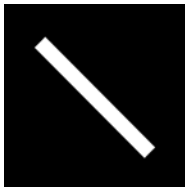
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*A love letter to my beautiful country,
The Philippines*

*which is really just a
place of land, language, and water.*

“It is the responsibility of free men to trust and to celebrate what is constant – birth, struggle, and death are constant, and so is love, though we may not always think it so – and to apprehend the nature of change, to be able and willing to change. I speak of change not on the surface but in the depths – change in the sense of renewal.

But renewal becomes impossible if one supposes things to be constant that are not – safety, for example, or money, or power. One clings to chimeras, by which one can only be betrayed, and the entire hope – the entire possibility – of freedom disappears.”

- James Baldwin, The Fire Next Time (1962)

foreword



ilog | river, love

motivation

On the 9th of May 2022, a calm Monday, as the weather was beginning to swelter in the Netherlands, the Philippines just elected an infamous dictator’s son as their new president. Many rejoiced, others completely devastated and heartbroken, aching because of the certain further detriment of their already ailing motherland. The latter population counted me. Nobody would have imagined that the democracy fought for over 30 years ago (that have also inspired other nations to rise for freedom) would soon erode and history would be altered and almost forgotten once again. I could only think of how lucky I was that I could choose to stay away, tens of thousands of miles away, physically insulated from the upheavals this has caused and is yet to cause. A friend messages me, “Stay there. *Putangina* [the strongest Tagalog expletive one can muster to say].”

Throughout the aftermath, I only felt restlessness and helplessness, and thought about just how unlucky the Filipino people are to have been chosen by the gods, if there are any, to be a country bereft of respite and calm – always with struggle, whether self-inflicted or from a mighty abuser. The most painful part about this new political climate is that as the country where I reside in now becomes carbon-neutral by 2050, my country will be drowning; not only by the seas which we are beautifully enwrapped by, but in exploitation. With such people in power, we become more vulnerable to the claws of developed nations or vicious foreign corporations in search of natural resources to protect themselves and satiate their own needs. From Spain’s 300-year theocratic colonial rule, the United States’ ‘benevolent assimilation’ and then onto the throes of neo-colonialism wherein martial law, political dynasties, and now the poisonous spread of disinformation have fermented, so much has been dealt with that has shaped and made a nation of 7,641 islands and 100 million people the way it is today. The Philippines will just give, because that is their way, and the world has defined it so.

How unlucky. And yet, as much as I could easily heed my friend’s message and admit defeat, to be made aware that I can live comfortably and sit idly by as the nation grows weary as some others choose to and settle elsewhere (and one cannot blame them), no bone in my body wishes to stay and accept this fate. I choose to be one of the young Filipinos privileged enough to go abroad to learn and offer another way, another path for others with what I can, what I know and yet to know in the field of spatial design, because I know full well that space is everything. And now I am here, a Filipina architect, pursuing the Urbanism track in one of the best institutions for this complex field when my country needs to understand itself most. I am proud to say we have the most resilient, warm-hearted, and talented of people; that despite it all, we are surviving with a smile. Filipinos deserve better. It will not be too long before the country becomes fully self-aware of its own capacities and greatness, but perhaps it will be too late as the seas will have risen, the populations will have dispersed around the globe for greener pastures, the cities will have been entangled by highways with the rivers intoxicated, the indigenous peoples further crippled to defend themselves and their territories—and by then we will have nothing.

Yet with hope, that should not be the case. Coming from the mega-city of Metro Manila, a beautiful city of chaos, I have seen and grew up with the dysfunctional dichotomies of urban life right before my eyes; slum settlements beside gated subdivisions with lavish mansions, drug wars with holy preachers supporting

them, the top academic and research institutions being distrusted by the government and vice versa, the most hardworking people with the lowest wages, a self-proclaimed agricultural nation that still imports rice, wealthy city people moving to remote islands capitalizing on tourism and lower standards of living, the strong sense of community yet also of diasporas, and so much more... and through all this, life still abounds and unfolds. What Baldwin describes as *birth, struggle, death*, and *love*, I’ve come to learn is the city, is in the life of people with nature.

Nature is still beautiful as it changes, whatever is still left for us to both make purpose of and delight in. As these constants of change are further understood and elaborated, I too shall be changed with it, as one does with every project if one puts enough heart into it. And this is where both the Philippines’ and my own renewal lie – not on the surface, but in the depths; to be truly free. Through the frustration that spring day, the sentiments from my TU Delft application motivation essay are left unchanged, only ever strengthened. And so, I wrote down that day, “How can tenderness for the nation be expressed in a big way?” Perhaps this graduation project is the way.

So to tenderness, I add my action.

abstract



Rosario Weir along the Pasig-Marikina River, Metro Manila, Philippines
© author (2023)

As an archipelagic territory of 7,641 islands, the Philippines is dealing with multiplicities of identities, resources, and risks that are pressured by a centralized and homogenizing development paradigm, fragmenting critical socio-spatial landscapes that further creates a hyper-vulnerable state in the face of the climate crisis. The project touches on uncovering the dialectics between indigeneity and modernity in space, and revealing critical values that traditional and indigenous knowledge systems have that are potentially made for evolutionary resilience with identified river basins traversing critical biodiversity corridors as sites for exploration and understanding. These critical zones encompass megadiverse complex social-ecological systems, coalescing frontiers of pristine Philippine biodiversity, ancestral domains, urban domains, and the rivers that tie them altogether.

With the river at the center of where ‘all’ life happens, it is the natural entity most utilized and operationalized by humans and their settlements, especially in the archipelago that depends on it for commerce, transportation, food and water supply, and habitation. Rivers are where boundaries are drawn and sustenance is produced, where conflicts arise and disasters unravel, and also where ancestors who have died are seen in the transpersonal pre-colonial Filipino worldview as carried by on a boat to the afterlife. They flow through the plethora of distinct landscapes and ways of life that surround them, whether they be urban or indigenous, and the way they are treated and valued by the two could not be further apart. Whereas the rivers, forests, and minerals found in *ancestral domains* are considered having sacred animistic spirits and require pious ritual for any possession or occupancy, the urban tribes from urban centers or cities see them as mere commodities, as places of leisure, and sources of material wealth, encouraging an invasive form of occupation - mining, militarization, and infrastructure throughout the country.

Development aggression is the spatial war waged by the urban with the indigenous, and it is detrimental to all. Although ancestral domains, once demarcated and awarded as Certificates of Ancestral Domain Titles (CADT), are by law uncontested territories solely within the management and control of the indigenous tribes that inhabit them, implementation of the law is made malleable to those who hold true power, that is corrupt public officials and industries with interests vested within the mainstream/modern culture of unquenchable economic prosperity in the urban areas. Areas of ancestral domains provide most if not all eco-system services that protect and supply these ‘urban domains’, yet they are the most affected and encroached upon by illegal land use conversions, extractions, and pollution, rendering them most vulnerable and at risk to the effects of climate change.

The indigenous groups as communities of kin attempt to rise against these developments that disrupt their lands which is their life, but are heavily confronted with military might and other forms of harassment that results in bloody battles and are thus pressured to either leave their territories as well as their ways of life, traditions and culture, or else accept ceaseless violence if they do not desist. At all fronts - environmental, social, economic, and spiritual - the guardians of the Philippine ecosphere are endangered, and the very people that are meant to respect and protect them, are the very ones hurting them. And the latter does not realize that by continuing to do so, they are also endangering themselves. Socio-cultural tensions meld with biophysical tensions.

Flowing there, to witness this all, is the river. Where water flows from the mountains to the coasts in an endless cycle of *birth, struggle, death*, and *love*. From the skies to the oceans, water is the omnipresent element that connects and separates, that sustains and threatens life in the Philippines. These internal conflicts within the archipelago causing ecological crisis stem from cultural differences - of values, expectations, and lifestyles - that must be mediated through a renewed relationship with nature through the river to redefine and figure out what truly matters, to get a sense of what we Filipinos have survived and are yet living for.

In the search for a solid archipelagic identity and its significance in the response to the urgency of climate change and its effects, the project aims to offer clarity and freedom for a country longing to know who it is, its potentials, and believe in its true worth. From the accumulated identities of *Exoticism, Exhaustion, and Helplessness*, we turn to the true and beautiful nature of our group of islands of a nation we call home that is clearly *Delicate, Diverse, and Dynamic*; by acting with tenderness from deeply rooted values of care and love over the riverscape, we can prevail through the oncoming waves of the struggles climate change shall further bring, perhaps, together.

How can we make sense of being and having too much?

How can we turn our plural vulnerabilities to a renewed form of resilience?

How do we make this whole?

How do we celebrate this and also prevail?

contents

contents

| | | | |
|--|----|---|-----|
| <i>foreword</i> <i>motivation</i> | 9 | | |
| <i>abstract</i> <i>a project of identity</i> | 11 | | |
| | | | |
| <i>a picture</i> introduction | 24 | <i>a river interface narrative</i> analysis | 116 |
| <i>archipelagic multiplicities</i> | | <i>a river interface narrative structure</i> | |
| <i>identities</i> <i>who are we?</i> | | <i>the agta (dumagat-remontado) tribe</i> | |
| <i>resources</i> <i>what have we become?</i> | | <i>the land's intentions</i> | |
| <i>risks</i> <i>what shall become of us?</i> | | <i>the river interface's systems</i> | |
| <i>a critique</i> lines of inquiry | 48 | <i>the river interface pattern</i> | |
| <i>accumulation</i> | | <i>the source</i> | |
| <i>geopolitics</i> | | <i>the confluence</i> | |
| <i>topos</i> | | <i>the mouth</i> | |
| <i>habitat</i> | | <i>the key</i> the strategy | 180 |
| <i>matter</i> | | <i>nostalgia as design strategy</i> | |
| <i>a reality</i> problematization | 76 | <i>bridging continuums</i> | |
| <i>problem focus</i> | | | |
| <i>problem statement</i> | | <i>freedom</i> the project | 192 |
| <i>proposition</i> | | <i>current systems of memory in the river interface</i> | |
| | | <i>scales of intervention</i> | |
| <i>a future</i> methodology | 86 | <i>nostalgic envisioning over the river interface</i> | |
| <i>research question + sub-questions</i> | | <i>the source 2040</i> | |
| <i>methodological framework</i> | | <i>the confluence 2070</i> | |
| <i>conceptual framework</i> | | <i>the mouth 2100</i> | |
| <i>project timeline</i> | | <i>pluriversal governance for cyclic planning</i> | |
| <i>the design approach</i> | | <i>cyclic choreography over the river interface</i> | |
| <i>the river interface unit</i> | | <i>renewed systems of memory in the river interface</i> | |
| <i>research aims</i> | | <i>conclusion</i> | |
| <i>expected outcomes</i> | | | |
| | | | |

“We forget it was a brutal anti-imperialist war because we see it through the eyes, in some ways, of the colonizer, who naturally wishes this forgetting. Like the colonizer, we judge ourselves by the effects of colonization, instead of by the actual violence of its presence. In this way, we erase the colonizer’s actions — this erasure of course being very helpful for him. We retain the imperialist’s structuring imagination. So we judge ourselves by this weak, oligarchic state greased by corruption — the state produced by history, symptom of imperialism’s effects.”

- Gina Apostol (2018)

a picture

introduction

Who are we?

We begin a journey of self-discovery for a group of 7,641 islands unified as an independent archipelagic state, the Republic of the Philippines with this basic question.

Surrounded by several vast seas, the Southeast Asian archipelago is an intricate geologic creation born from volcanic eruptions and actively shifting tectonic plates in the Western Pacific. Due to its varied terrain and placement on the planet, its equally variegated tropical climate has also made it so that the coalesence and fragmentation of lands allowed for megadiverse ecosystems to flourish, each island with its own distinct inhabitants. From north to south, unique flora and fauna as well as different communities of humans populated place to place; a deeply rich biocultural assemblage. “Tribes from mountain to sea spoke different languages and were variously connected by trade and more established empires. The populace was spotted across the islands favoring rivers, bays, and oceans.” (Wise, 2013)

From 900 AD to the early 1500s, the archipelago was no country at all, it was just an aggregation of land and language where the only commonality between each of the islands were the waters that traversed them and a worldview that reveres nature, all its dynamic forces that provided and enveloped their lives - a cosmic collectivity that persist today amongst local and indigenous tribes. Only from Magellan’s circumnavigation of the world was the concept of a singular *Las Islas Filipinas*, the Philippine Islands was formed, whose name comes from King Philip II of Spain. As they stepped foot on our shores in 1521, the Spanish slowly vanquished the cosmic collectivity of the archipelago with their own imperialistic endeavors, reorganizing society with local tribes converted to Christianity, forcefully moved into *pueblos* with plazas wherein the church was now at the center of their lives, in which the gods are not in nature but are icons that contain the face and color of its colonizers. Tribes that refused to be colonized fled to higher or more far-flung areas, else waged continual war against the colonizers like the Moros of Sulu. By 1574, Manila was considered the capital of “Trade, Religion, and Power.”

After 333 years, the Spanish conquest ended with an American one in 1902 but not without the Philippine Revolution in 1896 and an atrocious Philippine-American War from 1899-1902. The Americans brought with them secular education, a public health system, and heaved the country into the modern world. During this portion of the colonial era, infrastructure as we know it boomed - roads, damworks, electrical and telephone lines, motorized vehicles etc. Intensely extractive industries of mining, industrial agriculture, and logging embroiled the biodiverse nation. Many indigenous tribes were displaced or completely effaced from their territories for gold, nickel, and copper. Americans viewed the Philippines as an extended territory with “more land to settle in.” Yet even with Hollywood culture to distract the people, 80% of the population remain Christians to this day, making the Philippines the only Christianized nation in Southeast Asia.

During WWII, the Japanese occupied the Philippines with the attempt to ‘save us’ from the Americans, but as it went, it was the US, again, who stepped in to ‘save us’. The Philippines was declared an independent republic in 1946. Yet since this ‘independence’, The Philippines’ systems has been bred and led into a Neo-Colonial era in where economic growth and the dominance of a privileged few pave the way of life for many Filipinos qualified by a complete negligence to the values, practices, and traditions

of the uncolonized and indigenous tribes and their deeply rooted relationship with nature - discriminatory and violent development. Such has further enabled this view of a resource-rich nation only to be exploited, as well as continually “divided and conquered.” A true archipelago?

What have we become?

Considered in the present as a Newly Industrialized Economy (NIE), with Metro Manila as the capital region, The Philippines’ identity on the planetary stage is fit into the global economic role of providing export-oriented services, industry, and agriculture, even human ‘capital’ to the world, notwithstanding as a top tourist destination with the cheeky slogan, “It’s More Fun in The Philippines.” On the other hand, the country is ranked 9th of 182 countries most at risk to the disastrous effects of climate change with over 5.4 million people internally displaced due to climate-related disasters in 2021 alone (WBG, 2021; IDMC, 2022). As we enter The New Climate Regime as a Neo-Colonial state with a growing population of more than 110 million people projected to reach 150 million by 2050, the Philippines is at a critical point of no return.

Climate change mired with social inequalities stemming from geopolitical instabilities places the archipelago in a state of immense fragility. The Philippines has gone through a constant metamorphosis, piling layer upon layer of identities over identities. What does this mean for a country with a centralized government managing 17 regions, 82 provinces consisting of 182 ethnolinguistic groups, speaking 150 languages. How well are they managed? How are they taken care of?

And so, the Philippines is presented as a country of accumulated multiplicities - of identities, resources, and now with the Climate Crisis, of more risks. It begs the question, how far can we go? What more can we become?

Rather, what shall become of us?



Carta Hydrographica y Chorographica de las Islas Filipinas
The Murillo Velarde Map
(1734)

"It's More Fun in the Philippines."

The Philippines on the Planetary Stage

map by the author



The Philippine Archipelago



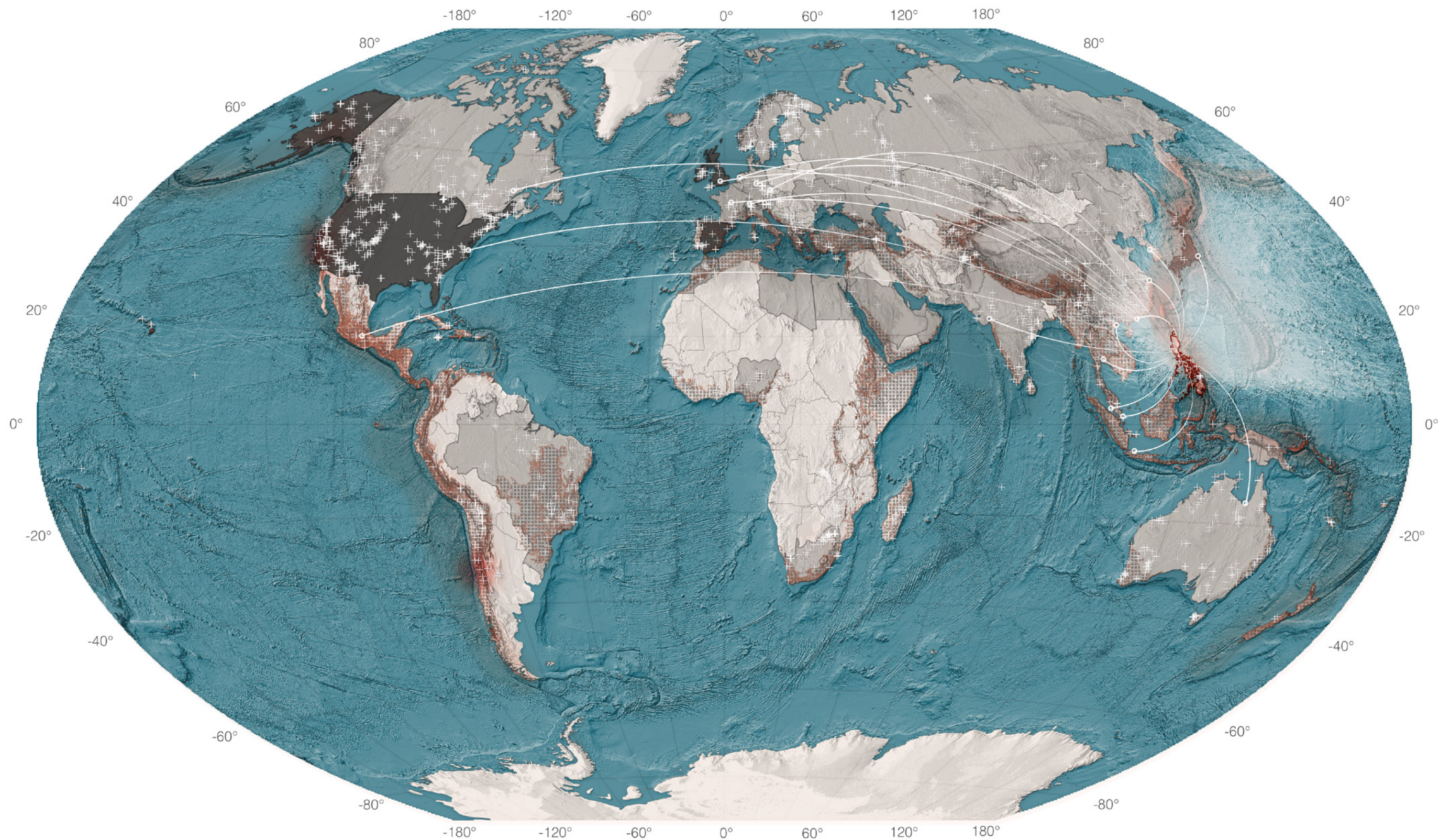
Pacific Ring of Fire
with Earthquake
Epicenters
(1973-2003)



Historic Major
Cyclone Tracks
(1842-2021)
along Typhoon Belt



Biodiversity Hotspots
of WWF's Identified
Ecoregions
(includes entire PH)



■ Former Colonizers
- United States of America (1902-1946)
- Spain (1565-1898)
- Japan (1942-1945)
- United Kingdom (1762-1764)

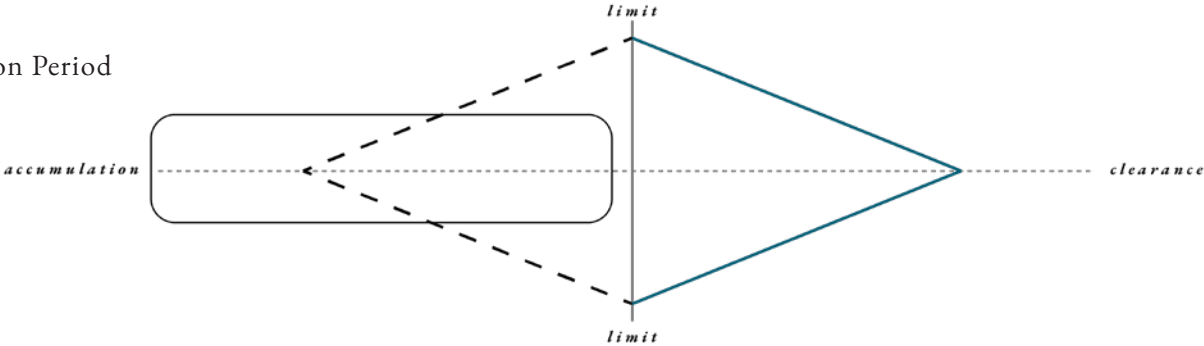
■ Filipino Diaspora
in the World
(1965 - 2019)

🔑 Top 20 Countries
with Trade Exports
from Philippine Market
(2021)

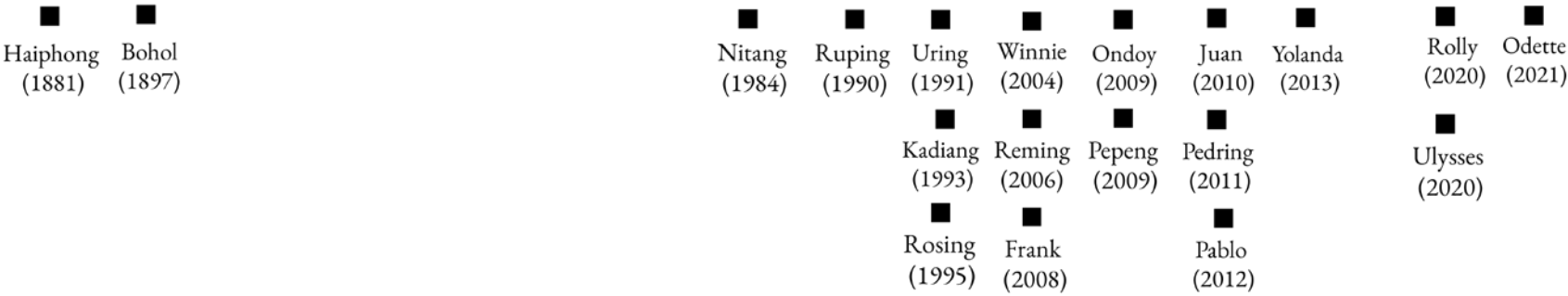
⛶ Critical
Minerals

What have we become?
A History of Accumulation
by the author

Accumulation Period



CLIMATE-RELATED
DISASTERS
Tropical Cyclones/Typhoons



LAND
MANAGEMENT
REGIME

Tribal System of Settlements
Barangays

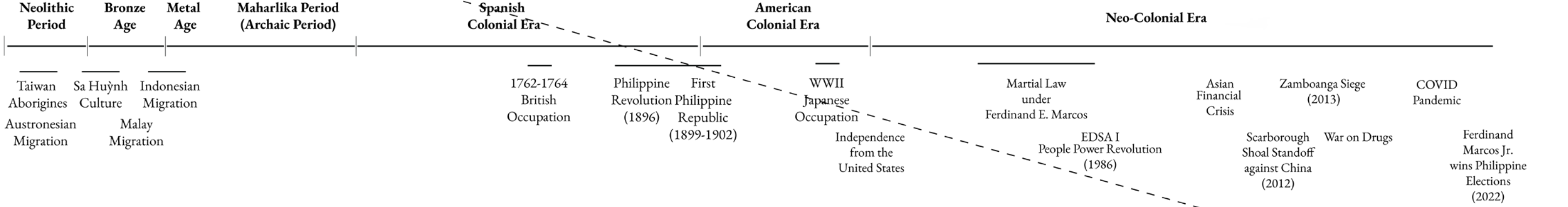
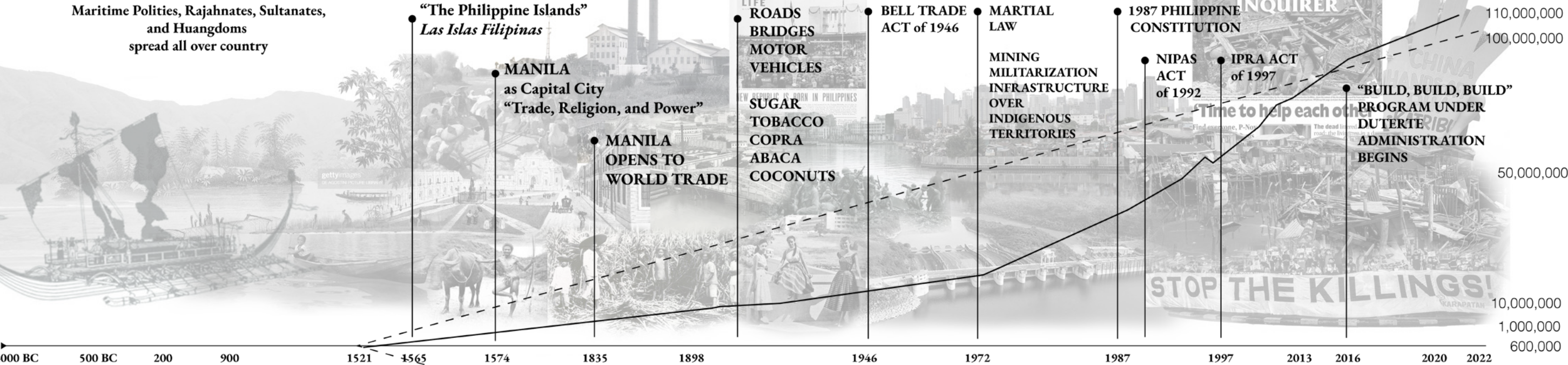
Encomienda System
Laws of the Indies

Industrial Agriculture
+ Modern Infrastructure

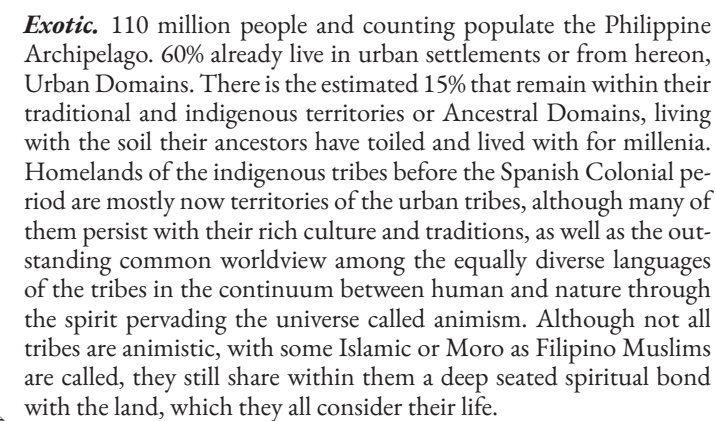
Establishment of Contemporary
Land Use Planning Laws + Development Plans

Climate Adaptation
Plans + Frameworks

POPULATION



the river as endless territory

Identities | *Exotic*

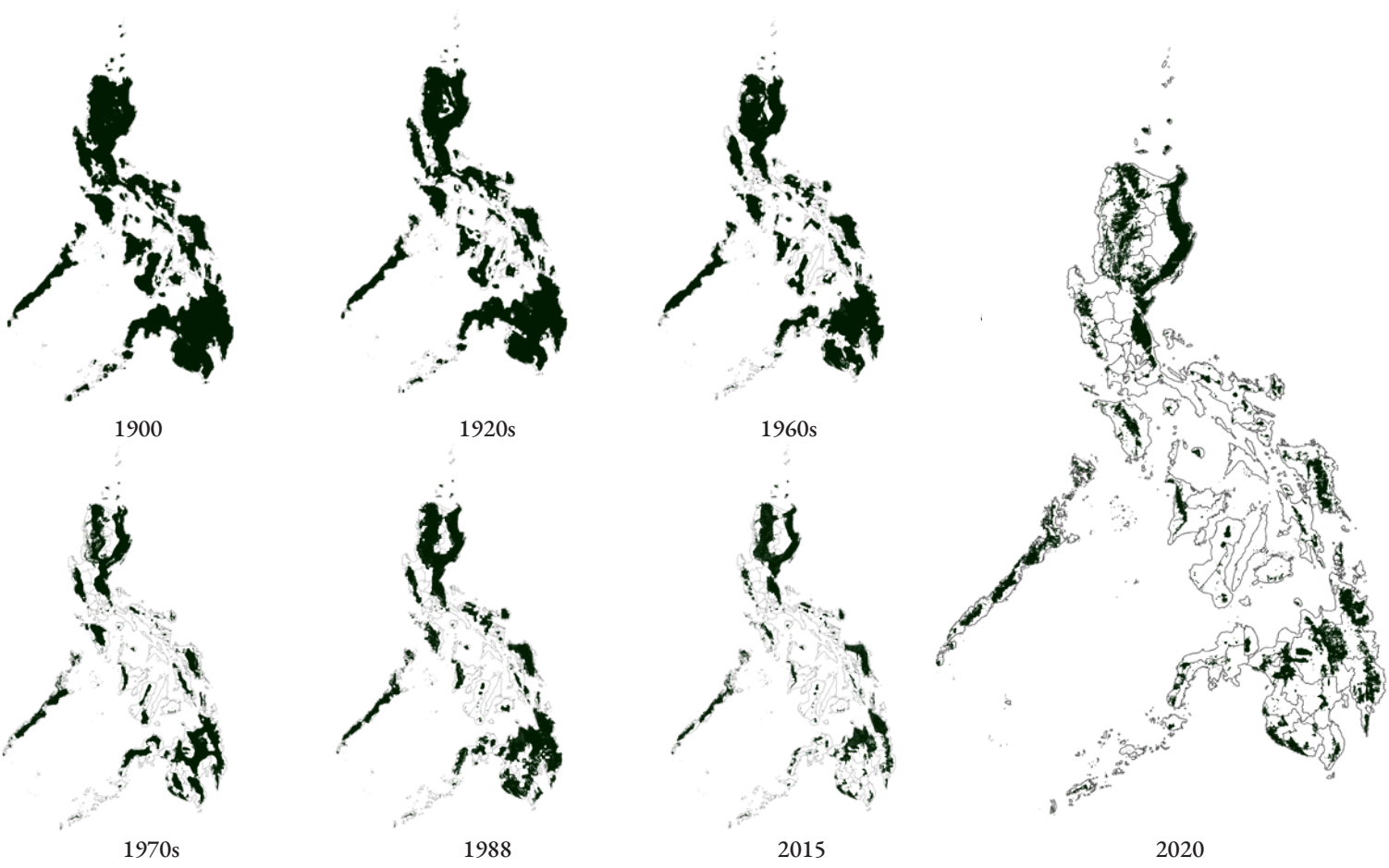
These identities melding with the urban tribes who are mainly lowland Christianized groups like those living in the capital and other urban settlements, are also metamorphosing as they are, producing more multiplicities, creating a pluriversal heritage that Filipino writer Gina Apostol has tried to describe as “postmodern of the postmodern.” But just as their ancestors were driven from their homelands, many indigenous peoples experience discrimination under the mainstream and homogenizing cultures in the lowlands, influenced by the inherited values and structural class systems from the colonial period, bringing conflict and even outright violence towards their own fellowmen due to the demands of global capitalism.



*Oldest Living Tattoo Artist and Tribal
Leader of the Kalinga, Apo Whang-Od,
working on a tattoo for a tourist in her home
in Tinglayan, Kalinga, Philippines
© author (2015)*



Forest Cover Decline in the Philippines (1900-2020)

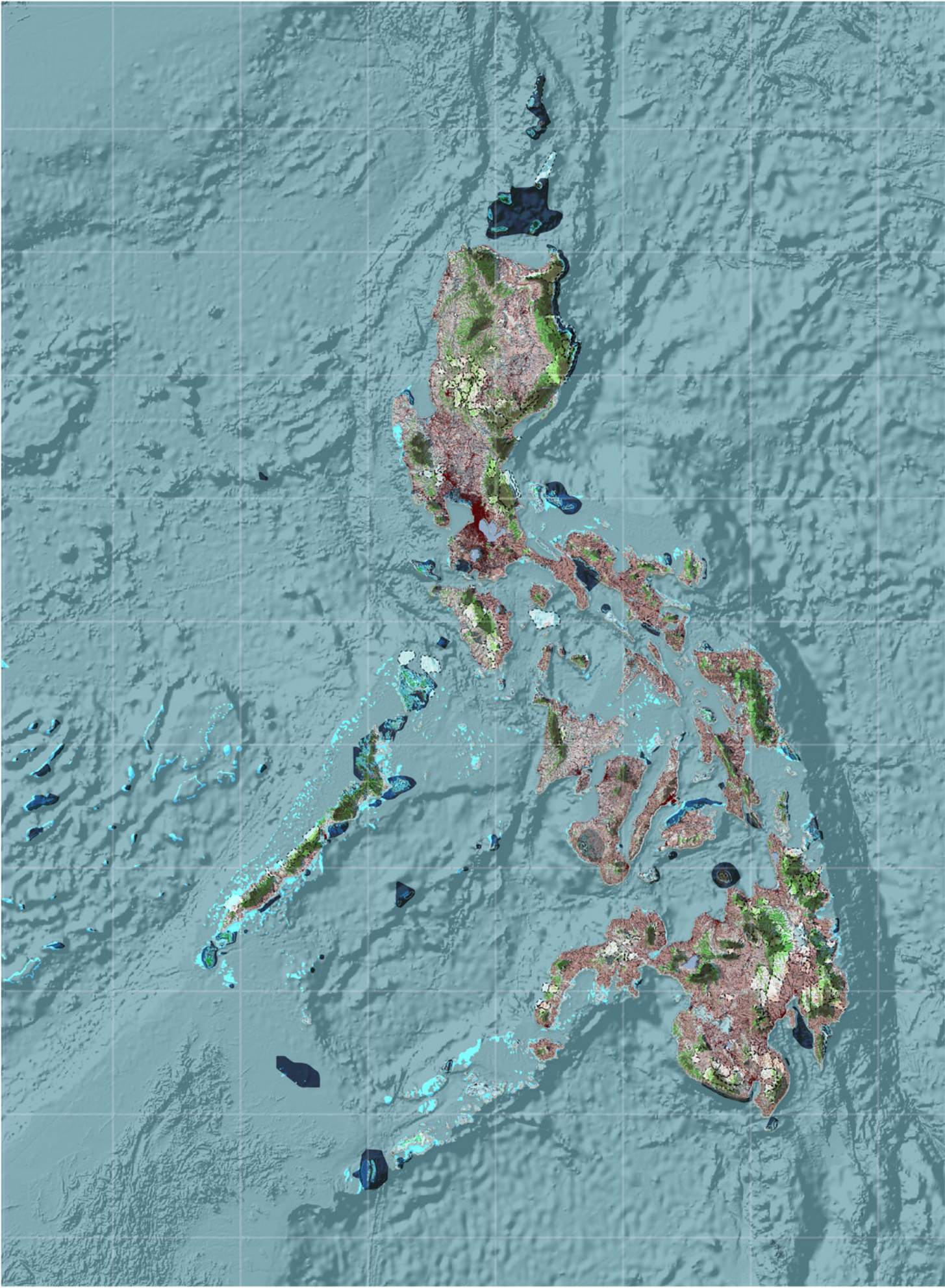


Exhausted. The Philippines is one of the 17 megadiverse countries in the world and is an ecological hotspot for the criticality it holds as both a rapidly urbanizing nation and being ‘resource-rich’. From its varied topography to its plethora of marine and terrestrial species, the archipelago is blessed with an abundance of abundances of the world’s rarest flora and fauna, notwithstanding the critical minerals within its mining reserves that many industrial capitalists are yet waiting to further exploit. Located at the tip of the Coral Triangle, it is also considered “The Center of the Center of Marine Biodiversity”, yet much of these abundances are dwindling considerably due to population pressure, infrastructure and industrial development, and intensive extractive activities (mining, quarrying, and logging).

In just over the last century, beginning with the American Colonial period, the rapid loss of forest cover (a lot already permanent) and area signifies the total aggression over the country’s megadiverse biodiversity habitats, more substantially caused by commodity-driven deforestation (World Forest Watch, 2022). The identified Critical Biodiversity Hotspots along the Biodiversity Corridors of Sierra Madre, Palawan, and Eastern Mindanao in the Philippines hold the last remaining areas where old growth dipterocarp trees yet remain and the wild ecosystems they protect, in where the national government and international environmental conservation organizations such as World Wildlife Foundation (WWF) are scrambling to conserve and protect. Within these Biodiversity Corridors are several declared National Parks, Critical Watersheds, Marine and Forest Reserves, and Protected Landscapes and Seascapes under the NIP-AS Act of 1992. There are other established Key Biodiversity Areas

(KBA) across the islands, including coastal resources such as coral reefs, wetlands, and mangroves, but the three are considered the most vital in both their expanse as the last ecological frontiers of the country, even the world. Sharing these habitats with immense number of trees, rivers, forests, and creatures are also people. 90% of these Biodiversity Corridors coincide with Ancestral Domains, supposing the deep-rooted linkage between the indigenous and the unique biogeographic assemblage that the country attempts to retain.

The Exhausted Philippines
by the author



ancestral domains

urban domains

river

open forest area

closed forest area

agricultural areas

marine protected areas

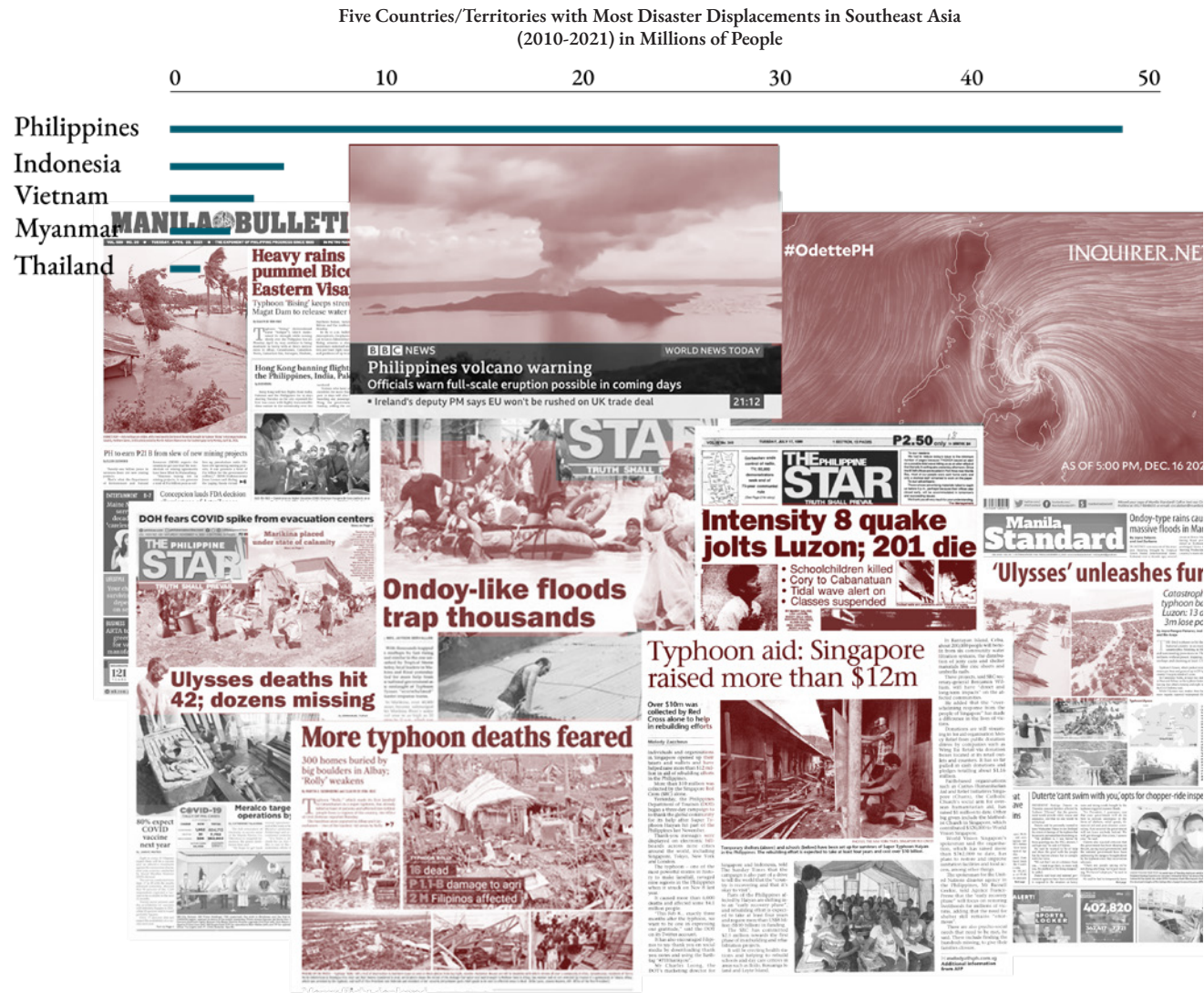
coastal resources
(coral reefs, mangroves, & wetlands)

0 200 km

N

*Agusanon-Manobo Sitio Leader unloading his catch for the day
in Sitio Panlabuhan, Agusan Marsh, Philippines
© Gab Mejia, with permission (2019)*





Helpless. Apart from the country's infamy for surviving the world's strongest cyclones ever recorded to make landfall in history being positioned on the Northwestern Pacific Cyclone Basin (The Typhoon Belt), the archipelago is also geologically part of the Pacific Ring of Fire in where global seismic activity is highest. As it was, The Philippines is naturally exposed to a multiplicity of natural hazards such as volcanic activity, earthquakes, as well as storm surges during strong typhoon events. With the new climate regime, the unpredictability and the increasing intensities and frequencies of these risks has brought disaster after disaster throughout the country in the last two decades, internally displacing over an estimated total of 49 million people. 41 million of people internally displaced by tropical cyclones alone and 675,000 people by volcanic activity, notwithstanding other slow onset hazards such as drought and sea level rise and their other effects. The Philippines is the top on the list of five (5) countries with most Disaster Displacements in Southeast Asia (2010-2021).

While the Philippines is a signatory of the Paris Agreement since 2016 and there are many measures in effect with a national government agency called the Climate Change Commission (CCC) established through an executive law called the Climate Change Act of 2009, the promulgation and mainstreaming of

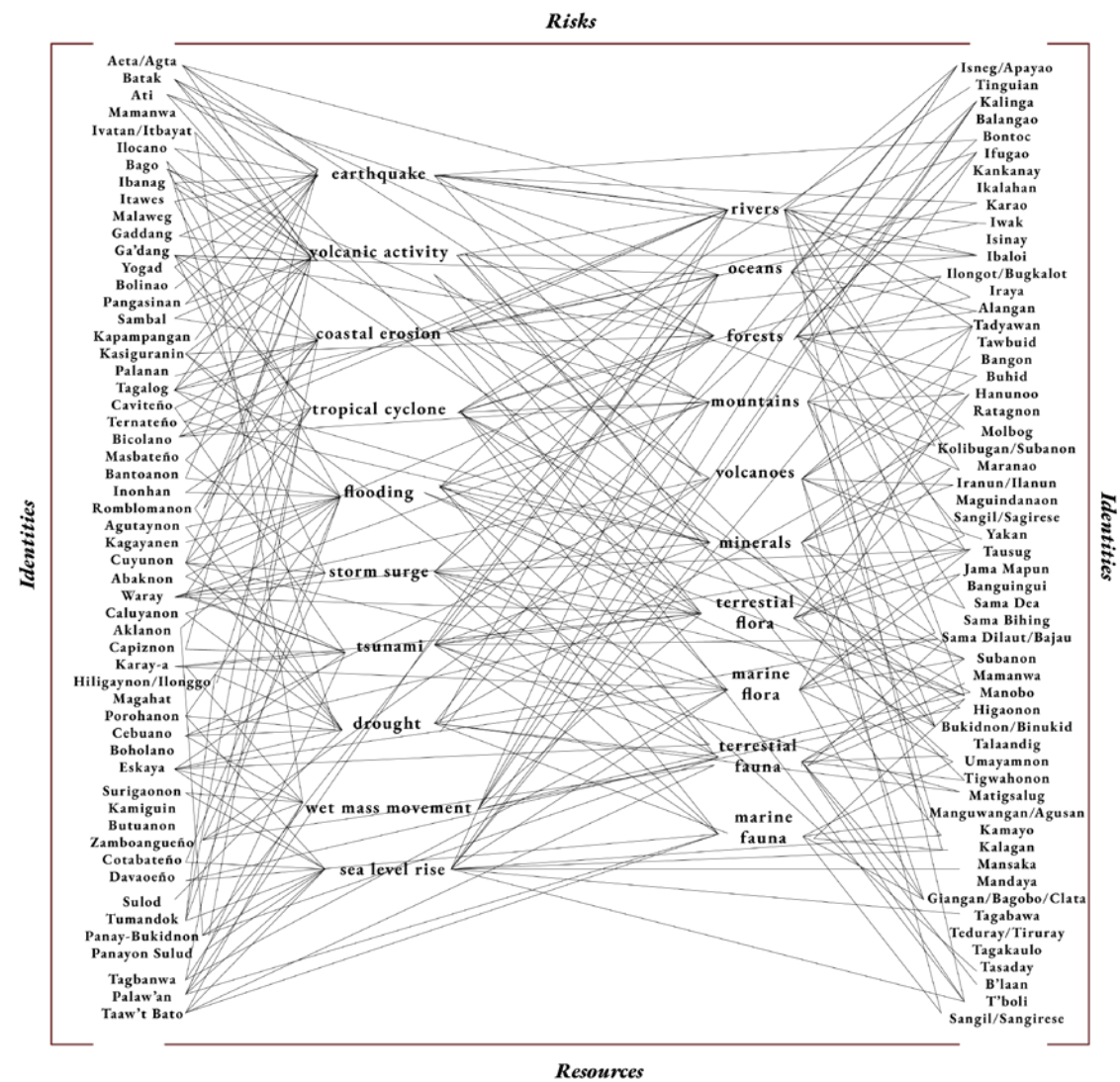
climate adaptation and mitigation and disaster risk reduction are challenged by the fragmented array of government agencies. Local governments and communities are yet incapacitated and are not fully equipped with proper knowledge, infrastructure, and the agency for climate action. Those from the most marginalized sector such as the poor and certain indigenous groups and communities are even excluded from basic social services, how much more from climate change discussions, which really they are most active about.

The Helpless Philippines
by the author



World's Strongest Tropical Cyclone Ever Recorded
Typhoon Yolanda's Aftermath in Tacloban, Visayas, Philippines
©Erik de Castro (2013) via Reuters





Resilience. Amidst all these multiplicities to be dealt with and taken care of in such a literally more volatile climate, an indisputable frustration arises from the strong presence of entrenched values from colonial institutions. The homogenizing culture that the urban tribes are proliferating from the city centers towards those choose to and live a different way and towards the poor, the aggression of development and exploitation of pristine lands and peaceful peoples in the name of global economic growth, and the fragmented and fragmenting socio-political bodies that is allowing for these to happen due to the inability to counter the systems they hold to be indomitable. It feels as if we do not know how to take care of our own. But how could we, when a single ‘nation’ of multiplicities cannot even be described in a single sentence? In a discussion on Filipino identity due to the accumulation we had had and are still experiencing, Niels Mulder (2000) notes, “Filipino being was subverted and the time of *being* on their own has been so short. The time to discover themselves and ot build a self-confident nation, was simply not there, and all the time they feel --- rightly or wrongly --- to be surrounded by arrogant powers who think they know better.” Who we are is yet to unfold even for ourselves.

Within the context of the climate crisis the entire world is now facing, coping capacities towards disasters and threats, and the risks that are known and have been listed time and time again in many local risk reduction, adaptation or mitigation strategies/frameworks, even on the country’s Wikipedia page, are crucial to resilience, if we are to use the dirty word. And in clinical psychology, coping with threat is

a mechanism chiefly determined first and foremost by a solid sense of self, particularly in Identity Process Theory (IPT). One of the main tenets of self-schema’s resilience is a measured by the extent one holds an identity that maintains and aids adaptive coping the face of uncertainty or danger (Breakwell, 2021). *Resilience* is a word in itself that is very familiar to Filipinos and upheld as an value-giving quality of identity. In a critique on the botched preparedness and responses of most if not all climate-related disasters in the country, “We seem to have been accustomed and desensitized to the calamities and disasters that have occurred in our unique geographical situation and current politico-economic state that we never even bother to question why Filipinos have had to be resilient in the first place... We can never truly be resilient when we are negligent (Mejia, 2020).”

Metro Manila against the World
by the author



Aerial View of Pasig River and Metro Manila at Night
© Jilson Tiu (2016-2017, Density series)



development aggression and the river

What shall become of us?

As the country’s diverse human population is continuing to grow, spreading a rapid urbanization process across the different islands and city centers as directed by the concentration of financial wealth and national authority in metropolitan regions like Metro Manila, the megadiversity of ecosystems in the country are continually exposed to ever volatile effects of anthropogenic stress. Extensive land use conversion and intensification, illegal and destructive extraction activities, overtourism, and the mismanagement of natural resources threaten the natural capital of the nation. This is further exacerbated by the divergent and weak administrative institutions who have local autonomies with vast capacity gaps, and disjointed climate adaptation and conservation plans over island territories, fragmenting the social fabric with bureaucracy and the underrepresentation of those voices, such as that of the indigenous tribes, protecting what has been sustaining the flow of ecosystem services for the entire archipelago for over a millennia.

A homogenizing and centralized paradigm of development is pressuring the multiplicities of the archipelago to reach its limits in the name of global economic growth by its Neo-Colonial status. This is causing major biodiversity loss in forest areas, rivers and seas, endangering coastal reef and wetland ecosystems, as well as the degradation of soil capacities for livelihoods, all, unsurprisingly interlinked in the crime of encroachment on indigenous territories, locally called ‘ancestral domains’. Urban sprawl is one thing, but the more poignant assault towards the multidiverse landscapes and peoples of the Philippines is *Development Aggression*, a term conceived by indigenous peoples to refer to projects that violate their human rights. It is the phenomena currently happening and defining the socio-spatial fragmentation across the richly diverse landscapes and waterscapes of the archipelago.

Ancestral Domains

Comprising 10-20% of the Philippine population, indigenous tribes are legally recognized by the Indigenous Peoples Rights Act of 1997 or IPRA 1997. This law was enacted as “a provision for the promotion and recognition of the rights of Indigenous Cultural Communities/ Indigenous Peoples (ICCs/IPs), with a view to preserve their culture, traditions and institutions and to ensure the equal protection and non-discrimination of members.” Alongside recognition and the need to preserve their cultures, a provision for territorial rights over their habitats is also mandated by the law, stipulating the term “**ancestral domain**” comprises “lands, inland waters, coastal areas and natural resources therein, held under a claim of ownership, occupied or possessed by ICCs/IPs, by themselves or through their ancestors, communally or individually since time immemorial... ICCs/IPs whose ancestral domains have been officially delineated and determined according to the procedure set out in this Act shall be issued a certificate of ancestral domain title (CADT) in the name of the community concerned, which shall be registered before the Register of Deeds. The rights of ownership and possession of ICCs/IPs to their ancestral domains shall include: (a) the right of ownership; **(b) the right to develop, control and use lands and natural resources; (c) the right to stay in the territories and not to be removed therefrom; (d) the right of resettlement in suitable sites in case of displacement; (e) the right to regulate the entry of immigrants; (f) the right to safe and clean air and water; (g) the right to claim parts of reservations; (h) the right to resolve land conflicts.**”

The ratification of this law was considered one of the most progressive actions taken worldwide towards recognition of indigenous peoples rights, yet within the country the law holds moot against the machines of mining, militarization, and infrastructure with which these ancestral domains are aggressively violated by, causing permanent displacement of communities and even outright violence against the IPs. Many civil society and non-government organizations, environmental defenders, and human rights activists have been lobbying for IPs and their ancestral domains to be respected and protected, and yet the State seems blind to the devastations they are allowing to happen under their noses. When the IPs fight and voice their demands, “the response of the State is public vilification, harassment and red-tagging.” (Musni, 2021) Although there is a National Commission for Indigenous Peoples (NCIP) as mandated by the same law, the agency itself is implicated in many issues concerning their interests lying with the State when such big budget projects come to the table, especially from foreign investors and the local elite.

Macli-ing Dulag, an activist and leader from the Kalinga tribe who was killed for his staunch opposition to a dam construction along the Chico River during Martial Law in 1974, once said, “Such arrogance to say that you own the land, when you are owned by it! How can you own that which outlives you? Only the people own the land because only the people live forever. To claim a place is the birthright of everyone. Even the lowly animals have their own place... how much more when we talk of human beings?” News of his death spread throughout the country that led the World Bank to withdraw its funding plans for the project and the tribe was able to stay and keep their land, which is their life. Today, this form of development aggression yet persists, especially with rivers at the center due to the demands of water supply for agriculture and urban areas. With the last administration’s “Build, Build, Build” programme in full swing and as another Marcos administration begun in 2022 plans to continue this, over 20,000 infrastructure projects across the country are on their way, with many already being mobilized. Ancestral domains like much of the country’s biodiversity are more endangered than ever.

Philippine Biodiversity Corridors

The Philippines is one of only 17 megadiverse countries in the world, yet is also considered most threatened biodiversity hotspot due to the population growth rate and density. The Critical Ecosystem Partnership Fund (CEPF) initiated an ecosystem profile study through a corridor approach in the aims of protecting large bodies of habitat in perpetuity as “large habitat parcels are essential to maintaining biodiversity and large-scale ecological processes” to identify Biodiversity Corridor Hotspots in the Philippines. Before the initiative, a National Biodiversity Conservation Priority-Setting Program lead by the Protected Areas and Wildlife Bureau of the Department of Environment and Natural Resources (PAWB-DENR), Conservation International - Philippines, and Biodiversity Conservation Program of the University of the Philippines’ Center for Integrative and Development Studies assessed and determined the prioritization of “geographic areas that best represent biodiversity of the different centers of endemism in the country to formulate the strategy and actions needed to conserve Philippine biodiversity.”

Of all the prioritized biogeographic regions in the archipelago, a concentration on three vital corridors were recommended:

- 1) Sierra Madre Biodiversity Corridor (SMBC)
- 2) Eastern Mindano Biodiversity Corridor (EMBC)
- 3) Palawan Biodiversity Corridor (PBC)

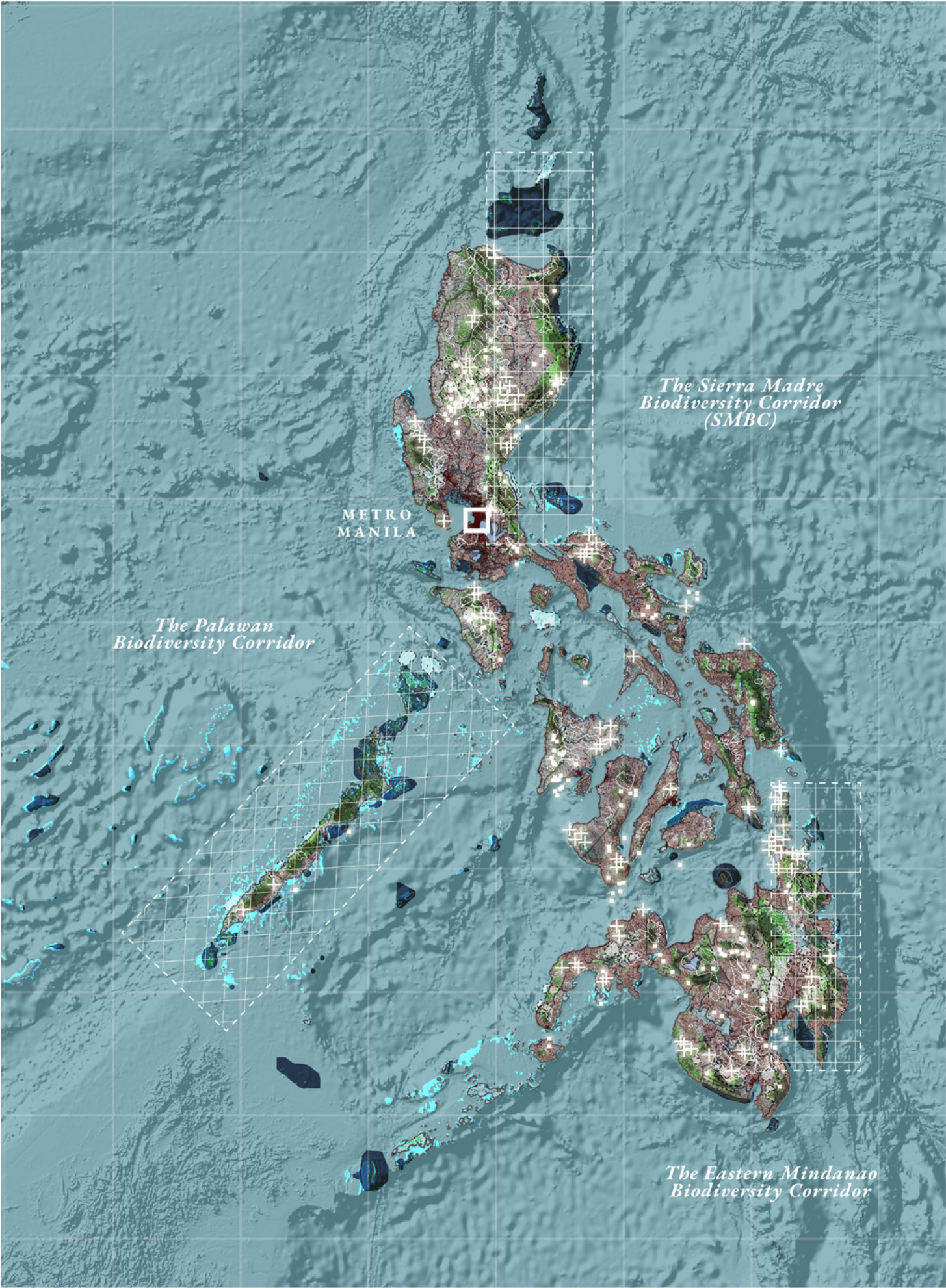
Of the 101 Key Biodiversity Areas (KBA) in the country, 96 of them are within or part of Ancestral Domain territory. A Philippine Biodiversity Strategy and Action Plan (PBSAP) for was created in 2016 with the vision that, “By 2028, biodiversity is restored and rehabilitated, valued, effectively managed and secured, maintaining ecosystem services to sustain healthy, resilient Filipino communities and delivering benefits to all.” With only half a decade to go, this very vision is far from reach especially as the decline of forest area continues and infrastructure projects on indigenous territories are yet being pursued.

Exotic. Exhausted. Helpless.

During the Association of Southeast Asian Nations (ASEAN) Sustainability Exposition 2022 held in Bangkok, young representatives from the Philippines highlighted the projected qualities that have defined the image of the Philippines externally and internally for so long; “Exotic. Exhausted. Helpless.” In the succinct statement of these three qualities, the accumulation of multiplicities posed by the global and embodied by the local, provided the key notions of an archipelagic state that has been facing a crisis of both ideological existence and material persistence alongside climate change is continuing to unravel its fragility – physically and socially, in where if we do nothing, perhaps all hope, even for mere survival, is lost.

In recognizing this, can we prevail through the climate crisis together as one nation? Or is the recognition of the intrinsicity of multiplicities long present and spread out through the archipelago the ‘distress’ signal to dissolve and clear away this accumulation to give birth to a new territorial being? How?

Critical Biodiversity Hotspots by the author



recognition of social-ecological continuum between human-nature within Filipino Cosmology

Life is a Struggle

With the vast and varied unique ecosystems scattered in thousands of islands, there had already been a system of care for the natural environment amidst human activity embedded in the socio-cultural heritage of the diverse indigenous tribes. Their collective belief that spirits lived within nature – the material dimension of life-giving spirits by the universe or gods, that translated into a skeletal socio-ecosystem that was sustained even with the ever looming threats of harsh typhoons, incalculable volcanic eruptions, and mighty earthquakes. There was an endless reciprocity between the body and spirit of things - from people to the mountains to the rivers. “For the pre-colonial Filipino peoples, spirit and nature were in the same dimension; a continuum (Cervantes, 2022).”

In the pre-colonial worldviews of Filipino cosmology, to say the essential least and what unites them is their immense respect to their environment and the belief that they are co-inhabitants of nature and supernatural beings (Hussin, 2013). The awareness and sensitivity towards territories of beings they cannot see has been regarded as paganism, yet it is only one of the ways they show their reverence towards nature even if they seem inanimate to those who do not believe the same. The use of reverence must be noted in that reverence evokes a sense of both deference and admiration, as well as equal respect from the revered as opposed to veneration, which is practiced in the more dominant religions today. “What this reflects is the relationship between man and nature; parts of nature, animals, and plants, become the dwelling places of spirits where they manifest their influence. Filipinos acknowledge the forces surround them and on whom they depend for their well-being or misfortune. (Delbeke, 1928)” They belong to an endless maintenance of balance through a process of give and take (Vicerra and Javier, 2013).

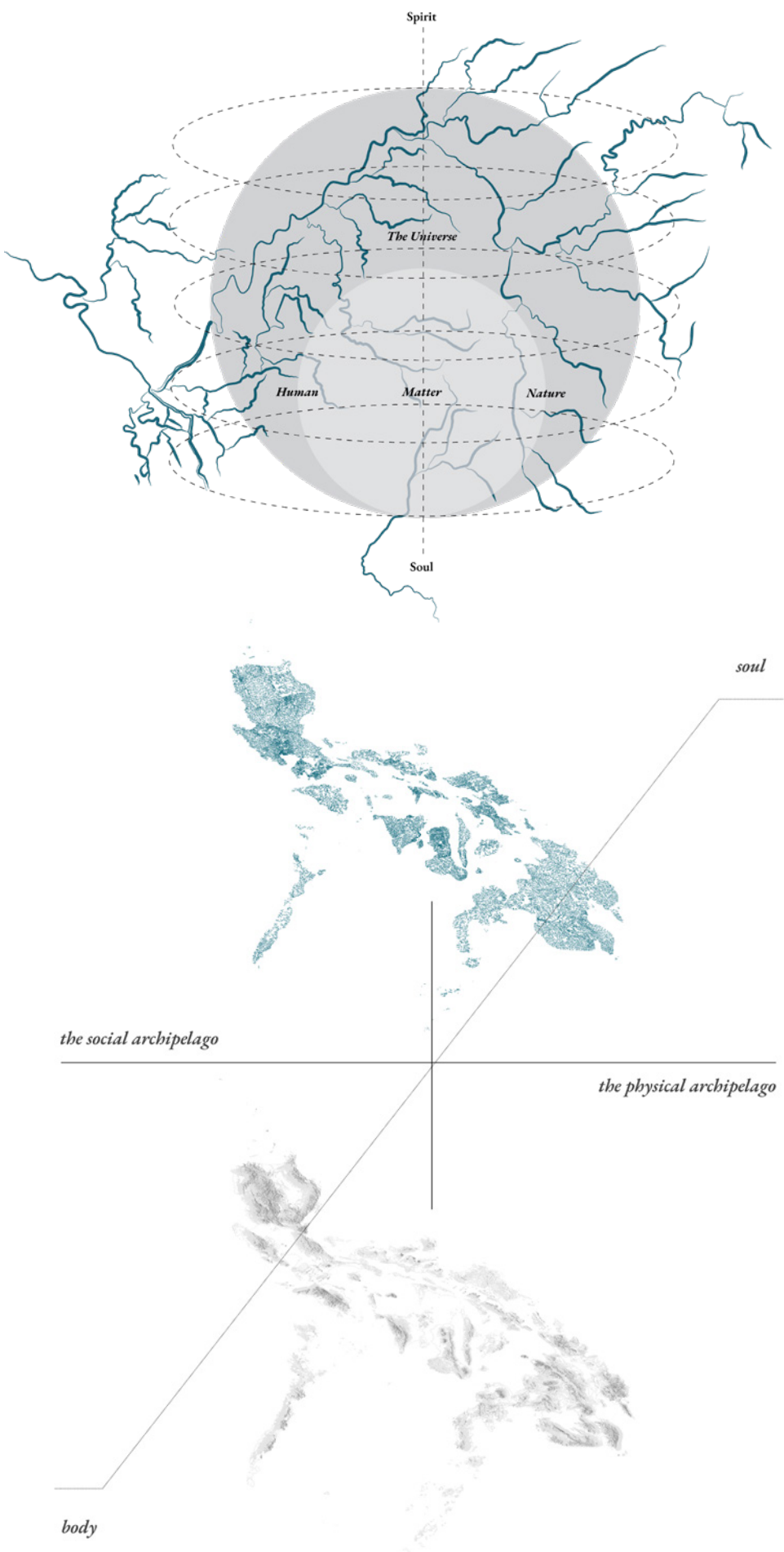
What is observable in this interpretation of history and culture is the existence of a dialogue between humans and spirits. Dialectics of power for all that is in the physical universe exist with those also beyond it. For the pre-colonial Filipinos, “Life is a struggle”, in where there are forces that make life better and others provide challenges. The living of good lives was a core belief that would resist the damning to ‘lower worlds’ after the material body passes and that disease and poverty are to be conquered. According to Vicerra and Javier, rituals are conducted so that higher spirits and creatures leave humans in peace abd that this peace can be obtained by the assistance of dead ancestors locally called ‘diwata’ or ‘anito’. “The power relation is manifested as a social control for people to avoid doing harm to nature and everywhere else and the narratives are the effective means of conveying social control across communities (Vicerra and Javier, 2013).”

The belief that “life is a struggle” is integral to pre-colonial Filipino worldview. And since the US declared the Philippines an ‘independent republic’, this self-narrative has been preyed upon by the colonial powers that be until today. If there is anything resilient in the Philippines, it is these values that has carried us over a Neo-Colonial era, that must end the accumulation period, in that the country can reclaim its being, whatever it may be, as long as it is its own and has made it its own.

In the course of this urbanism study, identity as a nation is put into question, whether multiplicities can indeed co-exist fruitfully under an ascription as a single Republic or that perhaps the unification of plural complex identities, resources, and risks composing the Philippine

archipelago must be allowed to diffuse as a triumphant response to the threats of the climate crisis. Returning briefly to IPT, this state of archipelagic multiplicities is described as a configuration that might offer more opportunities for creative adaptations. That identity resilience is an evolutionary process of dynamics between an entity’s capacities for “memory, consciousness, and organized construal with the physical and societal structures and influences processes in the environment. New experiences occasion change (Breakwell, 2021).”

For the author, this accumulation over multiplicities as defined by *Exoticism, Exhaustion, and Helplessness* is counterposed with the imagination and perception of the true beauty of the country, weaving the research and the enfolding design together; a Philippines that is *Delicate, Diverse, and Dynamic* .Through the gaze of the pre-colonial Filipino worldview in that elements of nature hold a spirit that manifests with a physical body just as a human has a soul and that when this physical body is sick, it means that its spirit or soul is lost or wandering. (Alcina 1668; Magos, 1986) Local healers will perform a ritual to call back this soul for it to return to the human body to be well again. One imagines the Philippines this way; split into two archipelagoes, the social and physical, of lost values vs. fragmented landscapes. The life spirit must be called back to its archipelagic body, else it wanders and loses its way completely, especially as the forests and waters we once knew are being deforested and the tides more violent than ever.



from top; The Transpersonal Pre-Colonial Filipino Worldview -
The Cosmic Collectivity as Continuum of Spirit and Matter;
Two archipelagoes of the Philippines; the physical and the social as body and soul separated.
by the author

View off the Coast of Manila Bay, Shrouded in Plastic
© Jilson Tiu (2016, Break Free from Plastic series)



“The limits to gardening are fixed by the limits to the extent of man’s power over nature. Starting from that basis, it is possible to determine the actions that allow humans to organize their territory while attending to living things.

That means in the long run, attending to humanity.”

- Gilles Clément (2015)

a critique

lines of inquiry

Accumulation-Clearance

As an initial form of cartographic critique of the development aggression causing fragmented territorialization of the Philippines’ riverscapes, the Transitional Territories Studio’s *Lines of Inquiry* is used as as an approach to deconstruct the territory.

Multiplicities of multiplicities pervade in this tropical country, wherein its complex web of identities, resources, and risks is diminished and pressured by a neo-colonial paradigm of development. Accumulation within the archipelago reveals the worldviews of the urban and the indigenous, as well as their dynamics converging along the rivers as the main veins of a scattered nation. This is interrogated through their manifestations topographically and the displacements that occur in space with water along the riverscape as the omnipresent element that both sustains and threatens life in the Philippines. Through the Lines of Inquiry (Geopolitics - Topos - Habitat - Matter), the careful deconstruction of the territory provides paths towards understanding more clearly the criticalities that define this dynamic, diverse, and delicate country, and the endless maintenance of give and take it encounters more poignantly as it faces the climate crisis.

Geopolitics

- Who is development really for?

Habitat

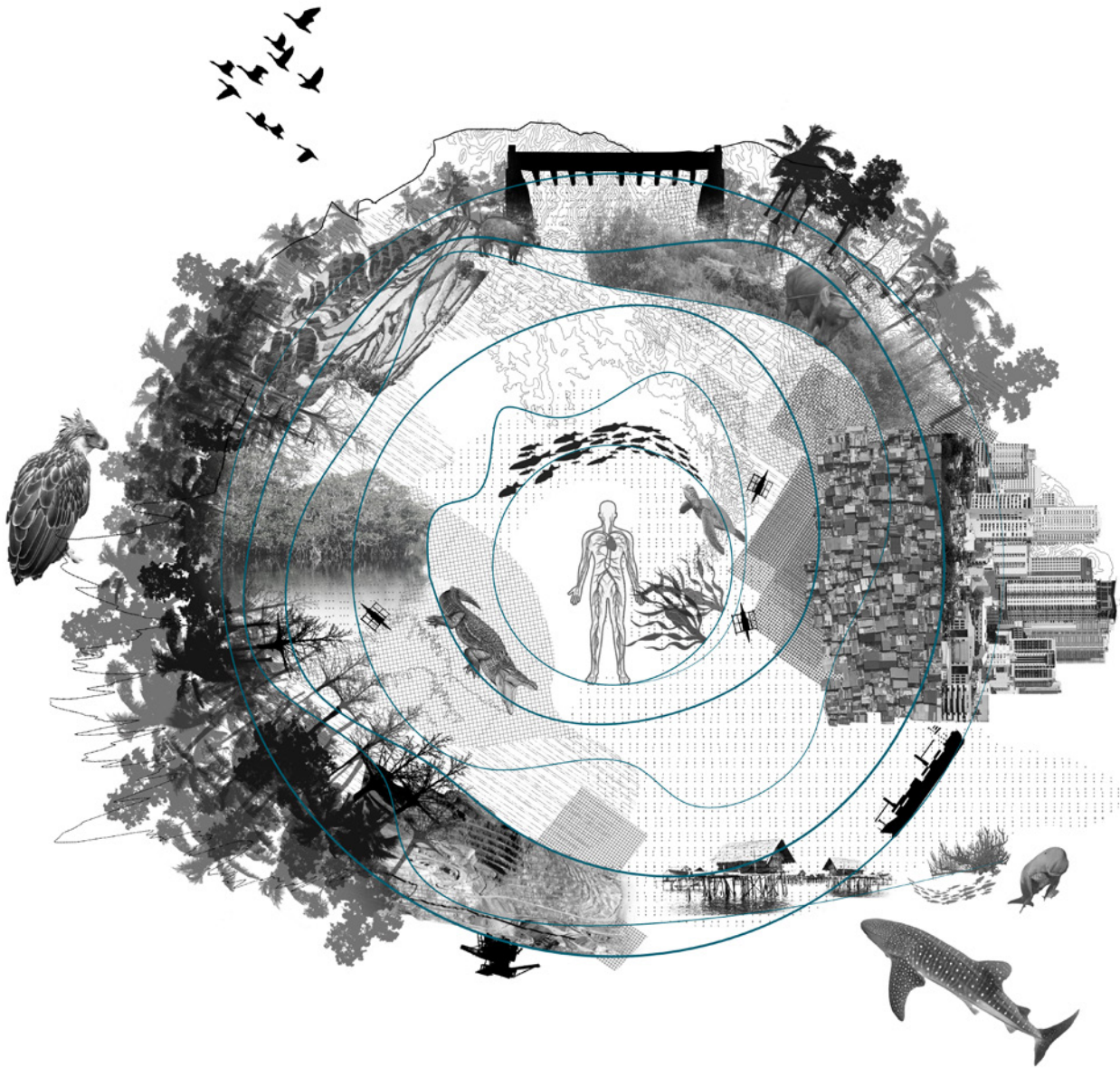
- How do multiplicities live with each other?

Topos

- What is the relationship between Filipinos and the riverscape?

Matter

- What is the relationship between Filipinos and water?



The River as the Spine that Encounters all that the Philippines is

geopolitics

COMPOSITION

A Neo-Colonial Archipelago

International disputes over resources are juxtaposed with the Philippine territory’s internal conflicts found within extraction and infrastructure zones, converging with indigenous territories (legally recognized as ‘Ancestral Domains’) and biodiversity areas.

One asks, “Who is development really for?”

- Saltwater
- Exclusive Economic Zone (EEZ)
- Philippine Territory (International Treaty Limits)
- Spratlys Islands Dispute Claims
- Key Biodiversity Areas (KBAs)
- Ancestral Domain
- Mining Activity
- Hydropower Infrastructure
- Military Infantry Units

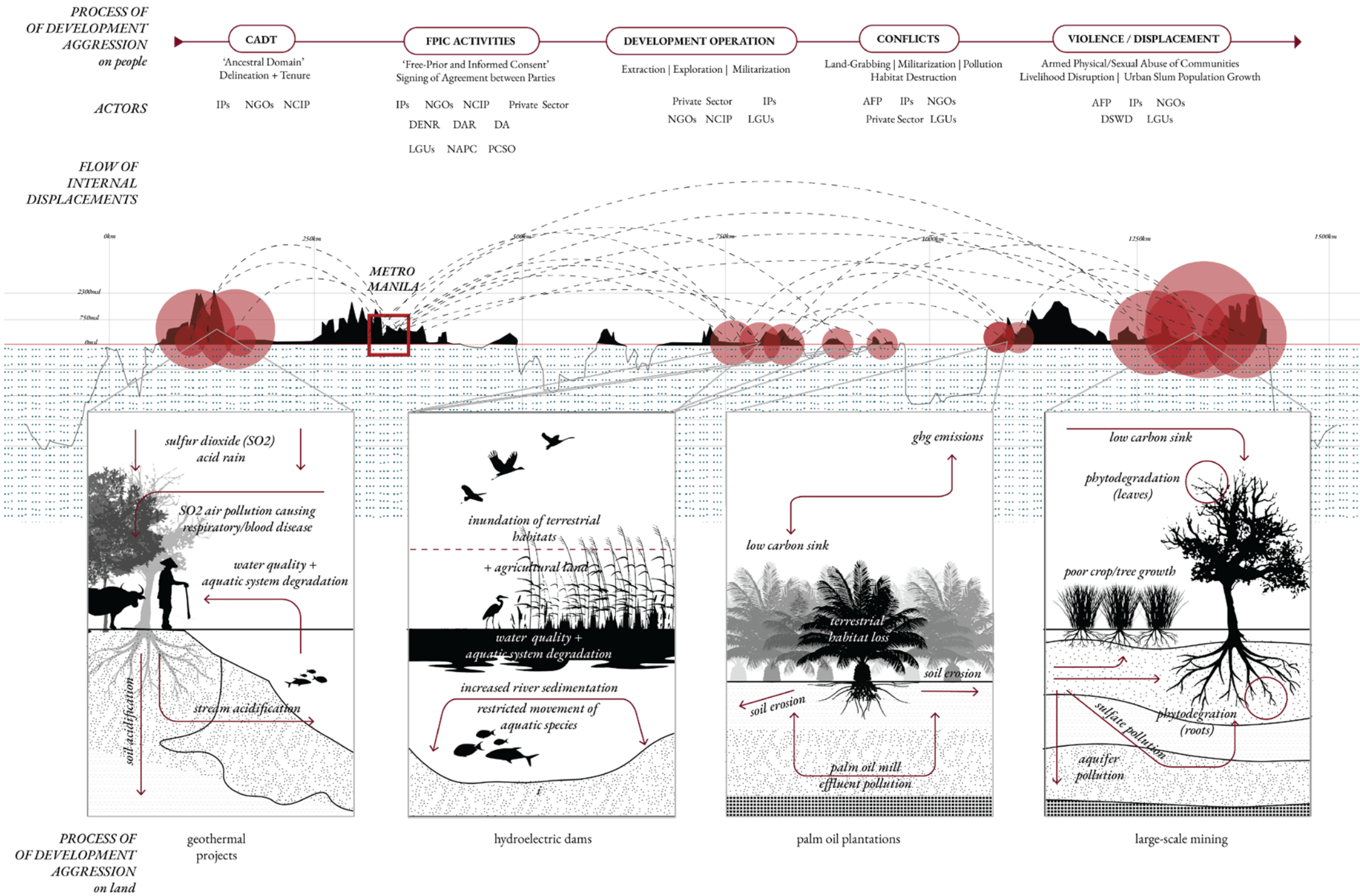


geopolitics
ALTERATION

Self-Inflicted Odysseys

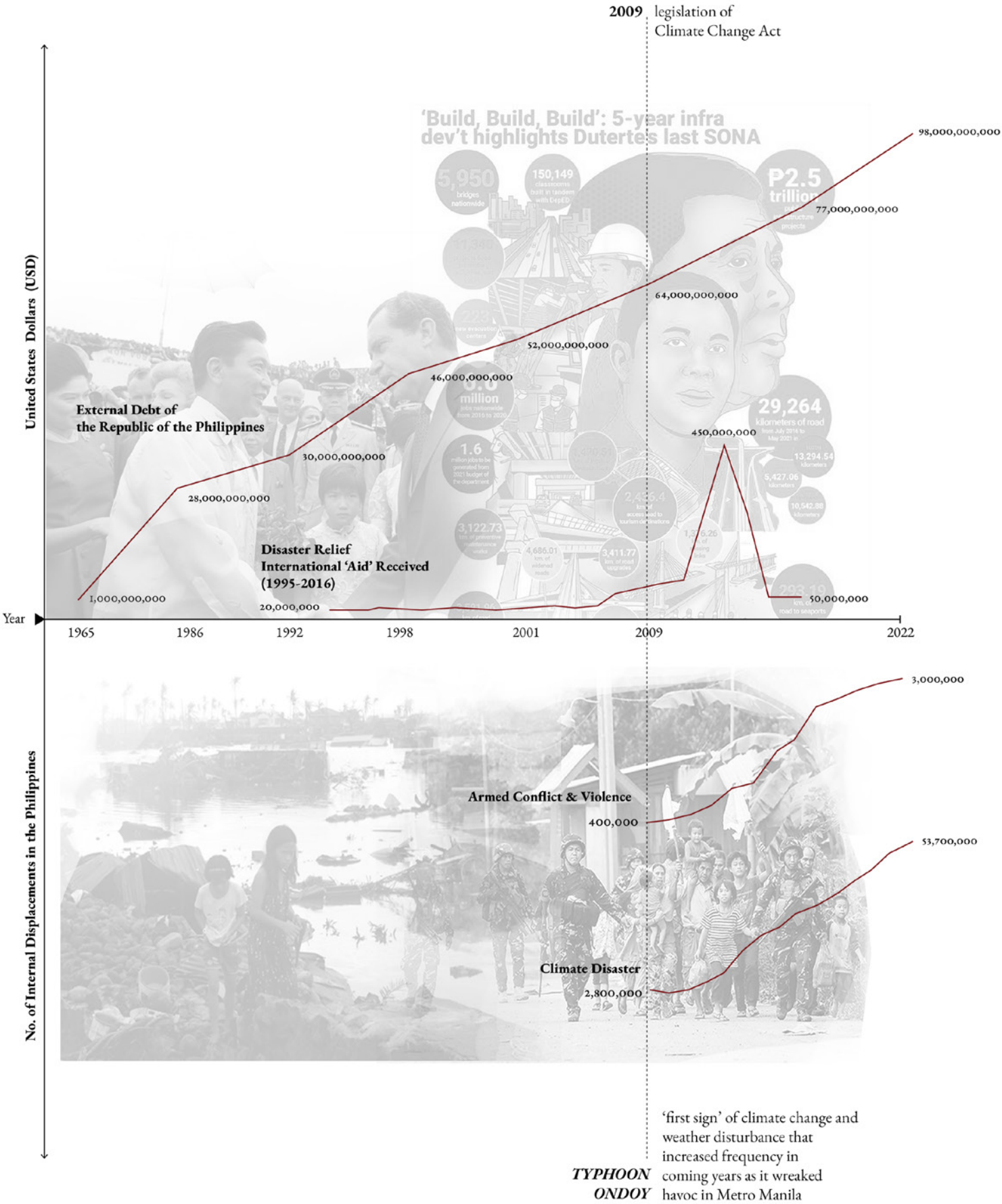
A section across the archipelago’s vast and biogeographically distinct topography, cutting through the three (3) major island groups of Luzon, Visayas, and Mindanao shows the major extraction and infrastructure activities that precipitates Development Aggression over lands and peoples. The flow of displacements from Ancestral Domains to Urban Domains such as the capital of Metro Manila stem from either the deliberate violence and encroachment over indigenous territory or the slow-on set effects of particular development projects.

- Flow of Displacement
- Origin
- ▭ National Capital Region (NCR)
- Saltwater



Carrying vs. Caring Capacities

As the development paradigm of the country continues to follow planetary outgrowth, performing its economic role in the global community with increasing external debts to the World Bank and other international creditors, the Philippines yet remains one of the top countries with over 55 million people displaced since 2009 due to Climate Disasters and Armed Conflict and Violence. At what point does a trillion dollars worth of debt differ from a billion, when posed against the displacement of millions of lives and livelihoods, eroding not only the lands but the traditions and languages that hold them?



The Riverscape Interface as Water-Machine Territory

The rivers as the main veins of a scattered nation is one of the most operationalized bodies of water that encounters all that is the Philippines - from the urban domain, ancestral domain, to biodiversity areas (marine, terrestrial, mangroves etc). Zooming into one of the major river basins such as the Pasig-Laguna-Marikina River Basin in Luzon, encompassing the capital Metro Manila and the Critical Biodiversity Corridor of the Sierra Madre Mountain Range, one observes the heavy reliance on water supply infrastructure from outside the basin to support the city's needs, while endangering the lands of those outside its boundaries as the city relentlessly swells.

- Saltwater

□ Freshwater

■ River / Major Tributary

□ Ancestral Domain

▨ Marshland (1947-1955)

□ Marshland (1997)

■ Flood Risk Area (50-100 Year Cycle)

■ Existing Hydro Infrastructure

■ Proposed Dam Infrastructure

— Active Seismic Faultline

○ 10km Radius Distance

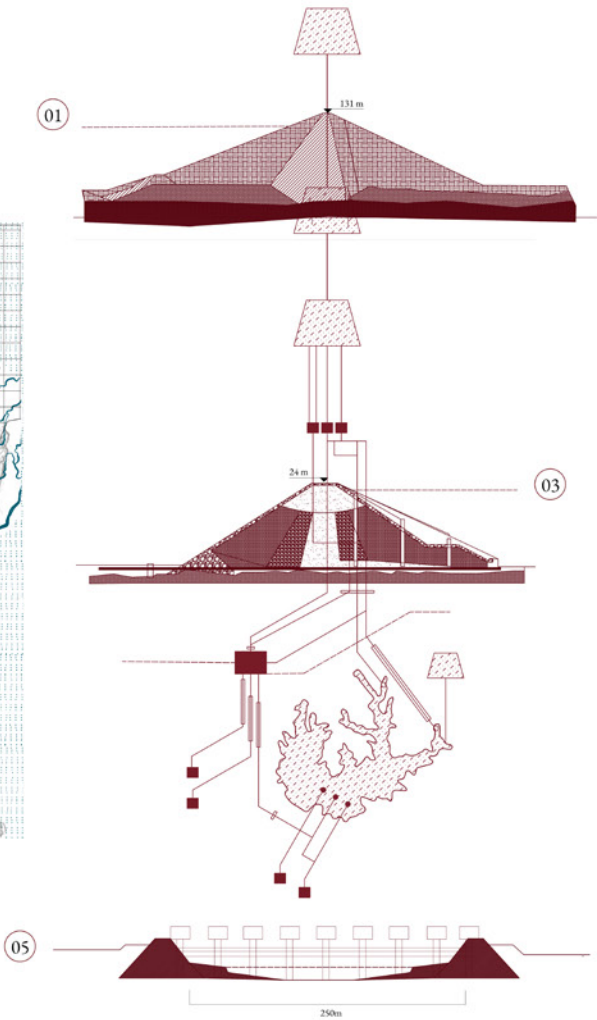
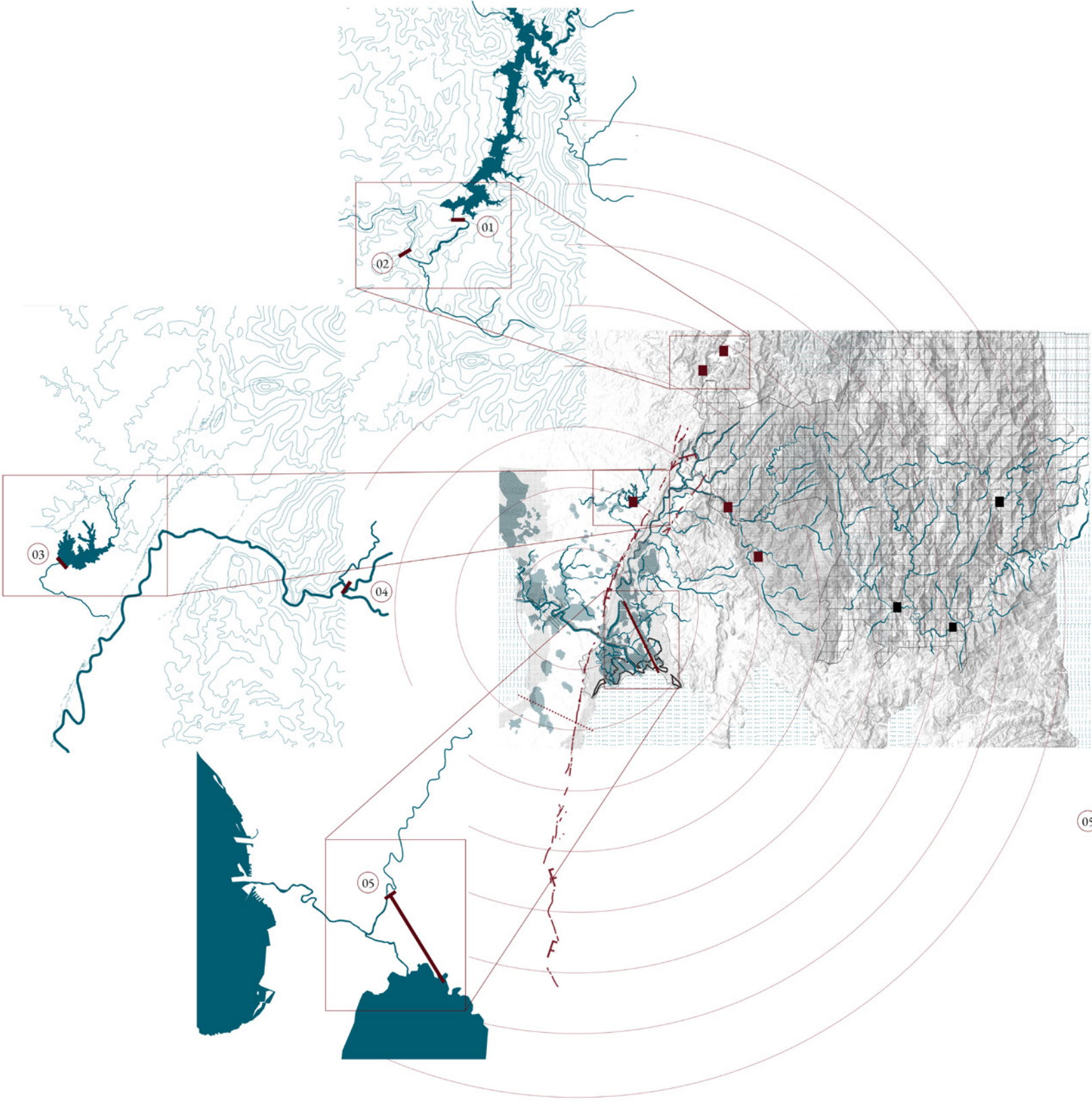
① Angat Dam

② Ipo Dam

③ La Mesa Dam / Reservoir

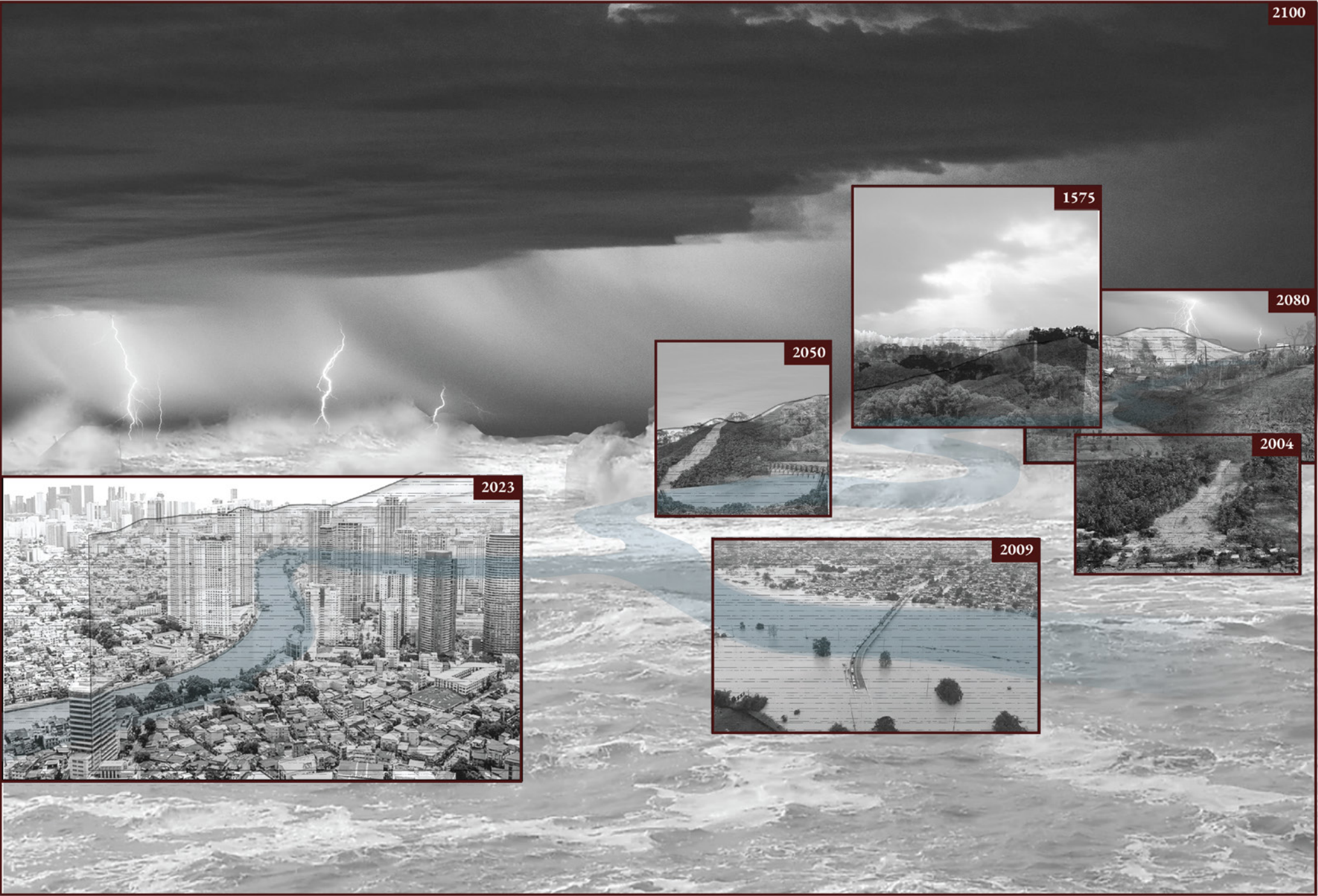
④ Wawa Dam (decommissi

⑤ Manggahan Floodway



The Deluge

As the form of the river has been altered and continually so by the network of gray infrastructure to keep its natural flow at bay, from dikes to dams to floodways, the increase in typhoon frequency and intensity coupled with sea level rise renders this continual mechanization of the river as fruitless and more debilitating. An eventual deluge awaits the country as the forests are being denuded and cities rapidly growing forget to engage with the riverscape more intimately and respectfully.

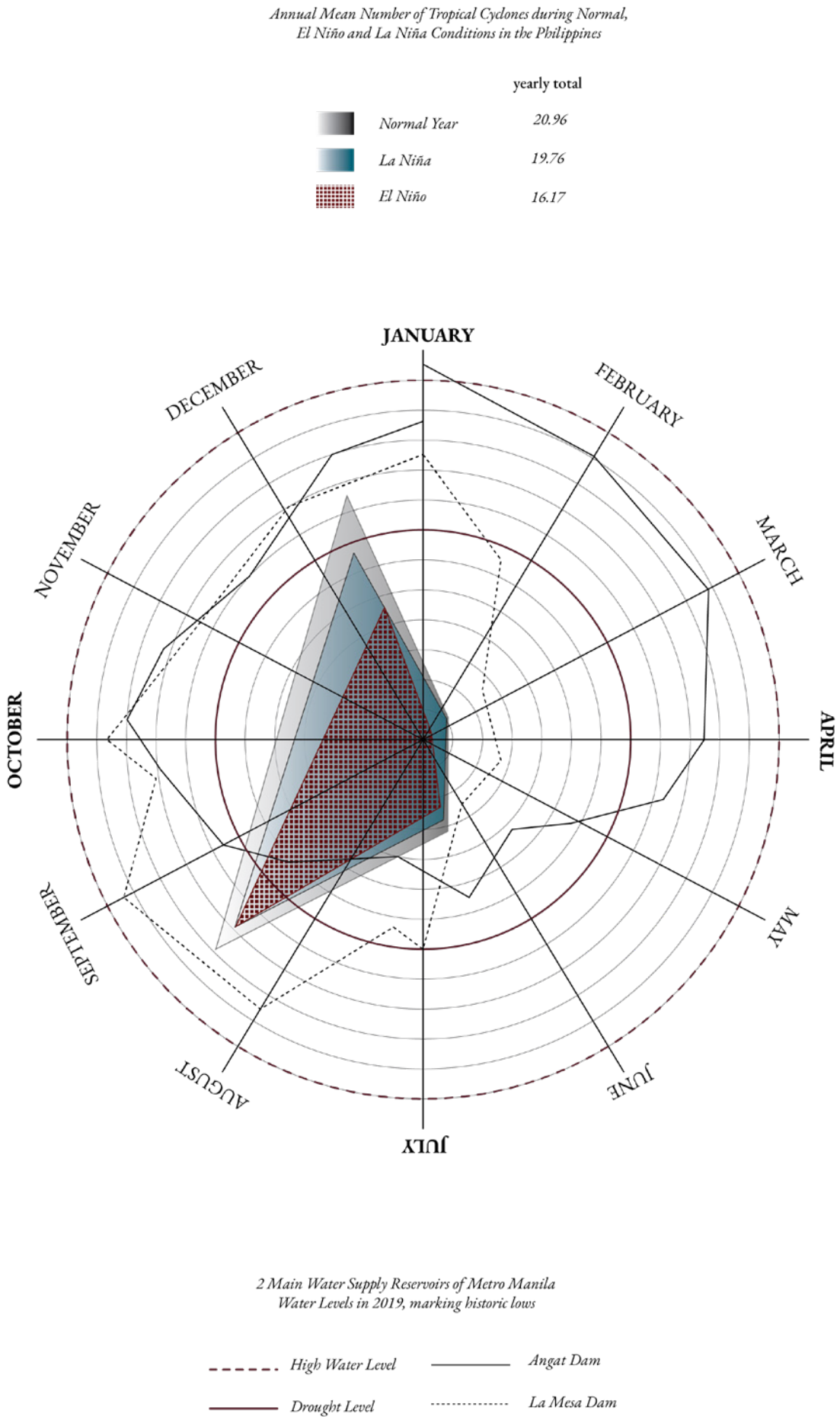


topos

LIMIT

Weather = Food + Water

The El Niño South Oscillation (ENSO) phenomenon shall dictate the quality of water supply that is already dwindling with the existing system of water utility and infrastructure of the country. Not before long, water stress levels shall merge with unpredictable longer dry seasons or shorter wet seasons, creating unstable agricultural production and conveyance of life basics - food and water. The coincidence of this with typhoon predicatability patterns due to the rise in sea level surface temperatures in the Pacific with drought episodes in a single year shall food security to the dire straits of potential water unavailability.













habitat

COMPOSITION

Culture; Attention and Intention

Aside from the riverscape’s form, the ways by which it is used and lived with is seen in the pattern of living by the urban tribes against the indigenous. As the latter considers land their life, many of their livelihood activities are directly dependent on the landscape and the resources it provides, while the urban has mastered how to optimize land productivity and relies on modern technology for its daily living, detaching it from the soil, the forest, and the river.

-  Saltwater
-  Freshwater
-  Coastal Resources
-  Ancestral Domain
-  Urban Domain
-  Key Biodiversity Areas (Terrestrial)
-  Agricultural Area
-  Open Forest
-  Closed Forest
-  Sierra Madre Biodiversity Corridor Boundary

the urban tribe

metro manila and its suburbs



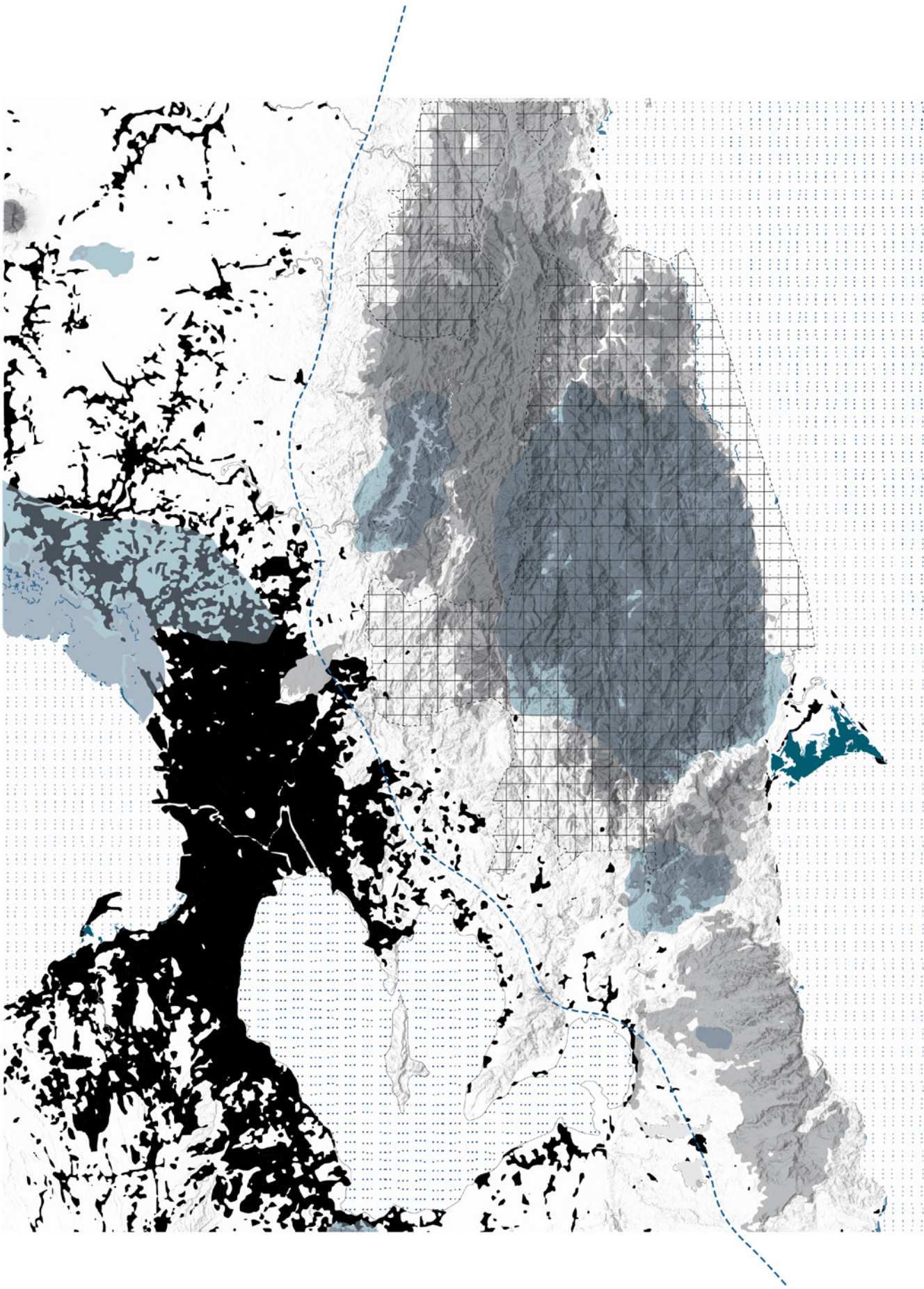
- agriculture
- industry
- services

the agta tribe

negrito indigenous communities



- forest gathering
- fishing
- hunting



habitat

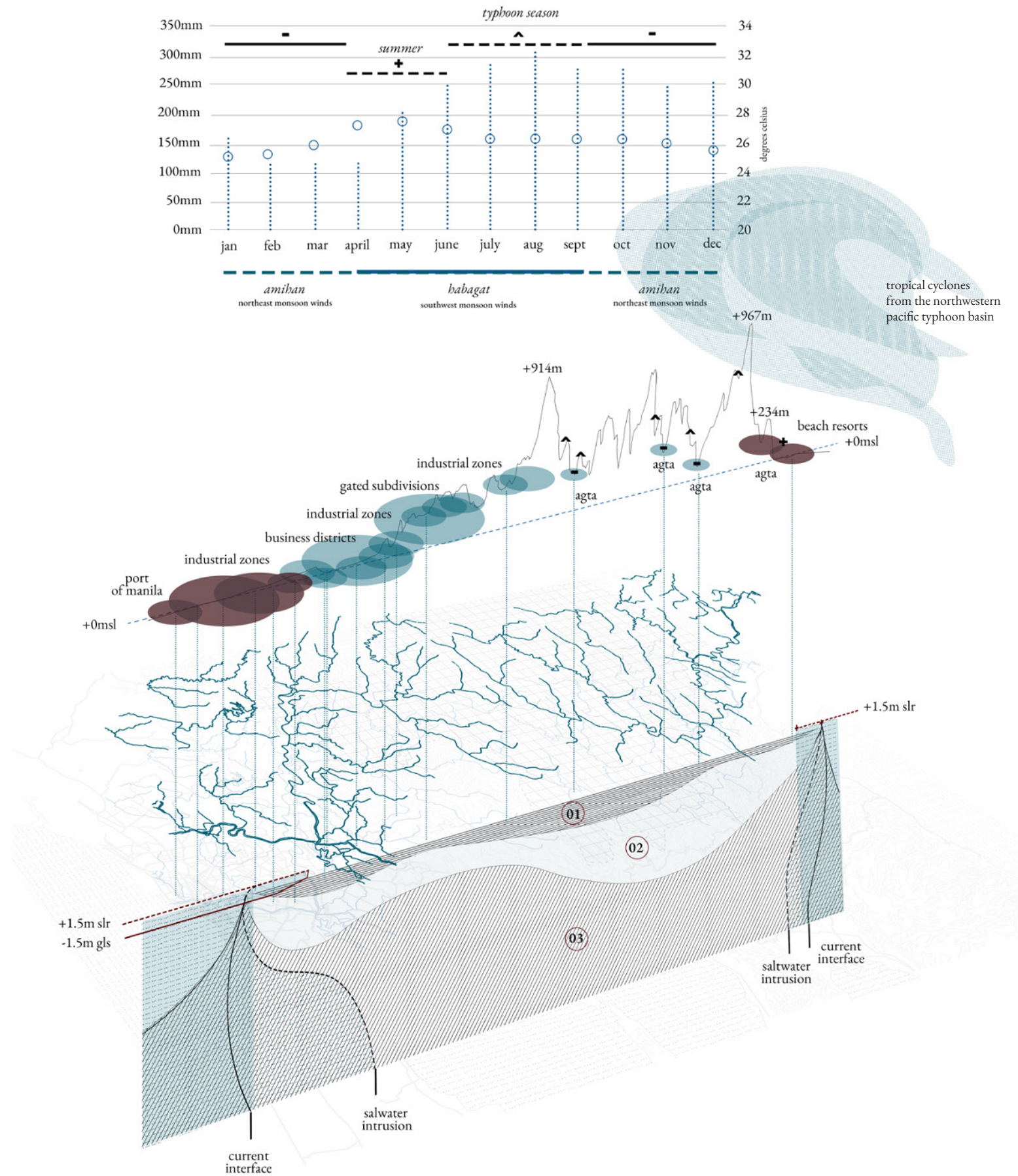
ALTERATION

Static vs. Dynamic Ways of Life

Hydrometeorological hazards define the lives of the people and the lands they affect through cycles. As typhoons occur 20 times on average in a year in the Philippines, indigenous peoples, such as the Agta Tribe adjust their settlements to these climatic events. Usually clustered by the river most of the year, they move upland to closed forest areas for protection from the typhoons, and then descend to coastal areas during the hottest months. With sea level rise, their dynamic way of living shall encounter more those of the urban whose static settlements will need to relocate further inland or upland, a new cohabitation scheme from the impacts of this must be imagined.

- River / Major Tributary
- Seasonal Tribal Settlement - By River
- ▲ Seasonal Tribal Settlement - Closed Forest Area
- ⊕ Seasonal Tribal Settlement - Coastal Area
- River Settlements
- Impacted Settlements
- 01 Water Table
- 02 Fresh Groundwater / Unsaturated Zone
- 03 Saturated Zone

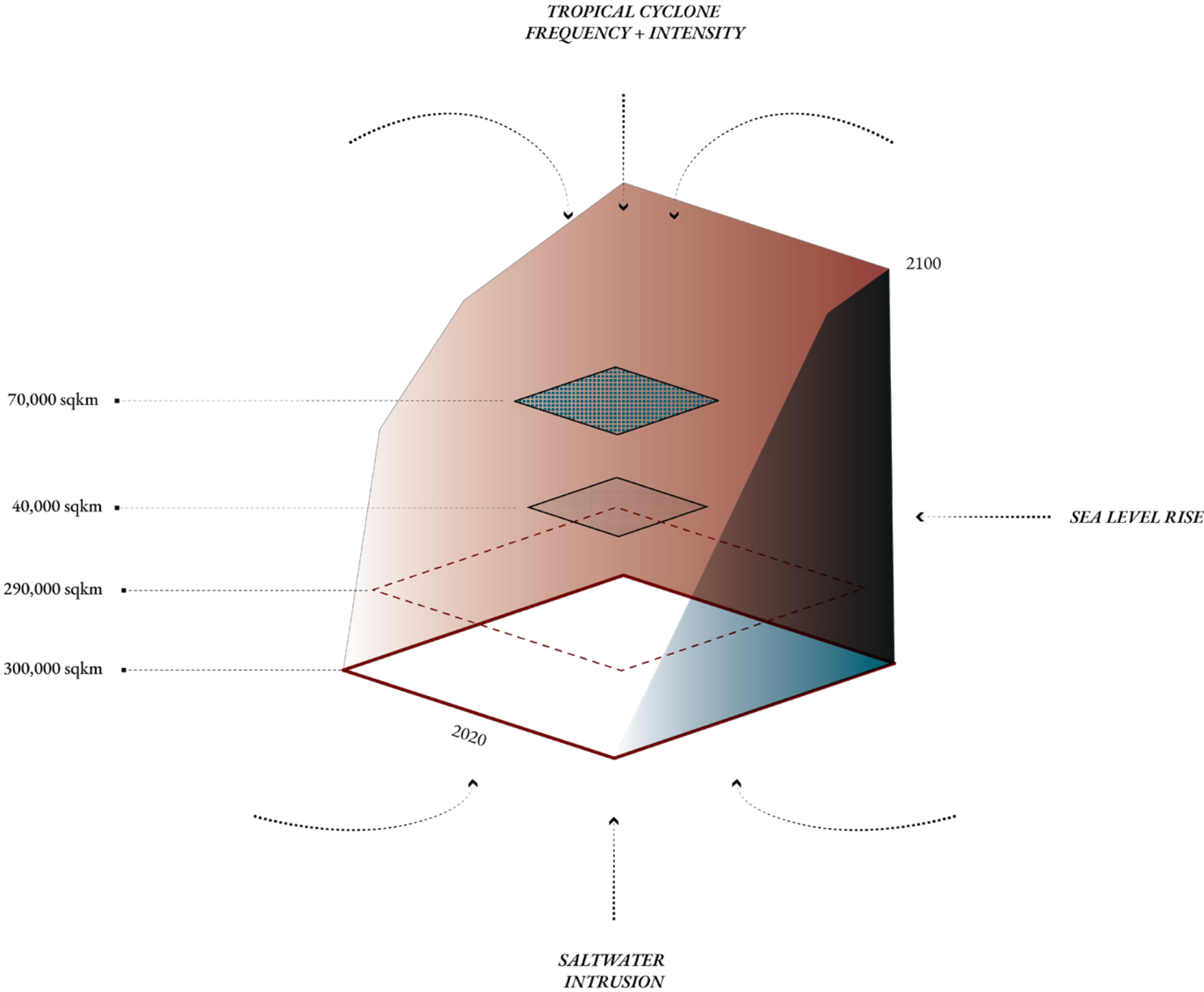
monthly climatology of mean-temperature & precipitation 1991 - 2020
&
agta tribe traditional settlement cycle



Receding Livingspace

Shorelines are receding and liveable land area is becoming more scarce. At all fronts, the archipelago is experiencing the typhoon’s wrath at the atmosphere, sea level rise at the surface, and saltwater intrusion in the subsurface. Population increase and water supply demand go hand in hand in this crisis, and with decreasing shore-lines, agricultural area, and forest cover, a critical point of struggle reveals itself by 2100.

- Total Land Area (Philippine Territory)
- Land Area after Shoreline Recession
- Agricultural Area (Rice Production)
- Forest Cover
- Population Increase
- Water Supply Demand



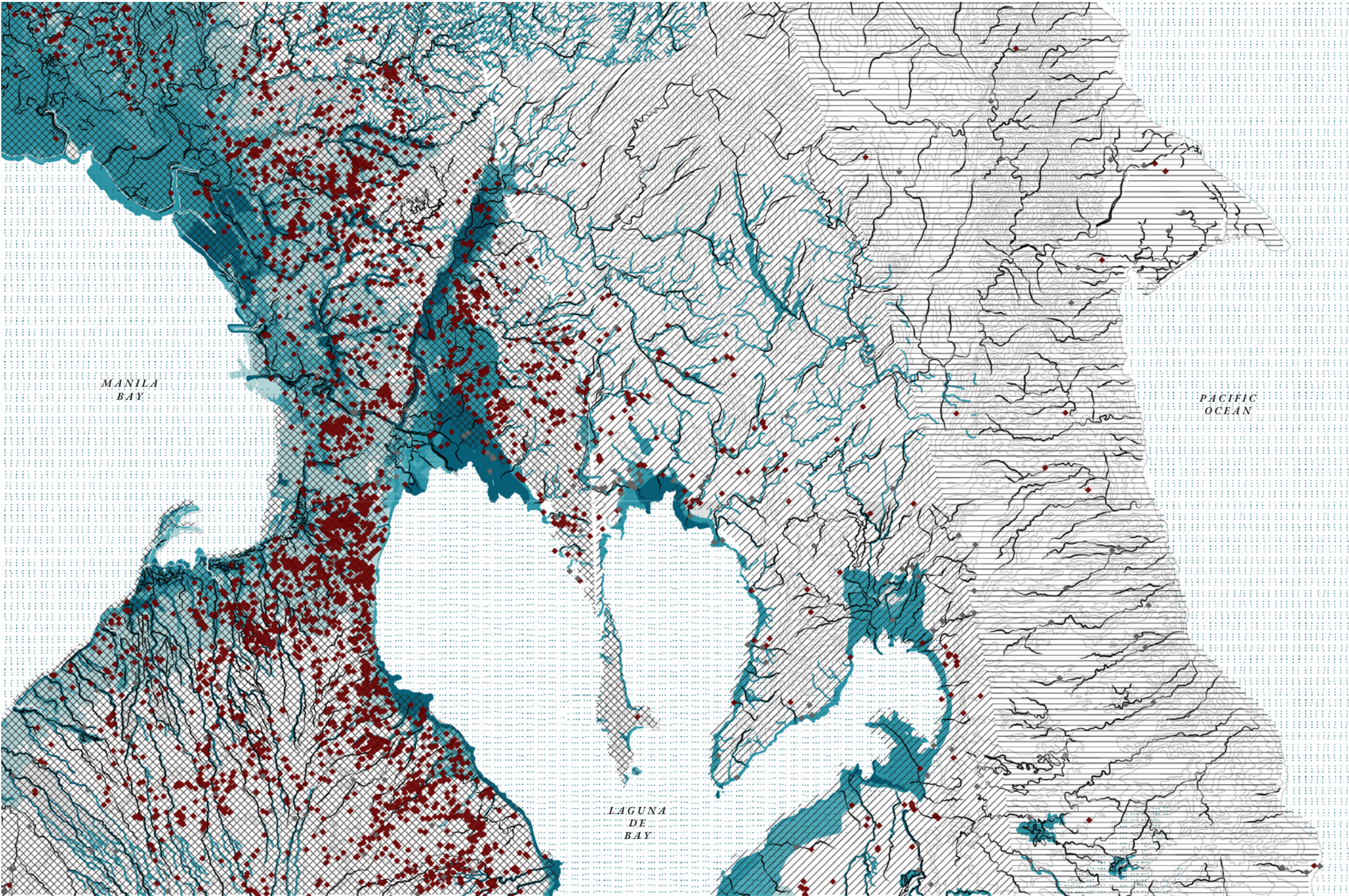
matter

COMPOSITION

Water Everywhere.

Water is everywhere in the Philippines, and in different forms. The single stretch of a major river basin already touches three (3) different tropical climate types in the case of the Pasig-Laguna-Marikina one. Flood risk are most present in the lowlands where floodplains and more people reside, and the use of groundwater is most prevalent therein also shaping the subsurface structure. The concentrated use of water from the ground as well as the dams that contribute to this being facilitated inconspicuously, the relationship of the urban Filipinos with water can be solely palpably seen during rainy seasons, when flooding occurs. The indigenous rely more on surface abstraction or direct extraction from the freshwater source - lakes, springs, and the river itself.

- Saltwater
- Freshwater
- River / Major Tributary
- Flood Risk - High
- Flood Risk - Moderate
- Flood Risk - Low
- Climate Type I
- Climate Type II
- Climate Type III
- Groundwater Extraction Areas
- Surface Water Abstraction Areas



matter

ALTERATION

Water Everywhere!

The riverscape of the Pasig-Laguna-Marikina river basin is altered by the ways water is extracted and received when the monsoons come, and manifests in a varied manner as it crosses east to west, coast to coast. With rainfall patterns changing more rapidly and unpredictably, drought from atmosphere to the subsurface affects the entire hydrological cycle that capacitates the entire river’s system from groundwater regeneration, soil health, to cloud cover.

- Water

Built Structure

Soil Type - Filled Up Soil

Soil Type - Marikina Silt Loam

Soil Type - Mountain Soils

Soil Type - Antipolo Sandy Clay

Unconfined Aquifer

Aquitard

Confined Aquifer

Aquilude

Climate Type I

Climate Type II

Climate Type III

Groundwater Artesian Wells

Groundwater Table

01 precipitation deficiency + volatility

02 high temperature, high winds, low humidity, less cloud cover

03 reduced infiltration, runoff, deep percolation and groundwater recharge

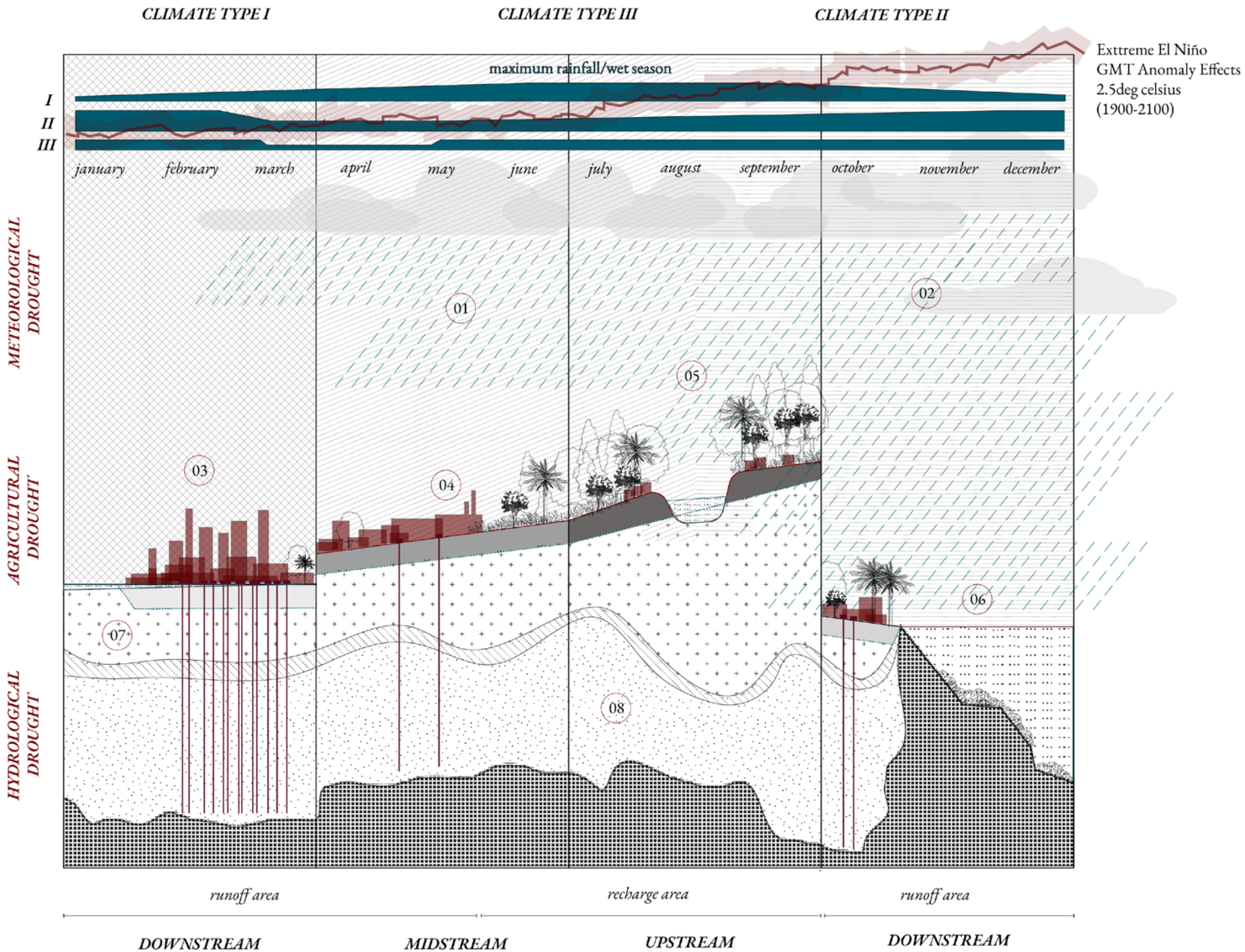
04 increased evaporation and transpiration

05 plant water stress, reduced biomass/yield

06 increased sea surface temperature

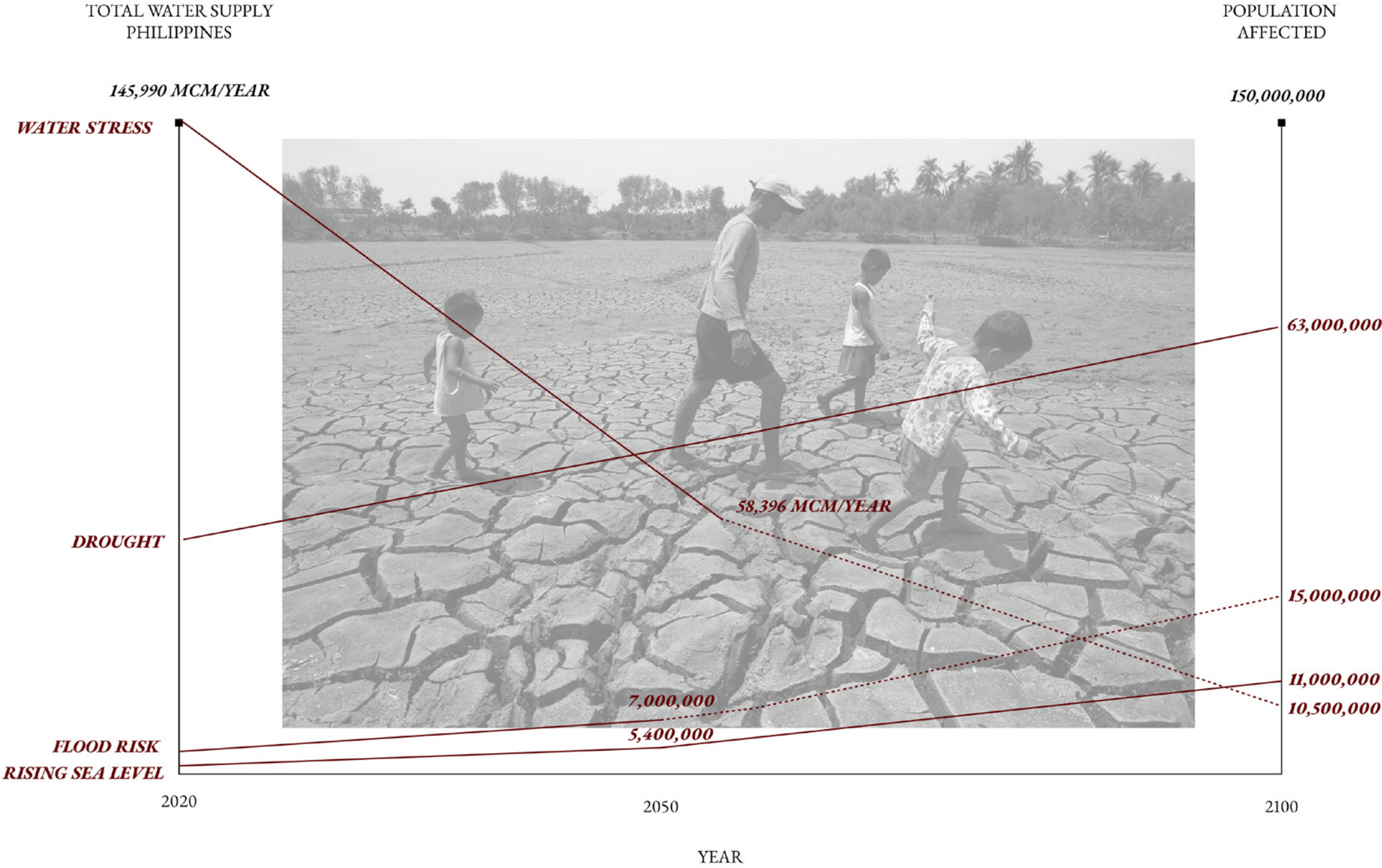
07 soil water deficiency

08 reduced streamflow, inflow to aquifers, lakes, ponds, reservoirs and wildlife habitat



Water, Where?

As supply is always tied to demand, the effects of the climate crisis is also made more measurable by who it most affects, and how many. The projected population of over 150 million Filipinos by 2100 sees the increased exposure of more than half of them to the intersections of water as the threat instead of the sustainer and how interrelated they are in their causes. To see where they all converge and where they can be remediated can certainly open up pathways to this fate of a deluged land and parched people to be overturned.



“Resistance is always relevant because
the times are always trying.”

- Bea Quintos (2022)

a reality

problem focus

The River is an Endless Territory

From the initial critique, a revelation throughout the archipelago can be seen over the river’s cycles, boundaries, and ecosystems, revealing the symptoms of socio-ecological crises affecting its entirety as most human settlements rest along it, increasing the fragility and vulnerabilities of the Philippines to the more damning effects of the climate crisis. The Philippines as a megadiverse hotspot has over 421 principal rivers, encompassing biodiversity corridors which are considered not only the last frontiers of the Philippine ecosphere but also the planet’s. There are three critical biodiversity hotspots detemined as priority areas for conservation, protection, and sustainable management, namely 1) The Sierra Madre Biodiversity Corridor in Luzon, 2) The Palawan Corridor in Palawan, and 3) The Eastern Mindanao Corridor in Mindanao.

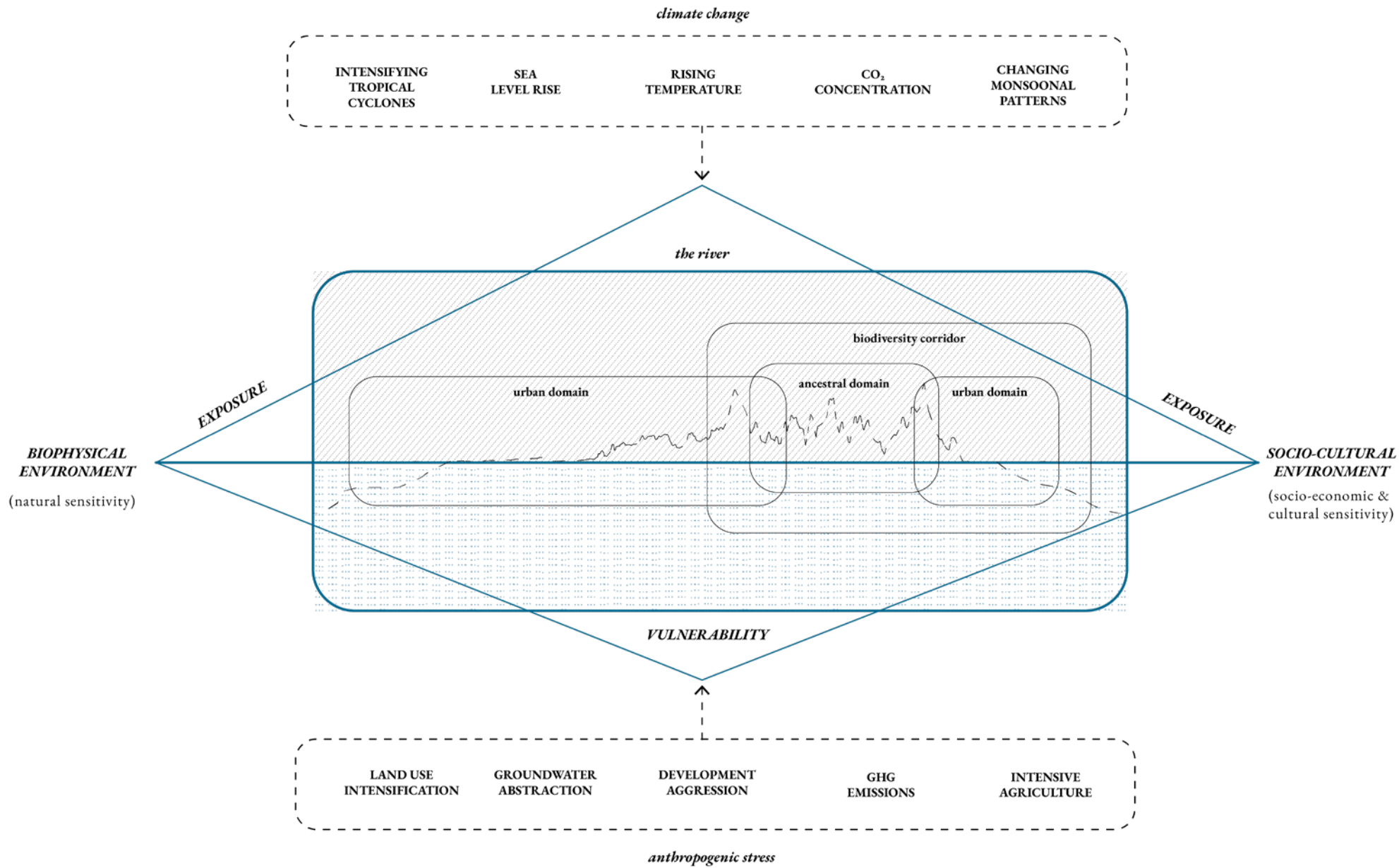
As potential sites connected with the river basin, these areas exhibit essential criticalities in terms of the complexities of interactions between high levels of biodiversity, the urban domains, the ancestral domains, and the riverscapes. Also spread throughout the islands, the biodiversity corridors pose as exploration areas that uplift the notion of the archipelago’s multiplicities, allowing for a richer view of a country as biogeographically unique as the Philippines. For the purpose of this exploration and study one (1) biodiversity corridors shall be touched; namely the (1) The Sierra Madre Biodiversity Corridor (SMBC) as it meets the fast growing metropolitan region of Metro Manila that operationalizes the riverscape belonging within ancestral domain most palpably.

The convergence of these different layers reveals the need to understand their complex interactions and what is missed within the management of natural resources and development of biodiversity conservation frameworks and climate adaptation plans in what is supposed to be a continuum and not merely areas demarcated as ‘protected landscapes and seascapes’, ‘alienable and disposable lands’, and ‘forest reserves’ regarded as separated from one another. Fragmentation begins when there is no clear and careful understanding of the relationships existing and developed between marked territories and the people who manage them; different national agencies, local government units, and indigenous tribes, with most operating on the same values and approach of centralized governance, galvanized by economic growth. Although there are practices and policies that have been set in place that attempt to bridge ecosystem and resource management across local to regional scales in an integrative manner, many components are disrupted by external influences of systemic social-spatial injustices as well as intensified climate-related hazards that render them ineffective or not enough.

Thus the river is considered the transbounding entity that enfold these separate and contentious domains, wherein the biophysical tensions meld with the socio-cultural, and vice versa. Interlacing them opens up understanding of how urbanization has been intentionally operationalizing the riverscapes and what are their most acute impacts, whether through the encroachment of ancestral domains by building infrastructure for industrial agriculture and the sole use of city activities, or for being part of the traditions and rituals that the indigenous tribes perform to show their reverence to the spirits of the river.

A ‘River Interface Unit’ (RIU) emerges that positions a river system as the complex social-ecological system boundary with the three major components of Urban Domain, Ancestral Domain, and Biodiversity Corridor. As opposed to just ‘ridge to reef’, a transect from ‘coast to coast’ is considered across these components. These RIUs can be studied and diagnosed through the differentiation of 1)

the interaction between climate change impacts, 2) anthropogenic stress/pressures on natural capital, and a critical assessment of 3) existing adaptive capacities between the urban, the indigenous, and biodiversity. Therein, opportunities for the mediation between the relationships of indigenous and urban tribes can be identified to create pathways towards the regeneration of lost land and biodiversities - marine or terrestrial - and where a more authentic strategy towards climate adaptation can be formed and catalyzed. A transitional and sustainable development regime that respects and integrates indigenous and local knowledge systems (what remains of them) throughout these RIUs within Philippine river basins and in the process, enhancing adaptive capacities for negotiated and evolutionary resilience is possible.



Urban Domain - The River - Ancestral Domain - Biodiversity Corridor Transect
The River Interface Unit
by the author

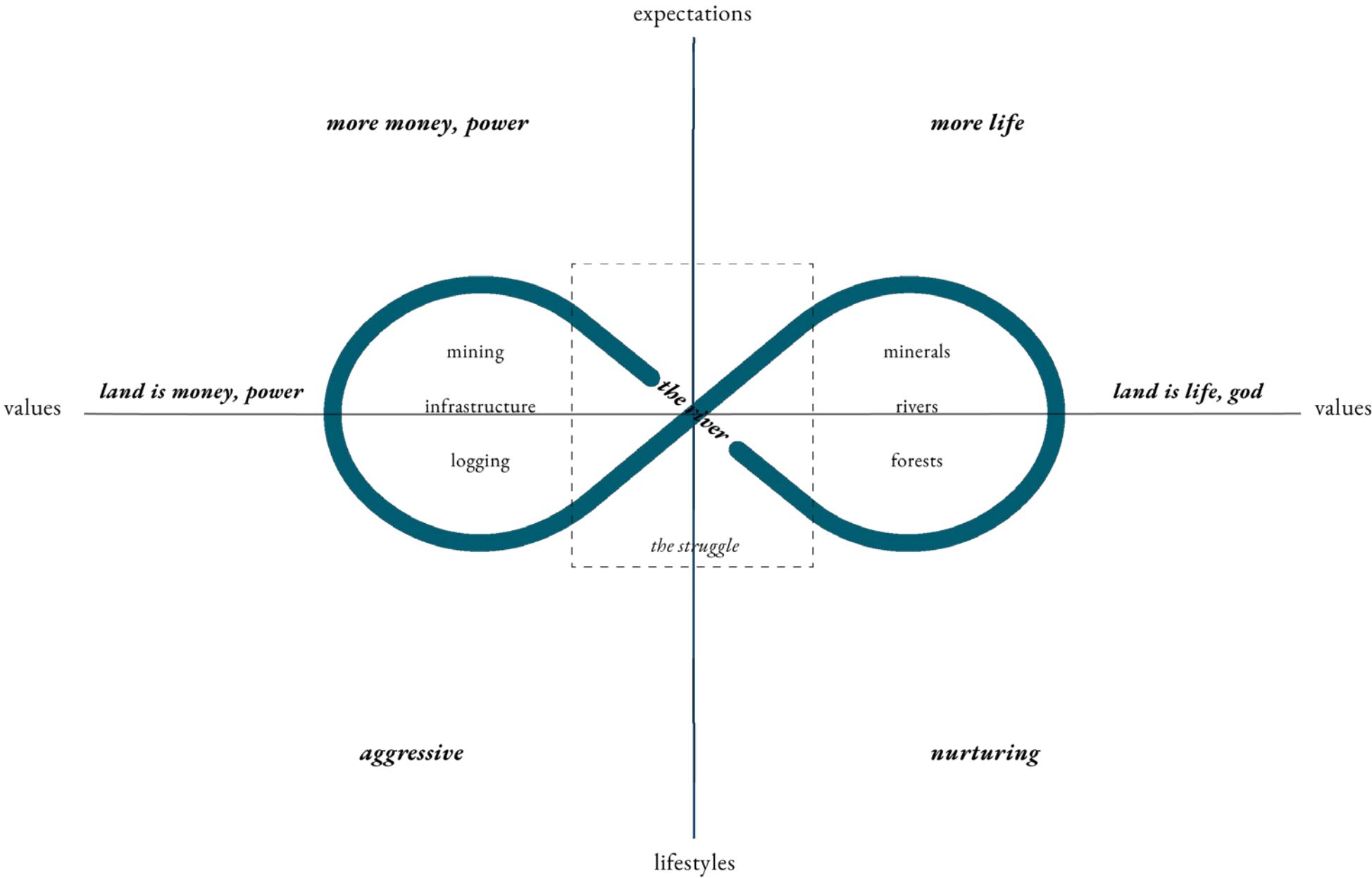
problem statement

We Find the Struggle in the River

Humans co-exist with nature and must live with each other, yet if the forces determining this co-existence are grounded on dysfunctional dichotomies maintained by entrenched colonial values in power and institutions as exemplified by the rabid development aggression perpetrated in the Philippines, the fragmentation of vital megadiverse natural and socio-cultural landscapes shall continue, leading to a hyper-vulnerable state of an already scattered territory weak in both spirit and body. With the interplay of its endemic risk to intensifying, unpredictable climate and natural hazards and the priority placed on centralized development and economic growth, the multiplicities that exist in the Philippine Archipelago stand weak in the face of climate change as the growing population of urban tribes are continually disconnected and desensitized from the natural environment, of which indigenous tribes are deeply connected with through their ancestral worldviews.

Such disconnect between human and nature amongst majority of the Filipino population is complicit to the colossal degradation of the megadiversity of the Philippines’ social-ecological ecosystems from terrestrial to marine biocultural areas just in the last century. Accordingly, the violence against and deliberate exclusion of indigenous communities in the co-management and decision-making over the territories they consider their life and know so well are eroding ties to ancestral traditions and knowledge systems that could in turn enhance and protect the national ecosphere from further disasters, from further loss of life. These interacting elements pose the multiple complexities within multiple complexities of the whole archipelagic system that must be understood and assessed for adaptive capacities to be enhanced. For the preservation of critical biodiversity, empowerment of indigenous knowledge and cultures, and an effective and transformative climate adaptation for all.

Upon unraveling the multiplicities that patronize the Philippines as Exotic, Exhausted, and Helpless, it is evident that the health and well-being of its ecosystem services and the humans who depend on these are at the center, to which the riverscapes are witness to. We find the most struggle along the rivers, whose boundaries that fragment it carry the different life forms and forms of life in constant exchange of values, expectations, and lifestyles from the urban to the indigenous. Thus, to see the riverscape as an endless territory wherein the natural hydrological cycle and socio-spatial landscape that could facilitate this must be restored or maintained is the aim of this project. Engaging with the riverscape to unfold its system functionalities and the many meanings to the many identities who manage and make use of its resources and who are exposed to its many risks can hold the key to the path towards a clearance state, a restoration of the social-ecological continuum present in the practices and cosmology of the indigenous tribes is vital and can aid in a renewed paradigm of sustainable development, hanging in the balance of socio-spatial justice, decolonization, and the recognition of pluriversality.



We find the struggle in the river.
by the author

the proposition

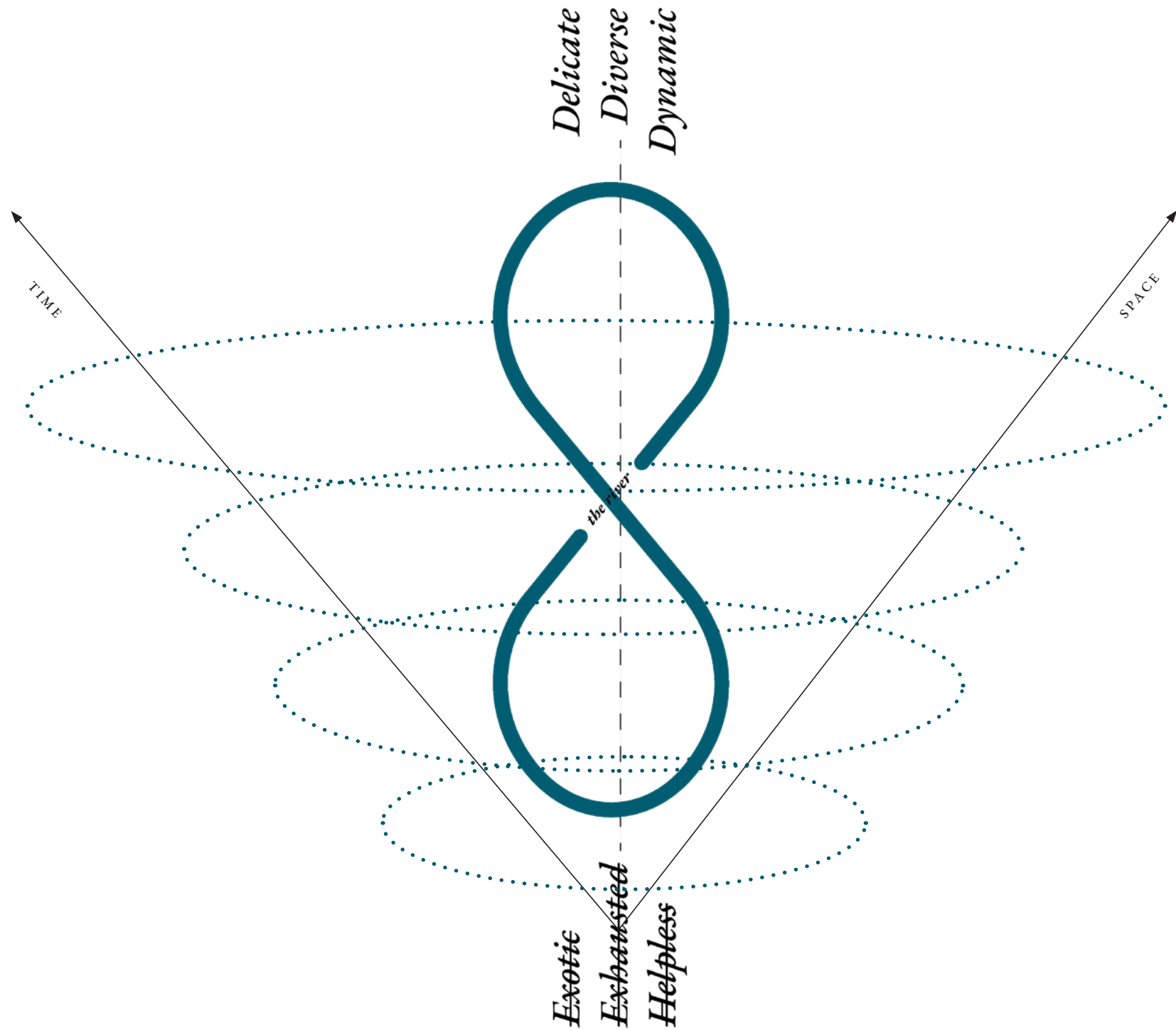
A Renewed and Transitional Integrative Planning Model

Biophysical and socio-cultural tensions must be determined and understood more carefully as multiplicities co-exist in the biogeographically diverse Philippine archipelago to form a more solid critique of the existing land management regime that is homogenizing and allowing the shameless encroachment on ancestral domains and thus disrupting ecosystems and debilitating the services they offer. Thus by exposing the effects of the violence of development aggression over peoples and lands within biodiversity corridors along operationalized riverscapes considered as ‘Critical Zones’, a refoundation of values can be unearthed in where mediation between urban and indigenous ways of living co-exist in symbiosis for a salubrious adaptation to the ecological crisis at hand alongside the unabated risks they entail.

As risks are determined by how vulnerabilities and exposures are combined against a system’s adaptive capacities, The River Interface Unit (RIU) is considered as the initial scale of intervention in where the elements that interact within the interface shall be assessed through a values-based risk and adaptive capacity assessment framework with the focus on intentions and practices that either enable or hinder growth of the relationship with nature. From there, opportunities in where the growing inevitable risks encountered by the Philippines can be found and more harmoniously acted upon. Integration of these dynamics can be conducted in collaboration with local actors and communities to form adaptive pathways towards the renewal and synchronization of values for the the regeneration of lost land and biodiversities that have contributed to degraded ecosystem services, while also strengthening adaptation capacities for climate change.

Renewed values can be translated through a transitional design approach and planning model in the way the riverscape is treated and managed, respectively. Such is vital to be discovered – those that would amplify the involvement of multidiverse stakeholders especially from the most vulnerable sectors, enable indigenous and local knowledge in the co-creation of both futures and sustainable spatial development, and ultimately, to restore the spiritual continuum between human-nature unearthing a more rooted identity into a liberated future for the Philippines.

What if we live in an archipelagic future where indigenous and local knowledge systems and “ways of living” are uplifted and lead? Where we as urban tribes once again retrain our senses and imbibe from them the value of strength in vulnerability, in taking only what is truly needed, and to live by the temporal dynamics of nature as resilience. Diverse ways of life in co-habitation, back in true harmony; the indigenous and urban tribes of the Philippines, coming together, hanging on the balance of the river as the site of the cycling constants; birth, struggle, death, and love.



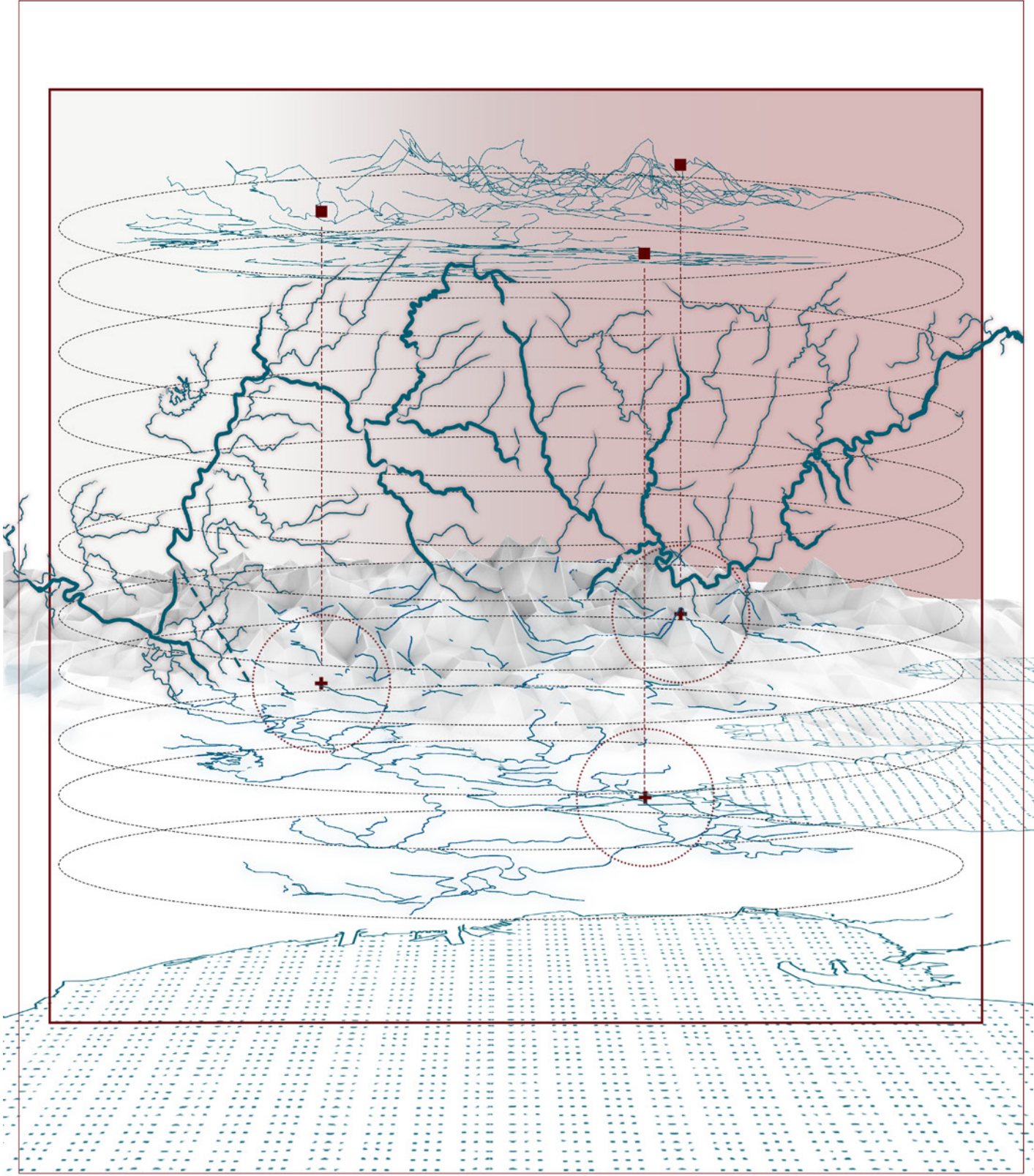
The Counterpose through the River for the Philippine Archipelago’s Collective Future
by the author

a projection

The River Continuum for Clearance

And so, we turn to and follow the rivers, the main veins of a scattered nation linking all this; urban domain, ancestral domain, biodiversity areas, and also the interfaces of inland-seaward. Where the 25 largest cities and urban settlements in the Philippines are located - at the coasts, mouths of rivers, on their banks. 18 major river basins are spanned by 421 principal rivers draining to 119 watersheds that covers an area of 140,000has, linking 64 coastal provinces and 822 coastal municipalities, providing the freshwater needs of all the living beings in the country, however they are used. Their conditions determine the very quality of life of ecosystems from upstream to downstream. With the abundance of multipliticities found in the Philippines, touchpoints of the urban domain merge with the ancestral through the rivers from which the criticality the nation is facing can more specifically be revealed.

Upon learning even deeper the position and gaze of the indigenous peoples in the Philippines, perceiving and approaching the project has transformed. Merging this with the River Interface Unit's discovered cyclic pattern, a new model needed for developing critical adaptation pathways and strategies for the archipelago can be imagined. A River Continuum is the projection that is alive with a perceived pattern from the initial lines of inquiry aims to unravel. Taking into account the complexities of complexities of the archipelago's situation, the project shall embrace the whole system, investigating the manifestations and effects of development aggression over the riverscapes's systems, values, and dynamics with climate change and other anthropogenic stresses, a clearance may also reveal itself, river by river.



“We have to imagine a Philippines way
beyond our lifetimes.”

- Eka Mesiona (2022)

a future

As an archipelagic territory composed of multiplicities — identities, resources, and risks — pressured by a homogenizing and centralized development paradigm, how can the Philippines prevail from the effects of the climate crisis through a transitional and renewed co-management regime of the river, restoring the spiritual continuum between human and nature ?

SUB-QUESTIONS

Critique Questions (Assessment)

- CR1: What are the identities, resources, and risks present in the River Interface Units? How do these multiplicities interact as systems; what are the effects of climate change vs. development aggression over these? What are their limits?
- CR2: How does development aggression manifest itself in the socio-spatial landscapes of the Philippines? What are their impacts on the river basin ecosystems?
- CR3: What are the main drivers of development aggression and what are the policies in place that define its limits?
- CR4: What are the socio-cultural values, expectations, and lifestyles based on land use and practices that surround the River Interface Units? What are the biophysical forces present in and affecting River Interface Units and how do they interact with these socio-cultural values, expectations, and lifestyles?
- CR5: Who are the indigenous groups in the River Interface Units? What roles do they perform within the land management or spatial development frameworks that affect their ancestral domains?

Action Questions (Design and Planning Approach)

- AR1: What are existing spatial development, land management, and climate change adaptation frameworks in place; nationally, regionally, and locally? What is the decision-making process, and who creates them? How are they implemented and facilitated throughout the islands?
- AR2: How do the differing worldviews in the archipelago influence the response to disasters and climate change effects? What are the different adaptive capacities found in urban domains vs. the indigenous domains?
- AR3: What are existing co-management frameworks already allowing for indigenous participation within the country? Are there opportunities to synchronize these or must they be altered?
- AR4: Where are there areas where co-management can be most urgently applied? What dynamics are there and how can they be integrated within adaptation pathways?
- AR5: How can the riverscape reconstruct or mediate belief/socio-cultural structures?

Form Questions (Vision)

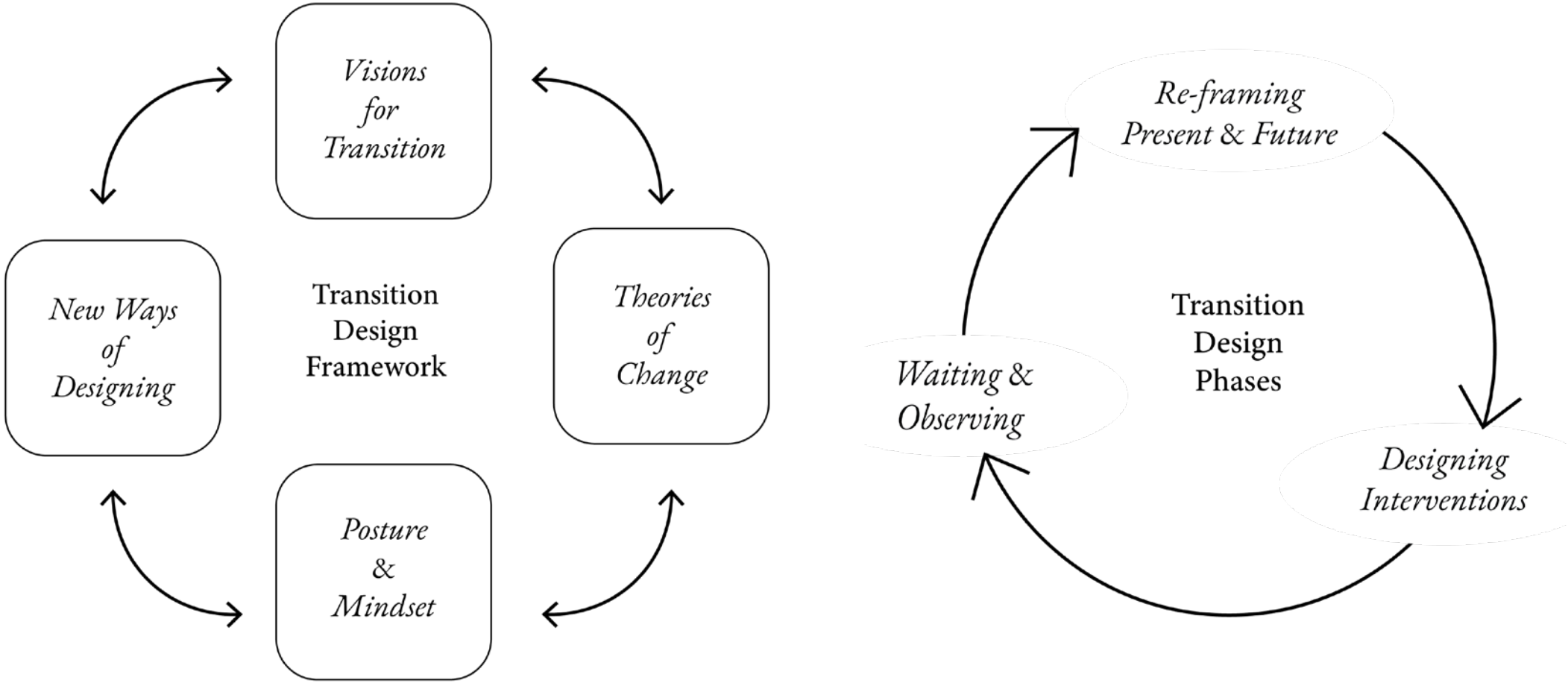
- FR1: What design approach is most appropriate for dealing with multiplicities of values and beings? If there is none, how can the design process be transformed?
- FR2: How can engaging with the riverscape in more delicate ways be achieved?
- FR3: How can multidiverse imagined futures be formed into pathways for design interventions?
- FR4: How can we turn ‘archipelagic vulnerability’ to ‘archipelagic opportunity’?
- FR5: How is forcing a singular identity over a place with so much plurality and megadiversity another form of colonization?

methodological framework

A Transition Design framework guides the research by design methodology. New knowledge, action, and self-reflection are key components of a transition design thinking method by which the adoption of diverse frames of reference and values is the initial step. The entire approach is hinged on being a simultaneous learning and challenging process as this entails the designer’s need “to acknowledge the hypocrisy that comes from being a change agent toward a new system from within the old system” (Tonkinwise, 2019). Moving beyond Design for Service and Social Innovation, Transition Design is founded on the crucial shift towards more longer-term visions and the requirement of a new set of “more sustainable socioeconomic and political paradigms” by which design interventions shall be hinged upon (Irwin, 2015).

Four main areas serve as guides to this framework. *Visions for Transition*, *Theories of Change*, *Posture & Mindset*, and *New Ways of Designing*. The co-evolution and interaction of these areas form a ‘palette’ from which “situation-appropriate interventions may be designed.” The ‘transition design framework’ which follows an emerging three-phased approach for “addressing wicked problems and catalyzing systems-level change... prescribes a logic for coalescing different practices (knowledge and skillsets outside the design disciplines), situated within mutually-influencing co-evolving areas that are relevant to seeding and catalyzing relational changes.” The entire research framework follows these phases with each step falling under: 1) Re-framing Present & Future, 2) Designing Interventions, and 3) Waiting & Observing. (Tonkinwise, 2019; Irwin, 2015)

The method itself allows for an open-ended outcome considering the deep uncertainties, complexities, and multifarious ways that the research may encounter by virtue of dealing with the megadiverse Philippine context, yet emphasizes the ‘emergent’ quality that challenges dominant existing paradigms in design that always presupposes concreteness, predictability, and profitability. Moreover, the use of this methodology invites diversity and dynamism into the design process from which a new way of designing can also emerge in itself.



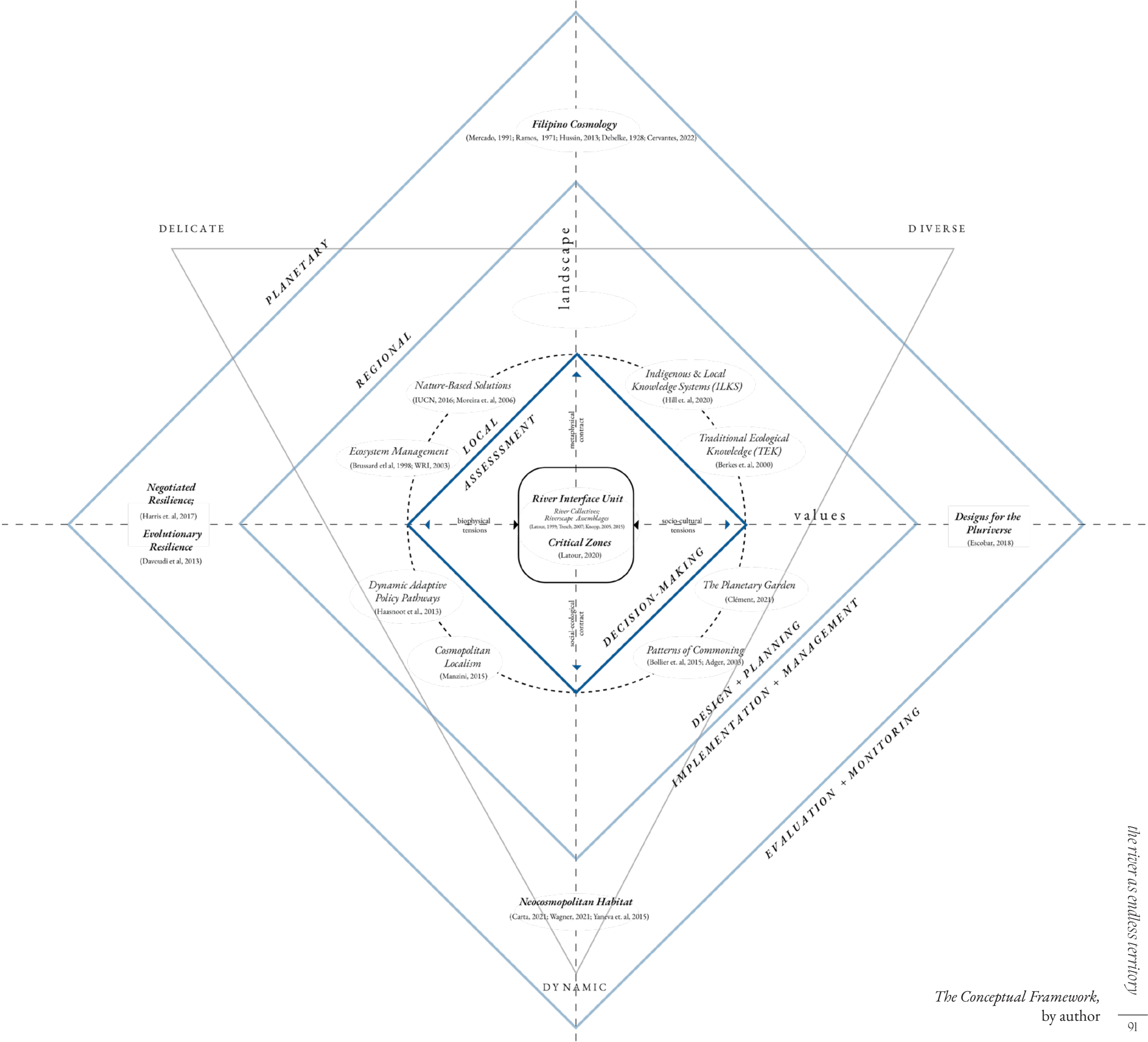
from left: *The Transition Design Framework*,
The Three Phases of Transitional Design Process
by T. Irwin (2015)

conceptual framework

Recognizing the imperative for the transition from the Neo-Colonial realities that pervade in the archipelago of multiplicities that has been driving development aggression heavily implies the need for ontological reconsiderations as the “substantial challenge to the onto-epistemic formation embedded in the current dominant form of capitalist modernity (Escobar, 2018).” Thus, operating on this opens up the discourse and research towards cosmologies and the many worlds that exist in the megadiverse Philippine context. Indigenous tribes in the Philippines have always considered their land their life, and with this belief comes an entire worldview in where values, lifestyles, and expectations from the world are constituted differently. Filipino Cosmology as a whole is embedded as one of the main pillars of the theoretical foundations that lead the project, alongside Pluriversity (Designs for the Pluriverse), Negotiated and Evolutionary Resilience, and The Neocosmopolitan Habitat.

The conceptual framework is organized and designed in such a way that the River Interface Units (RIU) are considered as Critical Zones (Latour, 2020), placed at the center as the fundamental sites of study in where it is pressured by biophysical and socio-cultural forces in the environment causing tensions, driven by climate change and a homogenizing and centralized development paradigm manifested through anthropogenic stressors and their dynamics with with the former two. Tension is used as these forces are straining (pushing and pulling) the zones leading to eventual limits. A breakout from this tensive and pressured state is envisioned in where theories of change involve directions towards new values and landscapes as the axes, with design and planning theories of change that respond to the tensions more concretely, tying these together to form a whole social-ecological system now poised in a delicate, diverse, and dynamic continuum as systems-level change occurs over multiple scales - from local to planetary.

It would be appropriate to note that most theories that build up the framework are formulated from the Western rationalist paradigm, recognition and awareness throughout the project and going deeper into learning about more local perspectives can also allow the designer to cross-check and see how certain aspects of some theories are put into practice in less publicized ways by the local communities and indigenous tribes. Aside from the theoretical underpinnings listed and defined here as *Theories of Change*, *Terminologies of Change* are also highlighted that are used throughout this research to signify emerging perspectives or esoteric ideas that beg for more attention and consideration, and even further insight that can be unraveled as the study continues.



theories of change

THEORIES OF CHANGE

Critical Zones (Latour et. al, 2021)

Designated as the topographic layer of the earth, the ‘critical zone’ is an ever evolving slice of the earth wherein life is recognized whose specific creatures and beings that live within it constantly transform the conditions for them to persist. According to Latour “A ‘critical zone’ also underlines the fragility of this thin layer, and the many controversies triggered by the new political attitudes necessary to cope with the New Climatic Regime - to connect the material and political transformations in the relations of humans to their terrestrial conditions of existence.” The RIU as the critical zone in this study based on this reading proposes the alternatives to the prevailing dichotomies between human-nature-culture.

Filipino Cosmology (Mercado, 1991; Hussin, 2010; Debelke, 1928; Cervantes, 2022)

Tying the megadiverse Filipino communities across the islands is this belief that a spiritual world is alive and can affect humans, sometimes in ways that can cause harm. “Ritual is the transactional event that binds individuals of a given community and the inhabitants of the spirit world together in a web of memory, with notions of responsibility and the primary value of survival and well-being or in a continued existence via conceptualizations of ‘balance’ (Hussin, 2013).” According to Cervantes, the Filipino believes in a matter-spirit continuum. Material things are viewed as imbued with a spirit as having life, and vice versa. This transpersonal cosmovision posits that the material existence of the world is not the only what is consisted as real, but that there are spirits that are around and permeate matter forming a more vast cosmic collectivity.

Neo-Cosmopolitan Habitat (Carta, 2021; Wagner, 2021; Yaneva et. al, 2015)

A new model of a habitat that must be foremost reflected upon philosophically before the political, the social as well as to be applicable in any action of urbanism or urban planning must be developed. The interconnectedness of myriads of life forms in space must be given new meaning and clarity given the idea of a planetary community and to its consequences to the earth habitat as well as the immaterial worlds beyond it. “The importance of not only being connected with the world of humans, but of needing to review our role as citizens of the planet entangled with the natural world and with the multiple identities of the cultures that enrich the cities we inhabit. (Carta, 2021) The challenge is to exercise a belligerence to force a transfiguration that simultaneously reduces the carbon anthropogenic forms poisoning the planet, yet also makes intentional use of the common intelligence as well as the idea of commoning once again built from refreshed and new concepts of relations with space, culture, landscapes all over the world - a reformed ecology that can be operationalized in design and planning as well as new ways of life.

Designs for the Pluriverse / Pluriversality (Escobar, 2018; Reiter and Bernd, 2018)

To deal with decolonization in design is to foremost acknowledge the universality of different cosmologies that gave birth to different

known and also unknown civilizations, transcending the limits and standards of being, knowing, and meaning proffered by the Western epistemology and investigations. Pluriversality is to view the world as an interconnection of diverse beings in where many worlds and worldviews are in co-existence, “entangled in a power differential (Reiter and Bernd, 2018).” The key is for design to engage energetically with pluralism and pluriversality in decolonial projects that touch on “food sovereignty, reciprocal economic organization, and the definancialization of money, decolonization of knowledge and of being, decolonization of religion as a way to liberate spirituality, decolonization as a way to liberate esthesis etc.), and multipolarity in the sphere of politico-economic de-westernization, led by state projects. (Escobar, 2018)”

Negotiated Resilience (Harris et. al, 2017)

It is a form of critique of resilience by the insertion of the process of negotiation to the term in where ‘negotiated resilience’ is used with the intention to highlight the politics, complexities, and procedural dimensions of resilience. Resilience thinking must be reframed as a process of negotiation, a *dynamic problem-solving process* or *organized improvisation* - rather than as a definitive goal or outcome. Resilience in this context is not a stable nor fixed result or state, it is something that entails continual redefinition and engagement with multiple and different stakeholders, visions traversing multisclar time and governance spectra.

Evolutionary Resilience (Davoudi et. al, 2013)

Humans and nature co-exist and interact interdependently. Evolutionary Resilience (ER) then posits the ability of complex social-ecological systems to change, adapt, or transform to stresses and strains undergoing an iteration of adaptive cycle is defined by a structure and functions with four distinct phases of change; 1) growth, 2) conservation, 3) creative destruction, and 4) reorganization. In the context of climate adaptation the reciprocity between persistence, adaptability, and transformability across multiple time frames, yet in adding the variable of a social context in where human intervention and intentionality is possible, now a social-ecological system a fourth component; preparedness. As Davoudi states, ER is not a process of being, but of becoming.

Indigenous and Local Knowledge Systems (Hill et. al, 2020; Mustonen et. al, 2022)

Both individually and collectively maintained, indigenous and local knowledge is at the interposition of biological and culturally diverse social-ecological systems and the what links them together. Knowledge of a contium between human-nature-spirit manifest in the practices and beliefs that intertwine life forms and their specific environments. Indigenous and local knowledge systems (ILKS) are situated in a territory, is also in itself highly diverse and yet is remolded constantly in its responses and interactions with different events, inventions, and integration with other types of knowledge that can inform the management of ecosystems more ‘sustainably’

Traditional Ecological Knowledge (TEK) for Adaptation Management (Berkes et. al, 2000)

Traditional Ecological Knowledge (TEK) is taken here for the social mechanisms behind traditional practices that hold adaptive qualities in their practice for generations, accumulation, and knowledge transfer that in turn guides and transforms natural resource management for double loop learning and how it engages with uncertainty and unpredictability intrinsic to all ecosystems.

The Planetary Garden (Clément, 2021)

Cultivating co-existences is at the heart of the theory of The Planetary Garden in which the world is seen as a garden that must be tended to with care and openness to foster diversity and the good benefits they provide the entire garden. It sees actors as gardeners or guardians formed not through globalization but more as a manifestation of the sundry of interactions between human activity and biological diversity. For Clement, ancestral practices must be celebrated and maintained as they play a crucial role as planetary gardeners, in where he also demands, “What kind of model do we want to develop, to allow both the exploitation of diversity for the benefit of an expanding world population, and the preservation, in quality and quantity terms, of that diversity on which we depend?”

Patterns of Commoning (Bollier et. al, 2015; Adger, 2003)

Commoning in the context of adaptation processes is a form of progressive risk-reduction strategy as well as livelihood supply that can deal with the gaps in both market and state-oriented economic systems. The commons are not non-living things, but are viewed as the organic fabric of social structures and processes that is active and living needing dynamism in its operations. Accordingly, Adger points out that Social Capital that engages in Commoning or Collective Action enables resilience differently dealing with both personal and social dynamics involving concrete practices, values, traditions and experiences that also build on idenity. Bollier notes, Commoning as “A pluriversal way of knowing, seeing, and acting to build a new world, reimagining of democracy itself and the self-determination and freedom that comes with it” to develop vital capabilities that proliferate throughout not just the system itself to other many collectives.

Cosmopolitan Localism (Schismenos et. al, 2021; Manzini, 2015)

A social innovation approach, cosmopolitan localism is a concept or community development that aims to reduce the distance between the scales of local and global through “resilient infrastructures that bring production and consumption closer together, building on distributed systems (Manzini, 2015).” Transporting from the local to the universal, recognizing the former as the core of social connectedness and privileging the opportunities that a global network can be operationalized with it beyond the protocols of a capitalist market economy.

Dynamic Adaptative Policy Pathways (Haasnoot et al., 2013)

As one of the main methods within the Decision-Making Under Deep Uncertainty (DMDU) framework, Dynamic Adaptive Policy Pathways (DAPP) emphasizes the importance of systems

analysis in order to determine “objectives, constraints and uncertainties that will inform decision making (Haasnoot et al., 2013).” Scenario-making is key here in that both challenges and opportunities may be pinpointed to see what actions may be necessitated to adapt to changing conditions, reducing losses and capturing benefits.

Ecosystem Management (Brussard et. al, 1998; WRI, 2003)

Indigenous peoples in the context of ecosystem management have been practicing this for millenia and as a contemporary conceptual method to managing resources to ensure continued sustainability and the functionality of the facilitation of ecosystem services (provisioning, supporting, regulating, and cultural). Based on traditional and indigenous management, ecosystem management aims to bridge “ecological, socioeconomic, and institutional knowledge and priorities through diverse stakeholder participation (Brussard et. al, 1998).”

Nature-Based Solutions (IUCN, 2016; Moreira et. al, 2006)

Nature-based Solutions are actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature. The role of NbS within cultural landscape restoration is critical in this research in that their strength as infrastructure must be made explicit in aesthetic and yet also of solid functionality. As many ILKS livelihood practices intrinsically have NbS, this form of intervention is most relevant.

terminologies of change

TERMINOLOGIES OF CHANGE

Adaptive Capacity
(Cinner et. al, 2018; IUCN, 2020; Whitney et. al, 2017)

Adaptive capacity may vary depending on the changes occurring, the linkages between local contexts and global processes, the ways that linkages manifest as effects on systems and individuals, local perceptions of desirable and undesirable system states and outcomes, and the characteristics of the system that determine the suite of available responses. In other words, it is crucial to define the adaptive capacity “of what,” “to what,” and “for whom” (Carpenter et al. 2001, Adger and Vincent 2005, Lebel et al. 2006, Adger et al. 2012).

Adaptive Pathways
(Haasnoot et al., 2013)

Adaptation pathways describe a sequence of policy actions or investments in institutions and infrastructure over time to achieve a set of pre-specified objectives under uncertain changing conditions. An adaptation pathways map provides insight into policy options, the sequencing of actions over time, potential lock-ins, and path dependencies.

Ancestral Domain
(RA 8371 - IPRA, 1997; ICCA, 2021)

Aside from the local legal definition for indigenous territory in the Philippines, the ICCA Consortium that is an international movement that recognizes the threats to indigenous rights, lands, and cultures and thus attempts to enable the recognition and empowerment of the indigenous and their cultures, traditions, and practices that can be better represented in governance and policy-making worldwide. The ICCA recognizes ‘Ancestral Domains’ as territories and areas conserved by Indigenous peoples and local communities (sometimes abbreviated as “ICCAs” or “territories of life”

Clearance Pathways
(Author, 2023)

From position of the Transitional Territories Studio towards Clearance as the search for alternative forms of critical design as acts of care. Clearance Pathways differ from Adaptation Pathways in that transformative climate adaptation can be only be achieved by obliging the addressing of both socio-spatial justice issues and the conservation of critical biodiversity through a decolonized position over the River, transcending not only the entangled material components, but also the the emotional and spiritual.

Identity Resilience; Nostalgia for Self-Continuity
(Breakwell, 2021; Sedikides et. al., 2015)

Identity is defined by physical and social structures with capacities for: Memory, Consciousness, Organization, occurring in the environment we live in. Identity Resilience (IR) is then defined as the ability of an individual or collective to re-create and maintain itself during episodes of crisis and shock. A principle in IR is Continuity that is enables a cue from memory that recalls a sense of self that is consistent over time, and brings back homeostasis to the body. Nostalgia is a function of this principle in that it allows the

recollection of past experiences as life defining and mold the self in a positive way and reinforces present continuity. The mechanism that Nostalgia fosters IR through self-continuity is ‘social connectedness’ that “strengthens sense of belongingness or acceptance (Sedikides et. al, 2015).” IR is maintained through coping strategies which rely on 2 key processes: 1) Accommodation-Assimilation of new elements in the environment and 2) Evaluation to reconstruct their value and meaning as it is actively interpreted as conditioned by the past.

Complex Social-Ecological System (SES)
(Whitney, 2017; Gain, 2021; Gunderson and Holling, 2002)

Complex Social-ecological systems (SES) are constituted of ecological and social elements that are in constant communication, interaction, and transformation. Their interdependencies are complex and dynamic so that they support the well-being of human life and management of natural resources, thus the entanglement by which they operate organically is a challenge to be analyzed with a classical approach. Intersectional and multidimensional collaborations are entailed to dissect SES in the approach towards resolving challenges in sustainability.

Neo-Colonialism
(Sartre, 2001; Lichauco, 2004; Mahajani, 1974; AAPC, 1961)

Neo-Colonialism posits that even in the event of ‘independence’, colonialism remain present and predatory in the operations and lives of “liberated” territories. “Practically, every aspect of the ex-colonized society still harbors colonial influences... by turning these states into victims of political, mental, economic, social, military and technical forms of domination carried out through indirect and subtle means that did not include direct violence (AAPC, 1961). In the context of the Philippines, Lichauco states that “We have been preserved as a neocolonial state through the flagrant and systematic intervention of the U.S. government in our political process and in the creation of a collaborator class. Neocolonialist intervention, of course, hasn’t been confined to the political process. You see and feel the hand of that intervention in just about every aspect of Philippine society and the political economy. You see and feel it not only in government and politics but in the business community, in our schools, civil society, media and even the churches (Lichauco, 2004).”

Socio-Spatial Justice
(IWGIA, 2022; AIPP, 2013)

It is through the concept of “land” by which the Indigenous Peoples (IPs) and socio-spatial justice are bonded. The indigenous struggle is one that demands the solid engagement with the politics of recognition and the politics of knowledge, notwithstanding the strong and close links between climate justice In the frame of climate adaptation and the new climate regime, such can only be achieved through social justice in the realm of space particularly those inhabited by contending notions of territory, land ownership as those between the state and the IPs.

To have a clarity of understanding of the scope by which the IPs seek to be recognized and in light of their persistence in the the struggles and tensions being analyzed through the lens of spatial justice and development aggression is paramount in resolving conflicts of interests in where the realm of socio-spatial justices resides; that is the balanced sharing of burdens and benefits in the conception and

development of space, and more importantly the decision-making process this constitutes.

Resilience Imaginaries
(Davoudi et. al, 2018;Yarina, 2018)

The maximization of social and economic benefits as well disaster risk reduction and management brings spatial design and planning at the center, particularly in developing climate resiliency plans, in where sociopolitical visions for the future are transforming. Thus representations of resilience must also evolve in that it acknowledges “the role of individuals not as cogs in the machine, but as political actors who engage with and transform the world. But imagination will be limited if it produces images that only serve to perpetuate the dominant spatial imaginaries. For it to be transformative it needs to transcend the boundaries of the imaginary in which it operates (Davoudi et. al, 2018).”

Transition Design / Transitional Design
(Irwin, 2018; Greene, 2015)

Transition Design positions the design practice and research as agents of change for truly ‘sustainable’ futures. The tenets of long-term thinking, context-nased and the acknowledgment of pluriversality are basic to this form of design thinking. Worldviews are key to the operationalization of transitional design, more relevant in the decolonization of the practice and resistance to global capitalism in the creation of “sustainable communities whose main components include ecological justice, biological and cultural diversity, bioregionalism, rootedness in place, participatory democracy, and cooperative self-organization.

Land’s Intentions
(Author, 2023)

‘Ecosystem Service’s are redefined with the premise that the land has a determination to act a certain way as opposed to just serving human benefits. And the intention ‘to enrich’ is already encapsulated by the Way of Life of Indigenous Peoples as a whole, thus differentiating this from the intentions of providing, regulating, and supporting which are ascribed materially as an extension of socio-cultural space. The term ‘ecosystem services’ shall be referred to “the land’s intentions”.

River Interface Unit (RIU)
River Collectives
Riverscape Assemblages
(Author, 2023; Latour, 1999; Tresch, 2007; Kropp, 2015)

To identify a riverscape’s liberating potential is a challenge as it is composed of many ambiguities bursting with opportunities facing the negative forces of *exploitation, exclusion, and marginalization*. Latour coins “river collectives” as the consequence of an assemblage of human beings, the river, its banks, urban settlements, the landscape, gray infrastructure, and all the directions these moving parts can be traced to form a collective biography. He proposes to follow these directions to subvert the nature-society, technology-politics, ecology-economy dichotomies embedded in the riverscape. The riverscape forming a settlement’s identity especially under the gyre of capitalist systems reveals the accumulation of these directions and intents, especially in the climate crisis where most of the public is concerned.

The River Interface Unit (RIU) is considered then as a compounded SES and a river collective within the context of the Philippine territory, transcending river basins, ancestral domains, urban domains, and critical biodiversity hotspots.

the conceptual design approach

A New Foundational Unit of Spatial Inquiry

The transitional path to clearance begins with the focus on critical areas for conservation and protection that provide the most eco-system services and biodiversity needed for ecosystem health and human well-being in the country. The 3 Critical Biodiversity Hotspots encompass major river basins (RB) from which the River Interface Units as ‘Critical Zones’ arise. Overlapping with these Hotspots are three different spatial compositions, each with a certain boundary, set of main inhabitants, and observable socio-spatial, biophysical, and political spaces in where they all interact with the riverscape:

The Ancestral Domain (AD)

Demarcated and Legally Identified Indigenous Territories awarded with a Certified Ancestral Domain Title (CADT). The CADT is used here for data purposes as this allows for a more accurate geographical basis of the project, although it must be noted that there are more CADTs being awarded as the project is ongoing, and that indigenous territories, in reality, are contested to be much larger than those legally recognized.

The Urban Domain (UD)

Any human settlement that is not ascribed as indigenous territory. In the Philippines, there are 3 main types of cities: 1) Highly Urbanized City (HUC) 2) Independent Component Cities (ICC), and 3) Component Cities (CC). An HUC is categorized accordingly due to their population of more than 200,000 people. There are 148 cities of the Philippines of which majority are located in Coastal and Riverine Areas including the capital, Metro Manila and all identified HUCs, namely: Butuan City, Davao City, Iloilo City, Malolos City, Cagayan De Oro City, Cebu City, Bacolod City, General Santos City, Baguio City, Mandaue City, Tacloban City, Lucena City, Iligan City, Lapu-Lapu City, and Angeles City.

The Biodiversity Corridor (BC)

Ecological zones containing Key Biodiversity Areas (KBA) - terrestrial, marine, and wetland - and large tracts of old-growth forests, wetlands, and other megadiverse landscapes that are declared part of the National Integrated Protected Areas System (NIPAS) Act of 1992 marked as: Strict Nature Reserves, Natural Parks, Natural Monuments, Wildlife Sanctuary, Protected Landscapes and Seascapes, Resource Reserves, and National Biotic Areas.

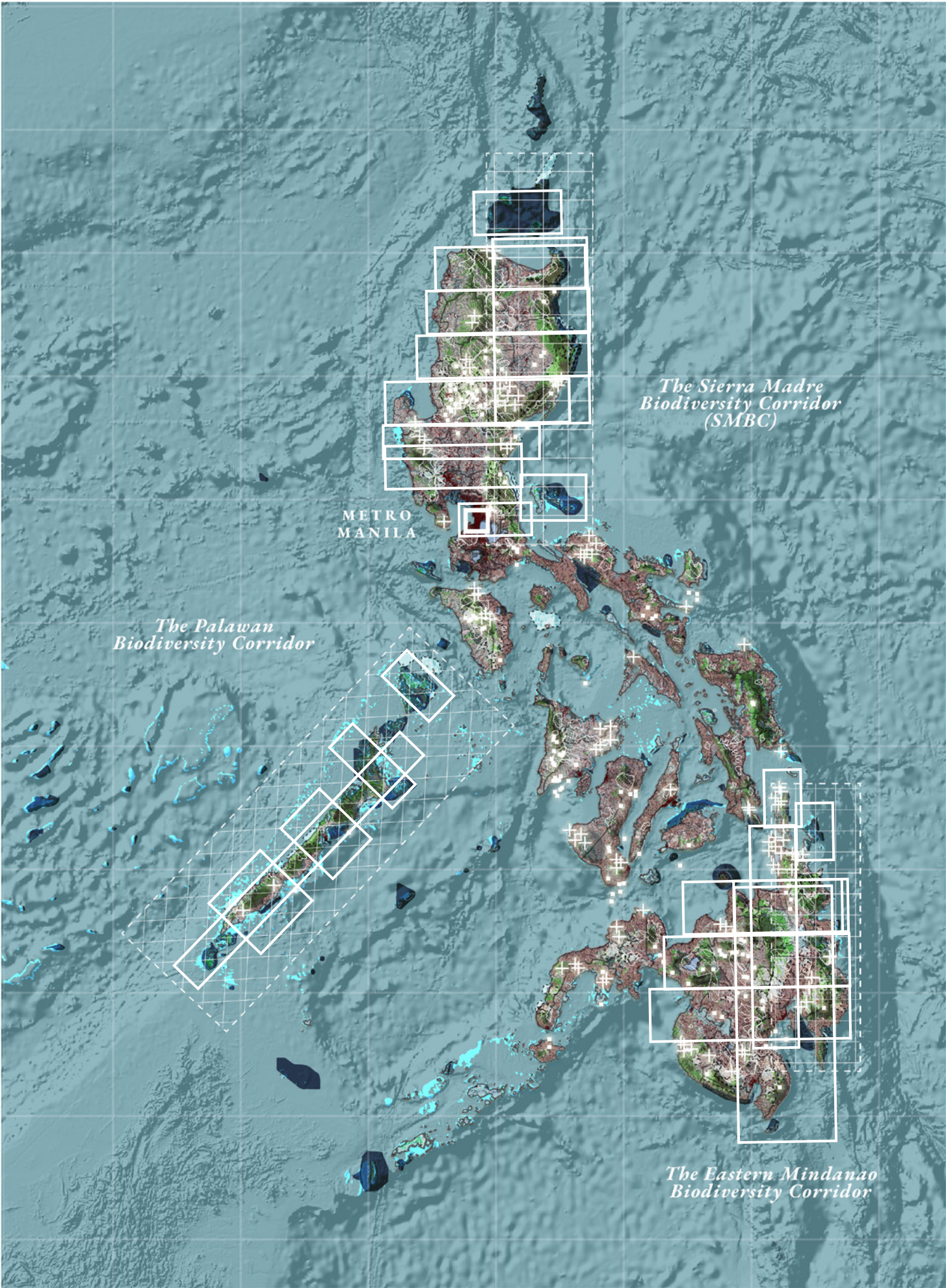
THE RIVER INTERFACE UNIT

There are several RIUs that may be selected for this study, yet for the limitations and scope of this study, two RIUs each taken from different Critical Biodiversity Hotspots are determined to have a richer understanding of the multicplities throughout the scattered island regions and the different identities, resources, and risks that are present therein, notwithstanding the different dynamics between the biophysical space, socio-cultural, and political spaces within each domain to be observed at the interfaces.

The first proposed River Interface Unit to be studied as a case of the project is the:

- River Basin (RB): Pasig-Laguna-Marikina River Basin
- Urban Domain (UD): Metro Manila, Municipalities in Rizal Province and Quezon Province
- Ancestral Domain (AD): Agta (Dumagat-Remontado)
- Ancestral Domains
- Biodiversity Corridor (BC): Sierra Madre Biodiversity Corridor

Possible River Interface Unit along
Critical Biodiversity Hotspots
by author



- ancestral domains
- urban domains
- critical biodiversity hotspot
- critical minerals/mining zones
- hydro infrastructure projects with contracts
- capital

0 200 km

N

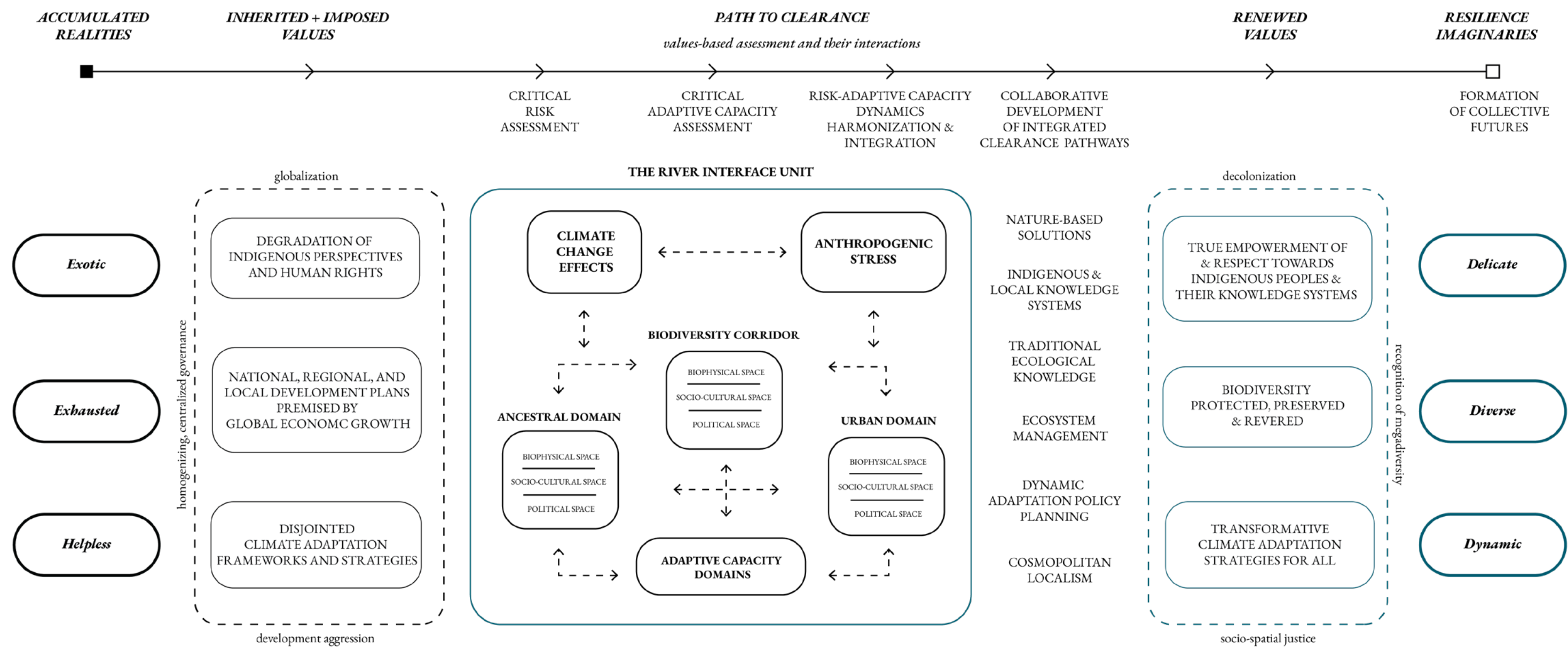
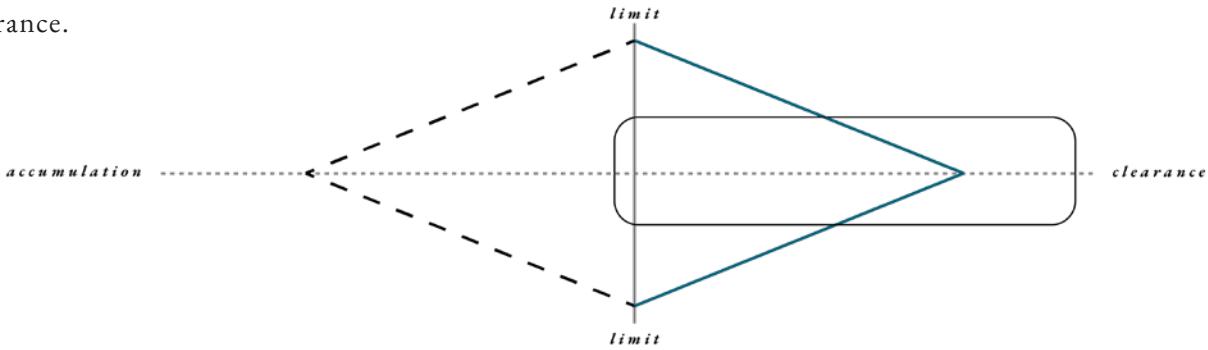
the clearance path framework

A New Foundational Unit of Spatial Inquiry

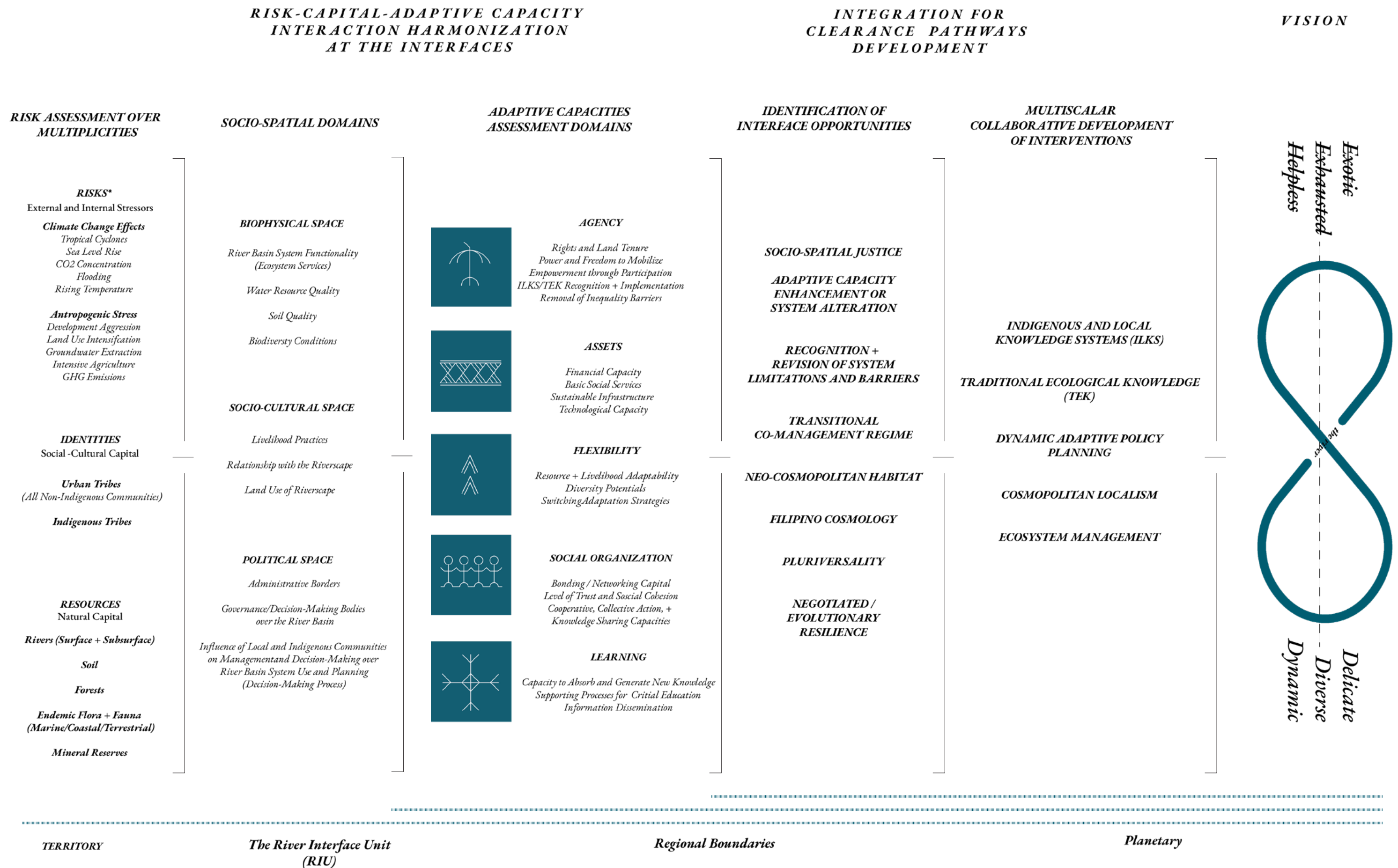
Critical Risk and Adaptive Capacity Assessments for Climate Change within RIUs follow the aspects established by Cinner et. al for Building Adaptive Capacity to Climate Change in Tropical Coastal Communities (Cinner et. al., 2018) in where a broader and more delicate understanding of adaptive capacity approaches its enhancement across five aspects: Assets, Flexibility, Social Organization, Learning, and Agency. Through the identification as well as leveraging of these aspects with one another, interactions or potential connections between them shall be laid out to see how they can be harmonized for a more productive change in the capacities involved.

Multi-scale interactions between planned and autonomous adaptive action to multiple stressors have certain dynamics that must be carefully weighed to form a desired effect, especially in building adaptive capacities. With such aim, the RIU is considered a complex social-ecological system that responds to multiple stressors with 2 layers; climate change effects and anthropogenic stresses which affects the Urban Domain, Ancestral Domain, Biodiversity Corridor, and the River Basin with dynamics visible on three main areas of the Biophysical Space, the Socio-Cultural Space, and the Political/Governance Space.

Path to Clearance.



critical risk + adaptive capacity assessment framework



the River Interface Unit

The first RIU is transectional unit that focuses on the Urban Domain of Metro Manila, the National Capital Region (NCR) of the Philippines in where a day time population of 30 million people conduct their daily activities. As if by intention, the nearest indigenous counterparts over the mountains that envelope east of the city, the Negrito communities in Rizal Province, the Agta, Dinagat, and Remontado indigenous communities' settlements are ensconced throughout the southern part of the Sierra Madre Biodiversity Corridor whose lifestyles are more nomadic. Vantage points of the Pacific Ocean, as well as Manila Bay, and the Laguna de Bay, where the mouths of the Pasig-Marikina-Laguna River Basin are located can be seen from this mountain range.

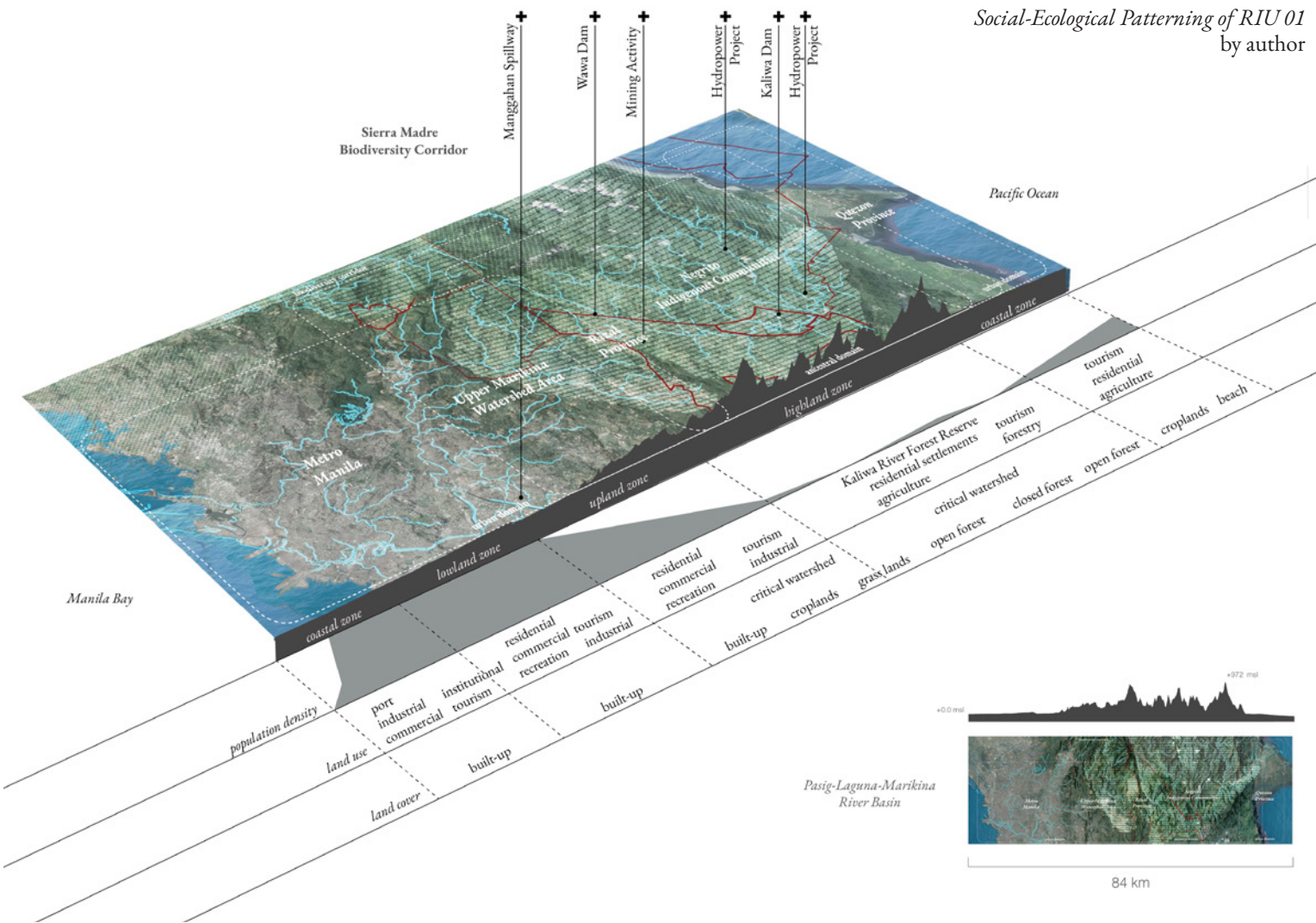
The 'explosion' of urbanization within the Metro since 1975 has also spelled the concordant rate of forest area decline in the unit wherein designated protected areas, critical watersheds, and Ancestral Domains of the Negritos are located. The criticality of this RIU is more definitely seen in the procession of infrastructure projects, particularly hydropower and river channeling/flood mitigation controls, and a single site for mining located in the territory. As part of a Critical Biodiversity Hotspot, it also hosts endemic species and is the backbone of Luzon wherein strong typhoons from the Pacific are buffered.



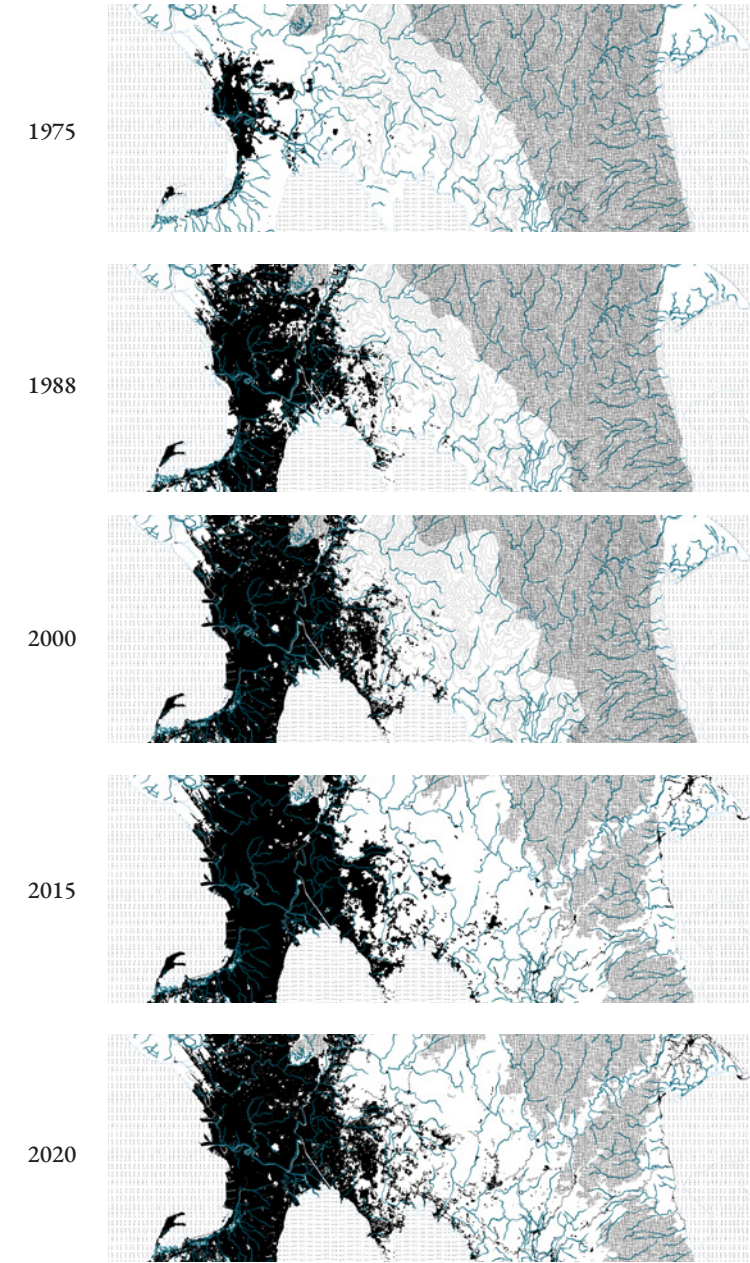
River Basin Area: 4,678 sqkm.

Location: LUZON, Philippines

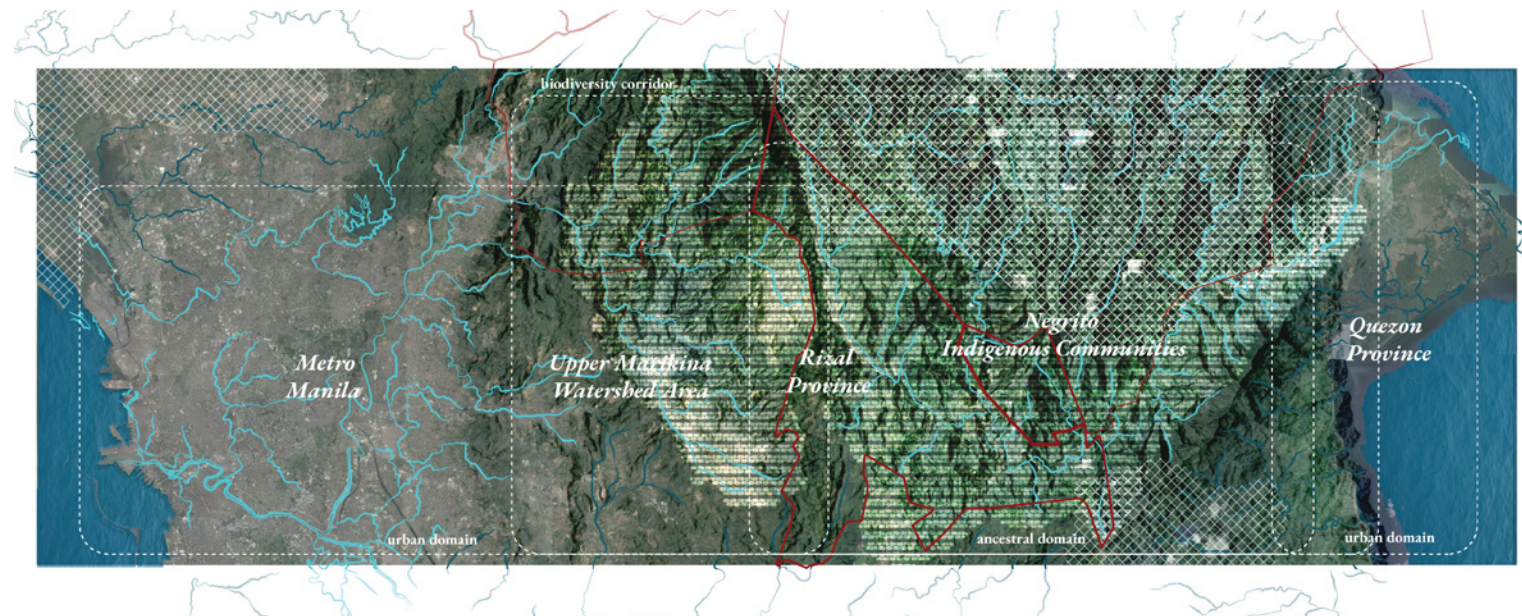
RB: Pasig-Marikina-Laguna River Basin
BC: Sierra Madre Biodiversity Corridor
 - Old-Growth Forests, Kaliwa River Forest Reserve,
 Critical Watersheds, Upper Marikina Protected
 Landscape
UD: Metro Manila + Rizal/Quezon Province Urban
 Settlements
AD: Negrito Indigenous Community Settlements
 (Agta, Dinagat, and Remontado)



Metro Manila Growth vs. Sierra Madre Foreset Cover Decline (1975-2020)

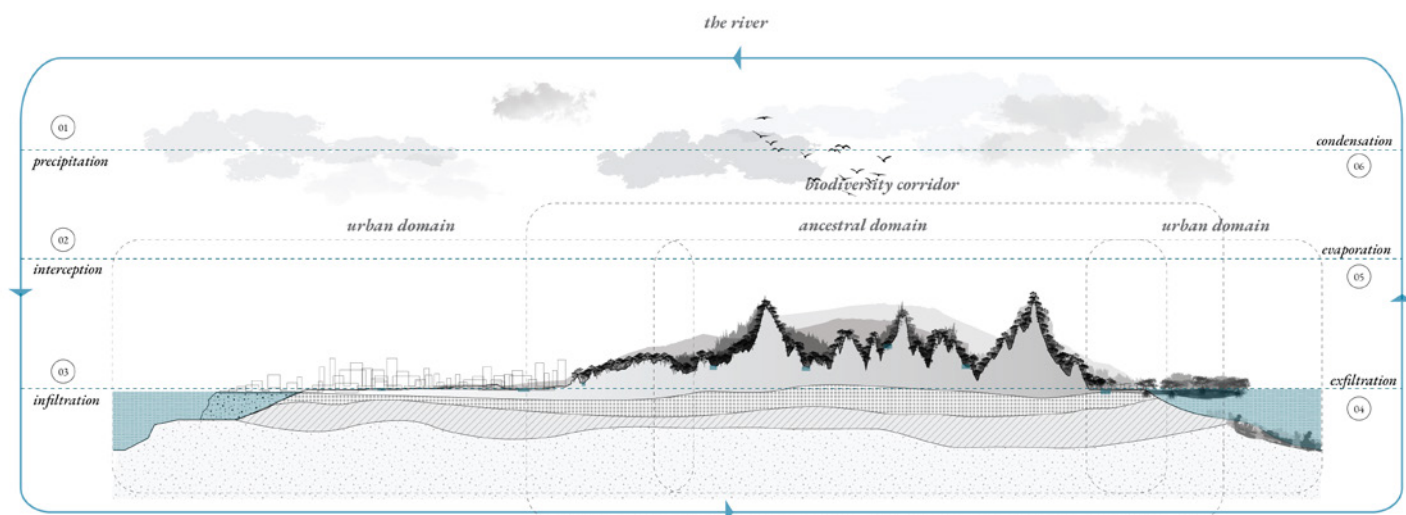


Map of the Chosen RIU 01

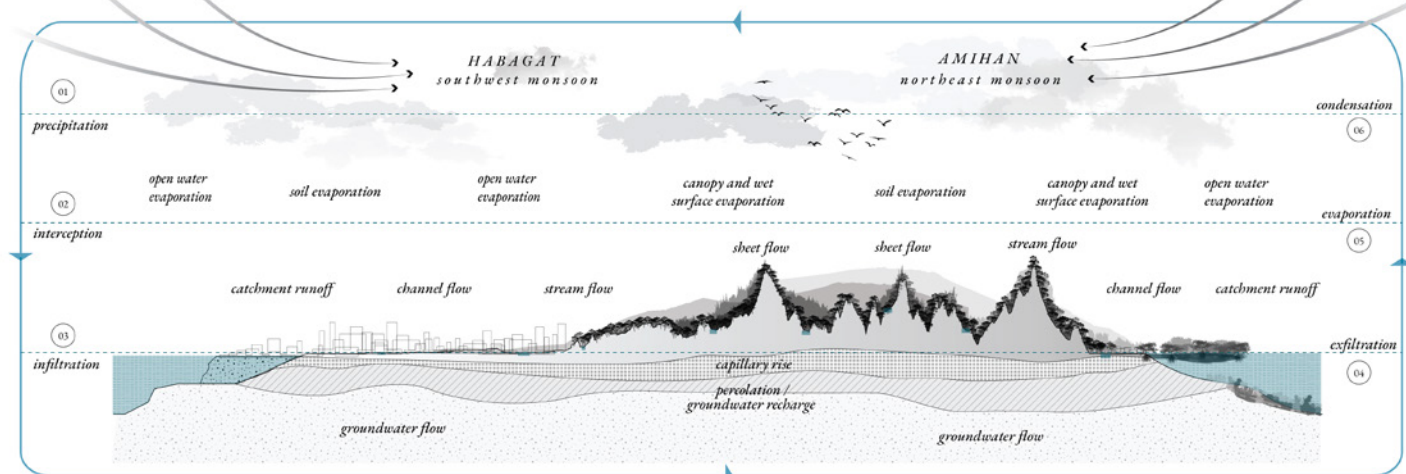


01 river interface unit

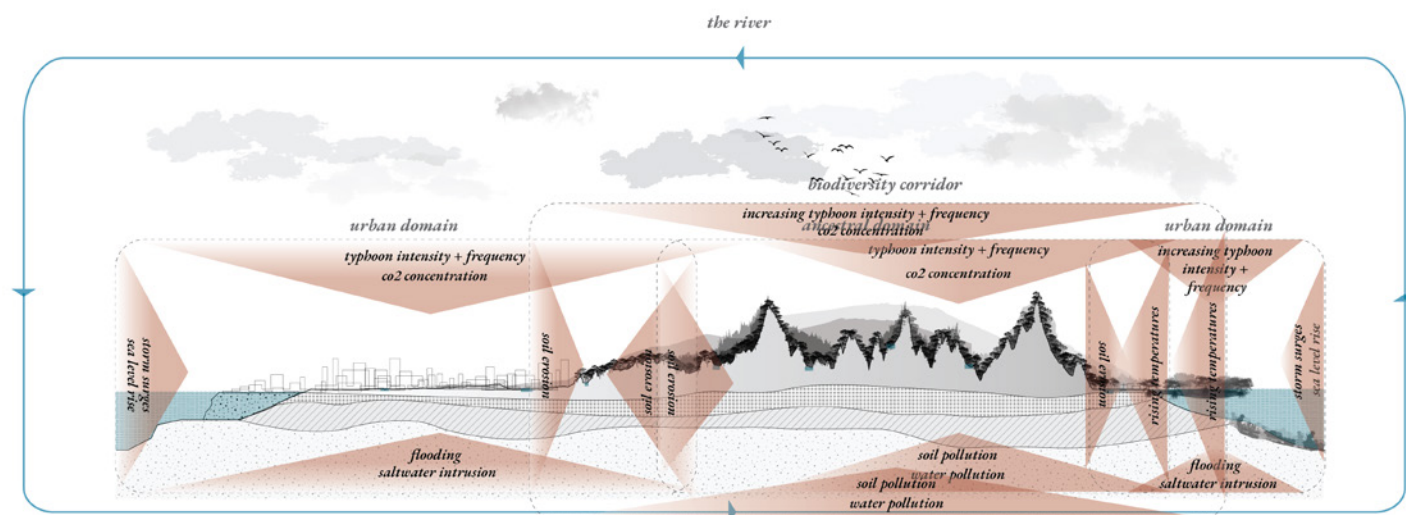
Transects of Chosen RIU 01



domains and the river basin

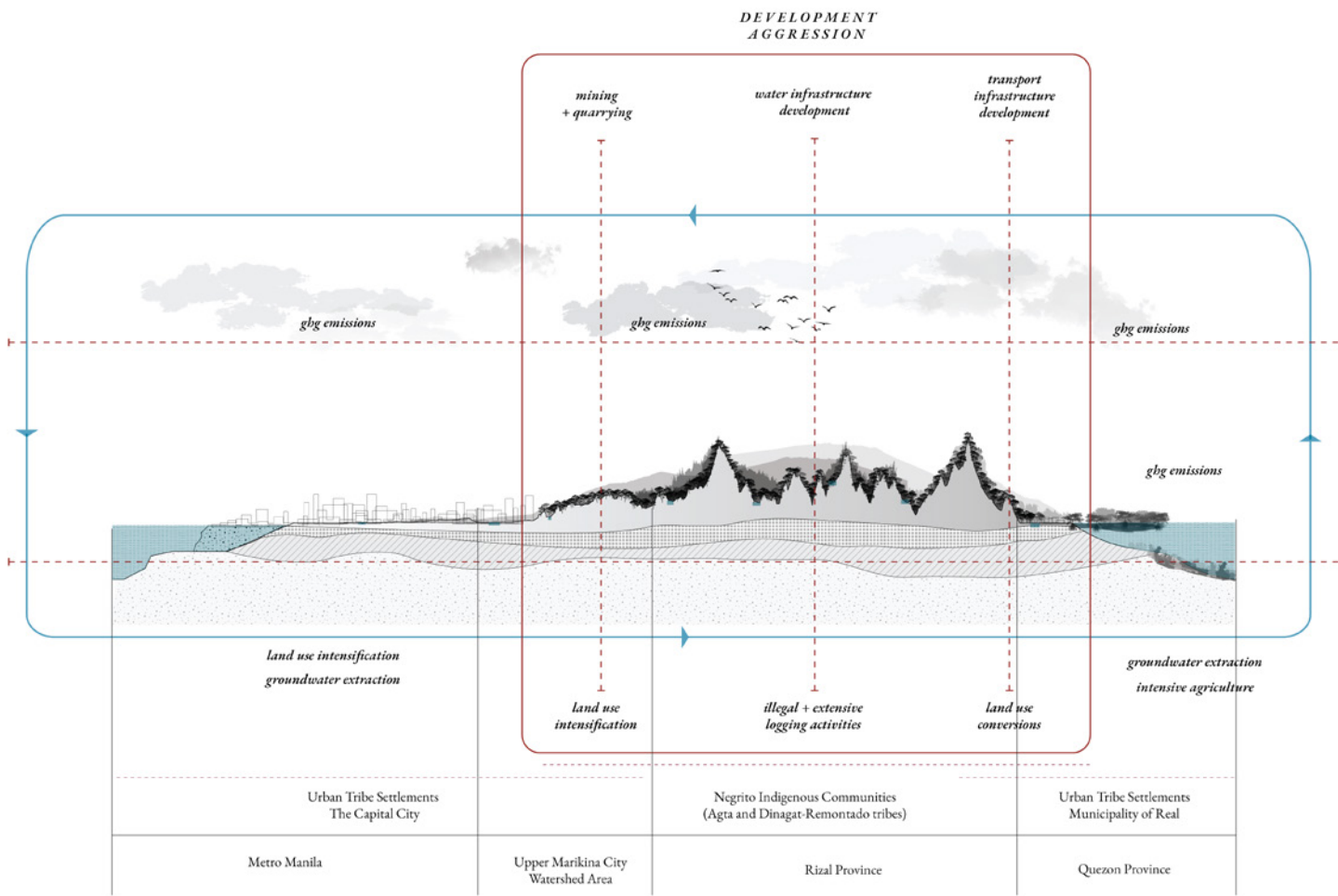
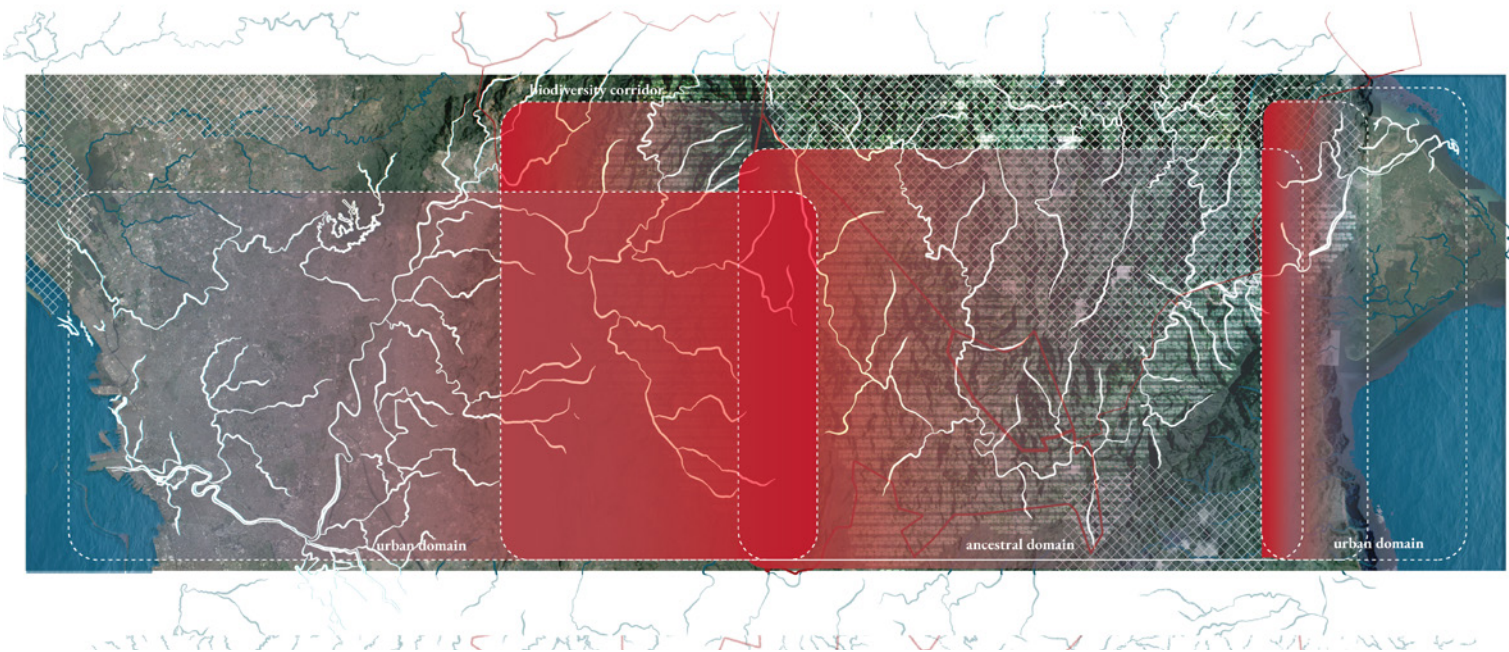


the hydrological cycle



climate change variability + anthropogenic stress effects

Map Showing Potential Critical Areas within the River Interface



Development Aggression Pressuring the Ancestral Domain

the river as endless territory

the hypothesis

Multiscalar River Interface Integration

The envisioned multiscalar transitional integration process for systems-level changes from the conceptual design approach framework begins within the RIUs along Critical Biodiversity Hotspots whose domains interface shall be assessed and analyzed for risks and adaptive capacities. Integration from these assessments can lead to pathways in where co-habitation, localized-decision making, and ILKS/TEK interventions such as Nature-Based Solutions can be applied at the Micro Scale.

At the Meso Scale, the entire biodiversity corridor intersecting RIUs shall be integrated regionally with a guiding framework born from the RIU interface assessment that can reveal Dynamic Adaptive Policy Pathways that builds the backbone for expansion to Key Biodiversity Areas entailing a dynamic ensemble of collaborative and collective-based land use and river basin governance.

As this is transcended, Clearance Pathways towards a Macro Scale form of a constantly negotiated and shifting interfacial system of domains in where the adaptation becomes a living process of monitoring and evaluating the dynamics of the whole system is essential to be further defined. Gradients more accurately visualize the shifting ways interfaces and their component domains can transform, to be anticipated by other interfaces as scales. This vision of the approach is a hypothesis as to how th River Interface Unit (RIU) can be upscaled and expanded, and may yet be revised accordingly if the interface assessment method is viable or not.

MICRO SCALE

RIVER INTERFACE UNITS (RIUs)
within CRITICAL BIODIVERSITY HOTSPOTS

Urban Domain - Ancestral Domain - Biodiversity Corridor
Interfaces

To identify opportunities for Adaptive Capacity integration and
dynamics analysis for pathway development

MESO SCALE

REGIONAL INTEGRATION ALONG
ENTIRE BIODIVERSITY CORRIDORS IN PLACE

EXPANSION TO OTHER KEY BIODIVERSITY AREAS
THROUGHOUT ENTIRE ARCHIPELAGO

Interfaces between RIUs

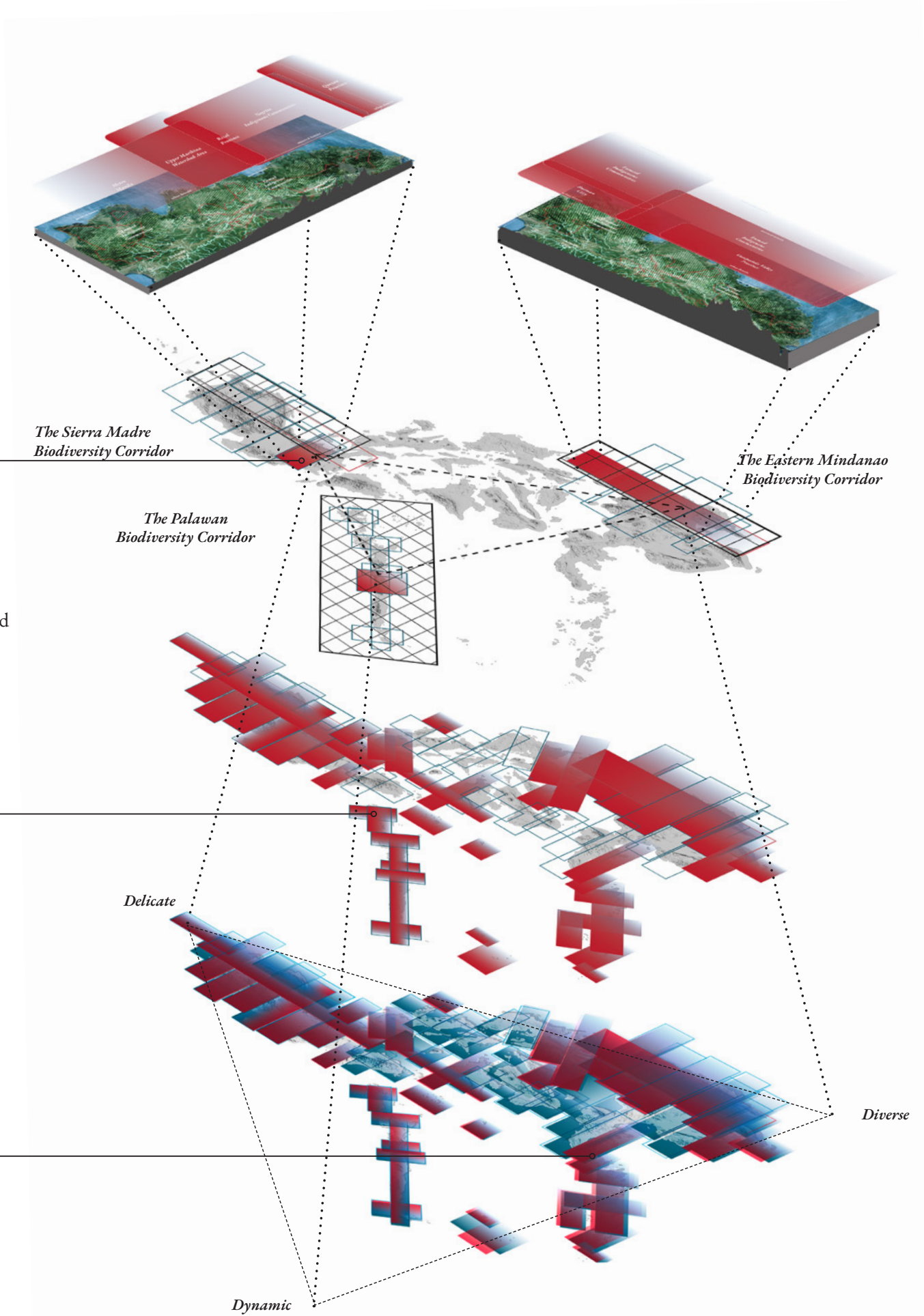
Clearance pathways towards the development of a backbone

MACRO SCALE

Monitoring and Evaluation Frameworks for Interface Dynamics
can be established for a holistic Neocosmopolitan Habitats in
the archipelago

Interfaces between Regional RIUs

Diagram of Multi-Scalar RIU Expansion



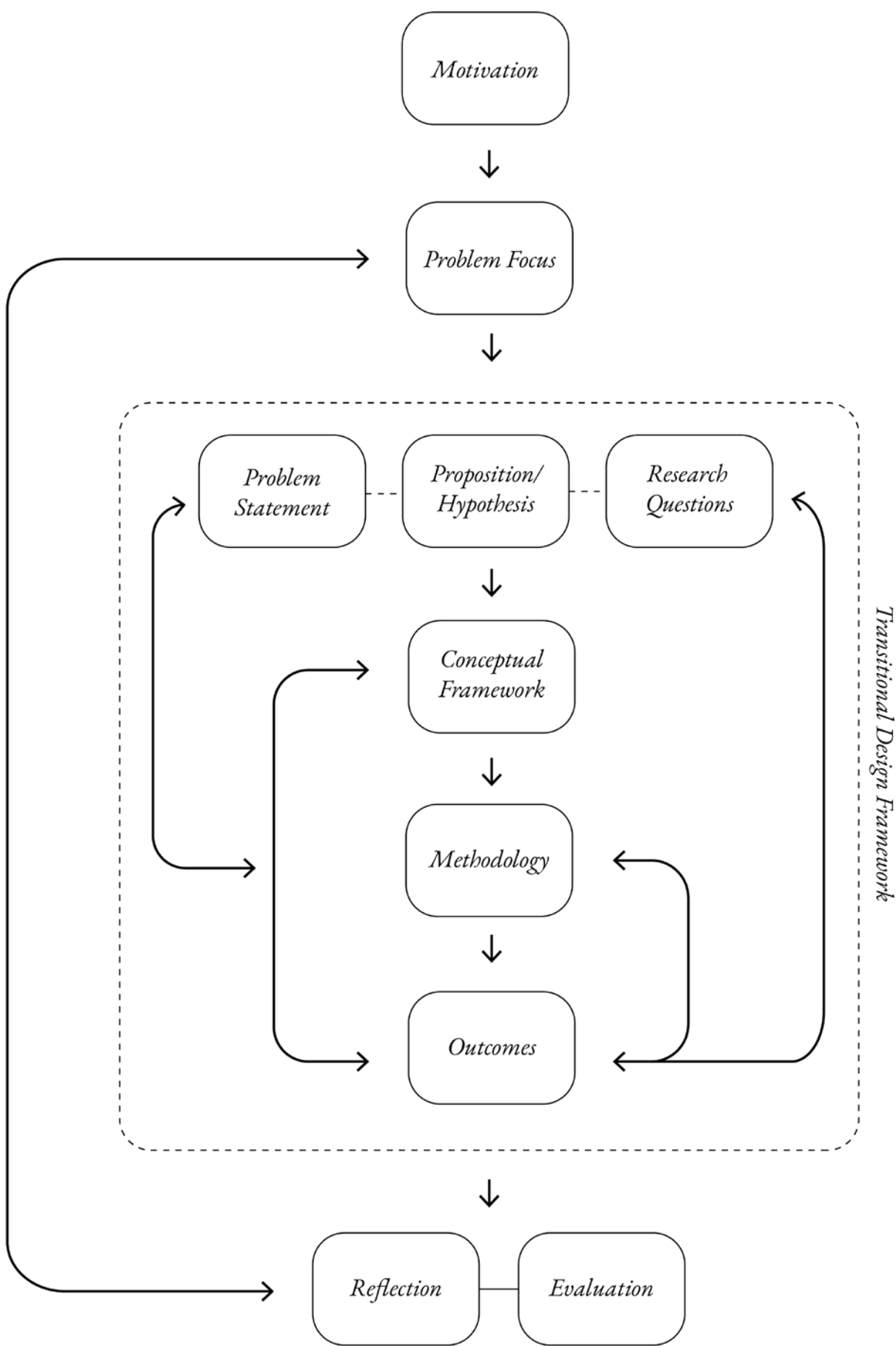
research framework

research aim

To create and propose a renewed and transitional model for integrative planning with the River Interface Unit (RIU) as the fundamental scale of inquiry that can allow a new form of evolutionary resilience to emerge as negotiated in a participatory and collaborative process that would reveal Clearance Pathways towards a decolonized and collective future for the Philippine Archipelago that could potentially restore the social-ecological continuum between human-nature and with it the values of socio-spatial justice and the engaged recognition of pluriversality.

sub-goals

- To understand and develop how multiplicities manifest in space and how such premise can be used within a design and planning approach for transformative climate adaptation.
- To make explicit the interrelationships in the composition and ecology of the river basins as territories of a multiplicities of beings.
- To uncover the dialectics between modernity and indigeneity in their values, expectations, and lifestyles as projected in the construction of space in the Philippine Archipelago.
- To develop a critical values-based based assessment of risk and adaptive capacities for multiplicities in the Philippines that challenges the current spatial development framework paradigm.
- To engage with local and indigenous communities to develop a robust way to integrate their knowledge systems and worldviews into the revision of the neocolonial policies and systems of governance in the Philippines.
- To visualize the formulated collective futures gathered from engagements with local communities as integral for Clearance Pathways and Resilience Imaginaries for a transformative climate adaptation framework.



project timeline

Re-framing present and future entails the awareness and recognition of the need for a decolonization process in designing, and moving forward with more reflexivity while in the act of conceptualizing and how literature is reviewed. Although many theories have already been formed in recent years about the need for novel perspectives to push forward the field of urbanism and all disciplines in general, it is crucial to declare that these ‘new’ perspectives being sought after have always been there, just ignored or discriminated against by the Western rationalist point of view, like those that weave the spiritual with the material present within many local and indigenous cosmologies. In the case of exploring this project within the Philippines, this transitional process begins with the designer’s own perspective and experiences as a Filipina Architect having been educated within an American system of education with English as a second native language who is very much part of the urban tribe. As an architect, the author was trained within the paradigm of globalization and a Western outlook albeit efforts of the educational insitution to emphasize and integrate vernacular, local, and tropical architecture in the program, majority of the what was taught of history, theories, and approaches in the design discipline remain to be focused in the Global North.

The homogenizing and centralized development paradigm in the Philippines follows a globalized and neo-colonial phenomenon that influences the design and planning and in turn the very management of land and natural resources in the country. To untangle this complex web of multiplicities - identities, resources, and risks - that is the Philippines, opportunities for transitional pathways to emerge are sought after that better and more meaningfully serve the populations that co-exist therein with the overarching goals of;

- 1) biodiversity preservation for sustainability of eco-system services (a new sensing of living with nature; better relationship)
- 2) empowerment and inclusion of Indigenous Peoples and recognition of their knowledge and worldviews in the co-production of spatial development and co-management of natural capital (socio-spatial justice)
- 3) integrated and salubrious climate adaptation strategies for a thriving future ‘for all’ (a renewed sustainable development regime)

From the individual designer as the main agent in design projects, the research and design process will be transformed into one that truly listens and invites diverse literature, voices, and perspectives from different people and communities possible within the thesis project timeframe. Local researchers, historians, artists, scientists, indigenous groups and their chosen representatives shall be consulted and enagaged. In so doing, dialogues and discussions can precipitate as well as the reframing of the problem or the methodology, moreover, of problems, solutions, and if not the latter, pathways to solutions.

We must imagine the future together.

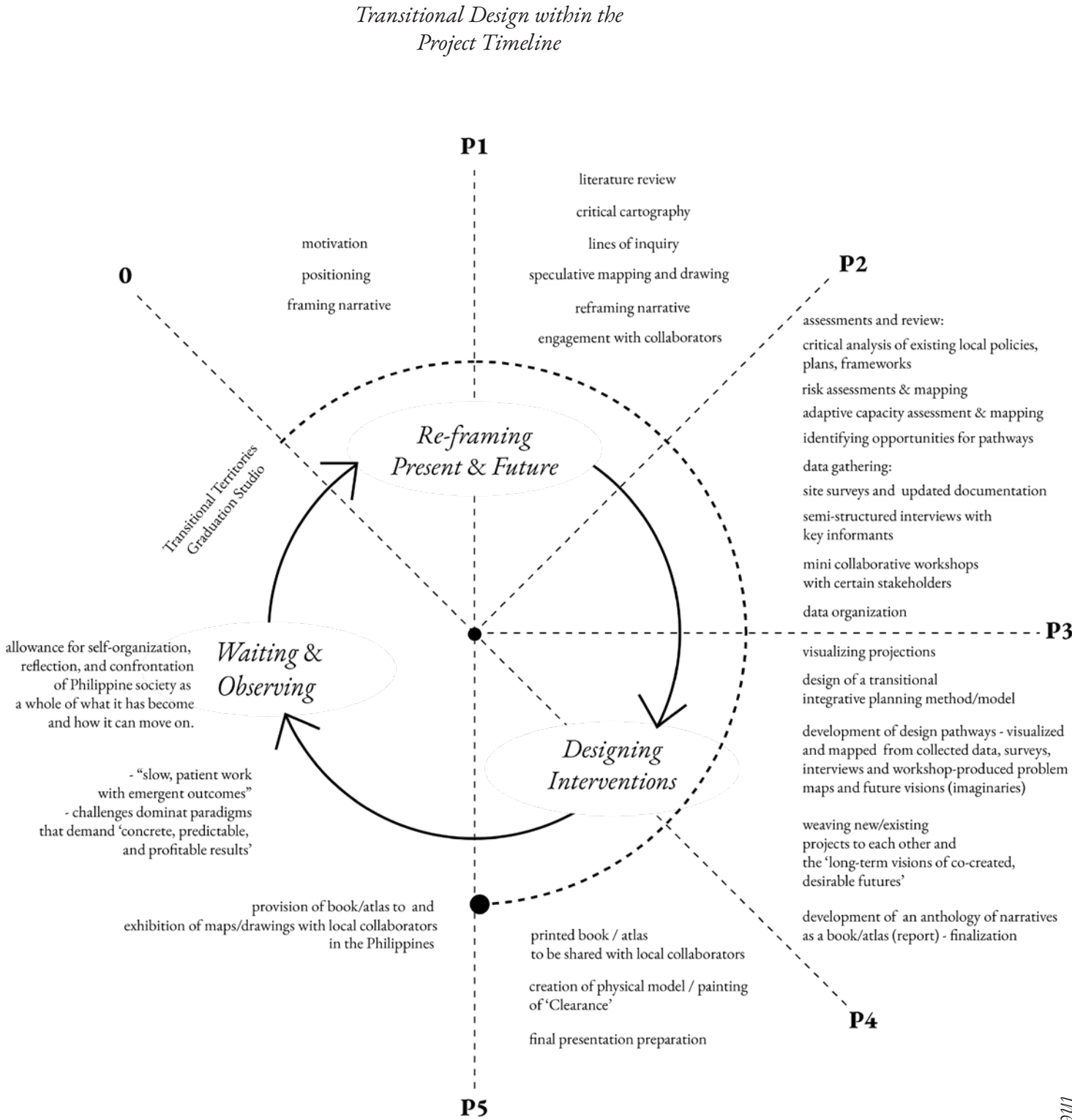
A mixed-method approach to this assesment of Risks and Adaptive Capacity within the RIU scale is to be undertaken and enriched by participatory data-gathering on site and and semi-structured interviews. Some small collaborative workshops with local actors such as those listed below with which the author have already contacted for the purpose of data-gathering and to also be able to share the project with more Filipinos who may find clearance through the success of this thesis.

List of Local Collaborators:

- [1] Local Environmental Planning Professionals
- [2] Design Professors/Researchers from the University of the Philippines
- [3] Non-Government Organizations for Biodiversity Conservation and Environmental Awareness
- [4] Local Collectives of Artists Engaging in Climate/Social Justice
- [5] Planning and Development Consultants
- [6] Community Development Organizations;
- [7] Indigenous Groups/Representatives*
- [8] Government Agencies*

General Geospatial/Quantitative Data Sources:

- [1] Geoportal Philippines
- [2] Philippine Statistics Authority (PSA)
- [3] Nationwide Operational Assessment of Hazards (NOAH)
- [4] World Wildlife Foundation (WWF)
- [5] Critical Ecosystem Partnership Fund (CEPF)
- [6] United Nations Development Program (UNDP)
- [7] Asia Indigenous Peoples Pact (AIPP)
- [8] ICCA Consortium - Territories of Life
- [9] Intenal Displacement Monitoring Center (IDMC)
- [10] Climate Central
- [11] National Oceanic and Atmospheric Administration (NOAA)
- [12] International Best Track Archive for Climate Stewardship (IBTracs)
- [13] Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
- [14] Climate Portal by World Bank Group / ADB
- [15] International Union for Conservation of Biodiverity (IUCN)



We must imagine the future together.

*Specific/Extensive list is in the Graduation Plan

expected outcomes

A Critical Analysis and Review of governance structures over the River Basin, local land management policies, climate adaptation plans and frameworks, and national, regional, and local development plans to formalize;

Clearance Pathways* towards a transitional co-management regime within River Interface Units (RIUs) as the first step to design a;

Bespoke Adaptation Capacity Assessment Framework founded on values-based risk and adaptive capacity and their interactions analysis (Climate Change Impacts, Anthropogenic Stress, Ecosystem Services, and the Hydrological Cycle) in where opportunities can be identified for collaborative development of multiscalar strategic pathways that can lead to the creation of;

A Renewed Model or Method for Integrative Regional Planning (inclusive decision-making, ciruclar governance, pluriversal design/treatment, and collaborative ecosystem/land management) over the Philippine riverscapes that assesses, evaluates, and harmonizes multidiverse dynamic systemic relationships for an evolutionary form of climate adaptation in where total indigenous rights and knowledge recognition, biodiversity conservation and regeneration, and sustainable land use development are substantially valued and treated.

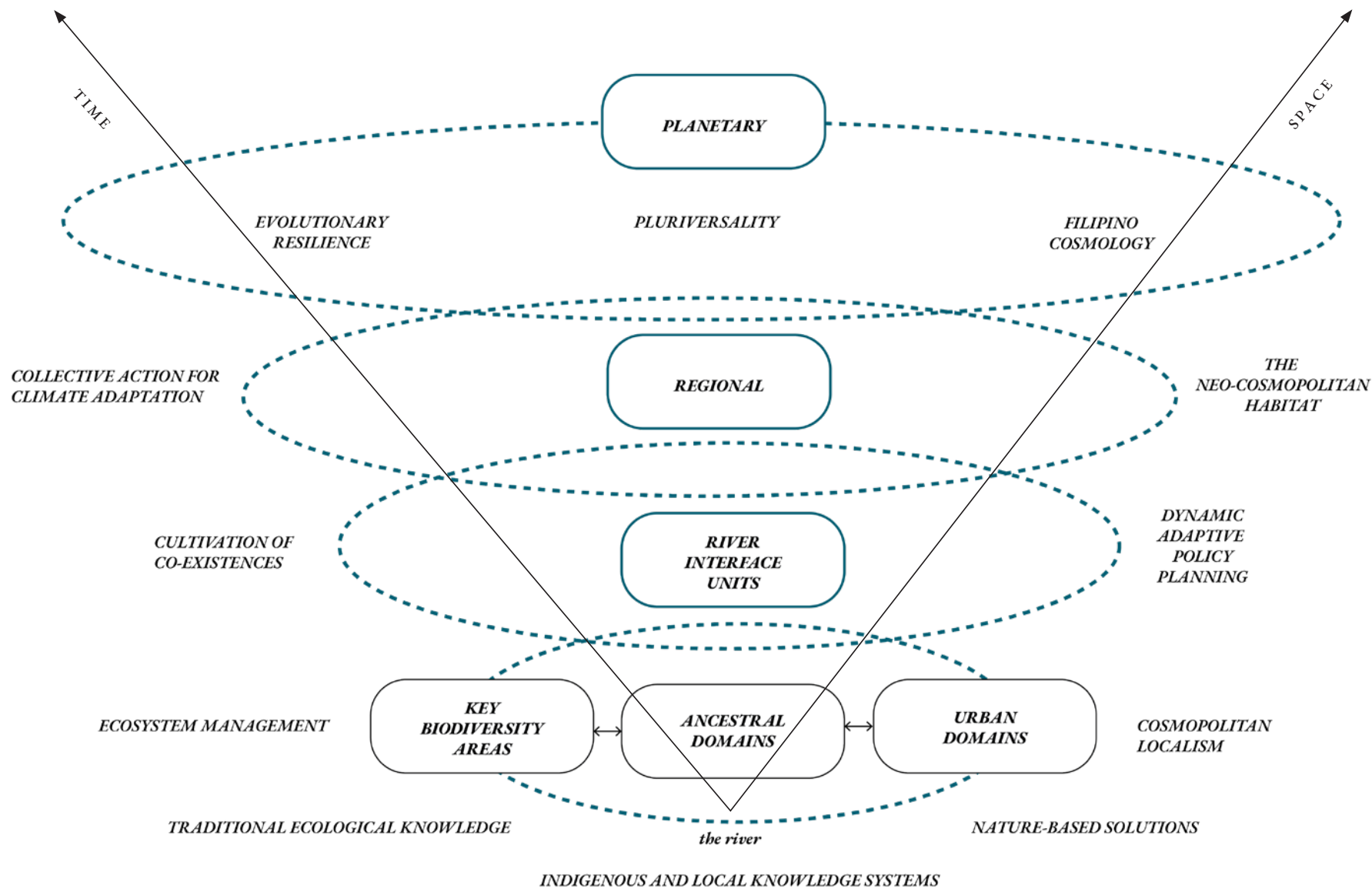
All these potentially arriving at a social-ecological continuum over the river, in where as it spreads regionally, a robust and unique archipelagic identity on the planetary scale might be revealed as the ultimate revelation of clearance; freedom.

Such outcomes shall be discussed and consolidated into a digital/printed atlas of the following:

- 1) critical cartographic maps and drawings; lines of inquiry
- 2) vision maps and drawings of Clearance
- 3) visualization of Clearance and Adaptation Pathways
- 4) documentation of site surveys, mini-collaborative workshops through audio and visual documentary
- 5) a proposal for a transitional method of values-based adaptation capacity assessment, including a renewed stakeholder analysis framework
- 6) a proposal for a renewed model/method for integrative regional planning framework and approach
- 7) an alignment of current climate adaptation plans, frameworks, and indigenous knowledge systems

and, potentially;

- 8) A small exhibit of the project in the Philippines to be shared with local collaborators could be prepared after the P5 to engage the Filipino public.



Continuum Restoration
by the author

“These are not stories. We are alive.”

- Gab Mejia (2020)

**a
river interface
narrative**

a River Interface narrative

The River Interface Unit Narrative as Analytical Tool

To draw from the process of forming a *landscape biography**, beginning with indigenous peoples’ narratives and experiences in the uncovering of the River Interface Unit (RIU) in the way of a biography can lead to developing such Clearance Pathways needed in order to develop adaptive capacities inherent in their ways of the life. As these practices are observed in Ancestral Domains as well as determined to be one with Key Biodiversity Areas, a transformative climate adaptation model impinged on image of an archipelagic future can be formulated.

In contrast to the top-down approach that is the normative way of integrative planning that exists in the Philippines as was conducted initially, the Ancestral Domain within one (1) RIU is unfurled by way of a short biography, or more particularly a River Interface narrative, that intimately acknowledges and observes how the continuum that exists between human-nature manifests in the tangible and intangible memories and actions of the various indigenous tribes and localities of the Philippines and how it persists within a neo-colonial land management regime amidst the climate crisis. New forms of mapping, representation, and diagrams are developed. From this narrative analysis, the core adaptive practices that can form strategies through the very values and principles they adhere to over the “continuous process of reshaping within the context of their thinking and acting, coming and going, in short, by living their everyday lives (Kolen et. al, 2015).” may be emphasized, uplifted, and drawn from for a wider scale model that may be applied on different scales or compared to other local practices in the RIU. Crafting this mapping and analytical process is part of shaping a decolonized framing of the River Interface Unit and the domains within it whose multiplicities of actors, processes, episodes, and values continually interact.

[1] The Pattern within the RIU

As the initial RIU analysis revealed a pattern from source to mouth of the river basin territory spanning ancestral domain, biodiversity corridor, and urban domain, this represents the scales of influence and potential sites of design intervention, namely; The Source as the zone of extraction, The Confluence as the zone of interposition, and The Mouth as the zone of consumption.

[2] They are the Land, Nature (IPs are Nature)

Through the gaze of the pre-colonial and indigenous peoples in the Philippines, it is recognized and must be translated how these human beings are not only part of the land or have a deep connectivity with it, but that they are the land, that they are nature. To express and represent this in the assessment of the RIU allows for a new way of seeing and understanding the relationships within biodiversity areas and the riverscape that can more clearly define the adaptive qualities intrinsic to their ways of life.

[3] The Land’s Intentions in the Ancestral Domains

As the continuum between human-nature is established through the indigenous gaze, the nomer of ‘ecosystem services’ are released and not considered as mere services and only benefit human beings, yet all that surrounds life. Re-valuing this as **The Land’s Intentions** as impregnated with animated/living spirits or *kaluluwa* in Tagalog, one of the main languages of one of the major ethnolinguistic groups in the country. These are cataloged and

represented in a more technical and comprehensive manner as a systemic collages and section drawings.

[4] Geocritical Reading of the Riverscape over Time

Within the RIU, the riverscape is encountered geocritically, meaning it is used as a foundational referential space which multifocalizes different viewpoints, and in this case the urban vs. the indigenous tribes. **The four aspects of 1) knowledge, 2) spirituality, 3) community, and 4) well-being as functions of cultural processes existing and shaping the landscape through time (past-present-future) are unwrapped intimately;** through photographs, collages, diagrams, and songs/poetry of the specific to the local bio-cultural environment.

[5] Biogeographical Mapping of the Ancestral and Urban Domains

Adding to the fray the interactions of the peoples and lands between **Development Aggression** and **Climate Change** can further reveal the relevant adaptation processes that have occurred and still do within the RIU that could provide clues into what could be upscaled and transformed as values in the reorganization of the riverscape; what is remembered, forgotten, and what should be remembered and forgotten and how this has transformed the land itself. Identification of locally rooted practices can then lead to a direction by which the agency of design could be operationalized and gather the most vital possible solutions given certain parameters lifted from the narrative.

[6] Clearance Pathways for the River as We Are the River

Finally, at the end of the analysis, mapping, and reconfiguring the ideas contextually, then this intimate and biographic approach of adaptive capacity assessment are clues as to how “water, air, soil... form part of those new objectives that will enable these material elements to generate an index of immaterial values compatible with new ways of living (Clement, 2015).” leading to opportunities to develop more authentic pathways for Clearance over the riverscape.

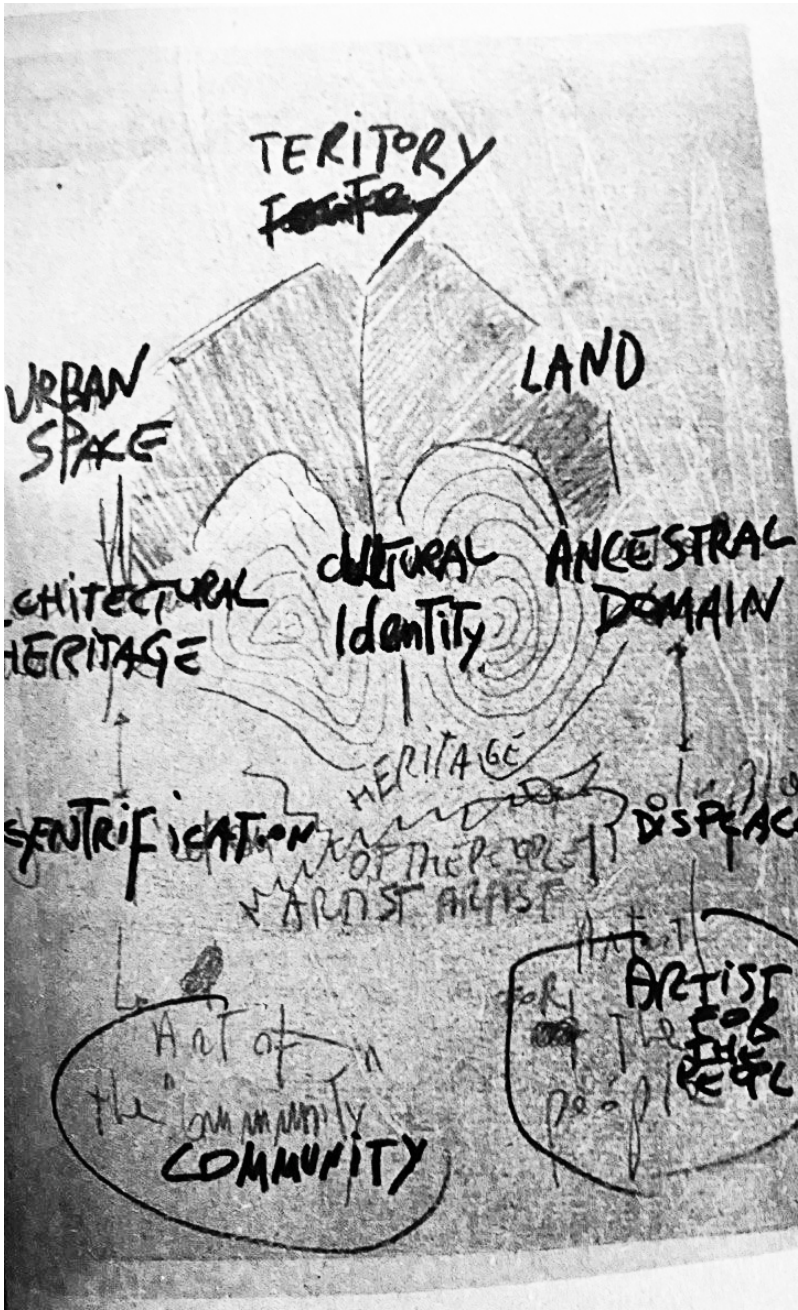


Diagram of Art-Urban Space-Ancestral Domain-Territory
© Land and Neighborhood Zine (2023)

*Landscape Biography

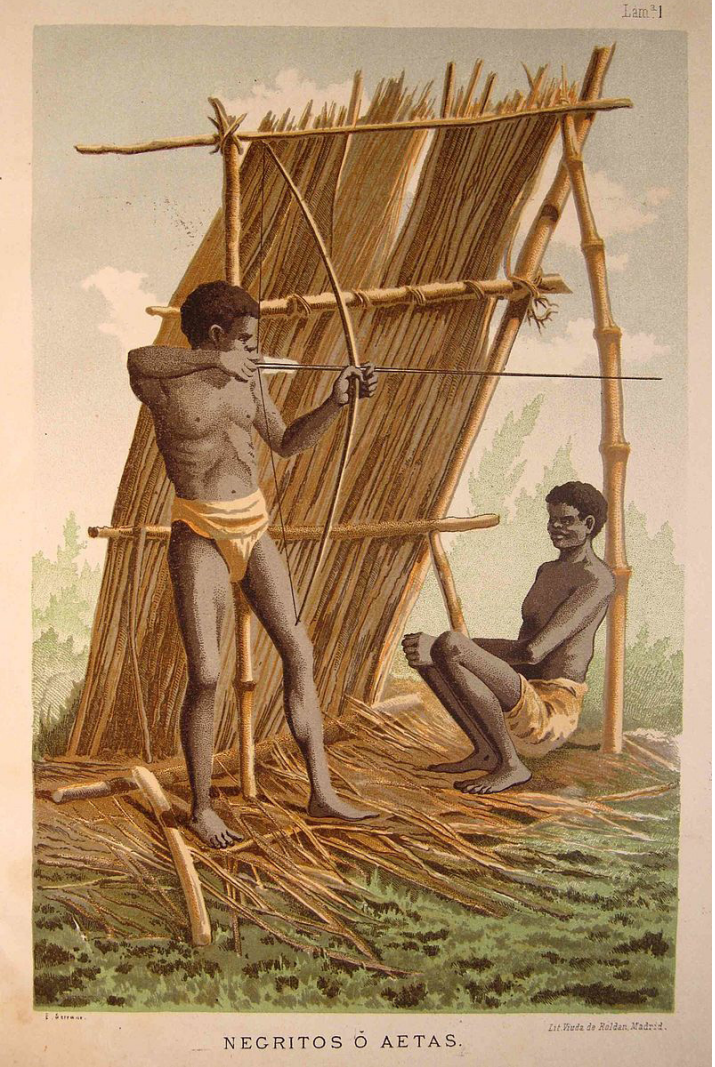
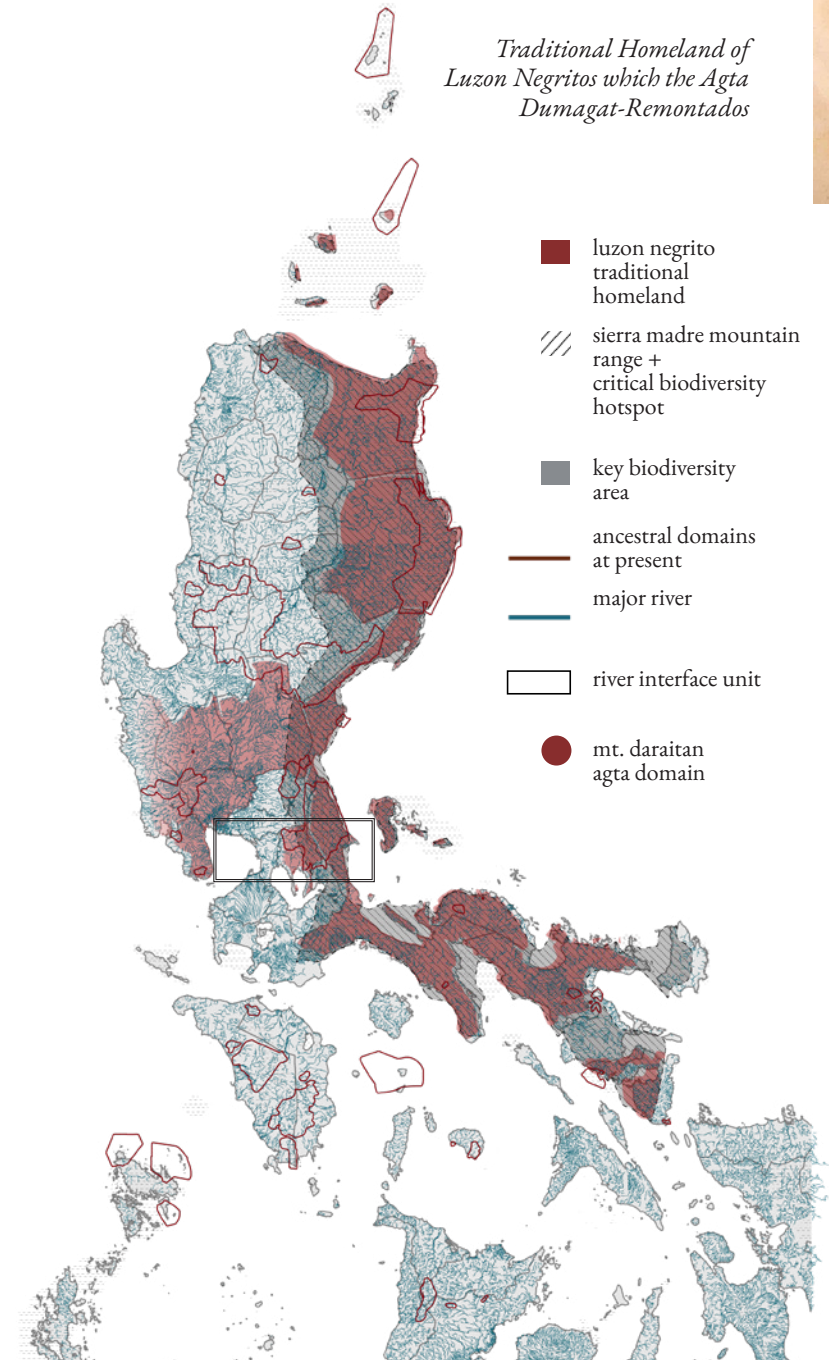
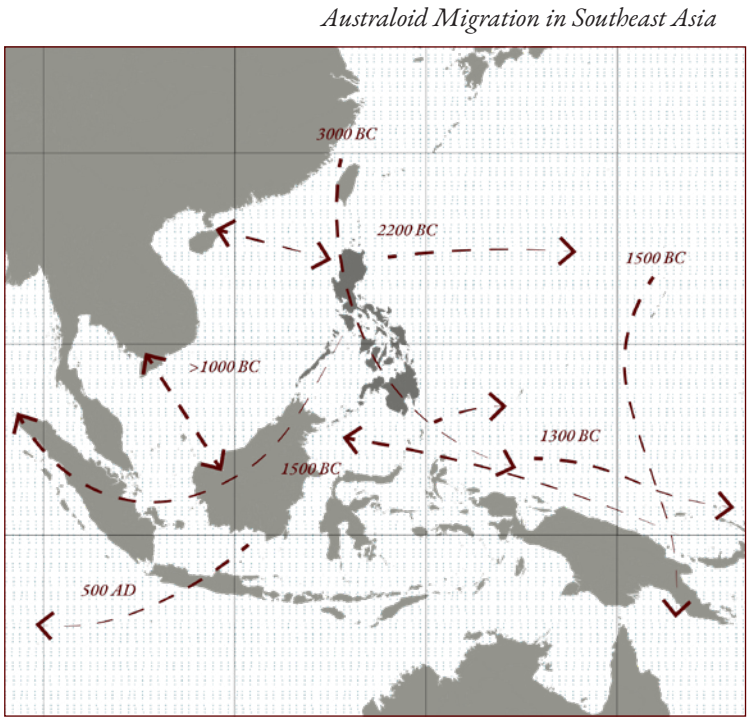
Citing the TU Delft Global Heritage and Development’s definition: *A landscape biography tells the layered life story of a landscape: how it has developed in the continuous interaction between humans and nature. It comprises an in-depth exploration of the genesis of a landscape over time, involving both physical and immaterial dimensions and integrating knowledge from a variety of disciplines.*

the agta - “human”

The Agta tribe is part of the ethnolinguistic group called ‘Negritos’, descendants of Australoid people who arrived in the archipelago over 35,000 years ago. Spread over the islands, those who remained in the northern major island group of Luzon mainly made home of the Sierra Madre Mountain Range, the longest mountain range in the Philippines with over 16 Agta groups residing therein. Covering north to southeastern Luzon, the Agta tribe which are further subgrouped into Dumagat-Remontados live mainly in the southern portion of Luzon in the valleys, peaks, and coasts of the provinces of Aurora, Bulacan, Rizal, and Quezon.

Dumagat is a term that is purportedly an Agta exonym which means “people from the sea.” Remontado, derived from Spanish word ‘remontar’ or “to flee the hills”, refer to lowland village residents who decided to migrate to the uplands to escape the colonizers. Today, Dumagats are usually considered Agta tribal members who still adhere to pre-colonial ways of life and live further upland whilst Remontados are those who have blended with lowland settlers yet still respect ancestral traditions. Collectively, they may be referred to as Dumagat-Remontado or simply, Agta.

Within the first River Interface Unit (RIU), the ancestral domain is constituted by Dinagat-Remontado communities. This faction of the Agta tribe reside in the uplands of the southern portion of the Sierra Madre mountain range in where the Pasig-Laguna-Marikina River Basin and the Upper Marikina, Kaliwa, and Kanan Watersheds encompass. The Agta Ancestral Domain in this parts cut across the provinces of Rizal and Quezon, spanning several municipalities.



From top:
Negrito/Aeta Hunters and their Leon-To Structure Illustration (1885);
Negrito Warriors, Philippines (1899)



View of the Sierra Madre Mountain Range from the peak of Mt. Daraitn within the Ancestral Domain of the Agta (Dumagat-Remontado) Communities of Rizal Province
Daraitan, Rizal Province, Philippines
© author (2023)



“

Mangamit na husto pangudtuan,
Mangamit kani panginabian kitam,
Mangamit ka inapun.

*Just get enough for breakfast,
Just get enough for lunch,
Just get enough for supper.*



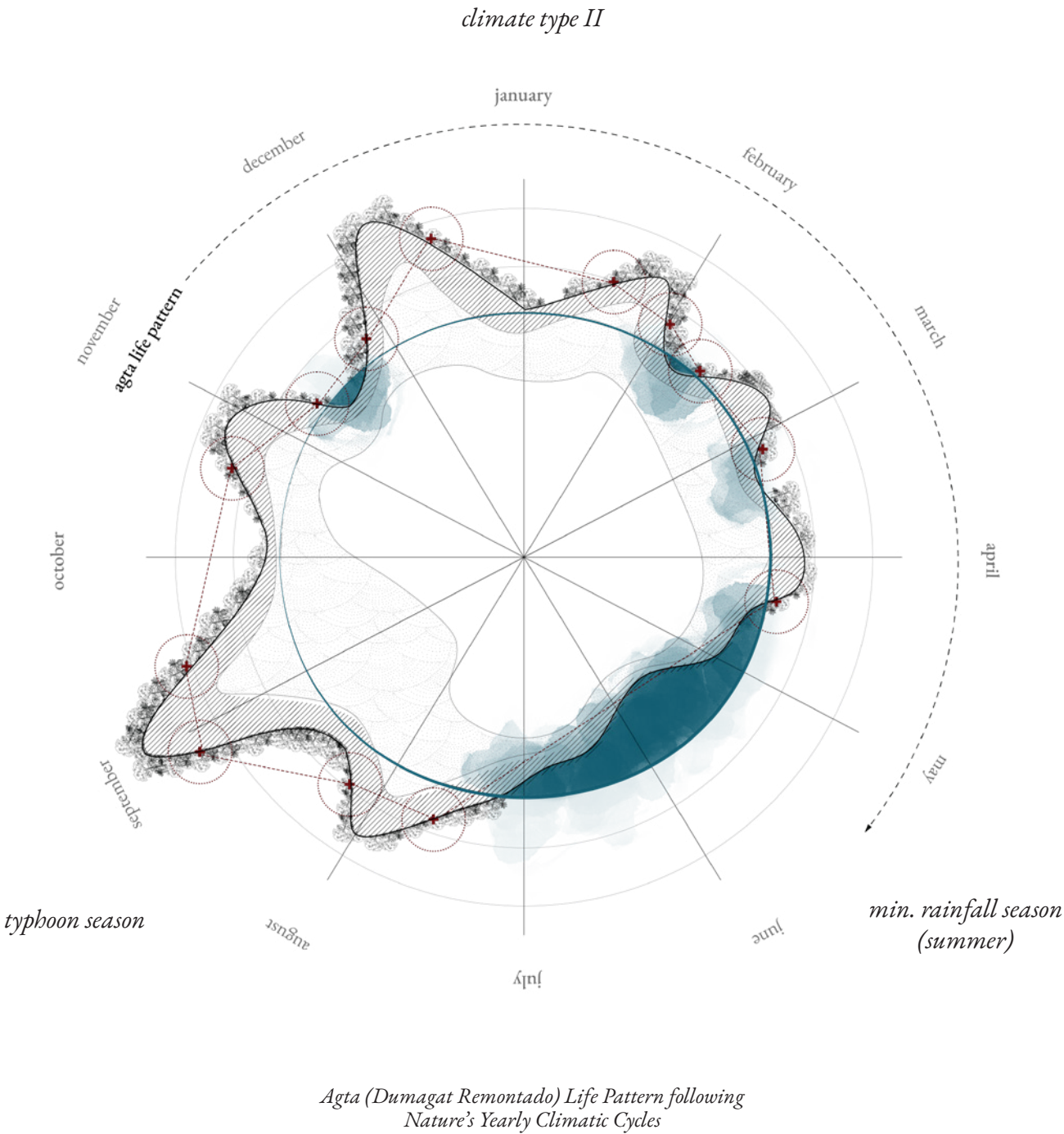
Clockwise from top:
A Negrito Child (Anak) Practicing Hunting Skills
© Jean-Pierre Dutilleux (c. 1970s)
Photo of a Bertan along the Blos River
© Jacob Maentz (2020)



A Day in the Life of an Agta (Dumagat-Remontado)

The Agta are skilled hunter gatherers whose day begins with the sunrise by hunting food for their families, ranging from wild pigs to small monkeys and deer. They are also swidden farmers with a system called the ‘UMA’ that is swidden farming method wherein they grow root crops, corn, rice, as well as other various trees that contain in 5 to 20-year cycles that allow for the regrowth of trees cut down. It not only is an organic pest control, but also allows for biodiversity to still thrives, supporting soil health, soil stabilization, and maintenance of canopy needed for bird habitats and protection from tropical cyclones which are strong in this area.

Their settlements called Bertans are usually scattered in 5-km radius distances in where 10-20 households live in ‘moveable’ shields called pinanahang that can be erected and dismantled easily as they shift from riverside during the regular monsoon seasons, to the coast during the summer or hottest months, and then further upland into the deeper, denser forests during the typhoon season.



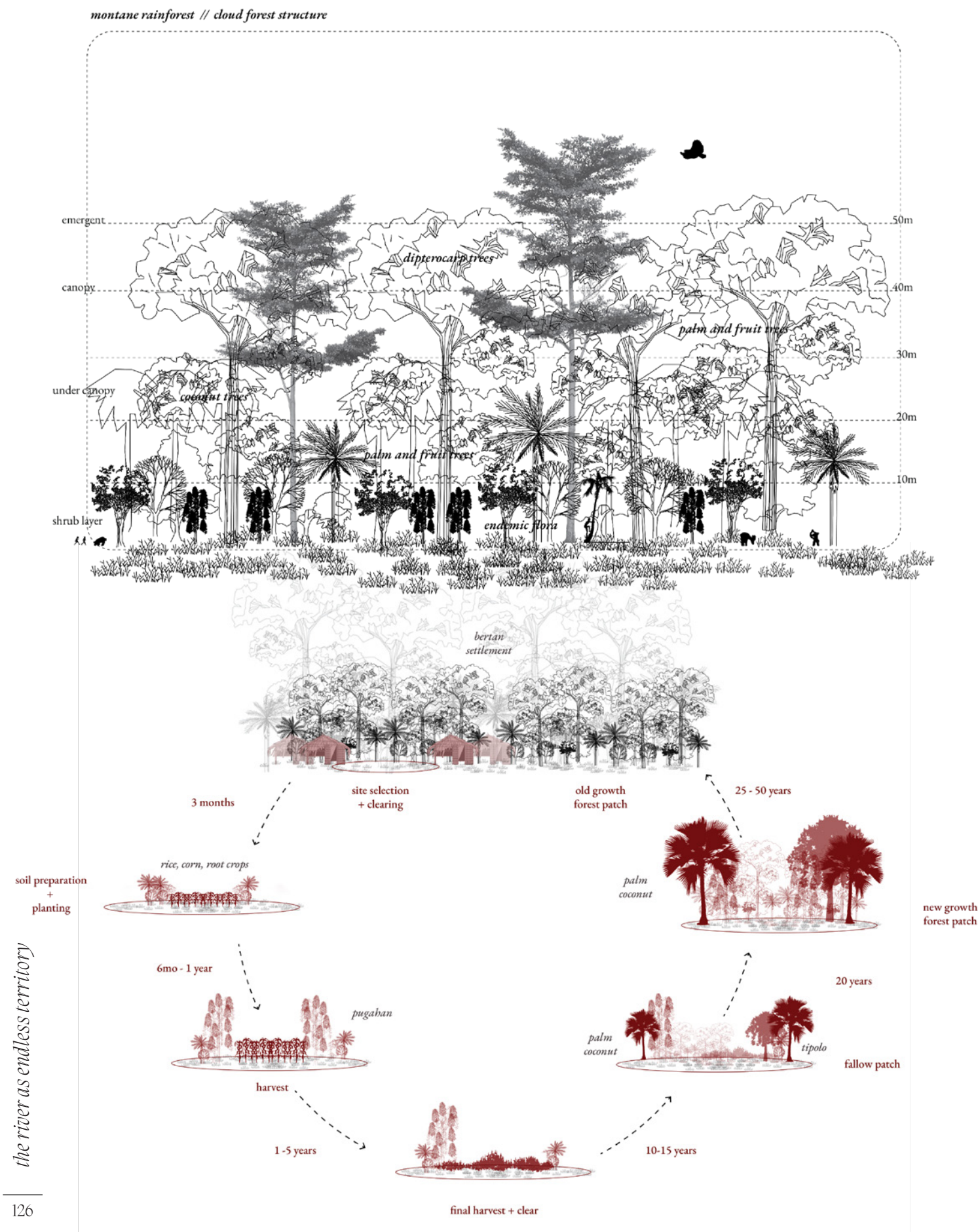
the river as endless territory

Kuya Rizal, a Dumagat-Remontado Tribe member working as a Mountain Guide poses amidst the cloud montane forest of Mt. Daraitan where the Kaliwa Watershed and the Sierra Madre Mountain Range converge
Daraitan, Rizal Province, Philippines
© author (2023)



keepers of the rainforest

the river as endless territory



*The Uma System in the Rainforests of
Southeastern Sierra Madre
Sustainable Agroforestry/Upland
Swidden Farming by the Agta*

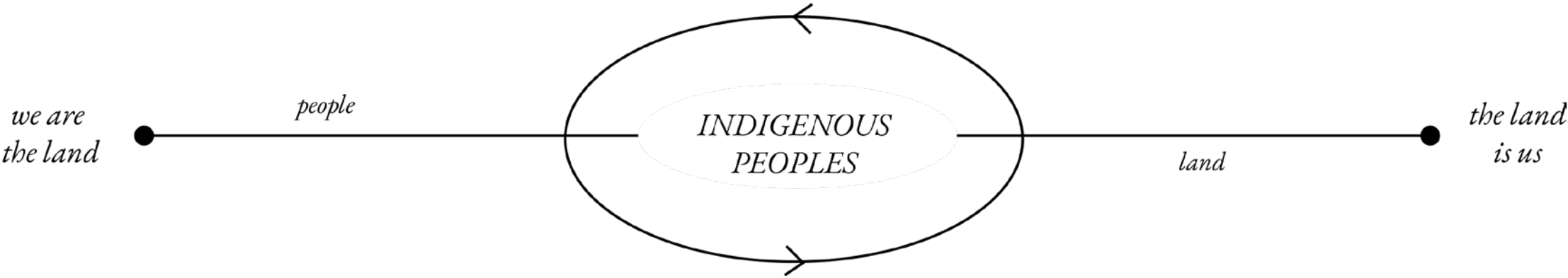


*From Left:
A Cleared Uma Site- Kaingin in the Agta Ancestral Domain in Rizal © Elriz (2020) ;
An Upland Uma in Mt. Daraitan For Harvest © author (2020)*



*They are the land.
They are the river.
They are nature.*

*The Continuum Between Human and Nature in the Agta
(Dumagat - Remontado) Community of Mt. Daraitan
Daraitan, Rizal Province, Philippines*

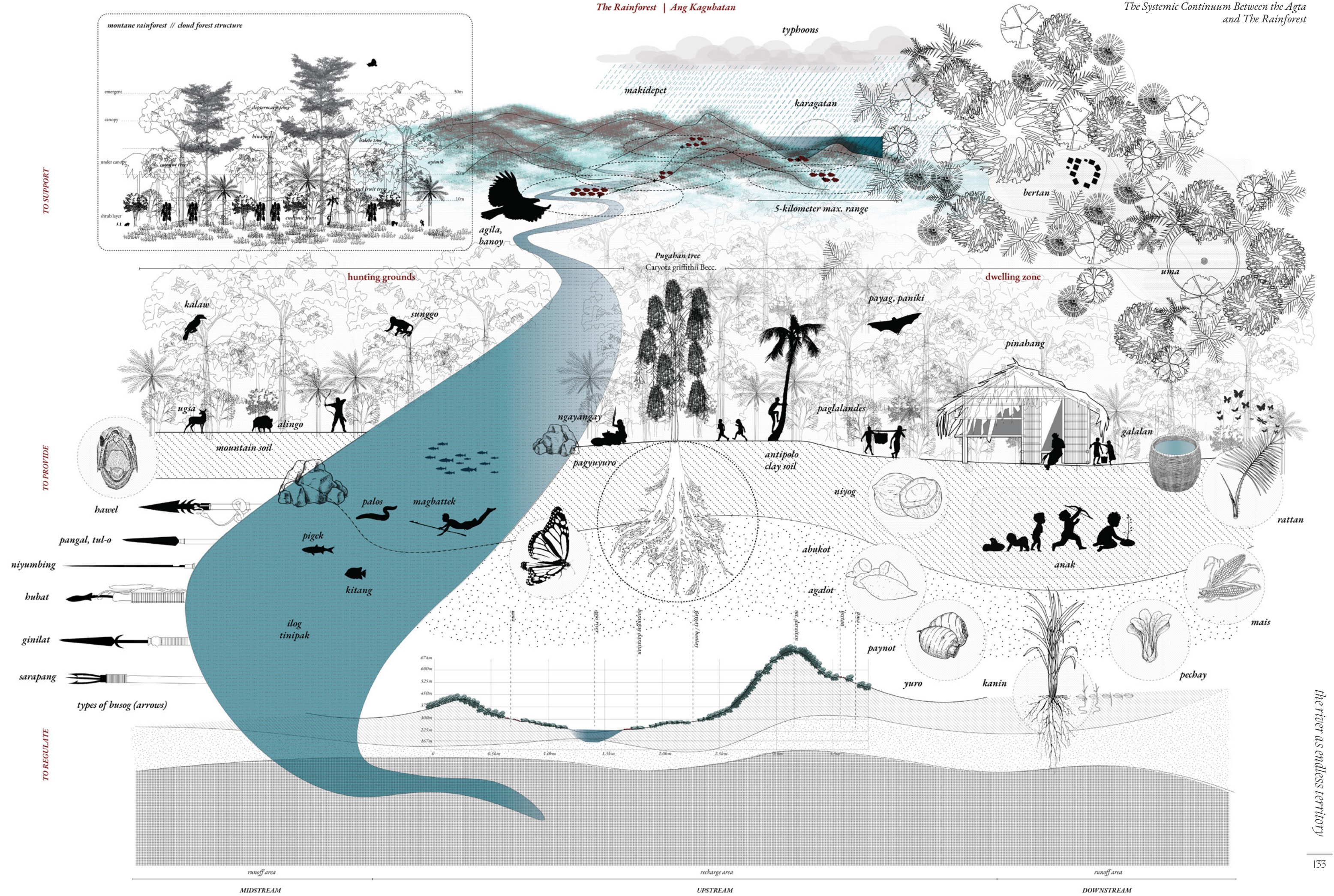


the land's intentions

An Entire Way of Life as a Function of Land's Intentions

The rainforest is the main habitat of the Agta and all the constituted life forms within wreath into an entire ecological systems that provide, support, and regulate life that are normatively referred to as ecosystem services, yet with the recognition that they are one with the land. These ecosystem services are then redefined as the **land's intentions** that determines to act in a certain way, that is to provide, support, and regulate rather than just services. The cultural component usually referred to as benefits is intrinsic to a whole ecosystem and its functions, and thus culture is what encapsulates the whole; a true continuum.





endangered way of life

Culture as Intention and Attention

But this way of life and the land’s intentions attached it are in constant threat. They follow the life cycles of nature, and yet what endangers the Agta (Dumagata-Remontado) tribes of Rizal are the pressures of resource extraction; water reservoirs, timber logging, and small-scale mining in the watershed, although they are within the boundaries of both legislated and declared ‘protected area’ and an ‘ancestral domain’ that should disallow any such activities for the preservation of the Sierra Madre Biodiversity Corridor. With the latter, a Free-Prior Informed Consent (FPIC) must be agreed to and granted by all tribe members to any private company or individual’s proposal, notwithstanding a full on environmental impact assessment and other such processes that are processed by the public sector and are not fully understood by the indigenous themselves. Sometimes, bribery amongst tribe communities occur to grant these FPIC that brings immediate ‘cash’, breaking ties amongst kin, destroying what would be close and intimate relationships with extended family members.

With these pressures constanly looming, the continuum between the land the people are breached. From the social aspect to the ecological, slow-onset effects over the land of development cause forced displacement, while militarization utilized by the conniving public and private sectors occurs, notwithstanding the livelihoods and knowledge that without these lands would mean nothing. The riches of the land are quantified more than they are qualified, in that the values of the urban domain demand this intense supply of resources to consume, while those who have been caring for the Sierra Madre, the source of all land’s intentions, are made further vulnerable especially now with climate change changing the very patterns they have relied on for their sustenance, shelter, and their very happiness. Today, one of the major threats and issues regarding this part of the Ancestral Domain of the Agta is the construction of the Kaliwa Dam within the legislated protected watershed of the Kaliwa Watershed Forest Reserve (KWFR), whose part of the indigenous territory will destroy and inundate habitats and sever the life-sustaining and supporting connections and activities they function for, all for the concentrated supply of more water to the city of Metro Manila only expected to last 10-15 years.

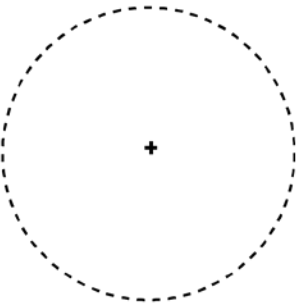
And so, the indigenous people fight. The Agta (Dumagat-Remontado) communities fight. They fight for their land because it is their life, where they acknowledge and know that the land is where they belong, where everyone belongs, in a flawlessly functioning whole. From this continuum, the indigenous have nurtured values of belonging, in that every life form has a role in the ecosystem. Those in the urban domain not recognizing this hold the intentions of ownership, “this belongs to me” and competition, which shows how a careless culture destroys not only others, but themselves in the process. Nicola Sebastian, Filipina writer and National Geographic Explorer writes, “culture is the pattern that attention and intention imprint on a place and its enfolded ecosystem, tending and shaping and cultivating this root system of relations, helping it to take hold of a place like a forest clings to and gives shape to the mountain (Sebastian, 2022).” Attention and intention must be brought in now, if we ever wish to reclaim this oneness with nature that only the indigenous holds; to be cultivated into a new form of sensing and sensibilities in prevailing through more climate change effects apart from the human threats.



Agta (Dumagat-Remontado) Tribal Leaders in Protest of Kaliwa Dam Proceeding
Metro Manila, Philippines
© STOP Kaliwa Dam Organization (2023)

*development aggression
in the ancestral domain*

SIERRA
MADRE
BIODIVERSITY
CORRIDOR

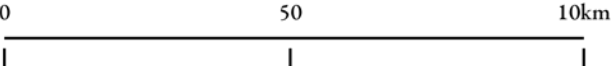


5-km Diameter
Agta Settlement
Distance

- key biodiversity area
- sacred grounds
- urban settlements
- intensive agriculture zones
- flood risk
- kaliwa dam reservoir extent
- hunting grounds
- ancestral domain
- agos river

PHILIPPINE
SEA

Map of Extent of Kaliwa Dam Construction
Damages within the Protected Area of Kaliwa Watershed
Forest Reserve and the Agta's Ancestral Domain



“

Pamana ni Bobong Laki ki Bobo a Gupad

I
Pagsiket nun hari a adow
Binogbog ko mangapo ko
Gumiyos kamo de ta lalaweg tam
Un buko patun tages a tinudo nun bobo ko

II
Apon apon nun dumatung kami
De beloy a untik de gitna ne bukod
Dumen masayein a eyen ti problima at sagina

III
Nun lumipes e adow hinanap ko
Pangumeden ko un pamana ni bobo ko
ay ankod pikita

IV
Kaye sabi ni puso ino kayye lapestangen ino kayye
anti kalbi namugtos nun kew ede pati umid a
pamana ni bobo.

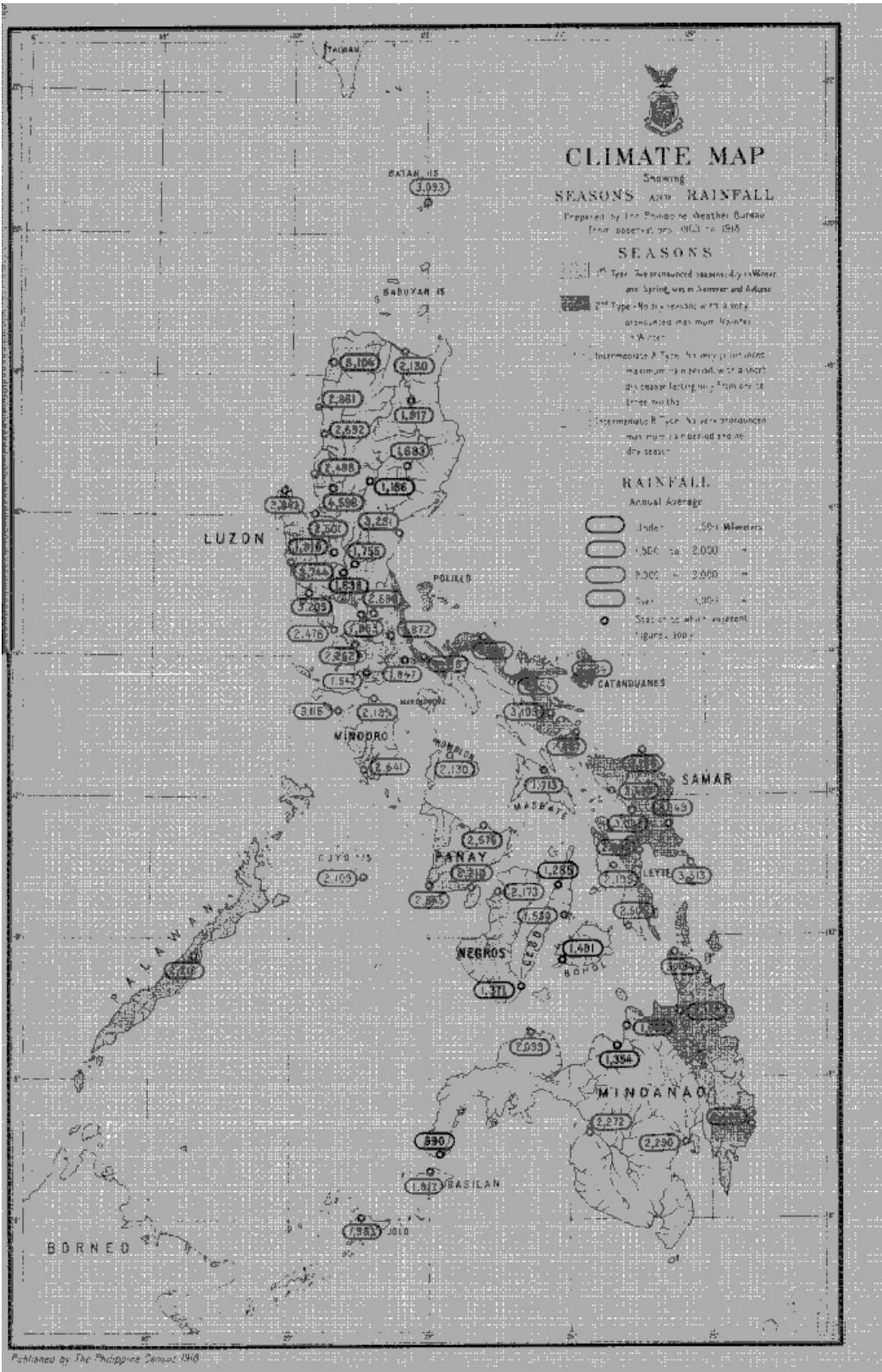
I
*At sunrise
I woke up my grandchildren.
We will look for the tree where honey is kept
As instructed by my grandfather.*

II
*It was sunset when we arrived
At the humble shack nestled amid the mountains,
Where, once, we lived in joy and bounty.*

III
*Days passed and I looked for my pugahan.
The gift from grandfather
is gone.*

IV
*My heart cried out in pain, they have no respect
or mercy. They cut the trees and the pugahan,
the heritage from my grandfather.*

Amidst these conditions, they resist and only wish
to protect their home as well as all the life forms that
existt therein.



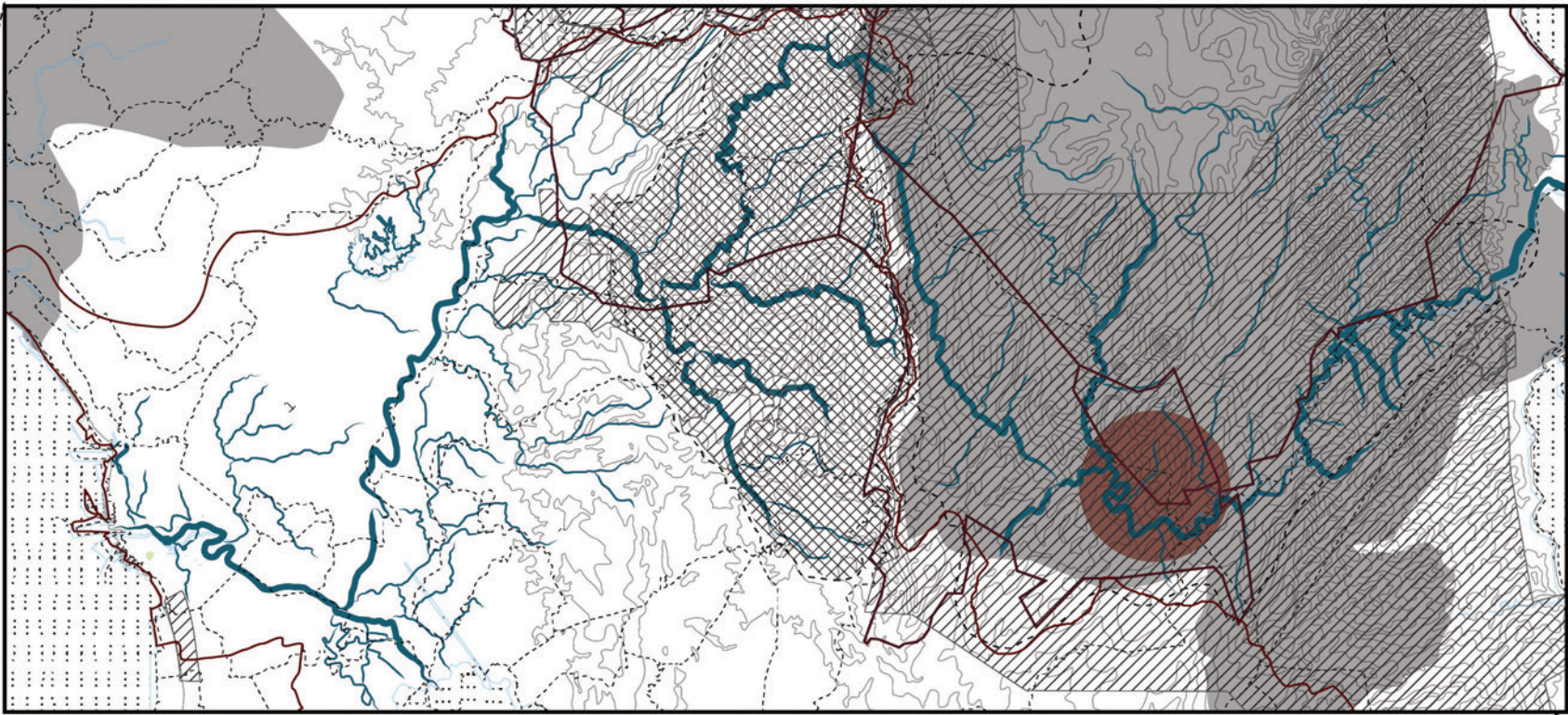
The Climate and Weather of the Philippines: Seasons and Rainfall 1903-1918
Coronas Climate Map (1918)

the river and the land's intentions begin at the source

The Typhoon and the Source

As the Philippines sits on the western edge of the Northwestern Pacific Basin, tropical depressions and cyclones form therein are called Typhoons and are locally titled with 'human' names. One of the major typhoons that have crossed the River Interface, is Typhoon Ondoy in 2009 which passed through the territory leaving a whopping rainfall of 500mm (a typical month's worth) in a span of 24 hours. This climatic episode prompted the first experience of climate change in the country, as it affected the National Capital Region, submerging half the city, displacing thousands of families and killing hundreds.

Being at the Sierra Madre Mountain Range, Barangay Daraitan as the Source begins the cascade of effects that these typhoons wreak over the lowlands, acting as a buffer with the rainforest canopy as protector. The Agta's Ancestral Domain in the interface is both the life giver and sustainer for the rest of the River Basin that the indigenous are aware and understands in that their fight for their land is not only for them, but for all.

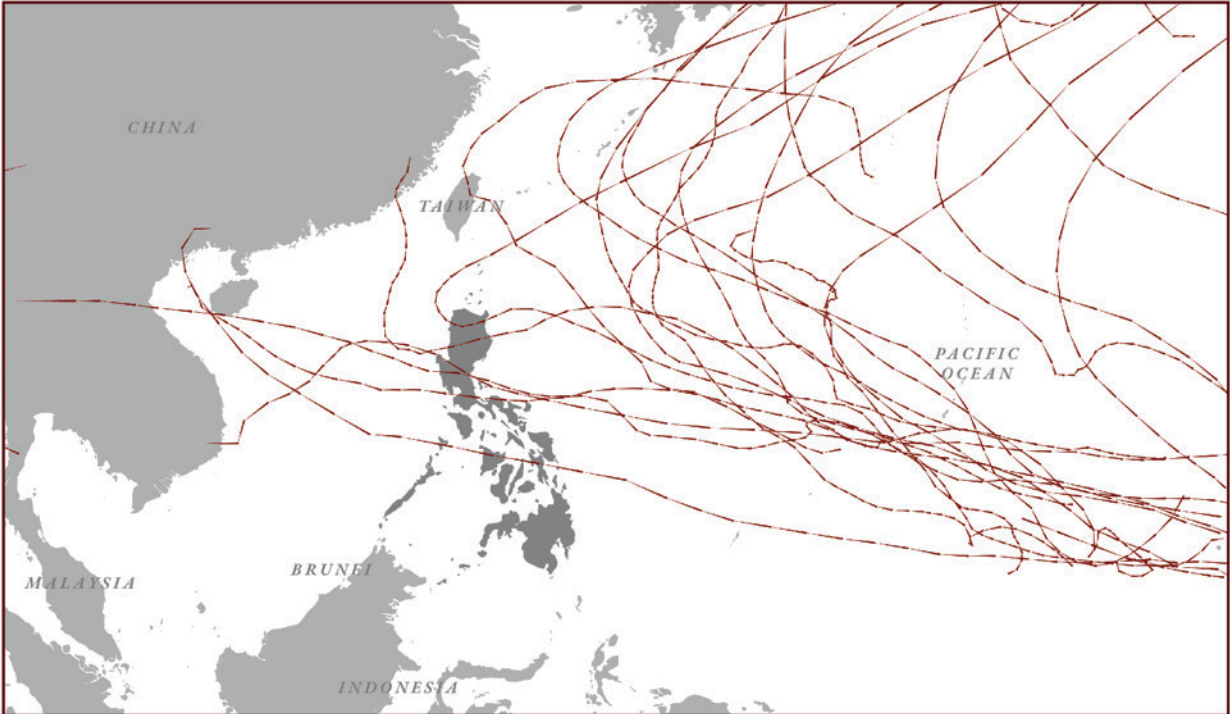


THE RIVER INTERFACE UNIT

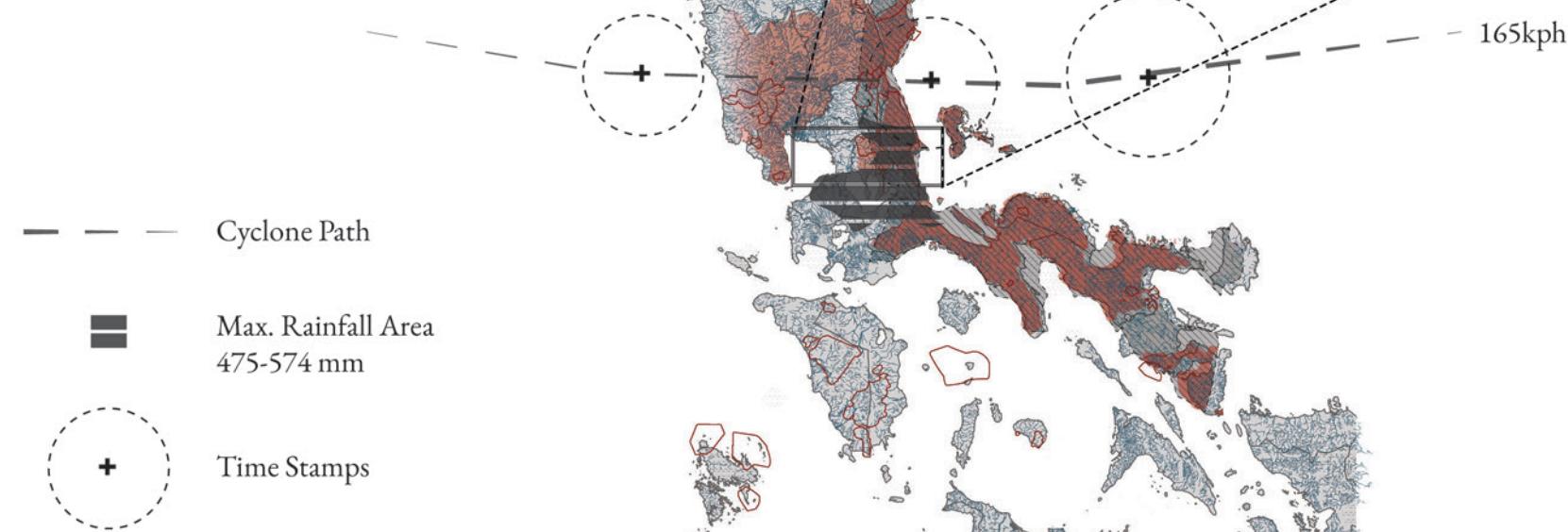
- Barangay Daraitan (The Source)
- protected area
- key biodiversity area
- municipal boundary
- ancestral domain boundary
- major river



HISTORIC STRONGEST CYCLONES PATHS



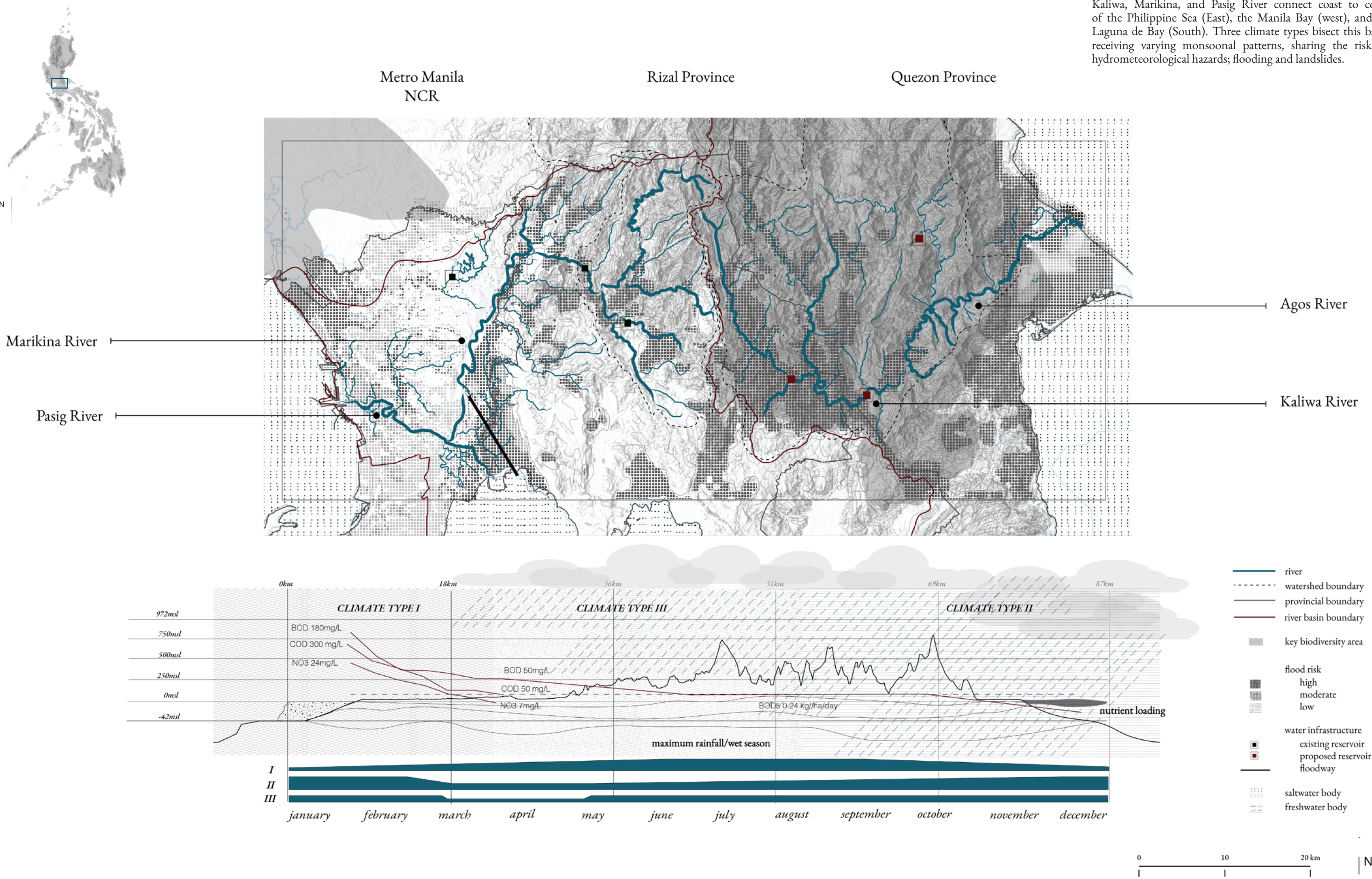
TYPHOON ONDOY (2009)



biophysical systems in the River Interface

The Water

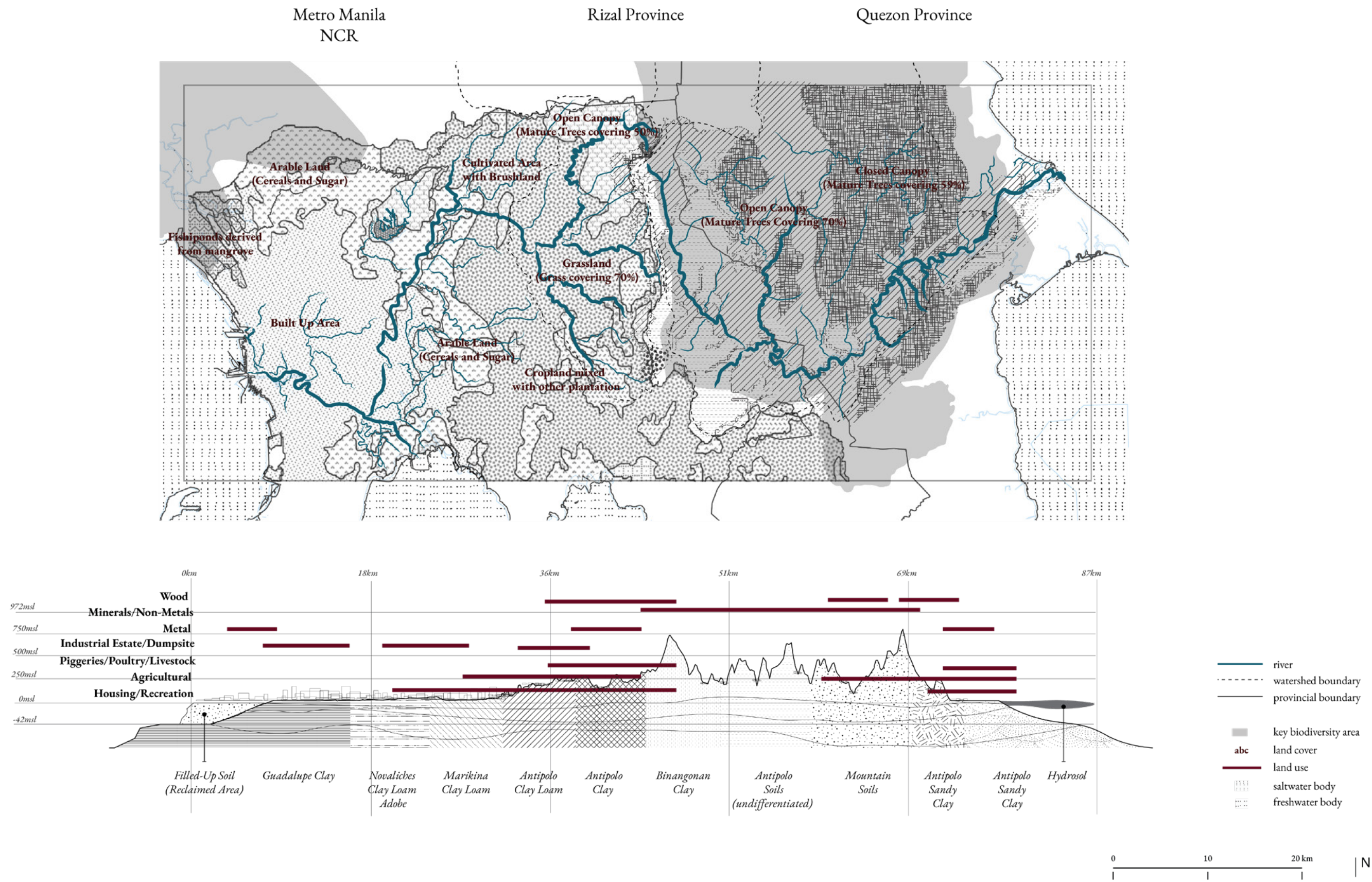
The River Interface Unit that holds the Pasig-Laguna-Marikina River Basin is a composition of 2 watersheds; the Kanan and the Kaliwa wherein the major tributary systems of the Agos, Kaliwa, Marikina, and Pasig River connect coast to coasts of the Philippine Sea (East), the Manila Bay (west), and the Laguna de Bay (South). Three climate types bisect this basin, receiving varying monsoonal patterns, sharing the risks of hydrometeorological hazards; flooding and landslides.



biophysical systems in the River Interface

The Soil

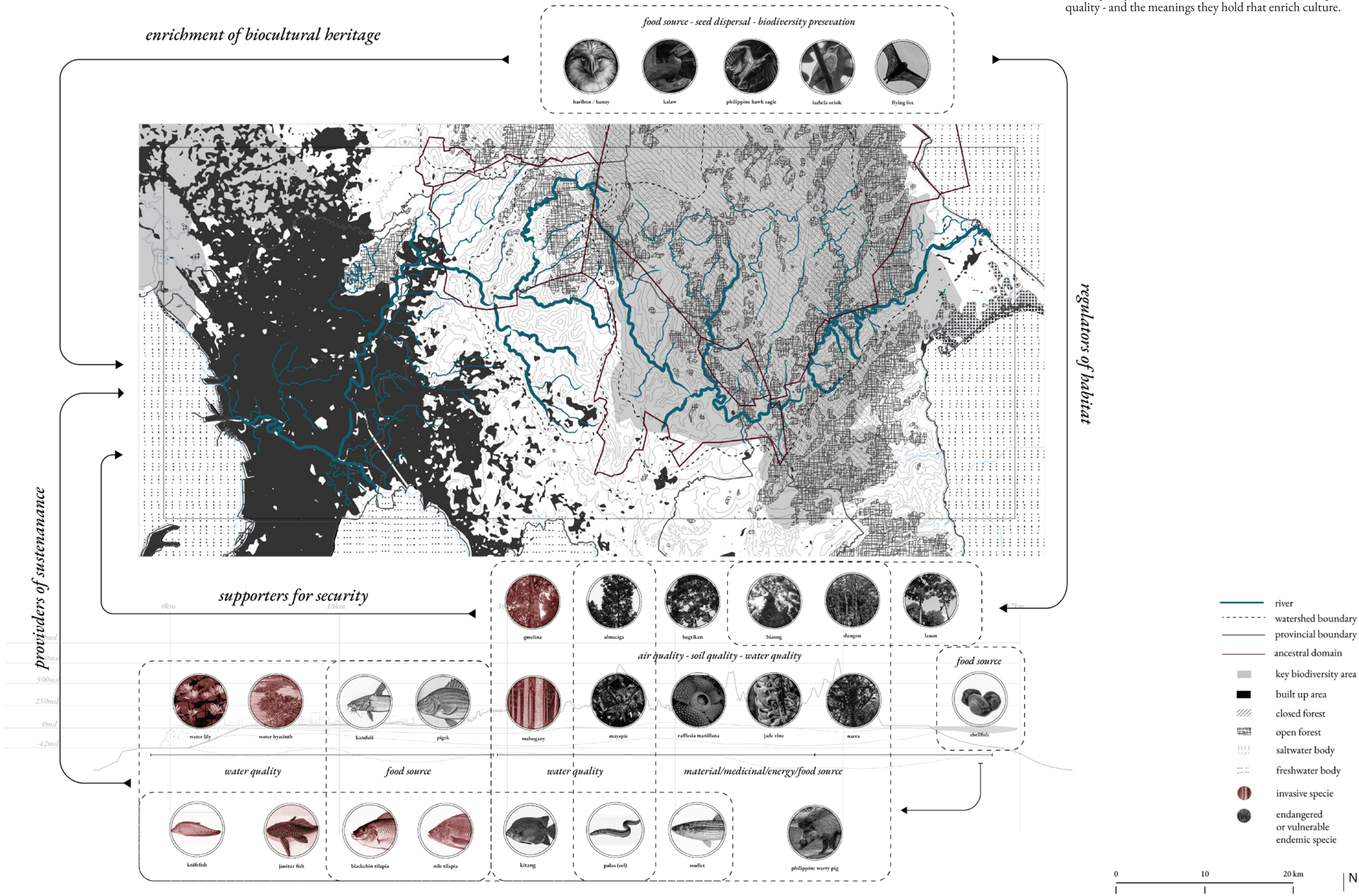
The soils of the River Interface vary as much as the land cover and their uses, defining the different resources planted, grown, mined, and pumped out and the livelihoods and cultures surrounding them.



biophysical systems in the River Interface

The Life Forms

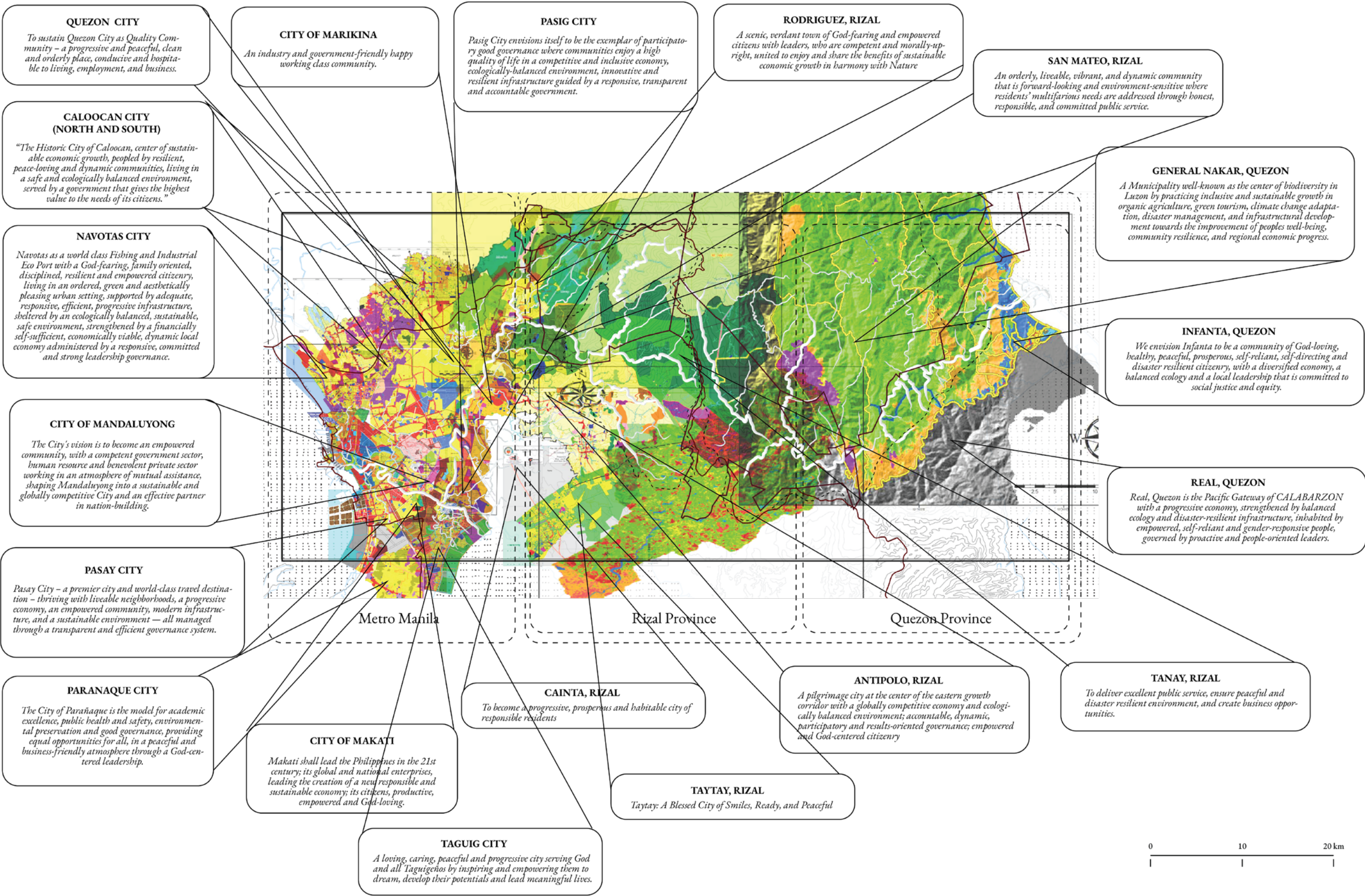
Non-human actors that play a role within the River Interface, from the endemic to the invasive that are all interconnected, perform to ensure the functionality of the land's intentions - water quality, food/shelter/medicinal source, seed dispersals, air quality - and the meanings they hold that enrich culture.



sociocultural systems in the River Interface

The Aspirations and Shared Values

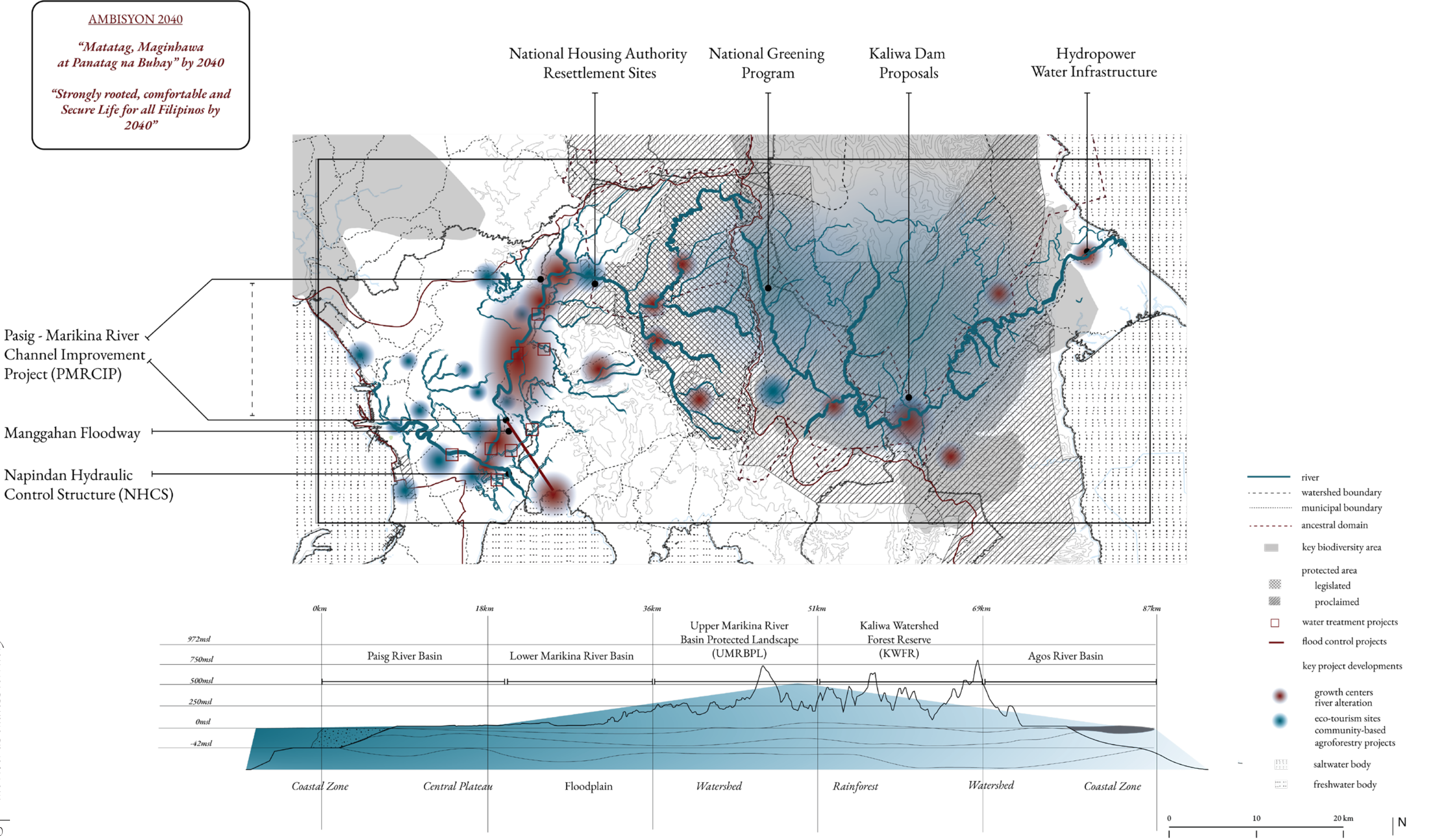
Local governmental plans in the River Interface, wherein land use is categorized and determine how a portion of each can be utilized and come together, forming a socio-cultural mosaic of public aspirations with the river seemingly expected to to receive and be part of it all.



sociocultural systems in the River Interface

The Projects and Ambitions

As these visions are carried out by missions, projects, programs and activities are planned and are pursued across the entire River Interface that exhibit the values that either pressure or support the rivers that witness these distinguished areas attempted to be tied together by a National Development ambition for 2040.



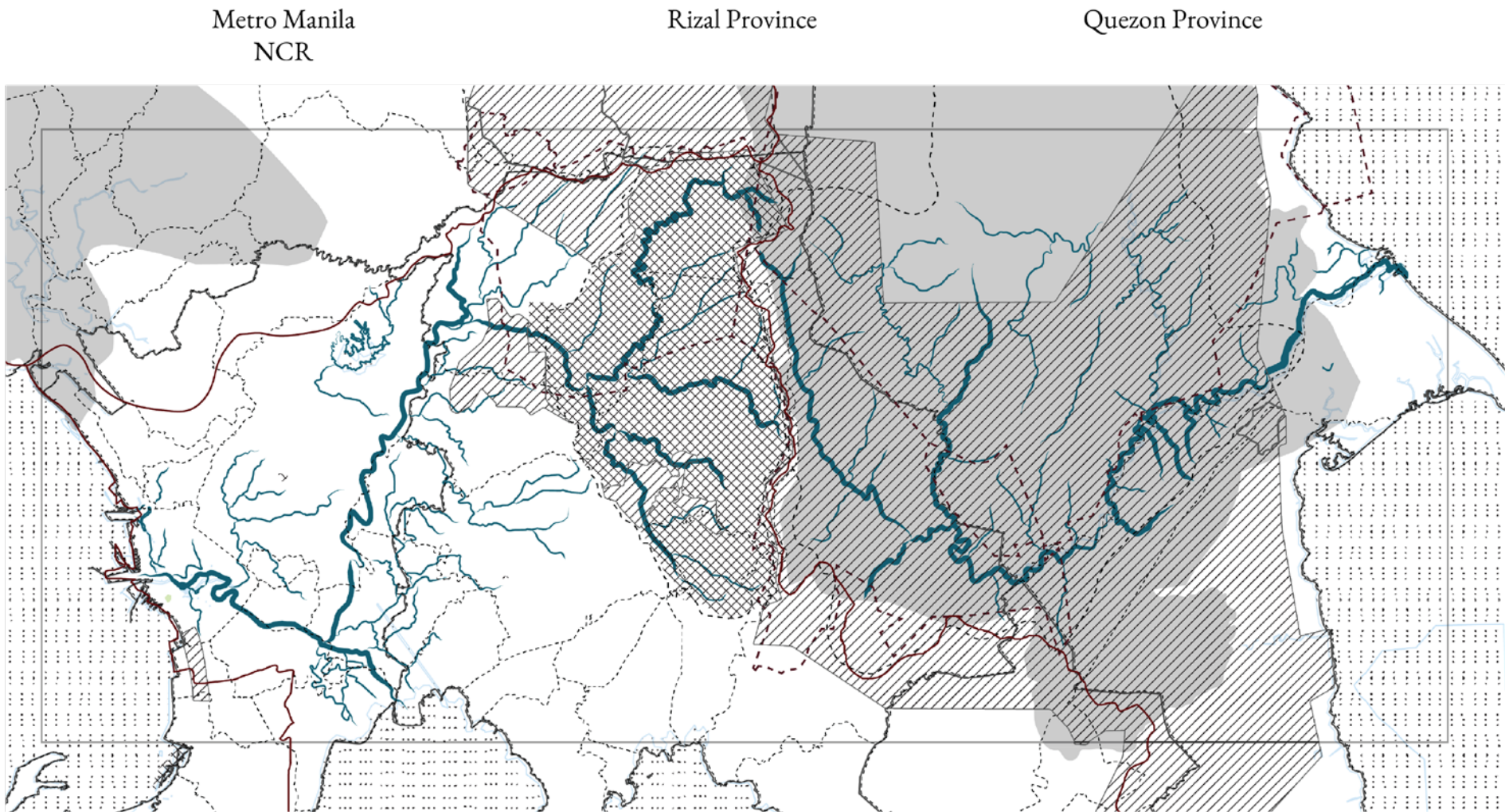
the river as endless territory

150

sociocultural systems in the River Interface

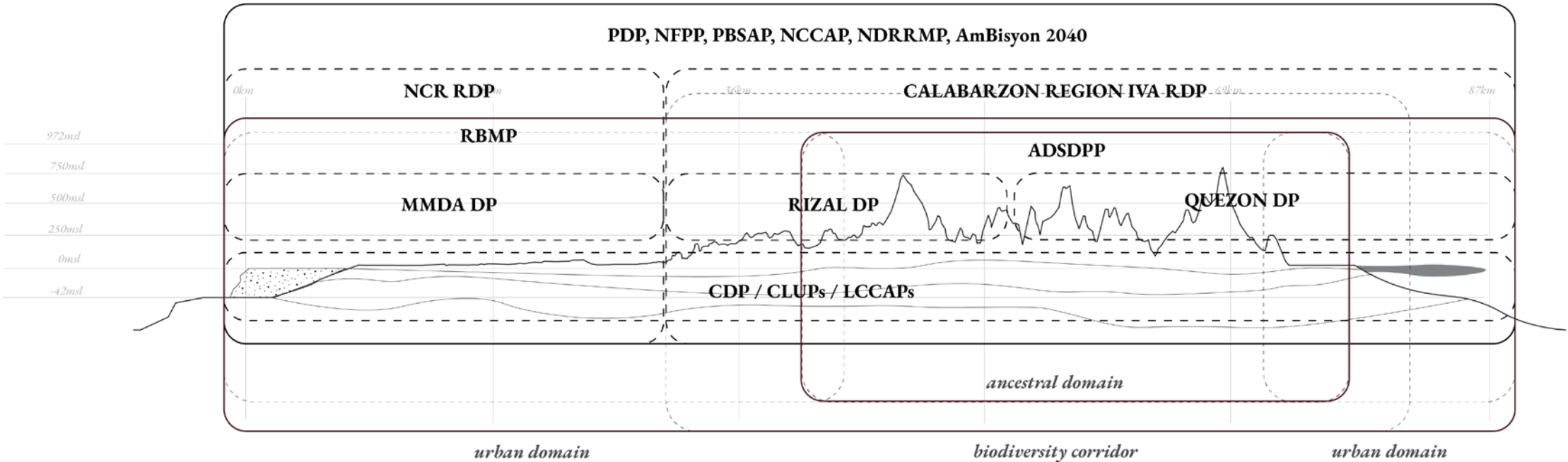
The Government Plans

The boundaries defined by the ‘managers’ of the River Interface follow different jurisdictions, directives, and roles; from the national to the local scales, many masterplans, development plans, and action plans are heralded by different agencies and communities that divide the river ideologically and fragment its socio-spatial interconnections.



List of Abbreviations

- PDP** Philippine Development Plan
- NFPP** National Framework for Physical Planning
- PBSAP** Philippine Biodiversity Strategic Action Plan
- NCCAP** National Climate Change Action Plan
- NDRRMP** National Disaster Reduction and Risk Management Plan
- RDP** Regional Development Plan
- RBMP** River Basin Master Plan
- DP** Development Plan
- CDP** Comprehensive Development Plan
- CLUP** Comprehensive Land Use Plan
- LCCAP** Local Climate Change Action Plan
- ADSPP** Ancestral Domain Sustainable Development and Protection Plan

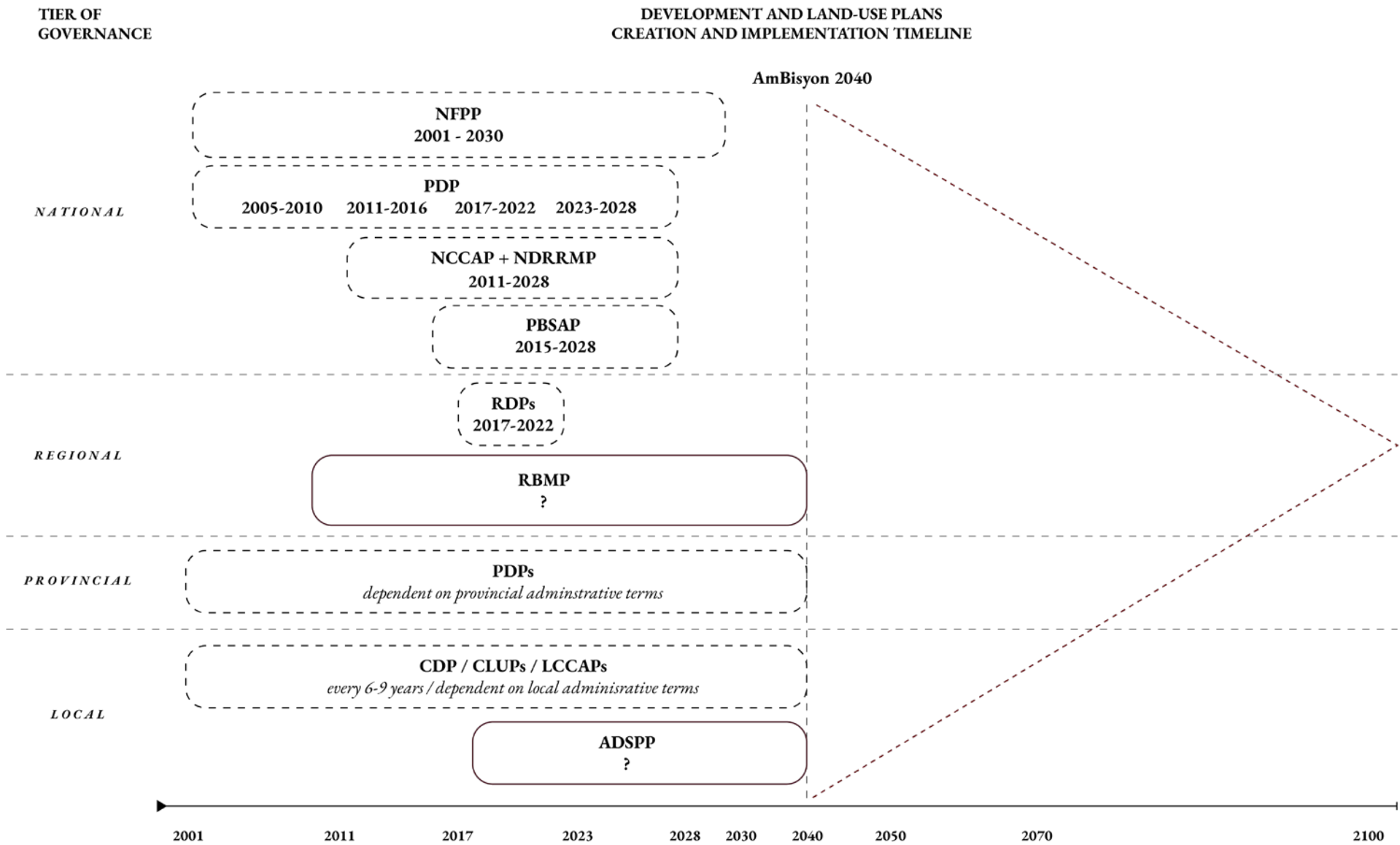


- river
- watershed boundary
- municipal boundary
- provincial boundary
- ancestral domain
- key biodiversity area
- protected area
- legislated
- proclaimed
- saltwater body
- freshwater body



the governance system in the River Interface

Development and Urban Planning Framework Affecting The River Interface
linkages + projected timescales

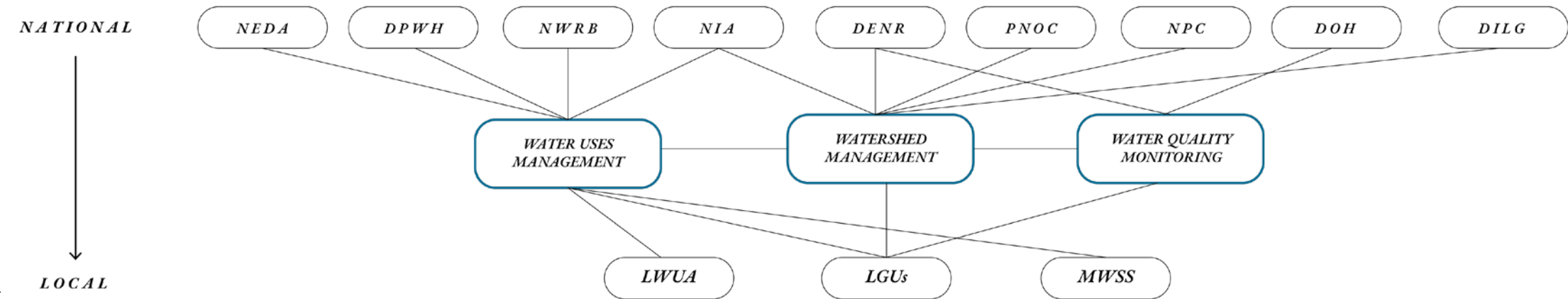


The River Interface Management System

Managers follow a centralized, top-down system that also, once uncovered how Natural Resources are indeed shared, but are segmented into different agencies that might be least concerned with them, particularly in the management of Water, where the river is most concerned. The River Basin Management Office takes a backseat in the decision-making and the indigenous whose territories sustain these resources are completely out of the picture, when they must be at the center.

National Water Resources Board (NWRB) Structure
implementing agencies + functions

the river as endless territory



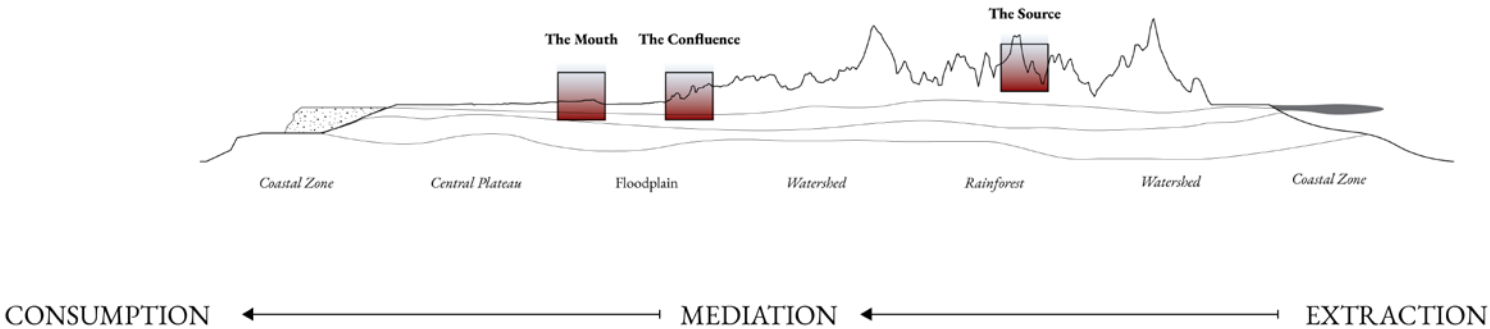
| GOVERNMENT AGENCIES | | | | | | | | | | | | | |
|--|------|------|------|-----|-----|-----|-----|------|------|------|------|-----|-----|
| FUNCTIONAL ROLE | NWRB | DPWH | DENR | DOH | NIA | PNO | NPC | DILG | MWSS | LGUs | LWUA | DOT | DOT |
| POLICY PLANNING | | | | | | | | | | | | | |
| DATA MONITORING | | | | | | | | | | | | | |
| SCIENTIFIC MODELING | | | | | | | | | | | | | |
| INFRASTRUCTURE AND PROGRAM DEVELOPMENT | | | | | | | | | | | | | |
| OPERATIONS OF WATER FACILITIES | | | | | | | | | | | | | |
| REGULATORY FUNCTIONS | | | | | | | | | | | | | |
| FINANCING | | | | | | | | | | | | | |
| PUBLIC RELATIONS, CAPACITY DEVELOPMENT, AND IEC | | | | | | | | | | | | | |
| LOCAL REGIONAL RIVER BASIN OPERATION DEVELOPMENT | | | | | | | | | | | | | |

the River Interface pattern

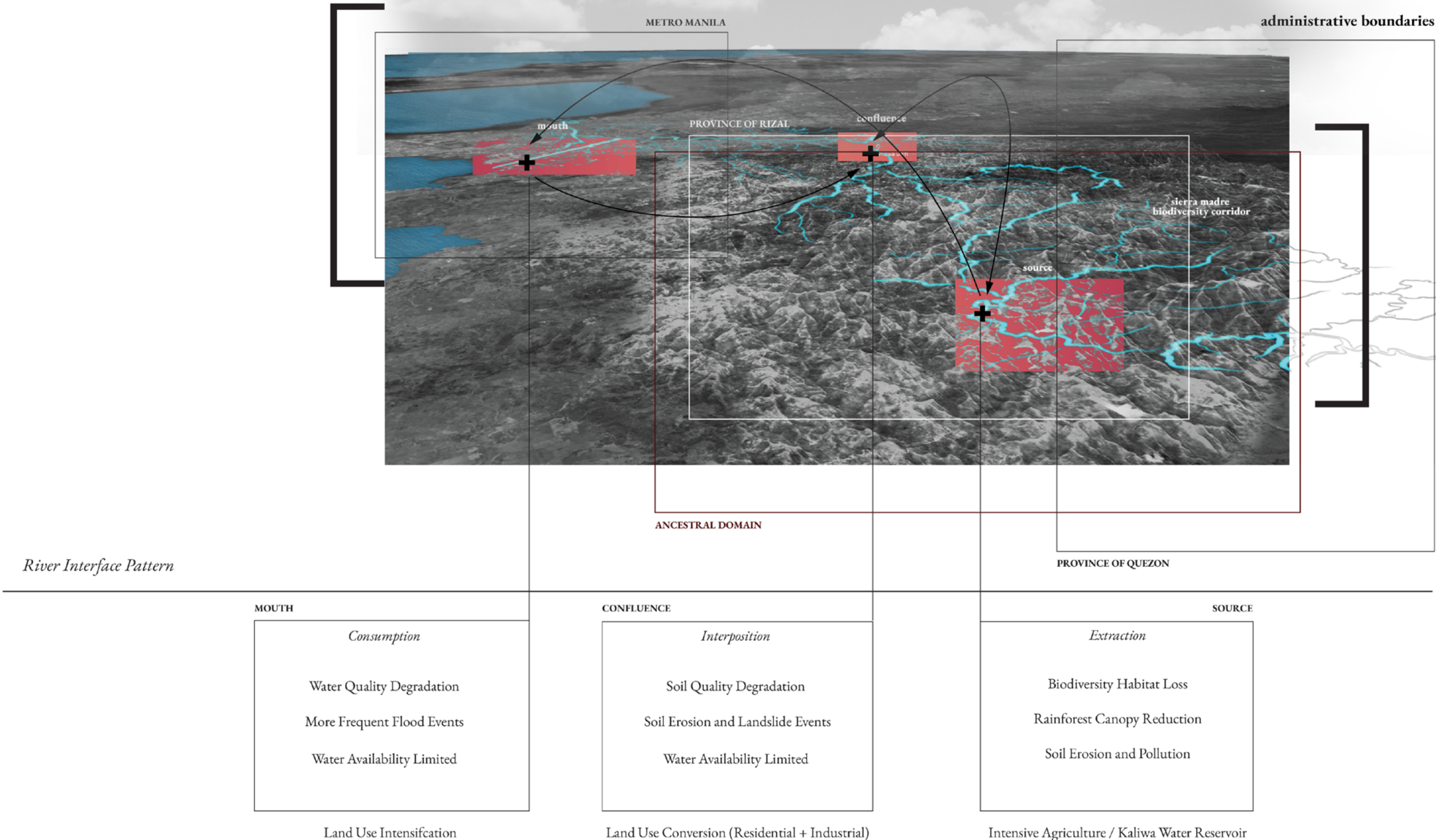
Dominant Values Over the River Interface

A clear pattern of values over the River Interface is unveiled from whence specific interfacial areas are identified. From the Source, where most if not all of the land's intentions seem to be extracted, to the Mouth where these land's intentions are consumed, with the ambiguous area of the Confluence as explicitly split between the urban and the ancestral domain as interposing. From upstream to downstream, the values of the indigenous, urban, and the multiplicities of both are projected over the river basin in response to biophysical phenomena as well as socio-cultural tensions.

River Interface Unit 01
Transect Key



RIVER INTERFACE UNIT (RIU) 01
Pasig-Laguna-Marikina River Basin



a cascade over the River Interface

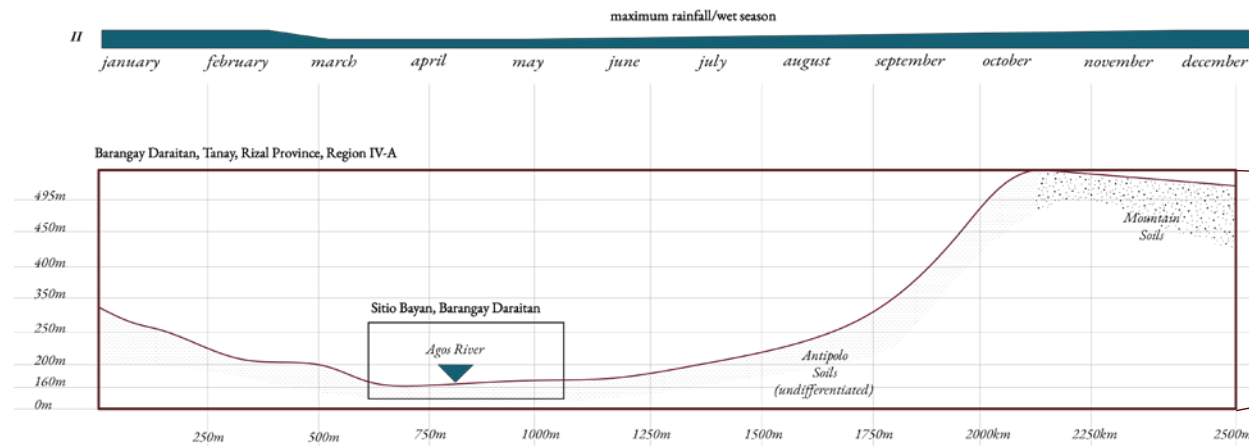
The River Interface Pattern Interrogated

Land use dynamics over time to see how socio-cultural practices define the land and the corresponding values they represent, seeing their effects, movements, and responses. The Source is the Ancestral Domain of the Agta (Dumagat-Remontado) in the part of Barangay Daraitan, Rizal Province, The Confluence at Barangay San Rafael, Rizal Province, and The Mouth at Barangay Sta. Lucia along the Manggahan Floodway in the capital of Metro Manila.

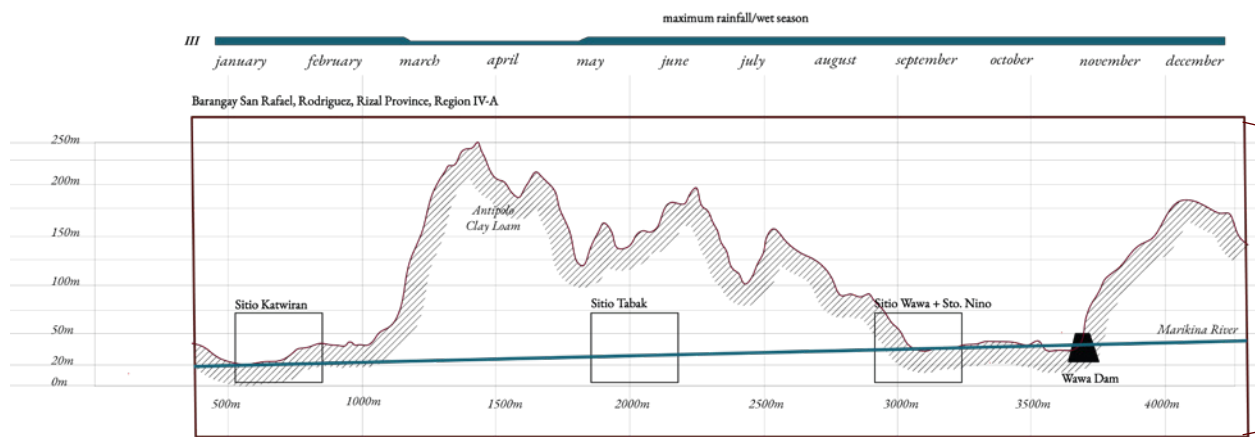
Intimate impressions were used to explore the interrelationships of the effects of development aggression in the delicate areas of The Source and The Confluence. The threads that combine these are summarized into a cyclic interactions diagram projecting the cycles of a year, where climate change effects may be most imminent and the values over the riverscape that are drawn from the indigenous' sensing of their oneness with their spatial environment.

THE RIVER
INTERFACE UNIT 01
Pasig-Laguna-Marikina
River Basin, LUZON, PH

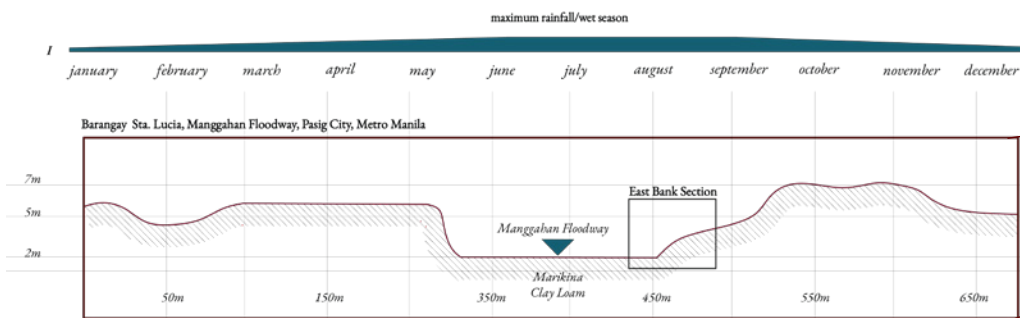
The Source Section



The Confluence Section



The Mouth Section



The Confluence

The Source

The Mouth

the river
sites
river pattern

the river as endless territory

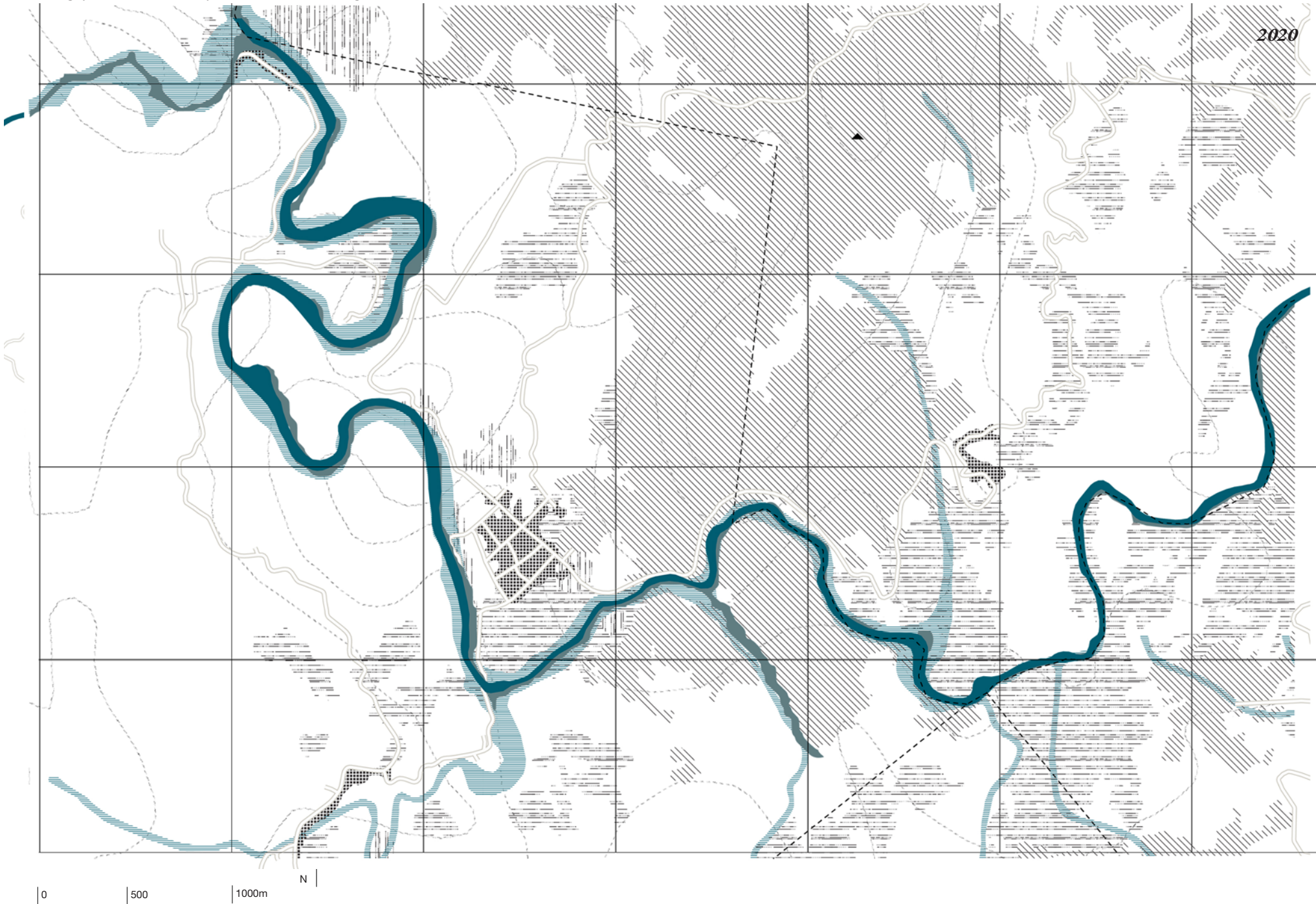
the source

From Abundance + Movement to Depletion + Statics

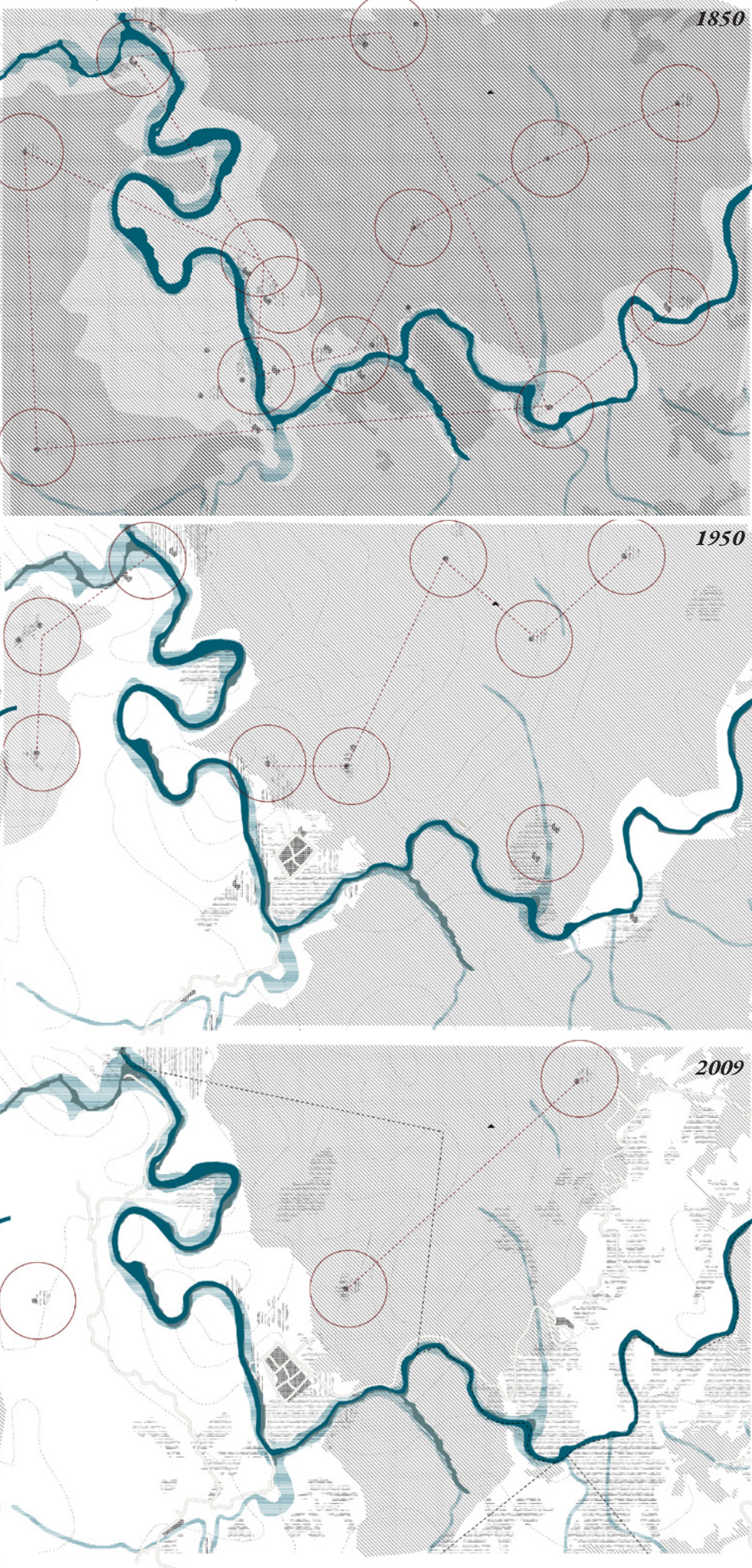
The dynamic settlements of the Agta (Dumagat-Remontado) were reduced as the rainforest cover declines. Although the grid system of the Spanish was set in place, some areas remain sacred such as hunting grounds and ancestral tombs. Although their movements are reduced, traditional Agta remain upland while those who have settled more permanently by the Tinipak River year round have intermarried with lowlanders. As the area is now under the declared Kaliwa Watershed Forest Reserve protected area, eco-tourism has been some of the major livelihoods that the locals have turned to aside from illegal logging to

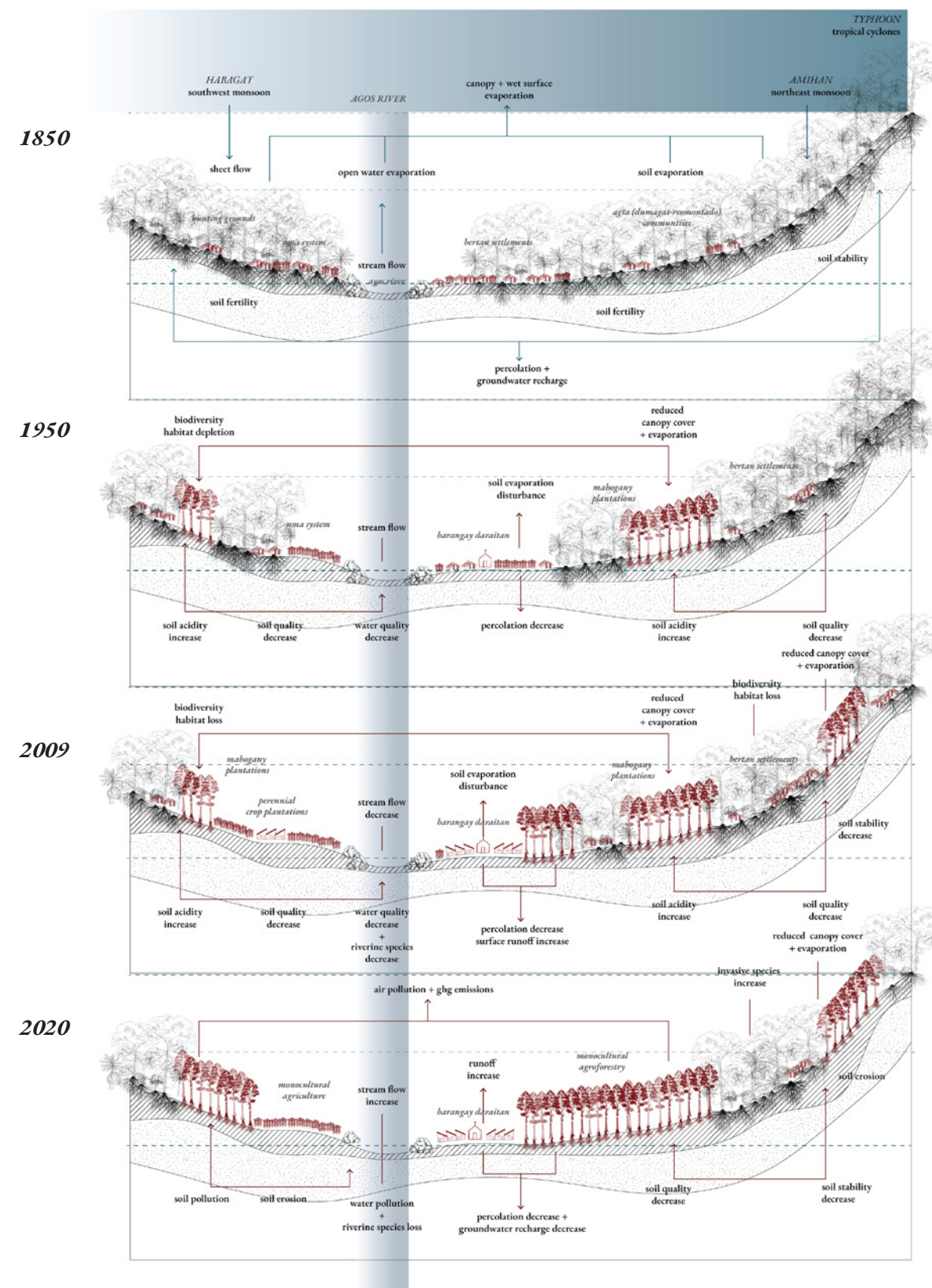
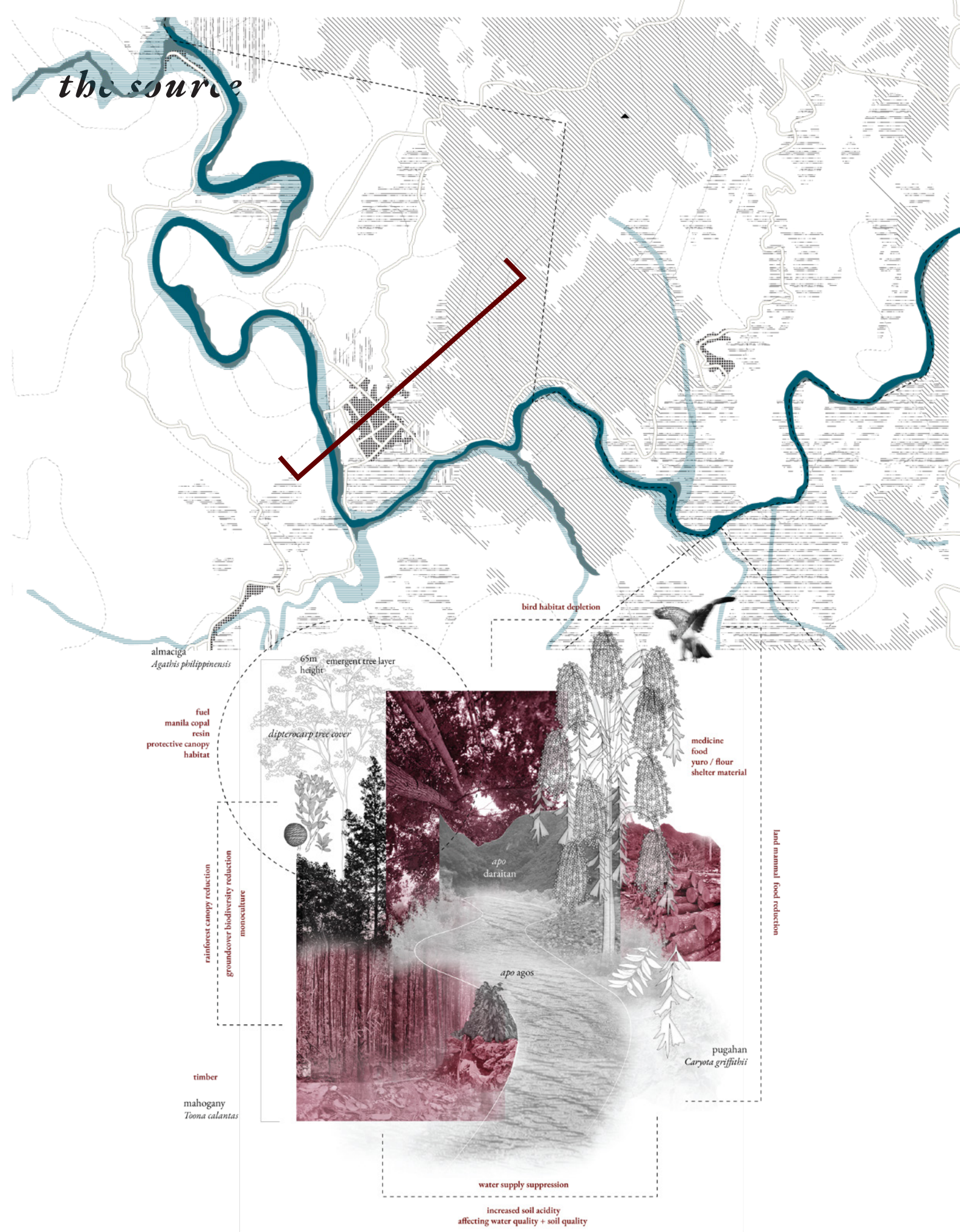
exchange for other goods with lowlanders, and industrial agroforestry as a community, introducing invasive species, particularly of monocultural Mahogany plantations, suppressing biodiversity and the soil's capacity to percolate water, suggesting more rain-induced landslides as both the rainforest is denuded and the soil becomes less stable. With that, habitats for biodiversity decrease, so does the hunting activities integral to Agta culture disintegrate, losing both knowledge and skills. With the onslaught of ever stronger typhoons, the Source is at great risk of losing its abundance of supply that provides for the rest of the River Interface, not only physically, but bio-culturally.

The Source
Barangay Daraitan, Tanay, Rizal Province, Region IV-A, PHILIPPINES



Land Use Dynamics Over Key Moments in Time

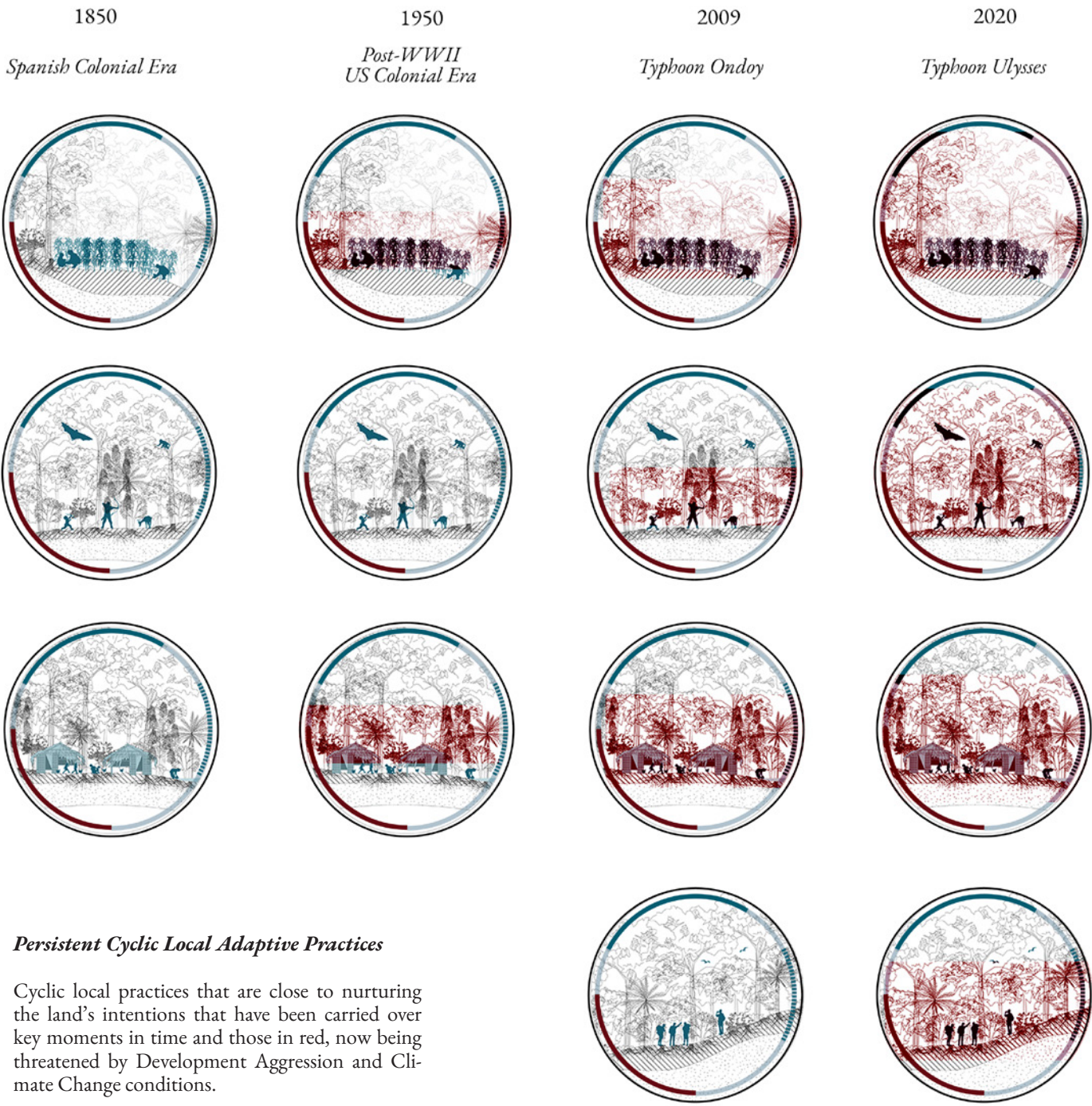




Sectional Timeline of Changes in Land Dynamics During Key Moments of 1850, 1950, 2009, and 2020

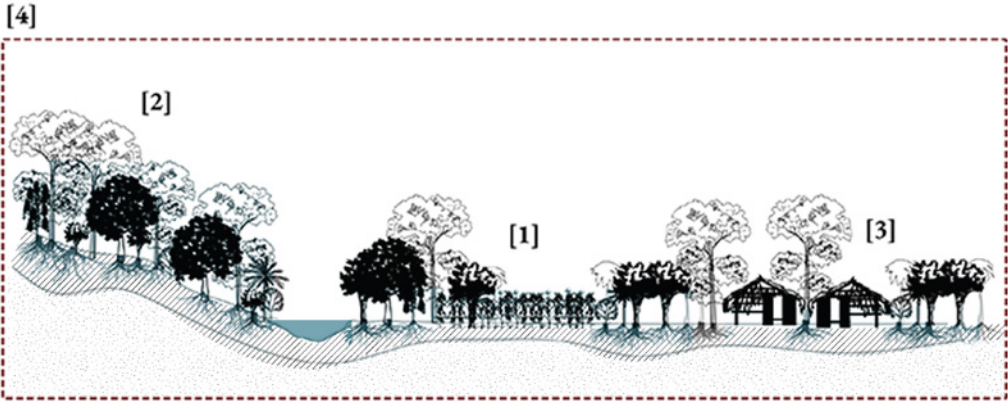
Intimate Impression of Development Aggression Dynamics of Intensive Agroforestry at The Source

the source



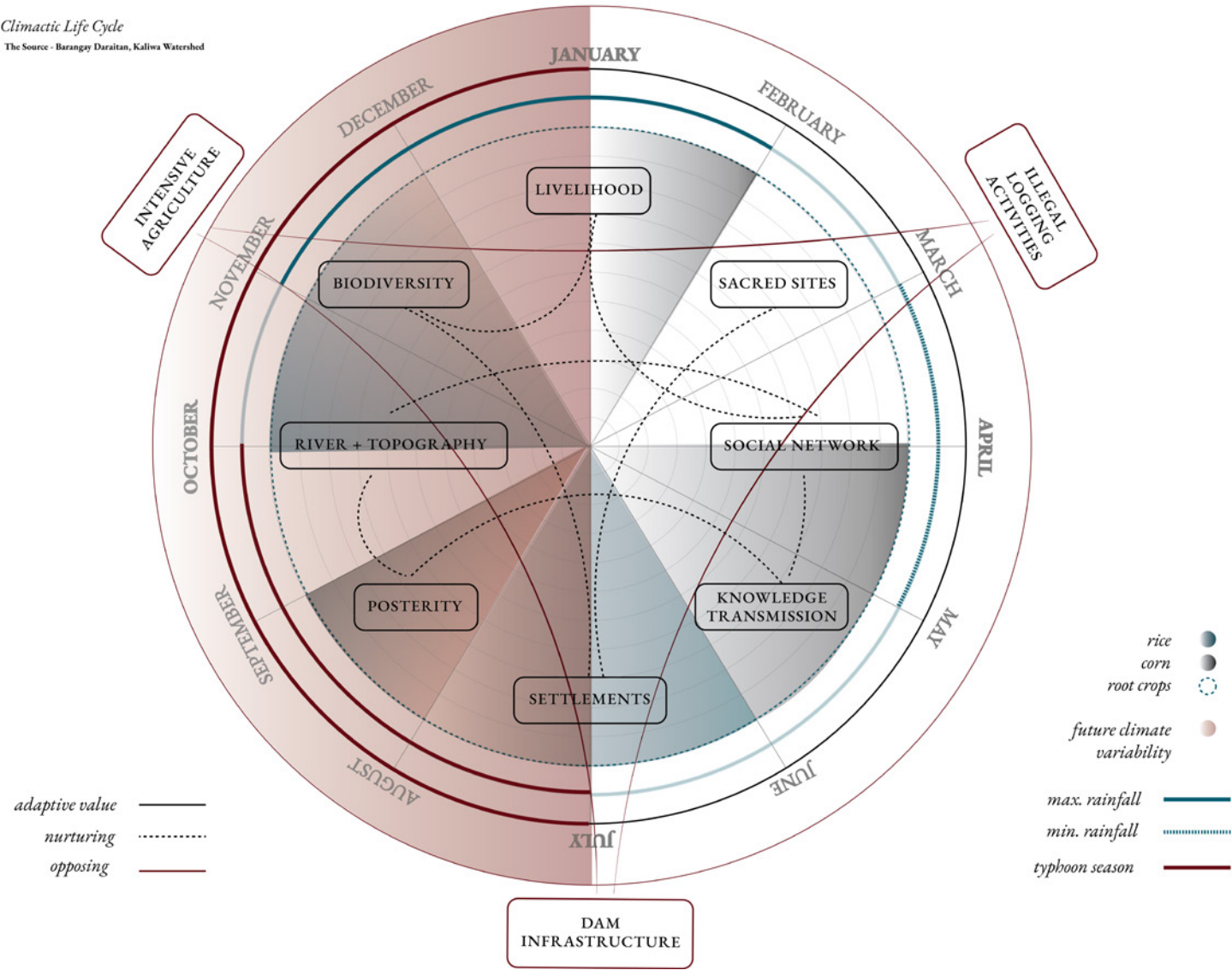
Persistent Cyclic Local Adaptive Practices

Cyclic local practices that are close to nurturing the land's intentions that have been carried over key moments in time and those in red, now being threatened by Development Aggression and Climate Change conditions.



- [1] uma
- [2] protected rainforest area | kaliwa forest
- [3] bertan settlement within barangay
- [4] eco-tourism

Climactic Life Cycle
The Source - Barangay Daraitan, Kaliwa Watershed



The Interactions Diagram of
Climate-Development Aggression-Values of the Riversapce
and Agricultural Productivity at the Source

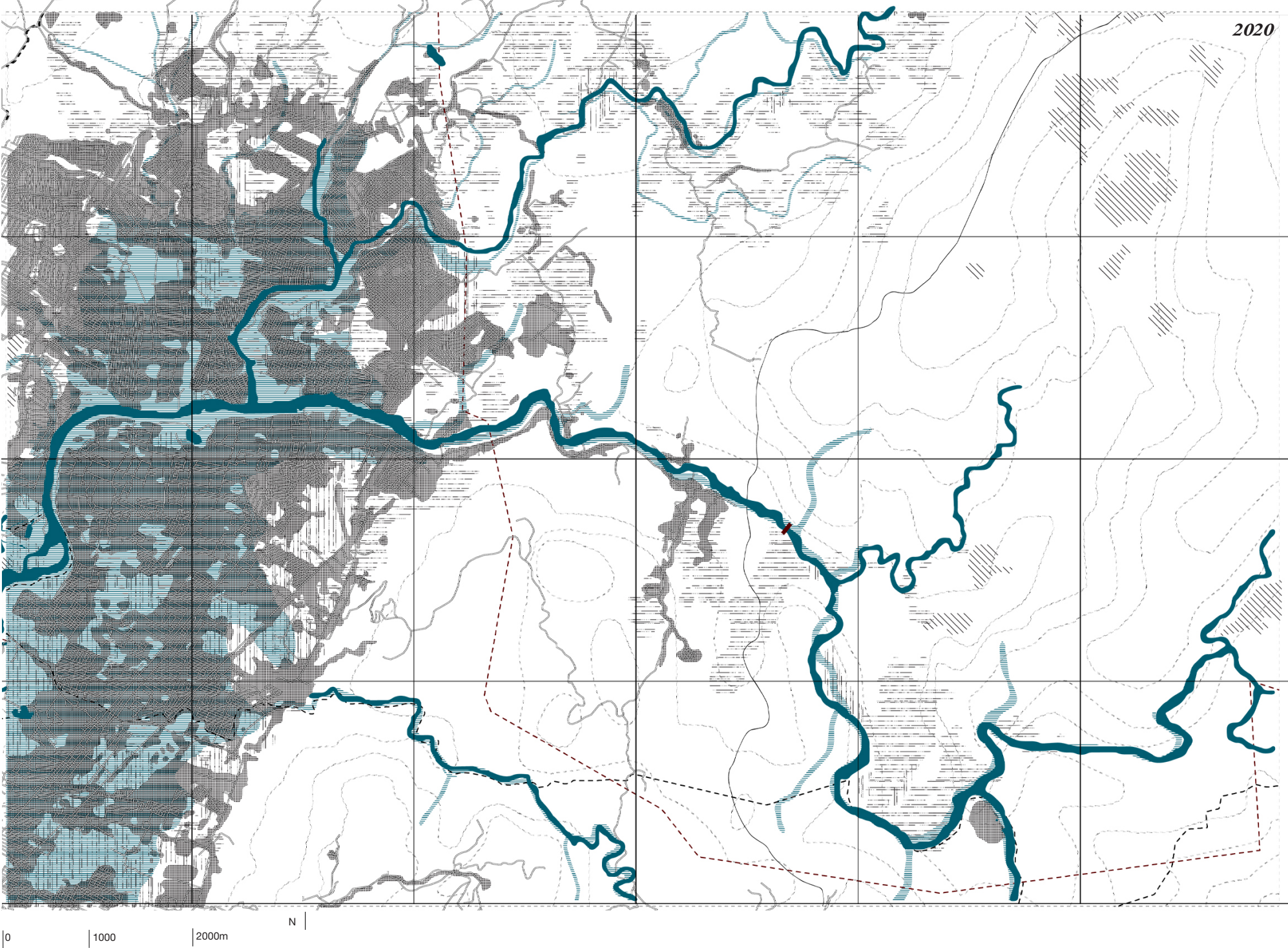
the confluence

The Floodplain Meets the Rainforest

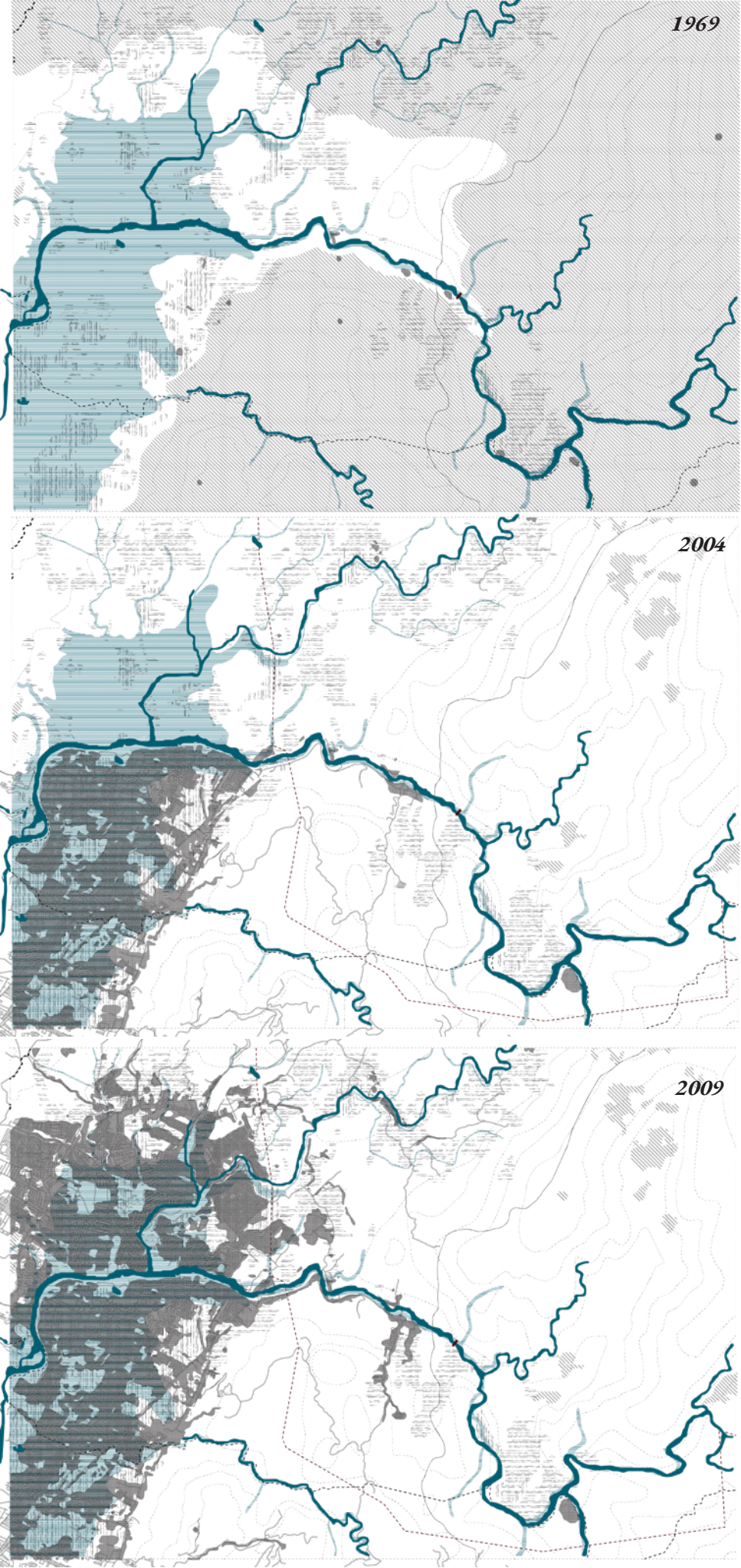
At The Confluence, the Ancestral Domain boundary collides with the Urban Domain as visibly seen in the expansion of urban settlements coming from the capital to the uplands. As Wawa Dam, the first dam ever to serve Metro Manila, was decommissioned in 1969, the area became a tourist site wherein industrial, agricultural, and residential uses converge with indigenous settlements who manage part of the river basin. Declared as part of the Upper Marikina River Basin Protected

Landscape (UPMRBL), the area is contentious for the rapid development of social housing and low-cost housing developments that have completely tranformed a flood risk area as it is the beginning of the floodplain that descends to capital by way of the city of Marikina, where the headwaters from upstream originate. Many settlements here have been continually battered by typhoons with little to no disaster risk response and flood management projects and plans in place. The resettled may need to be resettled again.

The Confluence
Barangay San Rafael, Rodriguez, Rizal Province, Region IV-A, PHILIPPINES



Land Use Dynamics Over Key Moments in Time

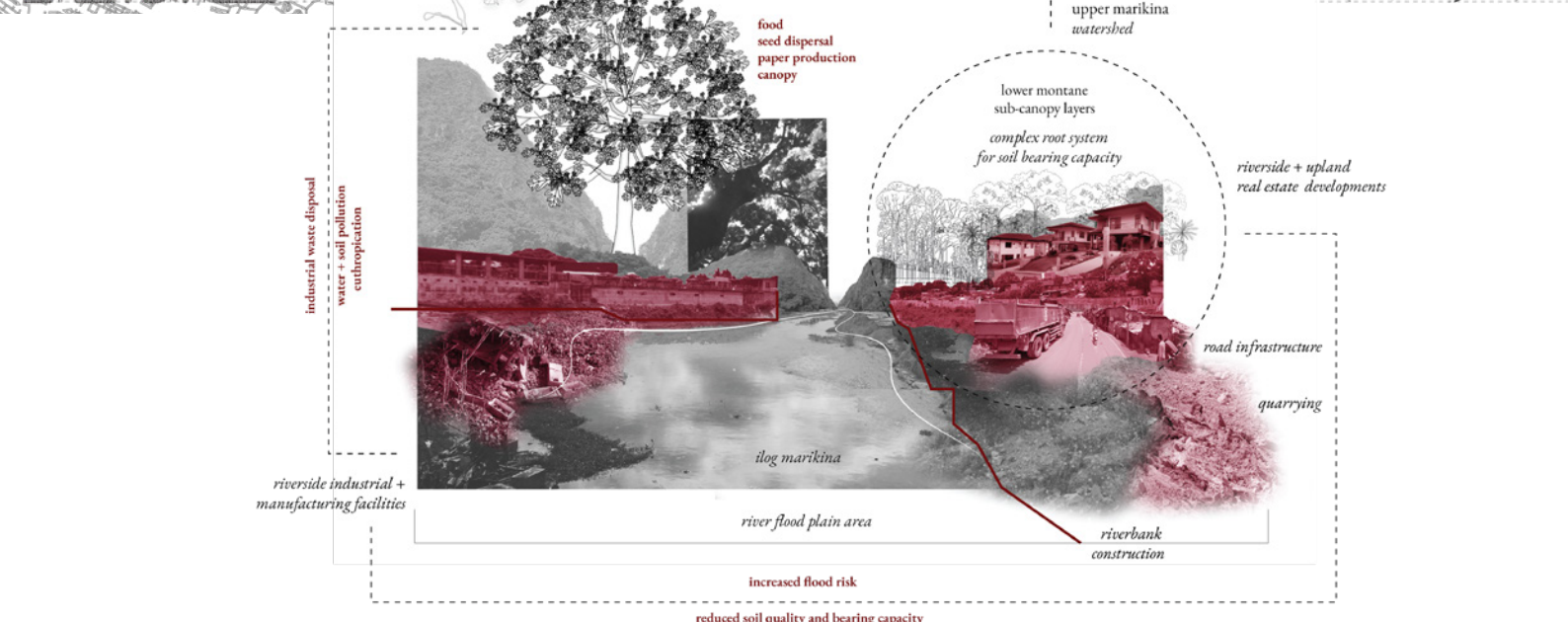


the confluence

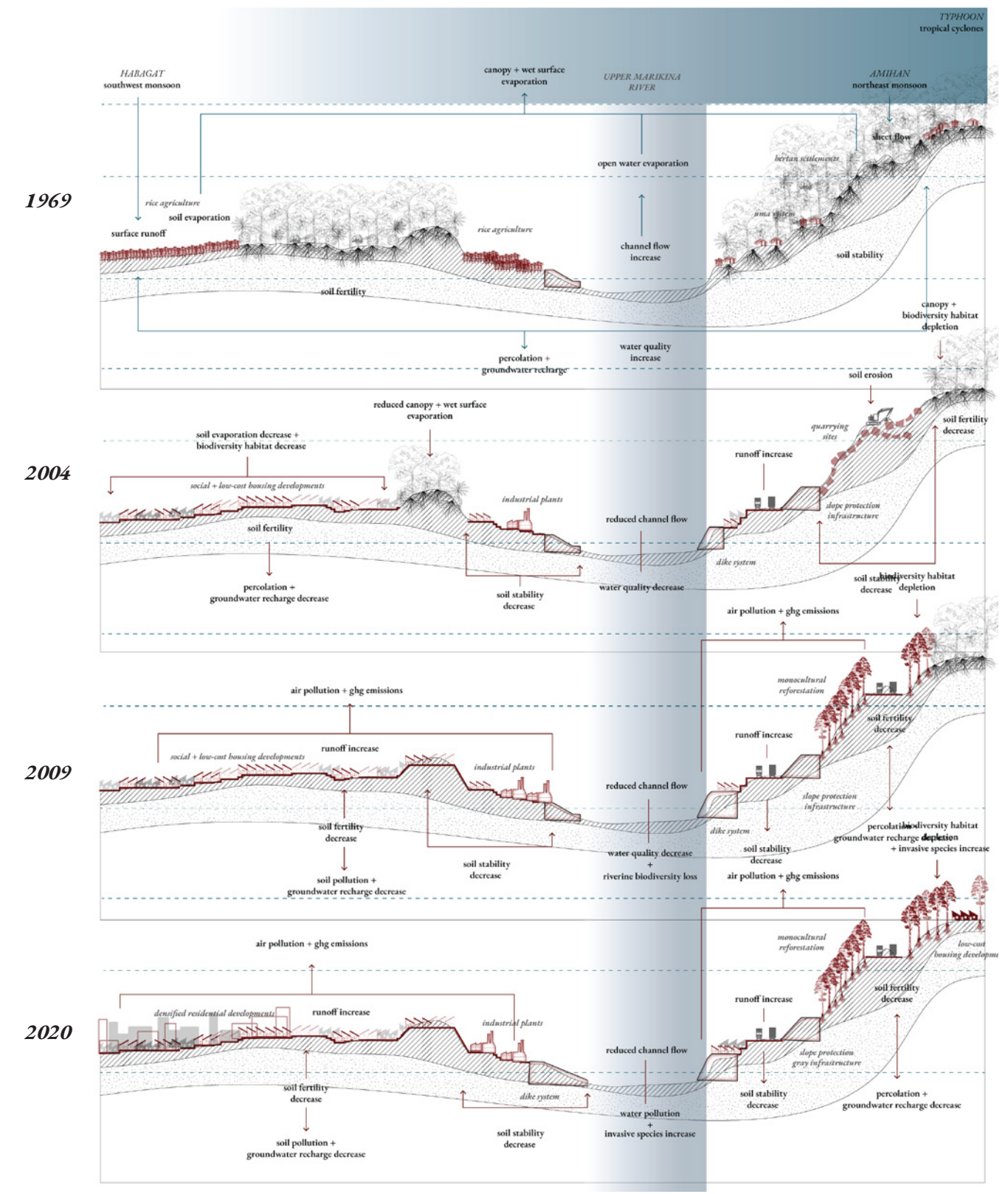
tipolo
Artocarpus blancoi

endemic tree system
habitat depletion

upland soil erosion

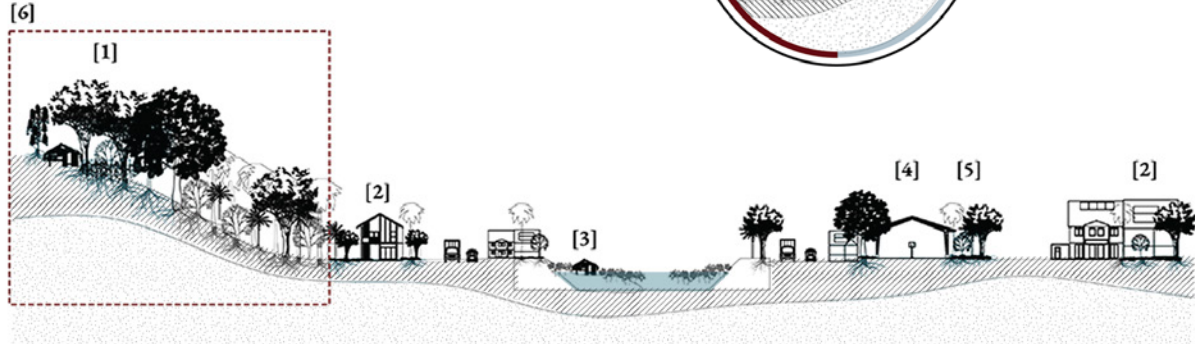
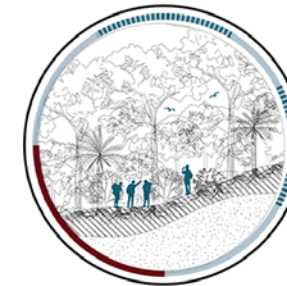
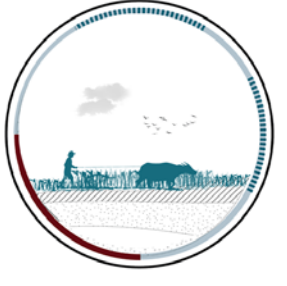
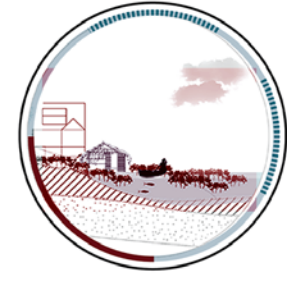
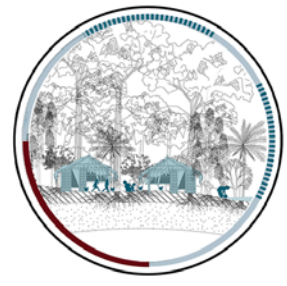


*Intimate Impression of Development Aggression Dynamics of
Land Use Conversion (Industrial, Infrastructure, Residential)
at The Confluence*



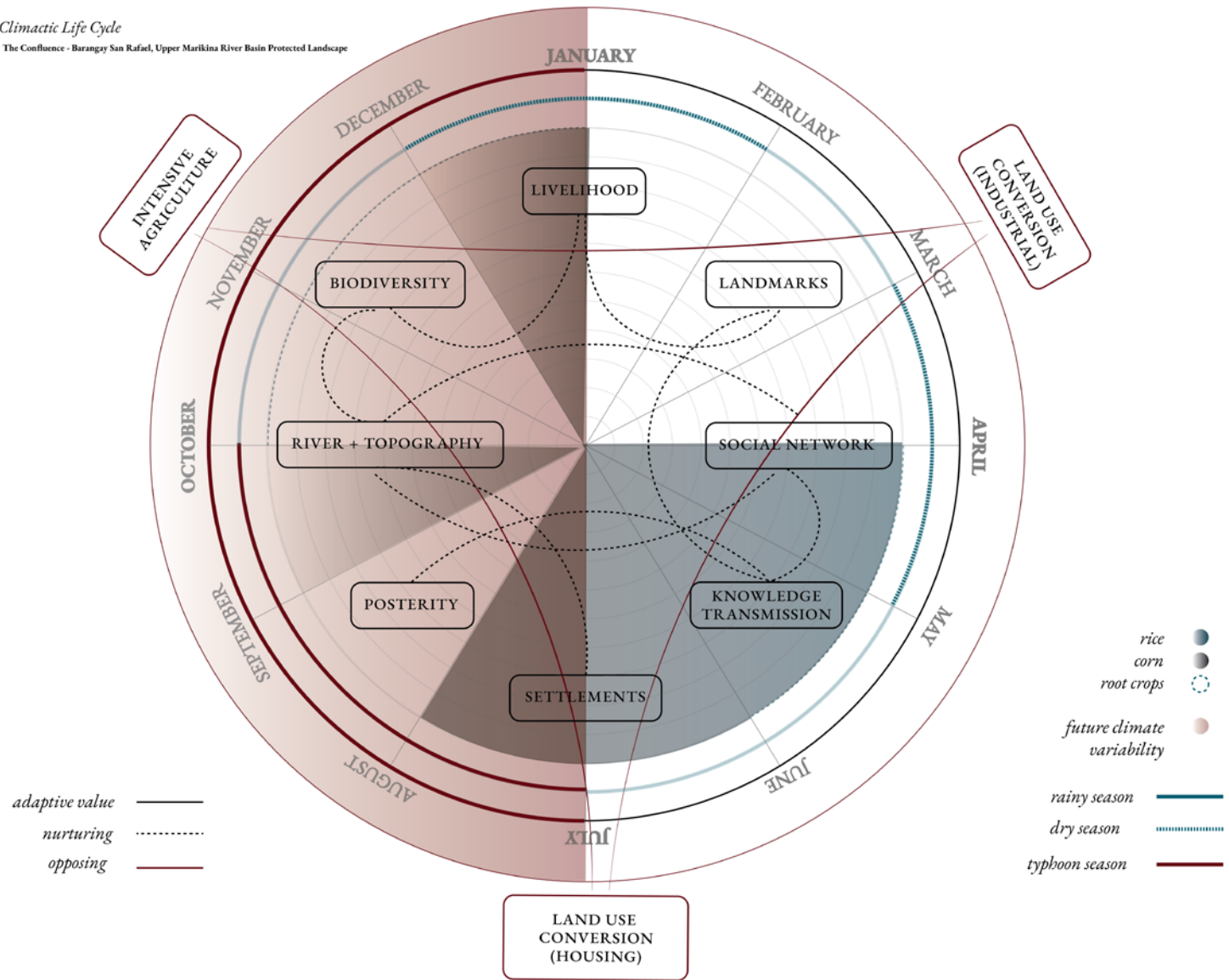
Sectional Timeline of Changes in Land Dynamics During Key Moments of 1969, 2004, 2009, and 2020

the confluence



- [1] uma
- [2] home garden
- [3] informal river settlement
- [4] barangay hall / community center
- [5] barangay community garden
- [6] upper marikina river protected landscape

Climactic Life Cycle
The Confluence - Barangay San Rafael, Upper Marikina River Basin Protected Landscape



The Interactions Diagram of
Climate-Development Aggression-Values of the Riversapce
and Agricultural Productivity at the Confluence.

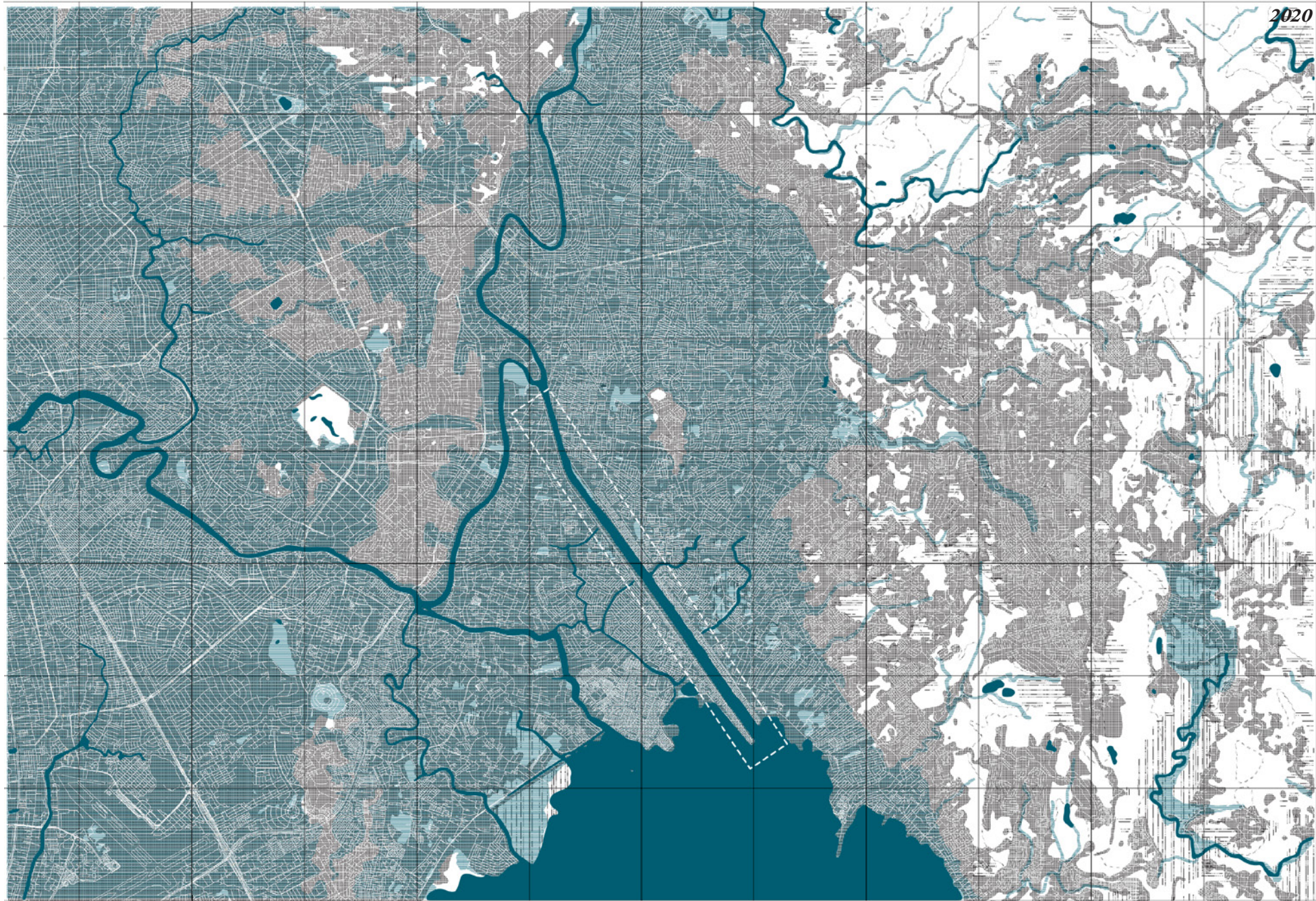
the mouth

From Marshland to a Floodway Metropolis

Until 1955, part of what is now the biggest metropolises in the world was still a marshland area where only rice fields, small fish pens, and migratory bird species flocked to escape the winter up north, overlooking the vast Laguna de Bay to the south. In less than half a century, the entire floodplain was completely built up up with the Manggahan Floodway constructed in 1986 to ease the perennial flooding in the area affecting the rapid onset of settlers, many of them displaced from the uplands and far flung provinces and islands to find ‘a better life’ in the city as poverty, climate disaster, and internal conflicts from military struggles

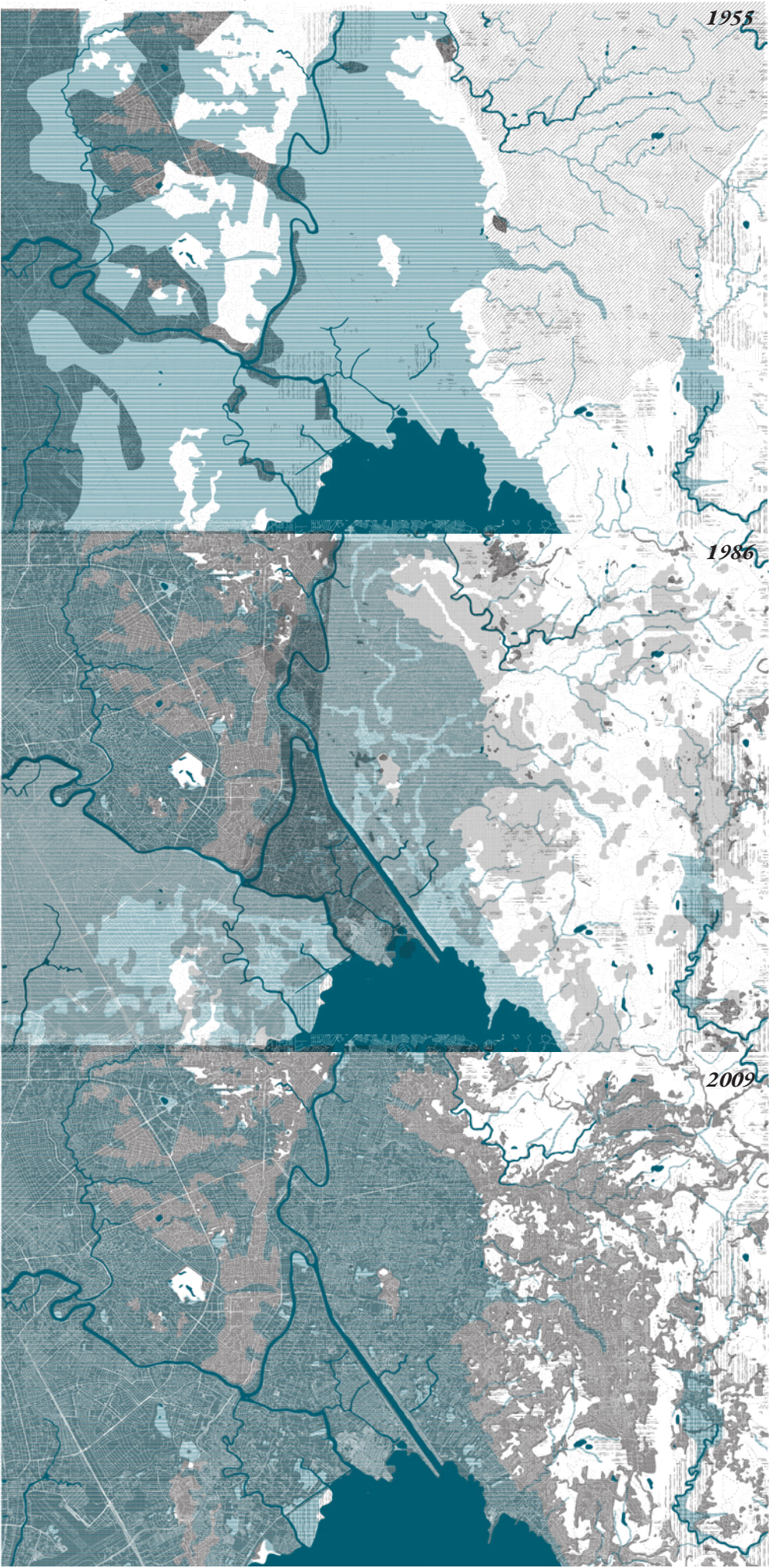
from major extraction, infra, and development projects have driven them away from their homes. When Typhoon Ondoy inundated the city of Metro Manila, the floodway’s effective overflow capacity was limited by the informal settlers living along its 200-m banks. Today, the floodway remains alongside the river settlers who have considered it their homes for 30 years. Due to the area’s precarity, social housing resettlement programs have been set in motion to decongest the floodway, but the settlers return due to the distance of these new sites (some of them in The Confluence) from their place of work that they have already found in the city. And so, they accept the uncertainty.

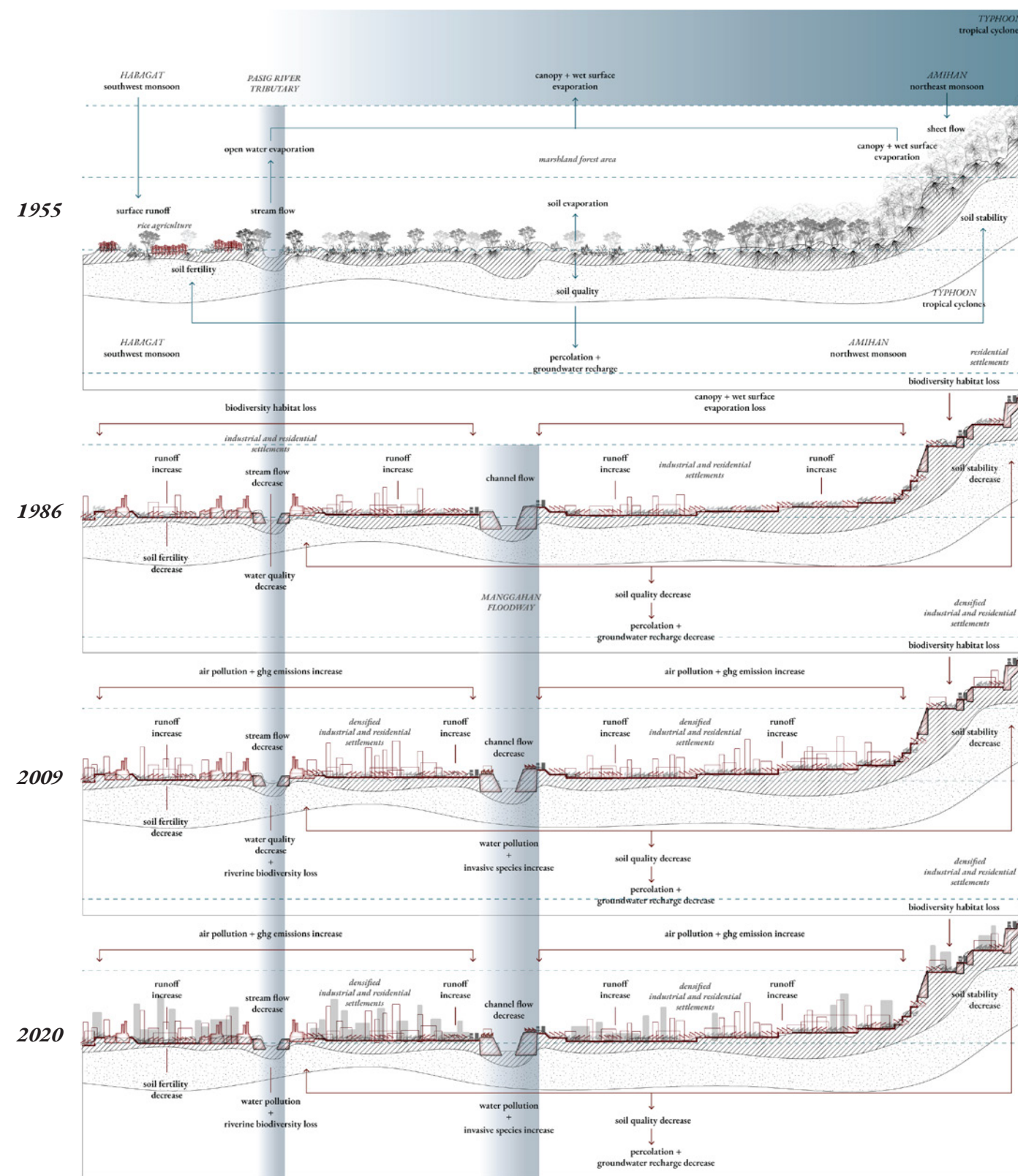
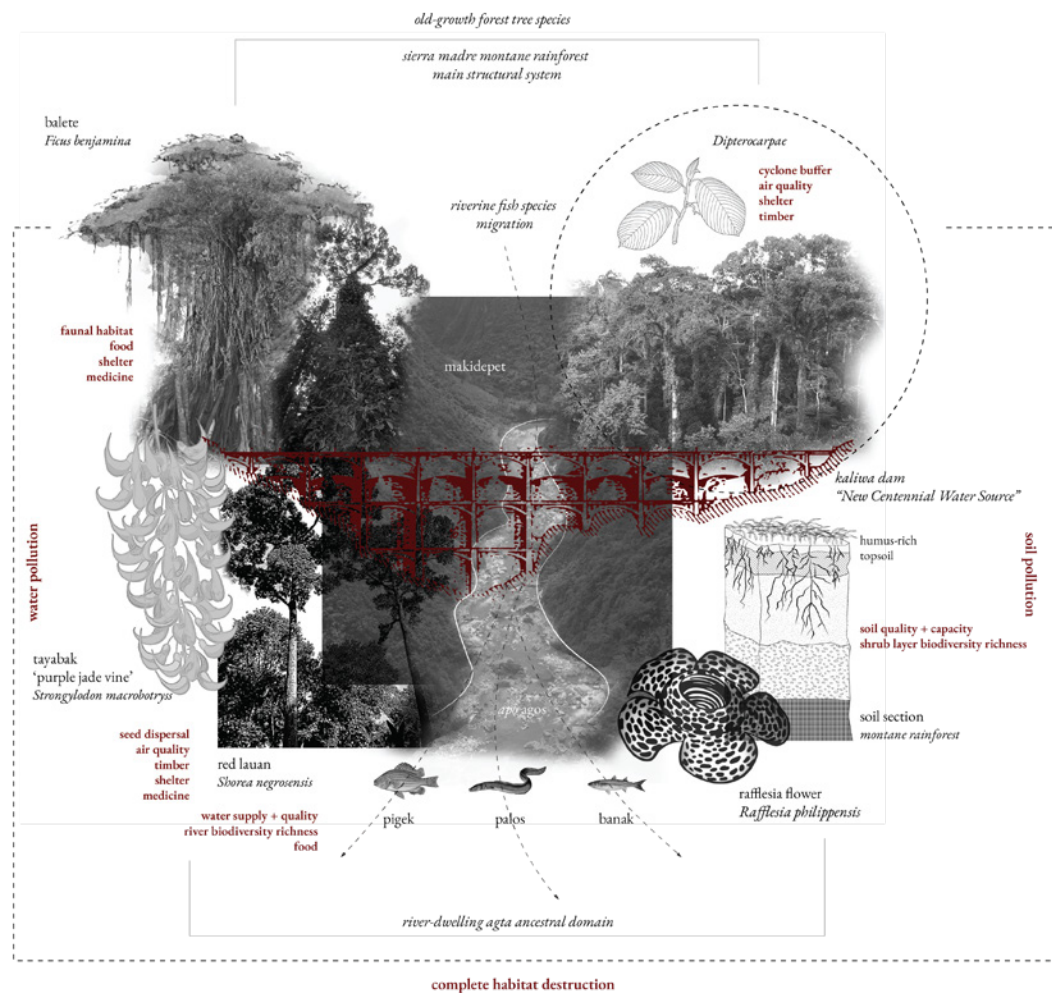
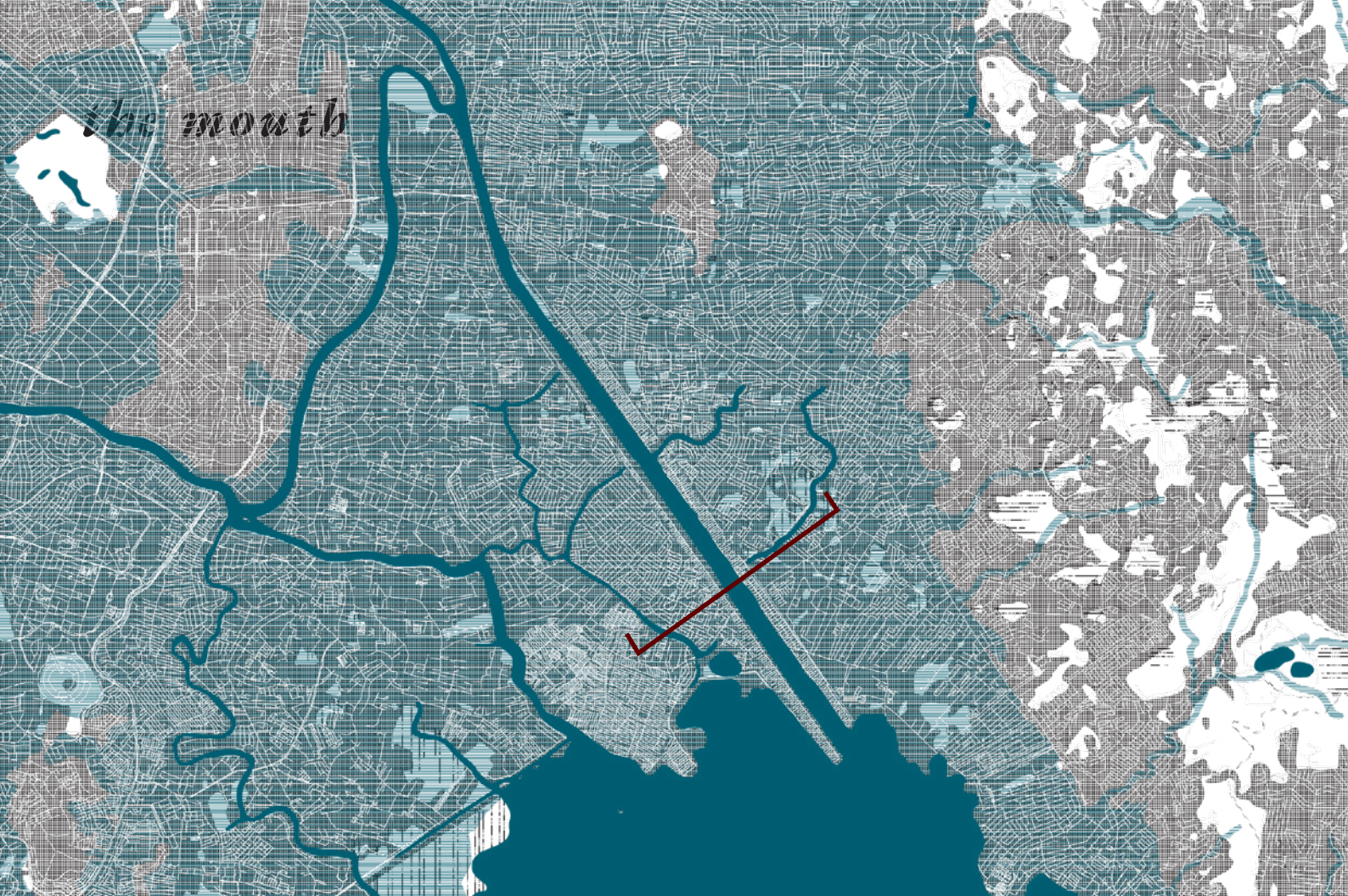
The Mouth
Manggahan Floodway, Metro Manila, PHILIPPINES



- built-up settlement
- open forest area
- perennial crops / production areas
- annual crops
- grassland / bushland
- pasig-marikina river
- flood risk
- manggahan floodway boundary
- road network

Land Use Dynamics Over Key Moments in Time



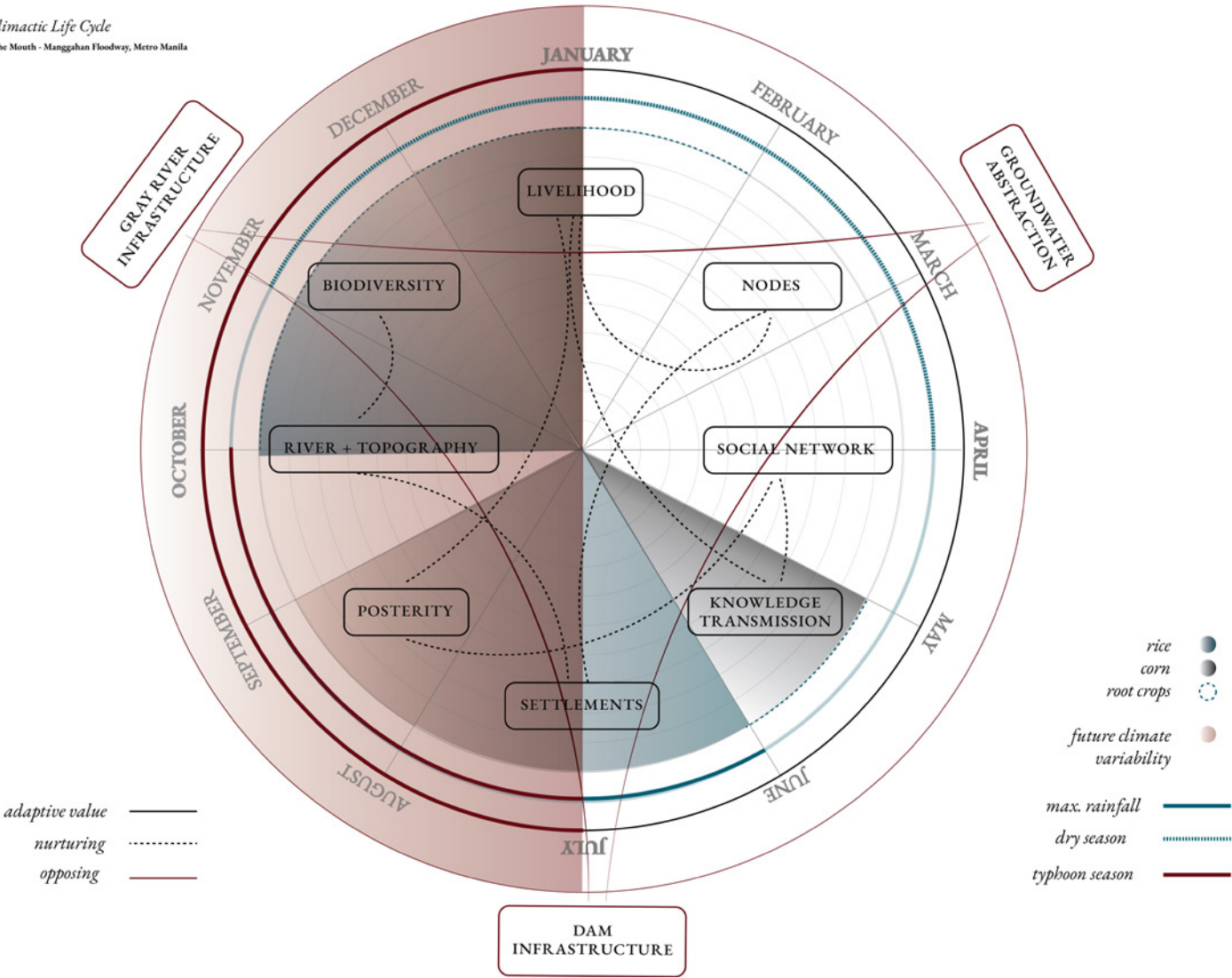


Sectional Timeline of Changes in Land Dynamics During Key Moments of 1955, 1986, 2009, and 2020

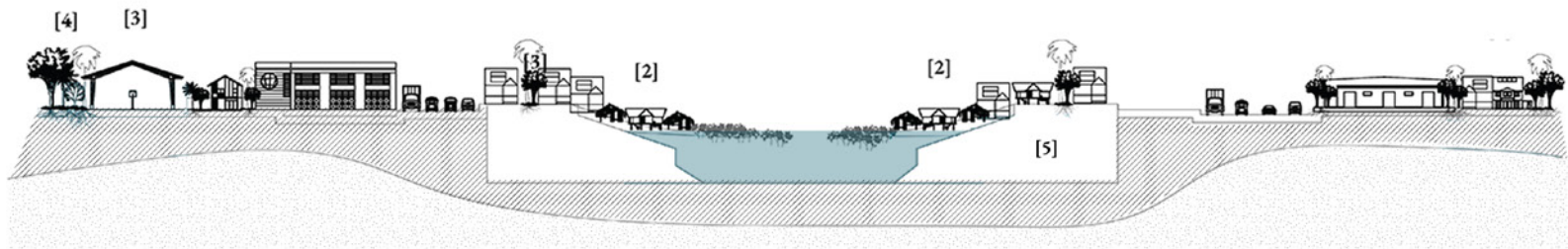
the mouth



Climactic Life Cycle
The Mouth - Manggahan Floodway, Metro Manila



The Interactions Diagram of
Climate-Development Aggression-Values of the Riversapce
and Agricultural Productivity at the Mouth



- [1] home garden
- [2] informal river settlement
- [3] barangay hall / community center
- [4] barangay community garden
- [5] flood infrastructure

*Informal Settlements along the Manggahan Floodway
with highrise residential buildings in Pasig City*
Manggahan Floodway, Metro Manila, Philippines
© author (2023)



“[Human beings] grow up in environments furnished by the work of previous generations, and as they do so, they come literally to carry the forms of their dwelling in their bodies – in specific skills, sensibilities, and dispositions.”

- Tim Ingold (2000)

the key

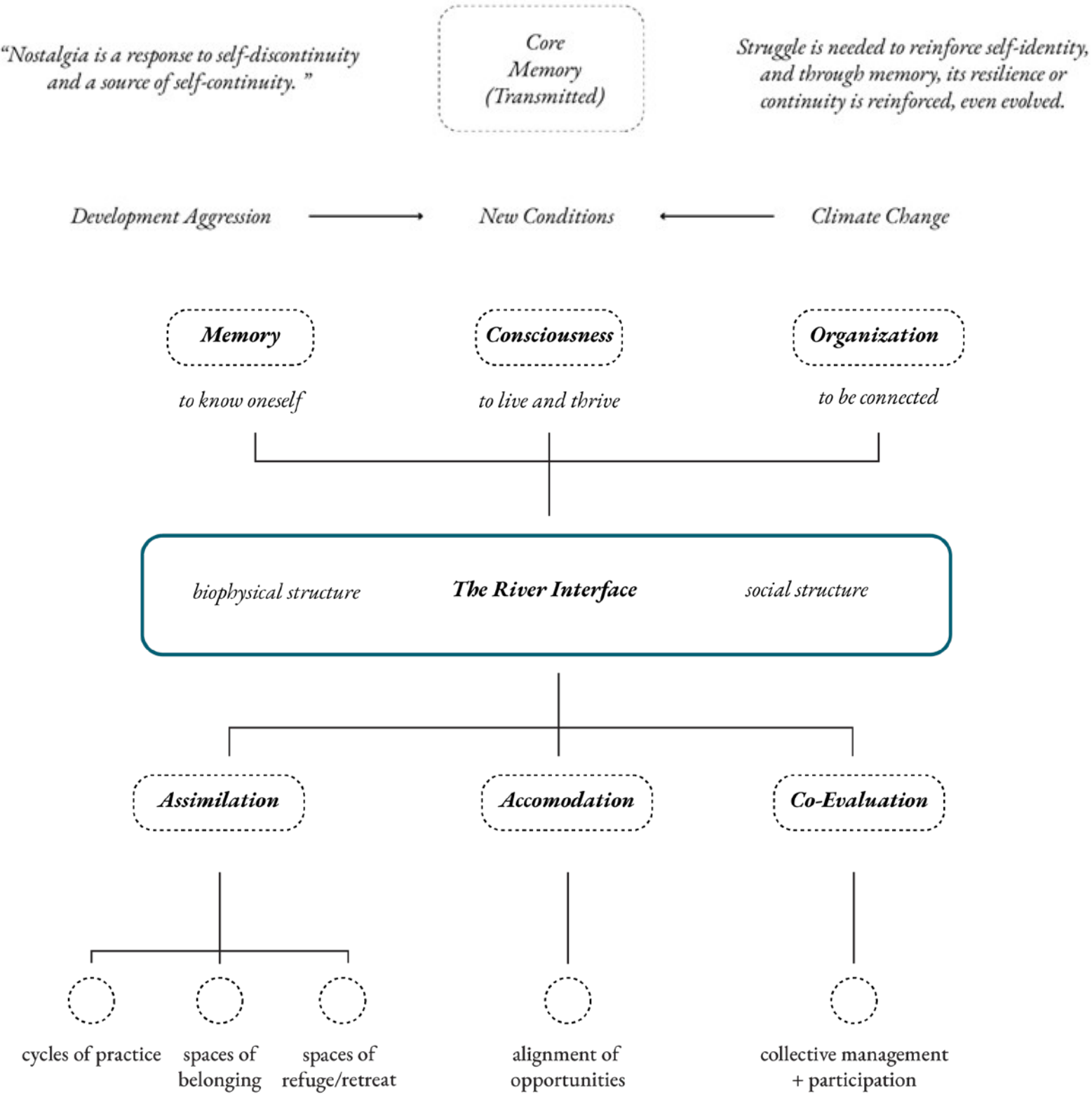
memory and nostalgia as key

The River Interface as a Territory with Capacities to have a Core Memory System for Adaptation

Systems of Memory in Adaptation

Upon reaching the project proposal, the process that has led the designer to its current formation requires to be emphasized. Through the creation of a River Interface Narrative as an analytical process and now and also a tool that intimately interrogates the River Interface Unit, a core adaptive quality that allows for Indigenous Peoples in the Philippines to persist amid the injustices and violence of Development Aggression as a form of present colonization through globalization has been unearthed. More than the oral tradition that has existed in the culture of the Agta (Dumagat-Remontado) that has allowed the continual transmission of knowledge and tradition to their kin, passed down from generation to generation, through collective thinking and practice, it is the ‘Memory’ stored within the narratives they have formed for themselves woven in their way of life, skills, music, poetry, and their language that allow them to hold their beliefs intact. Intense conditions that renew over time such as the throes of colonial rule, industrialization, and now the neo-colonial paradigm of development pressuring them further, slowly eroding what’s left of their heritage - “the heritage from my grandfather” are only assimilated and accommodated into the existing structures of their beliefs and practices.

Memory, moreover, **Nostalgia**, is the key adaptation strategy held by the Agta, or perhaps applicable to other tribes in the country or even around the world, that is stored within each part of their daily lives that supports their self-continuity, proffering their identity resilience. Upon discovering this, a **nostalgic design process** is proposed that deconstructs the master narrative and normative process of development planning and climate adaptation frameworks present in the Philippines that follow the globalized, western paradigm of planning. In this transition, a renewed and intimate planning approach that uses culture as a function of the land’s intentions through the assessment of the River Interface Unit, deriving indigenous values and local narratives therein that have persisted over time and climatic episodes is developed into the enhancement of adaptive capacities.



Adaptive Capacity Domains That Enhance and/or Result from Restored Core Memory Systems



AGENCY
Rights and Land Tenure
Power and Freedom to Mobilize
Empowerment through Participation
ILKS/TEK Recognition + Implementation
Removal of Inequality Barriers



LEARNING
Capacity to Absorb and Generate New Knowledge
Supporting Processes for Critical Education
Information Dissemination



SOCIAL ORGANIZATION
Bonding / Networking Capital
Level of Trust and Social Cohesion
Cooperative, Collective Action, +
Knowledge Sharing Capacities



FLEXIBILITY
Resource + Livelihood Adaptability
Diversity Potentials
Switching Adaptation Strategies



ASSETS
Financial Capacity
Basic Social Services
Sustainable Infrastructure
Technological Capacity

nostalgia as design strategy

Nostalgia as Design Strategy

Design strategies for each part of the river interface centers shall be based on three main processes:

- 1) Assimilation
- 2) Accomodation
- 3) Co-Evaluation

This strategy allows the designer to assess the impacts of Climate Change effects, namely Typhoon Intensity and Frequency and Sea Level Rise for this particular River Interface (including the critique of Development Aggression) and form interventions that assimilate identified local adaptive practices, spaces for belonging and retreat to new conditions. After which, as a mediator, accommodation is utilized to enhance this adjustment and interpretation of new meanings of these impacts by aligning opportunities such as Nature-based Solutions, existing programs and policies, and the beginning of a new framework for plural governance. Co-Evaluation concludes the intial cyclic process by which decision-making and co-management practices are set to evaluate meanings and values for these new elements once accommodated change over time in the River Interface.

All these processes interact to change the identity resilience of the systems involved as well as the values embedded in their elements over time. The choice of interventions and the likelihood of possible success are significantly linked to evolutionary and negotiated resilience in that as climate events shift, the cyclic design process must begin again, building an evolutionary continuum. Throughout the temporal scale, these processes are enhanced and continued as a cyclic planning model over the riverscape.

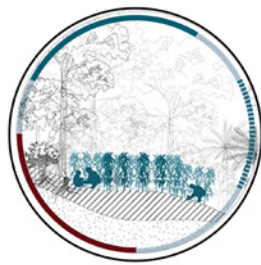
Memory System Components for Adaptation

The design process and the framing of the River Interface Unit's pattern from The Source, The Confluence, and to The Mouth, with its embodied values of Extraction-Interposition-Consumption, respectively over the riverscape, then prompt envisioning of futures to be tackled more deeply and how these can be formed from cycles of memory that are present in practices of care as well as the biophysical phenomena shaping this, opening up which adaptive capacities can be enhanced and enabled. Where these cycles occur in space are then identified to see opportunities as to how they can be guided by principles of a decolonized process, embedded recognition of megadiversity, and and implemented socio-spatial justice. These shall then guide the making of space and allowing care to be the mode a dynamic riverscape fabric. Projects for each part of the River Interface Unit system are then developed through a process of nostalgic envisioning. The imagination and projection of futures as formed by the past to establish core memory systems from the Source to the Mouth with social connectedness as mechanism of nostalgia drawn from the Agta way of life shall be guided by key principle components are determined to form Memory Systems in Space are the following:

[1] Cycles of Practice + Climate

Adaptive practices in the local scale are employed as they have perdured through times of crisis, particularly critical climatic episodes such as typhoons. As these cycles of practical yet culturally rooted responses are expected and the climate cycles more or less predictable, the cycles can be used to determine what continuum practices have persisted over time and can be employed yearly to enhance adaptive capacity especially in moments of imminent risk within the climatic cycle of a year.

cycles of practice



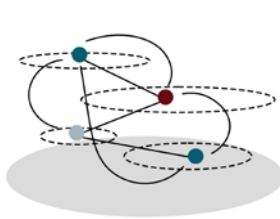
space for belonging



space for refuge/retreat



co-management + participation



[2] Spaces for Belonging

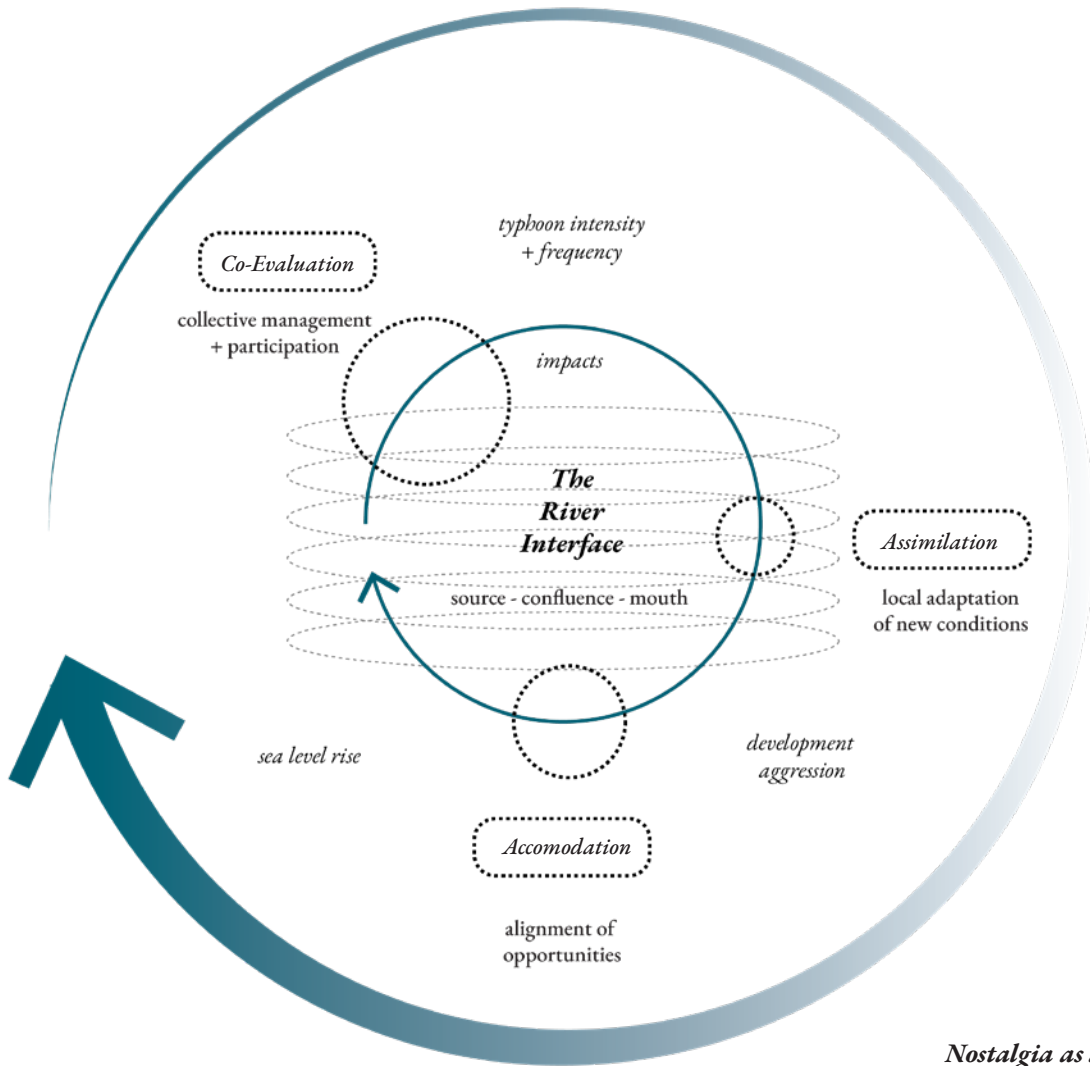
The Barangay, further broken down into the *Sitio (provincial/rural municipalities)* and the *Purok (major/highly urbanized centers)*, as the basic adminstrative unit and also commoning space must serve as the seed cohesive space wherein knowledge transmission, memory system maintenance (narrative sharing, capacity building etc.), and social connectedness can be fostered and can be more fully integrated in any community by expanding its ability to facilitate livelihood and commoning opportunities. This cuts across as the common unit present in all Filipino communities whether in the ancestral or urban domain.

[3] Spaces for Refuge/Retreat

As climatic episodes occur, it cannot be avoided that *spaces made for emergency and temporary evacuation must be both allocated and reimagined*, which must be integrated into the spatial fabric and consciousness of the each local community. Notwithstanding the infusion of nature-based infrastructural modifications to the riverscape, inter-governmental collective action in times of emergency must be redefined and established to support those in more critical and urgent zones of risk, yet simultaneously allow for long-term capacitation of the fabric to following episodes.

[4] Collective Management + Participation

Making of the commons: *harmonization and alignment on decision-making and participation in management of the commons from local to regional*. Forefronting the inclusion of Indigenous and Marginalized groups, Academia, Research and Development groups, NGOs, Artist Collectives, and other Social /Environmental Activist Groups that aim to push forward indigenous and urban poor rights in the system that intertwine heavily with climate justice.



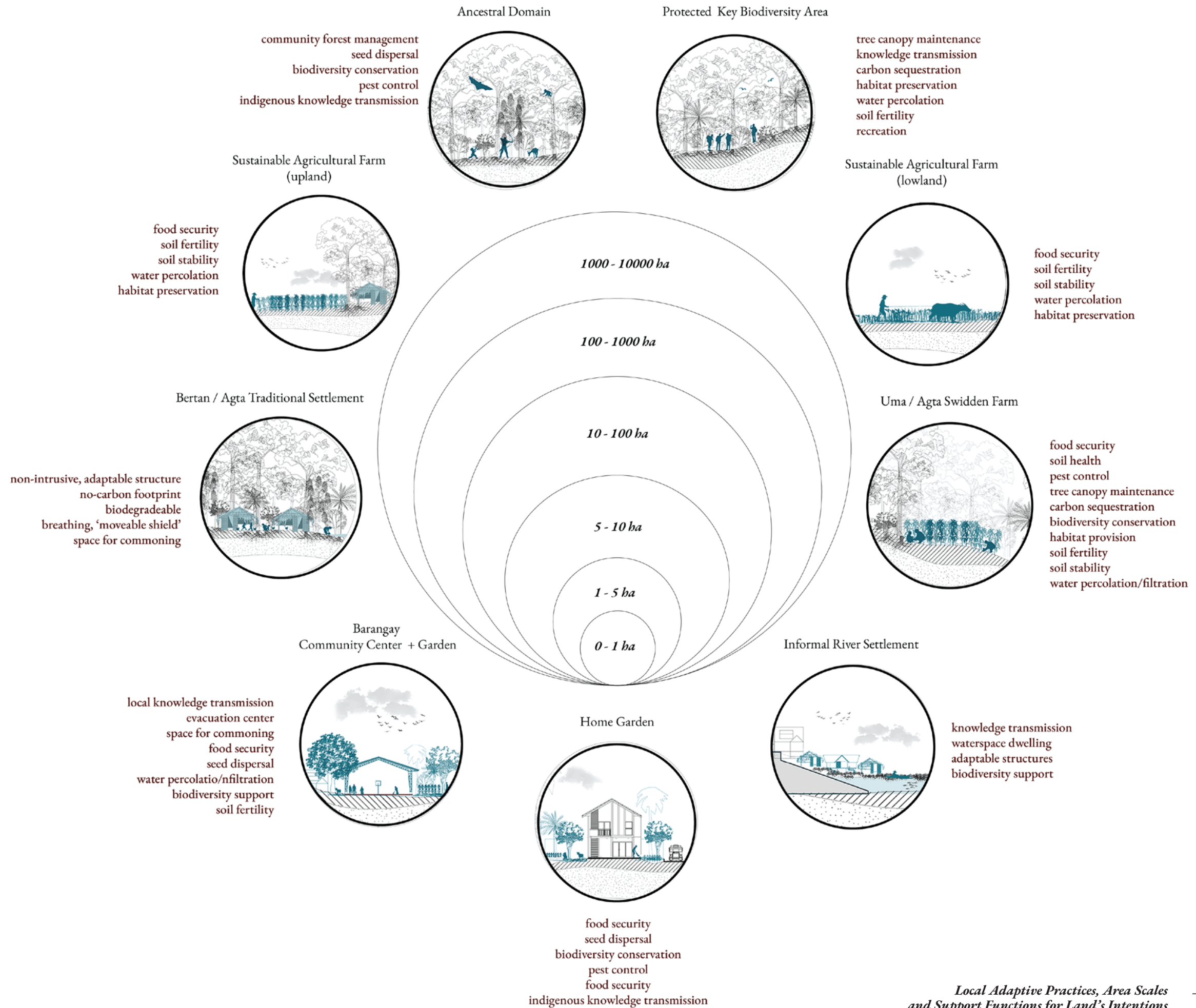
bridging continuums

Social-Ecological Continuum in the Urban Domain

Although the social-ecological continuum still persists more strongly in the practices of the Agta (Dumagat-Remontado tribes), within the the urban domain, locals have practices and beliefs that still embody this cosmic collectivity between human-nature-spirit. As expounded by Vicerra and Javier, “In urban narratives, this sense of respect had endured even though the setting had been developed into a mostly man-made surroundings. Spirits still belong to particular spaces and there are instances of their entering, albeit violating, such territories. This is the form which the latent belief system among Filipinos has taken, one that forges their common identity (Vicerra and Javier, 2013).” This can be seen in language and even everyday rituals based on superstition despite 78% of Filipinos adhere to Christian beliefs. The expression of “tabi-tabi po” (“Excuse me, I’m just passing by.”) when in an unfamiliar setting or when confronted with a place of mystic wilderness - forests, gardens, rivers with open earth - is most present amongst locals. It supposedly forewarns any spirits present on the ground or within the surroundings to step aside to not accidentally hurt them. The calling out of “Tao po!” (Historically as “I’m a human, not a spirit.”) upon knocking or entering another’s home as a visitor to declare that one means to do no harm is another one.

To be observed more in The Confluence and The Mouth, spiritual beliefs of locals who do not identify as indigenous, particularly the Agta in this context, still manifest in their construction and identification of their surroundings. Some would build their houses on a site in certain positions to receive the best kind of spirits to enter the home and bring peace or prosperity (with mixes of Feng Shui and Filipino folkloric beliefs as foundations) or avoid harmful ones by offering betel nut, coins, salt, and incense when needing to cut down trees or excavation of the soil. Nevertheless, it is the practices that come out in physical space that still express the belief in this continuum - home gardens tended to, community/barangay gardens, building or purchasing a type of vernacular shelter structure (bahay kubo) to be placed in the garden or other open spaces, and even more poignantly with informal settler household settlements robustly living along riverbanks and even floodzones in spite of constant threat. Although the River Interface and its domains have undergone compelling changes in the physical environments in the form of climate disasters and urban development, these coagulated folkloric beliefs remain and exhibit how narratives allow for the continuity in culture as exemplified by adaptive practices that functionally shapes society and development as a whole.

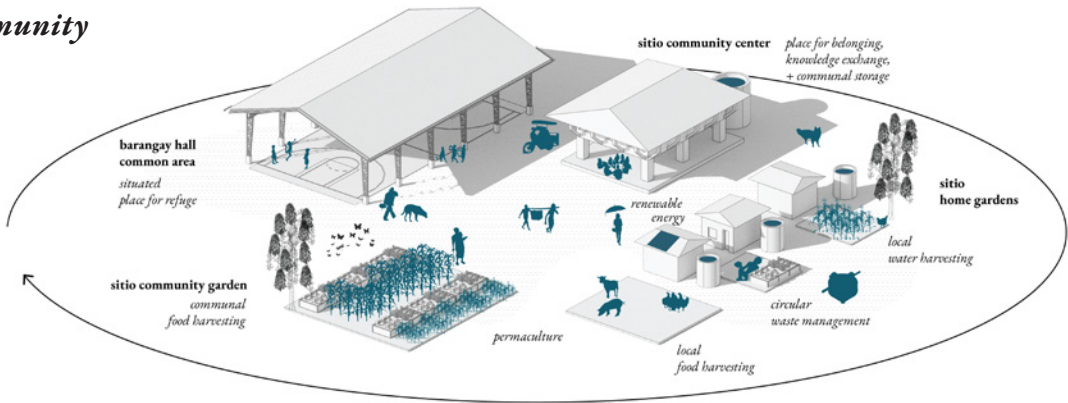
Narratives as formed by memory allow the framing of thought and action that reflects itself in space that eventually transform back into memory. Spaces for systems of memory must be established for the transformation of our sensing of the environment and the way we then construct it to surpass collective struggles that we now identify mainly as climate change effects enmeshed with aggressive development. Operationalizing the River Interface Unit Narrative makes use of the existing practices that nurture land’s intentions as fragments of the continuum spread out to be decisively woven back together, bridging the many continuums that have perdured even in different scales, projecting this as the key towards a decolonized, pluriversal, and sustainable collective future for the Philippine archipelago starting from the river. The core of these, based on practices mainly stemming from the indigenous are reimagined in the project to be evolutionary and complementary, in that once they are synchronized with other systems and elements, they expand as a whole to become evolutionary cycles of local adaptive practices.



evolutionary cycles
of local adaptive practices

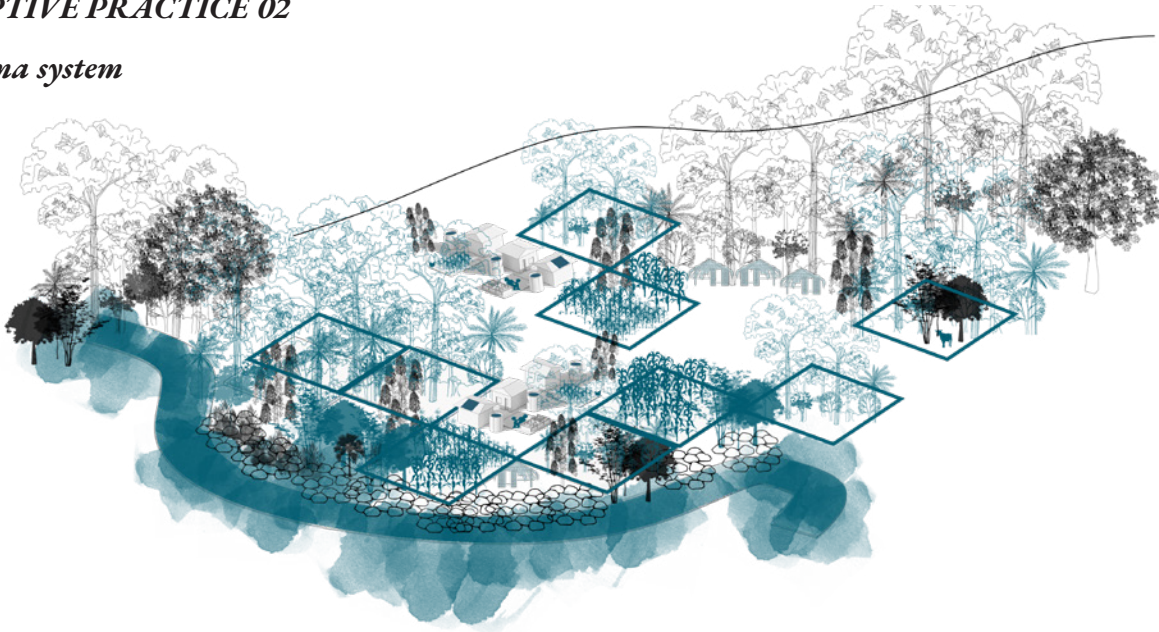
LOCAL ADAPTIVE PRACTICE 01

the bertan - sitio community



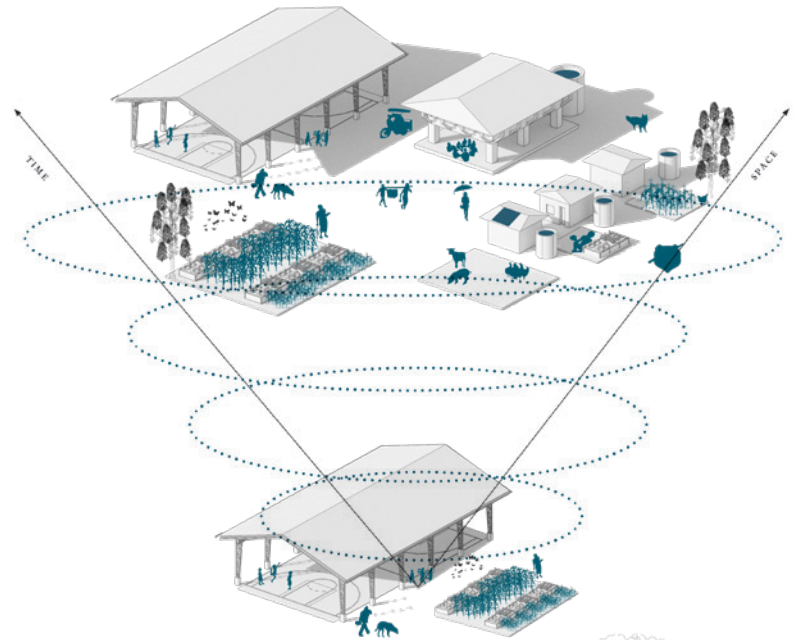
LOCAL ADAPTIVE PRACTICE 02

the renewed uma system



LOCAL ADAPTIVE PRACTICE 03

community rainforest
management



“[Human beings] grow up in environments furnished by the work of previous generations, and as they do so, they come literally to carry the forms of their dwelling in their bodies – in specific skills, sensibilities, and dispositions.”

- Tim Ingold (2000)

“Memory is a poet, not a historian.”

- Marie Howe (1988)

freedom

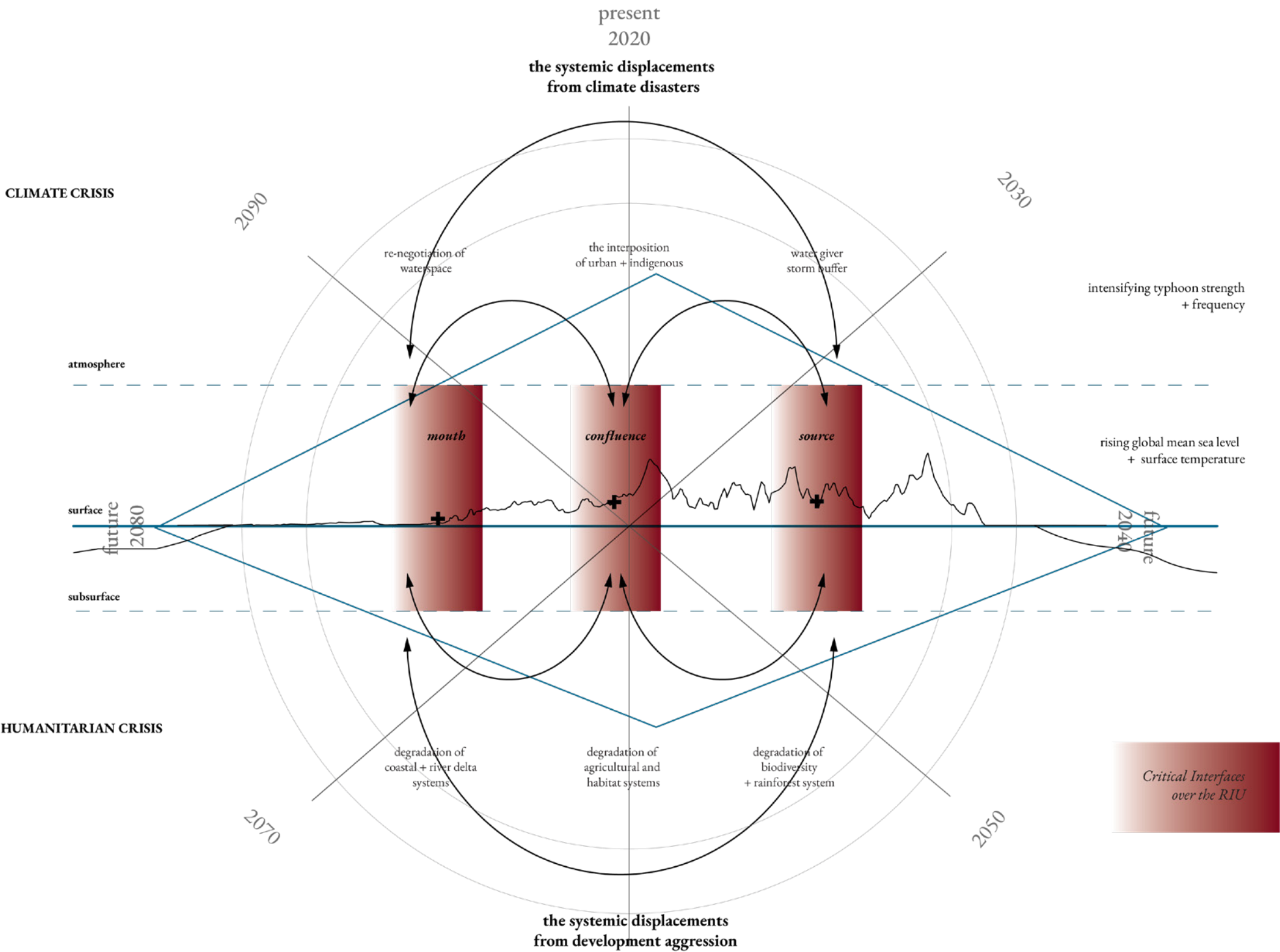
current systems of memory in the River Interface

Current Systems of Memory in the River Interface

As Filipino professor and current chairman of the National Commission for Culture and the Arts (NCCA) of the Philippines Dr. Felipe de Leon Jr. notes in a lecture entitled ‘Reclaiming Our Narrative: Inclusivity & Decolonization’, “The heaviest price extracted by colonizers on the colonized in the past 500 years was not the physical aggression and violence against the colonized or even in resource extraction, but in the realm of knowledge (de Leon, 2021).” Through the layers of identities laid out over thousands of islands in the archipelago, knowledge systems, moreover memory systems have been altered that further make the the culture of the Filipinos across the country more and more complex. As a first step in this daunting discovery, the design agenda over memory and its relationship with how the river encounters the entire Philippine ecosphere then relies on the experiences in key moments and narratives that surround them that help sustain whatever self-identity over culture and the practices that enfold therein that do facilitate adaptation in the face of crisis, or as in the Filipino cosmological worldview, of struggle.

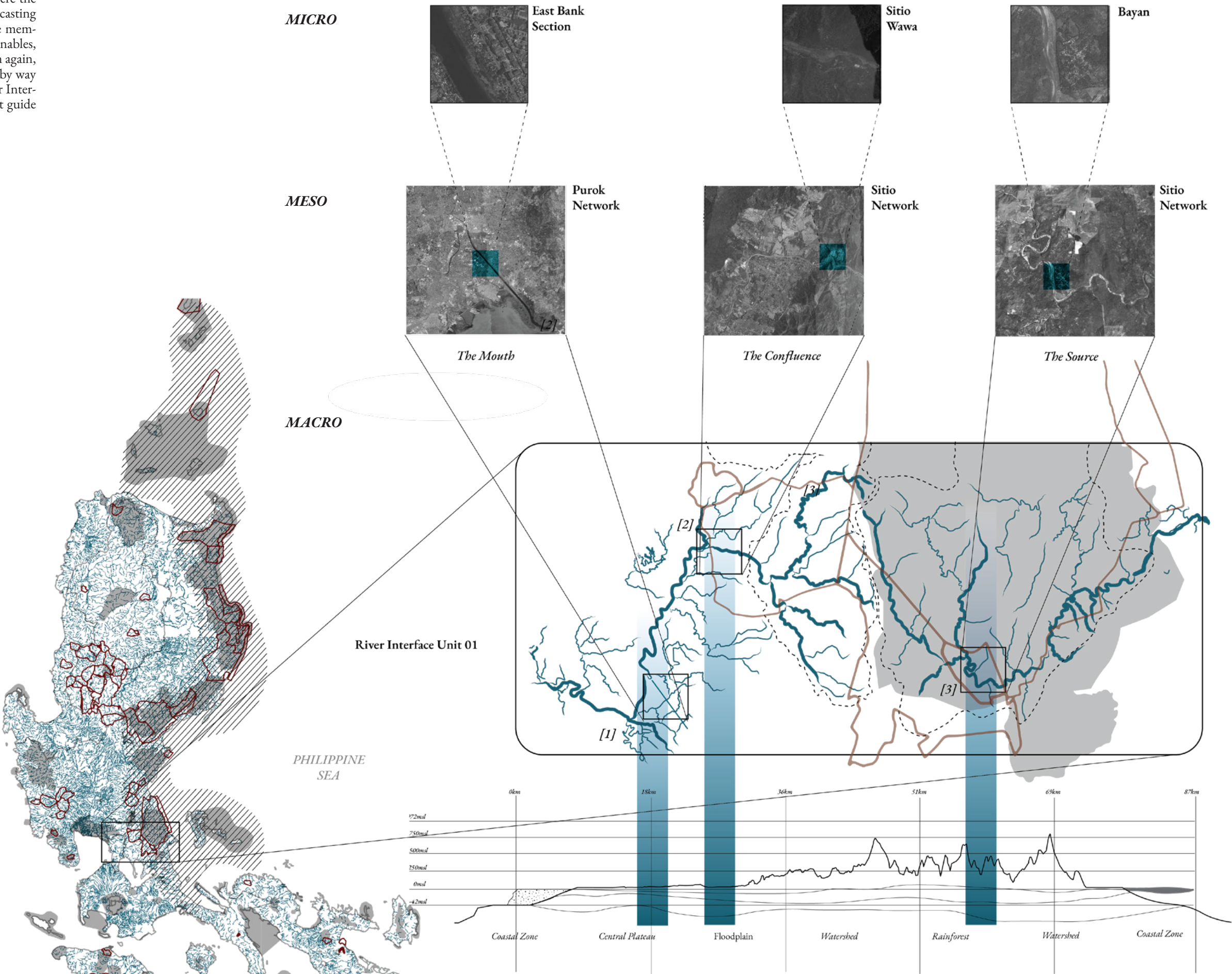
In the assessment and analysis of these system interactions, the quest of revealing the narratives that surround these episodes in climatic history in the Philippines is seen as the memorial component that could further qualify the values of the riverscape to the everyday life of those situated in the River Interface.

These memorial cyclic adaptive practices are the main operable narrative systems affecting both time and space. From the ancestral domain to the urban, assimilating new conditions to these allows to see opportunities and paves the way for adaptive pathways for synthesis to become an evolutionary process to take place as nostalgic envisioning is utilized, potentially revising the current memory system of displacements and disasters associated with the river interface.



scales of intervention

In each part of the river, The Source, The Confluence, and The Mouth, an imagined and envisioned future is set for three moments in the climate futures of 2040, 2070, and 2100, where the Clearance pathways are developed through speculative backcasting based on the local responses that were determined as core memory systems and a transitional design framework that enables, drives, and support this. Reimagining the territories of each again, through drawing a new sectional timeline and a new map by way of reconstructing the spatio-climactic effects over the River Interface Unit as well as a codex of more specific principles that guide towards these nostalgic climate futures.



nostalgic envisioning

The Temporal Scale for Collective Futures

Taking the most critical part over the River Interface Unit that experiences an extreme critical event in the projected timeframe, developments and how the cyclical practices and core memory systems in place work to adapt towards and upon reaching this point in time shall be illustrated.

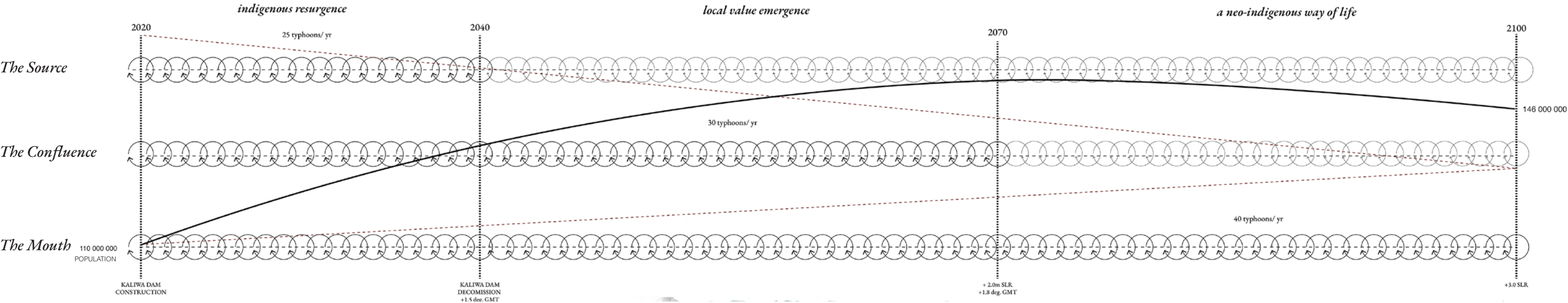
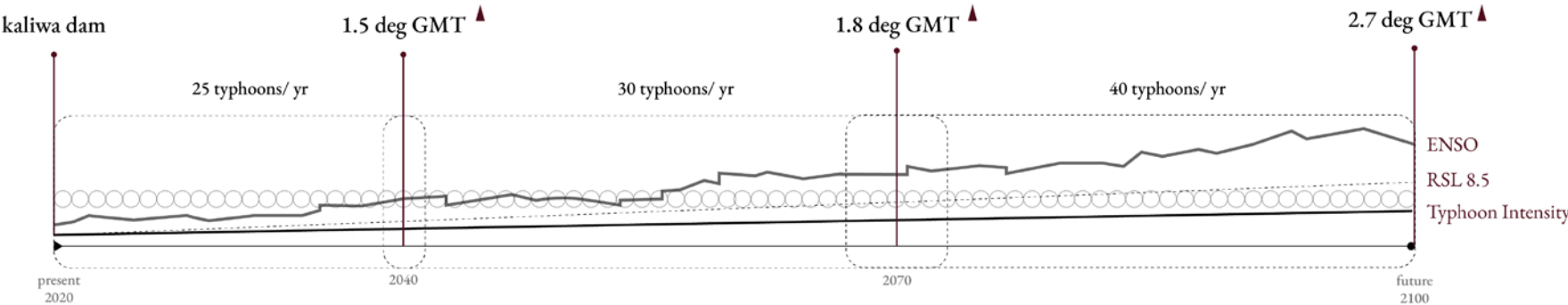
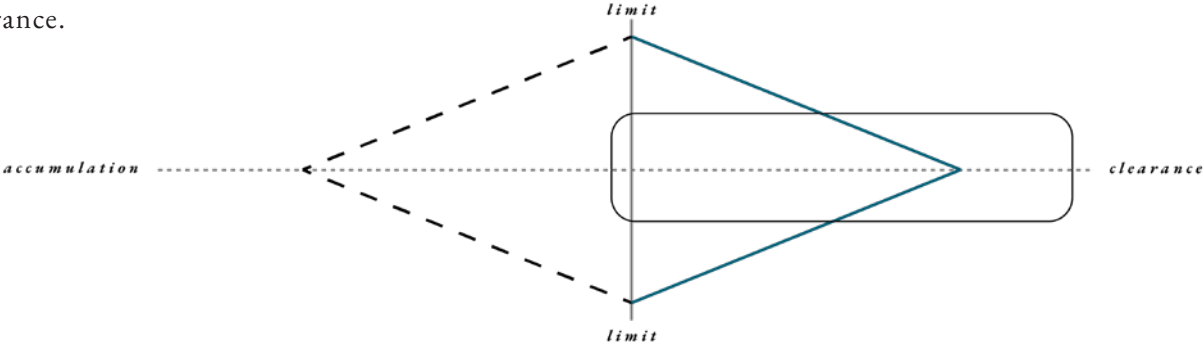
Future 2100: 2.70 deg Increase in Annual Temperature; 3.0m RSL

Future 2070: 1.8 deg Increase in Annual Temperature; 2.0m RSL

Future 2040: 1.5 deg Increase in Global Mean Temperature

The consequences over the River Interface are projected forward in a form of a Future Nostalgia narrative that lays out what is expected to happen, but as the design is unraveled, these subverted by the assimilated, accommodated, and co-evaluated new conditions to enhanced and linked adaptive local practices. Projected through these futures are local scale intervention pathways that begin at a Barangay/Sitio unit by the river showing responses in key moments in time and how the intervention has been informed by the local context, actors, practices, narratives, existing frameworks, and then how these develop cyclically. These then can be projected to see how over time these changes in each part affect and adapt as part of the River Interface pattern experiencing changes in climatic cycles, shaping an evolutionary character, renewing core systems of memory in each part.

Path to Clearance.



The Cyclic Temporal Scale for Collective Nostalgic Futures in the River Interface

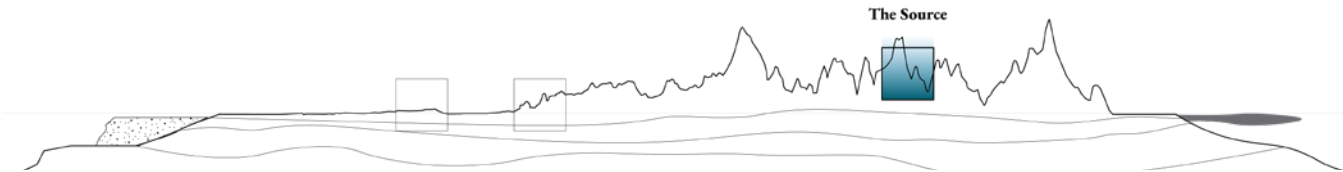
consequences over RIU pattern:
the source 2040

Future Nostalgia at the Source

Some of us manage to retreat into the last remaining old-growth forests during the typhoon season, which now feels longer. While the rest stay in our riverside homes, now of galvanized iron, steel, and concrete and attached to gravel and cemented roads tending to our static small umas (swidden farms). Water is supplied and delivered in pipes or wells puncturing the ground, as one still hears the river flows – slower and slower each year, now the days feel warmer. We still forage for medicine from some of the few plants left in the almost scarred earth, as it will more expensive and tire-some to go to the hospitals in the major city centers.

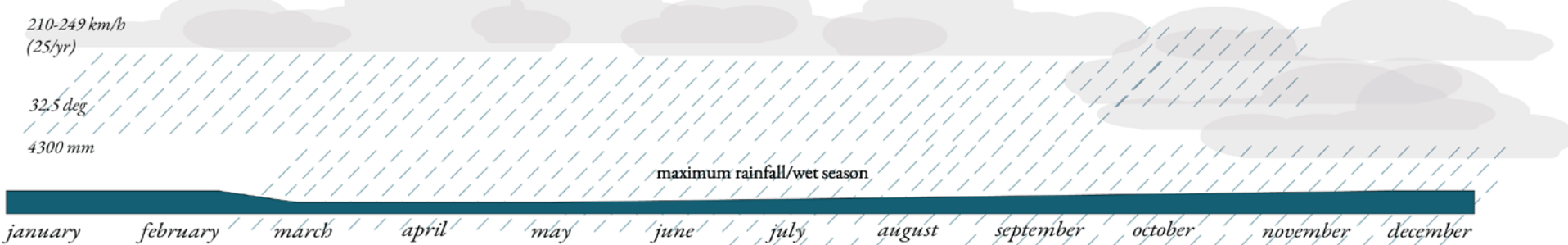
Biodiversity has depleted since the Kaliwa Dam was finished in 2030, hunting is no longer a trade, yet we still see a few eagles and birds but dare not touch them lest we offend the spirits; many areas we have cleared and use to fell the fast-growing mahogany, which are unable to protect us from the typhoon, which come now in droves and come back stronger each time they return, but they provide the means to keep our children in school, to call the doctor and buy medicine, and to purchase our daily needs (packed food, transportation, internet, gas...) to prepare for the tourists who still come for the summer. Even if they take some of our water and degrades the soil where our small crops are grown. This is life now.

River Interface Unit 01
Transect Key

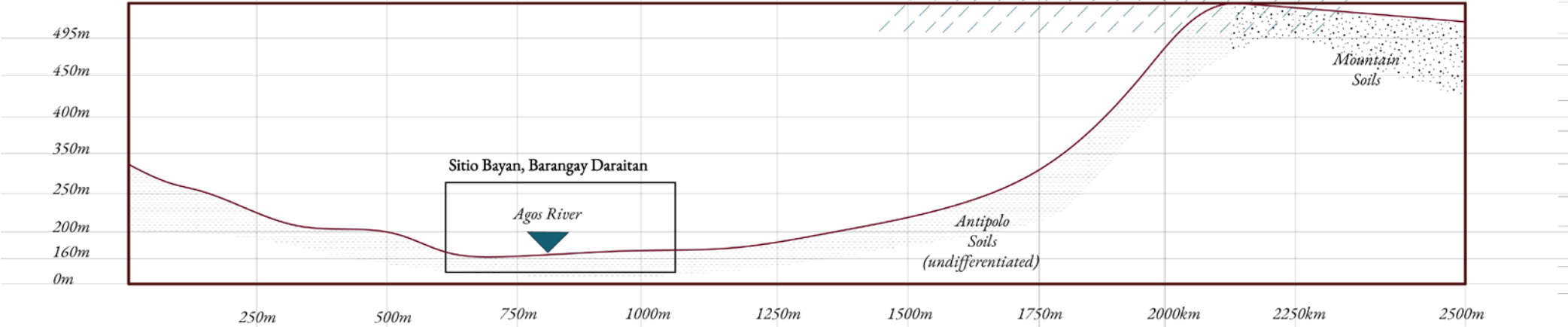


ATMOSPHERE

- Super Typhoon / Tropical Cyclone 5 (frequency)
- Annual Temperature
- Annual Precipitation



Barangay Daraitan, Tanay, Rizal Province, Region IV-A



SURFACE

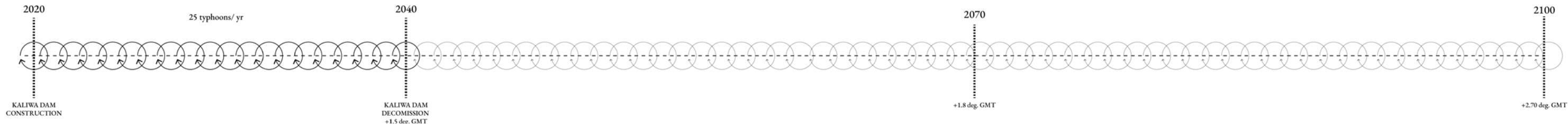
- Streamflow Volatility
- Pluvial Flooding
- Chemical Contamination
- Eutrophication
- Invasive Species

- Erosion
- Forest Cover Decline

SUBSURFACE

- Aquifer Contamination
- Aquifer Drought
- Fertility
- Biodiversity

Projected
Future Timeline
(linear scale)



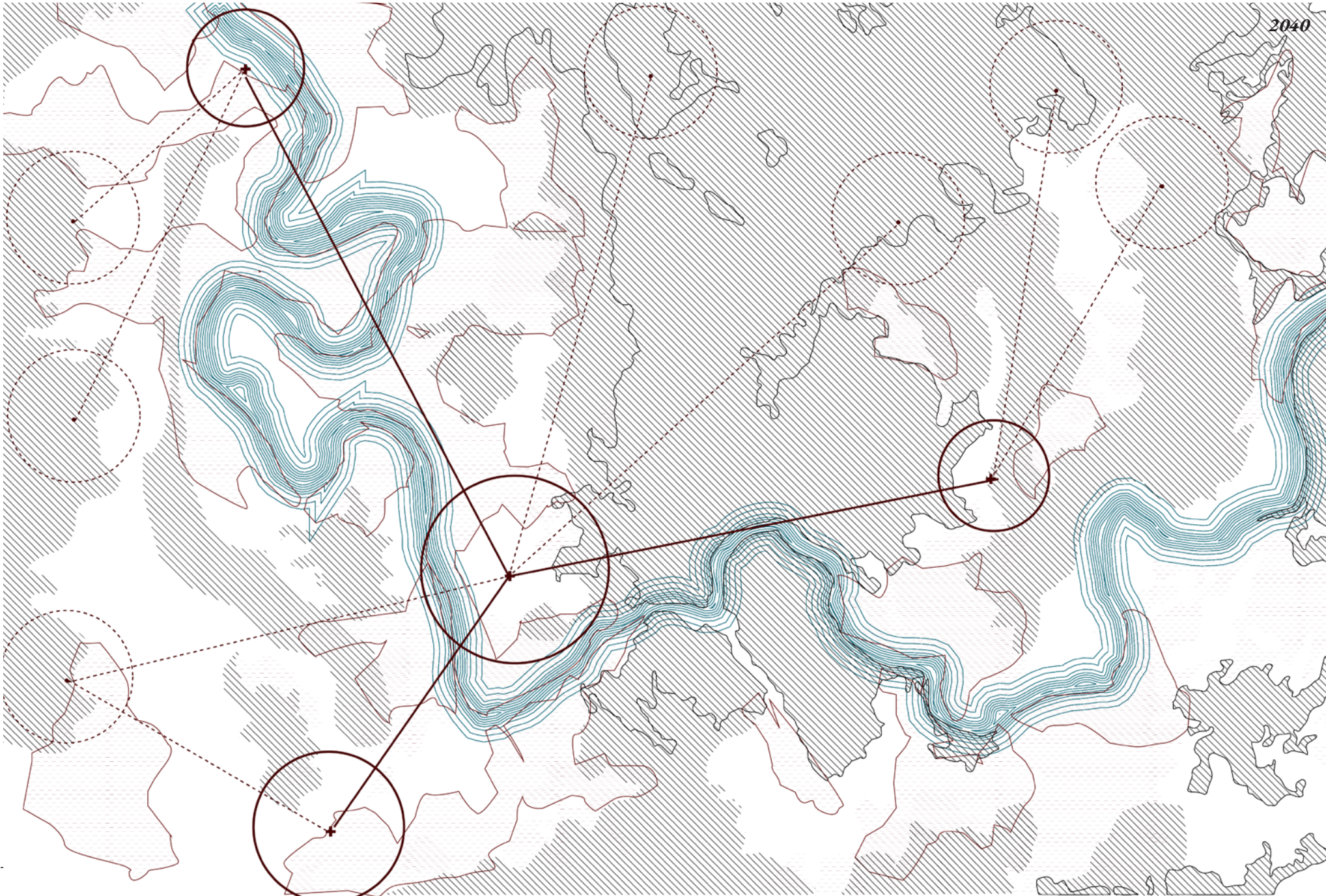
the source - 2040

From Depletion + Statics to Abundance + Movement

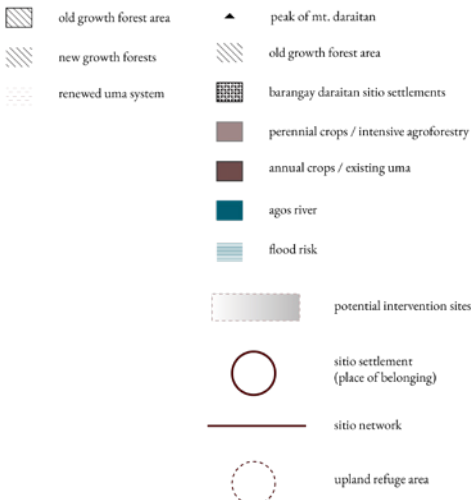
Through the imagination of narratives of a ‘known’ future due to the consequences over the RIU, this is subverted by the knowledge and existing capacities of adaptive local practices that nurture the land’s intentions as the form of caretaking needed to envision these decolonized, pluriversal, and socio-spatially just futures in the River Interface. At the Source, from the Sitio Bayan of the Barangay Daraitan, opportunities for expansion of the Uma System to include riverscape management are infused, in where as the forests are allowed to replenish, disavowing monocultural agroforestry practices; habitats are restored as well as the movements related to climatic refuge that the Agta

traditionally engage with as old-growth forests are further fortified. The Sitio shall be enhanced by transforming the current barangay hall and community garden model to form a permacultural community zone that encourages spaces for belonging , refuge, decentralized food harvesting and water storage as well as visitor areas for knowledge exchange. As these are already practiced by the Agta, even those who participate in more contemporary society, a neo-cosmopolitan way of living can begin in the enhancement of these spaces, that then can evolve further into a network sitios grow over space and time, with the river taken care of as the backbone.

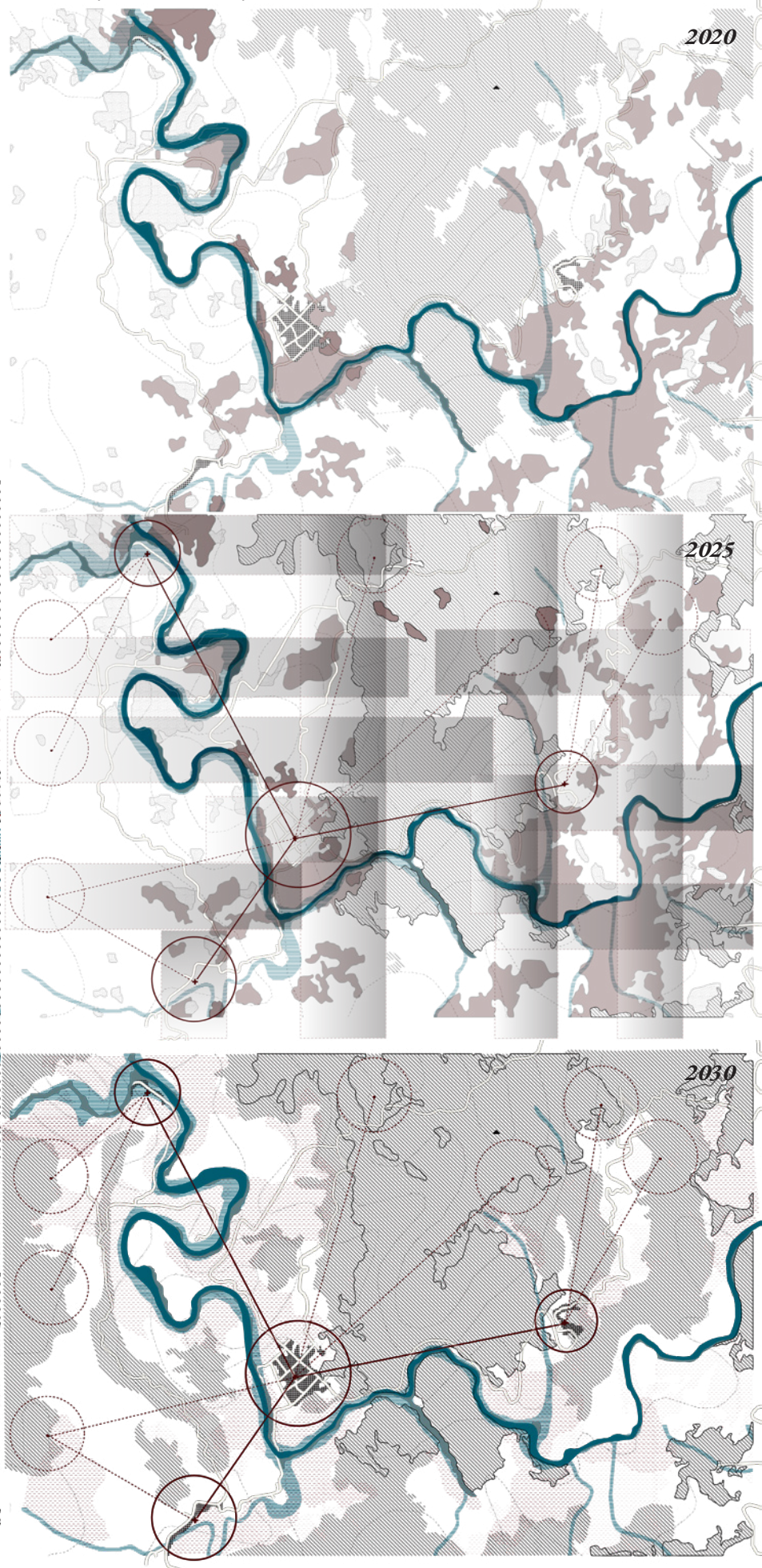
The Source
Barangay Daraitan, Tanay, Rizal Province, Region IV-A, PHILIPPINES



0 500 1000m



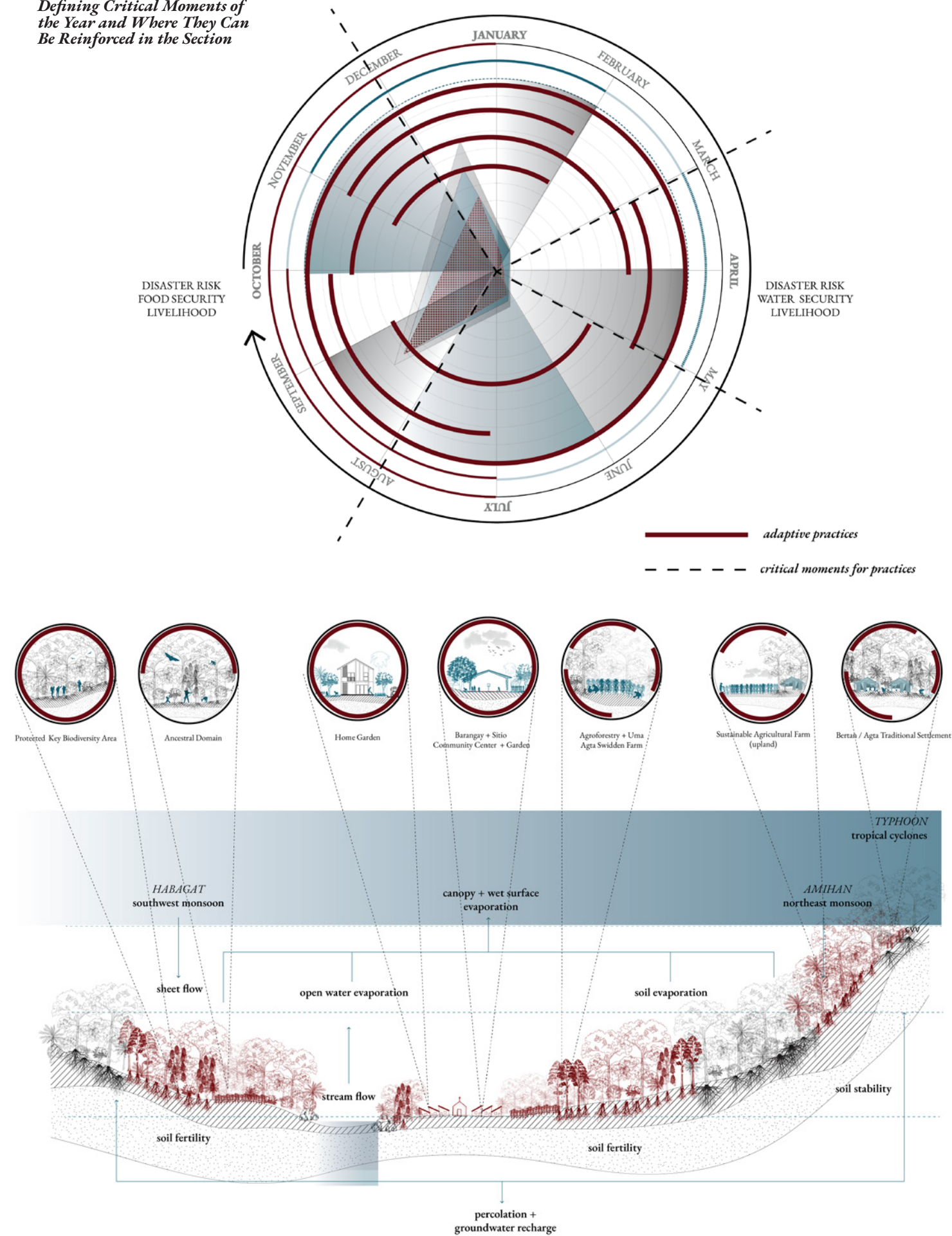
Land Use Dynamics Over Key Moments in Time



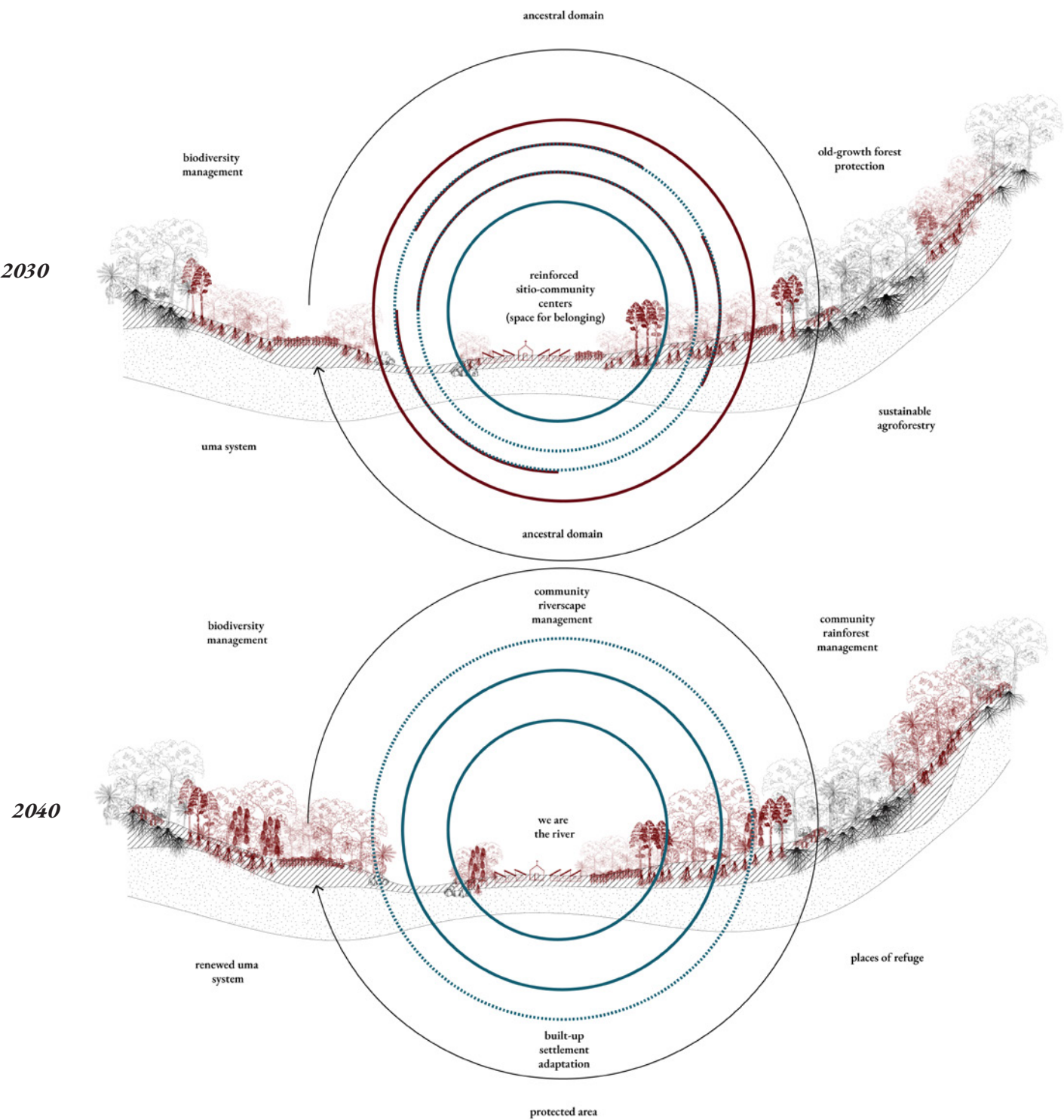
the river as endless territory

cyclic choreography at the source

Cyclic Local Adaptive Practices
Defining Critical Moments of
the Year and Where They Can
Be Reinforced in the Section



Sectional Timeline of Changes in Land Use Dynamics
During Key Moments of 2030 and 2040



the source - 2040

Renewing the Uma System

With the Agta's traditional swidden farming practice that has the ability to restore forest areas and provide food security and nurture land's intentions for the continuum, this is integrated with a riparian buffer system that becomes an area between the river side, the uma or settlement that manages streamflow in this part of the River Interface as well as fortifies soil stability and fertility that in turn makes it more effective for forests to thrive and the biodiversity and cultura systems they enfold.

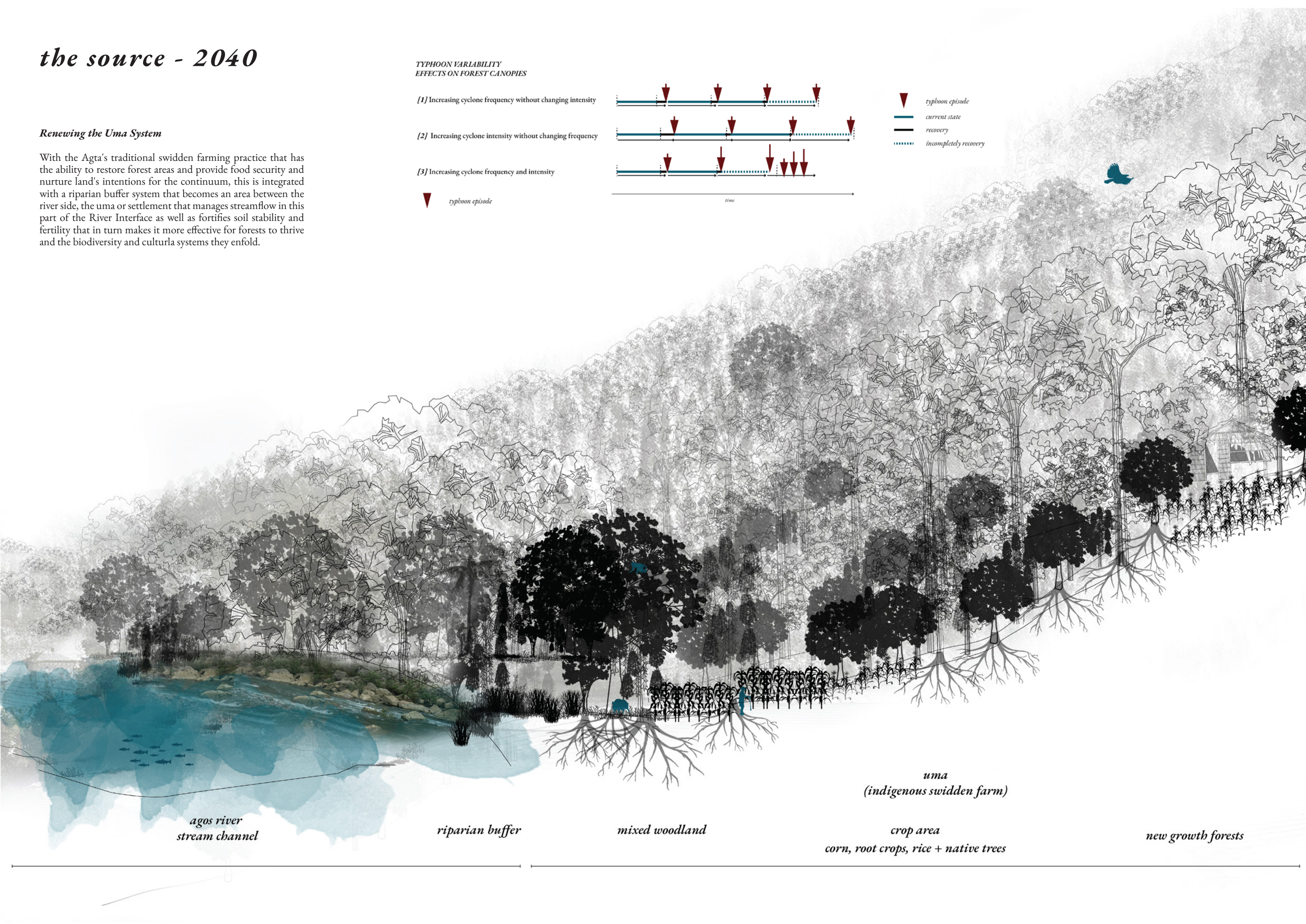
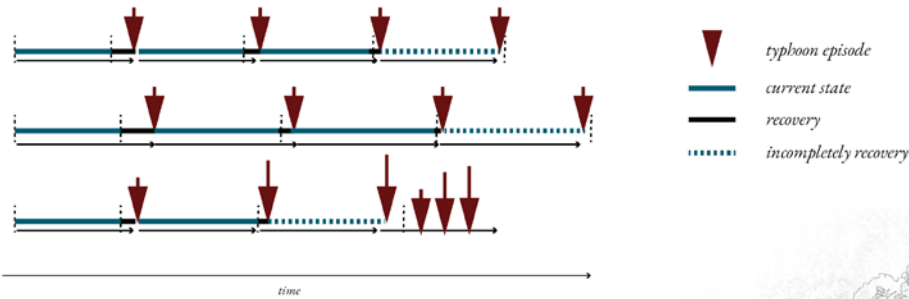
TYPHOON VARIABILITY EFFECTS ON FOREST CANOPIES

[1] Increasing cyclone frequency without changing intensity

[2] Increasing cyclone intensity without changing frequency

[3] Increasing cyclone frequency and intensity

▼ typhoon episode



the source - 2040



UMA SYSTEM
AS RIPARIAN
BUFFER

UPLAND
UMA SYSTEM
+ AGROFORESTRY

BRGY. DARAITAN
BAYAN
SITIO NETWORK

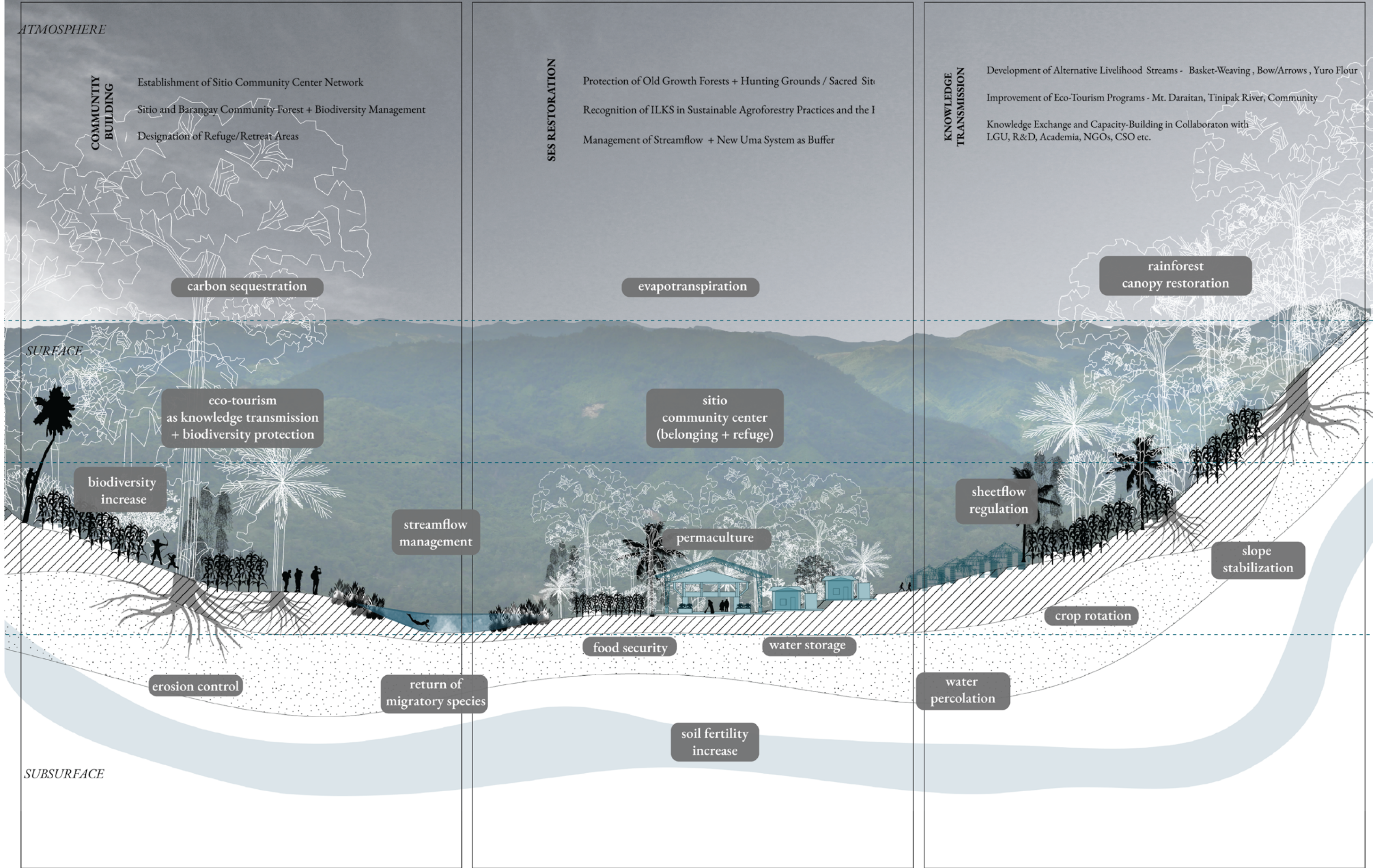
KALIWA RIVER
FOREST RESERVE
MAIN TOURISM SITE

canopy restoration

aquifer recharge

streamflow management

biodiversity conservation





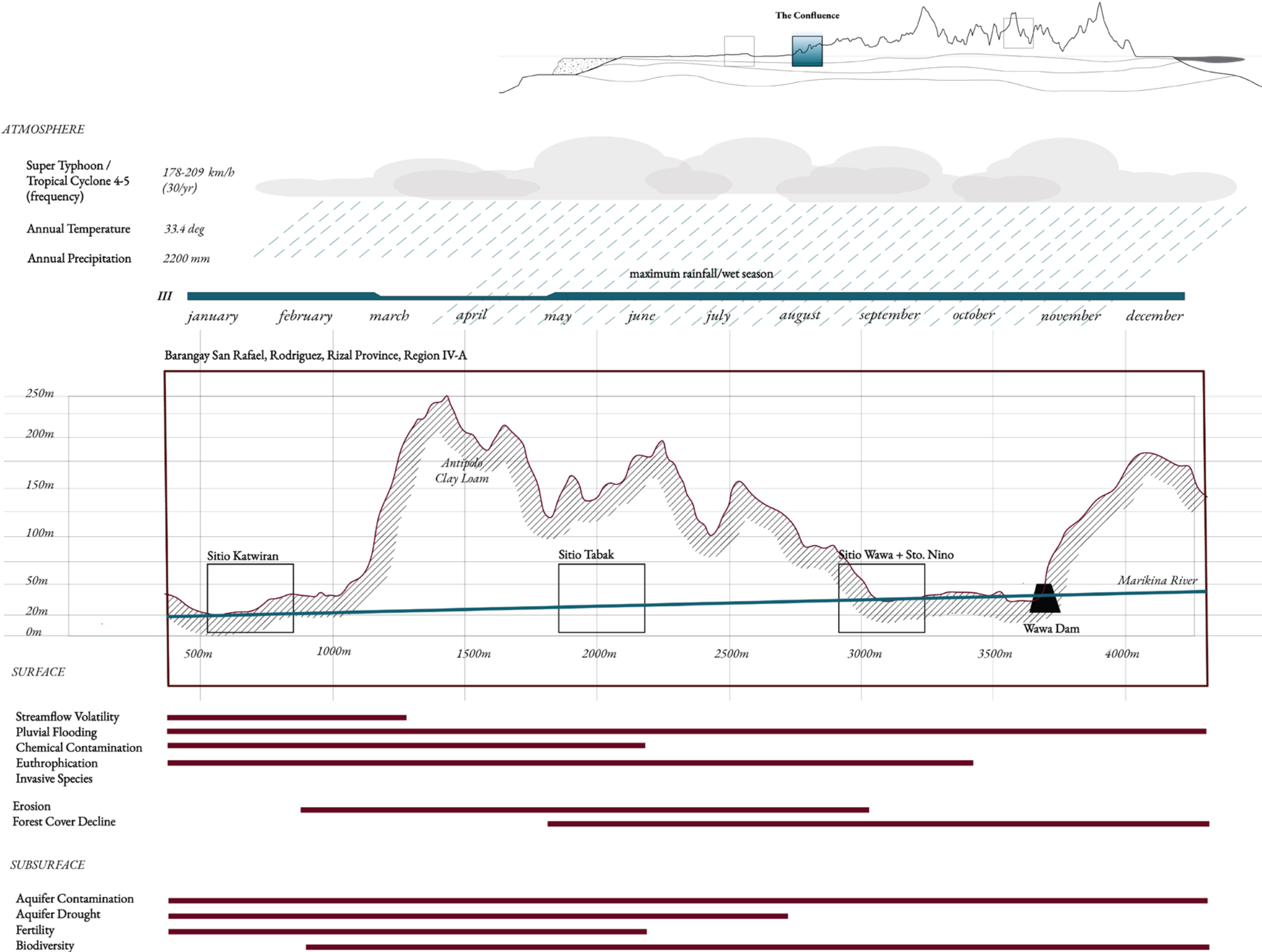
consequences over RIU pattern:
the confluence 2070

Future Nostalgia at the Confluence

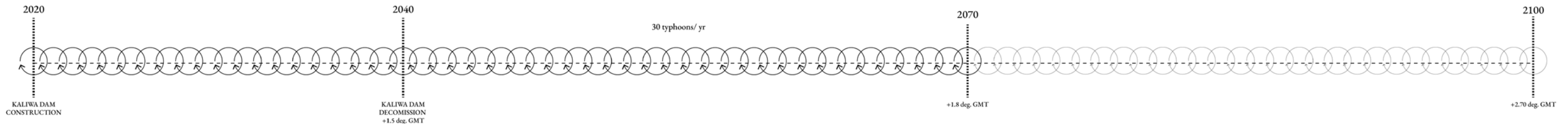
It reminded of us of Ulysses, the last typhoon which has shifted to December. Floods up to the edge of our gutters and to think we already raised the house by one floor level, rainfall that destroyed half my crops and so we won't have enough to both sell and keep for our own in the coming dry season. Besides, the rice and corn yield are no longer as good. New housing subdivision developments are expanding further, and the developers offered to buy our land marketed for new migrants from the city as the sea has risen over their "sturdy" concrete homes, and most of the reclamation projects in the last 50 years are now almost sunken.

Along the river, these new developments combined with the longest running quarrying sites to serve the needs for other reclamation plans along the eroding coasts, more informal settlers from both downstream and the uplands, the Agta, decide to live on even in its vile and precarious state – only water hyacinths and janitor fish thrive in the brown waters now. I've heard many were washed away in the last storm, water overflowing over the dikes and rain-induced landslides crushed others. Even so, they return, and some go back to the uplands. The old dam, Wawa, remains a tourist site, and the Agta and locals who manage it are the only ones who seem to be dealing with the typhoons better, they have their homes back in the uplands, some have their umas for their food in the midst of all this. The old tipolos and almacigas housing the birds that would also visit our home gardens have been cut for the next set of developments. If I do sell my land for the money they offer, where do we go? What do we do?

River Interface Unit 01
Transect Key



Projected
Future Timeline
(linear scale)



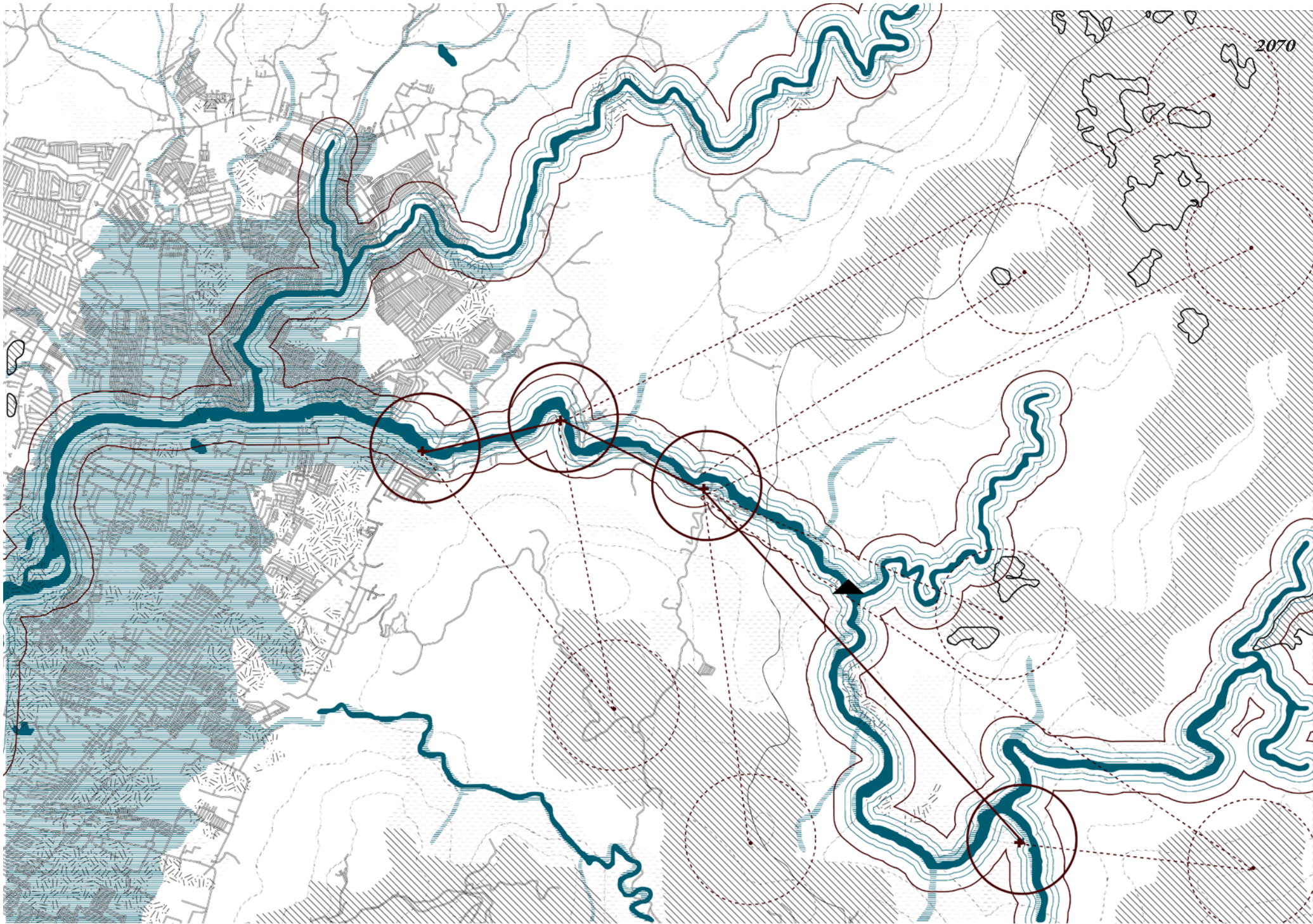
the confluence - 2070

Where the Floods are Welcome from Upstream to Downstream

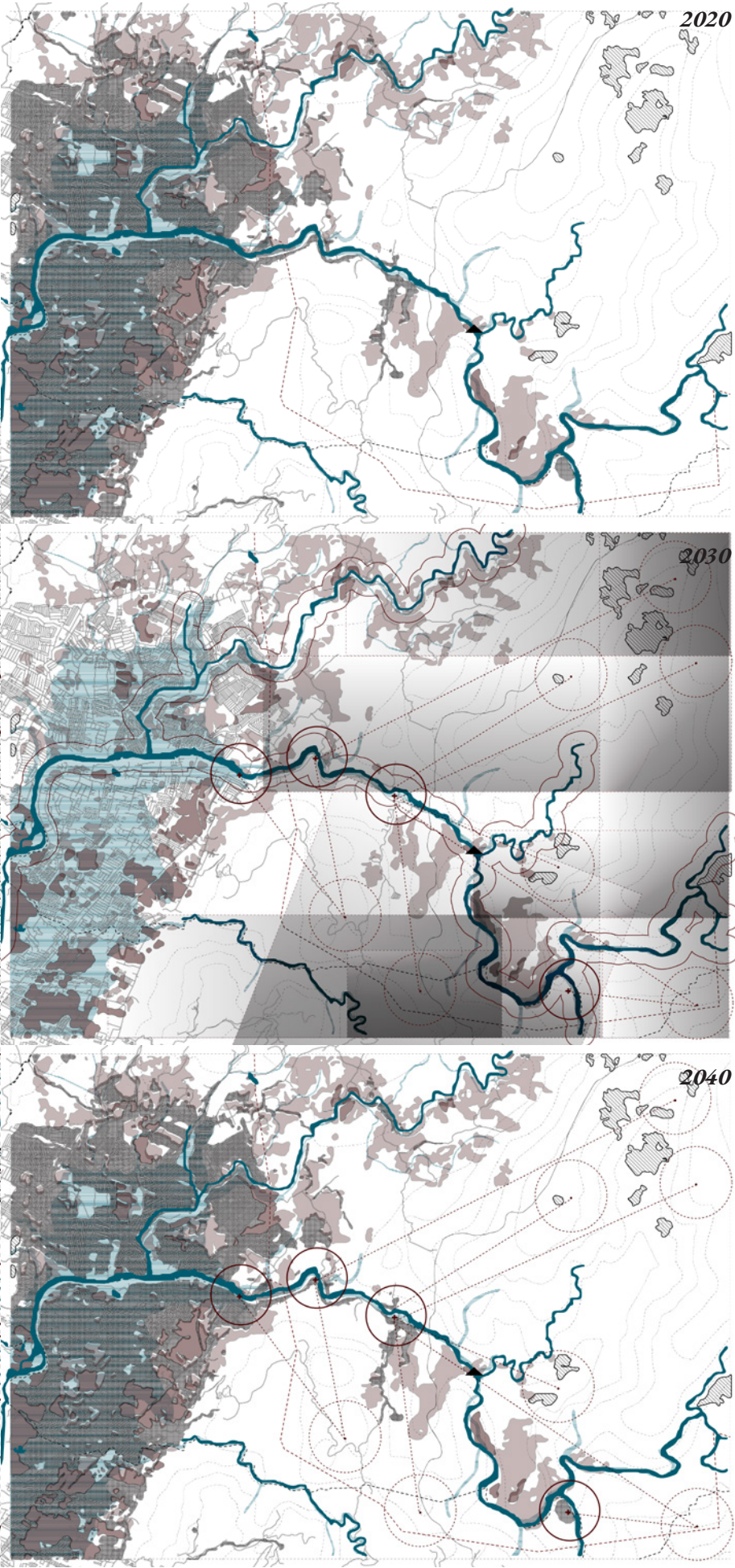
For the Confluence, the clash between the borders of Ancestral and Urban domain are evident, but the river and the land provide a way to see how interconnected they are in both the old forests that surrounded this part of the Upper Markina River basin where some Agta still practice their way of life even as eco-tourism became a main livelihood source as the Wawa dam was decommissioned. With 4 Sitios by the river; Sitio Tabak, Sitio Katwiran, Sitio Sto. Nino, and Sitio Wawa become the base com-

munities that form the vision for the River as Commons, where the river facilitates the means for social-ecological restoration through social cohesion in that its current banks are transformed by way of a communally activated nature-based solutions for river renaturation, slope stabilization, and water filtration, especially where industrial, agricultural, and residential developments are located. Synchronized with the renewed uma system for reforestation, a reunification of domains transpires.

The Confluence Barangay San Rafael, Rodriguez, Rizal Province, Region IV-A, PHILIPPINES



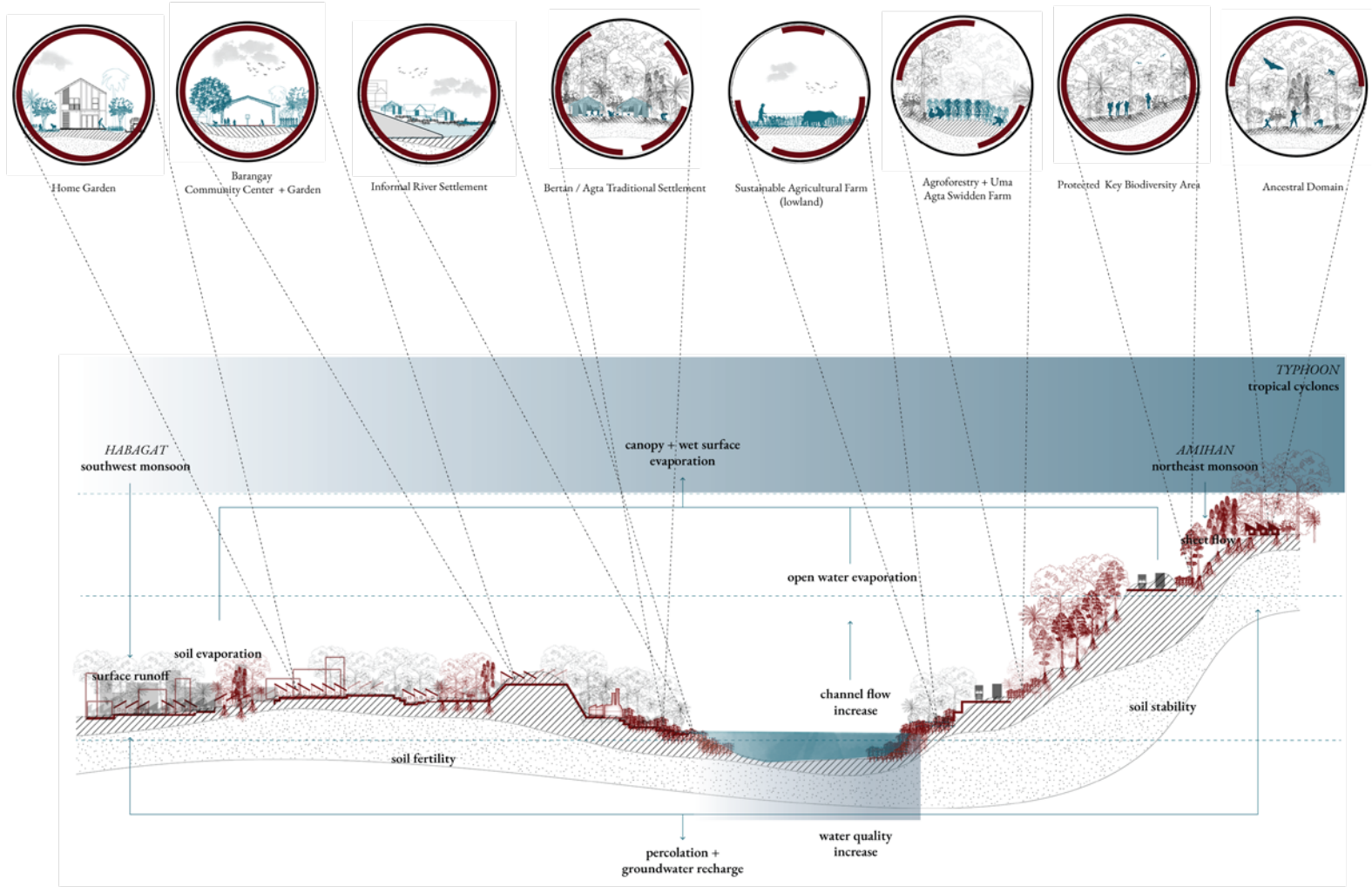
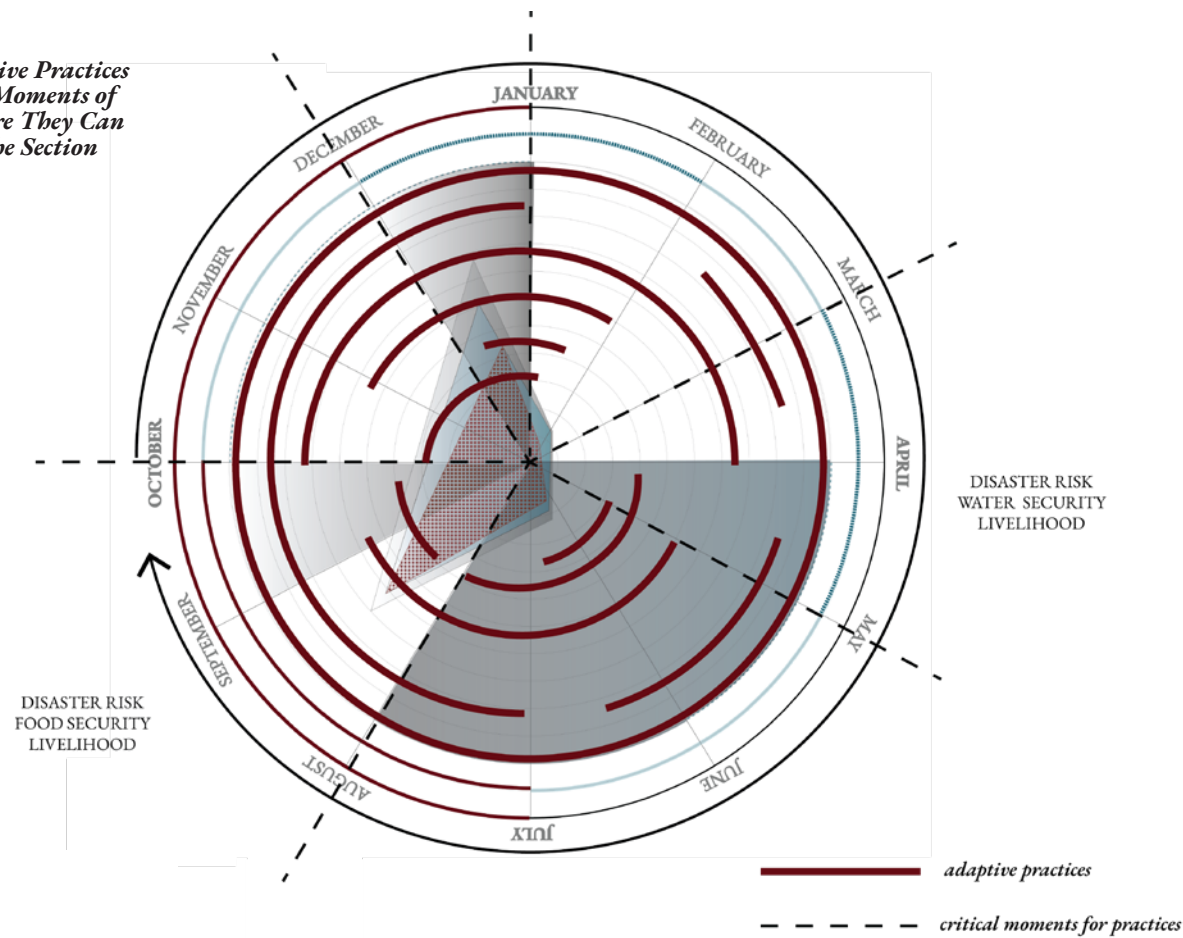
Land Use Dynamics Over Key Moments in Time



the river as endless territory

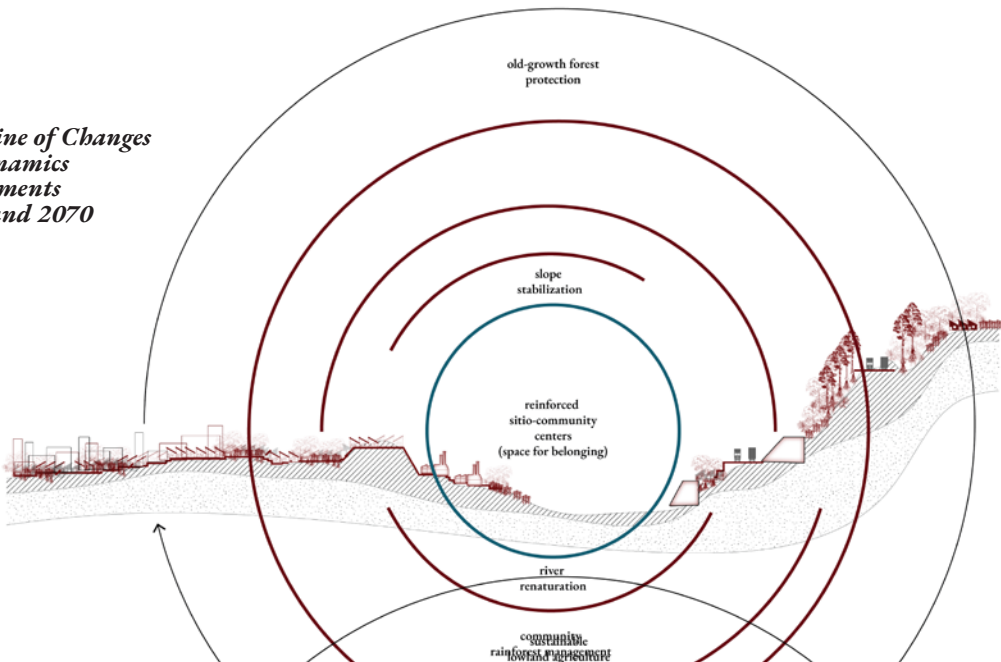
cyclic choreography at the confluence

Cyclic Local Adaptive Practices
Defining Critical Moments of
the Year and Where They Can
Be Reinforced in the Section

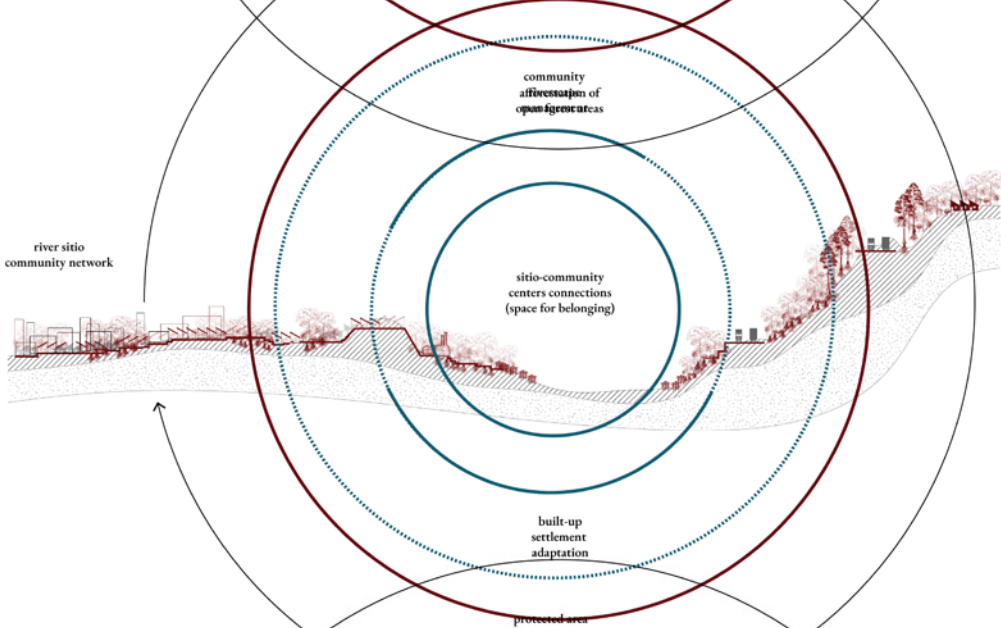


Sectional Timeline of Changes
in Land Use Dynamics
During Key Moments
of 2040, 2060, and 2070

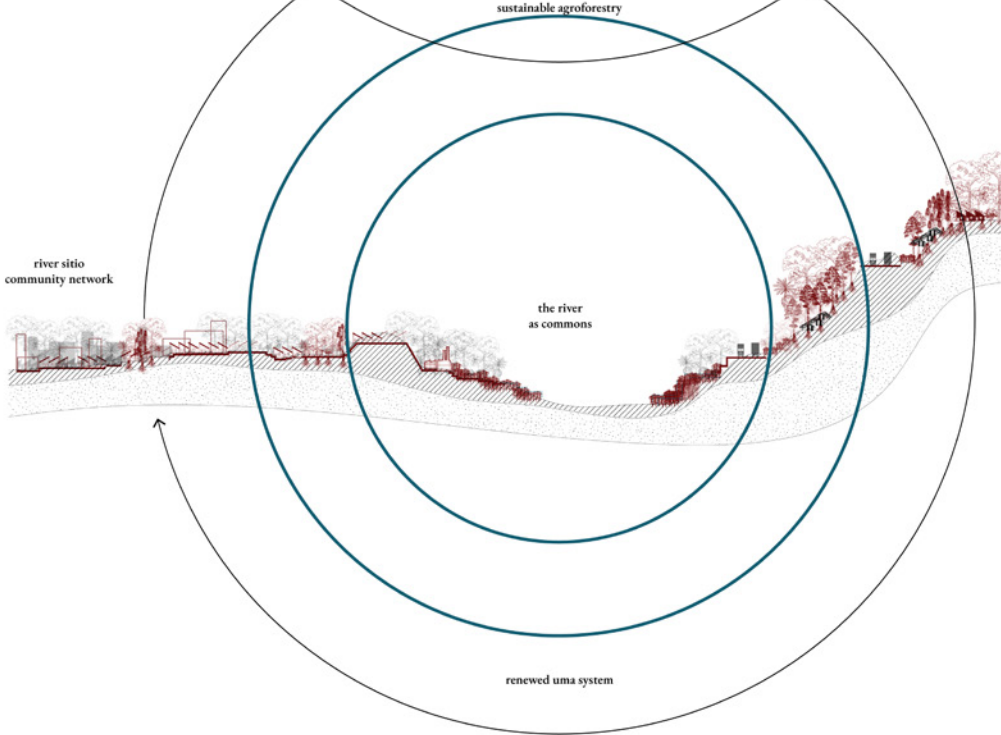
2040

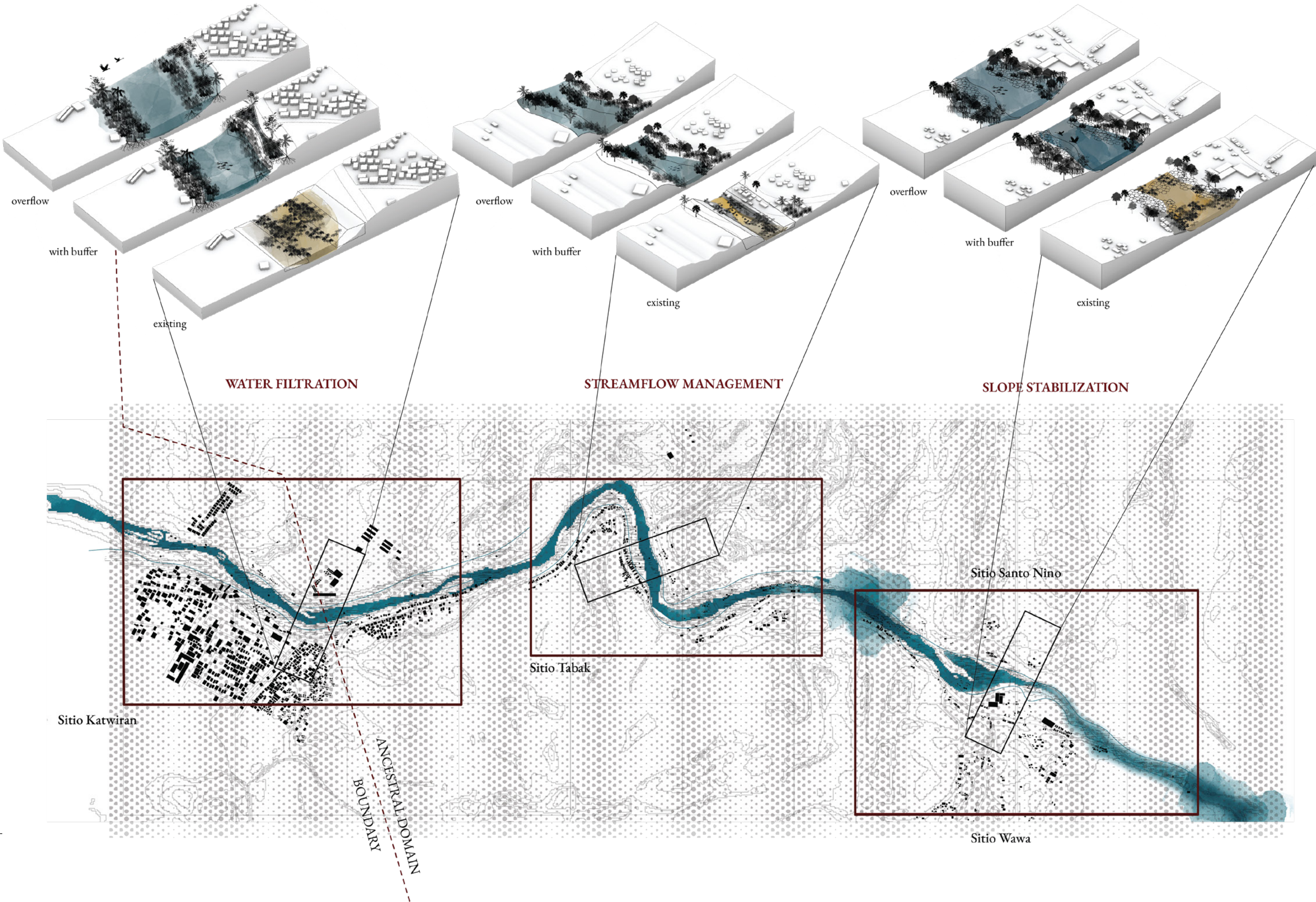


2060



2070





the confluence - 2070

The Confluences's Renewed
Core Memory System for Adaptation
Starting with 4 Sitios, Barangay San Rafael

ATMOSPHERE

COMMUNITY BUILDING

Establishment of Sitio Community Center Network with the River as Commons

Development of Barangay Collaboration Platform - Focused on Industrial Sector, F

Designation of Refuge/Retreat Areas

SES RESTORATION

Reforestation and Afforestation of Open Forests + Protection of Hunting Grounds /

Expansion of Uma + Sustainable Agroforestry Plantations + Sustainable Lowland Ag

Wastewater Management, River Renaturation, and Slope Stabilization

KNOWLEDGE TRANSMISSION

Alternative Livelihood Streams - Local Cooperative Goods and Local Crafts

Improvement of Eco-Tourism Programs for Wawa Dam and UMRPL

Knowledge Exchange and Capacity-Building in Collaboraton with LGU, R&D, Academia, NGOs, CSO etc.

SURFACE

evapotranspiration

carbon sequestration

forest canopy restoration

sitio
community
center
(belonging)

return of migratory
species

riverscape as
mixed-use
recreation + education
zone

sitio
community
center
(refuge)

return of traditional
indigenous community
settlements
(bertans)

slope
stabilization

crop rotation

water storage

food security

permaculture

surface runoff
decrease

water
percolation

channel overflow
allowance

water
percolation

aquifer
recharge

SUBSURFACE



LEARNING

Capacity to Absorb and Generate New Knowledge
Supporting Processes for Critical Education
Information Dissemination



AGENCY

Rights and Land Tenure
Power and Freedom to Mobilize
Empowerment through Participation
ILKS/TEK Recognition + Implementation
Removal of Inequality Barriers



SOCIAL ORGANIZATION

Bonding / Networking Capital
Level of Trust and Social Cohesion
Cooperative, Collective Action, +
Knowledge Sharing Capacities



ASSETS

Financial Capacity
Basic Social Services
Sustainable Infrastructure
Technological Capacity



FLEXIBILITY

Resource + Livelihood Adaptability
Diversity Potentials
Switching Adaptation Strategies

Organization

Memory

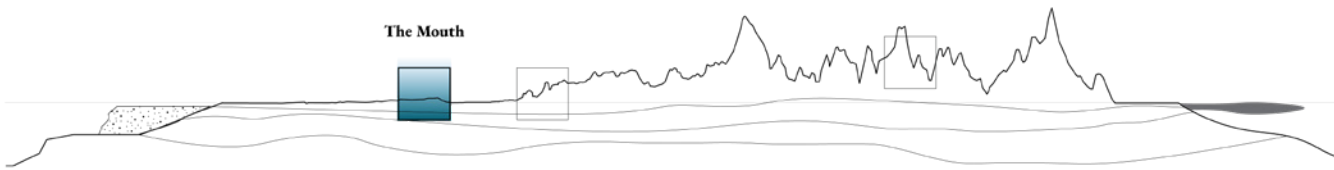
Consciousness

consequences over RIU pattern:
the mouth 2100

Future Nostalgia at the Mouth

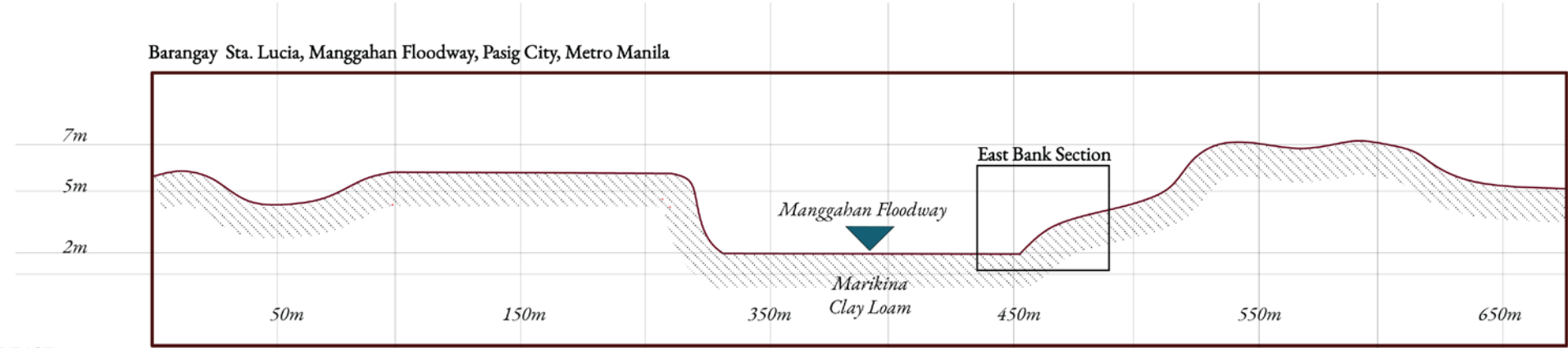
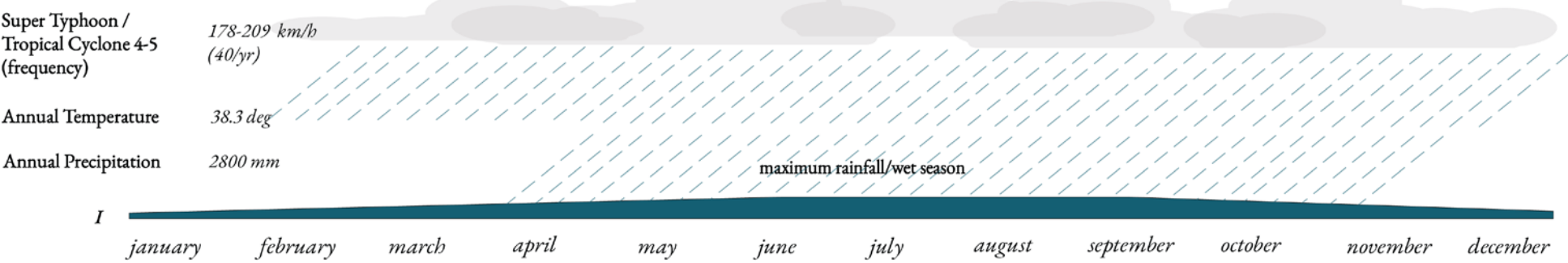
My grandmother said that her grandmother, who was an architect and tried to make a plan to save the old city, that the waters I see every day where our house floats now used to be bound to land, where even before that it was just rice fields and a huge marsbland where huge herons from North China would fly to in the winter season where they come from. Now all I can see everyday are the crowded upland cities over the Sierra Madre range behind and as the coasts were engulfed, only the horizon in front, where the ever-beautiful sunset that makes the endless water brim like gold and the hustle and bustle of a floating city of islands that is still Metro Manila keeps on.

River Interface Unit 01
Transect Key



Local Section with
Consequences over
The Mouth 2100

ATMOSPHERE



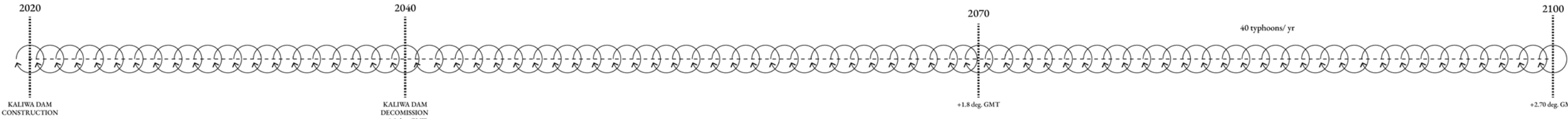
SURFACE



SUBSURFACE



Projected
Future Timeline
(linear scale)



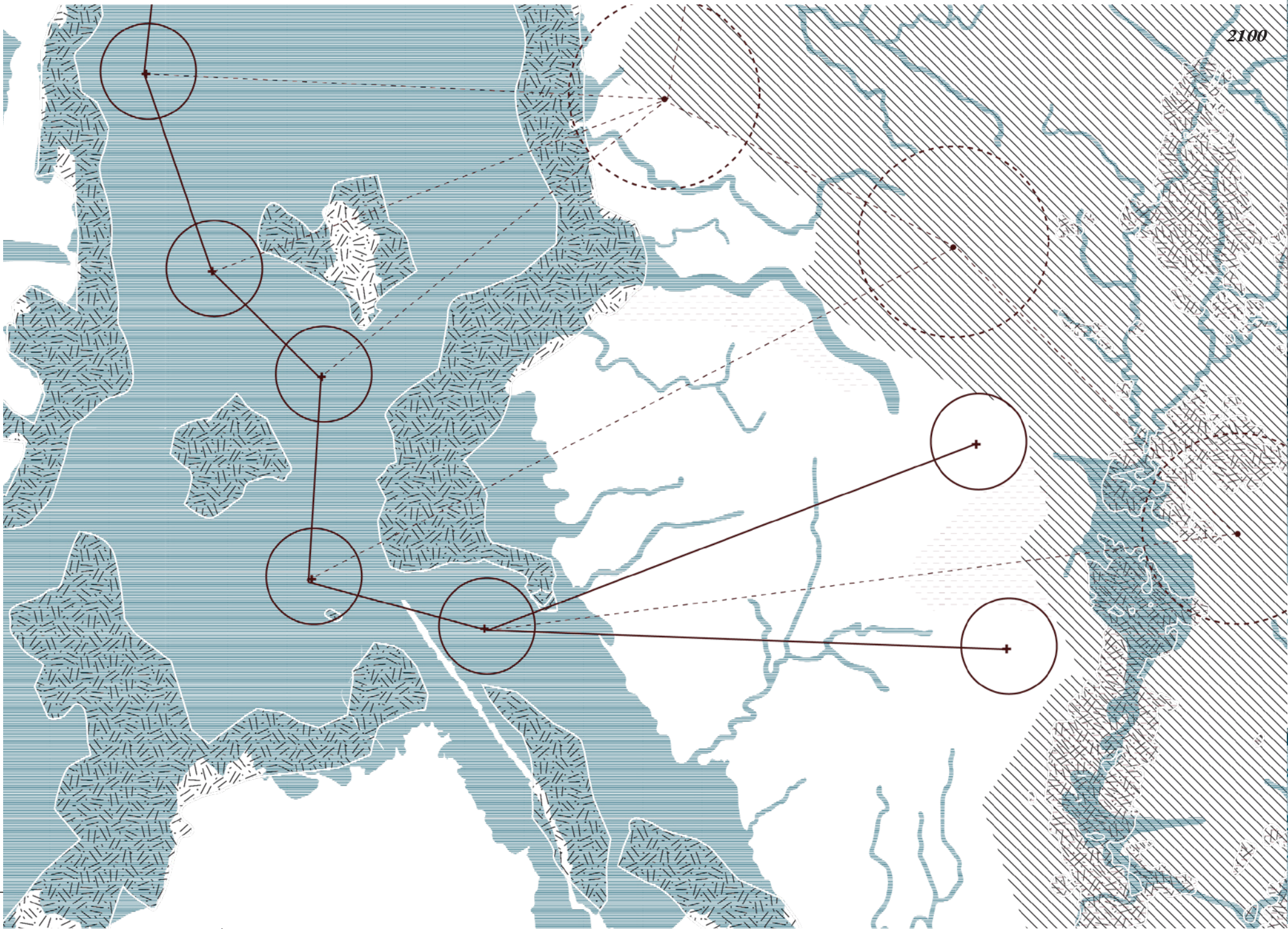
the mouth - 2100

Neo-Indigenous Coastal Metropolis

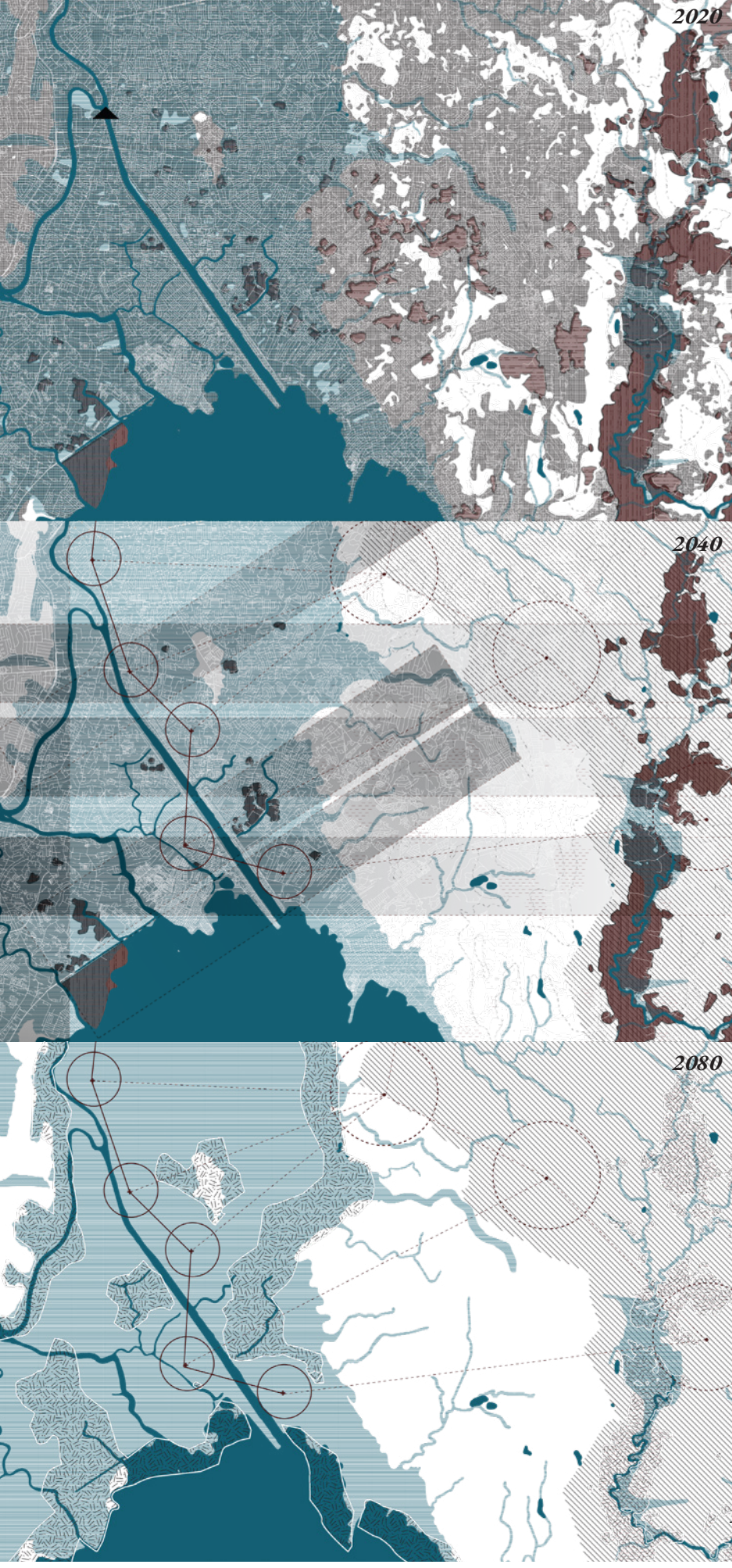
With the The Source restored into a functioning rainforest with the indigenous back at the helm and the The Confluence facilitating the River as Commons, the River returns to the Mouth, in where as global sea level rise advances in this part of the River Interface, evolutionary adaptation occurs in the way that the flood risk zones of yesterday are transformed into a floodplain once again, where mangrove forests are restored to delicately manage the tides and storm surges, and where

sediments from the upland form new islands for living. The Mouth's renewed sensibilities take a turn from what used to be informal river settlements, with their stilted homes and self-sustainable urban home gardens, harvesting kangkong (water spinach), and welcoming the comeback of migratory species both in the athmosphere and the waters. As the Agta are keepers of the forest, these new urban domain dwellers become the coastal caretakers, once again one with nature, yet aware of the endless maintenance of balance between give and take.

The Mouth Mangabahan Floodway, Metro Manila, PHILIPPINES

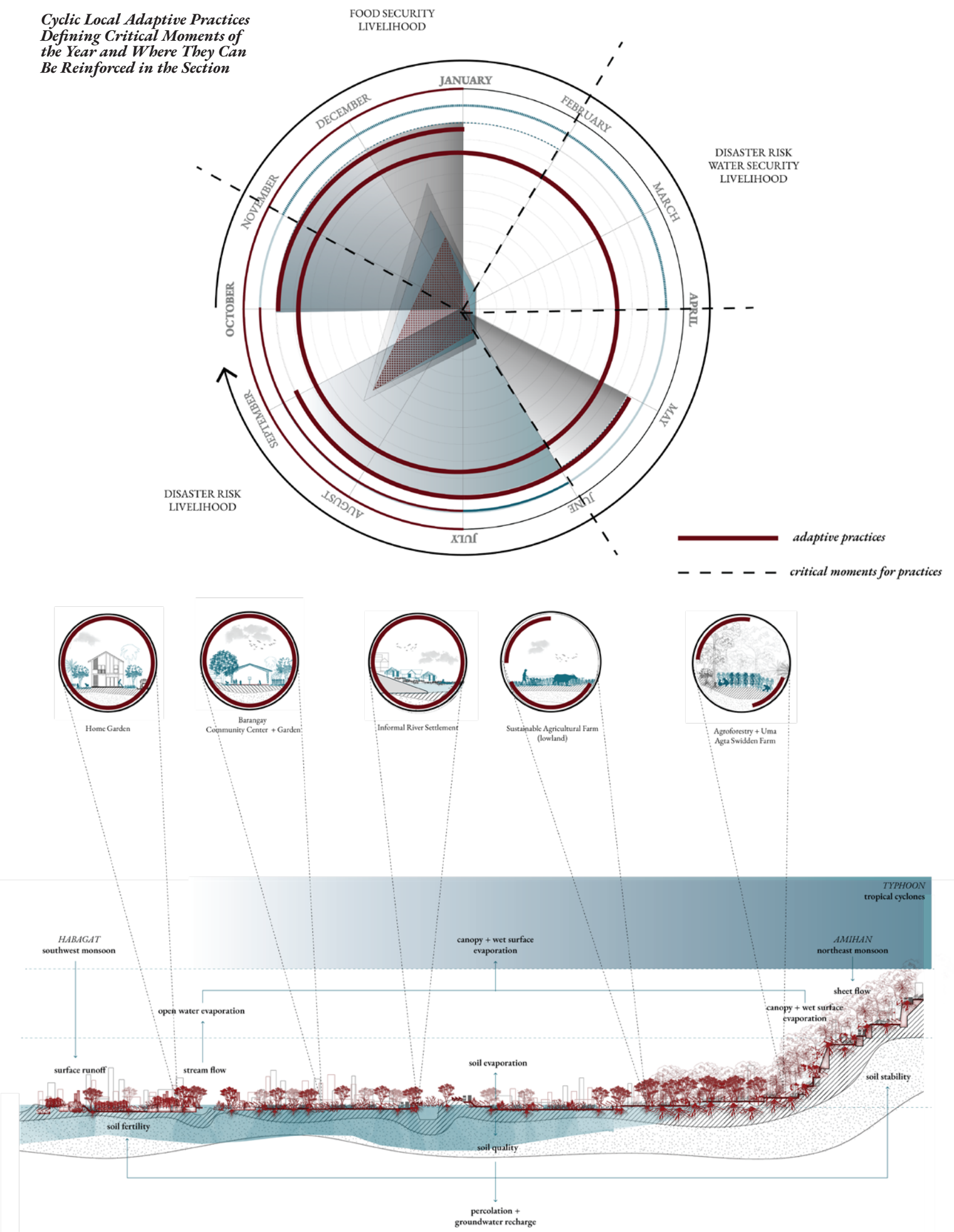


Land Use Dynamics Over Key Moments in Time

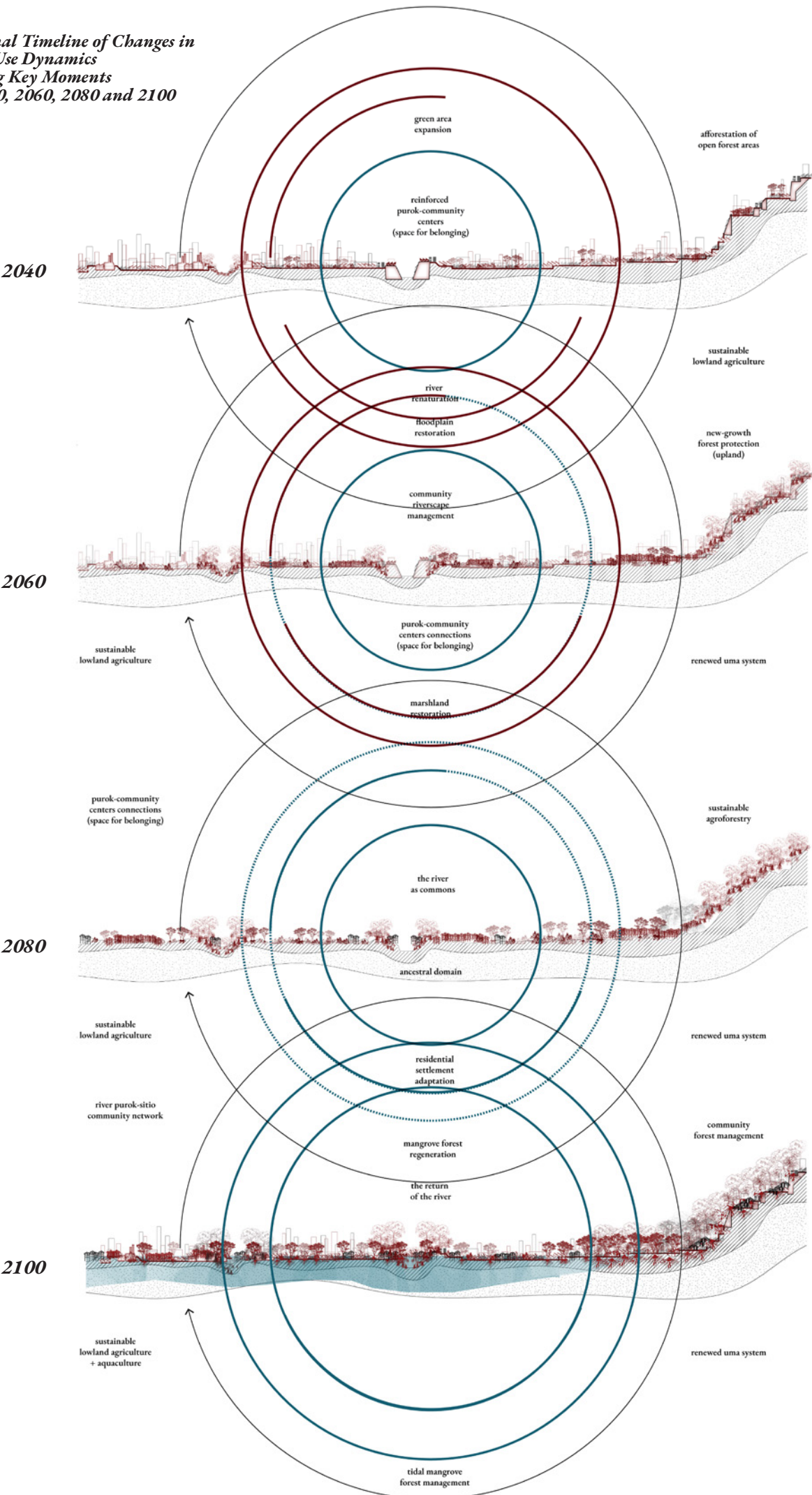


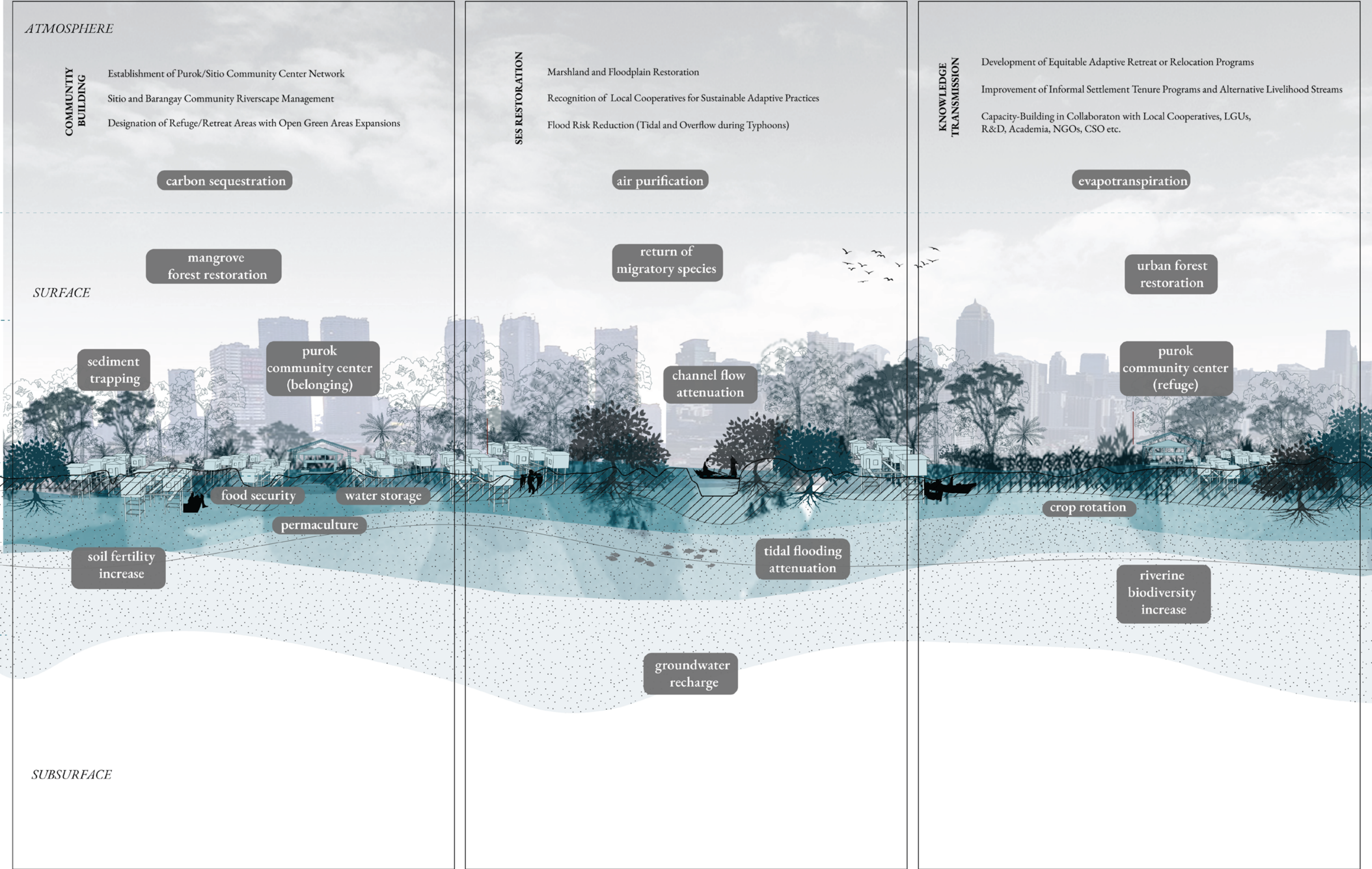
cyclic choreography at the mouth

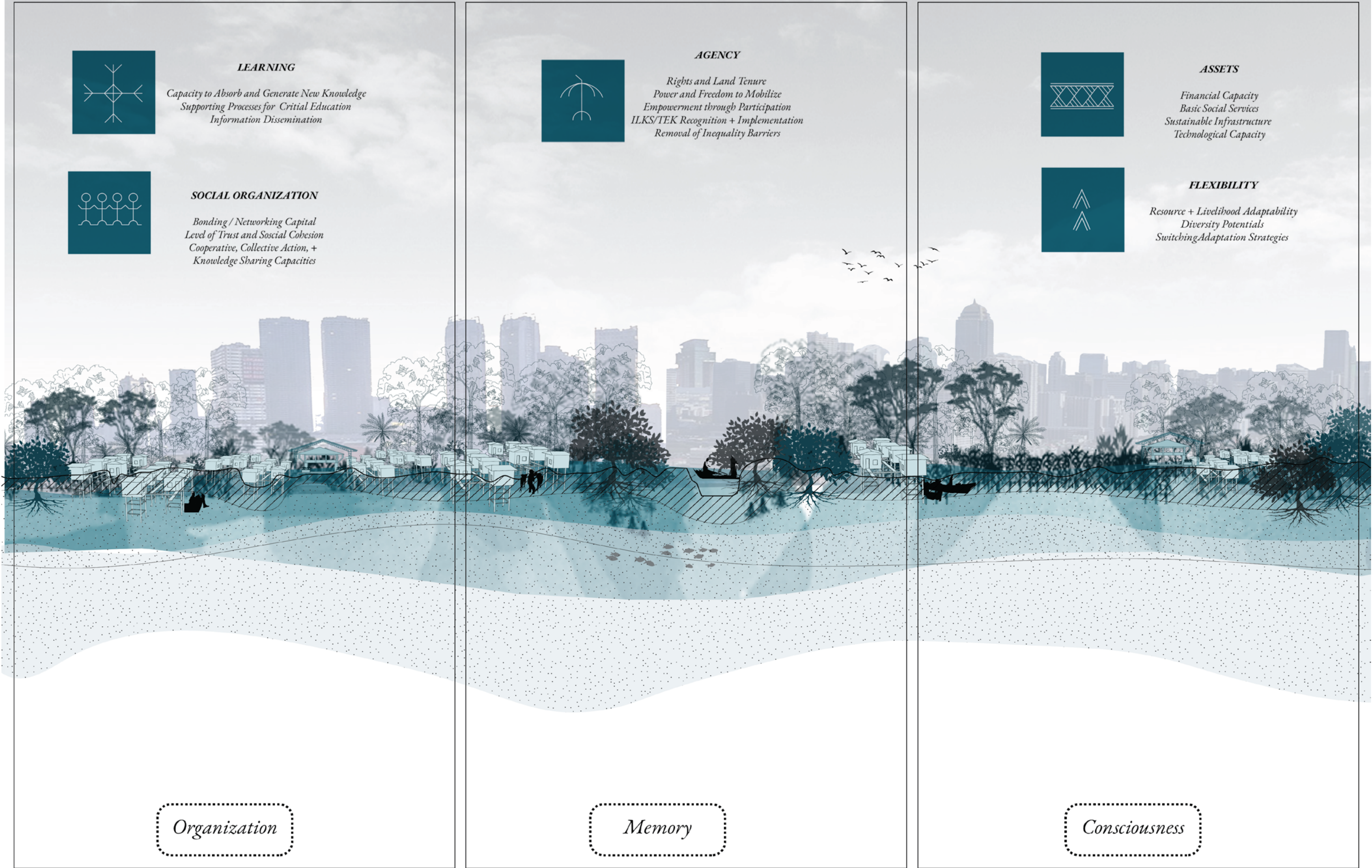
Cyclic Local Adaptive Practices
Defining Critical Moments of
the Year and Where They Can
Be Reinforced in the Section



Sectional Timeline of Changes in
Land Use Dynamics
During Key Moments
of 2040, 2060, 2080 and 2100





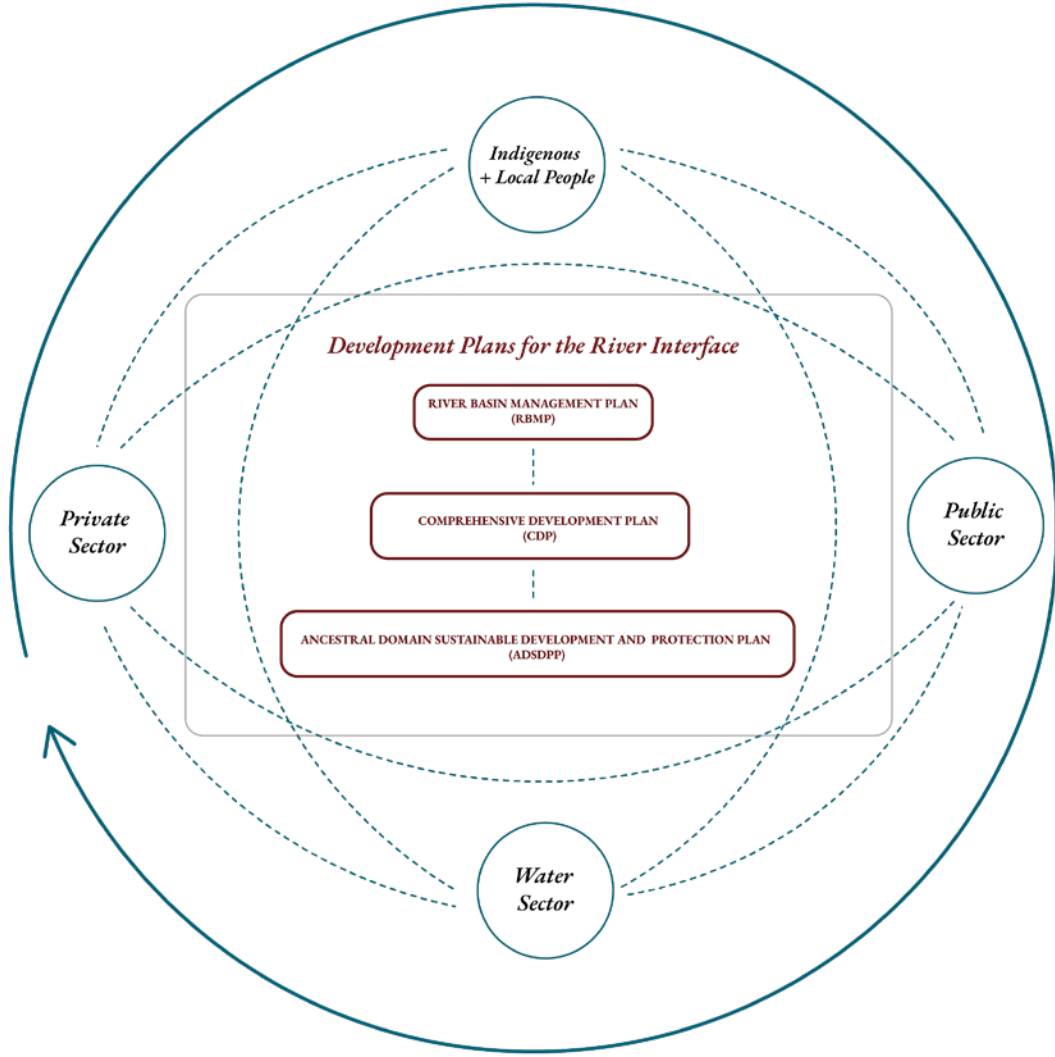
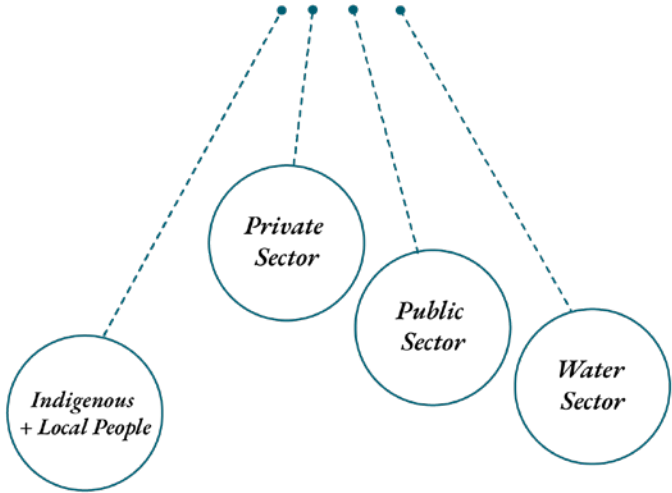
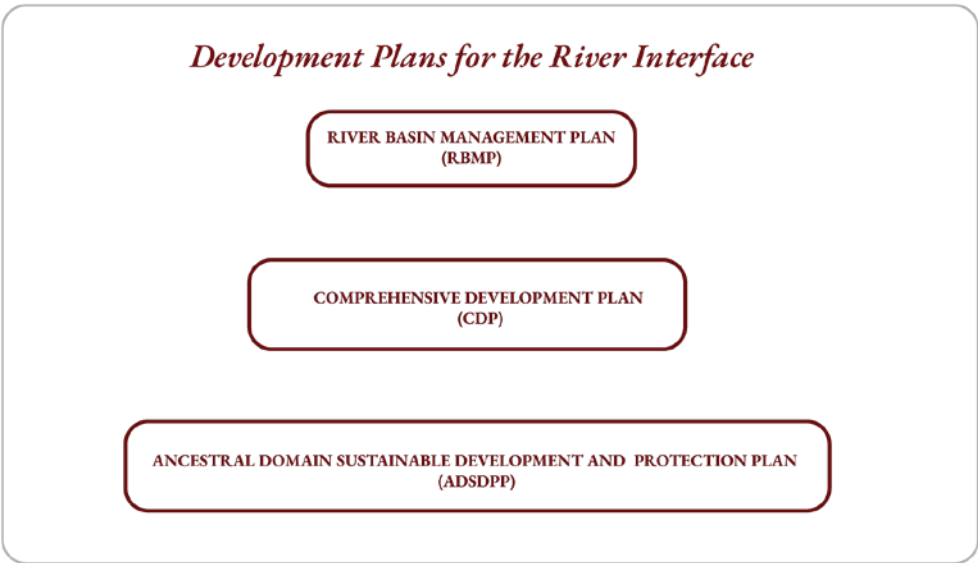
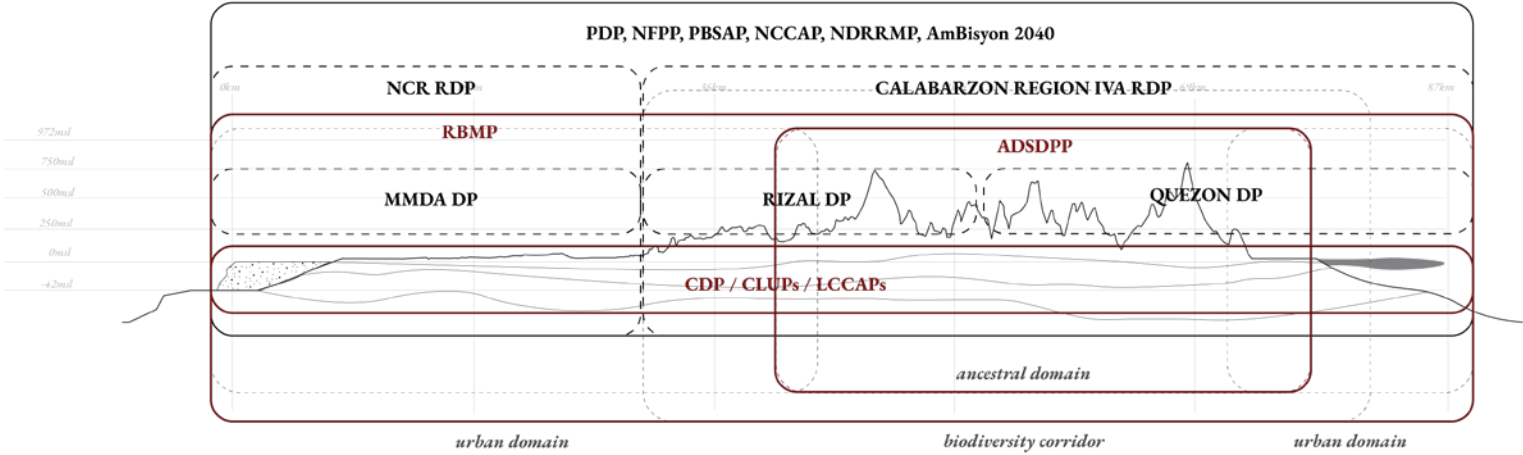


a pluriversal, collaborative, and adaptive governance

Co-Management of the River Interface

The River Interface as the transbounding entity of biophysical systems that interact with differing cosmovisions and values entails an entire re-framing and re-evaluation of the current governance framework that attempts to maintain it. The objective of a renewed governance for the River Interface focuses on the collective management (co-management) of the natural resources and the treatment of the River's *intentions* (ecosystem services) that are, at present, fragmented and hindered by the lack of clarity in the roles of caretaking of the River and their perceived values of commoning, particularly with regard to the knowledge and traditions of indigenous and local peoples embedded in their cyclic practices as the intrinsic caretakers of the River. From the project of nostalgic envisioning, The Source begins and The Confluence performs the adaptation and evolutionary process of the River as the common value of multiplicities that must be preserved, regenerated, and reiterated over time to reoperate the most contentious part of The Mouth by 2100, sealing the core memory system for Clearance as a River Continuum.

The main sectors involved are the Indigenous and Local People, the Private Sector, the Public Sector, and the Water Sector. These main sectors are engaged in the management of water resources that the River provides from source to mouth that follow directives, policies, and frameworks within local, regional, and national development plans that also the global, encompassing the major issues of Climate Change, Natural Resource Extraction, to Land Use Management. The existing centralized planning approach that is conspicuously top-down is transformed into one that values the constitutional plans and their ideals, yet is encircled by a more inclusive, dynamic, and collaborative pathway with the direct realization of the involvement of the most undervalued sector such as the Indigenous and Local People that shall be considered to be an emergent approach. The emergence stems from the imminent occurrence of impacts of climate change effects that are becoming more and more unpredictable as it affects and are seen within the River Interfaces in the Philippine Archipelago. The balancing act of decision-making between emergent and traditional approaches to governance of the River Interface are taken to both manage existing and predictable knowledge and the understanding of uncertainty.



From a centralized, traditional sectoral planning approach to a contemporary and emergent approach to planning

stakeholders within the River Interface

STAKEHOLDERS

Indigenous / Local People

Water Sector

Public Sector

Private Sector

Research

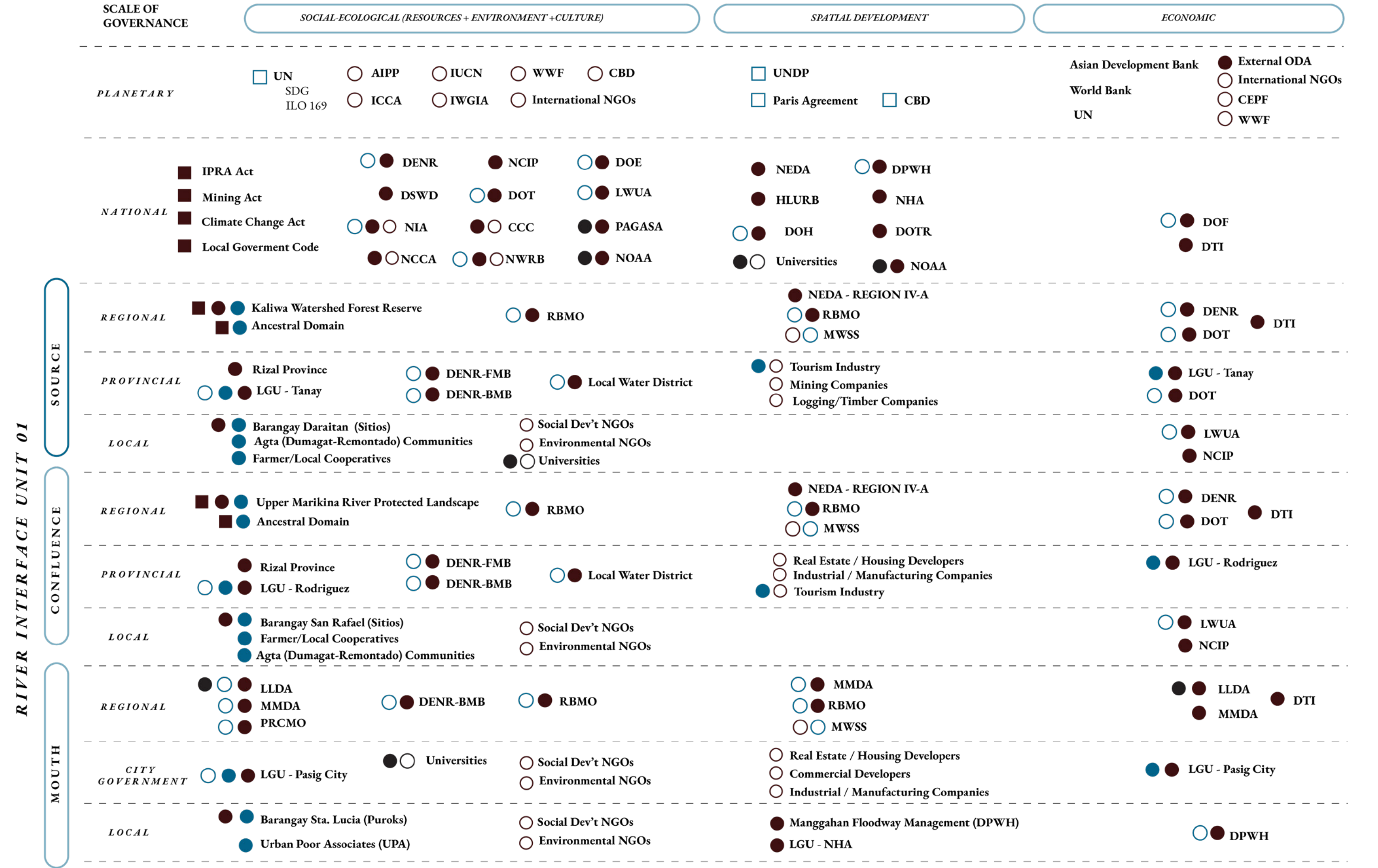
Academia

DIRECTIVE

Law

Development Plan/Framework

International Mandate Agreement

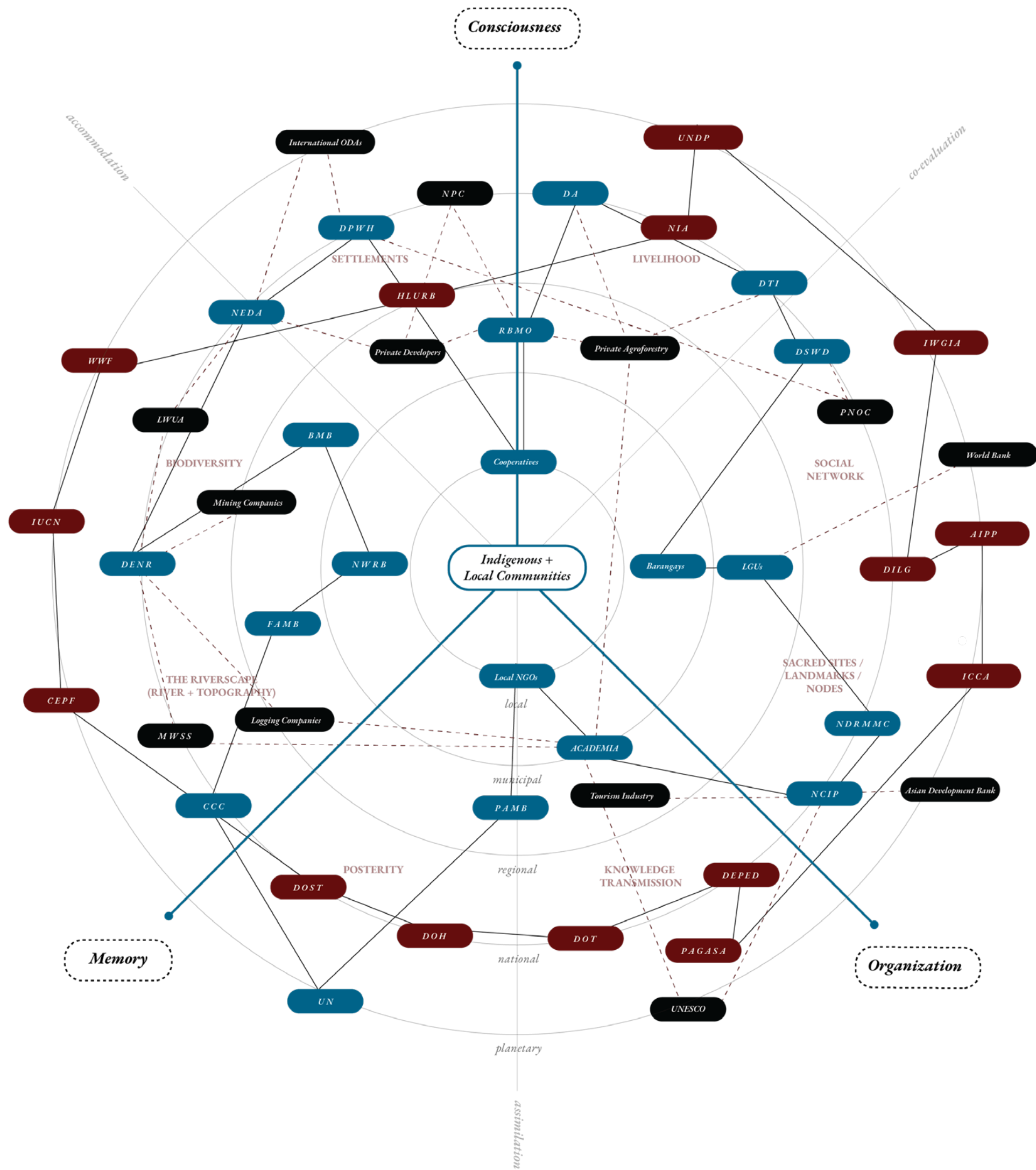


constellation of stakeholders, values, and dynamic processes for a River Interface

The Core Memory System's Critical Links

It is essential that the re-alignment of current frameworks and policies that do acknowledge the value of Indigenous Local Knowledge Systems and Cultural Communities, Indigenous Rights and Representation, and the Opportunities of further enabling them with the involvement of contemporary pluriversal actors already supporting these to come to the fore in the creation of a core memory system for the River Interface. The River Interface's capacities for Memory, Consciousness, and Organization, each respectively representing the biophysical systems and the land itself, the quality of life by the environment this produces and the agency that allows this to unfold, and the established network for social connectedness this fosters, are formed into a constellation of stakeholders, actors, and supporters that are connected by the cyclic dynamics of assimilation, accommodation, and co-evaluation as the River Interface and its values evolve over time by virtue of the recognized exposure to uncertain new conditions brought about by climate change effects and the constant collision of diverse interests.

Critical stakeholders and actors are identified here as enabling, supporting, and negotiating (existing/potential barriers) in the complete recognition and participation of Indigenous and Local Communities for the protection of values over the River Interface and where they potentially can act together. These are linked together where they can meet to collaborate, cooperate, and co-evaluate for a pluriversal decision-making process as a River Interface Commons as the main actors for a renewed co-management regime over the River, restoring the social-ecological continuum between human and nature in the first river interface unit as this can further be expanded over other river basins.



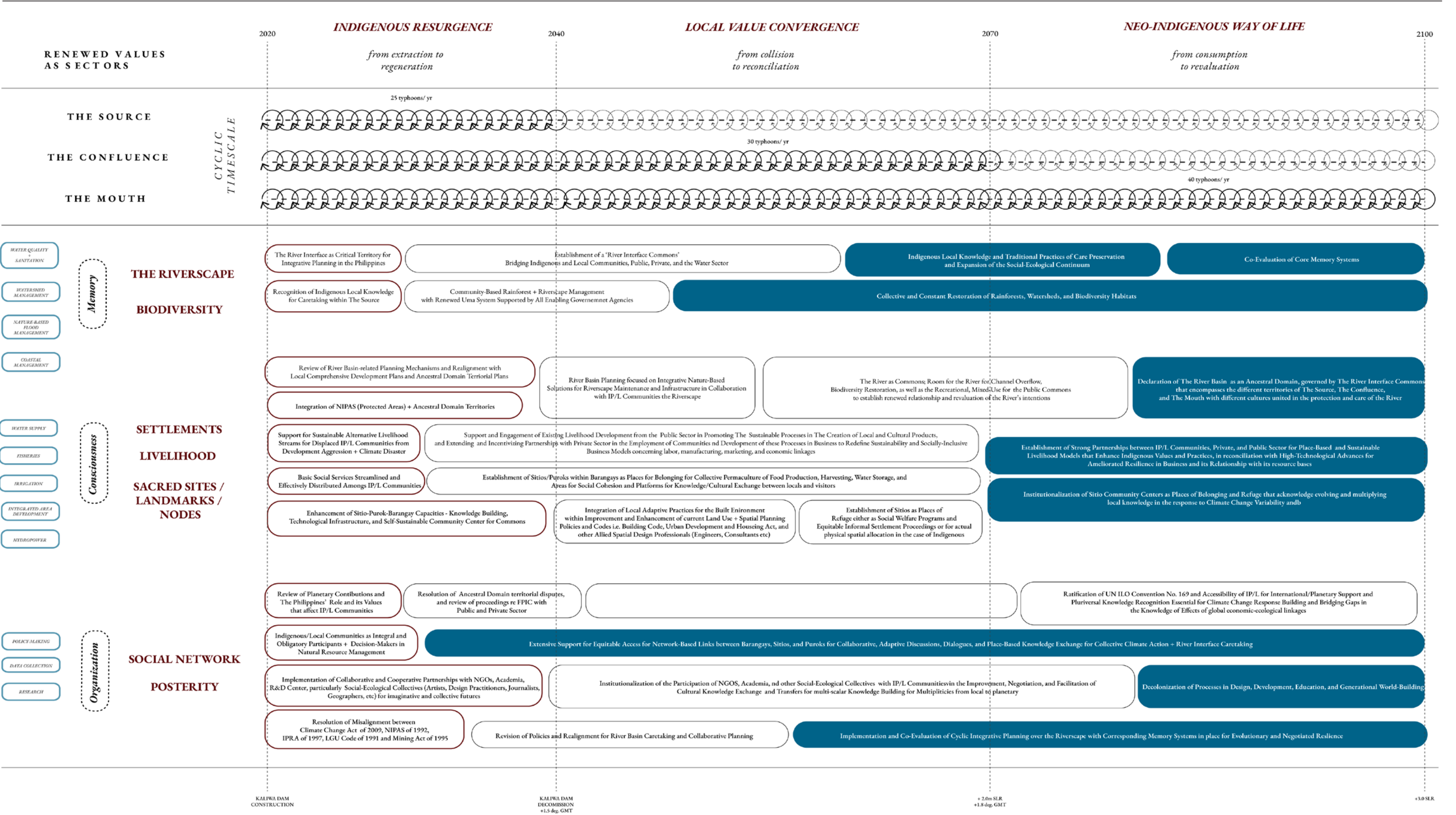
cyclic choreography operability
within the River Interface

Operating Values from Old Sectors

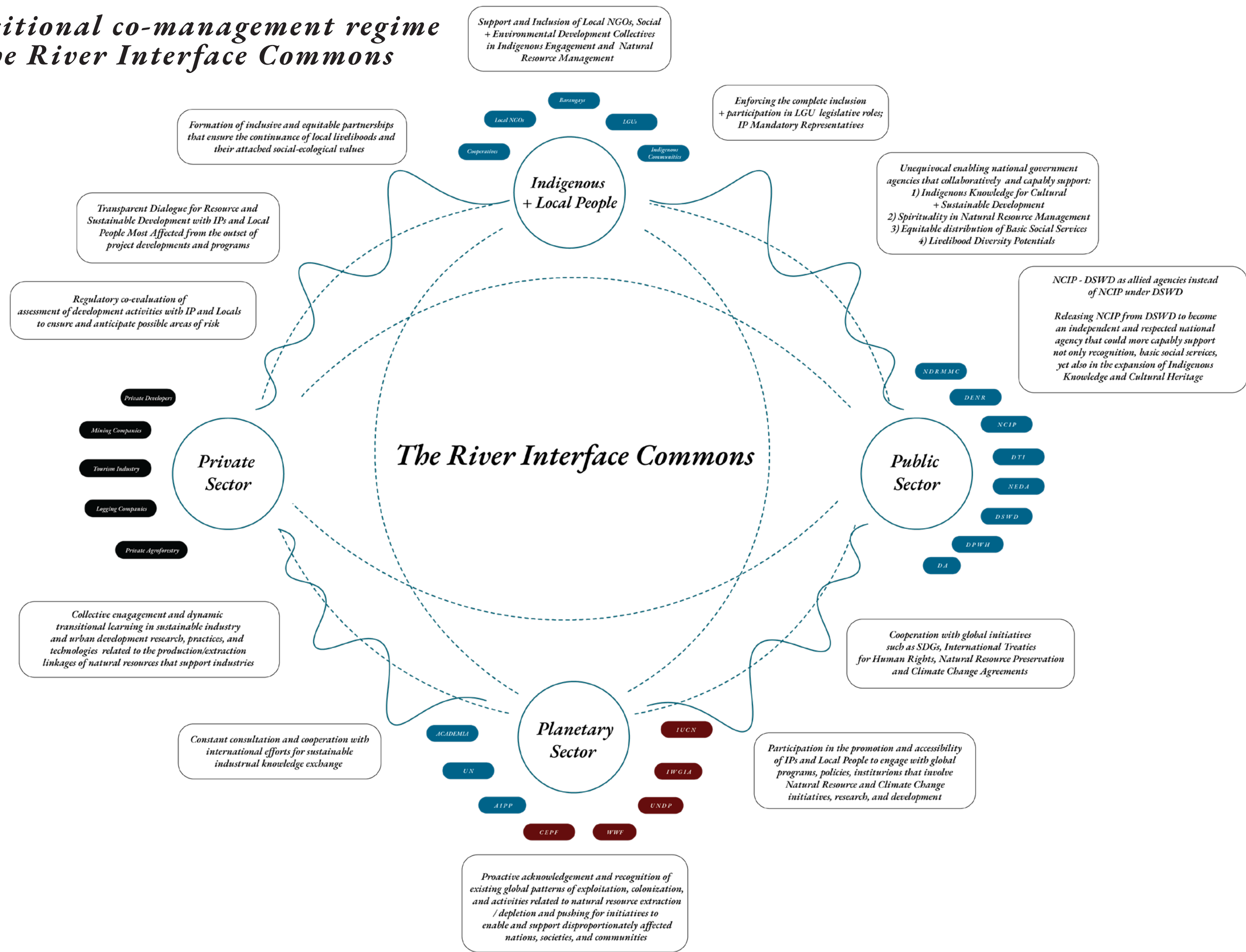
More than changing the system is how to design this new system. The systems that have been built that we are attempting to change today have been conceived and designed inasmuch as they have also propagated unintended consequences, and now the earth is to experience the 6th mass extinction because of these. So, in the creation of the operability, as well as the transformability of this conceptualization of Nostalgia as a design strategy framework for integrative planning, key notions and normative sectors must

be redefined and reorganized into values that extended over strategic pathways over time.

Upon the recognition of management as caretaking, roles are redistributed that cascades both over the riverscape and time, wherein the continuum is seen as core value and objective to the evolutionary resilience of all living organisms within the River Interface Territory, giving or taking, Spirit and body, once again reunited; alive.



*a transitional co-management regime
with the River Interface Commons*

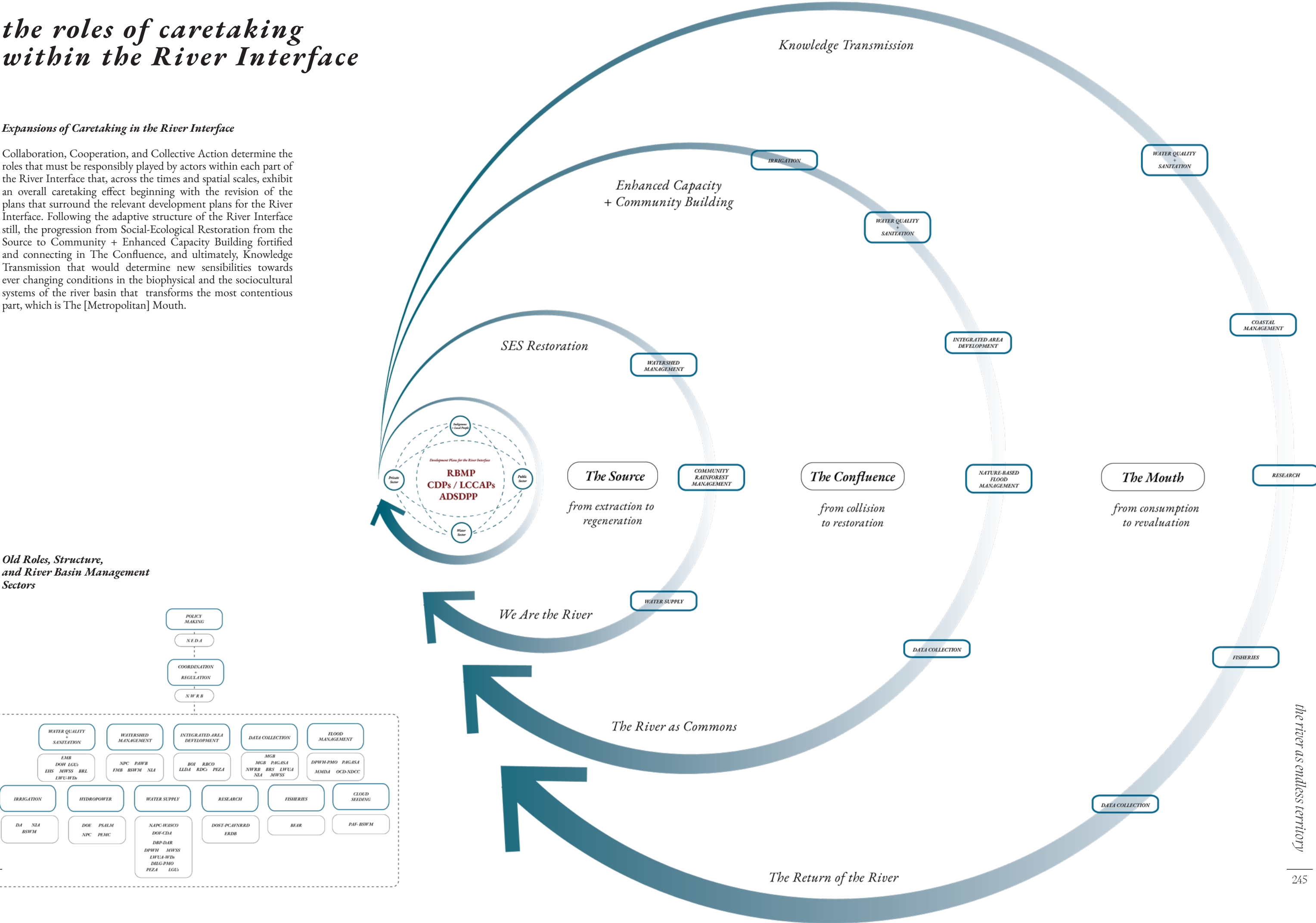
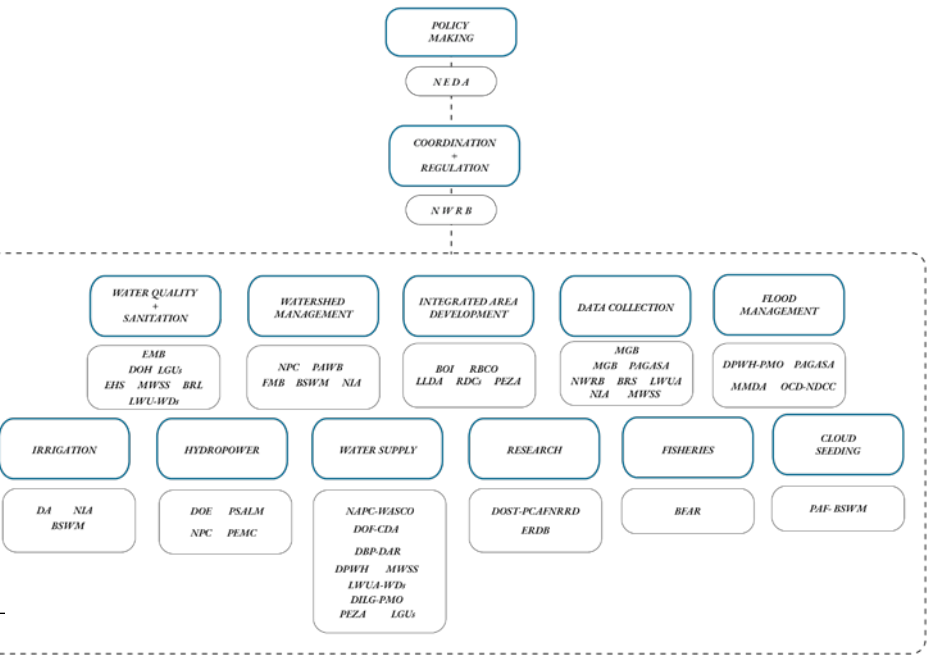


the roles of caretaking within the River Interface

Expansions of Caretaking in the River Interface

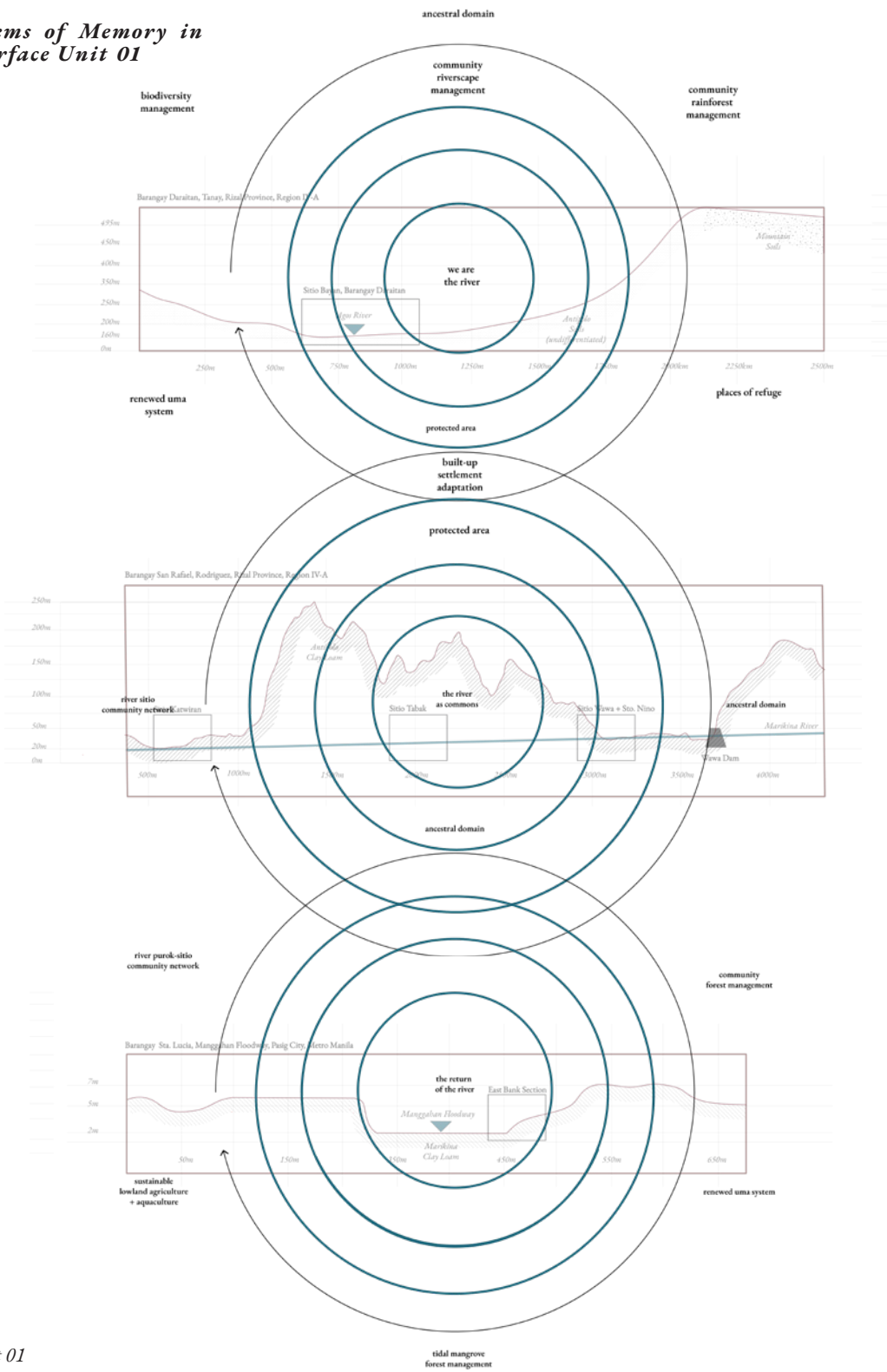
Collaboration, Cooperation, and Collective Action determine the roles that must be responsibly played by actors within each part of the River Interface that, across the times and spatial scales, exhibit an overall caretaking effect beginning with the revision of the plans that surround the relevant development plans for the River Interface. Following the adaptive structure of the River Interface still, the progression from Social-Ecological Restoration from the Source to Community + Enhanced Capacity Building fortified and connecting in The Confluence, and ultimately, Knowledge Transmission that would determine new sensibilities towards ever changing conditions in the biophysical and the sociocultural systems of the river basin that transforms the most contentious part, which is The [Metropolitan] Mouth.

Old Roles, Structure, and River Basin Management Sectors

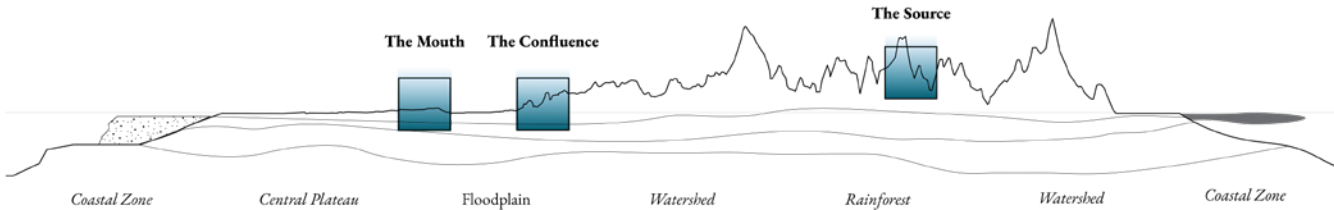


cyclic choreography at the River Interface as pathway convergence

Renewed Systems of Memory in
the River Interface Unit 01



River Interface Unit 01
Transect Key



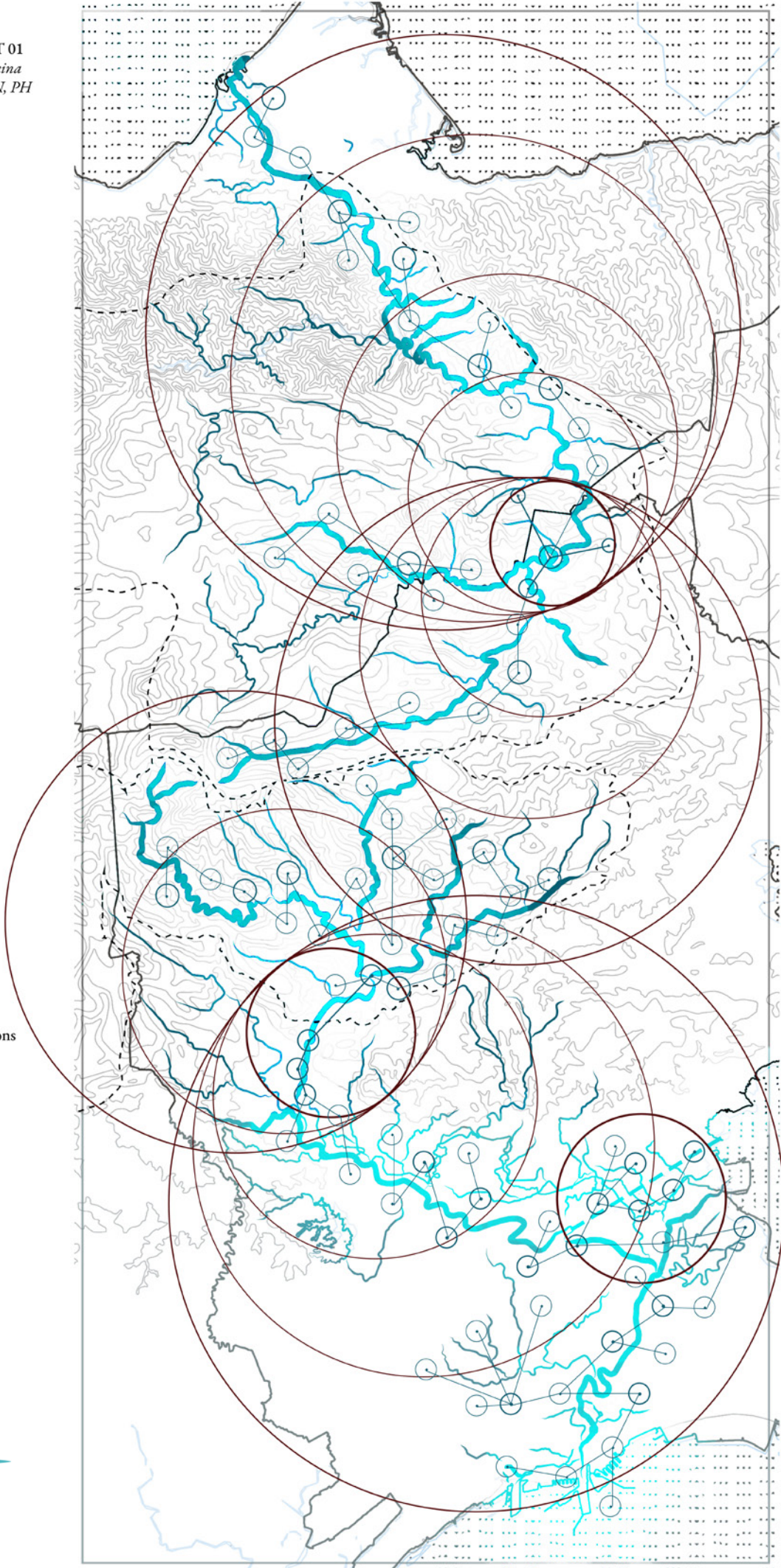
THE RIVER
INTERFACE UNIT 01
Pasig-Laguna-Marikina
River Basin, LUZON, PH

The Confluence
The River as Commons

The Source
We Are the River

The Mouth
The Return of the River

memory
consciousness
organization



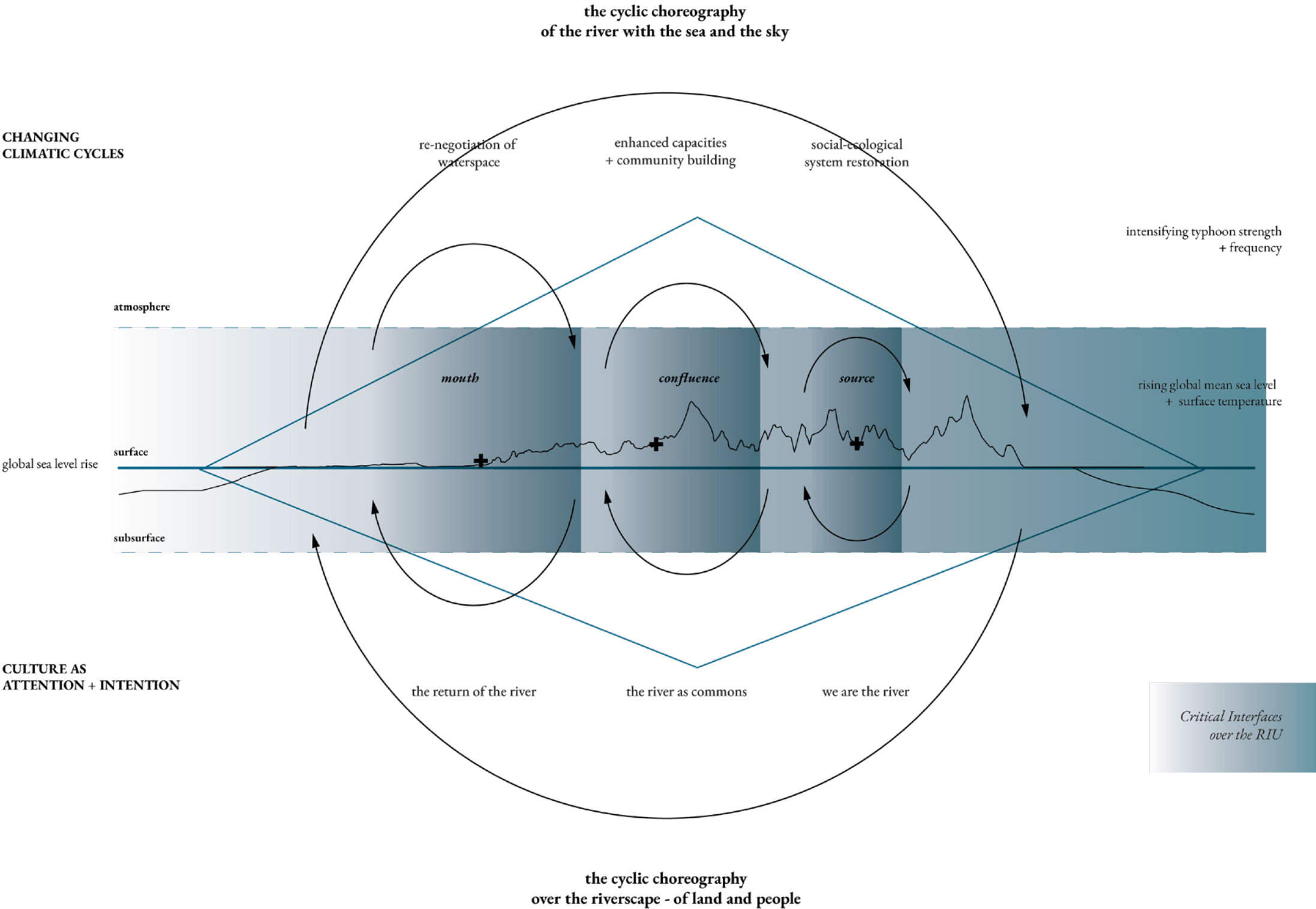
renewed systems of memory in the River Interface

Constantly Renewing Systems of Memory in the River Interface

As the continuum within each part of the riverscape is restored, the core memory systems are projected to converge, materializing into new cycles of memory, which;

- 1) Enhances and nurtures land's intentions over the riverscape that is also the social infrastructure, the backbone of care for a River Interface that is 'alive' - imbued with spirit.
- 2) A network of care over the river, over scales, beginning with the River Interface Commons, where the interposition of shared values are mediated and embedded in the riverscape by the local and indigenous communities themselves.
- 3) Taking root are multiplicities of culture with a core memory system. It's all rehearsal, every year.

Embedding in long-term memory a truly resilient, adaptive way of life.



*What is Design?**Ontological and Epistemological Journey*

The River Interface as a territory came about by the rudimental search for the deeper roots of the conflicts and tensions mirroring within the uber complex country of the Philippines. This allowed me to reveal the inherent and socialized misinterpretation of my own identity as a Filipina against a normative, homogenous world that has never considered it in the first place, and perhaps may never understand it. Going with the usual process of design thinking was not an option in the recognition of the injustices that continue to transpire in the world because of colonization and its complicity in the disproportionate consequences --- social, environmental, and economic --- being experienced more palpably by former colonies, such as the Philippine archipelago. Against the grain was a treacherous path that explored design analysis in the form of using my skills as a designer and as a storyteller with a welling sense of activism. Being Filipino, storytelling is a method that has been used as both social and power control, and yet is one that is gleefully accepted and used by the people as the way to connect and conceive shared identity. What stories have I been telling so far in my career as an architect, as myself? In my projects? What am I to tell now with this master urbanism graduation project?

“As an archipelagic territory composed of multiplicities --- identities, resources, and risks ---- pressured by a homogenizing and centralized development paradigm, how can the Philippines prevail from the effects of the climate crisis through a transitional and renewed co-management regime of the river, restoring the spiritual continuum between human and nature?”

And so the focus on narrative, the indigenous and their struggle, and the existing local beliefs and practices that somehow subvert the passed down neo-colonial policies and natural resource management regime in the country became the clear keys to answer my main research question. Finding all these within the river basin is one thing, yet the more critical part is being able to interpret and draw from it a design strategy that would encapsulate adaptation not merely as inspiration or reference to the indigenous. Why? Because the indigenous peoples are alive. We are alive. They are living and are also multiplying not in the sense of their indigeneity because of relative isolation, but the fact that they are participating in this world despite the dichotomic

dysfunctionalities that should have already broken down their cultures and cosmovision completely, and yet are still able to preserve them and adapt through it all. This is a wonder, but only to the conclusion that I make now that if there is one bio-cultural function that encompasses all tribes – also the urban – it is that the human spirit does not give up. How does it not give up? Through hope, trust, tenderness, and as I have learned and attempted to apply from my research and engagement with the indigenous, memory. In this discovery, the process of designer and the product to be made are conjoined by memory and the concept of time in the context of spatial planning and design for transitional climate adaptation.

Decolonization of Design Analysis and Process

Linear development as a whole has been a western, imperialistic concept, that is still strongly embedded in our conception of the built environment that has been unquestioned until we have reached this point of no return with the climate crisis in tow and no answers from the future could be provided, perhaps because they are in the past. The Anthropocene is an age propagated by this greed over what we consider as ‘other’ when in fact, in pre-colonial worldviews that persist today amongst indigenous peoples and non-western citizens, there everything is contained in a wholeness, a continuum that has been lacking in this conception of development. To answer the questions I posed to myself since P2: “‘Integration’ seems to be the main goal and heart of the design and planning profession, yet once the spatial imaginary of a continuum is established, 1) What would that mean when in fact all things - material, spirit, dynamic forces - are one. Do we differentiate the whole? 2) How can space and the interrelationships of things be transformed this way, especially in the Philippines wherein its very multiplicities define both its strengths and vulnerabilities? My answer to these is that we are also parts of this whole, without distinction, there is also no pluriversality that the world is marvelously so proud of upholding, and these parts need to be understood as much as we can, with our own capacities, but to know that in distinction there is always connection, cause and effect. Although we cannot pinpoint all the effects, we will know some, and we will also know why certain things just do not work, how the idea of boundaries must be reformed in order to conceive new solutions and interventions that grow over space and time, without causing fragmentation and, consequently, destruction. With the project, connecting seemingly disparate sites, but showing that they ripple across the river as it is both metaphorically and realistically endless with the hydrological cycle, creating interferences over interfaces that show how culture is maintained and multiplied, perhaps it is more

than enough to understand this; that culture is not a side product or side effect, but it is the very maker of space in constant motion – endless maintenance of give and take.

More Multiplicities, More Possibilities

I consider myself an amalgamation of multiplicities, that it has opened me to have creatively made a project out of the deep entanglements of the River Interface that I thought I would not be able to come out alive of. The river pattern, their connections, and the ideas sprung forth are intuitive, yet are too broad at this point, although the foundational design strategy I believe is strong as without it, the creation of a project would have been impossible. I needed the key ingredient that not only looks at the practices on the surface, but to truly know and be able to visualize what is there, how it works, and what is threatened about the Agta / Dumagat-Remontado’s culture, how they perceive space and time, as well as confirming what I made with them. As I engaged with another tribe, the Agusan-Manobo, presenting my project to one of the tribal leaders, Datu Boyet Reyes, responded in Tagalog. “Ma’am, sa ginagawa niyo, ramdam ko nakuha mo ang loob ko.” [“Ma’am, with all that you are doing, I feel you have captured all that I am, we are.”] Interconnectedness, the continuum is real and it is all they know, and it is what we can know again as now live in an ever-changing climate regime. The world has always been uncertain, there was never an uncertain time. Gilles Clement writes, “Everything is urgent, and yet everything is changing.” But what remains is a sense of self that is connected with everything else in this universe, so the reframing of self-narrative and world-building with respect to this was so essential to first be unearthed before I even dared to proceed into the design process, which became clearer in the latter part of the thesis, but the point I believe is the entire transition design process I intended to work with and have been placed in as I indeed wished. My only concern now is whether I have acted and operationalized my tenderness in the creation of the project, and I believe I have, and that the actual journey is only beginning over the endless territory of the river.

Design is the institution of possibility is the counterposition I hold staunchly now as one may relegate into believing Design is an act of colonization itself. Designing is a way of thinking, re-thinking, re-framing, and reforming again, and again, reality, what we believe of it, and what can be made out of it that actually does change it in the end. In Urbanism, the recognition of the biophysical and socio-cultural systems and patterns govern the general process of remaking space, and that is its specialty.

Notes and Recommendations

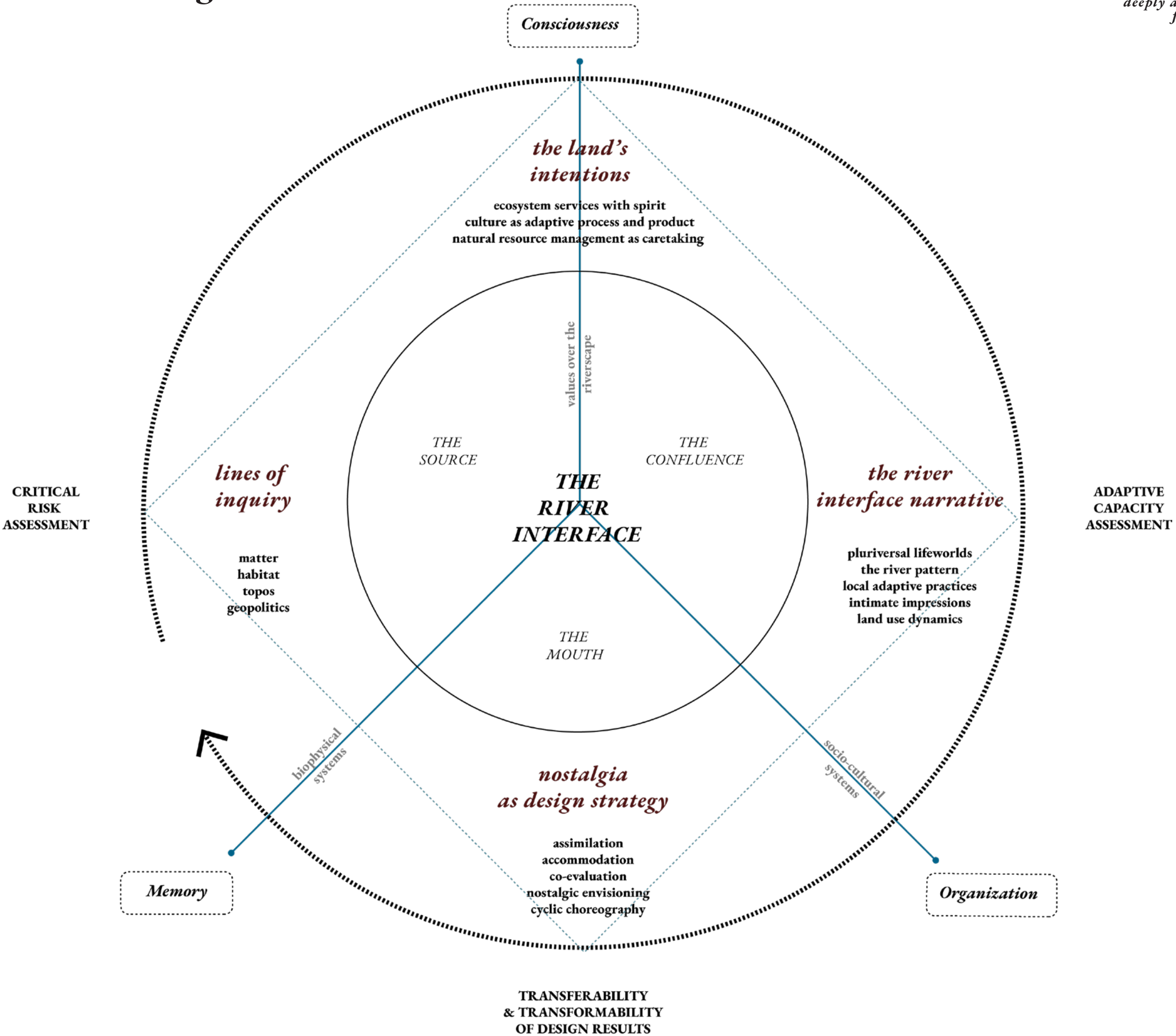
In the end, my final notes and recommendations from this Urbanism Project so far that it has been given birth to are the following:

- 1) The Project is a Draft of a Renewed Planning Model that Uses Cycles of Practice and Re-conceptualization of Time and Space using the River Interface as a Territory used as a critique of the existing neo-colonial system of planning, governance, and spatial design.
- 2) How one tells the story may be more important than the story itself i.e., the design analysis and process could be richer than what the project provides, and so it must be allowed to be a project in itself.
- 3) Envisioning and Reimagining futures especially in the objective of achieving development or life enhancement goals are to be done in constant collaboration with those directly involved and those who can also be possibly involved; the designer acts not as the main agent, but as the mediator of roles, values, aspirations, and making these whole by visualizing it and weaving them together.
- 4) The Philippines has many strengths and weaknesses, that if bridged could make a spiritually-cohesive whole that could acknowledge both the objectives of a truly liberated nation, whatever nation also stands for – also begging reconstitution – whilst respecting the differences that make it the way it is.
- 5) There is no one answer, no one vision, but there could be an agreement as to how to get there, and that as crises and struggles which will never end based on just the geography of the Philippines are met in the making of these plans they can be negotiated through, assimilated and assigned new meaning, each and every time.
- 6) Pushing through with the project could uncover more River Interface Units with different patterns, tribes, actors, systems, and values that could enrich the making of place in the Philippines especially in the midst of fathoming uncertainty.

In so doing and reflecting, I offer new dimensions for planning around the River Interface that could further push the path towards a pluriversal and renewed system of thinking, knowing, and designing that involves the most vulnerable sectors and landscapes.

dimensions for River Interface Planning

Synthesis of how the threads
of the River Interface could be more
deeply assessed, designed, and adapted
for future study and reference.



“Culture is the pattern that attention and intention imprint on a place and its enfolded ecosystem, tending and shaping and cultivating this root system of relations, helping it to take hold of a place like a forest clings to and gives shape to the mountain.”

- Nicola Sebastian (2022)

“To be truly radical is to make hope possible rather than despair convincing.”

- Raymond Williams (1989)

afterword

reflection | P5

On Preliminary Results

Undergoing the research process for this master thesis so far has led me to many different paths that I did not expect or perhaps initially avoided taking although ended up using more profoundly. It has also made me go full circle into the root of the project after much meandering, which is to forge an identity of a country, my country, so ravaged by complexities that there is no easy way to begin or perhaps even finish anything, moreover, make others understand. And yet, there is the attempt.

This project, I would like to believe, is also a process of my own self-making, and upon going back home to do the site visits, returning after almost 2 years away, the way I saw life itself and the project changed since P2. During my time in the Philippines, I was able to engage with two tribes from different geographical regions; the Dumagat-Remontado (Agta) in Mt. Daraitan, Rizal Province and the Agusanon Manobo in Agusan del Sur, which is an 864-km journey from Metro Manila, my city. The proposal of a new foundational space to observe and analyze, The River Interface Unit, proved to be viable in the critique of the current paradigm of development that is shaping the country and the River Interface itself, where truly the domains of the urban and indigenous meet and contend with each other. Coming into the design process was the difficult part. In tackling spirituality and cosmology in space, as well as the idea of a continuum of human-nature-spirit present in the indigenous cosmovision seemed and still seems impossible, and melding this with the goal of landing it as a project to transform it is even more out of this world, but this endeavor has led into producing a new way of envisioning futures particularly for the Philippines and the multiple River Interfaces we can find therein.

On Method, Approach, and Design Process

And so, I had to scour for other ways to assess the River Interface than the normative approach that I was used to, what was taught in design school, as well as in in the planning practice I’ve been part of in the country; mapping the risks, the provenance of problems, the systems and sectors involved in layers, and then integrating and formulating a comprehensive development plan for the future of the Philippines, no less. The very influence of the paradigm which I aim to dismantle was so strong and embedded in me that it feels almost impossible to resist just going through this “easy way”. Fortunately, with the guidance of my mentors and tutors of the studio, as well as friends who knew this approach was not who I am, has allowed me to rethink the method of a mere adaptive capacity assessment and then throw this into making another masterplan which could have been done in 2 weeks if one only aims to “make a design”.

From there I went back to my writing, my experiences on site, my engagements with the indigenous themselves, as well as with fellow activists, and anchored myself to the realization of what the true value of land or nature is to the indigenous; it is who they are. They are the land. And that eco-system services are not mere services that humans benefit from, they are land’s intentions as it is imbued with spirit and also deliberately acts in certain ways that do support, regulate, and provide for other living beings. And from there, I was able to build up and tell their story that would also shape the rest of the River Interface Unit, in where the approach became more intimate, more tender, although more painful for the reality it truly shows and how much harder it is to grasp to resolve, but there is something there. From this method, I was not only able to grasp how the indigenous persist amidst the neo-

colonial values that are leading in the country, but the true physical, social, and environmental impacts of this. The limits have already been surpassed, and yet we persist. And that goes back to the search as to what makes culture, particularly the indigenous culture, persist through the throes of centuries of colonization, industrialization, and now this predatory globalization. Frederick Steiner wrote in the introduction to an updated version of Design With Nature by Ian McHarg, “Culture is our most important instrument of adaptation (Steiner, 2019).”

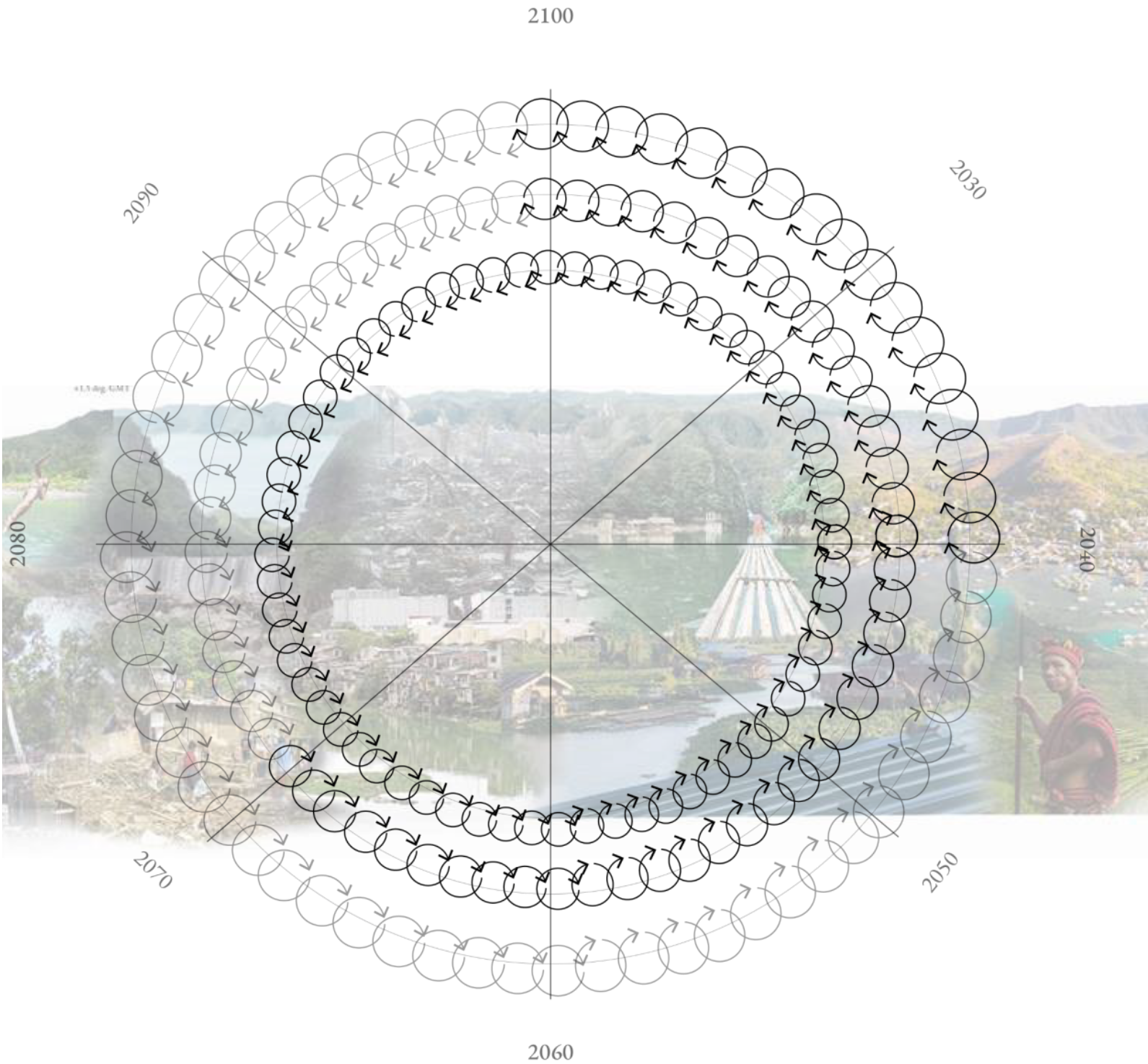
Then through all my engagements, although limited, and as well as the research material I was able to work with about this tribe, their tangible artifacts, their songs and language, their hunting-gathering culture, their sense of time and space, of how interconnected everything is, it is ‘memory’ and how they store this in culture, in their practices that is one with nature and what keeps them alive through all that threatens them day and night. The aspect of memory and how we use it in moments of crisis to return to a form of homeostasis and maintain self-identity resilience is founded on psychological evidence. And ‘nostalgia’ is the main concept that facilitates this mechanism of remembering the past to reassemble meanings of the present (Breakwell, 2021). Only through struggle can one know oneself and move forward, to adapt. Without struggle nor crisis, perhaps adaptation would not occur, and this is made functional through social connectedness. I returned to my P2 report and read through the part about Filipino Cosmology, and the first line reads, “Life is a struggle”. They have already accepted that life is about balancing the process between give and take, especially with the forces of nature. From that point on, such idea has carried me over what the fence of what the missing link was to able to move on to designing a project of both identity and climate adaptation.

On Connections

Urbanism is an act of leaning into chaos, and that is the beauty of it, I have come to see. With my project on the Philippines, it seemed quite fitting to be under the guidance and company of the Transitional Territories Studio and I’m glad to say, I was right. The last 7-8 months of sharing this project with them has allowed me to fully place my gaze and reframe my present as well as my own self-narrative about what I knew, what I know now, and what I want to find out about the multiplicities of beings that not only exist in the Philippines, but the entire world, and the forces that keep making us remake the environment we all live in – the biophysical, the socio-cultural, and the political – as both designers and human beings. In the beginning, I thought I would only learn about planning with water, sea level rise, or how the relationship of people with water could be facilitated in space, but now, the master program has led me to new horizons of thinking and rethinking the design process itself in the domain of shaping public space, understanding geopolitical situations, wondering about circularity, and more importantly how these processes have shaped me and everyone and everything I care about.

On Research Influencing Design and Vice-Versa

At this point, the research is chiefly what makes the design or designing the process, that without engaging in uncovering more layers of how else the rethinking of how one envisions and develops a design, it would certainly just be another design project that would sit neatly on a shelf to be flipped through by other design students or reveled at by family members. In the imagination of futures that are truly uncertain, designers can no longer dictate what there should



Cyclic Time; Past-Present-Future as One
Drawing from Indigenous Sense of Time
by the author

be, and so I find myself playing the role of a mediator between what people see and what are the elements there that are making certain things happen and what could happen if we go a certain way and then visualizing the process more than the product.

On Assessment of My Work

My entire way of working has been transformed by this project, not only because of the subject that it touches, but because of the freedom that comes with the endeavor of creating and imagining especially in a field such as urbanism whose canon is not as rigid, exact, and predictable. Although my skills as an architect help in representing or interpreting generally complex concepts, they are not enough for the heart of a project such as this, and so placing my work and representing as much of the ideas I can muster and presenting them to people allow me to review and see it differently, and so transforming the project itself and perhaps also the value I give it. Thus, pushing for using different ways of representation is a criteria now by which I assess my work, in that architectural drawings are not the only way to represent, but to evolve these to express complex ideas through systemic diagrams, collages, photographs, poetry, and other visual material – art. Moreover, design is an emotional activity for me, and if the direction of the method feels more frustrating and complicated than it should, I step back and reassess if it veers away from the core.

On Assessment of Academic and Societal Value, Ethical Implications of Project

In the context of TU Delft and the many design by research and research by design projects that have been birthed into being by the institution, I believe that pursuing this thesis as a Filipino designer, offering a different and decolonized view of the world, unraveling the megadiversity of the Philippines systematically in itself opens up the many inquiries and world-making that need to be represented, discovered, overturned as well as redefined in the field of design. As spatial design is being laid bare now as a form of ‘development disaster’ crafted by the tenets of colonization, underrepresented voices and new ways of seeing must be uplifted the same way the values of community, circularity, and authentic ‘sustainable’ design are being attempted to be expressed as desperately needed tonics to this globalized world we live in. From my own research and project, the implication in ethics is more about how far an agent-led approach can really mediate and communicate values of pluriversal cultures such as the indigenous whose ways of life do not necessarily need ‘plans’ to be able to foresee a future, and the question of whose and what standards do we adhere to now that we are decolonizing spaces and creating them as it is. There is much to unpack here.

On Transferability of Project Results

The results of the project made from the crafting of a new method of adaptive capacity assessment and the introduction of a River Interface Unit proffers a new typology of space that can be operationalized in different contexts with River Basins, Urban Domains, Indigenous Territories and Critical Biodiversity Areas, which if not all, interact and will respond to climate change and more anthropogenic stressors in different ways with different imagined futures. Then, proceeding to evaluate other River Interface Units in the Philippine context in the very least could be also pursued and operationalized.



The River as Endless Territory
Sitio Panlabuhan, Agusan Marsh, Philippines
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acknowledgements

This is truly a project to express my tenderness to my country, The Philippines, but more than the country and the people I was able to meet and share this project along the way with, I would like to acknowledge and thank the following people in my life who just allow and drive me to try in this complex path.

First, to my parents, Saturnino and Cristina Mejia, who were crazy enough to raise me and my brothers in a way that never hampered our desire to explore on our own and just to do everything we do with the knowledge that we pursue them with delight and for a purpose. For supporting me in every way, mentally, emotionally, financially, through my studies in TU Delft. I’m privileged and able to pursue all these because of you. In the end, this is all for you.

My younger brother, my nini, Gab Mejia, who in spite of everything we were both going through personally in the last two years, were able to support each other along the paths of our just trying to understand the world around us as tenderly as we can. I know I never say this, but you inspire me more than you can imagine and I trust my work because there is you trusting me.

My older brothers, Kuya Diego and Kuya Hajime, who through the years have tried to understand my work and also just be amazing cheerleaders through everything I do.

Jen, Fifi, and Dani, for the steadfast trust and navigating our relationship as colleagues and close friends in this tricky situation. Our work together remains beautiful and in spite the stress from working long distance, it has also reminded me of how I still love architecture and working with you.

To my beautiful friends and family back home and abroad, you all know who you are, who have cheered me on and also inspire the words that grace this report. Those who are also doing the work of attempting to redefine and change the systems of a nation deserving of so much better fuel my passion for a better future for all of us;

My newfound friends here in the Netherlands, thank you for bringing magic into the last few months of this study, for understanding and also finding wonder in my project and for dancing with me;

My mentors, Diego and Denise, for tbe beautiful guidance in the last year. For trying to unravel with me the multiplicities, the complexities that I tried and am still trying to unearth about the indigenous and my own agency in this world as an urbanist/designer;

and, of course, last but not the least

the rest of the Transitional Territories 2022-2023 family I’ve come to take with me through this journey, by allowing me to really grow this project in many unexpected ways as much as it can and have inspired me in taking this tender path towards revealing potentialities for a more caring world for all.

There is much to be done, but through design, as I have always believed, there is always hope. And that is enough.

The Source I: Tinipak River
Mt. Daraitan, Tanay, Rizal, Philippines
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the river as endless territory

project relevance

Professional

Many strategies for climate adaptation and data gathering therein for design research have been developed from Western ontological perspectives; it is time to make explicit and highlight perspectives and ideas from the Global South by people from the Global South whose very identities and freedoms are linked to this dominant paradigm left us with by historical colonization. The colonization process is not done by ‘independence days’ as seen here in the Philippine perspective, and that its effects are still acute and now more than ever with the Climate Crisis laying this all bare. This is but one way of presenting and understanding the multiplicities of the Philippines and the identities, resources, and risks that animate one another therein.

If the global scientific community indeed aims to progress, it must innovate from a standpoint of acknowledging and respecting diversity and the richness of many worlds yet to be discovered if only one truly listens, observes, and recognizes the systems that define them and their disciplines. As cultural anthropologist Wade Davis wrote, “The world in which you were born is just one model of reality. Other cultures are not failed attempts at being you: they are unique manifestations of the human spirit.” More than a critique of the dominant paradigms in research and development, the project’s significance lies in its potential for uncovering alternative ways of reframing the problems we have as a country, what makes our vulnerabilities the way they are and how nothing is impossible if we work together drawn from values that we all believe in. From here adaptive capacity assessments can be expanded to a more values-based position that does not only spring from the material, but also spiritual implications that is very much inseparable with the ways of life of the indigenous.

Social

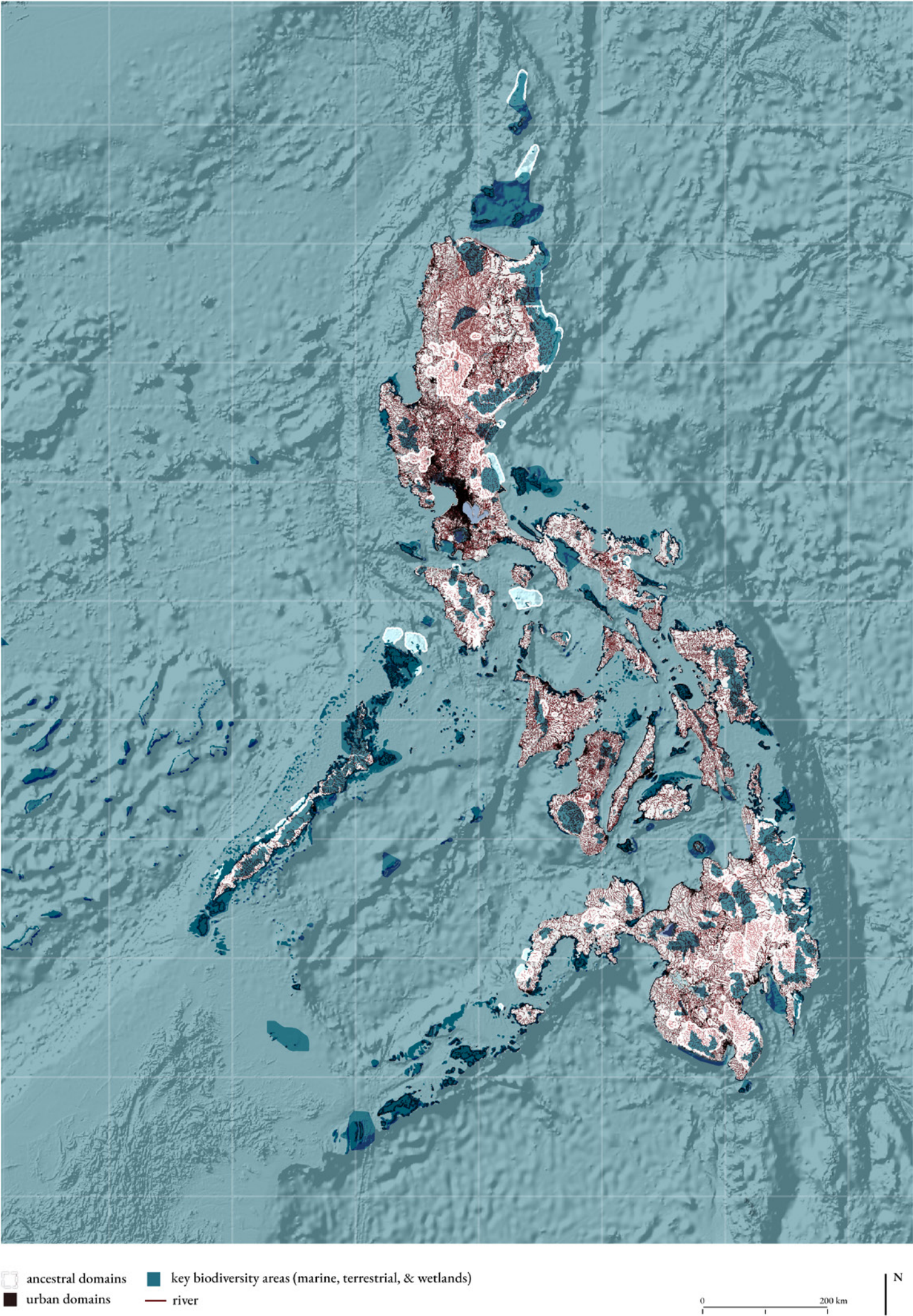
This project stems from the deep-set tenderness I have for the country I was born in - where my family and closest friends reside and fortunately are still able to choose to. These forces that are mentioned in this book have shaped me and millions of other Filipinos and by extension those they also affect in the world. Contributions of Filipinos are just as profound in the global community, and this unraveling and critical assessment of the nation and its appropriation can somehow provide clarity as to what has made us who we are and what more can be possible within the archipelagic territory so filled with beauty that would be a tragedy to lose. Identity is a vital component in being resilient and coping with threats that are many in this world, as both individual and community. If this research brings even a single Filipino closer to that understanding of a clearer self that can lead to a form of action, then I will have succeeded.

Ethical

In this respect, I must be cautious of how I apply my skills and knowledge as this designer in my aims of this study to bring out indigenous knowledge and practices into the realm of ‘mainstream practice’. In the act of decolonizing, there is always the question of who is decolonizing and how. The transitional design and research approach is one way of exploration I would like to divulge in and uncover its potentials for shifing the Western paradigms with that can also inform the very process of design universally itself. Ethical

considerations here touch on the decolonization process of the act of designing by the author herself. Reflecting on the very situation as an urbanite, raised within a global household that patronized western culture, I am fortunate to have been able to unravel this part of who I am and see for myself the many islands of the country that make us truly beautiful and how beauty and its manifestations in space, its production, is made by a deluge of confluences. As I explained the project to a foreign friend he responded about how what has been happening to the Philippines is some form of cruelty. “Cruel because the systems have been denying a lot of other people to see and love the country the way you do.”

Rivers as the Main Veins of a Scattered Nation by the author



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