Chapter

Local Knowledge, Community Experiences, Nature, Collaboration, and Resilience in Times of Pandemic, Uncertainty, and Climate Change in the Anthropocene Era

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Abstract

The pandemic afflicting the world is accompanied by a social, economic, political, cultural, and climatic multi-crisis. It is the crisis of the Anthropocene Era and modern paradigms. Modern society is in a complex situation. The responses to the multicrisis, including the pandemic, will probably come from the revalorization and resignification of experiences and socioecological knowledge of communities. Their historical experiences, currently fragmented by modernization processes, will be able to intercommunicate and, with resilient energy, open new possibilities for human and planetary life. It will be a great transformation, in which old and new models of development will be in tension. These tensions will also be expressed in the form of social and political radicalization and result in conflicts over natural resources, especially water, natural forests, ecosystems, and productive land. Human and planetary life is seriously threatened. Intellectual and scientific activity must connect with the ecological knowledge of local communities to defend human and natural life.

Keywords: Local knowledge, relocation, nature, interdependence, collaboration, pandemic, uncertainty, climate change, adaptation, resilience, commons, Anthropocene

1. Introduction

The global and local multi-crisis has cast doubt on the old, dominant paradigms of recent centuries, including the capitalist, neoliberal growth paradigm that has caused great damage to ecosystems but has "charmed" significant portions of the population with the siren songs of products and ease of buying on credit and an excess of consumerist advertising. The renowned ecological economist Herman Daly refers to the growth problem in the following terms:

> *"Steady-state comes from the realization that the economy is a sub-system of a larger system, the ecosphere, which is finite, non-expanding, materially closed. It's open to a flow of solar energy, but the Sun itself is non-growing. So those are the overall conditions of the parent system. If the subsystem keeps growing, it eventually coincides with the whole parent system, at which point it'll have to behave as a steady state. Purists would force me to say quasi-steady, because there is of course development, continuous evolution and qualitative change. But the Earth itself is not getting quantitatively any bigger, and there comes a point in the expansion of a subsystem where it encroaches too much on the operation of the system as a whole. We convert too much of nature into ourselves and our stuff, and there's not enough left to provide the biophysical life-support services that we need. Standard economics does not have any mechanism to register the cost of the economy's scale, relative to the biosphere" ([1]: 35).*

There is extensive international discourse on the ideology of growth. One of the authors who took on the problem early was Serge Latouche, in his book "The Bet for Degrowth":

> *"We are likely living through the sixth mass extinction of species. They (plants and animals), indeed, disappear at a rate of fifty to two hundred a day, that is, at a rate 1,000 to 30,000 times greater than that of the hecatombs of past geological times. But, unlike in the preceding extinctions, human beings are directly responsible for the current "decrease" in living beings and could very well be its victims...*

After a few decades of frenzied squandering, we have entered the storm... The acceleration of natural catastrophes – droughts, floods, cyclones – is already underway. The climate disorder will be accompanied by oil wars, which will be followed by water wars, as well as possible pandemics, not to mention predictable biogenetic catastrophes.

We also know that the cause of all this is our way of life based on unlimited economic growth. And, nonetheless, the term 'degrowth' sounds like a challenge or a provocation.

> *Thus, the term 'degrowth' is of very recent use in the economic, political, and social debate, although the ideas upon which it is based have quite a long history... The failure of development in the South and the loss of references in the North have led many thinkers to reassess the consumer society and its imaginary foundations, progress, science, and technology. At the same time, the increased awareness of the environmental crisis we are experiencing has added a new dimension. The idea of degrowth is also two-sided, as it has been shaped by both awareness of the ecological crisis and critiques of technology and development" (Serge [2]:9–15).*

It is important to note that this author established very early the impacts that the growth policy has had on the planet and the threats it represents to species preservation, as well as eventual conflicts, including wars, resulting from the fight for dominance over resources, including water. Among the catastrophes, he even mentioned, in 2006, "possible pandemics," mere years before the outbreak of the COVID-19 pandemic that is humanity is enduring. His book not only explains the meaning of degrowth, but also develops a strategy for achieving and advancing in a process of degrowth:

> *"Of the eight "R"s that make up the virtuous circle of building a serene degrowth society que (reassess, reconceptualize, restructure, redistribute, relocalize, reduce,*

> *reuse, recycle), reassessment is, logically, the first action and the basis of the process. However, relocalization is simultaneously the most strategic means and one of the main goals of reassessment. This translates, in a certain way, the old principle of ecological politics: think globally, act locally" ([2]:183).*

With very good reason, Latouche holds that many important activities of daily life still take place, in many countries, at a microterritorial level. In addition, in recent years a great number of non-profit organizations, including cooperatives, agricultural communities, exchange networks, daycares managed by fathers and mothers, ethical banks, fair and solidary commercial movements, and resale shops have flourished:

> *"Initiating concrete alternatives to leave the dead-end street of development takes place, at first, locally. It is necessary to revitalize local terrain, in both the North and South, first, because, even on a virtual planet, until proven otherwise, life is lived locally, but also to depart from development and the economy and fight globalization ...*

Relocalizing is, evidently, producing locally, essentially products that satisfy the needs of the population from local business financed from savings generated locally.

Relocalization, from a revitalization perspective, certainly involves the 're-enclose/re-compartmentalize' step. As much as possible, it is even desirable, as has been seen, to return to self-production. Self-production of energy is also a solid argument of relocalization. Renewable energy sources such as solar or wind are adapted to local implementations and uses. Losses due to transport and the theft of farmland are avoided. With the end of oil, producing and consuming energy as locally as possible will become a necessity" ([2]:188–190).

The strategy or core idea of possible escape from the crisis, which the author calls relocalization, coincides with various experiences recorded and analyzed throughout this book. In fact, interruptions to economic globalization and supply chains caused by the COVID-19 pandemic have increased the importance of the international discourse, in countries in both the North and South, on the need – even urgency – to redirect the focus to local and national spheres to resupply drugs, medications, vaccines, masks, and other essential products that, before the health crisis, used to be produced locally. However, such local production was abandoned by globalization that outsourced, with the support of governments and the interested action of multinational companies, some or all manufacturing processes, which were moved to countries or regions with "comparative advantages" – as argued for and applauded by neoliberalism – in terms of cheap labor (precarious work) and environmental deregulation (unprotected ecosystems and natural resources: mining resources, water resources, forests, soil, atmosphere, oceans, rivers human populations, etc.).

Relocalization obliges us to look to that which is nearby. To return our gaze and attention to our surroundings, to the socioecological spaces where life unfolds with its complex and interdependent social fabrics and interactions. It involves a return to real life, to the existential roots that join us as humans in living ecological niches.

In this regard, the anthropologist Alice Roberts gives us an interesting historical view of the processes of contact and interaction with the species that have shaped part of this civilizing process, which she calls "domestication", concluding: "Every species exists in an ecosystem – we are all interlinked and interdependent," as can be read below:

> *"Human history would have played out very differently if the other species we interacted with had been different – missing altogether, impossible to catch or domesticate, for example. We sometimes approach history as through we humans are so much the lords of our own destiny that external forces have little or no role to play. But the story of any species can never be told in isolation. Every species exists in an ecosystem – we are all interlinked and interdependent. And serendipity and contingency are woven into all the interactions that have played out in the course of our intertwined histories" (Alice [3]: 403).*

The multi-crisis and the Covid-19 pandemic in particular are casting millions of people into poverty and absolute destitution: without jobs, dignified housing, health, education, incomes and social support to subsist and feed their families. They are the new poor who are joining those who are already poor. For these people, the creation of a universal basic income that covers the necessities of life is urgently needed. In addition, the relocalization of production activities, guided by the concept of the sustainable circular economy, which decreases entropy and social and environmental liabilities as much as possible, would contribute substantially to reducing poverty and social and environmental vulnerability. The multi-crisis, particularly the health crisis, obliges us to regard health as a foundation that structures the health of society and nature in interdependence.

The neoliberal strategy of hypergrowth, based on the "free" market, has made it necessary to think of new development strategies and look to the past for knowledge and practices that are more environmentally friendly.

The illusion of unlimited growth, fueled by economic theories, is among the paradigms being questioned in the 21st century, as unlimited growth in a planetary system with limited resources and the use of only gross domestic product as a valid indicator of the development of nations can no longer be considered sustainable, as it is known that this famous indicator does not consider the environmental degradation caused by the sort of development that economic growth promotes as the cornerstone of higher levels of global development [4]. The big question raised by planetary limits is whether greater prosperity can be achieved without necessarily growing [5].

2. Ecology of knowledges and community experiences: socio-eco potentials of development alternatives

In recent times, fortunately, awareness of the magnitude of the socioproductive, institutional, cultural, and environmental problems and crises faced by modern society has begun to emerge. These issues consist of a set of challenges related to a planetary crisis that have turned development alternatives into necessary, current, and urgent strategies. The challenges are complex because they are associated with structural, historically cumulative problems: injustices, inequality, authoritarianism, violence, plunder of nature and emissions of all types of unsustainable waste that, at present, no revolution or reform has been able to confront or resolve with due decisiveness, efficacy, and historical depth. This is the Anthropocene Era, characterized by profound socioeconomic, ecological, territorial, geological, political, and cultural transformation of the planet and society by human beings.

From this global reality arises the importance of researching and preserving traditional local knowledge. Scientists from different disciplines have recognized this importance, indicating that, due to its complexity, it must be treated as interdisciplinary topics, the understanding of which requires holistic knowledge that goes beyond the limits of monodisciplinary sciences.

In this sense, the science developed by academia is indebted to the experiences and knowledge fostered for centuries in various communities around the world, including those cultivated in Latin America, inherited from pre-Columbian cultures: a debt of recognition, awareness-raising and valorization of the forms of local production and life and the multiplicity of historical practices that reflect a better and more sustainable treatment of ecosystems.

Attaching epistemological importance to local practices and knowledges that have been present throughout the history of modern society, precisely in uncertain times of economic, social and climate crisis could well – from their scattered, fragmented existence that is questioned by capitalist mega-models, particularly the neoliberal model – represent possibilities and hopes of more sustainable development than that of the model that currently prevails in many countries and regions of the world.

To advance the discourse on the meaning of local ecological practices and knowledges, an understanding of the concept of ecology of knowledges, proposed by Boaventura de Sousa Santos, who delves into the diversity of knowledges, is of interest:

> *"It is premised upon the idea of the epistemological diversity of the world, the recognition of the existence of a plurality of knowledges beyond scientific knowledge. This implies renouncing any general epistemology. Throughout the world, not only are there very diverse forms of knowledge of matter, society, life and spirit, but also many and very diverse concepts of what counts as knowledge and the criteria that may be used to validate it" ([6]:50).*

The author holds that this diversity of understandings and worldviews is situated in and arises from a territorial-political context exposed to constant inequalities and discrimination caused by capitalism and its model of colonial development, shaping what we typically understand as the North–South relationship. These knowledge systems that emerge can be called epistemologies of the South, understood as "demand for new production processes and valorization of valid knowledges, whether scientific or not, and new relationships among different types of knowledge, based on the practices of classes and social groups that have suffered systematic unjust inequalities and discrimination" ([6]:43).

According to Sousa Santos, the epistemologies of the South are based on two main premises: first, they have an understanding of the world that is broader and more comprehensive than that of the western view; second, it is necessary to understand that there is infinite diversity in the world, which includes diverse ways of being, thinking and feeling, multiple forms of building relationships among species, organizing, constructing an understanding of history, and producing various goods and services.

Based on these premises, it is understood that the responses of today's society to the challenges posed by the global crisis must not be limited to a purely western – including critical western – conception of action, but rather must be broadened to include and understand the diversity of traditional and emerging knowledge systems that exist. The author rightly holds that a significant portion of these systems and experiences of traditional knowledge are "largely wasted because the theories and concepts developed in the global North and employed in the entire academic world do not identify such alternatives. When they do, they do not valorize them as being valid contributions towards constructing a better society" ([6]: 44).

Western knowledge has acted hegemonically in driving the development of modern science and technology parallel to the expansion of the capitalist development model, characterizing the recent history of a large portion of colonialized

countries. The foregoing brought about the constitution of a system of scientific-technical knowledge charged with carrying out a "civilizing mission" in developing countries and regions, validating the hegemonic understanding of the domination of man over nature [7].

When addressing traditional ecological knowledge (TEK) and scientific-technical knowledge (STK), we can visualize two currents that, in the words of Souza Santos, make up a duality of knowledges that historically have been related, with traditional knowledge – for centuries – having been practically relegated or rejected by formal science; only amid the current global crisis have some scientists come to look at and reflect on the adaptation capacity of indigenous peoples and rural societies, with particular attention to traditional ecological knowledges [8].

In the view of Mexican academic Enrique Leff [9], STK is a more recent current of knowledge, associated with the scientific-technological revolution, unleashed by the dynamics of capital and industrialization processes, where the extrapolation of knowledge in different times and contexts is appealed to.

In this dialogue between knowledge systems, Berkes et al. [10] define TEK as a "cumulative body of knowledge about the relationships of living things and their environment, evolving through adaptive processes" (2000: 1252). Other authors hold that this knowledge represents a cultural teaching-learning model in which the symbolisms and intergenerational transmission of information are the central elements; these elements ultimately construct worldviews through which peoples have interpreted the relationship between humans and nature [11–13].

These systems have developed a close relationship with the territories in which they exist, creating a bond that encapsulates the difference experiences of the commons of life. As David Bollier states: "These commons integrate economic production, social cooperation, personal participation and ethical idealism into a single package" (2016: 13). Valorizing the offerings of TEK, Hill et al. [14], state that traditional systems contribute to sustainability in various contexts, serving as a contribution to the study and conservation of biodiversity and ecosystem services.

The same authors carry out a characterization of TEK systems based on three key facets: first, this type of knowledge has a holistic component, as it addresses economic, political, and cultural aspects such as governance, family institutions, practices regarding use of available resources, and various worldviews, as well as rituals and languages. The second characteristic of TEK is that it is diverse, and while there are some occupations and groups that exist all around the world (farmers, fishers, traditional doctors, etc.), they present different cultural systems that are constructed in and adapted to diverse ecosystems. Finally, traditional ecological knowledge systems are governed by different cultural institutions, with each generating and applying its own systems of validation, rules, and coexistence [14].

The role of TEK in the survival of traditional communities is defined by authors such as Gómez-Baggethun et al. [15], who emphasize that these social structures provide elements that allow an understanding of how to adapt to changes a territory is undergoing. Alzate et al. [16] state that "one of the main ways which TEK contributes to building resilience in socio-ecological systems is by promoting bio-cultural diversity" ([16]:340). Thus, research processes that address this knowledge must be aimed at including territorial actors and generating knowledge co-construction relationships [17].

It is precisely this traditional knowledge that represents a new analysis perspective, of great value for the re-understanding of the relationships that human communities establish in and with a territory, allowing more sustainable management and governance of resources such as water. This management can also be complemented by new water technologies that allow more sustainable, efficient, and horizontal modes of production for local needs.

García Flores [11] reviews and discusses how sociocultural factors are important in natural resource management, again highlighting the mechanisms through which traditional knowledge is learned and spread, specifically through language, observation, and practical experience. The foregoing is evidence of the relationships that rural societies and indigenous peoples have developed over centuries, in which "people carry out everyday tasks, expressed in activities that affect the obtainment of sustenance and other benefits" ([18], cited in García Flores [11]: 262).

The practices and knowledges developed by these peoples also represent the embodiment of elements associated with local identity. María Ester Grebe highlights that "ethnic identity and self-recognition of the indigenous person is greater in meeting and interaction spaces" ([19]: 66); these aspects make up the basis of the cultural institutions that are constructed by indigenous peoples, influenced by the current migratory pressure that moves communities to urban spaces, which ultimately weakens knowledge systems.

When all these elements are considered in practical terms, TEK represents an eco-cognitive potential of great value for moving forward a process of new understanding of and interaction with ecosystems, while also driving processes of co-construction, dialogue, and productive collaboration with modern scientific-technical knowledge.

Interesting experiences regarding the interrelationship between the traditional and the scientific-technical are highlighted by Šūmane et al. [20], who offer the example of TEAGASC, an Irish research and education agency that carries out joint work between farmers and researchers, allowing ongoing feedback and the implementation and validation of new technologies in agricultural systems and advancing sustainable education initiatives. Meanwhile, Miguel Altieri and Víctor Toledo complement and confirm this – positive – trend in stating that many traditional systems have resisted the passage of time, which has allowed the documentation of a "successful and resistant indigenous agricultural system" ([21]: 593); such practices allow, for example, low agrochemical use and high yields over time. Interaction between traditional knowledge and technical knowledge produces synergistic effects, leading to better sustainability models generated on a local scale.

Common practices for indigenous communities and rural societies such as vegetable gardens or small farms, seasonal crops and irrigation techniques are some of the many and varied examples of dynamics that have allowed these groups to manage their resources since pre-Hispanic times. In fact, the "the diversified use of geographic space allowed rural populations the possibility of coping with variability in access to resources... thereby decreasing vulnerability to environmental disturbances" ([22]: 262).

Local practices, knowledges, and experiences regarding territorial governance and solutions to various socioecological problems that affect modern society represent important spaces for community management of social coexistence and coproduction of goods and understandings, but for them to be truly effective and continue into the future, the support of local and state institutions is required. The COVID-19 pandemic has shown that the state has been an absent figure in many societies, including Chilean society, as a result of the extreme application of neoliberal orthodoxy that favors the role of the market, which does not exactly operate under standards of justice or equity. Nor does the market understand the functioning of ecosystems, the limits of growth, or solutions to pandemic diseases. Something similar has also been observed in politics and among the elites of organized power. The absence of the state, especially in the social, work, health, and education spheres, has been felt strongly among the most vulnerable populations, which are all too abundant in Latin America, resulting in increasing levels of poverty, anxiety, desperation, and vulnerability.

To come out of the multi-crisis well, a new type of state is required: close to citizens, indigenous communities, young people, boys and girls, women, workers, and producers; institutions that promote the deglobalized and sustainable circular economy, that are open to dialogue, innovative, promote research at all education levels, and protect nature and its ecosystems, the providers of life, are required.

Finally, in the context of the current evolution of modern society, information accumulation and development of scientific knowledge and new, efficient technologies, there are enormous possibilities and opportunities to establish a synergistic, positive interrelationship between scientific findings and traditional knowledges produced, tended to, applied, and preserved as genetic and cognitive banks by various peoples, especially indigenous communities around the world.

The COVID-19 health crisis and climate change in particular represent enormous new challenges for the appearance and valorization of inter-knowledges.

3. Challenges of global climate change: inter-species collaboration and universal basic income

Climate change, irreversibly underway, demands that we move beyond the human visions of the industrial fossil era. The few decades (probably between 20 and 30 years!) that remain before reaching the – impassable – limit of 1.5 or 2 degrees of global temperature increase (as established by the Paris Agreement of the United Nations Framework Convention on Climate Change of December 2015, signed by 195 countries), require urgent thinking of new post-Anthropocene visions and more sustainable action. Climate change and the COVID-19 pandemic are undoubtedly the most serious, complex problems faced by humanity and the planet. They are very difficult to solve, especially the former. In fact, due to the advanced state of CO^2-emission accumulation, climate change can only be slowed. Indeed, since the beginning of the Industrial Age, the concentration of CO^2 emissions has increased exponentially, significantly altering historical climate variability cycles. In the year 1000 (A.C.) the CO^2 concentration was 280 ppm (parts per million), a quantity that remained stable for thousands for years. This CO^2 volume was indispensable – as a stable greenhouse gas level – to maintaining temperature levels that made – make – natural and human life on the planet Earth possible and sustainable over time. However, in mid-2020, the CO^2 concentration reached 420 ppm. According to data from 2017 the countries responsible for the greatest quantities of CO^2 emissions were: China (1; 28% of total emissions) followed in descending order by the United States (2; 14%), India (3; 7%), Russia (4; 5%), Japan (5; 3%), Germany (6; 2%), South Korea (7; 2%), Iran (8; 2%), Canada (9; 2%) Saudi Arabia (10; 2%), Indonesia (11; 2%), Mexico (12; 1%), Brazil (13: 1%), South Africa (14; 1%), Australia (15; 1%), Turkey (16; 1%), the United Kingdom (17; 1%), Italy (18; 1%), France (19; 1%), Poland (20; 1%) [23].

Twenty-first century society faces major, cumulative transformations that continue to occur, including climate change. Altogether, it is a profound multi-crisis, which can be characterized as the socio-environmental-climate and health crisis of the Anthropocene Era. Indeed, global climate change currently presents a geological dimension of risky alteration of the planet. Thus, it is a planetary threat for far-right political forces and governments to cling to neoliberal fossil capitalism, irresponsibly ignoring the dire consequences of the crises. Stager dates the beginning to the Anthropocene Era precisely to the start of the Industrial Age:

> *"The Anthropocene began during the 1700s when our greenhouse gas emissions started to change the atmosphere significantly" ([24]: 17).*

Meanwhile, the COVID-19 pandemic is casting millions of people into poverty and absolute destitution: without jobs, dignified housing, health, education, incomes, and social support to subsist and feed their families. They are the new poor who are joining those who are already poor. The absence of the state, especially in social, work, health, and education spheres, has been felt strongly among the most vulnerable populations, which are all too abundant in Latin America, resulting in increasing levels of poverty, anxiety, desperation, and vulnerability.

However, the slowing of outsourcing-driven globalization and the temporary interruption of supply chains caused by the COVID-19 pandemic have increased the importance of the international discourse, in countries in both the North and South on the need – even urgency – to shift the focus to the local and national spheres to resupply drugs, medications, vaccines, masks, and other essential products that, before the health crisis, were produced locally.

Overcoming the multi-crisis will be a complex challenge: it will require new cultures, leadership, visions, public policies, lifestyles and forms of development. The Anthropocene Era crisis could give rise to a transition to a new age, demanded and hoped for by millions of defrauded citizens outraged by malaise and mobilized in different parts of the world: they demand healthy, quality living conditions and development underpinned by common goods such as water, basic foods, the atmosphere, oceans, clean air, good social relationships, biodiversity, green production, and renewable energy.

More substantial solutions with future prospects would require, for example, the creation of a universal basic income that covers the basic necessities of life. Universal Basic Income represents the social condition of resilience.

> *"By 'basic income' we mean an income paid by a political community to all its members on an individual basis, without means test or work requirement" ([25]: 25).*

Poverty has accompanied humanity throughout its history. According to Rutger Bregman:

> *"Where 84% of the world's population still lived in extreme poverty in 1820, by 1981 that percentage had dropped to 44%, and now, just a few decades later, it is under 10%" ([26]:11).*

For centuries, inequality has been a problem that has affected millions of people: it has been expressed in poverty, discrimination, marginalization, mistreatment, bad jobs, low incomes, poor health, poor diets, and, indeed, low life expectancy. For many, life has become endless suffering, frustration, hopelessness, fear, and anxiety.

Nonetheless, in the second half of the 20th century and the early 21st century, the situation has improved substantially for certain social sectors, but there remain enormous differences and sociological inequalities, with millions of people struggling to survive in conditions of vulnerability and poverty. This reality affects families of workers, the unemployed, and the impoverished middle class. Furthermore, the COVID-19 pandemic has produced new poor people.

The universal basic income is one of the valid alternatives to confront the problems of poverty and social exclusion in the 21st century. It is an idea that has gained importance in different regions and countries:

> *"When I first began writing about basic income, most people had never heard of it. Now, only three years later, the idea is everywhere. Finland and Canada have*

> *announced large-scale experiments... And in my own country, the Netherlands, no fewer than twenty municipalities are putting basic income into action" ([26]: 241).*

In this regard, it is interesting to note that already in 1948, in Article 25 of the Universal Declaration of Human Rights, one could read about the topic:

> *"1. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control" (Universal Declaration of Human Rights, Art. 25, United Nations [27]).*

This United Nations declaration practically enshrines social rights as a human right.

In conservative quarters it is argued that under this policy no one would work and that financing it would be impossible. But the cited basic income defenders have carried out studies on the enormous costs of the bureaucracy that handles poverty, unemployment, and hundreds of subsidy measures. Neoliberalism, meanwhile, subsidizes big businesses (through taxes on the exploitation of nonrenewable resources such as mining resources) and maintains undignified policies of provisional and temporary vouchers – so-called "targeted policies" to partially "make up for" market deficiencies. COVID-19, a true tragedy, has unmasked the lie and inefficiency of these neoliberal policies and raised a cry for the implementation of a universal basic income that actually protects vulnerable people in times of multiple crises and pandemics, which cause uncertainty and anxiety in most of the population. Basic income will not discourage people from working. It is merely a basic support that will allow people, through decent work, to aspire to a better quality of life and personal fulfillment and secure their futures.

Another possible way to a solution is the relocalization of production activities, inspired by the concept of the sustainable circular economy, which decreases entropy and social and environmental liabilities as much as possible, and would contribute substantially to reducing poverty and social and environmental vulnerability. The multi-crisis, particularly the health crisis, compels us to regard health as a foundation that structures the health of society and nature in interdependence. Relocalization obliges us to look to that which is nearby. To return our gaze and attention to our surroundings, to the socioecological spaces where life unfolds with its complex and interdependent social fabrics and interactions. It involves returning to real life, to the existential roots that join us as humans in living ecological niches.

Finally, collaborating rather than competing against each other will make us greater, more human, and happier as people and communities. Collaboration represents virtue and nobility that emanate from the depths of human nature. It is also a natural form of inter-species collaboration in the biosphere. Human life, since its conception, has been ontological collaboration, the foundation of the human being that can only achieve fulfillment as a person through interrelationships with others and nature.

In this regard, in 2020 the United Nations Intergovernmental Panel on Climate Change (IPCC) recommended recognizing and applying indigenous and local knowledge to combat the negative impacts of climate change on agriculture:

> *"Agricultural practices that include indigenous and local knowledge can contribute to overcoming the combined challenges of climate change, food security, biodiversity conservation, and combating desertification and land degradation*

> *(high confidence). Coordinated action across a range of actors including businesses, producers, consumers, land managers and policymakers in partnership with indigenous peoples and local communities enable conditions for the adoption of response options (high confidence)" ([28]: 31).*

4. The commons as a life reserve: sense of community, collaboration, identity, and adaptation to crisis

In times of multi-crisis, such as that we are living through, the need arises to reflect on different alternatives – beyond those we have already pursued – that we could draw upon to confront the unknown scenarios to come. This crisis is also one of thought, current paradigms, science, and even the future we face; therefore, no one today can claim to have "the answer" to the crisis. The scale of the global crisis does not admit magical formulas or simple answers, and much less does it leave room for definitive, conspiratorial, or fundamentalist answers or strategies, which usually emerge in times of crisis and human anxiety and desperation.

Indeed, various alternatives have emerged, of varying relevance and influence in this complex reality; many of these paths will be – are already are – pragmatic responses to problems. For example, the hunger that affects millions of people in the world as a result of the COVID-19 pandemic and the ensuing social crisis have given rise to thousands of soup kitchens, community meals, spaces springing out of human solidarity, an innate intangible good in human nature that, appears precisely when governments, in various countries, offer neither rights nor protection to all people.

This solidarity rooted in the foundation of communities represents a life reserve that must be cared for and applied at all times to create a just, sustainable, and enduring social order for future generations. According to David Bollier, such experiences are instances of the commons in life, and they "represent a practical paradigm of self-help and collective gain. The commons is essentially a parallel economy and social order that quietly but confidently affirms that another world is possible. And more: we can build it ourselves, now" (2016: 13). These same practices reaffirm and give insights into the possibility of building a new paradigm.

The global crisis of the Anthropocene Era could give way to the emergence of a new age, one of life and development rooted in common goods such as water, the atmosphere, oceans, clean air, good social relationships, biodiversity, green production, and renewable energy. There are different traditional representations of the commons, including the legal representation, which tends to limit the concept to certain global goods such as water, air, or knowledge, and that rooted in philosophy, which links the commons to the universal, posing the idea that the commons belongs to all of society [29].

Other core values in thought on a new paradigm based on sustainability and ecological knowledge systems are collaboration and trust, which are human spheres that contribute par excellence to the development of social life and personal fulfillment. American sociologist Richard Sennett [30] has researched the historical course of cooperation, acknowledging its strengths and weaknesses; according to the author: "natural cooperation begins with the fact that we can't survive alone. The division of labour helps us multiply our insufficient powers, but this division works best when it is supple, because the environment itself is in a constant process of change" (2012: 107).

Meanwhile, structural inequality and digital socialization limit the abilities of new generations, which are naturally more equipped to fully connect with each other and cooperate more deeply. At the same time, isolation and hierarchical

authoritarianism at work weaken the sense of cooperation by creating mistrust. In contrast, teamwork strengthens collaborative capacities. Sennett states that current forms of capitalism promote the fragmentation of institutions, giving way to short-term work, which weakens relationships and collaborative support; the promotion of such practices builds the idea of a "perverse solidarity," narrowing spaces for a "dialogic" and empathetic interrelationship among members of the community, which runs counter to the history of the social human being, as, according to the author, we are "capable of cooperating more deeply than the existing social order envisions" ([30]: 329. Cited in [31]).

All these reflections lead us to put the focus on the community as an ideal space to seek a good quality of life, but this idea is in direct conflict with the current situation, in which these relationship spaces must struggle to survive; Sennett's theory states that elements such as faith, identity, and informal sociability are the keys for communities – especially among poor or marginalized portions of the population – to build support networks, establishing the values and limits of the relationships that are developed. According to the author, "these limits are political and economic; value, on the other hand, is social. Although the community cannot completely fulfill a life, it promises important pleasures" ([30]: 383).

The crisis invites us to search for alternative ways of life and development crisis. Against this backdrop, *Buen Vivir* or Sumak Kawsay, historically practiced by Andean peoples, has emerged, or, more precisely, has been resignified and revalorized [32]; indigenous people of the south, such as the Mapuches, call it "*Kume Mongen*."

According to Diego Ancalao [33], professor and scholar of the Mapuche worldview, these *Kume Mongen* or *Buen Vivir* proposals require one to move beyond current ideologies that, however legitimized they are, have failed; an example is capitalism, which alludes to the free use of money as the center of development. The main difference of the Mapuche – and indigenous in general – worldview is the center of development, as these peoples place life at the center, understood as the only way of sustaining or species over time.

The current crisis makes us redirect the development focus and reminds us of the fragility of life; facing a climate change scenario and the pandemic teaches society an important lesson: "that we are all undoubtedly equal and that the value of life is primordial" [33].

An understanding of these visions directs us to the formation of an economy of the common good, about which Christian Felber [34] states that "in regard to our friendships and everyday relationships, we thrive when we live in accordance with human values: the building of trust, honesty, esteem, respect, empathy, cooperation, mutual help and sharing" (2014: 29). Such a perspective moves away from the logics laid out by the free market economy, which is based on competition, which ultimately unleashes values such as envy and greed, principles that, in large part, have led us to a complete, catastrophic transformation of the world, dividing us as individuals and a society.

Felber states that in the future, the values that have allowed the existence of society to date must be repositioned as the backbone of economic relationships, with our attention turned to the main human values, those we have highlighted and that center the search for the common good and cooperation [34].

These values – cooperation, respect, empathy, solidarity – have been at the foundation of the historical constitution of the human being, whether forming one's closest circles or giving rise to an endless multiplicity of communities with different characters or orientations, while also lending importance to the condition of being a society and constructing the different rationalities present in the world; among the various spaces for communal relationships, we can mention neighborhood

(grassroots organizations, community meals, for solidarity purposes), ethnic, youth, school, athletic, regional/local, academic and institutional (non-profit NGOs, associations), and production (family gardens) communities and socioenvironmental movements; it can be stated that in every human activity values that are not governed by individualism, selfishness, gain, accumulation of power, and commercial competitiveness are put into action and flourish. Furthermore, common sense values that are true gifts, similar to the previously mentioned ecosystem services, circulate. These relationships are not based on a monetary value; rather, they require only reciprocity from those involved.

In this case, the commons can be spoken of as reserve of life, collaboration synergies, and relational democratic governance. The global crisis demands exactly these commons, that which makes up part of social/natural life, but has historically been expropriated from local contexts. Nonetheless, many disadvantaged families make use of these valuable human and natural resources – the commons – to survive the dire pandemic and environmental emergency.

However, while it is relatively easy to talk of the commons, it is more difficult to understand the process of "enclosure of the commons" that culture and sources of traditional values are subjected to by the capitalist market, especially the neoliberal market, raising the question of how this enclosure process occurs. David Bollier [35] states that, faced with the uncontrolled power of the markets:

> *"it becomes quite clear that the privatization and commodification of our shared wealth is one of the great unacknowledged scandals of our time. This process is often called the enclosure of the commons. It's a process by which corporations pluck valuable resources from their natural contexts, often with government support and sanction, and declare that they be valued through market prices. The point is to convert resources that are shared and used by many to ones that are privately owned and controlled, and treat them as tradeable commodities" ([35]: 43).*

A review of the history of common goods shows that they have been present throughout practically all human history, with their presence and application merely hidden in some periods, mainly by the prevailing rationality. In the Roman Empire, shortly after the year 500, universal common goods such as air, running water, and the coast were already recognized. These rights, arising in Rome and ratified in the Magna Carta, laid the groundwork for what today is discussed in international law, and in their time ensured the sustainability of communities and the environment that surrounded them [36].

It is paradoxical, not to mention curious – and absurd – that, in the 21st century, we are still discussing the public or private nature of resources such as water and, of course, many other natural resources that have historically been recognized as common, public goods. In this regard, the Chilean discussion is important, but the country must learn from the past, including its own history, and modernize the legal status of natural resources such as water its approach to defending them; water in particular is scarce and diminished as a result of institutional management, extractive production activities, and the negative impacts of climate change.

The history of the commons continues to unfold, despite the enclosures being carried out by large multinational companies, with the complicity of governments; this history must be recognized by governments in the same way that societies have already recognized it, rooting and recognizing the different expressions associated with these common goods. Recognition or particular attention has been given to only some commons, ascribing a traditional character to them, with the focus on natural resources such as water, forests, arable land, or biodiversity.

These commons that have been recognized and are the focus of contemporary research seek to solve the problems of sustainable access, management, and distribution of natural resources; it is here that some communities and bioregions have experimented, using their local knowledge systems. Thus, many examples have emerged, which, according to Bollier [36] ultimately develop "a socio-ecological system that blends social customs and practices with the natural dynamics of a river, forest or farmland" (2014: 128).

The commons that operate outside the market system are vital for around "two billion people in the world" ([36]: 129). The massiveness of the commons that are present and operate in different territories is accompanied approaches to local self-determination of these communities, which are a means of celebrating and protecting their distinct identity-forming elements, reaffirming their sense of rootedness.

David Bollier [36] highlights some examples of these commons that have been valorized by local communities. In Peru, the Potato Park, created as a "landscape conservation commons," has given Andean indigenous groups the possibility of exercising their right to manage a variety of endogenous species of this tuber, maintaining the productive heterogeneity developed by the ancient Incas: "Officially known as an Indigenous Biocultural Heritage Area (PBCI), the Potato Park authorizes 7,000 villagers from six indigenous communities (Amaru, Chawaytire, Cuyo Grande, Pampalaqta, Pau-Paru and Sacaca) to jointly manage their communal land for their collective benefit" ([36]: 130).

Another interesting example, worthy of repeating, comprises ways of preserving traditional knowledge, driven by commoners in India, who have created the Traditional Digital Knowledge Library, a platform that acts as an organizer and database of ancestral medicinal knowledge, in addition to serving as a means of resisting the advancing pharmaceutical patent market. A third example highlighted by Bollier consists of the legal instruments created by South African lawyers called "biocultural community protocols," which are also intended to conserve the expressions associated with traditional ecological knowledge systems [36].

There are certainly numerous valuable experiences with commons in various corners of the globe; indigenous communities in Chile have maintained and continue to develop ancestral practices guided by these commons in different aspects of life: in agriculture, along coastlines and riverbanks, in forests, and through countless rites, traditional customs, unique institutions, religious worldviews, and community social relations. The preservation of these ways of life has resisted colonialism and the interventionist power of the modern state and big businesses, with little support from current government institutions.

As we have seen, such experiences have taken place in many countries, and the global crisis has lent them greater visibility, highlighting their effectiveness at confronting some of the basic problems of the population. In the face of the absence of or abandonment by the state, the population resorts to these common experiences and knowledges, mobilizing millions of people motivated by ancestral culture and armed with good feelings and innovative initiatives.

The commons are not relics of a "premodern" past that must be wiped off the map and removed from socio-productive life; on the contrary, the commons, relevant in many places and regions in the world, represent a true life reserve and hope for change from the current prevailing way of life. They represent deep-rooted cultures endowed with powers and values capable of confronting the great problems and challenges presented by the global crisis. Of course, their solution is neither "magical" nor the only solution; rather, it is simply one of the many valid alternatives that, to the extent that it has survived many previous crises throughout

history, also contains innate strength to face the current crises. That which survives does so because it has the internal and ecological strength to achieve survival; therefore, it should not be undervalued. Instead, the commons should be resignified and revalorized as solid spaces for opportunities for a new start and a sustainable future.

The commons comprise a socio-natural, historical foundation that, along with basic income and good social life, provide greater security and can decrease existential anxieties, making them a crucial supporting condition for the human and community resilience of the social being.

5. Resilience of the social being and good public policies: adaptation capacities amid disasters, anxieties, and pandemics

The modern age, in philosophical and sociological discourse, is considered the age of uncertainty. The crisis of reason – and its diverse rationalities – as an absolute instrument to understand and direct human activity that rules us up to the present day, introduced uncertainty to life. No longer would anything be certain. Reason could cause one to question anything. According to Hegel, reason would play the historical-idealist role – understood as an immanent process – of self-comprehension of the world or self-affirmation, in the words of Habermas. Meanwhile, Max Weber defined this process as the "disenchantment of the world." Adorno, in defining the role of sociology in modern life, refers to "revealing" reality, showing it as it really is at its core that is hidden by the system of domination. Ulrich Beck conceptualizes the global risk society when referring to the evolution of the capitalist world and its self-exposure to insecurities and risks that are intrasystematically organized by the powers that be. Edgar Morin developed the theory of complex thought specifically to confront the risks of the blindness of positivist, linear thought and overcome the uncertainties an threats of epochal collapse. And Boaventura de Sousa Santos, in his Epistemologies of the South, appeals to the ecology of knowledges and inter-knowledge to face the environmental and development crisis.

As the modern age has arisen marked by uncertainty and insecurity, the individual feels thrust into an uncertain future that he must try to understand and somehow adapt to if he wants to survive and achieve a certain level of wellbeing or even happiness. In other words, to enter modernity means to enter unknown terrain of human fulfillment, which of course causes insecurities and anxieties over present and future life, historically reinforced by tragedies and catastrophes of various sorts, as expressed very well by the authors Evans and Reid:

> *"Catastrophically speaking, the prevailing mode of contemporary affect is a state of normalised anxiety. Fear of course remains a constitutive element. But it is anxiety which is more apt in explaining the well-being of the resilient subject. Anxious conditioning is default setting for a system which is insecure by design" ([37]: 128).*

The exponential increase in socio-natural disasters, particularly those fueled by global climate change and, currently, the terrible human impacts of the COVID-19 pandemic, has led to frequent use of the concept of resilience as a human capacity to resist catastrophic events and readapt to new situations of vulnerability and existential uncertainty. It is a form of appeal to immanent capacities, to the human and social capital of people and communities to confront grave problems and threats to life and planet Earth. Thus, it is very enlightening to refer to the terms in which renowned psychologist Sula Wolff defines resilience:

> *"Resilience is an enduring aspect of the person. Genetic and other constitutionally based qualities both determine and are in turn modified by life experiences. Good intelligence plays a major part, as does an easy, adaptable, sociable temperament which, together with an appealing appearance, attract positive responses from others which in turn contribute to that inner sense of self-worth, competence and self-efficacy that has repeatedly been identified as a vital component of resilience. The sources of such positive responses are threefold: primary relationships within the family; the network of relationships with adults and children outside the family; and competence and achievement" (Sula Wolff [38], cited by [37]:139–140).*

Resilience is naturally a very important human capacity when facing a multi-crisis, threats, and catastrophes, but it is not enough as a lone, isolated resource. Furthermore, as the author notes, resilience depends on genetic, inherited factors, good families, and good socialization, but it also depends on external factors and determinants, especially the sociocultural and ecological conditions in which one must live, which can benefit or harm the development of personality, self-esteem, and, therefore, resilience capacities.

The passage from uncertainty and human suffering and anxieties to the enjoyment of greater and better levels of certainty and personal and community security also depends on the quality of the sociocultural environment, especially good public policies, basic state protection of children, young people, adults, women, and indigenous communities, as well as the ecosystems – their biodiversity – in which human life unfolds interdependently. The COVID-19 pandemic has hit the population unevenly. According to preliminary assessments, the most vulnerable populations, those without adequate infrastructure, good housing, space to spread out, economic resources to endure and survive job losses, that live in areas without drinking water and local primary health services (hospitals, clinics), that do not have access to healthy food or green areas, or simply lack social support networks, as often happens with seniors; these most disadvantaged, social sectors, poor or impoverished by the pandemic, have been – are – the people, families, and communities that have suffered the most terrible consequences of the spread and mutations of COVID-19. They have suffered the most infections and losses in their families and closest social circles. Indeed, in Latin America there are millions of people who, abandoned by the neoliberal state, have suffered grave consequences of the pandemic. But this has also occurred in developed countries, in the countries of the so-called "North."

Good public policies that are concerned with and strengthen the social being and human life and protect ecology and common goods are fundamental pillars for facing the crucial moment that humanity, communities, and the planet are living through with strength, scientific knowledge, physical and mental health, innovation, and human sensitivity and opening new paths to present and future socioecological sustainability.

6. Concluding remarks

In this chapter we discuss the illusion and threat of unlimited growth on a finite planet with limited resources. The neoliberal model has driven this trend during the last 40 years in Latin America and other regions of the world, bringing some economic prosperity, but under an unequal distribution of benefits and environmental degradation. It is then about moving towards a model of sustainability in harmony and respect for nature and reestablishing a new relationship between society and nature. In that sense, a potential path to recovery is to look back, turn to traditional and ecological knowledge that could help modern society increase resilience and

move towards a more sustainable society, preventing the collapse of the planet and providing quality life to the population.

Now, to open towards a more eco-human society, it is necessary to deal with the narcissistic culture present historically and in various ways in social and institutional life, as Lasch has studied in depth:

> *"Narcissism is, realistically, the best way to deal with the stresses and anxieties of modern life. Current social conditions tend to bring out narcissistic traits that are present to a greater or lesser degree in each of us. These conditions have also transformed the family, which shapes the underlying structure of the personality. A society fearful of having no future probably pays scant attention to the needs of the next generation, and the ever-present sense of historical discontinuity - the ruin of our society - falls with devastating consequences on the family."*

The perception of the world as a dangerous and restrictive place, although it originates from a realistic understanding of the insecurity of modern social life, is reinforced by the narcissistic projection of aggressive impulses. The belief that society has no future, which implies a realistic perception of the dangers that threaten it, incorporates at the same time the narcissistic ineptitude to identify with posterity or to feel part of the historical flow"([39]: 74–75).

For its part, according to this author, the prevailing social bellicosity in modern society - which would tend to produce antisocial men and women - would weaken social ties, as a reflection of a narcissistic defense of dependency. The author places narcissism in a permanent struggle between the desire/illusion of self-sufficiency of the human being and the dependence imposed by its own limits and life in society. Furthermore, he rightly argues that modern capitalist society "makes explicit and reinforces the narcissistic traits of everyone" ([39]: 280). This trend is clearly expressed for example in the promotion of aggressive mass consumer behaviour, fashions, individualistic competitiveness and, in general, in the ontological belief of individuality. Lasch sees the way out of this kind of existential dualism in the limits:

> *"The great hope for emotional maturation seems to lie, then, in a recognition of our need and dependence on people who, despite this, continue to be different from us and refuse to submit to our whims. It rests in an acknowledgment of others, not as a projection of our wishes, but as independent entities with their own wishes. In a broader sense, it rests on accepting our limits" ([39]: 291).*

Sennett reinforces the approach to the dissolution of social ties, by analyzing the type of capitalism that drives the human character with the strategy of "Nothing in the long term" that is especially applied to work:

> *"How can long-term goals be pursued in a short-term society? How to maintain lasting social relationships? How can a human being develop an account of his identity and life history in a society made up of episodes and fragments? The conditions of the new economy are fed by an experience that drifts in time, from one place to another, from one job to another. If I could establish Rico's dilemma (labor flexibility situation of a worker analyzed by the author) in broader terms, I would say that short-term capitalism threatens to corrode his character, especially those aspects of character that unite human beings. each other and give each one of them a feeling of a sustainable self" ([40]: 25).*

For Sennett, the flexible strategy of "Nothing in the long term" - destabilizing the subject - of capitalism, can be counteracted through the construction of the

community, which also constitutes a historical counter-trend, which cultivates trust, security, collaboration and, it facilitates null human emancipation.

In a broad and sociological sense, it is also necessary to recognize that narcissistic tendencies.These are social constructions - as Lasch also recognizes in a way - disorganizing collective life and functional to the establishment of domination systems.

For his part, for Adorno, human life is essentially coexistence; the human being is a neighbor rather than an individual, he relates first to others rather than to himself; it exists thanks to the other, it is what it is thanks to the others; It does not exist primarily defined by an indivisibility and particularity, but thanks to the fact that it participates in others and can communicate with others. The individual is a moment of relationships, in which he lives, before he perhaps once decides for himself. This relationship is not something external, but something of his own, internal to himself; within social relationships individual life acquires meaning. Furthermore, the individual biography of each person is a social category [41].

Precisely, the traditional experiences and visions explained in this work constitute historical tendencies for the construction of life in common, true non-capitalist spaces, which represent hopes for a better human life, which coexists and shares goods with ecosystems.

In this sense, Buen Vivir, a traditional vision of the Andean peoples, could represent a path towards transformative, socio-ecological change, which we must promote by returning to the local commons and rebuilding the human community in its diversity and interdependence with ecosystems. COVID 19 can represent a catalytic drive for these relocation and movement processes in a bottom-up approach, that is, from the local to the regional and global scale. Collaboration and synergies are essential to move towards better means and quality of life.

A less materials-intensive, circular economy approach that maintains the usefulness of resources for longer, but at the same time generates less waste and pollution, can help advance towards sustainability goals, as well as provide more space. to natural environments that allow their ecological self-reproduction, even in regulated coexistence with urban environments. Proper consideration of the conservation of local commons is a cornerstone for achieving community sustainability and resilience in these times of pandemic and multi-crisis, including, by the way, the global climate. By providing individuals, families and communities with the basics to live, through a universal basic income -recognized as a human right of the 21st century-, we will ensure the basis for prosperity, cohesion and social peace, avoiding unworthy aspects, suffering and depressing poverty, as well as avoiding environmental degradation. The strengthening of social resilience that stops the disastrous impacts of climate change and the pandemic that generally hits the poorest and most vulnerable, should be the fundamental basis for the definition of good public policies. Finally, it is necessary to move towards better public policies that aim to reduce the impacts of the current crisis on the population, that decarbonize economic activity and significantly reduce the ecological footprint of the development model.

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