

TRANSFORMING THE WORLD ECONOMY: The TTRIMS monetary sustainability framework for global governance and international development.

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Chapter 1 Introduction

“Call a thing immoral or ugly, soul-destroying or a degradation of man, a peril to the peace of the world or to the well-being of future generations: If you have not shown it to be ‘uneconomic’ you have not really questioned its right to exist, grow and prosper.”

— E.F. Schumacher, “Small Is Beautiful” (1973)

The TTRIMS monetary sustainability framework for international development and transformational global governance is intended as a contribution “to the peace of the world or to the well-being of future generations” as it proposes a framework that can integrate five competing approaches to the crises and emergencies of our tumultuous times. The TTRIMS (Tierra TRansformed International Monetary System) framework makes this claim in the analysis and direction of the world’s economy based upon the expanded notion of monetary justice as an umbrella justice.

Five competing approaches to resolving the 21st century crises and emergencies.

The best-known approach, at least in the global North, is the *Western approach* that is based on the Bretton Woods institutions of the IMF and World Bank with its neoclassical economic philosophy. The approach is followed by the Group of 7 industrialized nations, which was extended by the inclusion of other mid-size nations into the Group 20 after the 2008 financial crisis.

In opposition to this Western approach is the *Eastern approach of the BRICS* of Brazil, Russia, India, China, and South Africa. After its 2023 meeting in South Africa six additional nations are to become members.¹ The BRICS is strongly competing with the West in the global South, particularly through the Belt and Road Initiative that is mainly financed by China.

Between these two leading geopolitical blocks, is the third major approach of the *United Nations with its Agenda 2030* which “is among the most important international policy frameworks”. Adopted by the UN General Assembly in 2015, the Sustainable Development Goals (SDGs) are a set of universal objectives and targets that comprise a “plan of action” for global peace and prosperity. And while they focus on the economic, social, and environmental elements of sustainable development, the SDGs help shape global discourse, objectives, and priorities for a range of different fields”.²

A fourth approach is the one adopted by nations in the global South. Standing out as important international system actors are the public and private organizations of the *South Center with its 44 member states, and of the Third World Network*. Both differ in several ways; the Network is more outspoken and transformational than its intergovernmental South Center.

It is among these four geopolitical groups with their philosophies and strategies that the *TTRIMS monetary sustainability framework* with its monetary justice strategy, with its leading new institution of the UN Peoples' Bank is competing as a transformational approach to resolving the major crises and emergencies of the 21st century. This comprehensive, integrated framework is grounded in the theory of sovereign money as developed by economic sociologist Joseph Huber and others, and the theory of planetary boundaries as developed in Earth System Governance by political economist Frank Biermann.³

Four-fold constant awareness

To fully comprehend the transformational nature of the TTRIMS monetary sustainability framework some four interrelated dimensions must be constantly in mind.

1. Think of the need to progress *from reformist change to transformational change*. Reforms maintain the same form that is changed on their periphery while transformational changes go beyond the present form and develop a new form or system. This distinction is crucial to fully appreciate the transformational nature of the TTRIMS framework.
2. Focus on the *dynamics of the monetary, financial, fiscal, and commercial subsystems of the world economy*, constantly thinking on the international level rather than on the domestic one. For the domestic monetary system to flourish the international monetary system ought to be functioning well because of its close connection in our globalized economy.
3. Be mindful of the nature of the international monetary system as the “*first among equals*” of the 4 subsystems of the world economy.
4. Be mindful of the *expanded notion of monetary justice* that contains the associated financial, fiscal, and commercial subsystems justices. This expanded notion of monetary justice can rightly be called transitional justice. “Transitional justice is umbrella term for a set of judicial and non-judicial measures aimed at redressing histories of oppression and human rights abuses in societies and communities. It is a worldwide tool of justice with multiple mechanisms that can be tailored to the historical, political, socioeconomic, and cultural contexts to which it is applied. No one template exists”.⁴

Three approaches in climate finance

There are three approaches to finance the huge amounts of funds to deal with climate, development and, in last instance, with a just and effective global governance system. The easiest approach is the Macron approach as proposed during June 22-23, 2023, well-attended Paris meeting.⁵ A more challenging approach is the UN secretary general Gutierrez approach with his Summit for the Future, which, unfortunately, has little support yet by nations and international organizations. The most challenging and the most needed approach is the Verhagen transformational global economic approach of the TTRIMS monetary sustainability pathway which has no public support yet. This TTRIMS approach not only is to transform the unjust, unsustainable, and therefore, unstable international monetary system being based on the decarbonization monetary standard as proposed in Verhagen 2012 "The Tierra Solution:

Resolving the Climate Crisis through Monetary Transformation" but its approach is also to lead to a money- rather than debt-based financial system as proposed by the 27 national monetary reform groups of the International Movement for Monetary Reform. Finally, the TTRIMS approach with its decarbonization-based international monetary system also includes an inequality-reducing fiscal system and a UN Peoples' Bank supervised trading system as provisionally presented in the draft website <https://transformmoney.org>.⁶ By comparing the Macron, Guterrez reformist economic approaches to the transformational Verhagen economic approach in terms of their focus, coherence and topicality of vision, planning horizon and level of difficulty, and necessity, I hope to demonstrate that the two reformist economic approaches are unable to deal with the climate, health, development emergencies and they do not have the "right to exist, prosper and grow". In other words, I want to show *that* a transformational Bretton Woods 3.0 is needed as opposed to the reformist Bretton Woods 2.0 of the IMF with its neo-liberal philosophy of the Washington Consensus.

Global governance

At the beginning of the 2020-decade⁷, Washington Post journalist Ishaan Tharoor looked at the decade of 2030 and identified three trendlines: the world's changing demographics, its changing climate, and its changing governance patterns.⁸ In this book I concentrate on an approach to global governance in order to guide those three trendlines and particularly the global governance one in the positive direction to a just and sustainable global governance system for the 21st century, based upon the TTRIMS framework of a decarbonization-based international monetary system with its associated money-based financial system, inequality-reducing fiscal system, and its UN Peoples' Bank regulated commercial system.⁹ Note that the terminology of global governance emerged in the beginning of the 21st century and one of its main proponents was Thomas G. Weiss who, together with Ramueh Thakur, wrote in 2010 "Global Governance and the UN: The unfinished story". They developed a framework of "gaps" as "one way to make analytical sense of the "mushy notion of "global governance", which means so many things to so many people".¹⁰ I think that the adoption of the TTRIMS monetary sustainability framework will lead to a rejuvenated UN without gaps.

Money, banking, ample money

Every person, organization, or government needs sufficient money to be viable. Having ample money would be a wish for all. This money is created by monetary authorities and generally made available through the banking system, so that often money and banking are listed together as one financial reality in both national and international economic planning.

However, the monetary and financial subsystems of the world economy must be conceptually distinguished or separated. Their relationships with the fiscal and commercial subsystems of the world economy also must be identified to coherently develop a sustainability framework that encompasses all four subsystems. In The TTRIMS (The Tierra TRansformed International Monetary System) sustainability framework for international development and global governance, the monetary subsystem is *primus inter pares* (first among equals). German economic sociologist Joseph Huber in his 2017 *Sovereign Money: Beyond reserves* is one of the strongest proponents for this approach.

It is this conceptual priority of the international monetary system as “first among equals” that is basic to TTRIMS and to the role of its transformed international monetary system. The international financial system is, consequently, a derivative system, though, because of its ability to create money due to vagaries of historical financial arrangements, it has assumed monetary functions of creating money by way of the fractional reserve system. Presently, over 90% of all money in circulation is created by privately-owned banking systems which direct their loans and investments to areas that are most profitable to them, whether or not they contribute to social and ecological wellbeing of the affected communities. To make these banking operations socially and ecologically stronger, an increasing number of U.S. states established their own banking systems where the benefits of Seignorage and interest rates income flow into state coffers. The Institute for Public Banking ¹¹presents the history and latest information on this sort of socially directed banking.

System fragility and monetary justice

According to The TTRIMS monetary sustainability framework the present global economic system has no “right to exist, grow and prosper” because it is unjust, unsustainable, and therefore, unstable, and fragile. It is on account of this fragility that former Bank of England Governor, Mervyn King, concluded that a long-term program for money and banking and the institutions of the global economy will be driven only by an intellectual revolution. TTRIMS is presented as part of this needed intellectual revolution.

While Mervyn King proposes “The End of Alchemy” of the present debt-based financial system on account of its “fragility” and points to the need for an “intellectual revolution”, I propose the “intellectual revolution” of a monetary justice-based, comprehensive, consistent, and coherent sustainability framework such as TTRIMS that is based on monetary justice in its transitional justice sense, and not only on system fragility. We must realize that the present monetary, financial, fiscal, and commercial subsystems of the world economy are fragile because they are unjust or, in Piketty’s words, we have arrived at a global economy that “satisfies no one’s ideas of fairness.”¹²

Pathways, roadmaps, frameworks, theories

The main question becomes how do governments, business, and civil society choose a path forward that makes money and banking serve humankind in dealing with its 21st century’s major emergencies in climate and health, and, since the Russian invasion into Ukraine, in food, and governance?

Two main pathways present themselves: a reformist one and a transformational one. This basic choice is determined by the appreciation of the challenges or rather emergencies that humankind and the rest of the biosphere are facing, AND the values that underlie that appreciation and, especially, the choice among sustainability strategies that are to inform policies and programs.

As a sustainability sociologist of international development with a focus on the transformation of the unjust, unsustainable, and therefore, unstable international monetary system, I want to make the case for the capability of the *TTRIMS monetary sustainability framework for international development and global governance* to deal with these 21st century’s emergencies. This TTRIMS

framework stands for the Tierra TRansformed International Monetary System where Tierra is the digital currency of the proposed decarbonization-based international monetary system first proposed in Verhagen 2012 "The Tierra Solution: Resolving the Climate Crisis through Monetary Transformation".

Seeing light at the end of the tunnel of the 2020 Annus Terribilis, many observers are presenting proposals about a New Normal, a New Social Contract, a Green New Deal. The question arises about which one is to be chosen as the foundation of action and of setting the direction of a pathway that would lead to a better world in the shortest time possible because of the health and economic crises caused by the coronavirus-19 pandemic and the looming climate catastrophes. There are two main pathways that are fundamentally and radically different in advancing a prosperous, just, and ecologically sustainable world economy that can be considered as a or the main part of flourishing societies worldwide. One pathway, the reformist one, is relatively easy and not impactful in the medium and long term, while the other, the transformational one, is very challenging and impactful in the medium and long term.

Note that the choice of pathways or roadmaps is closely tied to the underlying framework and its theoretical underpinnings as will become evident in the section below about primacy of principles and values. However, the choice is foremost determined by the physical condition of the planet herself, particularly its overheating on account of the climate emergency.

[The climate emergency](#)

The climate challenge is the main ecological context with all its social and economic ramifications that forms the political context in which the pathway must be chosen.

Global heating will push billions of humans outside the ‘human climate niche’; similar climate niches of other life forms are threatened. The world in its geological history period of the Anthropocene is on track for a 2.7C increase above industrial levels and, scientists warn, ‘phenomenal’ human suffering is a consequence.¹³

What is the world community, particularly its governments, doing about this very unacceptable condition? Like in 2012 that was shaping up as a make-or-break year in the fight to curb climate change¹⁴, the latter half of 2023 is again faced with the political will to find the necessary financing in the carrying out of promises and plans made during the Paris Summit for a New Global Financing Pact with its Open Letter of leaders.¹⁵ They set out six pages of proposals for delivery at carefully choreographed points up to September 2024 when the UN Secretary General’s proposal Summit for the Future is scheduled to be launched. The roadmap includes items for delivery at future meetings of the G20 summit, the World Bank, and International Monetary Fund annual meetings in October, Cop28 and other international meetings. Only very few of the participants such as Sébastien Treyer of the Institute for Sustainable Development and International Relations and Bertrand Badré, a former managing director of the World Bank, seemed to be willing to consider going beyond the reformist Bretton Woods 2.0 in advocating a transformational approach notwithstanding the very clear shortcomings of a financial pact that scrunches to piece together all kinds of public and private financing. Even the SDRs (Special Drawing Rights) option was not fully accepted!

The evolution of UN principles and values are most salient in environment, development, and trade conferences. It is unfortunate and damaging that this primacy is not widely accepted, let alone implemented by governments, business, and civil society. One of the reasons for this fact is that discovering and politically implementing the right set of values is an undertaking of a daunting nature. Consequently, clarification, explication, and development of personal, business, and government values take a secondary place. Though the discussion of principles and values is mostly presented in chapter 5 under the issue of injustices in the monetary, financial, fiscal, and commercial subsystems of the world economy, here I want to show how the UN has been evolving its principles and how they relate to the notion of transitional justice.

The 26 Principles of the 1972 Stockholm Declaration of the UN Human Settlement Conference¹⁶ led, in normal UN fashion of referring to earlier statements, to the inclusion into the *Common But Differentiated Responsibilities (CBDR) principle* that was formalized in the United Nations Framework Convention on Climate Change (UNFCCC) of Earth Summit in Rio de Janeiro, 1992. The CBDR principle is mentioned in UNFCCC article 3 paragraph 1 and article 4 paragraph 1. It was the first international legal instrument to address climate change and the most comprehensive international attempt to address negative impacts to global environment. The CBDR principle #7 acknowledges that “all states have a shared obligation to address environmental destruction but denies equal responsibility of all states with regard to environmental protection”.¹⁷ The Rio Declaration also includes Principle 15 about the *Precautionary Principle* by stating: “In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.” The *Polluter-Pay principle* states in Principle 16: “National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.”¹⁸

Note how in principle 15 the precautionary approach SHALL be widely applied, while principle 16 is far less prescriptive by telling nations that they SHOULD ENDEAVOUR. Also note that in the other 25 principles their formulations, ranging from suggestions of “Should” to commands of “Shall” have to be implemented by their legislatures before these principles can become part of laws.

Two economic pathways

We are faced with two major pathways in resolving important issues of the 21st century: the reformist pathway that improves a little on the business-as-usual scenario or a transformational pathway where global financial, fiscal, monetary, and commercial subsystems of the world economy are structurally changed. I suggest that we take the latter, the transformational pathway as our focus of study, policy, and implementation, and firmly witness for a new normal in the most important economic sectors of the world’s life that, together with its challenges of social

sustainability and ecological sustainability, will determine the life of people, species, and planet in the 21st century.

Note that even an earlier title of this book, *Ample Money*, can be interpreted in a reformist or a transformational way. In the reformist way, ample money would mean that governments provide ample money acquired through taxation of their citizens and corporations, and/or borrowing from banks and moneyed sources by increasing the national debt. In the transformational way, governments would create the money in quantities and qualities that are needed. In the first case, we have more cons than pros in the presently prevailing debt-based financial system and in the latter case, we have more pros than cons of a money-based financial system. Generally, the debt system leads to scarcity while the money system leads to abundance of financial resources: in the debt system the limit is the amount of debt a government wants to carry, in the money system the limit is the disciplined imagination of choosing good programs and carrying them out.

The pathway of the debt-based financial system

A recent statement on the debt-based financial system at the highest level of the Biden Administration came from the new Treasury Secretary in her confirmation hearing on January 19, one day before Mr. Biden's Inauguration, when Dr. Yellen stated: "Neither the President-elect, nor I, propose this relief package [to \$1.9 trillion] without an appreciation for the country's debt burden. But right now, with interest rates at historic lows, the smartest thing we can do is act big." Yellen says in her testimony. "In the long run, I believe the benefits will far outweigh the costs, especially if we care about helping people who have been struggling for a very long time." ¹⁹This statement was made after the Republican Finance Committee Chairman Charles E. Grassley (R-Iowa) used his opening statement to slam the Biden relief plan as a "laundry list of liberal structural economic reforms" that would not be appropriate to enact. Republicans are already voicing skepticism about the price tag of Biden's plan, citing the nation's ballooning deficits after Congress already committed some \$4 trillion to pandemic relief legislation in a series of bills last year and a Trump 2017 \$1.7 trillion tax cut for the 10 years, mostly benefitting upper income brackets and large corporations.

The present view on the global economy with its debt-based financial system is also well expressed by Gordon Brown, UK leading politician who recommended to Mr. Biden on his inauguration day: "In today's low-inflation and low-interest-rate environment, there is a global surplus of savings waiting to be invested, and public investment that boosts productivity will pay for itself by creating a virtuous circle of consumer demand, growth and rising tax revenues. I know from my experience during the global financial crisis that if the US, Europe, and Asia agree to coordinate their fiscal stimuli, the multiplier effect – the spillover from increased trade and consumption – will be twice as effective in delivering growth as if each bloc acts on its own. The dividend from heightened cooperation could be upwards of 20 million much-needed jobs – and that boost could be even bigger if President Biden overturned President Trump's [objections to emergency aid](#) for Africa and the developing world. What could become a 21st-century Marshall plan could include debt relief; the creation of \$1.2tn of new international money through what are called special drawing rights; and matching funds for health, education and poverty reduction from the IMF and World Bank". ²⁰

Pathway of an emerging money-based financial and other transformed economic subsystems

A transformational view for a just and sustainable global governance system that is able to deal with climate, health and other emergencies goes beyond a debt-based financial system to a money-based one, from an unjust fiscal system to a more just and effective one by reducing inequality, from a corporate dominated trading system to a more just that is regulated by an UN Peoples' Bank, and, most importantly, from an unjust, unsustainable, and therefore, unstable international monetary system to a transformed international monetary system that is used to combat the greatest challenge of a runaway climate change by being based on the monetary standard of decarbonization, expressed in educationally terms, of a specific tonnage of CO₂e per person.

From reformist measures to transformational policies

The Biden Administration could introduce the reformist monetary measure of adding decarbonization/optimal solarization as a third monetary mandate to the Fed's dual mandate of price stability and maximum employment as a first step to transform the unjust, unsustainable, and therefore, unstable international monetary system by basing it on the decarbonization monetary standard of a specific tonnage of CO₂e per person.

To advance such transformational Biden agenda, a huge national conversation program must be designed along the lines of the Global 32 Initiative proposed by Dr. Frans Verhagen, a sustainability sociologist of international development at the International Institute for Monetary Transformation www.timun.net. It involves a very participatory approach of developing an international economic framework of 32 imperatives consisting of 16 reformist measures and 16 transformational policies in the financial, fiscal, commercial, and monetary global sectors of which the above mentioned decarbonization/optimal solarization mandate is one of the reformist measures of those imperatives. The Global 32 Initiative is an essential part of its TTRIMS sustainability framework and constitutes its main process dimension. Note that Senator Sanders made MMT (Modern Monetary Theory) advocate Stephanie Kelton his chief of staff a couple of years ago. She, as a professor of economics at the State of New York University' Stone Brook branch, is one of the most vocal proponents of MMT in her 2020 book of *The Deficit Myth: Modern Monetary Theory and the Birth of the People's Economy*.²¹ Note that MMT is fundamentally different from Huber's Sovereign Monetary Theory upon which the TTRIMS sustainability framework is built. Also note that, even linguistically, there is a clear difference between reform, reformist, and transformation and transformational. In the first case, the form stays and is given another form while in the second case the change is going beyond (trans) the existing form. Though in practice reformist and transformational policies may be used interchangeably, in this book I make a clear distinction between reformist policies, which I generally call reformist measures, and transformational policies which are not only transformational but transformational on the global level. These latter policies aim to structurally change the financial, fiscal, commercial, and monetary subsystems of the world economy. Thus, the earlier mentioned example of a decarbonization/optimal solarization monetary *mandate* is considered a reformist measure which may evolve into transformational policy when decarbonization becomes the monetary *standard* of a transformed international monetary system.

This discussion of moving from reformist monetary measures to transformational international monetary policies can be extended to the discussion of transition justice or transitional justice. Unlike the World Economic Forum with its annual Davos meetings of elitist leaders who want to maintain the unjust and unstable status quo, the TTRIMS monetary sustainability framework pursues transforming societies and their international organizations through the just transformation of the world economy in a just transition process.²²

The TTRIMS transformational pathway

The proposed TTRIMS Transformed Pathway is to make the present disjointed world ready to consider an alternative global governance structure and process that will contribute to the realization of a bioregionally-focused international development model with access to plentiful financial means while dealing with the global emergencies in climate, health, and since the Russian invasion into Ukraine, food, and governance.

Its scientific underpinnings

People have their opinions about monetary issues without realizing the biases that underlie them. This also counts for scientists perhaps to a lesser extent after they have identified their major ones. Thus, I pay special attention to the two areas of monetary theory and emerging theories of planetary Earth science and Earth governance.

Sovereign Monetary Theory

Chapter 3 is devoted to exploration of monetary theories with a particular focus on the sovereign monetary theory or SMT. This theory underpins the TTRIMS monetary sustainability framework.

EarthScience and governance

In 2009, a group of 29 scholars argued that we can identify a set of “planetary boundaries” that humanity must not cross at the cost of its own peril. This planetary boundaries framework has been influential in generating academic debate and in shaping research projects and policy recommendations worldwide. Yet, it has also come under heavy scrutiny and been criticized. The important question that is being posed is: What is today's overall significance and impact of the notion of planetary boundaries for earth system science and earth system governance?²³

TTRIMS and Mervyn King's intellectual revolution

Mervyn King, chief economist for 10 years at the Bank of England and its former governor for 10 years, states in his 2017 wise book *“The End of Alchemy: Money and banking and the future of the world economy”*: “For many centuries, money and banking were financial alchemy, seen as a source of strength when in fact they are the weak link of a capitalist economy. **A long-term programme for the reform of money and banking and the institutions of the global economy will be driven only by an intellectual revolution.** (Emphasis is mine) Much of that will have to be the task of the next generation. But we must not use that as an excuse to postpone reform. It is the young of today who will suffer from the next crisis—and without reform the economic and human costs of the crisis will be bigger than last time.”²⁴

Presenting the TTRIMS monetary sustainability framework as an essential part of that Intellectual Revolution is based upon my belief that the money reform efforts of today are useful and needed but are not sufficient to deal with the world's major challenges and emergencies in climate, health, food, and governance. Needed is a transformational Bretton Woods 3.0 framework that supersedes the reformist framework of the Bretton Woods 2.0 of the IMF.

Note that when people talk about money, the most obvious meaning of “Our Money” is the money that an individual or organization has access to either immediately (liquidity in economic terms) or on a longer term (illiquidity). However, “Our Money” in this book refers to the money system in a nation, particularly the worldwide or global monetary system of national or regional monetary arrangements. Often, economists such as Mervyn King above, deal with the monetary and financial system together such as in the phrase of money and banking. However, it is important to be aware of the difference between the monetary and financial subsystems of the world economy: monetary issues deal with the creation of money and its allocation while the financial issues deal with its use and distribution. Of course, in the present international monetary system banks have acquired (to the detriment of people and planet) a monetary function by being engaged in money creation, resulting in creating about 90% of the money in circulation. Thus, though the monetary and financial subsystems of the world economy are often considered together also on account of the banking system's money creation function, it is important that the other two subsystems of the world economy, i.e., its fiscal and commercial subsystems are given much more attention as they impact on the money and banking subsystems and as they must be included in devising in the needed transformation of the unjust, unsustainable, and therefore, unstable international economic system in its totality. Consequently, any useful global economic framework must include and integrate the four subsystems for a transformed world economy.

Observers such as German economic sociologist Joseph Huber consider the monetary subsystem to be *primus inter pares* (first among equals). It is this conceptual priority of the international monetary system that is the basis for TTRIMS and its transformed international monetary system with its three associated subsystems. The international financial system is, consequently, a derivative system, though, because of its ability to create money due to vagaries of historical financial arrangements, it has assumed monetary functions of creating money by way of the fractional reserve system. Presently, privately-owned banking systems that create over 90% of all money in circulation, direct their loans and investments to areas that are most profitable to them, whether or not they contribute to social and ecological wellbeing of the affected communities. To make these banking operations more socially and ecologically stronger an increasing number of U.S. states established their own banking systems where the benefits of seignorage and interest rates income flow into state coffers. The Institute of Public Banking²⁵ presents the history and latest information on this sort of socially directed banking. It is worth noting that this good reform measure is not transformational enough to respond to this century major challenges, particularly dealing with its overheated air, water, and soil.

Whether private or public banking, both approaches differ from the banking and financial approach that citizen monetary groups in 29 countries²⁶ are working on, not only to have banks

operate on 100% reserves, first proposed by Yale economist Irving Fisher in the 1930s, but more importantly and transformationally, are working to have to the present debt-based financial system changed into a money-based financial system. It is this international money-based financial system that is an essential component of TTRIMS together with its inequality-reducing fiscal system, and its international commercial or trading system that the TTRIMS framework's UN Peoples' Bank regulates and supervises and upon which the three associated subsystems of the world economy rest. It is the transformational integration of the four subsystems of the world economy that makes TTRIMS unique.

The eight interrelated and integrated components of the TTRIMS pathway's structure and process.

As action/policy depends upon analysis, or, in other words, what one does depends on what one thinks, I will present eight integrated arguments to make the case for TTRIMS as a transformational answer to what to think and, secondarily, how to act and plan in respect to present bank failures, probable recession, and the global disjointed reality. Notice that the eight arguments are integrated, not only listed. They are part of the TTRIMS monetary sustainability framework. It is the efforts of building comprehensive or sustainability frameworks that are most important in complex times where the essential trends are to be identified and their connections be clarified. The founder and editor-in-chief of the [Visual Capitalist](#) in the 2022 “*SIGNALS: The 27 trends defining the future of the global economy*” did identify essential trends but did not present them as parts of an overarching framework.

1. The TTRIMS monetary sustainability framework

First of all, humanity needs a [*justice-based, comprehensive, cohesive, and consistent monetary framework*](#) to deal with present banking failures and probable recessions in the future. Such a framework is not only a technical framework that includes all major and many minor challenges that humanity faces in the 2020s and beyond, but also, more importantly, the moral dimension of the escalating monetary, financial, fiscal, and commercial injustices and its countervailing transitional justice. These challenges I will present in their relationships with each other, forming a cohesive tapestry that is to remain consistent and unfrayed over time with built-in safeguards. Such framework enables an individual or an organization to *resist* events or processes that are clearly in conflict with that just monetary framework, it will help them to *insist* on the core elements of the framework, and finally it will help them to *persist* notwithstanding constraints and objections.

The TTRIMS monetary sustainability framework for global governance is available in the [draft website](#) that is to be updated after the publication of this book which is the sequel to earlier mentioned 2012 book. Both books found their inspiration in the first two major financial crises of the 21st century, i.e., of fall 2008 and March 2023.

The Earth witnessed a historic event in 1992 when two hundred nations came together in Rio De Janeiro to discuss a way forward in the ever-deteriorating physical environment. They signed a framework convention out of which, among other accomplishments, the UN Framework

Convention on Climate Change (UNFCCC) was born. Notice that this historic event did not give detailed answers to the thousands of ecological problems but agreed on a framework convention.

Part of the proceedings was also a battle about values that would undergird the convention. Citizen groups had been working on a detailed Earth Charter that would integrate both social, economic, and ecological values. Unfortunately, that UN Conference on Environment and Development (UNCED) only settled on a weak set of 27 principles.

For humanity in the 2020s to develop their short-term and long-term agendas, governments, business, and civil society are to clarify their values and develop them as a first step in designing their frameworks within which strategies and roadmaps can be developed. It is not enough for the present Executive Secretary of the UNFCCC to ask nations to take stock of their global heating efforts and present their roadmaps during the Conference of the Parties (COP) 28 in November 2023 without challenging them to address their values, frameworks, and strategies. Her organization could have presented a Roadmap Elements position paper to guide them in such comprehensive stocktaking. It is not too late to organize an essay contest for that purpose!

2. Monetary justice

Many citizen groups are engaged in social justice activities and a respectable number are engaged in battles for economic and fiscal justice. Only a few groups are engaged in monetary justice. However, in the TTRIMS sustainability framework, monetary justice is fundamental, not only conceptually, but also strategically, that is in terms of organizing governments, business, and civil society towards the transformation of the unjust, unsustainable, and therefore, unstable international monetary system. Thus, I started a working group on monetary justice in the Community Church Unitarian Universalist (UU) in Chapel Hill, North Carolina, to have the General Assembly of the national UU Association adopt a “Statement of Conscience on Escalating Monetary, Financial, Fiscal, and Commercial Injustices, and Mounting Monetary Oppression”²⁷. It is also worth mentioning that the UN Office of the UUA together with the International Institute for Monetary Transformation presented a monetary justice petition to COP 26 that also urged the COP nations to consider the convening of the 2023 UN Commission on Monetary Reform and Transformation.

The Alliance for Just Money, the educational arm of the American Monetary Institute, is the major citizen organization for monetary justice in the USA. Monetary reform organizations in 28 other countries that are member organizations of the International Movement for Monetary Reform also engage in monetary justice activities. It is significant that the Harvard Law School together with the Hamburg Institute for Social Research are organizing their second annual conference on Just Money, entitled Money as a Democratic Medium, on June 15-16, 2023. These monetary justice efforts should become part of a world wide monetary justice campaign pushing nations to have the UN General Assembly convene the 2024 UN Commission on Monetary Reform and Transformation and its consequent 2025 UN Transformation Convention.

3. The decarbonization-based monetary standard.

It is this decarbonization standard of a specific tonnage of CO₂e per person that is the technical basis of the TTRIMS monetary system. It is the deviation of the standard that determines the level of decarbonization in a nation's economy and its decarbonization ranking among nations.

4. The UN Peoples' Bank

The most salient characteristic of the TTRIMS framework is its UN Peoples' Bank which is located as an independent organization or organ with the UN system. It is governed by its governors who represent central banks. It is overseen by the UN General Assembly's Monetary Standing Committee. Most significantly, the UN Peoples' Bank would be the sole creator of the money supply and the regulator and supervisor of the world's banking system that would act as a utility without engaging in money creation. The UN Peoples' Bank also regulates international trade, enlarging the role of the presently underfunded UN Conference on Trade and Development (UNCTAD).

Note the great difference with the IMF which has only a tenuous relationship with the UN system. Moreover, it is not a bank, but only a monetary Fund that was established during Bretton Woods 1.0 at the end of WW II as part of the US dominated dollar-exchange system. TTRIMS with its UN Peoples' Bank is central to a transformational Bretton Woods 3.0. It is my opinion that John Maynard Keynes would readily replace his International Clearing Union with its governmental currency of the bancor with the UN Peoples' Bank and its Tierra currency if he were alive today.

5. The single Tierra global currency

There have been several proposals for a single global currency, starting with John Stuart Mill in the 18th century. However, no single global currency is viable without being part of a monetary system. Thus, the Tierra currency is part and parcel of the TTRIMS framework with its UN Peoples' Bank.²⁸

6. The dual balance of payments, settlements, and recording system of financial and climate accounts

Without accounting climate credits and debits as part of a global integrated accounting system of financial and climate statistics, nations have great difficulty of managing their balance of payments in a decarbonization-based international monetary system. Their current accounts have to be enlarged to be compatible with proper national climate planning and implementation.

7. The 32 measures and policies of the TTRIMS Process method of the Global 32 Initiative. Local, national, and international debate on TTRIMS monetary sustainability framework can be held around 16 reformist measures and 16 transformational policies of the four subsystems of the world economy. It is relatively easy to propose monetary, financial, fiscal, or commercial reformist measures, but difficult to propose transformational policies in each of the four subsystems of the world economy.

8. The transformation of the associated financial, fiscal, and commercial subsystems of the world economy.

Once the sovereign monetary theory with its TTRIMS monetary architecture is accepted, the three other subsystems of the world economy also become targets for transformation. The Money-based financial system has been the subject of investigation and discussion for decades on account of the deficiencies of the debt-based financial system. The inequality-reducing fiscal system has hardly seen investigation and discussions, while the global trading system with the firmly entrenched and corporations-dominated World Trading Organization is also not subject to serious transformational change investigation and discussions. Notwithstanding this sober prospect of transformational change in these three subsystems of the world economy, citizens and citizen groups are to continue in resisting, insisting, and persisting. The welfare of billions of fellow citizens and even the planet herself depend on this resistance, insistence, and persistence!

The three continental challenges supporting the TTRIMS monetary sustainability framework.

The transformational nature of the TTRIMS framework can develop solutions in the details of policies, programs, and projects. Reading or listening to today's major news stories and discussions, I often think all of them can be resolved by considering them on a higher, i.e., international, transformational level of analysis and planning. Thus, I rely on the opportune moments of great upheavals, aware that fortune favors the ready person.

There are three projects that I am developing and looking for supporters so that when that right moment comes, the networking can start. They are continent-wide with major international implications.

The first one presents a way for China and the USA to come to an agreement, or even, a treaty called the **US-China Partnership-in-Rivalry Treaty**. An incentive for this cooperation is the availability of several trillions of Tierras—the digital global currency the transformed Tierra international monetary system—through the UN Peoples' Bank to be used for the strengthening of their approaches to international development with a focus on bioregional development. The Bank's International Development Facility would be democratically run using UN Peoples' Bank's human and financial resources.

The second project spans the continent of Africa where nations would agree to a forceful, but non-violent partial debt strike. The project, called the Timbuktu project, would give Africa's creditors, both private and public, the opportunity to attend the African Debt Reduction Meeting where 30% of the present debt is threatened to be withheld unless the Reduction Meeting is successful. The 30% reduction is chosen to compensate for the inordinate and unfair trade practices in the present and colonial times, and for the climate impact. This partial debt strike is one way to force African creditors to engage in the UN suggested loss and damage negotiations.

The third project would be an EU project that would be initiated by the Dutch government. It is called BINRA which is an acronym of BINnenhof RAadzaal, the seat of the Dutch government. It was the United Republic of the Netherlands in the 17th century that was first in establishing a central bank and a stock market according to Ray Dalio.²⁹ The Dutch and other EU member states would be leading in transforming the present international financial system within a transformational framework such as TTRIMS or a better one.

The TTRIMS monetary journey

Permit me to introduce myself as the guide to this journey that started with the financial crisis in the fall of 2008.

The personal side of the journey

I was born in the Southern part of the Netherlands³⁰ during the middle 1930s as part a Catholic family with eight children. At age 12 I enrolled in a Catholic seminary to become a missionary priest and after 12 years of training I left for Ghana in 1963, where I became known as Father Swimmer and Father VC 10. The first epithet was given by the church elders in a village in the Bekwai region where lake Bosumtwi enticed me to swim to the next village rather than climbing a mountain. I became Father VC 10 when I was serving at the cathedral in Kumasi, Ghana's second largest city, speeding around on my Honda 150cc motor bike. At that time Ghana's solitary plane was a British VC10. It took me three months to get back home in 1968 travelling to Egypt, Cyprus, Israel, and Greece.

The year 1969 was a turning point in my life influenced by the Catholic Church with its Second Vatican Council changes. I decided to be an advocate for Africa in America by studying international trade and economics and enrolled at Columbia University where in the 1970's I received both a Master of International Affairs and a PhD in the sociology of international development. I was fortunate during that time to become friends with a Maryknoll sister who had served in Taiwan during the sixties. We got married in 1974 deciding to remain child-free to continue our missionary lives. Both of us got very engaged in education and international and peace affairs for some forty years in New York City. After "retiring" to North Carolina we became active members in our Continuing Care Retirement Community while continuing our professional lives as an applied linguist and a sociologist of international development.³¹ I lost Anita to a covid-like disease of Parkinson's in April 2020.

This religious odyssey in the last forty years is also reflected in my sociological odyssey: from being an energy sociologist I evolved into an environmental sociologist and from there into a sustainability sociologist of international development. Thus, the present title of my future biography will be: From Catholic missionary priest to climate missionary, to pioneer in transforming the international monetary system.

With this short personal introduction³², I can now lay out the route that we are going to take to transform the financial, fiscal, commercial, and monetary subsystems of the world economy. It is a bold undertaking that is necessitated by the emergence of climate catastrophes and other emergencies.

The beginnings

My focus of the educational and activist dimensions of the climate issue over the last forty or so years combined in 2008 with my quest to find answers to the disastrous financial meltdown in the fall of 2008 and, more importantly, to find solutions. It was my climate crisis awareness that led to my preferred solution of that economic crisis leading to my proposal for a decarbonization-based international monetary system that give rise to my mostly ignored book of Verhagen 2012 "The Tierra Solution: Resolving the Climate Crisis through Monetary Transformation". About 10 years later, January 2021, after the Biden Administration had been installed after the disastrous interregnum of the Trump years, I am able to write this sequel that was first called "Ample Money: What, why, how and whither?" Two other titles, in reverse chronological order, were "TTRIMS TO THE RESCUE: The monetary sustainability framework for international developments and global governance." And "AMPLE MONEY: The United Nations Peoples' Bank of the TTRIMS sustainability framework for global governance and international development." The final title "TRANSFORMING THE WORLD ECONOMY: The TTRIMS monetary sustainability framework for transformational global governance and international development" places the emphasis on the goal for the TTRIMS framework.

It was the encouragement by UN officials and some outstanding environmental and monetary leaders in civil society that helped me to persist. Stated an outstanding economics author and climate activist about this Tierra money system approach: "The further into the global warming area we go, the more physics and politics narrows our possible paths of action. Here's a very cogent and well-argued account of one of the remaining possibilities." Bill McKibben, May 17, 2011"³³

This book is substantially different from its 2012 predecessor, both in style and content. The commercial, intellectual, ecological, and strategic dimensions of such carbon-based international monetary system were seminally presented in Verhagen 2012 "The Tierra Solution: Resolving the Climate Crisis through Monetary Transformation" with details in its corresponding website www.timun.net .

Main differences of the 2012 TSN and the 2024 TWE (Transforming the World Economy)
In Verhagen 2012 "The Tierra Solution: Resolving the Climate Crisis through Monetary Transformation" the main problem focus was the climate crisis. In its 2024 sequel, the climate crisis has become a climate emergency. While in 2012 the resolution to the climate crisis was monetary transformation, the resolution to the 2024 climate emergency remains monetary transformation but in more detailed political and activist forms. This monetary transformation approach presents a practical vision for not only dealing with the climate but also the global health emergency on account of the emergence of the covid-19 pandemic that started at the end of 2019. It was in February 2022 that a global food emergency was caused by the naked invasion of the Ukraine by Russia. Even the world's governmental concept and order of nation-states that dates to the 1658 peace treaty of West Phalia was threatened by this dastard aggression.

1. The three global problems in the Introduction of the changing climate, the unjust, unsustainable, and therefore, unstable international monetary system and increasing inequality are basic in the TSN and TWE, though inequality and economic concentration in TWE become a main cause and a focus for a transformed financial system.
2. The carbon standard in TSN is clarified in the TWE as the *decarbonization standard* of the Tierra international monetary system while decarbonization/optimal solarization is also presented as the third *monetary mandate* for monetary authorities such as the U.S. Fed with their dual mandates of price stability and maximum employment.
3. Treatment of the climate crisis in the TSN had two chapters devoted to its understanding and the evaluation of its various methodologies to counteract it. Nine years later, the TWE deals with it as a subsection in Chapter 3 given that so much clarity and activism has changed its profile.
4. Monetary justice in TSN's chapter 6 is incorporated in TWE's overarching value base as one of the two values. The other one is sustainability, defined as the dynamic interaction of the social, economic, and ecological spheres of events and processes.
5. The Tierra international monetary system is alternately called the Tierra Fee and Dividend system in the TSN while the TWE hardly use this terminology anymore and refers to the transformed international monetary system as the Tierra international monetary system or TTRIMS (Tierra TRansformed International Monetary System)
6. The TSN only cursorily dealt with financial and fiscal reform while the TWE clearly deals with the financial, fiscal, commercial, and monetary subsystems of the world economy. It is the financial system, particularly domestically got a lot of attention given the issue of increasing large debts. Thus, in the TWE I prefer to use the terminology of monetary reform and transformation rather than the common usage of monetary reform by itself given its international monetary focus.
7. Chapters 8, 9, and 10 in the TSN have become historical chapters because the geopolitics and social conditions including the consequences of the covid-19 have become so different in the 2020s for the TWE.
8. The crucial chapter 7 about the proposed global monetary architecture is expanded both horizontally and vertically in TWE's chapter 4, particularly by the inclusion of the Global 32 Initiative that was first formulated in the middle of December 2020. It was also around that time that I started to make a clear distinction between reformist and transformational imperatives for a just and sustainable global governance system by defining transformational to include mainly global and structural system change.
9. Activism around the 2012 TSN consisted mainly of doing Power Points around the UN Headquarters, activism around the 2021 TWE consisted of some 175 comments to articles in the NY Times, Guardian and Washington Post and some magazines, and presentations on the UN Peoples' Bank both at the American Monetary Institute and its educational branch Alliance For Just Money, and efforts in several ways of connecting with the UN December 2022 Climate Conference in Glasgow and its Preparatory Commission in Bonn during June.
10. A special mention in my 2020 activism was the organization of two Zoom sessions about paying of the national debt with the participation of three board members of Alliance for

Just Money and the founding president of the Public Banking Institute. These two sessions were organized on October 22 by members of the Global Issues Forum and the Residents' Sustainability Working Group of the Continuing Care Retirement Community of Carolina Meadows in Chapel Hill, North Carolina.

The 2024 UN Commission on Monetary Reform and Transformation, and its associated 2025 UN Foundational Convention

Both events would be a milestone in the TTRIMS monetary journey and would be essential in bringing about a transformational Bretton Woods 3.0. Their importance is like the July 1, 1944, UN Monetary and Financial Conference, and its October 24, 1945 Convention that established the UN. As will become apparent in Chapter 4, the establishment of the Tierra International Monetary System within the TTRIMS framework with its UN Peoples' Bank would revolutionize and revitalize the UN present system.

The Paris Summit for a New Global Financing Pact

Hopefully, a harbinger of more cooperative planning and implementation that can lead to the adoption of the 2024 UN Commission on Monetary Reform and Transformation, and its associated 2025 UN Transformation Convention

In managing emergencies, which in the last instance means managing ourselves, the role of the UN system is central in whatever configuration the present 194 nations decide to organize themselves. Thus, imperative is the notion of collaboration which, to some limited extent, was demonstrated in the two-day Paris Financial Pact chaired by French President Macron and Barbados' Prime Minister Mottley.

Part of this important meeting attended by roughly 50 heads of state and government — from Germany, Brazil, Senegal, Zambia and more — with more than 100 countries represented was a June 20, 2023, draft of a road map which contained six pages of proposals. They were to be delivered at carefully choreographed points up to September 24. These proposals would be delivered at future meetings of the G20 summit, the IMF/WB annual meetings in October, COP28 and other international meetings, up to the Summit for the Future to be held next September under the auspices of Secretary General Guterrez of the United Nations.³⁴

The Paris summit comes in the wake of a plan championed by Barbados Prime Minister Mia Mottley, called the Bridgetown Initiative, to ease access to financing for climate-vulnerable countries. Mottley and other proponents have argued that developing countries are forced to pay such high interest rates that they struggle to finance adaptation projects, like sea walls, or green energy initiatives, like large solar farms, or simply make payments on outstanding loans when climate-infused disasters strike. She made clear to her audience that “**What is required of us now is absolute transformation — and not reform — of our institutions,**” Mottley concluded: “I hope that we leave Paris therefore not only secure in our determination to protect the planet, to protect the biodiversity, to protect people, but to recognize that if we do not act today, at scale, with pace, we will not be able to get there in time to save more people.” The final financial

outcome: \$100 billion, promised since 2009, for climate measures and \$100 billion SDRs to IMF members who were not able to shift these government funds totally to nations in the Global South.

Organization of book

After discussing in chapter 2 the global responses to the major emergencies in climate, health, and, since the Russian invasion, food and governance, chapter 3 highlights the THE SOVEREIGN MONEY APPROACH TO THE WORLD'S PRESENT AND FUTURE EMERGENCIES by comparing it with the UN's monetary views of UN ECOSOC's 2030 Agenda of the 17 SDGs and its 2060 Agenda and the UN Regional Economic Commissions. After this theoretical exposition chapter 4 finally presents the TTRIMS sustainability framework of international bioregional development and global governance with its emphasis on monetary and transitional justice. Chapters 5 and 6 deal with constraints and challenges of having the TTRIMS sustainability framework or its Bretton Woods 3.0 transformational approach become known, discussed, and accepted. These last 2 chapter consider activism, monetary activism, and justice activism, including the push of having nations particularly those that participated in the June 2023 Paris Financial Pact Summit into leadership for the 2024 UN Commission on Monetary Reform and Transformation, and its associated 2025 UN Foundational Convention

Conclusion

“TRANSFORMING THE WORLD ECONOMY: The TTRIMS monetary sustainability framework for transformational global governance and international development” contains a more ambitious challenge than the one posed in Verhagen 2012 "The Tierra Solution: Resolving the Climate Crisis through Monetary Transformation". This sequel to the 2012 book spells out in far greater detail the what, why, and how of the Tierra decarbonization-based international monetary system with its associated money-based financial system, inequality-reducing fiscal system, and its UN Peoples' Bank-supervised international trading system.

What will be the willingness of the global community of governments, business, and civil society to seriously discuss such ambitious challenges? Unfortunately, this willingness for a serious discussion is low unless greater climate calamities happen and people are willing to revolt against irresponsible corporations, corrupt/lazy government officials, and unjust monetary, financial, fiscal, and commercial subsystems of the world economy with their inertia to change. What is needed is the threesome action of resistance, insistence, and persistence. Perhaps the view of Masood Ahmed, president of the Center for Global Development think tank in Washington, during the June 2023 Paris Financial Pact Summary is a good starting point. He did not expect much concrete action from the gathering, but he saw emerge a broad agreement that **“we’ve got to think much bigger, much bolder. We need to be willing to change.”** Both Albert Einstein and Dwight Eisenhower have argued that complex problems can be solved by making them more complex by viewing them on a different, often the international level. The TTRIMS monetary sustainability framework with its Tierra monetary architecture is presented in this book as one big and bold way to pursue a transformed world economy that can contribute to social and ecological sustainability.

ENDNOTES

¹ [About the Summit - BRICS 2023](#)

² This formulation is given by a private investment and development organization that has built its operations on the challenging Agenda 2030. [About us - meridian](#)

³ For details see Chapter 3.

⁴ [Social Participatory Development Section \(uneswa.org\)](#)

⁵ [‘A green transition that leaves no one behind’: world leaders release open letter | Emmanuel Macron, Mia Mottley, Luiz Inácio Lula da Silva, Ursula von der Leyen, Charles Michel, Olaf Scholz, Fumio Kishida, William Ruto, Macky Sall, Cyril Ramaphosa, Mohamed bin Zayed Al Nahyan, Rishi Sunak and Joe Biden | The Guardian](#). A major characteristic in their proposals is the emphasis on private finance which according to practical philosopher and economist Peter Dietsch is “neither private nor an enabler of the green transition”. Webinar on September 19, 2023, organized by the Swedish CMO Positiva Pengar.

⁶ This temporary website contains 13 major elements of the 2024 sequel of the above 2012 book.

⁷ For those who want to remember 2020, <https://www.nytimes.com/interactive/2020/12/30/us/2020-year-in-graphics.html> presents an appealing overview of a sad year.

⁸ [With 2020 over, here’s what the next 10 years could have in store - The Washington Post](#) of January 4, 2021. My published comment can be found

<https://www.nytimes.com/2020/05/30/opinion/sunday/coronavirus-globalization.html#commentsContainer&permid=107333611:107333611>

⁹ See my comment to columnist David Ignatius [Opinion | Antony Blinken conversation: U.S. foreign policy rests on pillars - The Washington Post](#)

¹⁰ Page xiii of the book published by the Indiana University Press

¹¹ [Public Banks 101 – Public Banking Institute](#)

¹² Page 370 of the 2016 End of Alchemy book.

¹³ [Global heating will push billions outside ‘human climate niche’ | Climate crisis | The Guardian](#)

¹⁴ [Will ambitious rhetoric about climate change lead to real action? - CSMonitor.com](#)

¹⁵ [‘A green transition that leaves no one behind’: world leaders release open letter | Emmanuel Macron, Mia Mottley, Luiz Inácio Lula da Silva, Ursula von der Leyen, Charles Michel, Olaf Scholz, Fumio Kishida, William Ruto, Macky Sall, Cyril Ramaphosa, Mohamed bin Zayed Al Nahyan, Rishi Sunak and Joe Biden | The Guardian](#)

¹⁶ [Declaration of the United Nations Conference on the Human Environment - Wikipedia](#)

¹⁷ [Common But Differentiated Responsibilities - Wikipedia](#)

¹⁸ https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf

¹⁹ [Janet Yellen to urge lawmakers to ‘act big’ on economic stimulus relief at Senate confirmation hearing - The Washington Post](#)

²⁰ [Joe Biden can't heal America without help from the rest of the world | US foreign policy | The Guardian](#)

²¹ Published by the Hachette Book Group, New York

²² [Just Transition - News - Climate Champions \(unfccc.int\)](#)

²³ [The Boundaries of the Planetary Boundary Framework: A Critical Appraisal of Approaches to Define a “Safe Operating Space” for Humanity | Annual Review of Environment and Resources \(annualreviews.org\)](#)

²⁴ Pages 369-70

²⁵ [Public Banks 101 – Public Banking Institute](#)

²⁶ www.immr.org

²⁷ Could the concept of monetary oppression become the rationale for a legal approach to a just monetary system?

²⁸ The same logic also applies to the introduction of digital currencies. Cf. 19th Annual Conference of the American Monetary Institute where I presented the PowerPoint “ Central Bank Digital Currencies: Road to nowhere without a TTRIMS-like monetary sustainability framework”.

²⁹ Principles for the changing world order. Why nations succeed and fail.

³⁰ also known as Holland because of the might of the North and South Holland provinces

³¹ During the 1980s bioregionalism was an important part of sustainable development. It has remained a major dimension in my sustainability focus which always includes a bioregional element. I applied this bioregional focus to the organization of the new group of Ecolinguistics by dividing the organizing group into bioregions with coordinators to whom I sent my 24-page monograph “Ecolinguistics: Context, contours, constraints and challenges”.

This founding meeting took place in 1990 in Chalkidiki Greece, and the International Association of Applied Linguistics (AILA) at its World Congress in Amsterdam in 1993 permitted the new group (with difficulty) to present their new thinking.

³² I am taking notes for my biography “From Missionary Priest to Climate Missionary to Pioneer in the transformation of the unjust international monetary system” that is influenced by Jane Fonda’s Prime Time where she highlights her life in those areas that may inspire her readers.

³³ <https://www.nytimes.com/2020/01/27/opinion/greta-thunberg-mnuchin.html#commentsContainer&permid=104857606:104857606> -

³⁴ [Governments at Paris summit to finalise climate finance roadmap | Climate crisis | The Guardian](#)