

Economia e sviluppo sostenibile.
Green taxation in support of
sustainability

a cura di Giuseppe Rivetti
e Maria Assunta Icolari



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eum

Impresa & Territorio

3

Comitato scientifico: Francesco d'Ayala Valva, Eugenio Della Valle, Maria Assunta Icolari, Fabio Marchetti, Giuseppe Melis, Giuseppe Rivetti

Collana diretta da Giuseppe Rivetti

Comitato redazionale: Umberto Gatto, Francesca Moroni

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Palazzo Ciccolini, via XX settembre, 5 – 62100 Macerata

info.ceum@unimc.it

<http://eum.unimc.it>

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Prefazione

di Francesco D'Ayala Valva

Fatti non foste a viver come bruti, ma a conseguire virtù e conoscenza¹. Questa frase mi è subito venuta in mente leggendo il titolo del convegno: *Economia e sviluppo sostenibile*. Il sottotitolo successivo, *Green taxation in support of sustainability*, mi ha fatto tornare ancora più indietro nel tempo, al primo libro della Genesi: «L'uomo domini sui pesci del mare e sugli uccelli del cielo, sul bestiame, su tutti gli animali selvatici e su tutti i rettili che strisciano sulla terra. Siate fecondi e moltiplicatevi, riempite la terra e *soggiogatela, dominate* su tutti gli animali selvatici, sui pesci del mare e sugli uccelli del cielo e su ogni essere vivente che si muove sulla terra»².

L'invito alla fecondità ed alla moltiplicazione del genere umano è stato accolto, anche se la terra comincia a sembrare un po' stretta³; va invece approfondito quanto detto sul "assoggettare e dominare la terra".

Il cardinale Ravasi, dalla lettura nel testo originario, afferma⁴ che i due termini non sono così brutali, come appaiono a prima vista. Contengono un significato più sfumato e suggestivo: *kabash*, «soggiogare», originariamente rimanda all'insediamento in un territorio, che deve essere esplorato e conquistato, mentre *radah*, «dominare», è il verbo del pastore che guida il gregge.

¹ Alighieri D., *Inferno*, XXVI, 118-120.

² Genesi, 1, 26.28.

³ C.E.S.E., *Secure access to social and affordable housing for all*, 2024, <<https://data.europa.eu/doi/10.2864/8806922>>.

⁴ Ravasi G., *Famiglia cristiana*, 7 maggio 2020.

Per secoli l'uomo si è spinto ad esplorare e conquistare. Cristoforo Colombo si avventurò in mari sconosciuti e la sua opera segna per noi, idealmente, il passaggio dal medio evo all'età moderna. La sua "scoperta" è frutto di un progressivo sviluppo ed intreccio di religioni e filosofia, arte e scienza, che permisero il fiorire di millenarie civiltà.

La innata curiosità dell'uomo⁵, eterno Ulisse affascinato dall'ignoto, da quel momento mutò il ritmo sonnolento di società succedutesi per secoli, e l'incalzare delle scoperte hanno modificato il loro modo di vivere e di agire. Nasce la "modernità" e le società diventano dinamiche ed in continua trasformazione; i gruppi sociali entrano in fermento e subiscono profondi mutamenti; equilibri di potere vengono progressivamente sconvolti dalle nuove attività commerciali dipendenti, molte volte, dal differente "sfruttamento" della terra, alle volte, anche dell'uomo (schiavitù). Le trasformazioni più profonde non riguardano solo la materia, con cui comunichiamo o produciamo ricchezza, ma anche il nostro modo di considerare il mondo e di collocare anche noi stessi⁶.

Dall'esplorazione si è passati alla conquista della terra ed il passaggio al dominio è stato fatalmente breve. Il progredire della scienza e della conoscenza ha imbrigliato i fiumi, rese fertili le paludi. Ricordo di aver visto tracce di "peschiere" (*Piscinae in litore constructae*) lungo la costa del mediterraneo, ove i romani avevano inciso gli scogli per creare vasche per l'allevamento dei pesci⁷. Si trattava di un inizio del dominio della terra e del mare, ancora compatibile con il miglior sfruttamento della natura. La sempre maggiore facilità dei commerci e la creazione di nuove ricchezze hanno contribuito al progressivo e più intenso sfruttamento della terra, non solo in relazione alla naturale fertilità ma anche consumandola. Boschi e foreste erano disponibili in relazione alla maggiore richiesta di carbone, non più per uso umano

⁵ Galantino N., *Oltre la superficie*, il Sole 24 ore, 5, 2023. ricorda che la persona curiosa, grazie a una interiore inclinazione a porre e a porsi domande, è aperta a esperienze inedite ed è disponibile a lasciarsi sorprendere e stupire.

⁶ Tonelli G., *Genesis*, Feltrinelli, 2019, p. 17.

⁷ Rustico L., *Peschiere romane*, Mélanges de l'école française de Rome, 1999, pp. 51-66.

(cucina, riscaldamento) ma per il dilagare dei mezzi a vapore, e poi il petrolio... si giunge così dal “dominio” della terra fino al “consumo” della terra⁸.

Mi piace pensare che fu San Francesco d'Assisi a sollecitare l'attenzione sulla bellezza del creato, quale ancora lui lo osservava e poteva dire: Laudato sii, o mio Signore, per nostra Madre Terra che ci sostiene e ci governa e produce diversi frutti con coloriti fiori ed erba. Dalle sue parole emerge che la terra “sosteneva” l'uomo e lo “governava”, scandendo il suo agire. Dalla figura del santo si può osservare anche una prima reazione al “consumismo”. Si spogliò dei fastosi vestiti, frutto del lavoro sui beni della terra assicurati dal padre Pietro di Bernardone, ricco mercante, per un saio di più semplice fattura. Tutta la sua vita fu all'insegna della semplicità naturale ed ad una sorta di avversione al consumismo.

Il consumismo quale effetto del capitalismo globalizzato spinge gli utenti ad interessarsi maggiormente al risultato e a non tener conto di come quel risultato viene raggiunto. L'aspirazione consumistica ha contribuito alla rottura dell'equilibrio all'interno della comunità degli esseri umani, tra questi ultimi e la natura Madre Terra, tra processo culturale e processo scientifico e tecnico⁹.

Variazioni climatiche ed ambientali hanno fatto emergere, nel tempo, una “cultura ecologica”. Luca Mercalli afferma¹⁰ che la presa di coscienza sistematica dei problemi ambientali nasce alla metà dell'ottocento, con pensatori come il filosofo americano Henry D. Thoreau (1817-1862) con la sua opera *Walden*¹¹. Un altro significativo lavoro ottocentesco è la vasta

⁸ Papa Francesco, *Spera*, Mondadori, 2025, p. 367, ricorda che Dio ha donato agli uomini il suo Spirito affinché abbiano “saggezza, intelligenza e scienza in ogni genere di lavoro” (Es 35,31) e la scienza e la tecnologia sono prodotti straordinari del potenziale creativo degli esseri umani. Ma, come dice l'antico adagio nel mito della spada di Damocle, da un grande potere derivano grandi responsabilità.

⁹ Flick G.M., *Il giudice e l'impresa, economia e diritto: un rapporto difficile*, Il Sole 24 Ore, 2025, p. 123.

¹⁰ Mercalli L., *L'urgenza del problema ecologico. Uno sguardo dalla scienza*, in *L'uomo custode del creato, atti del XX convegno ecumenico internazionale*, Bose, 5-8 settembre 2012, a cura di d'Ayala Valva L., Cremaschi L. Mainardi A., Qiqajon, 2013, p. 104.

¹¹ Thoreau H.D., *Walden*, Feltrinelli, 2012.

opera *Man and Nature* di George P. Marsh (1801-1882)¹², ambasciatore degli Stati Uniti nel giovane Regno d'Italia, giurista e diplomatico, storico e geografo. Egli è tra i primi a concepire la natura come “ambiente”, un complesso inscindibile di fatti naturali e interventi umani, insieme dinamico di cause ed effetti. Egli coglie il concetto di mutamento continuo dell'ambiente, e vi inserisce l'azione profondamente incisiva dell'uomo, che sempre più agisce indipendentemente dalla natura, anzi la disturba¹³. L'autore illustra, in dettaglio, il problema della deforestazione, con molti esempi anche italiani, esamina la regimentazione delle acque, l'erosione del suolo fertile, presenta efficaci confronti tra Stati Uniti ed Europa, ricorda, infine, oltre a quello del sostentamento anche il ruolo estetico della natura¹⁴.

Avvicinandoci ai tempi moderni, nel giugno 1972, a Stoccolma, si tenne la Conferenza mondiale sull'ambiente umano, che ebbe una relazione di apertura di René Dubos e Barbara Ward, dal titolo inequivocabile: “Abbiamo una sola terra”. La presa di coscienza delle problematiche dei *Limits to Growth* sono stati condensati nel rapporto *I limiti dello sviluppo*¹⁵.

Gli effetti di uno sviluppo economico incontrollato e dei conseguenti danni ambientali¹⁶ erano ormai allo scoperto e non era più un problema di un singolo paese o territorio. Il recente grande incendio di Los Angeles ha mostrato i danni di una non attenta urbanizzazione¹⁷ e la mancanza di adeguati strumenti di protezione civile¹⁸.

¹² Marsh G.P., *Man and Nature or physical geography as modified by human action*, New York, 1864, ora *L'uomo e la natura. Ossia la superficie terrestre modificata per opera dell'uomo*, Milano, 1993.

¹³ Galanti A., *I delitti contro l'ambiente*, Pacini, II ed., 2024.

¹⁴ Amorosino S., *Diritto dei beni culturali e del paesaggio*, Wolters Kluwer, II ed., 2024.

¹⁵ Meadows D.h., Meadows D.l., Randers J., *I limiti dello sviluppo. Rapporto del System Dynamics Group, Mit, per il progetto del Club di Roma sui dilemmi dell'umanità*, Milano, 1972.

¹⁶ Carducci M., Sisman E.S., *La metrica della sostenibilità eco-sociale: l'analisi eMergetica come democrazia partecipata per la “non interferenza” umana sul sistema climatico*, Federalismi.it, 3/2025, p. 381.

¹⁷ Gusmai A., *Il governo del territorio, Premesse costituzionali allo studio dell'urbanistica*, Cacucci, 2024.

¹⁸ Stupazini R., *Il diritto dell'emergenza nel Codice della protezione civile: bilanci e prospettive*, Federalismi, 4/2025, pp. 198-245.

Si trattava di stabilire regole¹⁹. I tentativi multilivelli²⁰ sono noti e vengono qui evidenziati e sapientemente esposti dai vari relatori. Le questioni sono affrontate da più profili in relazione a specifici aspetti, che progressivamente emergono dalla realtà e dai confronti dei tecnici e degli studiosi.

Un mezzo per regolamentare o regimentare lo sviluppo economico disordinato²¹ è stato progressivamente affidato alla normativa Costituzionale²², tributaria²³, penale ed anche amministrativa. Si tratta di una sorta di deviazione dalla funzione tradizionale del tributo o del contributo, nelle sue più variegate attuazioni. Anche in questo campo la normativa non mantiene una uniformità costante di indirizzo, dovendo rispondere ad altre esigenze che, progressivamente, si affacciano sulla realtà economica del paese, incidendo sui bilanci degli enti impositori.

Le sensibilità dei singoli Stati non hanno portato alla concreta definizione di interventi comuni e risolutivi²⁴. Si entra e si esce dagli accordi e le recentissime prese di posizione degli Stati Uniti portano a ritenere sempre disomogenea l'attenzione al clima ed a tutte quelle attività idonee a *consumare* la terra e non a preservarla, quale bene comune²⁵. Ci si dimentica che non siamo *Dominus*²⁶ della terra, ma solo passeggeri su di un pianeta che si muove nello spazio, con regole ferree, che noi non possiamo “forzare”. Il mito di Icaro viene costantemente sottaciuto, ep-

¹⁹ *Space Economy, Space Industry, Space Law*, Il Mulino, 2024.

²⁰ Ferrajoli L., *Perché una costituzione della Terra?*, Giappichelli, 2021.

²¹ Luciani M., *Ogni cosa al suo posto*, Giuffrè, 2023, p. 229, afferma che «la tendenza anarchica delle forze di un capitalismo finanziarizzato è la più possente spinta disordinante che agisca sulle società contemporanee».

²² Legge Cost. n. 1 del 2022.

²³ Picciaredda F., *La tassazione ambientale e l'ordinamento interno*, in *Politiche fiscali e Green Economy: Tendenze evolutive della transizione ecologica*, a cura di Marcella Martis, ESI, 2023, pp. 11-20.

²⁴ *La svolta ecologica mancata. Dalla crisi petrolifera al Golfo di oggi*, Jaca Book, 2024; Roccatagliata F., *Globalizzazione, fiscalità, etica e sviluppo. È giunto il tempo di una nuova governance per le nostre convenzioni nord-sud*, contributi coordinati da Victor Uckmar, Cedam, Tomo II, 2019, pp. 689-710.

²⁵ Giordano A., *Introduzione alla tutela del clima come bene comune*, Jovene, 2024.

²⁶ Papa Francesco, *Sii tenero sii coraggioso*, Garzanti, 2024, p. 156, dichiara che non avere cura del clima è un peccato contro il dono di Dio che è il creato.

pure è l'esempio emblematico dell'uomo che, inorgoglito dalle proprie acquisite capacità tecniche, osò sfidare l'universo.

Un certo accordo a tutela dell'ambiente si intravede ponendo un confine tra il lecito ammissibile e tutto quanto supera tale limite. La parola *sostenibilità* viene richiamata in molti contesti²⁷, ma a causa del suo "consumo" è entrata nel novero delle tante parole divenute una sorta di *passepourtout*. Si pronuncia senza che esiga un impegno serio²⁸. La sostenibilità deve essere riconosciuta in quanto costituisce lo sfondo che conferisce senso e direzione ad ogni progetto di sviluppo. Sviluppo sostenibile deve essere riconosciuto quale nozione fondamentale per ogni ambito imprenditoriale e aziendale, per il settore agricolo²⁹, per lo sviluppo urbano e per i diversi modelli di sviluppo economico.

²⁷ Baisi I., *L'approccio Life Cycle Assessment (LCA) come metodologia decisionale per l'elaborazione di politiche pubbliche maggiormente improntate alla sostenibilità ambientale*, Federalismi.it, 3/2025, p. 361.

²⁸ Galantino N., *Oltre la superficie*, il Sole 24 ore, 93/2023.

²⁹ Brocca M., *L'agricoltore custode dell'ambiente e del territorio*, Federalismi.it, 29/2024, pp. 1-22; D'ayala Valva F., *Il contribuente a tutela della natura e della buona amministrazione. Il contributo di bonifica*, in *Per un nuovo ordinamento tributario*, contributi coordinati da Victor Uckmar, Cedam, Tomo II, 2019, pp. 909-922.

Fernando Scaff, Lise Tupiassu

Sustainable development goals and taxation in the Brazilian Constitution

SUMMARY: Introduction – 1. Systemic sustainability based on the SDGs – 2. Diffusion of environmental taxation – 3. The selective tax as an environmental tax in Brazil – 4. The broader vision of taxation to achieve the SDGs – 5. The recent tax reform in Brazil and the SDGs – 6. Other contributions to SDGs on ca 132 provisions – 7. Conclusions.

Introduction

For many centuries, the liberal and utilitarian economic and political system remained distant from concerns about the biosphere. The focus was on industrial expansion, with the affirmation of individualist liberalism. But socioeconomic relations changed, as a consequence of capitalist economic development itself, causing changes in legal structures and in relations with the environment. It had become evident that the imminent depletion of natural resources and environmental assets by several countries would cause risks to the inhabitants of the Earth and to the interests of future generations.

The idea of ‘sustainable development’ is then coined, based on guaranteeing the needs of present generations, without prejudice to the needs of future generations. This idea of sustainable development, included in the Brundtland Report, despite being based on mitigating the indiscriminate use of natural resources, presented a look at the infinity of human needs that are incompatible with planetary limits and socioeconomic inequities.

Global warming, greenhouse effect, climate crisis, water scarcity have become increasingly frequent terms in everyday life and international discussions, when dealing with issues involving the life of the human species on Earth. However, the lack of access to drinking water and basic sanitation, diseases caused by harmful environmental conditions, and the extreme poverty conditions in which a large part of the population lives were issues mentioned less frequently in environmental concerns.

Nonetheless, poverty is intrinsically related to environmental degradation, and it is evident that people living in unfavorable socioeconomic conditions suffer more seriously from environmental problems and, in a deleterious cycle, are also less able to contribute to the mitigation of climate problems.

Given this scenario, it became necessary to broaden the idea of sustainable development, combining a systemic view of sustainability, which is why the 2030 Agenda came along with the Sustainable Development Goals (SDGs), as an evolution of the Millennium Goals, established in 2000 by the United Nations.

The SDGs propose a common vision for humanity, comprising 17 goals, which incorporate targets and indicators aimed at creating conditions for a lasting dignified life for the planet's inhabitants.

In this setting, there is also an intensified need to restructure mechanisms traditionally used to deal with socio-environmental issues, moving beyond the limited view of command-and-control regulatory strategies, towards increasing incorporation of economic and tax instruments.

Indeed, Green Fiscal Reforms and the establishment of environmental taxes had been implemented in several countries, with specific characteristics and effects. However, considering the systemic view applied to sustainability, especially related to the SDGs, a new vision of the tax phenomenon is also necessary, moving beyond green taxes.

This work intends to address some aspects of this issue, discussing the relationship between Taxation and the Sustainable Development Goals, and presenting some of the environmental innovations introduced in the Brazilian Constitution through Constitutional Amendment 132, dated December 20, 2023.

1. *Systemic sustainability based on the SDGs*

The notion of sustainable development entered the international political sphere in the 1970s, following the report titled *The Limits of Growth*¹, highlighting that unbridled economic growth could lead to planetary collapse. In 1972, the first United Nations Conference on the Human Environment held in Stockholm, employed the term of sustainable development, suggesting that economic growth should be sought without damaging the environment.

A clear definition of sustainable development was presented by the Prime Minister of Norway, Gro Harlem Brundtland, in the 1987's report 'Our Common Future', based on an intergenerational point of view, advocating that economic development should occur in such a way as to ensure continuous availability of natural capital and ecological amenities, without compromising the needs of future generations.

Besides that, over time, the exclusive use of the Gross Domestic Product (GDP) as a development criterion for identifying economic growth started to be weakened. Celso Furtado, dealing with this issue in 1974², used the expression 'myth of economic development', when verifying that the increase in economic indicators did not necessarily have a positive impact on improving the quality of life of individuals in society.

Confirming that the results of economic growth measured by GDP did not automatically imply benefits related to improving the population's quality of life, economic growth comes to be understood as just one element, among several others, related to the development process. The reassessment of the developmental process required the structuring of policies based on values that went beyond economic dynamics.

In this framework, Amartya Sen's ideas stand out, introducing the notion of development as a process of expanding free-

¹ D.H. Meadows, *et al.*, *Limites do Crescimento*, São Paulo, Perspectiva, 1972.

² C. Furtado, *O Mito do Desenvolvimento Econômico*, São Paulo, Paz e Terra, 1974.

doms³ guiding the creation of the Human Development Index (HDI), which was adopted by the United Nations Development Programme to measure the progress of countries, expanding the view that was restricted to economic growth measurement.

In the same tone as Sen, Ignacy Sachs⁴ advocates as an objective for development the promotion of well-being and the realization of human potential, representing the effective materialization of human rights, in various aspects. In this sense, development would require fine tuning between the different dimensions of sustainability, including social, economic, ecological, and cultural aspects.

The broadening of the concept of sustainable development was reflected on international stages for discussion and decision-making. In 2000, the United Nations established 8 Millennium Development Goals (MDGs), which incorporated factors related to poverty, education, and health, alongside environmental sustainability and the establishment of partnerships for the development of the many countries.

In 2015, based on the progress and lessons learned from the implementation of the Millennium Development Goals, and synthesizing a multinational plural discussion involving governments and citizens, an expanded and ambitious Agenda for the year 2030 was created, covering 17 Sustainable Development Goals (SDGs). It is a true global action plan, adopted by 193 UN Member States, covering the environmental, economic, and social dimensions of sustainable development in an integrated and interrelated way.

The 17 goals were translated into 169 targets to be achieved by 2030, covering diverse aspects ranging from the eradication of poverty, guaranteeing food security for all individuals on the planet, through the promotion of education, gender equality, energy security, infrastructure, sustainable production, combating the climate crisis, even ensuring peace and establishing partnerships, among many others, representing a commitment

³ A. Sen, *Amartya. Desenvolvimento como Liberdade*, São Paulo, Companhia das Letras, 2000.

⁴ I. Sachs, *Desenvolvimento: incluindo, sustentável, sustentado*, Rio de Janeiro, Garamond, 2004.

to human dignity at a planetary level, thinking of criteria for a genuinely sustainable future.

In this scenario, the role of tax instruments gains special importance, since they represent the main source of revenue for the implementation of fundamental rights and, therefore, are essential for guaranteeing this systemic sustainability translated through the SDGs.

The role of taxation in the context of sustainable development initially occurs through the establishment of environmental taxation strategies, in addition to the command-and-control instruments traditionally used, but it cannot stop there.

2. *Diffusion of environmental taxation*

Coupled with the emergence of the notion of sustainable development, the use of green taxes spread, from the 90s onwards, based on a requirement for economic efficiency itself, arisen from the need to internalize environmental externalities and the insufficiency of markets in dealing with these flaws.

Technically, externalities occur when one economic agent exerts a positive or negative influence on another, without the effects being compensated by the market, meaning that the benefit or loss that one economic agent brings to the other is not accounted for in the cost of production. Therefore, the person who receives the benefit pays nothing for it, and the person who causes the loss pays nothing for any damages caused to a third party. This indicates that costs and benefits circulate outside the market, without a price being placed on them.

Alfred Marshall first used the term in his work *Principles of Economics*⁵. However, Pigou⁶ was the first to explore the topic within the tax perspective, exposing its theoretical foundations in the first half of the 20th century within his theory on Welfare Economics, advocating the possibility of the State to promote the internalization of environmental externalities through the

⁵ A. Marshall, *Princípios de Economia*, São Paulo, Editora Nova Cultural, 1996.

⁶ A.C. Pigou, *The Economics of Welfare*, London, Macmillan, IV ed., 1932.

institution of taxes, which would culminate in imposing a cost on polluting emissions.

Pigou's idea is based on *selectivity*, taxing more heavily activities that generate *negative* externalities, such as pollution or harm to health, and privileging *positive* externalities, such as those that refer to goods and services that are essential to the population. Initially, its impact on *income* was *strongly* discussed, but only *laterally* with regards to *consumption*, and there was intense theoretical debate about its measurement.

This need to regulate market flaws gives rise to a new perspective about state intervention⁷, as public authorities intervene, through the tax sphere, to optimize the distribution of environmental costs and also to limit the emission of environmental externalities⁸.

In this scenario, several countries began to incorporate environmental taxes into their systems. However, there is still great difficulty in defining what an environmental tax actually consists of and, in particular, what are its effects.

In general, an ecological tax is one expressly created with the objective of protecting the environment. It means that the intention to induce the taxpayer's behavior must necessarily be present in the definition of the tax at the time of its inception.

Nevertheless, it seems clear that the simple fact of naming a tax 'environmental' at the time of its inception adds absolutely nothing to its reality. Calling a tax 'environmental' or 'green' does not mean that it will actually serve the cause of protecting the environment.

Therefore, when the legislator creates a tax with an environmental purpose, they must keep in mind that this purpose will only be valid if manifested in practical terms. In other words, the legislator must ensure that the tax actually serves to protect the environment, either because revenue is destined for the en-

⁷ P. Rosanvallon, *Histoire du suffrage universel en France*, Paris, Éditions Gallimard, 1992, p. 60.

⁸ L. Tupiassu, *Promoção e regulação de externalidades: breves considerações econômicas sobre o intervencionismo do Estado neo-liberal*, «Revista do Ministério Público do Estado do Pará», 1, 2006, pp. 1 ss.

vironmental cause, or because the tax directly affects an activity that is harmful to the environment.

One must keep in mind, however, that the allocation of tax revenue is an external element to its structure, and it is not always in line with the general principle of non-allocation of tax revenue. Therefore, it is essential that the environmental purpose of an ecological tax should be expressed by the elements of its incidence matrix rule and, in particular, by the material and quantitative criteria. This means, that a polluting factor – or the use of a natural resource – must be taken into account in the tax base, in order to send a message to the polluter that they will pay for the cost of environmental pollution when making environmental choices of production or consumption.

It is often not even necessary to create a completely new tax, as the simple variation of the quantitative criterion in proportion to the level of environmental externality of each product or service already allows for satisfactory internalization, providing an environmental character to any given tax. *A contrario*, there is no point in indiscriminately imposing a certain category of polluting products, without distinguishing the pollution potential generated by each element that falls within its scope.

Within this perspective, occurred the spread of Green Fiscal Reforms, adopted in several European countries, with the creation of green taxes (or taxes on carbon and other pollutants)⁹.

Brazil, although having a specific chapter, in its 1988 Constitution, to deal with the environment, had trouble making a Green Tax Reform.

The Brazilian Constitution says that ‘everyone has the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both government and community shall have the duty to defend and preserve it for present and future generations.’ (Chapter IV, inserted in Title VII, article 225). The obligation to defend the

⁹ L. Tupiassu, A. Gonçalves, J.R. Gros-Desormeaux, *Análise das Reformas Fiscais Verdes No Panorama Europeu*, «Revista de direito internacional, econômico e tributário», 14, 2020, pp. 1-27.

environment also existed as a principle of the economic order, with no ways of implementation.

With CA 6, in 1995, it was added that this economic consideration will occur ‘through differentiated treatment in accordance with the environmental impact of goods and services and of their production and delivery processes’ (article 170, item VI, Federal Constitution). But it still that there were no specific constitutional tax provisions regulating the matter.

In 2001, a new Constitutional Amendment 33 decided that the resources collected by CIDE (Contribution for Intervention in the Economic Domain), when levied on oil activity, would have a part of its resources destined to the financing of environmental projects related to the oil and gas industry (article 177, §4, II, ‘b’). The CIDE could be considered a green tax because it relies on fuels, but it does not really takes into account the pollution level of each product.

Only in 2023, through the broad consumption tax reform approved during President Lula’s third term, with CA (Constitutional Amendment) 132, did environmental concerns enter the constitutional tax system – although many rules existed in the infra-constitutional scope.

Although we cannot talk about Green Fiscal Reform, we can consider that some environmental aspects in taxation were recently strengthened with this reform, especially considering the creation of the Selective Tax.

3. *The selective tax as an environmental tax in Brazil*

Constitutional Amendment 132 approved the creation of a Selective Tax (IS) on the ‘production, extraction, commercialization or import of goods and services harmful to health or the environment, under the terms of a complementary law,’ within the competence of the Union (article 153, VIII).

In some ways it can be considered as a green tax.

At first glance it seems quite positive, since its incidence will correspond to what in doctrine is identified as a *tax on externalities*, also known as *excise tax* or *sin tax* – although the name is not entirely adequate to the proposed normative description.

This type of tax is also known as *Pigouvian tax*, named after the British economist Arthur C. Pigou, considering his theory that we exposed in Topic 2. In Brazil, as worded, it will only target *negative* externalities and may affect different stages of the economic cycle.

It is also stated that the IS: 1) will not affect exports (except oil and ores); 2) nor will it affect electricity and telecommunications operations; 3) will be levied only once on the good or service; 4) will not integrate its own tax base, although it will integrate that of other specified taxes (ICMS, ISS, IBS, and CBS); 5) may have the same taxable event and tax base as other taxes; 6) its rates will be fixed by ordinary law, which may be specific, per unit of measurement adopted, or *ad valorem*; 7) and, in the extraction of oil or ore, the tax will be charged for the extraction regardless of the destination (which allows taxation on export), in which case the maximum rate will correspond to 1% (one percent) of the product's market value.

The complementary law that will regulate this constitutional innovation is still to be drafted, but it is already extremely negative that the IS integrates the tax base of other taxes; that is, *it will be a tax that affects other taxes*, which has already caused a lot of legal discussion. Furthermore, the IS still 'may have the same taxable event and tax base as other taxes,' which opens up the possibility of inadequate and undue tax overlaps.

Although it is stated that 'it will be levied only once on the good or service,' it is not clear whether in the production process the levies on one or a few inputs will eliminate taxation on the final product. It is noteworthy that the expression 'harmful to health or the environment' is very broad, allowing it to affect both the *economic chain* and the *product* that results from it. This is an aspect that can generate countless lawsuits. For example: the industrialization of sugarcane can result in ethanol or sugar. If sugar is deemed a product harmful to health, only sugar itself or the entire production chain will be subject to the IS? Will the 'sugar' product or will products that result in sugary drinks, such as soft drinks, be deemed harmful to health? Or will it affect the entire economic chain of industrialization of these drinks? Or, still, will it affect the sugar production chain

and also the soft drinks production chain? These aspects must be regulated in the complementary law.

Taxation on ore and oil *exports* constitutes another problematic aspect of this tax, since, as a universal rule, no taxes should be exported, only goods and services.

In internal operations, the incidence of IS on oil products, fuels, and ores will lead to an increase in the price of these currently essential goods. Note the impact of these products on production chains in general, and on consumers. This is not the same question as above, with the example of soft drinks, as it is broader. The focus on ores in general is relevant, as one only needs to look around and see that our daily lives are full of them, from computer chips and cell phones to the sand, cement, and bricks of the buildings that house us. All of this will be impacted, regardless of whether or not the product or the specific production process is taxed. The same can be said about oil products, which include plastics.

Regardless of the debate outlined above, which is extremely worrying in itself, there is another issue, specific to oil, which affects fossil fuels. There are those who argue that it is essential to establish the incidence of the IS on these products, as they are harmful to the environment, and Brazil must adhere to good international practices. This argument cannot be contested, under penalty of denying science; however, in the *Brazilian tax context*, what should be done with CIDE-Petróleo, which already fulfills this function, including allocating the resources collected for environmental preservation expenses? Constitutional Amendment 132 did not provide for the hypothesis that, if CIDE applies, the IS would not apply, or vice versa. There will be double incidence, with the same purpose. It should be noted that the sector already pays the CFEM (Financial Compensation for Mineral Exploration) to the Union during extraction, although it is not configured as a tax, but as a financial cost (public price) resulting from this activity.

There will certainly be a price increase that will directly affect costs and inflation. It is worth remembering that the IS will have IBS and CBS in its tax base, repeating the perverse dynamic of *tax on tax*, already widely contested—in addition to being

cumulative, that is, it does not deduct the amount that is paid in relation to previous operations.

It is expected that the complementary law will eliminate the problems mentioned above and regulate the IS in a way that is appropriate to the SDGs, and not simply for fund-raising purposes.

Anyway, when analyzing the green taxes within the context of systemic sustainability, and especially as recommended with the 17 goals that make up the 2030 Agenda, it appears that the impositions aimed at the internalization of negative environmental externalities concern only one or a few aspects of the SDGs. In general, SDG 13, related to the fight against climate change, is the goal aspired with green taxes. The common increase in regressiveness inherent to taxation structured in green taxes can also, at times, harm the fulfillment of other SDGs.

The potential of taxation in achieving the Sustainable Development Goals, therefore, must be discussed in its great complexity, which goes far beyond the use or creation of green taxes, and should not be restricted to the scope of SDG 13.

It is necessary to broaden the structuring view of the role of taxes within a scenario that requires measures to be taken so that the many countries in the world achieve the goals to which they committed in 2015.

4. The broader vision of taxation to achieve the SDGs

The adoption of the 2030 Agenda for Sustainable Development brought a commitment from all countries to a set of universal, integrated, and transformational goals and targets, codified in the SDGs, whose translation into action represents a great challenge.

Taxation is an important mechanism for stimulating sustainable development and can increase the efficiency of the use of natural resources, boost innovation, and enable transformation to achieve the common good. A fiscal policy that promotes the creation of adequate incentives in the economy, coupled with an optimized use of resources, are key factors for achieving the Sustainable Development Goals.

A partnership between the International Monetary Fund (IMF), the Organization for Economic Co-operation and Development (OECD), the United Nations (UN), and the World Bank Group (WBG) identified taxation as a significant factor in at least 10 of the 17 SDGs, structuring a specific platform to address the interrelationship between these elements.

The connection between taxes and the SDGs established by the platform is based on several major elements.

The first of these is the importance of resources generated by taxes, which are essential to finance public activities that serve the implementation of the SDGs. Certainly, all SDGs are covered by this element, as public resources are essential for the implementation of any public policies. There is a special relationship between this aspect and the provisions of SDG 17, which deals with building partnerships and means of implementation to meet the SDG targets.

A second aspect concerns equity and economic growth, which are intrinsically affected by the tax structure. This element is directly correlated to SDG 1, which concerns the eradication of poverty; as well as to SDG 8, which brings targets of economic growth with decent work; and to SDG 10, relating to the objective of reducing inequalities; and equally to SDG 5, which addresses gender equality.

Furthermore, taxes influence people's behavior and choices, with implications for results in health, education, sustainable consumption, clean energy, and the fight against climate change, covered by SDGs 3, 4, 12, 7, and 13.

Furthermore, fair and equitable taxation promotes taxpayer trust in the government and strengthens the social contracts that support development, in accordance with SDG 16, which is aimed at promoting Justice, peace, and solid and effective institutions.

It is interesting to note that the increase in the internal fiscal effort of countries has been highlighted by international institutions as a key element in this scenario. In fact, the lack of imposing capacity has been seen as a symptom, but also as one of the causes of development difficulties. In this sense, interna-

tional institutions (IMF and World Bank)¹⁰ indicate as a priority the mobilization of national funds, through the optimization of tax systems and imposing capacity, so that the Sustainable Development Goals can be achieved. However, the benefits of increased revenue obviously depend on the way in which public resources are allocated. In other words, obtaining resources or increasing taxation alone is insufficient; hence, their influence on the implementation of the SDGs depends on how resources are managed and used.

Thusly, when focusing attention on optimizing the systems for obtaining internal resources in countries, the necessary implementation of the SDGs demands that any increase in the tax burden be actually accompanied by an effective improvement in the allocation of social spending.

The achievement of systemic sustainable development makes it clear, therefore, that the tax phenomenon must be structured in conjunction with the financial phenomenon, correlating with the way in which resources are applied, as well as with the use of tax expenditures and financial funds that connect revenue to a specific expense, aimed at meeting the SDGs.

Regarding taxation itself, further development regarding the structuring of the system and its inductive and internalizing aspect seems essential.

It should be noted that the inductive aspect of taxation is extremely important when seeking sustainable agriculture (SDG 2), as well as for the development of responsible production and consumption (SDG 12) and for encouraging the production of clean energy (SDG 7). It also applies within urban structuring policies, being fundamental for the achievement of SDG 11. Tax incentives are also highly valuable instruments for the development, furthermore, of industrial innovation (SDG 9).

Moreover, taxation as an element of internalization of externalities is an indispensable instrument in the fight against climate change (SDG 13), through environmental taxation (as

¹⁰ Cfr. International Monetary Fund and World Bank Group, *Enhancing the Effectiveness of External Support in Building Tax Capacity in Developing Countries*, July, 2016.

mentioned). The differential taxation of negative externalities likewise serves to meet SDG 3, as an element of health policies, resulting in a more severe imposition not only on alcohol and tobacco, but also on sugary drinks and ultra-processed foods.

This also involves structuring a fair imposition on natural resource extraction industries, which are very common in countries with a development deficit. Such imposition must consider the negative externalities, but also the positive externalities of such activities – and their ephemeral nature as well, promoting a system that values intergenerational sustainability.

Finally, it is worth highlighting the primary role of using taxation within a gender-sensitive perspective, a key goal for meeting SDG 5. This is because the pseudo-neutrality of the tax system hides a bias that exacerbates inequality between genders, resulting both from the exacerbated regressiveness and the lack of differentiation in the form of imposition, which often culminates in taxing more severely products consumed mostly or exclusively by women (as is the case with taxation on menstrual hygiene products).

At this point we reach the intersection between the basis (or form) of incidence that influences taxpayers' behavior and the structuring of the tax system (and administration) itself.

Without seeking to build an imposition strategy based on progressiveness, it becomes almost impossible to achieve the eradication of poverty (SDG 1) and the reduction of inequalities (SDG 10).

Furthermore, in meeting SDGs 16 and 17, it is essential to build a solid, transparent, and efficient tax administration, capable of combating tax evasion fairly and effectively, and which makes serious use of tax expenditures as essential elements for social cohesion.

Finally, the maintenance of complex tax systems and the lack of concern with increasing the capacity and efficiency of tax administrations undoubtedly increase the risks of tax evasion and the flow of illicit capital, which imply the loss of valuable resources and the waste of one of the most powerful instruments in achieving systemic sustainability through the Sustainable Development Goals.

With the recent Consumption Tax Reform, in Brazil, some of these aspects were considered.

5. *The recent tax reform in Brazil and the SDGs*

One of the greatest novelties considering sustainability aspects in CA 132 is the insertion of an §3 on article 145 of Brazilian Constitution.

It prescribes that the National Tax System shall observe the principle of protecting the environment, which will inhibit various tax rules that encourage pollution, even if inductively, bringing economic impacts in the short term, with benefits for the entire population on medium and long terms, and meeting several established SDGs, such as 13 (Climate Action), 14 (Life Below Water), 15 (Life on Land), in addition to 7 (Affordable and Clean Energy). The principle in its entirety applied to all federated entities, whether in tax imposition or tax expenditures. This is a beneficial innovation, as it highlights environmental concerns together with purely economic interests, even though it deals with revenue directed to state coffers.

Paragraph 3 of article 145 also enshrines the principles of simplicity, transparency, tax justice, and cooperation, which is in line with SDG 17 (Partnerships for the Goals) and 16 (Peace, Justice and Strong Institutions). *Simplicity* is a desideratum that must always be pursued, especially with regard to what is paid by society for the provision of public services. *Transparency* is always welcome, as it allows one to see more clearly what is being charged, as well as what for the collected resources are being used.

Much more complex is the proposal to implement the principle of *tax justice*, linked directly to SDG 16 (Peace, Justice and Strong Institutions), especially with regard to consumption taxation, which tends to be the same for all consumers, and may vary in terms of selectivity, not progressiveness. This precept must be read together with §4 of the same article 145, also introduced with CA 132, which determines that changes in tax legislation must seek to mitigate regressive effects, something usual in consumption taxation.

The analysis of the principle of tax justice would require, given its complexity, a vast specific study that does not fit into this study, but it is highlighted that the debate must permeate what is individual (how much each person pays) and what is general (how much is collected, and its use for the benefit of society), which leads us to discuss the matter from a macro and micro legal perspective¹¹. Should tax justice be analyzed from an individual or a general perspective? It is at this point that the complexity of the topic increases, possibly reaching intergenerational aspects, which bear a strong connection to environmental and financial matters.

The inclusion of this principle in the National Tax System is positive, so long as it does not become a dead letter, with merely rhetorical effects, as it constantly happens with principles that only vaguely establish the protection of taxpayers.

Despite CA 132 focusing on the issue of *consumption* taxation, some aspects of *property* taxation were also changed, introducing some environmental aspect.

For the Tax on Motor Vehicle Ownership (IPVA), it was established that it will have minimum rates set by the Federal Senate, which may vary depending on the type, value, use, and environmental impact of the vehicle (article 155, §6). This puts polluting vehicles under the spotlight, as they will suffer a greater burden due to this tax. Sustainable Development Goals 7 (Affordable and Clean Energy) and 13 (Climate Change) are at the center of this alteration.

The Tax on Mortis Causa and Donation Transmissions (ITCMD) will have its maximum rates set by the Federal Senate (currently at 8%, according to Resolution 9/92) and will not be levied on donations destined, within the scope of the Executive Branch of the Union, to socio-environmental projects or projects intended to mitigate the effects of climate change and intended for federal educational institutions (article 155, §1, V). This is a very positive change, encouraging donations to the third sector,

¹¹ F. Scaff, *An Introduction to an Analysis of the Macro and Micro Legal Aspects and Public Policies*, «Beijing Law Review», 14, 2023, pp. 1673-1689.

which were previously taxed and generated a lot of discussion during the Covid-19 pandemic.

Now, the Urban Real Estate Tax (IPTU), since the original wording of the 1988 Constitution, provided for the possibility of being applied *progressively over time*, aiming to implement the social function of property (article 182, §4, II of the Federal Constitution), which is in line with SDG 11 (Sustainable Cities and Communities). The rule establishes that the Municipality is entitled to demand from the owner of urban land that is not used or not built on, or that is being underutilized, that they promote its adequate use, under penalty of the tax being increased year by year, in accordance with the law that approved the Municipal Master Plan.

Besides these taxation instruments, some new fiscal federalism and regulation strategies introduced by CA 132 provision can be positive for the SDGs implementation.

6. *Other contributions to SDGs on ca 132 provisions*

There is a system that is not exactly a *tax system*, as it does not refer to imposition on taxpayers, but a *financial system*, since it concerns the apportionment of funds that have already entered the public coffers, whose allocation is directed towards environmental issues. One of these financial instruments is the Tax on the Circulation of Goods and some services (ICMS, ICMS-Ecológico), whereby part of what is collected by the States must be shared with Municipalities that care for environmental issues. With CA 132, the ICMS will be gradually extinguished, and a dual VAT will be introduced, through which States and Municipalities will start charging the Tax on Goods and Services (IBS). During the processing of the Constitutional Amendment Project, there were doubts about the allocation of IBS resources to the environment, along the lines previously recommended for ICMS-Ecológico. The connections, however, were maintained, as seen in article 158, §2, III, which allocates 5% of what is transferred by the States to the Municipalities based on environmental preservation indicators, in accordance with state law.

Another financial instrument can be seen in the institution of the National Fund for Regional Development (article 159-A, Federal Constitution). Its objective is reducing regional and social inequalities, determining the application of priority resources for projects that provide for environmental sustainability actions and reduction of carbon emissions, which is aligned with SDGs 7 (Affordable and Clean Energy) and 13 (Climate Action), among others.

Gender equality, which is included in SDG 5, was also the subject of CA 132, by establishing that the various differentiated taxation regimes will be subject to a five-year cost-benefit assessment and must examine the impact of tax legislation on promoting equality between men and women (article 9, §§ 9 and 10, CA 132). It should be noted that a differentiated regime was established for the taxation of products linked to basic menstrual health care and personal hygiene and cleaning products mostly consumed by low-income families, reducing the basic IBS rate by 60% (article 9, §1, VI and IX, CA 132), the latter more so related to SDG 1 (No Poverty), but both linked to SDG 3 (Good Health and Well-Being).

Article 225, VIII was also introduced through CA 132, determining that the Public Administration should maintain a favorable tax regime for biofuels and low-carbon hydrogen, in the form of a complementary law, in order to ensure them lower taxation than that levied on fossil fuels, capable of guaranteeing a competitive differentiator in relation to them. This precept has a competitive logic in favor of fuels with low carbon emissions, compared to fossil fuels, which is positive in environmental terms, and meets SDGs 7 (Affordable and Clean Energy) and 13 (Climate Action).

Finally, it was also established by CA 132, as a novelty, that, whenever possible, the granting of regional incentives by the Union will consider environmental sustainability criteria and carbon emissions reduction (article 43, §4), which constitutes an environmental protection measure. The use of the expression 'whenever possible' in the wording of the standard denotes the *relationship of tension* between SDGs 08 (Decent Work and Economic Growth), 10 (Reduced Inequalities), and 1 (No Poverty),

in comparison with several others, such as 13 (Climate Action). On the one hand, there are notable difficulties for the development of certain Brazilian regions, as seen in the Northeast, which may lead to the hypothesis that economic aspects become decisive; on the other hand, it highlights the environmental issue, preventing predatory economic practices. This *relationship of tension* reflects the difficulty in acting to comprehensively comply with all SDGs, which ends up generating *compromise solutions* in the approved standards, reducing their effectiveness.

7. Conclusions

Upon realizing the environmental problem, a broad change in world society was observed, with the Brundtland Report as a landmark. From then on, several actions began to be determined globally as *soft law*, since they do not require the internationalization of these rules through international conventions or treaties, aiming to combat problems that are common to all humanity. Hence the creation of the 17 SDGs (Sustainable Development Goals), which present actions to achieve the 08 MDGs (Millennium Development Goals).

The environment surrounds everyone, including us as agents capable of generating relevant impacts on it, through both actions and omissions.

The tax and financial system, which directly involves national states, must be engaged in this global effort, as, without *national* public resources, these *universal* goals will never be achieved. This is the reason tax law and financial law studies must focus on achieving these efforts, aiming to obtain resources and induce behaviors that are more in line with sustainable development, which is one of the central objects of environmental law.

In Brazil, the consumption tax reform, passed on December 20, 2023 through CA 132, constitutionalized several precepts that are in line with the Sustainable Development Goals (SDGs), as explained, including adding the environment as one of the principles that must guide the entire national tax system.

It was an important step, which, it is hoped, will be expanded in the complementary laws to be drafted.

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Giuseppe Rivetti, Giurista. Presidente del Corso di laurea triennale *Teorie, culture e tecniche per il servizio sociale* (Classe L-39) e del Corso di laurea biennale in *Politiche e programmazione dei servizi alla persona* (Classe LM-87), Dipartimento di Giurisprudenza. Professore di Diritto Tributario e Tassazione ambientale nell'Università degli Studi di Macerata.

Maria Assunta Icolari, Giurista. Direttore del Master di secondo livello in Diritto Tributario, Componente del gruppo AQ del Corso di laurea Magistrale in Giurisprudenza (Classe LMG-01), Dipartimento di Scienze Giuridiche e Politiche, Professoressa di Diritto Tributario e di Elementi di diritto tributario, frode fiscale e tecniche di indagine nell'Università degli Studi Guglielmo Marconi.



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