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**CARBON, BIODIVERSITY AND NUTRIENTS:
NEW LAND USE CONSIDERATIONS – ITALY**

ABSTRACT

I diversi punti affrontati nel *report* riguardano le misure di contrasto ai cambiamenti climatici; la proprietà del capitale naturale, la sua valutazione, commercio e tassazione; le problematiche sull'utilizzo dei prodotti fitosanitari; gli incentivi per la protezione del capitale naturale. Passando in rassegna le varie e ampie questioni che sollecitano tutti questi argomenti, il documento intende offrire una panoramica generale delle politiche italiane volte a proteggere e valorizzare il capitale naturale a livello nazionale. Sebbene l'Italia cerchi di essere all'avanguardia seguendo scelte che vorrebbero essere sempre più sostenibili, il raggiungimento degli obiettivi prefissati è un continuo *work in progress* ed è ancora in fase di implementazione.

The several points addressed in the report concern counteracting climate change emergency; ownership of natural capital assets, its evaluation, trading and taxation; concerns about plant protection products; incentives to protect natural capital. Going through the various and wide issues that prompt all these topics, the paper intends to offer a general overview of the Italian policies aimed to protect and enhance natural capital at a national level. Although Italy tries to be at the forefront of managing its natural capital in increasingly sustainable ways, reaching the settled goals is a continuous work in progress and is still under implementation.

PAROLE CHIAVE: Cambiamenti climatici – Capitale naturale – Uso del suolo – Biodiversità.

KEYWORDS: *Climate Change – Natural Capital – Land Use – Biodiversity.*

TABLE OF CONTENTS: 1. Preliminary remarks. – 2. The Italian position in relation to Climate Change Emergency, including targets, mechanisms and policies that have been developed to enable the crisis in relation to climate change to be addressed with a particular focus on those within agriculture. – 2.1. The land use plans to protect natural capital and their impact on farming. – 3. The ownership of natural capital assets and the tools offered to farmers to enhance their circulation. – 4. Constraining provisions and concerns about nutrients, fertilizers, pesticides, herbicides use in land. – 5. Farming activities and incentivizing tools to enhance natural capital. – 6. Taxation profiles and incentives to enhance and protect natural capital. – 7. Final remarks.

1. This paper intends to offer a general overview of Italian policies aimed to protect and enhance national natural capital, which could be defined as the stocks of natural assets, which include geology, soil, air, water and all living things¹.

This topic is strictly linked to climate change emergency, pointing out how a well-preserved natural capital could help facing this global issue. In fact, looking at the international context, in the last decade several international commitments declare the will to arrest climate change² as well as many countries have announced their engagement to forefront this emergency. In addition, various and numerous companies are involved to achieve “net zero”³ and the climate change litigation is

¹ According to the UK Natural Capital Committee, Natural Capital means «part of nature which directly or indirectly underpins value to people, including ecosystems, species, freshwater, soils, minerals, the air and oceans, as well as natural processes and functions. Natural capital underpins the four types of capital set out below. In combination with other types of capital, natural capital forms part of our wealth; that is, our ability to produce actual or potential goods and services into the future to support our wellbeing», see the document named “*Natural Capital Terminology*”, published on <https://assets.publishing.service.gov.uk/media/5f352ebbe90e0732e2d7ca58/ncc-terminology.pdf>.

² Among the several document about this topic, it should be mentioned the Paris Agreement, adopted under the United Nations Framework Convention on Climate Change. It is the first universal and legally binding global climate agreement, signed on 22 April 2016 and ratified by the European Union on 5 October 2016. It sets out a long-term temperature goals and aims to strengthen the global response to the threat of climate change by increasing the ability to adapt to the adverse impacts of climate change and by making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. Pursuant to this agreement, on 29th July 2021 the Reg. (UE) no. 2021/1119 was approved, which sets out a binding goal of climate neutrality in the Union by 2050 and establishes a framework for the irreversible and gradual reduction of anthropogenic greenhouse gas emissions.

³ Looking at the European framework, in the Action Plan on Financing Sustainable Growth (COM/2018/097 final), adopted in March 2018, the Commission committed to establish a detailed EU classification system – known as EU Taxonomy – for sustainable economic activities, in order to create a common language for all actors in the financial system. The Regulation on the establishment of a framework to facilitate sustainable investment (Reg. (EU) no. 2020/852) has created a unified EU classification system of

spreading⁴. These pledges confirm the extent of the crisis and the role played by each single country, citizenship and individuals, in an international cooperation perspective.

However, the natural capital state still keeps worsening. The 2030 Agenda Goals are still under implementation; the Aichi Targets, as set at the 10th Conference of the Parties (“COP”) of the International Convention on Biological Diversity, held on 2010 in Nagoya-Aichi, were not fully achieved and only six recorded a partial achievement⁵. Instead of several signs of progress being made, they are still insufficient to grant effective protection and enhancement of natural capital. To achieve European strategic goals, facing these global issues through an accurate and effective development of an ambitious nature protection and restoration plan is urgent and not delayable.

Focusing on agriculture and farming, climate change emergency has brought even more emphasis on land use and, more specifically, the value provided by natural capital. In fact, natural capital offers a wide range of services, called ecosystem services⁶, which make human life possible and

environmentally sustainable economic activities and imposed transparency obligations on certain non-financial and financial undertakings with respect to those activities. The Commission adopted the Eu Taxonomy Climate Delegated Act (Reg. (EU) no. 2021/2139) to set out a list of technical screening criteria for certain economic activities to be considered as contributing substantially to the objectives of climate change mitigation and climate change adaptation. On 9 March 2022, the Commission amended the Climate Delegated Act by providing technical screening criteria for certain energy activities (Reg. (EU) no. 2022/1214). Lastly, on 20 October 2023, the Commission has published a notice, named Interpretation and implementation of certain legal provisions of the EU Taxonomy Climate Delegated Act, establishing technical screening criteria for economic activities (C/2023/267).

⁴ Several research centers are monitoring such kind of litigation, The Centre for Climate Change Economics and Policy (CCCEP), www.cccep.ac.uk; The Grantham Research Institute on Climate Change and the Environment, www.lse.ac.uk/grantham; The Sabin Center for Climate Change Law, www.climatecasechart.com. See M. SPITZER - B. BURTSCHER, *Liability for climate change: cases, challenges and concepts*, in JETL, 2017, 2, p. 137 ss; R. LORD - S. GOLDBERG - L. RAJAMANI - J. BRUNNÉE (eds.), *Climate Change Liability*, Cambridge, 2011; J. SETZER - R. BYRNES, *Global Trends in climate change litigation*, in *Policy report*, July 2020

⁵ See *Global Biodiversity Outlook (GBO-5)*, which summarizes the latest data on the status and trends of biodiversity and draws conclusions to the further implementation of the Convention on Biological Diversity, <https://www.cbd.int/gbo5>

⁶ The Convention on Biological Diversity defines ecosystems as «a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit» (art. 2). An important milestone was the Millennium Ecosystem Assessment (MAES) which made prominent the idea that human well-being depends on ecosystems, and that such linkages can be tracked through the notion of ecosystem services, defined as «the benefits people derive from ecosystems». According to The Economics of Ecosystem and Biodiversity (a global initiative focused on «making nature’s values visible»,

contribute to counteract climate changes. Since 38% of land across the world are dedicated to agriculture⁷, this sector is under strict scrutiny⁸ and ask for an answer to the following question: how law and policy must adapt to address and face the emerging issues, in order to protect and enhance our natural capital.

In this context, Italy needs to be bucking the trend. The synthesis report on the state of biodiversity produced in 2020 and the results of the implementation of the National Biodiversity Strategy related to the last decade offer a worrying picture as well as targets indicated by the EU strategies and directives still need to be achieved. Nonetheless, in several strategic documents our country aims to be at the forefront of managing its natural capital in increasingly sustainable ways, but reaching the settled goals is a continuous work in progress and is still under implementation. In particular, finding effective coordination between these strategic documents and regional choices is challenging, since agriculture is a matter of regional competence⁹.

launched by Germany and the European Commission in response to a proposal by the G8+5 Environment Ministers in Potsdam, Germany in 2007, and now hosted by the United Nations Environment Programme) ecosystem services can be categorized in four categories: provisioning services are the products obtained from ecosystems such as food, fresh water, wood, fiber, genetic resources and medicines; regulating services are defined as the benefits obtained from the regulation of ecosystem processes such as climate regulation, natural hazard regulation, water purification and waste management, pollination or pest control; habitat services highlight the importance of ecosystems to provide habitat for migratory species and to maintain the viability of gene-pools; cultural services include non-material benefits that people obtain from ecosystems such as spiritual enrichment, intellectual development, recreation and aesthetic values.

⁷ FAO, *Statistical yearbook. World, food and agriculture 2022*, in <https://www.fao.org/3/cc2211en/online/cc2211en.html>

⁸ See S. CARMIGNANI, *L'agricoltura resiliente e le sfide della giustizia climatica*, in *Dir. agroalim.*, 2023, p. 69, who addresses the climate change issue from the point of view of the agricultural sector, considered as a leading player in climate adaptation and mitigation strategies in the prospect of fully implementing the economic and social purposes of art. 39 TFEU; A. FORTI, *Emissioni agricole clima-alteranti e regole di mitigazione*, in *Riv. dir. agr.*, 2019, I, p. 60, who focus on the rules that the main international law bodies and the EU are serving to contain the climate-altering action of modern agriculture.

⁹ Pursuant to art. 117 Cost., agriculture and forestry are matters of regional competence. At the same time, since State and Regions are parified, other matters of State's sole competence and of shared competence strongly affect agriculture and forestry (i.e. regulations about landscape, environment, market and antitrust), to go deepen see E. ROOK BASILE (eds.), *Dopo la modifica dell'art. 117 Cost.: problemi ed esperienze sulla competenza della materia agricoltura. Atti del convegno di Siena*, Milano, 2006. On the same path, P. CARROZZA, *Agricoltura tra Europa, Stati e Regioni. Quale futuro per una "non-materia"?*, in E. CRISTIANI - A. DI LAURO - E. SIRSI (eds.), *Agricoltura e Costituzione. Una costituzione per l'agricoltura*, Pisa, 2018, p. 9 deals the issue through a systematic approach and R. PASSAGLIA, *L'importanza della materia agricoltura nel tessuto costituzionale*, *ibidem*, p. 49 focuses

All these aspects could be better revealed addressing the following topics, counteracting climate change emergency, ownership of natural capital assets, financial aspects and concerns about plant protection products. The purpose is to outline the main guidelines which have inspired the Italian legal framework up to date, to trace the next steps should be taken by our country, clarifying, as a preliminary remark, that an incentivizing approach rather than a regulatory one has inspired most of the Italian choices¹⁰.

2. At the Italian level, it is useful to consider the recent national constitutional reform that has modified Articles 9 and 41 through the Constitutional Law no. 1/2022¹¹. Although these norms do not recall the climate change countering, they emphasize environment protection and enhancement, recalling that, in the past, the Italian Constitution does not directly provide for that¹². Article 9 requires protecting biodiversity and

on the risks regarding competence fragmentation on agriculture. See also F. ADORNATO, *Costituzione e agricoltura tra passato e presente*, in *Riv. Ass. Rossi Doria*, 2010, p. 83 and S. MASINI, *Agricoltura e Regioni. Appunti sulla riforma costituzionale*, Roma, 2002.

¹⁰ See E. ROMAGNOLI must be given credit for proposing a systematic approach of all the special regulations about agriculture. In his several essays, he focuses on the several market reasons that ask for an incentivizing regulations, among these see *Impresa Agricola* (voce), in *Dig. disc. priv., sez. comm.*, VII, Torino, 1992, p. 76. In similar terms, A. JANNARELLI, *Mercato e concorrenza nella nuova PAC: un cantiere aperto su un futuro incerto*, in *Riv. dir. agr.*, 2021, I, p. 453, analyses the new CAP reform and points out how agriculture is made of incentivizing and regulatory rules, which are separated but act in a strong relationship.

¹¹ L. Cost., 11 febbraio 2022, n. 1, *Modifiche agli articoli 9 e 41 della Costituzione in materia di tutela dell'ambiente*. About this reform see, *ex multis*, M. CECCHETTI, *La riforma degli articoli 9 e 41 Cost: un'occasione mancata per il futuro delle politiche ambientali?*, in *Quad. Cost.*, 2022, p. 351 ss.; F. FRACCHIA, *L'ambiente nell'art. 9 della Costituzione: un approccio in "negativo"*, in *Dir. econ.*, 2022, p. 15 ss.; F. GALLARATI, *Tutela costituzionale dell'ambiente e cambiamento climatico: esperienze comparate e prospettive interne*, 8 luglio 2022, in *DPCE online*, 2022, p. 1085 ss.

¹² In 1948, when the Italian constitution entered into force, the environment was not mentioned. Thanks to Italian Constitutional Court decisions, the environment was protected through a combined lecture of articles 9 (landscape) and 32 (health), assuming that there is a substantial coincidence between environment and landscape protection and health right should be perceived as a collective health right (Corte Cost. 28 May 1987, n. 210; Corte Cost. 30 December 1987, 641) In the same way the Supreme Court (Cass., Sez. un., 6 October 1979, n. 5172). The 2001 constitutional reform modified Title V and rethinks the competence criteria, addressing environment protection to the State's sole competence and environment enhancement to the shared competence between State and Regions. Regarding this topic see M.S. GIANNINI, *"Ambiente": saggio sui suoi diversi aspetti giuridici*, in *Riv. trim. dir. pubbl.*, 1973, p. 15, who proposes three different perspectives to environmental law, environment as landscape; environment as soils, waters and air protection; environment as urban planning. Academics disputes about the meaning of the environment notion, among them see A. POSTIGLIONE, *Ambiente: suo significato giuridico unitario*, in *Riv. trim. dir. pubbl.*, 1985, p. 44;

ecosystems, granting future generations' interests too. Article 41 accepts that social and environmental purposes could influence economic activities. The amendments confirmed the academic orientation that supported the reconstruction of the environment as a fundamental human right, distinct from the landscape¹³, that has to be studied from an existentialist approach¹⁴. Today, environment receives an official constitutional consecration and is considered by academics as a common good oriented to satisfy the human needs, in a perspective of intergenerational solidarity¹⁵. At the same time, the topic is also strongly related to Article 44, which ask for a rational use of the land. In the interpretation gradually proposed over the years, this principle embraces economic interests as well as environmental and landscape protection. So, regarding agriculture, land use is targeted toward the pursuit of collective interests, and economic exploitation could offer a significant contribution¹⁶.

F.G. SCOCA, *Tutela dell'ambiente: impostazione del problema dal punto di vista giuridico*, in *Quad. reg.*, 1989, p. 533; F. FRACCHIA, *Sulla configurazione giuridica unitaria dell'ambiente: art. 2 Cost. e doveri di solidarietà ambientale*, in *Dir. econ.*, 2002, p. 215; L. PERFETTI, *Premesse sulle nozioni giuridiche di ambiente e paesaggio. Cose, beni, diritti e simboli*, in *Riv. giur. amb.*, 2009, p. 1. Lastly, according with C. CHIARIELLO, *Ambiente (diritto all')* (voce), in *Dig. disc. pubbl.*, Torino, 2017, p. 18, the meaning of environment notion is an aporetic searching. *Contra*, as noticed by S. CARMIGNANI, *Tutela dell'ambiente e regime delle competenze*, in L. COSTATO - A. GERMANÒ - E. ROOK BASILE (eds.), *Trattato di diritto agrario. II. Diritto agroambientale*, Torino, 2011, environment is a unified concept, albeit in the plurality of its components, attitudes and transversality.

¹³ This interpretation has been definitely enshrined by the European Landscape Convention (CEP). Pursuant to article 1, landscape «means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors». However, earlier, A. PREDIERI, *Paesaggio* (voce), in *Enc. dir.*, XXXIII, 1981, p. 502 has suggested the same approach, thereafter followed by A. CROSETTI, *Paesaggio* (voce), in *Dig. disc. pubbl.*, XV, Torino, 2008, p. 542 and N. FERRUCCI, *Il paesaggio agrario*, in L. COSTATO-F. ALBISINNI (eds.), *Trattato breve di diritto agrario italiano e dell'Unione europea*, cit., p. 677. About CEP and his implementation, see also E. CRISTIANI – M. ALABRESE (eds.), *La convenzione europea del paesaggio nel decennale della sua approvazione*, Pisa, 2011.

¹⁴ About this approach, see *ex multis* P. PERLINGIERI, *La personalità umana nell'ordinamento giuridico*, Camerino, 1972.

¹⁵ On this concept, *ex multis*, A. D'ALOJA, *Generazioni Future (diritto costituzionale)* (voce), in *Enc. Dir.*, *Annali IX*, Milano, 2016, p. 331.

¹⁶ As well as Art. 44 of the Constitution imposes a specific destination of land for productive purposes, it is placed along the perspective of valuing land for its economic utilities, clarifying that, in the evolutionary interpretation that has gradually established over the years, interests that are not only production-related become part of the provision, including, for example, the protection of the environment and landscape (A. GERMANÒ, *La proprietà e la proprietà terriera nella costituzione*, in L. COSTATO - F. ALBISINNI (eds.), *Trattato breve di diritto agrario italiano e dell'Unione europea*, Padova, 2023, p. 209 ss.). In this perspective, land use could be oriented toward pursuing common interests, to whom human activities could significantly contribute (N. LUCIFERO, *Proprietà fondiaria e attività agricola. Per*

Keeping in mind these preliminary remarks, Climate Change Emergency represents an important point at a policy level as well as a social one¹⁷. Nevertheless, at this stage, national climate policies and choices are out of an organic discipline but are made by various acts, not binding, fragmentary, abstract and incentive-based. An disaggregated and inhomogeneous legal framework emerges.

Trying to compose it into a systematic order, and focusing on agriculture, in Italy this matter has always been considered a separate topic

una rilettura in chiave moderna, Milano, 2012, p. 110). As argued by some Academics, article 44 calls for a discipline capable of balancing farming activities and production, taking into serious consideration the environment, the renewability of resources and the protection of the landscape. Art. 44 bibliography is extensive, among the most significant Authors, it should be moved from the observations of G. BOLLA, *L'articolo 44 della Costituzione italiana e la sua interpretazione organica*, in *Riv. dir. agr.*, 1949, I, p. 1 for whom Art. 44 does not define a right but a property destination for a specific purpose, which requires the provision of certain rules. Along the same line is E. ROMAGNOLI, *Circolazione giuridica del fondo rustico*, Milano, 1966, p. 148, who addresses why Constitution dedicated autonomous and separate consideration to the land asset; L. COSTATO, *Proprietà agraria* (voce), in *Enc. dir.*, XXXVII, Milano, 1988, p. 325, points out the strict relationship between Art. 44 and agricultural activities. On this topic see also A. CARROZZA, *Il riordino della proprietà rurale*, in P. RESCIGNO (eds.), *Trattato di Diritto Privato*, VII, Torino, 1982, p. 410; ID., *Agricoltura e tutela della natura. L'impatto ecologico sul diritto agrario*, in *Giur. agr. it.*, 1982, p. 71; G. GALLONI, *L'art. 44 e l'ambiente*, in *Tratt. breve di dir. agrario*, cit., p. 68; ID., *Le fonti costituzionali del diritto agroambientale*, in *Dir. giur. agr. alim. amb.*, 1998, p. 5; ID., *Nuovi confini del diritto agrario fra diritto comunitario e diritto ambientale*, in *Riv. dir. agr.*, 2000, I, p. 381; L. COSTATO, *L'attività agricola vista in relazione alle norme costituzionali, con particolare riferimento a quelle sull'utilizzo e titolarità della terra*, in *Trattato breve di diritto agrario italiano e comunitario*, Padova, 2003, p. 36 e ivi anche *Le fonti del diritto agrario*, p. 41; ID., *Proprietà agraria* (voce), in *Enc. dir.*, XXXVII, Milano, 1998, p. 325; M. GOLDONI, *Integrazione dell'oggetto con ambiente e alimentazione*, in *Dir. agroalim.*, 2019, p. 19; A. SCIAUDONE, *L'azienda agricola tra esigenze della proprietà e sviluppo dell'impresa. Il potenziamento delle strutture agricole e la promozione dell'azienda tra politiche europee e dinamiche interne*, in *Riv. dir. agr.*, 2016, I, p. 402; C.A. GRAZIANI, *Proprietà della terra e sviluppo rurale*, in *Agricoltura, istituzioni, mercati*, 2007, p. 65; ID., *Sull'attualità dell'art. 44 della Costituzione*, in *Nuovo diritto agrario*, 1985, p. 44 ss.; ID., *Proprietà della terra e sviluppo rurale*, cit., p. 70; S. CARMIGNANI, *Agricoltura e ambiente. Le reciproche interazioni*, Torino, 2012; S. MASINI, *Profili giuridici di pianificazione del territorio e sviluppo sostenibile dell'agricoltura*, Milano, 1995; L. FRANCARIO, *La proprietà terriera tra costituzione e codice civile*, in P. RESCIGNO (eds.), *Trattato di Diritto Privato*, VII, Torino, 2005, p. 410; R. ROSSI, *Diritto della produzione agricola e tutela dei beni ambientali (breve nota parentetica per il cultore del diritto agrario)*, in *Riv. dir. agr.*, 1998, I, p. 3; G. MIELE, *La proprietà terriera e la Costituzione*, in *Dopo il I Convegno internazionale di diritto agrario*, Milano, 1958, p. 255 ss. See also F. SANTORO PASSARELLI, *Proprietà e lavoro in agricoltura*, in *Justitia*, 1953, p. 171 ss.; S. RODOTÀ, *Art. 44*, in G. BRANCA (eds.), *Commentario alla Costituzione*, Bologna-Roma, 1982, p. 214; N. IRTI, *Profili della programmazione agricola (o per una rilettura dell'art. 44, 1° comma della Costituzione)*, in *Riv. dir. agr.*, 1972, I, p. 391; C. ESPOSITO, *Note esegetiche sull'art. 44 della Costituzione*, in ID., *La Costituzione italiana. Saggi*, Padova, 1954, p. 196; F. ANGELINI, *Art. 44*, in R. BIFULCO - A. CELOTTO - M. OLIVETTI (eds.), *Commentario alla Costituzione*, I, Torino, 2006, p. 904.

¹⁷ *Ex multis*, A. JANNARELLI, *Cibo e diritti. Per un'agricoltura sostenibile*, Torino, 2015.

that has benefited from special rules¹⁸. It also occurs regarding climate change. Preliminary, we have to discern between cultivation and breeding, on one side, and silviculture (considered as a part of agriculture), on the other. In the past years, Italy has lost a considerable value of farmlands acres¹⁹; at the same time, Italian forests are degraded and abandoned, and this cause hydrogeological problems. In this context, the strategic tools to face climate changes in cultivation, breeding and forestry differ.

Regarding cultivation and breeding, Italian choices move from the CAP reform. The document named National CAP Strategic Plan 2023-2027²⁰, notified to EU Commission²¹, in compliance with Regulation (UE) no. 2021/2115, explains them.

Among his purposes, it aims to «contribute to climate change mitigation and adaptation, by reducing greenhouse gas emissions and improving carbon sequestration, and promote sustainable energy». Recalling that Italian farmers need better knowledge and education on this topic (D4.5, p. 120), Italian strategy offers various actions and tools to fill the gap. Nevertheless, academics have moved critical remarks. As well as being too fragmented and lacking a systematic approach, this could impede to reach the objectives. At the same time, as mentioned above, agriculture is a matter of regional competence and, in a strongly divided country, this could increase inequalities²².

¹⁸ All Academics agree on this idea and the main manuals' first pages deal this topic, see A. GERMANÒ, *Manuale di Diritto agrario*, Torino, 2022, p. 2; L. COSTATO - L. RUSSO, *Corso di diritto agrario italiano e dell'Unione europea*, Milano, 2023, p. 3. Lastly, according to M. GOLDONI, *Le regole di filiera e il mercato*, in *Riv. dir. agr.*, 2020, I, 867, the rules of the food supply chain and the market shows a complex agri-food system, mortified by the tarnishing of the so-called "agricultural exceptionalism", which calls for differentiated treatment for farmers. Along this path, F. ALBISINNI, *La Direttiva (UE) 2019/633 tra PAC e mercati*, in *Riv. dir. alim.*, 2021, p. 7, reaffirmed the specialty of agriculture through an analysis of European law and CAP reform.

¹⁹ Agriculture associations estimate that, in the past 50 years, we have lost 1 farmland on 3.

²⁰ See it on <https://www.reterurale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/24037>

²¹ Commission Implementing Decision of 2 December 2022 approving the 2023-2027 CAP Strategic Plan of Italy for Union support financed by the European Agricultural Guarantee Fund and the European Agricultural Fund for Rural Development, C(2022) 8645 final.

²² See L. COSTATO, *La PAC in tempi di crisi: dalla lunghezza dei fagiolini alla riscoperta della sovranità alimentare*, in *Riv. dir. alim.*, 2021, IV, p. 1, asks for a deeply reconsideration of the CAP reform, aimed at supporting internal production and helping the Europe re-earn food sovereignty. On the issue of renationalization, L. RUSSO, *Le "nuove" misure agroambientali della 2023-27: quali novità*, in *Riv. dir. agr.*, 2022, I, p. 142 moves some doubts about the effectiveness of the use of subsidiarity principle, which confers wide discretion to States.

Anyway, objective 4(OS4) is dedicated to countering climate change. It introduces some actions that aim to diversify the agrarian ecosystems; to encourage water saving and foster the water resource; to maintain and restore ecosystems and habitat mined by climate changes, including prevention and restoration of forest damages resulting from calamitous events (p. 130).

Regarding forestry, Italian Forest Strategy puts great emphasis on forests' role in mitigating climate change, complying with LULUCF Regulation²³, European Forest Strategy²⁴ and Articles 2, lett. *d)-b)* of Legislative Decree no. 34/2018, forest consolidated law (FCL). Despite CAP Strategy, this document is much more systematic and the third area of action is named "Forests and climate changes".

Moving to other fields that aim to face climate changes that could be related to agriculture and food chain, in compliance with Regulation (EU) no. 2018/1999²⁵ and no. 2021/1119²⁶, Italy has approved four tools: National Strategic Plan for Energy and Climate (PNIEC-2019)²⁷; Long-

With reference to Italy, S. MASINI, *I piani strategici in Italia: il ruolo del MIPAAF e delle Regioni*, in *Riv. dir. agr.*, 2022, I, p. 257 highlights the critical issues of composing into a single national document the different choices made by each region, which could have a marginal involvement. On the new CAP, see L. COSTATO, *Lo sviluppo della politica agricola comune* and L. RUSSO, *La PAC dal 2023: le azioni sul primo e sul secondo pilastro*, both in L. COSTATO - F. ALBISINNI (eds.), *Trattato breve di diritto agrario italiano e dell'Unione europea*, Padova, 2023.

²³ Regulation (EU) no. 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) no. 525/2013 and Decision no. 529/2013/EU.

²⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *New EU Forest Strategy for 2030*, COM/2021/572 final

²⁵ Regulation (EU) no. 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) no. 663/2009 and (EC) no. 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) no. 525/2013 of the European Parliament and of the Council

²⁶ Regulation (EU) no. 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) no. 401/2009 and (EU) 2018/1999

²⁷ On June 2023, the plan was updated and notified to the EU Commission. It describes the national targets to reach up to 2030 regarding energy efficiency, renewable sources and CO₂ reduction as well as targets on energy security, energy market, innovation, research and competitiveness. However, more detailed information are needed. In fact, among the critical remarks that have been leveled at the revised plan, is the lack of transparency about the contents. Many think that the targets are too ambitious and difficult to achieve.

term Italian Strategy (LTS-2021)²⁸; National Recovery and Resilience Plan (PNRR-2021)²⁹; Ecological Transition Plan (PTE-2022)³⁰. The National Climate Change Adaptation Plan should be recalled too, adopted in 2018, pursuant to the National Climate Change Adaptation Strategy. While the strategy identifies generalist goals, the plan's approval path still needs to be completed. Stalled for many years, it is currently still undergoing administrative procedures.

Despite principles declarations, several problems impede to achieve the goals settled in all these documents. Although several committees were appointed³¹, the implementation of the various actions proposed are

²⁸ It is a document made by the Ministry of Environment, in cooperation with other Ministries. It aims to reduce fossil energy sources from 80% to 100% through a contraction in energy demand, expediting renewable sources (mainly hydrogen), and increasing electrification consumptions. Besides principles declarations, undoubtedly agreeable, it needs to have provision more specific and concrete, and some difficulties coordinating the document with the PNIEC must be faced.

²⁹ PNRR was adopted following EU indications and contains tools to face economic and pandemic crises. Please note, Italy is the most heavily funded country. Here we found various incentives dedicated to digitization, innovation, competitiveness, culture and tourism, green revolution and ecological transition, infrastructure, education and research, social cohesion and health. However, the need to counter climate change is not placed as a premise of the plan but is only one of the elements that have been considered. Thus, the instrument's suitability to pursue these goals must be addressed. Moreover, taking into account the Italian administrative organization, PNRR implementation and monitoring are assigned to various actors, making its execution somewhat fragmented.

³⁰ According to the Green Deal goals, this document aims to achieve climate neutrality by 2050 and a 55% reduction in greenhouse gas emissions by 2030. It provides various targets and tools, moving through five areas: climate neutrality; pollution; adaptation to climate change; restoration of ecosystem biodiversity; transition to circular economy and bioeconomy. It is a rather complex document that provides for actions, measures and fundings, and also identifies the relevant public bodies. However, besides it is not-binding, it does not determine the priorities.

³¹ The Natural Capital Committee, established by the Ministry of the Environment and Protection of Land and Sea in 2015 (Law 28th December 2015, n. 221, Art. 5), was created to enhance the fundamental role of Italy's Natural Capital and prepare an Annual Report that collects data on Italy's natural assets, that politics should consider in their financial choices. Committee task is to identify natural capital assets, analyze them and evaluate actions to protect them. It comprises ten Ministries, public research organizations, regions, municipalities and their associations, members of the Conference of Regions and Public Administration, Bank of Italy, and ten experts from the scientific world. The Interministry Committee for Ecologic Transition (CITE) was assigned to coordinate and program goals and policies set out in the aforementioned documents. Pursuant to Law Decree no. 22/2021, the Ministry Cabinet's President is the Committee's chair. This role was assigned considering that this goal must be a government priority. It is attended by the Minister of Environment, the Minister of Business and Made in Italy, the Minister of Economy and Finance, the Minister of Infrastructure and Transport, the Minister of Labor and Social Policy and the Minister of Agriculture. Lastly, the Interministry Committee for Economic Planning and Sustainable Development (CIPE) should be mentioned, even if this Committee has only changed its name

deeply critical, for three reasons at least. The first one is geographic. Italy is divided into 20 Regions, each morphologically different, so it is difficult to make uniform evaluations. The second one is administrative. According to Art. 117 of the Constitution, agriculture is assigned to the sole legislative competence of the Regions, but, as we know, it goes through others various matters, some assigned to the State's sole competence, others shared between State and Regions. Regarding the environment, its protection is assigned to the sole competence of the State, while its enhancement, as well as health and territorial governance, are shared between State and Regions. Lastly, some reasons connected to the documents mentioned above cause problems in climate governance: absence of policy coherence, problems with review timelines, lack of linkage between short, medium and long-term goals, limited monitoring of goals, regional misalignments.

However, compared to the past, these documents demonstrate a better awareness of the non-inexhaustibility of natural capital and the services it provides³². Although the path now seems to be set, National coordination should be helpful to offer the best implementation of the national strategies and strategic plans³³.

(the previous one was Interministry Committee for Economic Planning) but everything has stayed the same. Going into the substance, we have to face some difficulties to know what this Committee does and its activities seem iced. Despite other similar bodies, CITE resolutions are not published in *Italian Official Gazette*, so it is hard to track their activities. Also, these bodies must act under the supervision of the Interministry Committee for EU Affairs (CIAE) but coordination still needs to be provided. Big expectations are placed on Legislative Decree no. 39/2023 that has provided for a Control Room and a Special Commissioner for Water Scarcity. However, these new figures have to face a specific emergency. Proceeding in order, the Control Room has to recognize the interventions urgently needed to address the water crisis in the short term. Their execution may be handled by the Special Commissioner or by other ad acta commissioners. The Special Commissioner is also required to recognize reservoirs that are temporarily disused and in need of renovation.

³² This aspect appears to move in tandem with an increased understanding of the inadequacies of the GDP indicator, which up to date has been the exclusive term of reference for financial policy, and thus for all public policies. As noticed by some Academics, the GDP indicator assumes an inexhaustible natural resource context or, at any rate, one indifferent to human production activities. In fact, the strategy documents just referred to, which stand in ideal continuity with the European approach, seem to move from a greater awareness of the weakening of natural capital and the resulting prejudices. On this topic see A. LALLI, *Servizi ecosistemici e capitale naturale: una prospettiva giuridico istituzionale*, in *Studi parlamentari e di politica costituzionale*, 2017, p. 50 who insists that the impact on natural capital should influence public policies and budgetary decisions.

³³ Acting in this way, on September 2022, the majority and opposition parties jointly signed an understanding to establish a Scientific Council on Climate and the Environment, to open a dialogue between science and politics and guide the latter's actions in compliance with scientific advances. To date, however, no further steps have been taken.

2.1. Shifting from national strategies to regulations adopted at local level, programming and pianification tools are fundamental to protect and enhance national natural capital. However, due to the combination of different plans, approved at a different level of governance, overlapping cases are frequent and the coordination is challenging³⁴.

Landscape plan is at the top. It defines the guidelines and the general policies of territory governance. It is approved by regions, in consultation with the Ministry of Culture and the Ministry of Environment. It serves three functions: recognition, it describes the regional territory through an analysis of its landscape traits impressed by nature and history and their interrelationships; prescription, it identifies the goods that must be protected through the constraints; proposing, it traces a set of qualities goals. The landscape plan prevails over other local plans and, pursuant to this, all Public Bodies has to uniform their choices and decisions to such plan³⁵.

Then, supra-municipal plans should be mentioned (Articles 5 and 6, Law no. 1150/1942). They contain general directives on regional territorial governance to land use and major infrastructures. Their adoption is optional and they have had a low uptake, even if they could be helpful for land use plan adoption.

The so-called provincial plans provide more relevant prescriptions of environmental relevance (see Art. 15 Law no. 142/1990 and, currently, Art. 20, Legislative Decree no. 267/2000). These plans identify the areas where establish parks or nature reserves (please note that their management is delegated to the park plan). Providing that they require an agreement with the relevant parties, they may also contain provisions for nature and environmental protection, water and soil defense, and preservation of natural beauty. Thus, provincial plans have a particular environmental

³⁴ See N. FERRUCCI, *Il paesaggio*, in EAD. (eds.), *Diritto forestale e ambientale. Profili di diritto nazionale ed europeo*, Torino, 2020, p. 231 ss.; A. CROSETTI, *Paesaggio e natura: la governance in uno Stato multilivello*, in A. CROSETTI (eds.), *La tutela della natura e del paesaggio*, on R. FERRARA - A.M. SANDULLI (eds.), *Trattato di diritto dell'ambiente*, Milano, 2014, p. 163 ss.; P. DELL'ANNO, *Le trasformazioni del diritto ambientale*, in G. SCIULLO (eds.), *Governo del territorio e autonomie territoriali*, Bologna, 2010, p. 135 ss. With reference to the role of plans, see also G. MORBIDELLI, *Piano territoriale* (voce), in *Enc. dir.*, vol. XXXIII, Giuffrè, Milano, 1983; G. SCIULLO, *La Provincia e la pianificazione territoriale*, in *Riv. giur. urbanistica*, 2001; G. GARZIA, *I piani territoriali di coordinamento regionali e Provinciali: vigore, efficacia ed effetti*, in *Riv. giur. urbanistica*, 2003, p. 452; P. URBANI, *Sulla pianificazione urbanistica: modalità di acquisizione dei suoli, garanzia dei servizi pubblici e rigenerazione dei beni comuni*, in *Riv. giur. edil.*, 2019, p. 303.

³⁵ About the landscape plan, cfr. *ex multis*, N. FERRUCCI, *Il paesaggio*, cit., p. 239.

significance and a composite nature. In fact, they contain not only general directives, but also concrete provisions.

Finally, the land use plans, approved by Municipalities, introduce more specific and concrete prescriptions³⁶. They divide the land into various areas. Those appointed as “E” refer to “agriculture”. However, despite Article 44 Constitution, which invites guaranteeing a rational use of the land, this destination does not introduce a specific duty to cultivate the land but, more basically, it prohibits building in these specific areas, at least until a variant to the plan is approved. So, Italian legislation does not seem to take into serious consideration farming activities, which remain overshadowed in respect of other needs. After all, only recently politics agreed with the academic interpretation on Art. 44 Constitution and consider that agriculture could significantly contribute to a more sustainable use of natural capital³⁷.

Regarding forests, to guarantee sustainable forest management, and in compliance with our administrative governance, programming activities are developed through various levels of governance: national, regional, and corporate³⁸. In 2022 the National Forest Strategy was published. Here, all the strategic choices functional to recover the national forestry heritage and ensure its intrinsic multifunctionality are outlined, particularly in terms of the common goods they offer to the community. The Strategy pays excellent attention to implementing the European and international obligations sued by Italy. However, it should be made clear that forestry is of regional competence, so the indications and actions envisaged by the Strategy will have to be concretized and implemented by the Regions, through other pianification tools, as set on Art. 7 TUFF. To change the use and destination, Article 8 TUFF introduces a general prohibition of forest transformation. It

³⁶ Regard these plans, see N. CENTOFANTI, *Il piano regolatore nella legislazione regionale*, Milano, 2010; L. MAZZAROLLI, *I piani regolatori urbanistici nella teoria giuridica della pianificazione*, Padova, 1962; P. TANDA, *Piano regolatore generale e abuso d'ufficio: il delicato equilibrio tra discrezionalità amministrativa e controllo del giudice ordinario*, in *Riv. giur. edil.*, 2018, p. 189.

³⁷ About this topic see P. URBANI, *L'urbanistica: oltre il culto dei piani*, in *Riv. giur. edil.*, 2017, p. 367; ID., *La disciplina urbanistica delle aree agricole*, in L. COSTATO - A. GERMANÒ - E. ROOK BASILE (eds.), *Trattato di Diritto agrario. II. Il Diritto agroambientale*, Torino, 2011; G. DIMITRIO, *Le regole di destinazione del territorio agricolo*, in L. COSTATO - F. ALBISINNI (eds.), *Trattato breve di diritto agrario italiano e dell'Unione europea*, cit., p. 651 ss.; E. PORRI, *Gli strumenti della pianificazione territoriale e il problema delle zone agricole*, in N. FERRUCCI (eds.), *Diritto ambientale e forestale*, cit., p. 219.

³⁸ S. BOLOGNINI, *La “programmazione forestale”: la strategia forestale nazionale e i programmi forestali regionali* and M. BROCCA, *La pianificazione forestale*, both in N. FERRUCCI (eds.), *Commentario al Testo Unico in materia di foreste e filiere forestali*, cit., deal with the importance of pianification tools to better implement the forest sustainable management.

is allowed only pursuant to certain conditions of strict application: prior authorization, guarantees about the preservation of environmental and landscape profiles, fulfill an obligation of compensation³⁹.

As outlined above, things are changing rapidly but most of programming tools are not used yet. So, it's not easy to fully understand the general overview and approach followed by Regions. In fact, recalling the fundamental role played by the landscape plan, just few Regions have adopted it. In a context of continuous work in progress, the absence of a landscape plan impedes to have a general overview of the several issues that each Region has to face in order to protect and enhance natural capital and this undermines the effectiveness of the measures taken, raising the doubt of whether they were taken in the context of a strategic, comprehensive and long-term vision.

3. In this context, it is now important to focus on farming activities, since they could contribute to protect and enhance natural capital, addressing the topic of land access, constraining regulations and incentivizing tools.

Moving forward in order, nowadays it is not easy to find new farmable land. In fact, in most cases the installation of photovoltaic systems takes lands away from agriculture; in other cases, lands are abandoned. It causes harmful and negative effects on the community, not only from an economic and social point of view but also from an environmental and landscape perspective. Reasons are often related to the abandonment of agricultural activity by the farmers' heirs. In fact, it must be considered that the national agricultural business is composed of micro and small enterprises run by families. As mentioned above, even lands have formally an agricultural destination, an obligation to cultivate does not arise; this destination consists of a more general building prohibition. Since the last century, academics urged a rethinking of the current land-farm structure, within the larger issue of environmental protection⁴⁰.

³⁹ To deepen the forest transformation issues see M. D'ADDEZIO, *La trasformazione del bosco e le opere compensative*, in N. FERRUCCI (eds.), *Commentario al Testo Unico in materia di foreste e filiere forestali*, cit., p. 145.

⁴⁰ *Ex multis* E. ROMAGNOLI, *Circolazione giuridica della terra, professionalità dell'impresa agricola e conservazione dell'ambiente*, in *Giur. agr. it.*, 1981, p. 7 suggests the need for adequate preparation of farmers for a rational land use in awareness of its social function, also for the purposes of environmental protection; A. CARROZZA, *Lineamenti di un diritto agrario ambientale. I materiali possibili. I leganti disponibili*, in *Riv. dir. agr.*, 1994, I, p. 151, who looks at the environment as limit to agriculture, as a way to do agriculture and as a

Looking forward in a *de jure condendo* perspective, this rethinking process should move from a new consideration of the property law. According to the Civil code, property can be only public or private and, in order to protect and enhance natural capital, thinking to the role and function of property could be helpful. As well as private and public goods, some academics suggested introducing a new category, the so-called common goods⁴¹. A definition could be found in the law proposal drafted

product of agriculture; G. GALLONI, *Nuovi confini del diritto agrario fra il diritto comunitario e il diritto ambientale*, in *Riv. dir. agr.*, 2000, I, p. 381, who traces the origins of agricultural law and notes how it is increasingly influenced by European and environmental law; E. ROOK BASILE, *La ricomposizione fondiaria in Italia*, in *Nuovo dir. agr.*, 1985, p. 33 deals with the need for a land-business reorganization within the framework of CAP and the broader problem of environmental protection; M. GIUFFRIDA, *Dalla responsabilità dell'imprenditore all'imprenditore responsabile*, in *Riv. dir. agr.*, 2007, I, p. 545 who investigates farmers liability in respect of environmental interest and, pursuant to precaution principle, underlines the role of self-regulation principle; S. MASINI, "Terra" e "natura". *Conferme e traguardi nell'applicazione del ciclo biologico*, in *Riv. dir. agr.*, 2020, I, p. 723, ask for a reconciliation between agriculture and nature, which could offer an afterthought opportunity to program a transition capable of recognize the consistency of the environmental and climatic impact of production and guaranteeing the coherence of organizational choices and exchange.

⁴¹ The theme is undoubtedly broad. Providing some coordinates, F. GALGANO, *Trattato di diritto civile. Volume 1*, Milano, 2014, p. 355, sets the problem and distinguishes between goods that nature offers in higher quantities than human needs (air, water, light) and other goods, the use of which, by some, prevents others from exploiting them (soil products). As well as all these goods could satisfy collective rank interests, for some they are "goods" (M. COSTANTINO, *I beni in generale*, in P. RESCIGNO (eds.), *Trattato di Diritto Privato*, Torino, 1982, p. 17) while, under the opinion of others, they would be out of such category (L. BIGLIAZZI GERI - U. BRECCIA - F.D. BUSNELLI - U. NATOLI, *Diritto civile. II. Diritti Reali*, Torino, 2007, p. 10). With reference to goods owned by the State, already in the early 1960s, M.S. GIANNINI, *I beni pubblici*, Roma, 1963, p. 3 denounced the civil code discipline poor more than lacunose. On the same path, according to A.M. SANDULLI, *Spunti per lo studio dei beni privati di interesse pubblico*, in *Dir. econ.*, 1956, p. 164, the issue on property ownership, whether public or private, is essentially secondary, having to privilege the functional and conforming aspect. V. CERULLI IRELLI, *Beni pubblici* (voce), in *Dig. disc. pubbl.*, II, Torino, 1997, p. 280 and ID., *I beni pubblici nel codice civile: una classificazione in via di superamento*, in *Econ. Pubbl.*, 1990, p. 523 suggests the following tripartition: reserved goods, attributed by law to the State ownership; goods for public use, characterized by their relationship with the public function or service to which they are aimed; common goods, which embraces most varied goods that belong in collective ownership to a community. Within the framework of these antagonistic positions are the reflections of S. RODOTÀ, *Beni comuni e categorie giuridiche. Una rivisitazione necessaria*, in *Questione giustizia*, 2011, p. 242, of whom see ID., *Il terribile diritto. Studi sulla proprietà privata e i beni comuni*, Bologna, 1981 who suggests overcoming the traditional approach and asks for an approach that looks to goods for their functions. On this point, see U. MATTEI, *Beni comuni. Un manifesto*, Roma-Bari, 2011 for whom common goods are a typology of fundamental rights of the last generation, disconnected from the dominical and authoritarian paradigm. For an interdisciplinary approach to the matter of the commons, see also P. CACCIARI (eds.), *La società dei beni comuni*, Roma, 2010. The topic has also solicited the attention of Academics involved in agricultural law, see A. JANNARELLI, "Beni collettivi" e "beni comuni" nel pensiero di Grossi: brevi riflessioni, in *Riv. dir. agr.*, 2022, I, p. 443 on the

by the Rodotà Commission, common goods refer to «things that express functional utilities for the exercise of fundamental rights as well as the freedoms of the human beings»⁴².

Even if this category still needs to be implemented in the Italian law system, it helps to shift the debate to a new perspective and many academics now look at goods from a different side, suggesting overcoming the traditional categories. Besides the ownership of natural capital, the focus is on the property's functions and who can benefit. Italian Supreme Court followed this approach in 2011 ruling⁴³. Regarding a case related to the ownership of a fishing valley located in the Venice lagoon, at the center of his reasoning is «the interpretive need to look at the matter of public goods beyond a purely patrimonial-proprietary view, shifting to a personal collectivist perspective».

plurality of proprietary statutes as well as on the revisiting of the distinction between public property and private property and ID., *Il divenire del diritto agrario italiano e europeo tra sviluppi tecnologici e sostenibilità*, in *Riv. dir. agr.*, 2013, I, p. 34, for whom agriculture offers public goods, so it has a specific social function; A. SCIAUDONE, *Agricoltura, persona, beni*, in *Riv. dir. agr.*, 2016, I, p. 147 who highlights the critical nature of the property paradigm based on ownership; F. ADORNATO, *I beni comuni in agricoltura: un modello proprietario tra sviluppo sostenibile e democrazia partecipata*, in E. CRISTIANI - A. DI LAURO - E. SIRSI (eds.), *Agricoltura e costituzione. Una costituzione per l'agricoltura. Scritti in onore di Marco Goldoni*, cit., p. 151 who focuses on governance models; S. CARMIGNANI, *Agricoltura, beni comuni e terzo settore*, in *Dir. agroalim.*, 2018, p. 5 who highlights the contiguity profiles between the evolution that has marked agriculture law and the one of the third sector, both of which are oriented toward providing a public service for the benefit of the community and, therefore, common goods; N. LUCIFERO, *Proprietà fondiaria e attività agricola. Per una rilettura in chiave moderna*, Milano, 2012 who examines public goods in the system of agricultural law and offers on the first pages of his work the historical-dogmatic reconstruction of such category.

⁴² By decree of the Minister of Justice, the Commission on Public Goods, chaired by Stefano Rodotà, was appointed on 21st June 2007. Its task was drafting a law proposal to reform the public property rules, overcoming the traditional categories included in the Italian Civil Code. In the proposal, the Commission had suggested abolishing state property and non-disposable assets to redistribute them into new categories, among which “common goods” stands out. To read the draft see https://www.giustizia.it/giustizia/it/mg_1_12_1.wp?facetNode_1=0_10&facetNode_2=0_10_21&previousPage=mg_1_12&contentId=SPS47617#

⁴³ Cass., sez. un., 28th January 2011, n. 3665, in *Foro it.*, 2012, c. 564, commented by E. PELLECCIA, *Valori costituzionali e nuova tassonomia dei beni: dal bene pubblico al bene comune*; in *Dir. giur. agr. alim. amb.*, 2011, p. 476, commented by L. FULCINITI, *Valli da pesca lagunari. La Cassazione reinterpreta i beni pubblici*; in *Giur. it.*, 2011, p. 2505, commented by C.M. CASCIONE, *Le Sezioni unite oltre il codice civile. Per un ripensamento della categoria dei beni pubblici*; in *Giorn. dir. amm.*, 2011, p. 1170, commented by F. CORTESE, *Dalle valli da pesca ai beni comuni: la Cassazione rilegge lo statuto dei beni pubblici?*. With reference to this judgement see S. LIETO, “Beni comuni”, *diritti fondamentali e Stato sociale - La Corte di Cassazione oltre la prospettiva della proprietà codicistica*, in *Politica del diritto*, 2011, p. 331. On the same topic, see also Cass., 16th February 2011, n. 3811 e Cass., 18th February 2011, n. 3938, all written by the same judge.

However, as mentioned, looking at the current Italian legal framework, according to Art. 822 Civil Code the seashore, beach, roadsteads, rivers, streams, lakes and other waters considered as public by law belong to the public powers. Although publicly owned, these assets can be offered in concession to private bodies. All the assets not in this list can belong to both public and private bodies and are tradable⁴⁴. Focusing on agriculture, the ownership of goods used for cultivation and farming belongs, almostly, to private bodies, noting that there is often no identity between the owner and who uses the assets.

In this context, starting from the '50 the abandonment of farmlands has increased, due to industrialization and urbanization. However, the first law that faced the issue was approved in 1978 (Law no. 440/1978⁴⁵) and, among the tools introduced, it provided for the so-called Land-Banks. Since agriculture is a matter of regional competence, Regions have to implement this law. Despite the law entering into force in 1978, these banks have begun to spread only in the last years⁴⁶.

For their supra-regional relevance, the best-known are the Land Bank of ISMEA (the Italian Institute of Services for the Agricultural and Food Market) and the Bank of Abandoned and Uncultivated Land in the Mezzogiorno. Tuscany Region, as well as Lazio, Campania, Lombardia, Veneto have a land bank.

More specifically, these land banks consist in online and open-access archives, where agroforestry land available for rent or concession operations is offered, through public procedures based on proposals regarding business development plans. Besides this common frame, each Region has followed different choices. For instance, some banks offer only public lands (Tuscany, Lazio, Campania); others offer only abandoned and uncultivated lands (Lombardia); others have specific sections for lands

⁴⁴ Market determines the price. Price observatories and the Internal Revenue Service monitor it. The latter publishes the trends in agricultural land values every six months, based on the deeds recorded. It should also be recalled that the latest updates of valuation manuals are gradually introducing criteria that consider the impact of climate changes on future agricultural production.

⁴⁵ L. 4 agosto 1978, n. 440, Norme per l'utilizzazione delle terre incolte, abbandonate o insufficientemente coltivate.

⁴⁶ See G. STRAMBI, *Le terre agricole abbandonate. Il recupero produttivo nella legislazione sulle «banche della terra» e nel Testo unico in materia di foreste e filiere forestali*, Napoli, 2022; EAD., *La questione delle terre incolte e abbandonate e le leggi sulle "banche della terra"*, in *Riv. dir. agr.*, 2017, I, p. 599.

that have certain features, like ones confiscated from the Mafia (Veneto). Despite all other land banks, Tuscany bank also contains forests.

So, focusing on forests, Art. 12 TUFF aims to recover abandoned land to gain better and more effective management through substitution and land transfer. The goal is pursued through a prior planning activity, implemented by negotiated instruments, which should ensure better and more efficient cooperation between public and private bodies⁴⁷.

Remaining on forestry, which is characterized by significant ownership fragmentation, the role assigned to associationism and public concessions should be mentioned too. These tools could be very helpful in gaining a better use of Natural Capital, pointing out that economic activities could contribute to environmental and landscape goals. While concessions are contracts signed by public bodies and enterprises to enhance the economic exploitation of forests, associationism aims to overcome fragmentation through the constitution of economically sustainable production units. It occurs in different forms, through the constitution of association made by land owners and foresters, consortiums or forest cooperatives⁴⁸. Lastly, among the tools designed to develop forest associations, the so-called Forest Contract (Art. 35-*bis*, Law Decree no. 77/2021) aims to develop a new partnership between owners and foresters, in order to promote sustainable forest management, balancing economic interests with those of a collective nature⁴⁹.

All these tools stand on a specific common frame of reference. Assuming the multifunctionality of natural capital, they point out how farming could balance the economic exploitation of soil with conservative goals, and this is the reason why public bodies encourage them, in order to build a new alliance between owners and farmers, assuming that an abandoned lands have negative impacts on environment and landscape.

4. Natural capital can be freely traded except for those assets belonging to the State's unavailable heritage. However, this statement

⁴⁷ See M.P. RAGIONIERI - P. FELICE - M. ZORTEA, *Strumenti di recupero delle proprietà fondiari frammentate e dei terreni abbandonati o silenti*, in N. FERRUCCI (eds.), *Commentario al Testo Unico in materia di foreste e filiere forestali*, cit., p. 305.

⁴⁸ To deepen see N. LUCIFERO, *Le strutture collettive per una gestione attiva e razionale delle risorse forestali*, in M. D'ADDEZIO - S. BOLOGNINI (eds.), *F-Law. Forestry Law and Food Law. Approfondimenti su soggetti e strumenti giuridici all'insegna dei canoni di sostenibilità*, Torino, 2021, p. 48

⁴⁹ See M. BROCCA, *Gli accordi di foresta*, in *Riv. giur. urb.*, 2021, p. 871.

does not mean that agriculture could be freely exercised. In fact, specific authorizations, based on specific requirements and, in some instances, even in limited numbers, are asked to exercise certain activities. In other words, natural capital circulation is free; limits and constraints are provided for specific activities regarding natural capital.

Moving to binding provisions dedicated to agriculture and protecting natural capital, Art. 44 of the Constitution plays a central role, since it calls for a discipline that is capable to combine business activities with respect for the environment, the renewability of resources and the protection of the landscape⁵⁰. Following this approach, various regulations are provided to address goods and services that natural capital could offer to the public. These constraining regulations should affect the use of agricultural soils but have only sometimes shown effectiveness.

Regarding forests, there are two constraints on them, one of a hydrogeological nature, functional to protect the environmental value expressed by forest; the other of a landscape nature, functional to enhance forest for their cultural value, pursuant to landscape definition proposed by the CEP⁵¹.

⁵⁰ See note 16.

⁵¹ According to A. CROSETTI, *Beni forestali dopo il d.lgs. 3.4.2018 n. 34* (voce), in *Pluris-Dig. Online*, the Italian constraint system is one of the strictest in Europe. 80% of the entire forest heritage has been under hydrogeological constraint, and landscape constraints affect all forest areas. Regarding the latter, pursuant to Art. 142, lett. g), of Legislative Decree, 22nd January 2004, n. 204 (Urbani Code), «the territories covered by forests, even if they are crossed or damaged by fire, and those subject to reforestation constraint» have landscape interest and therefore are subject to constraint. Unlike hydrogeological constraint, imposed at the end of an administrative procedure, landscape constraint is *ex lege*, according to a *iuris et de iure* presumption. It should also be recalled that some forests can be constrained by administrative procedure, under Art. 136 of the Urbani Code, because of their considerable public interest. The distinction was relevant from the point of view of the execution of cutting, which, as also stated in the opinion of Cons. State, June 30, 2020, no. 1233, requires the prior landscape permit. However, pursuant to d.l. 10th August 2023, n. 104, as amended by L. 9th October 2023, n. 236, this distinction seems to fade, since Art. 149, I co. lett. c), levels the two types of forest for cutting execution. About this constraint see N. FERRUCCI, *Il paesaggio*, in EAD. (eds.), *Diritto forestale e ambientale*, Torino, 2020, p. 207; A. CROSETTI, *Paesaggio* (voce), in *Dig. disc. pubbl.*, XV, Torino, 2008, p. 542. Regarding hydrogeological constraint, its basic regulation can still be found in Royal Decree, 30th December 1923, n. 3267 and its executive regulation, Royal Decree, 16th May 1926, n. 1126, added by Articles 866 and 876 of the Civil Code and by Articles 61, 65, 67 and 68 of Legislative Decree 3rd April 2006, n. 152 (Environmental Code). Regarding its functions, the doctrine has highlighted its evolution from a mere instrument for the protection of the soils toward a vocation more oriented to land planning and environmental protection, in a unified vision (M. TAMPONI, *Patrimonio forestale e vincoli forestali* (voce), in *Enc. dir.*, III, Milano, 1999, p. 840 e M. D'ADDEZIO, *I vincoli agroambientali di vecchia e di nuova generazione*, in L. COSTATO - A. GERMANÒ - E. ROOK BASILE (eds.), *Il Diritto agroambientale*, Torino, 2011, p. 50). It is imposed at the

The implementation of these constraining provisions has posed some relevant problems. In order to protect environmental and landscape instances, they often paralyzed agricultural activities, with the effect that, as a result of the abandonment of the forests by human beings, they are now in a state of disuse and degradation⁵².

On the other side, in cultivation and breeding these constraints have less impact but farmers involved in these activities are not free. In this respect, they often require specific permits and licenses and their business is strongly affected not only by European regulation but also by regional provisions. According to the new CAP, to gain incentives farmers should opt for specific production schemes, which in some cases are mandatory, in others are voluntary, in still other cases are imposed in accordance with the place where farming is exercised. For example, if farming is carried out within a park, it may be exercised only in compliance with organic requirements⁵³. Although these requirements do not directly affect the marketability of the goods, nevertheless touch it in some way.

Notwithstanding public bodies strongly influence farming activities, many concerns are raising about nutrients, fertilizers, pesticides and herbicides use. In fact, while some Regions have provided for regulations that ban certain products in specific areas, national regulations only

end of an administrative procedure, and its effects can be classified between permitted, subject to authorization and prohibited activities. On this constraint see also A. JANNARELLI, *sub art. 866*, in A. JANNARELLI - F. MACARIO (eds.), *Della Proprietà*, in E. GABRIELLI (eds.), *Commentario del Codice civile*, Torino, 2012; N. FERRUCCI, *Il vincolo idrogeologico*, in *Lezioni di Diritto forestale e ambientale*, Padova, 2006; F. ADORNATO, *Il vincolo idrogeologico come strumento di controllo dell'uso del territorio*, in *Nuovo dir. agr.*, 1990; S. BOLOGNINI, *I boschi e le foreste nel contesto della difesa del suolo. I vincoli di cui al r.d. n. 3267/1923. In particolare, il vincolo idrogeologico*, in L. COSTATO - A. GERMANÒ - E. ROOK BASILE (eds.), *Trattato di diritto agrario, vol. 2, Il diritto agroambientale*, Torino, 2011; E. CRISTIANI, *sub art. 866 cod. civ.*, in E. CRISTIANI - M. D'ADDEZIO - E. SIRSI, *Riordinamento della proprietà rurale, bonifica integrale vincoli idrogeologici*, in *Il Codice Civile. Commentario*, founded by P. Schlesinger, eds. F.D. BUSNELLI, Milano, 2013, p. 439; S. MATTEOLI, *Il vincolo idrogeologico*, in N. FERRUCCI, *Diritto forestale e ambientale*, Torino, 2018, p. 165; F.C. RAMPULLA - A. ROBECCHI MAINARDI - A. TRAVI, *Uso del territorio e vincolo idrogeologico*, Milano, 1981.

⁵² S. CARMIGNANI, *Paesaggio, agricoltura e territorio. Profili pubblicistici*, in E. ROOK BASILE - S. CARMIGNANI - N. LUCIFERO, *Strutture agrarie e metamorfosi del paesaggio*, Milano, 2010, p. 71 recalls that in everyday practice the silvicultural entrepreneur continues to be compressed in his freedom, unable to decide on the *quando*, *an* and *quomodo* of forest management; instead, he is obliged to a *non facere* imposed by the different constraints, a *facere* set by the management methods prescribed by rules and a *facere* subordinated to the issuance of specific authorizations.

⁵³ On parks and protected areas see, lastly, C.A. GRAZIANI, *Le aree protette*, in L. COSTATO - F. ALBISINNI (eds.), *Trattato breve di diritto agrario italiano e dell'Unione europea*, cit., p. 688 ss.

«promote» the use of more sustainable plant protection products but targets to be achieved lack, are generic or, whereas provided, there are no sanctions⁵⁴.

So, Italy seems far from achieving European goals. The *From Farm to Fork*⁵⁵ and *Biodiversity*⁵⁶ strategies ask for accompanying the target set out by the *Green Deal* through reaching certain goals related to the environmental sustainability of the entire agribusiness sector. Among these targets, it should be mentioned a 50 percent reduction in pesticides, 20 percent reduction in fertilizers, and 50 percent reduction in antibiotics used in livestock farming; the achievement of 25 percent of agricultural land dedicated to organic farming at the European level; the achievement of 10 percent of agricultural areas designated as of high biodiversity. The «EU Soil Strategy for 2030 - Reaping the benefits of healthy soils for people, food, nature and climate»⁵⁷ focuses on the importance of combining food controls with soil checks, to be carried out on the basis of a monitoring plan. To incentivize the achievement of these goals in June 2022, a proposed regulation on the use of pesticides was approved⁵⁸.

In this context, although there has been a decrease in the use of plant protection products over the years⁵⁹, significant use has been recorded and

⁵⁴ To this, the several issues related to European legal framework on phytosanitary substances contribute. L.F. PASTORINO - E. TOMASELLA, *La disciplina europea dei fitosanitari all'incrocio tra diritto agroambientale e agroalimentare*, in *Riv. dir. agr.*, 2022, I, p. 61, outlined the articulated system of approval of phytosanitary substances and authorization of products derived from them, as well as the regulations relating to sustainable use of these products, pointing out how their concrete use could still cause uncertainty and the absence of stringent controls on the use of the integrated defense system constitutes a further vulnerability of the system.

⁵⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions EU, *A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system*, COM/2020/381 final.

⁵⁶ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions EU, *Biodiversity Strategy for 2030. Bringing nature back into our lives*, COM/2020/380 final.

⁵⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions EU, *Soil Strategy for 2030 Reaping the benefits of healthy soils for people, food, nature and climate*, COM/2021/699 final.

⁵⁸ Proposal for a Regulation of the European Parliament and of the Council on the sustainable use of plant protection products and amending Regulation (EU) 2021/2115, COM/2022/305 final.

⁵⁹ Eurostat data published by the EU Commission report an 8.66 percent increase in the number of plant protection products sold in Italy in 2020, compared to the previous

Italy remains at the top of the list of European countries for pesticide use⁶⁰. However, with respect to these needs, adequate regulatory responses often need to be improved.

While Italy has a regulation for waters⁶¹, a similar framework law on soil defense is lacking. At the end of 2021 some prohibitions were introduced, but they concern only non-professional users⁶².

Instead, for professional users, Legislative Decree no. 150/2012 transposed Directive (EC) no. 2009/128 and established a «framework for Community action on the sustainable use of pesticides». Specifically, Art. 19 requires all professional users to apply the principles of integrated farm management⁶³. Among these, they ask to exclude the use of pesticides without first trying to apply every possible biological and mechanical tool for

year. Almost half are fungicides (45.20 percent), followed by herbicides (21.03 percent) and insecticides and acaricides (16.16 percent).

⁶⁰ Several monitoring plans are carried out and the reports are published on the website of the Italian government agencies, first of all ISPRA (Superior Institute for Environmental Protection and Research). These reports highlight the deleterious effect on the environment. According to the latest reports published by trade associations, fungicides and insecticides are of greater concern for the environment and health, because they are the most widely used and their traces are commonly found in food.

⁶¹ As provided by Directive (EC) no. 2000/60, establishing a framework for Community action in the field of water policy, transposed within the TU Environment Legislative Decree no. 152/2006. However, in recent years Italy has faced significant problems due to the availability and quality of water. Pesticides often contaminate our water. In the last ISPRA report, in the surface waters and groundwaters traces of pesticides are present, 55,1% in the surface water and 23,3% in groundwaters. Pursuant to article 166, IV *bis* co., Ministry of Environment should have defined up to 10th May 2014 the fundamental quality criteria for water irrigation use on farmed land and related controls. However, almost nine years have passed and this regulation has yet to be approved. Also due to this, the condition is still getting worse. Although we have some criteria that define water quality (provided by d.m. no. 185/2003), it could be appropriate to update them. Regarding water availability, drainage and irrigation consortia manage their use. They should establish and maintain networks and installations functional for drainage and irrigation. However, too often, there are significant water losses. In fact, these networks need maintenance but restoration works are not performed. The recent so-called drought decree (Law Decree no. 39/2023) aims to solve the issue, granting significant economic sources to restore the networks. Nevertheless, there is still time to measure its efficiency. With reference to water sustainable use, see, among all, M. PENNASILICO, *L'uso sostenibile delle risorse idriche: ripensare l'acqua come "bene comune"*, in *Pers. merc.*, 2023, p. 198, who, starting from the analysis of the United Nations World Water Development Reports 2022 and 2023, questions the water conception as a "common".

⁶² Decree of the Minister of Health, 20th december 2021 regarding measures and requirements of plant protection products for safe use by non-professionals users.

⁶³ Under article 19 of Legislative Decree no. 150/2012, integrated pest management involves the application of pest and infection prevention and monitoring techniques, the use of biological means of pest control, the use of appropriate cultivation practices and the use of plant protection products that represent the lowest risk to human health and the environment, according to all the principle set in annex III of the aforementioned decree.

their substitution. Also, the so-called National Action Plans (PAN) should help in this transition. They contain goals, tools, timings and indicators for reducing the risks and impacts of using plant protection products. An Interministry Decree, approved on 22 January 2014, approved the National Action Plan. It just promotes the use of more sustainable plant protection products in agricultural areas, non-agricultural areas and natural protected areas. Regarding glyphosate, which is one of the most used herbicide, Italy is aligned to the EU Commission, which recently renewed the authorization until the end of 2023. With reference to neonicotinoids, their use is still admitted in emergencies, despite several instances from associations urging an outright ban.

In synthesis, although soils and waters are constantly monitored, other national targets beyond those set out by European legislation seem not listed. Therefore, failure to achieve them would not be sanctioned.

However, while the use of certain plant protection products is still admitted, many Italian farmers have chosen to exclude or reduce the use of dangerous products, to offer the best quality certified food and match the demand of a large part of domestic consumers. For example, in 2022, Italy's organic acreage exceeded 2.3 million hectares, showing a growth of 7.5 percent, equal to almost double the rate of increase recorded in 2021. Since the Farm to Fork Strategy ask for 25% of organic acreage to be reached up to 2030, almost 19% of farmable lands are certified for organic production⁶⁴. So, although almost everything is delegated to the decision of the individuals, in Italy the demand for organic products or for certified products obtained according to more environmentally friendly production methods is high. In this respect, the market often reaches where the legislature does not.

5. Another set of rules operating in the direction of protect and enhance natural capital should be recalled, those disciplines that incentivize agriculture as an activity that brings public goods to the community. Adhering to an academic suggestion, a distinction should be made between agriculture as production and agriculture as conservation, noting that production could not be separated from natural capital conservation and, at

⁶⁴ To date, six regions have already exceeded this target: Tuscany, Marche, Lazio, Basilicata, Calabria and Sicily. See the report *Bio in cifre*, produced by ISMEA, July 2023.

the same time, that natural capital conservation could support production instances⁶⁵.

In fact, farmers' activities are strongly influenced by incentive-based legislation, that act in compliance with CAP fundings⁶⁶. Recently, Italy has begun to think about new ways to support farmers, for those commons whose activity, because of the strong connection to land use, gives back to the community. In fact, the traditional unilateral "command and control" scheme is shifting to agreements and other negotiated forms of cooperation between public bodies and private parties. Thanks to the contract, public interests, which the public bodies promote, meet the individual interests, held by the private party⁶⁷.

⁶⁵ See E. ROOK BASILE, *Introduzione al diritto agrario*, Torino, 1995, p. 42

⁶⁶ Today, characterized by a more pronounced conditionality. In fact, the new CAP reaffirms the decoupling model. Compared to the past, income supports are now provided «for sustainability» (Art. 16), while recalling that, by traditional opinion, the objective of direct payments has always been economic sustainability (E. DE MEO - R. ROMA - A. DE BONI, *Il nuovo sistema dei pagamenti diretti nella riforma della PAC 2023-27*, in *Riv. dir. agr.*, 2022, I, p. 279). However, leaving aside the *nomen iuris*, the statutory management criteria and the standards of good agricultural and environmental conditions are strengthened, and additional and new cross-compliance commitments are introduced, paying greater attention to agriculture's contribution to environmental protection and enhancement. Then, new decoupled direct payments are provided, based on voluntary adoption, so-called eco schemes, for climate, environment and animal welfare (N. LUCIFERO, *I regimi ecologici volontari e la loro attuazione a livello nazionale*, in *Riv. dir. agr.*, 2022, I, p. 289).

⁶⁷ The debate has its roots in the 1970s. On the one hand, some saw in the consensual model more excellent elasticity and the possibility that managerial and business culture could innovate, thus G. AMATO, *Gli strumenti di programmazione e i privati*, in AA.VV., *Aspetti privatistici della programmazione economica. Atti della Tavola Rotonda tenuta a Macerata, 22-24 maggio 1970*, p. 141 and, later, M. STIPO, *Programmazione statale e programmazione regionale* (voce), in *Enc. giur. Treccani*, XXIV, Roma, p. 119; on the other hand, others have a more concerned attitude, considering the type of interest pursued by the private party, G. GUARINO, *Programmazione economica e imprese pubbliche: aspetti giuridici*, in *Scritti di diritto pubblico dell'economia*, Milano, 1970, p. 293. According to A.M. SANDULLI, *Manuale di diritto amministrativo*, Napoli, II, 1989, p. 942, the administration uses its powers when «the tasks to be carried out take on the shape of a public function»; on the contrary, it descends to negotiation with the private party when its tasks «take the form (...) of public services». The debate, however, has been weakening, noting how negotiated management is progressively replacing unilateral forms of exercising power. For S. CASSESE, *L'arena pubblica. Nuovi paradigmi per lo Stato*, in *Riv. trim. dir. pubbl.*, 2001, by now «negotiation in place of procedure, freedom of forms in place of typicality, exchange in place of weighing are in the foreground» (p. 648). Also on the point, M. NIGRO, *Il nodo della partecipazione*, in *Scritti giuridici*, Milano, 1996, p. 1419 highlights how this shift requires the adoption of new organizational models by the public administration. More recently, see M. BROCCA, *Interessi ambientali e decisioni amministrative*, Torino, 2018. About the topic of agriculture, questions have been raised on the issue by F. ADORNATO, *Evoluzione dell'intervento pubblico e contrattazione programmata in agricoltura*, Milano, 1999; ID., *La contrattazione programmata in agricoltura*, in *Scritti in onore di Emilio Romagnoli*, Milano, 2000, p. 1125; S. CARMIGNANI, *Agricoltura e competenze regionali*, cit.; F. BRUNO, *La natura giuridica del rapporto tra P.A. e*

More specifically, Legislative Decree no. 228/2001 contains some provisions expressly designated for agriculture. Pursuant to Art. 14, III co., Public Bodies could negotiate with farmers who, among their business activities, engage in specific obligations to protect natural resources, biodiversity and landscape. Similarly, Article 15 should be recalled too. Public bodies could appoint farmers to maintain the territory, preserve the agricultural and forestry landscape, maintain the hydrogeological structure, and promote other activities to protect the productive vocations of the territory. As remuneration for these tasks, farmers can access financing, concessions and tariff reductions without compliance with public procurement contracts. Although these instruments are dated, they have been quite successful and are widely used.

Looking to the future, big expectations on payments for ecosystem services (“PES”) are placed. Moving from economic sciences, the expression is linked to a voluntary transaction where a well-defined ecosystem service is being ‘bought’ by a buyer from a provider, if the provider secures ecosystem provision for a long time⁶⁸. From a legal point of view, PES were introduced by Law no. 221/2016 but the Italian government never implemented the delegation. A further attempt was made in 2018, and his relevance is confined to forestry. Art. 7, VIII paragraph, TUFF suggests Regions to promote such forms of agreement. The model outlined is as follows: the entrepreneur assumes a result obligation to a specific citizen, from whom he receives a remuneration. Thanks to a contract related to a specific service, the performance is assured for a long-term period. The category is extremely broad and includes a whole range of incentives and mechanisms designed to convert environmental values, which do not have a specific market price, into real financial incentives for local actors, in order to promote and support the multiple ecological functions provided by natural capital⁶⁹.

imprenditore agricolo nel regime del set aside, in *Riv. dir. agr.*, 1999, I, p. 566; ID., *La gestione negoziata dell'ambiente: i contratti territoriali e la politica di sviluppo rurale dell'Unione europea*, in *Contr. Impr. Europa*, 2003, p. 612.

⁶⁸ As defined by S. WUNDER, *Payments for Ecosystem Services: some nuts and bolts*, in *CIFOR Occasional Paper*, 2005, n. 42, see it on https://www.cifor.org/publications/pdf_files/OccPapers/OP-42.pdf. About ecosystem services definition see note 6.

⁶⁹ See A. LALLI, *Servizi ecosistemici e capitale naturale: una prospettiva giuridico istituzionale*, cit., p. 53; A. SOLLAZZO, *I pagamenti per i servizi ecosistemici: problemi e prospettive*, in *Riv. giur. amb.*, 2016, p. 585

Although there is great attention on PES, there are obstacles to their implementation⁷⁰. In fact, due to a lack of a pricing system, as well as the significant problems regarding natural capital management, farmers seem not interested in PES. Also, it is uncertain whether the owner of the natural capital is the owner of the ecosystem services provided. Therefore, a question arises, whether the owner of natural capital is entitled to sell a service whose ownership needs to be clarified. Furthermore, awareness by beneficiaries about the role of owners in their work on natural capital to offer ecosystem services still needs to be improved; at the same time, there is still a shortage of incentives for owners to enter into such agreements.

Moreover, such kind of payments opens a wide debate in all those cases where there is no convergence between owner and user such as tenants' agreements or concessions. For example, recalling that farming can contribute to carbon sequestration and the protection of biodiversity, some farmers could try to sell the carbon sequestered, as a value in its own. Although, today, the applicable law to these sellings needs to be clarified, particularly the one regarding taxation, the market is interested in these goods which – strictly speaking – should belong to the farmers and are obtained through the development of a biological cycle.

However, this issue opens the discussion about the economic exploitation of the public goods related to the use of natural capital and who can benefit. This topic still needs to be better defined in the national framework. Trying to introduce some elements, it should be distinguished whether the public goods are gained through human activities or depend solely on the way of being of the natural capital. In fact, whether these goods are produced by farming, farmers should profit. On the other side, whether natural capital produces these public goods by itself, politics should decide if the owner or the one who has a right to exploit the land (by law or by contract) can take advantage of these public goods.

By the way, obtaining these public goods seems pretty hard without human intervention. So, in order to manage and prevent conflicts, parties could only refer to remedies provided in the contract, introducing specific rules to manage these issues between landlords and tenants⁷¹.

⁷⁰ D. PETTENELLA - G. BOTTARO, *I pagamenti per i servizi ecosistemici*, in N. FERRUCCI (eds.), *Commentario al Testo Unico in materia di foreste e filiere forestali*, cit., p. 241

⁷¹ Pursuant to Art. 45 of Law 3rd May 1982, n. 203, *Norme sui contratti agrari* these agreements must be subscribed at the presence of professional associations. In litigation, the appeal must be filed as part of an ADR procedure, and if no agreement is reached, parties should enter a court. On this topic, see A. GERMANÒ-E. ROOK BASILE, *Il contratto di affitto*

About this issue, several disputes should arise. Although in the Italian Courts there are agrarian disputes specialized section, it is only a formal assignment. In fact, Italian judges, in general, do not have a specific education or expertise in specific sectors as these fields. From a *de iure condendo* perspective, it would be appropriate to introduce specific forms of ADR, with mediators who have received specific training, as it was in the so called “Camera Arbitrale” in the Agricultural Ministry⁷². This could be an effective solution to solve such kind disputes, which could seriously arise in the future.

6. Lastly, in order to protect the natural capital and gain a better exploitation, tax law can offer some tools that can encourage specific behaviors, through reductions and exemptions, as well as increasing tax burden to discourage certain behaviors. In fact, the IRS can influence the choices of citizens and businesses, modulating the intensity of the levy and, thanks to its promotional dimension, contributing to implementing strategies designed to influence the relationship between man and nature.

This premise could guide toward a more complex and articulated rethinking of the tax system, pointing out that it is composite and involves all levels of government, from State to Municipalities.

As well as most European countries, the Italian tax framework consists of taxes on income, wealth, transfer deeds and tenancies (there are specific distinctions, taking into consideration the parties involved or the nature of goods). So, offering an overview of the many taxes today in force is complex⁷³. However, the most significant attention should be paid to income and wealth taxes, because of their periodic nature and their imposition on a wide range of taxpayers.

Several vicissitudes have taken turns regarding wealth taxes, including those referred to natural capital. At present, the so-called “IMU” is imposed

di fondi rustici, in IDD., *I contratti agrari*, on *Trattato dei contratti*, directed by E. Gabrielli, Milano, 2015; L. RUSSO, *La disciplina imperativa del contratto di affitto di fondo rustico*, in L. COSTATO - F. ALBISINNI (eds.), *Trattato breve di diritto agrario italiano e dell'Unione europea*, Padova, 2023, p. 285.

⁷² See A. GERMANÒ, *Sulla giustiziabilità delle liti agrarie*, in *Riv. dir. agr.*, 2016, I, p. 3; M. NICOLINI - C. CANTÙ, *Contratti agrari e tutela giurisdizionale*, in L. COSTATO - F. ALBISINNI (eds.), *Trattato breve di diritto agrario italiano e dell'Unione europea*, cit., p. 336 ss.; R. MARTINOLI, *Note in tema di arbitrato nelle controversie agrarie*, in *Riv. dir. agr.*, 2020, II, p. 111.

⁷³ See B. BELLÈ, *Politiche fiscali e tutela del paesaggio: riflessioni su una visione articolata ed integrata dei fini di cui la fiscalità “ordinaria” sappia farsi carico*, in N. FERRUCCI (eds.), *Ruolo e dimensioni del paesaggio nel territorio rurale della Toscana*, Napoli, 2022, p. 189

on agricultural lands. The taxing conditions consist of the ownership of real estate properties referred to buildings or agricultural lands located in the territory of the State, regardless of their use. The Municipalities carry out the collection and they are entitled to retain the highest revenue. The positive externalities that natural capital can generate are not considered in IMU composition.

On the other side, land incomes are calculated on the basis of an income value reported on land registries, which disregards the property's actual value and is based on an assumed average income. The system runs up against the difficulty that the values reported in the land registries are presumptive and, since they have never been updated, do not incorporate the actual profitability rates.

More specifically, a distinction is made between incomes obtained from buildings and incomes obtained from lands, and, regarding the latter, between dominical and agrarian incomes. Agrarian incomes are imputed to those engaged in farming, regardless of whether they own the natural capital or are tenants. In other words, tax discipline is influenced by the type of activities carried out on the land, from which agrarian income or business income could arise.

Agricultural income regulation is based on presumptive values reported in land registries. Compared to the one provided for commercial activities, it is exceptionally favorable. In comprehensive terms, Italy's agricultural activities have always benefited from benevolent consideration.

In fact, the reason is related to the special nature of farming, considered as marginal and scarcely profitable but, at the same time, to be preserved since it produces goods essential for the survival of human beings and could protect and enhance the environment and landscape.

Focusing on these goals, tax policies have only sometimes been adequate. It is due to several reasons: concessions have not always been accompanied by adequate checks on the state of preservation of the said assets; in order to compensate for the costs incurred by the farmers, specific benefits for the maintenance of natural capital have not been provided; or, again, the application for accessing benefits require onerous administrative procedures, which are disincentivizing.

In synthesis, however favorable, the tax regime applied to natural capital and farming has been guided by choices that have never considered the issue of enhancing public goods and the farmers which, through their activity, can better preserve natural capital. Although some measures were

taken, their impact was frustrated due to their fragmentarity and their lackness of a wide approach that faces the issues more systematically⁷⁴.

Looking at the future, the new Articles 9 and 41 Cost. have suggested some academics to promote an environmental tax law. For example, reasoning around the environmental principle «the polluter should pay», some suggest higher taxation for activities that produce significant negative externalities, deterring them and allocating the higher tax levy to compensatory activities. Besides that our account system does not yet seem ready to handle such disaggregated data, it has been pointed out that there are no warranties whether a tax levied on this basis will really be intended for compensatory activities or to cover any lower revenue from concessional tax regimes for green activities⁷⁵.

So, it should also be considered a tax inspired by the precautionary principle. As per France's experience, the territory is divided into different areas that determine the taxation on real estate properties. For example, this could promote renovation activities in underdeveloped areas or former industrial sites needing redevelopment or, finally, to depopulated areas whose fortunes could be renewed by new activities.

In the light of this extra fiscal function accorded to tax law, there would be no obstacle to introduce an environmental tax law⁷⁶, because the new taxable cases would be compatible with the principle of contributory capacity but also because they are based on values such as the protection of nature, the environment, and health as well as the principles of balance and financial efficiency. However, a key role will have to be played by scientific evidence to ascertain the positive or negative externalities that polluting activities may have for the environment, as well as to avoid distortions of competition⁷⁷.

⁷⁴ See G. MARCHETTI, *Ambiente (dir. trib.)*, in S. CASSESE (eds.), *Dizionario di diritto pubblico*, I, Milano, 2006, p. 241 ss.; M. GREGGI, *L'ambiente e l'economia circolare nel diritto tributario*, in G. SELICATO - A.F. URICCHIO (eds.), *Circular Economy and Environmental Taxation*, Bari, 2019; R. ALFANO, *I tributi ambientali. Profili interni ed europei*, Torino, 2012; S. DORIGO - P. MASTELLONE, *La fiscalità per l'ambiente. Attualità e prospettive della tassazione*, Ariccia, 2013.

⁷⁵ V. FIGARI, *Le modifiche costituzionali e l'ambiente come valore costituzionale: la prima pietra di una "fiscalità" ambientale, zone economiche speciali (ZES) e possibili zone economiche ambientali (ZEA)*, in *Riv. trim. dir. trib.*, 2022, p. 855.

⁷⁶ L. ANTONINI, *Dovere tributario, interesse fiscale e diritti costituzionali*, Milano, 1996, p. 226

⁷⁷ See A.F. URICCHIO, *Capacità contributiva e "agenda" del terzo millennio: dalla tutela dell'ambiente all'economia circolare*, in *Dir. proc. trib.*, 2022, p. 185; ID., *I tributi ambientali e la fiscalità circolare*, in *Dir. prat. Trib.*, 2017, p. 1849; G. CHIRONI, *La tassazione dei beni comuni*, Bari, 2018, p. 46. *Amplius*, about the polluter pays principle on tax law, see P. SELICATO, *Imposizione fiscale e principio "chi inquina paga"*, in *Rass. trib.*, 2005, p. 1157; A. BUCCISANO,

7. As a declaration of intent, Italy is among the states that intend to be at the forefront of combating climate change and managing their natural capital in increasingly sustainable ways. To this end, Articles 9 and 41 of the Constitution were amended in 2022. These norms introduce the principle of protection of the environment, biodiversity and ecosystems, in the interest of future generations too (Art. 9), and reserve to the law the possibility of directing economic activity, public and private, not only for social but also for environmental purposes (Art. 41). Along these lines, several strategic documents have been approved and various committees and working groups have been appointed to deal with their implementation.

However, at a more concrete level, these documents stop to mere declarations of principle and programmatic statements but an entire transition needs to be improved and supported through more punctual provision. In this respect, much more has yet to be done. Reasons are several.

Firstly, goals are ambitious and require legislation that acts on various matters. Recalling that Italy is divided into Regions, some matters are of Regional competence (agriculture and forests), some are assigned to the State's sole competence (environment and competition), and others are shared between State and Regions (environment enhancement, health, territory governance). So, coordinating their actions is quite complicated.

Secondly, the ambitious goals require significant fundings. In this respect, Italy needs to improve their management. Often, CAP fundings are not spent, because farmers need to know the measures and the public call for tenders, as well as the staff shortage impedes completing the preliminary work. At the same time, with regards to activities not related to agriculture, the debate about how to spend the PNRR funding has been raging, also due to the different stakeholders and public bodies involved.

Lastly, pointing out how farming could balance the economic exploitation of soil with conservative goals, agriculture is often limited by several constraints, particularly in forestry. Although their function is to preserve the landscape and the environment, their imposition makes complex economic activities and this causes rural exodus and negative consequences on the goods that these constraints aim to protect.

Fiscalità ambientale tra principi comunitari e costituzionali, in *Dir. prat. trib.*, 2016, p. 596; S. CANNIZZARO, *La matrice solidaristica dei principi europei ed internazionali in materia ambientale e il ruolo della fiscalità nel diritto interno*, in *Riv. dir. trib.*, 2017, p. 95; F. BASTIANONI FERRARA, *I tributi ambientali nell'ordinamento italiano*, in *Riv. dir. trib.*, 2008, p. 1094.

To turn the tide, a new alliance between public and private bodies is required to establish new forms of cooperation and offer better and more sustainable management of natural capital. According to Art. 44 Cost. which provides for rational exploitation of the soils, various tools are already in force. For instance, considering that private and public bodies own the natural capital, some provisions incentivize associationism and public concessions to offer the soil to farmers and support their activities. More, to counteract rural abandonment, land-bank is spreading. These banks offer not cultivated land to farmers. Even more, how implementing payments for ecosystem services is an open debate. Regarding tax law, new incentives and supports are explored to favor enterprises with less environmental impact or that contribute to enhancing the environment.

In synthesis, various provisions could have a significant role in transitioning to better use of natural capital. However, they are sectorial. Although every new solution is often accompanied by great enthusiasm, excessive practical and implementation difficulties are often registered. So, a better coordination with the aforementioned strategic documents could be helpful too, but, in concrete, it needs to be improved. As some Academics say, the three sustainability pillars are held together by a fourth element, good governance. This is the problem Italy has now to face.