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Sustainable public management competencies in financial and economic domains: implications for human capital development and national security

Competências de gestão pública sustentável nos domínios financeiro e económico: implicações para o desenvolvimento do capital humano e para a segurança nacional

Competencias de gestión pública sostenible en los ámbitos financiero y económico: implicaciones para el desarrollo del capital humano y la seguridad nacional

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Contemporary landscape of sustainability and security requires "competencies of sustainable public management", that can be shaped through the introduction of Agile methodology and green approaches in public administration system.
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The article contributes to the studies of convergence of sustainability and security domains in public administration and human capital development.

ABSTRACT

The paper exposes the features and structure of institutional public administration support for the ongoing sustainable development strategies. The domains of sustainable development and national security are considered in their relationship, which accordingly determines the range of factors influencing these two areas. Green growth, green finance, and green human capital are covered in the analysis as factors influencing sustainability and security. Interpretive methods of abstraction, historical and logical analysis and synthesis, as well as methods of content analysis are applied. Effects of human capital on green growth, as the nexus between human capital and green growth, is paid particular attention. Findings allow stating that contemporary landscape of sustainability requires new public management competencies, which can be called "competencies of sustainable public management", that can be shaped through the introduction of Agile methodology in public administration system from the top level to local level. Such an approach would lead to important shift in assessing effectiveness and efficiency of public administration, namely, substitution of financial ratios with sustainability ratios, including those indicating human capital development and national security maintenance.

Keywords: sustainable public management; green growth; competencies; national security, green human capital; governance.

RESUMO

O documento expõe as características e a estrutura do apoio da administração pública institucional às estratégias de desenvolvimento sustentável em andamento. Os domínios do desenvolvimento sustentável e da segurança nacional são considerados em sua relação, o que, consequentemente, determina a gama de fatores que influenciam essas duas áreas. O crescimento verde, as finanças verdes e o capital humano verde são abordados na análise como fatores que influenciam a sustentabilidade e a segurança. São aplicados métodos interpretativos de abstração, análise e síntese histórica e lógica, bem como métodos de análise de conteúdo. Os efeitos do capital humano no crescimento verde, como o nexo entre o capital humano e o crescimento verde, recebem atenção especial. Os resultados permitem afirmar que o cenário contemporâneo da sustentabilidade exige novas competências de gestão pública, que podem ser chamadas de "competências de gestão pública sustentável", que podem ser moldadas por meio da introdução da metodologia Agile no sistema de administração pública, desde o nível mais alto até o nível local. Essa abordagem levaria a uma mudança importante na avaliação da eficácia e da eficiência da administração pública, ou seja, a substituição dos índices financeiros por índices de sustentabilidade, incluindo aqueles que indicam o desenvolvimento do capital humano e a manutenção da segurança nacional.

Palavras-chave: gestão pública sustentável; crescimento verde; competências; segurança nacional, capital humano verde; governança.

RESUMEN

El documento expone las características y la estructura del apoyo de la administración pública institucional a las estrategias de desarrollo sostenible en curso. Los ámbitos del desarrollo sostenible y la seguridad nacional se consideran en su relación, lo que determina en consecuencia la gama de factores que influyen en estas dos áreas. El crecimiento ecológico, las finanzas ecológicas y el capital humano ecológico se incluyen en el análisis como factores que influyen en la sostenibilidad y la seguridad. Se aplican métodos interpretativos de abstracción, análisis histórico y lógico y síntesis, así como métodos de análisis de contenido. Se presta especial atención a los efectos del capital humano en el crecimiento ecológico, como nexo entre capital humano y crecimiento ecológico. Los resultados permiten afirmar que el panorama contemporáneo de la sostenibilidad requiere nuevas competencias de gestión pública, que pueden denominarse «competencias de gestión pública sostenible», que pueden configurarse mediante la introducción de la metodología Agile en el sistema de administración pública desde el nivel superior hasta el nivel local. Este enfoque conduciría a un cambio importante en la evaluación de la eficacia y la eficiencia de la administración pública, a saber, la sustitución de los ratios financieros por ratios de sostenibilidad, incluidos los que indican el desarrollo del capital humano y el mantenimiento de la seguridad nacional.

Palabras clave: gestión pública sostenible; crecimiento ecológico; competencias; seguridad nacional, capital humano ecológico; gobernanza.

INTRODUCTION

Balancing development and climate sustainability is a crucial problem that governments throughout the world must address. Nations have historically prioritized economic progress and prosperity. However, expansion frequently comes at the price of environmental sustainability. This fundamental conflict, combining growth with the preservation of a livable world, has emerged as the 21st century's defining issue (Goutte & Sanin, 2024).

Aligning prosperity with environmental preservation necessitates a thorough awareness of various contexts and realities, creative policies tailored to those realities, and fit-for-purpose sustainable practices. Promoting social development and inclusion is critical for long-term sustainability, as stated in the Sustainable Development Goals (SDGs). With the return of ESGs, key manufacturing sectors and corporate practices must be radically altered.

Furthermore, as ongoing crises have repeatedly demonstrated, maintaining financial stability in a dynamic and linked financial system is difficult to undertake. This is especially true in a world that is changing due to shifting alliances, environmental rules, and a rise in innovation and digitization (Arivazhagan et al., 2023). To avoid systemic risks and catastrophes, financial innovation and regulatory supervision must be balanced. This is challenging because of the extent and rapidity of the changes brought about by technology. Lastly, certain financial instruments operate by looking for short-term price differences with extremely minimal risk, which might conflict with the requirement for green investments that require a long-term vision and modified infrastructures. According to Jaeggi et al. (2018), all the above changes must also be successful while maintaining macroeconomic stability, especially permitting foreign direct investment (FDI) in emerging nations where capital shortages are most severe.

Innovative policies based on empirical knowledge and new assessment criteria must arise to solve the development issues of this century, considering the changing conditions we confront and the diverse settings in many nations and regions. Policymakers, scholars, and practitioners in the fields of economics and finance must work together and innovate in order to successfully solve these issues (Marchi, 2024; Teixeira, 2023).

When considering the notion of sustainable development (SD) in an economic framework, it demands a lot of attention. However, when considering the cognitive class from the perspective of finance discipline, the latter is inadequate, leaving many problems unresolved. Simultaneously, it is critical to highlight the quantity of funds allotted and distributed to support SD. According to researchers, there are two key problems that need to be addressed: (1) how to include multifaceted, comprehensive, and long-term perspectives of SD into finance; and (2) how sustainable finance (SF) affects the effectiveness of funding SD (Tirca et al., 2019).

Key recommendations to advance development and sustainability goals include understanding vulnerability determinants, promoting green finance initiatives, improving tools to design and evaluate financial regulation, integrating sustainability principles into economic modeling frameworks, and fostering social inclusion. Stakeholders may create a more resilient, affluent, and equitable future by coordinating economic policies with sustainable development goals (Liu et al., 2023). Stakeholders may strive toward comprehensive solutions that support long-term prosperity and well-being by recognizing the connections between social development, environmental sustainability, financial stability, and economic prosperity.

This new complex reality, the landscape of sustainability as a goal, requires new public management competencies, which can be called "competencies of sustainable public management".

Poverty and income inequality are important problems that affect economic stability, social justice, and sustainable development. Policies that support equitable opportunities, access to essential services, and social safety nets must be put in place to combat poverty and economic disparity. By enabling people and communities to take advantage of economic possibilities, poverty reduction and improved income distribution may support social cohesion, economic prosperity, and sustainable development.

One of the main concerns of sustainable development has always been income disparity. In addition to examining the severity of inequality, researchers also look for remedies. Cobbinah et al. (2015) examined how urbanization and poverty affect sustainable development in emerging nations. To thoroughly examine how poverty and urbanization affect sustainable development strategies, they used an analytical approach to poverty and urbanization in emerging nations. They maintained that improving the living circumstances of the impoverished should be the goal of governmental interventions in order to further inspire people to take care of the environment. Crespo Cuaresma et al. (2018) suggested using econometrics to forecast rates of poverty throughout the world. According to the most optimistic scenario, which is based on many worldwide scenarios, more than 300 million people in Sub-Saharan Africa will still be living in severe poverty by 2030. According to their research, further developmental policy assistance is necessary to eliminate poverty and economic inequality in order to achieve the region's primary Sustainable Development Goal.

Research into issues of the strategy of ensuring national economic security was also carried out by scientists (Gaman et al., 2022; Zilinska et al., 2022; Avedyan et al.,2023; Denysiuk et al., 2023; Yermachenko et al., 2023; Bashtannyk et al., 2024; Pavlovskyi et al., 2024; Poliova et al., 2024; Pyatnychuk et al., 2024; Sydorchuk et al., 2024; Voronina et al., 2024; Zayats et al., 2024): goals and objectives of the state's economic security; description of the most likely internal and external risks to economic security; identification and tracking of elements that affect the stability of the socio-economic system; determination of national interests in the sphere of the economy; functioning of the national economic security system; economic policy, institutional conditions and mechanisms for mitigating the effects of factors that cause economic instability; establishment of economic criteria and parameters, and a mechanism that satisfy the requirements of economic security and guarantee the protection of important state interests.

Financial inclusion is crucial for promoting economic opportunities, reducing poverty, and enhancing social welfare. Providing access to financial services, such as savings, credit, insurance, and investment products, to underserved populations can empower individuals, foster entrepreneurship, and support sustainable development (Gavkalova et al., 2022). Enhancing financial inclusion through innovative technologies, regulatory reforms, and capacity-building initiatives can expand economic participation and promote inclusive growth, in particular through improving human capital development and, thus, contributing to maintenance of national security.

The goal of inclusive development is to guarantee that everyone in society, especially vulnerable and disadvantaged groups, benefits from economic growth. Reducing disparities, expanding access to opportunities, and strengthening social safety nets are all necessary to promote inclusive growth. By enabling people and communities to take part in and profit from economic growth, policies that promote inclusive development can aid in the fight against poverty, social cohesion, and sustainable development (Jha et al., 2018).

Researchers now discuss a shifting view on the meaning of financial gains and the gradual replacement of financial measurements with sustainability ratios (Atewamba & Ngondjleb, 2020; Paudel et al., 2024). Moreover, recently, the concept of “green human capital” emerged, and the impact of human capital on green technology is also actively researched.

According to Soto (2024), the process of economic development is especially dependent on the accumulation of human capital, which also emerges as one of the key principles supporting green growth, given the intrinsic link between environmental deterioration and the latter. This link, meanwhile, frequently ignores different degrees of human capital (Gupta et al., 2024). Therefore, his study’s goal was to investigate the long-term relationships between high human capital stocks and environmentally sustainable green economies across the major Asia-Pacific nations South Korea, Japan, Singapore, and Australia between 1990 and 2022.

In the same way, Soto’s (2024) demonstrate there is a long-term correlation between the sustainability of the environment and the stock of high human capital. The author also discovered a similar correlation between the growth of socioeconomic practices in green economies. Lastly, Soto (2024) concludes that the nations in our sample experience less environmental pollution as their GDP level rises, much like the environmental Kuznets curve. A process of technological substitution and investments in the creation of new methods and technologies to increase production while preserving the environment may be the driving forces behind this connection (Kussainov et al., 2023).

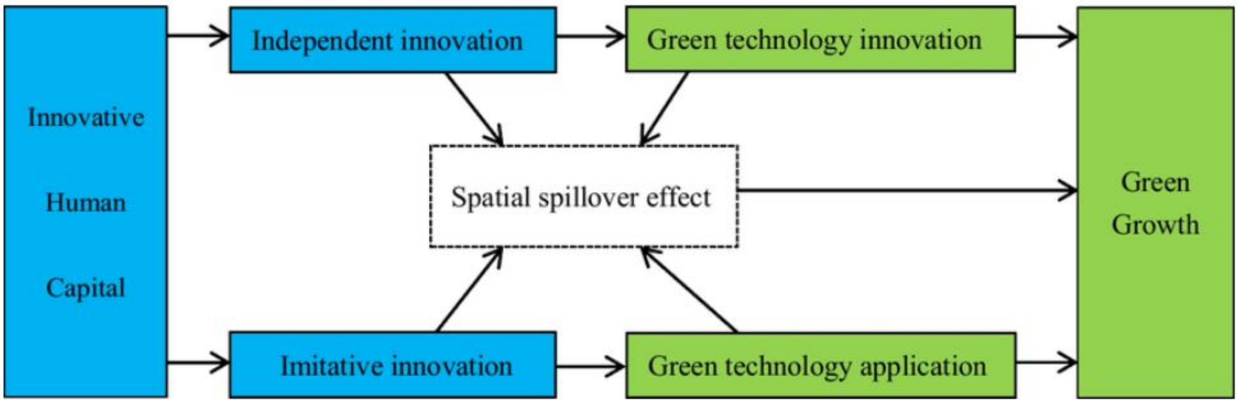
In order to combat climate change and advance environmental sustainability, the researcher contends that funding education and encouraging green economies can be effective strategies. Policymakers may support long-term economic and environmental health by giving investments in sustainable technology and renewable energy top priority. Furthermore, the results imply that encouraging education in nations with high environmental pollution levels can foster the development of the know-how required to adopt sustainable practices and technology (Nekhai et al., 2024). In the end, these initiatives can lessen their negative effects on the environment while also enhancing income, productivity, and living standards in society.

The possible influence of innovative human capital (IHC) on green growth is evaluated by Lin et al. (2023). Amidst this context, this research investigates experimentally how IHC contributes to regional green growth in China, considering the geographical spillover effect and emphasizing the amount and caliber of human capital as well as its direct and indirect impacts on green growth. The results of the study by Lin et al., (2023), demonstrate green growth in the area. The authors schematically depicted the transmission mechanism for IHC to green growth (see Fig. 1).

Thus, sustainable public management competencies acquire non-linear nature, and, through human capital development, naturally impact national security.

Data from the Israeli-Iranian weapons race, according to Bar-El et al. (2020), demonstrate that a preference for immediate political or personal gain obstructs investment in human capital and hinders future economic growth, national security, and social welfare. A thesis about the critical necessity for sustainable public management abilities based on long-term objectives and future generations’ interests is also clearly supported by these data.

Figure 1. The transmission mechanism for IHC to green growth



Source: Lin et al. (2023)

METHODS

This study adopts an interpretivist methodological approach to explore the multidimensional relationships between sustainable development factors and the effectiveness of public administration. The methodology is structured around two key components: an interpretive review of literature (Evans, 2002) and a content analysis of literature (Drisko & Maschi, 2016; Bardin, 1977). The central goal is to interpret and understand how these domains intersect, drawing upon existing scholarly work and theoretical frameworks related to sustainable development, green growth, and national security.

The interpretive review will involve a systematic and critical examination of relevant literature to identify key concepts, map intellectual debates, uncover recurring themes, and critically evaluate existing research. This stage aims to delimitate the theoretical landscape and identify gaps in current knowledge. Following this, a content analysis of selected textual materials will be conducted, employing Bardin's principles to systematically identify, categorize, and interpret themes and patterns related to the research question. This will involve coding and analyzing the content to reveal underlying meanings and assumptions about the interplay between sustainable development and public administration.

The insights gained from both the interpretive review and the content analysis will be synthesized within the interpretivist paradigm. The general scientific methods of cognition, such as abstraction, historical and logical analysis, and synthesis, will be applied throughout this process to identify overarching themes and logical connections. Ultimately, this two-pronged methodological approach aims to provide a rich and detailed understanding of the correlations and interrelations between factors of sustainable development and their impact on the effectiveness of public administration functions. This study, therefore, has a conceptual methodological nature.

RESULTS AND DISCUSSION

In this regard, to provide a roadmap for the required skill adaptation to the needs of the green economy, public and economic players in every nation must work together. Since these procedures are best suited to each unique social, economic, and administrative situation, they are nation-specific. To stimulate, motivate, and coordinate the actions of the several stakeholders engaged in economic growth and human capital management, general considerations might nonetheless aid in directing the process of creating and putting into practice such policies.

First and foremost, identifying key industries and occupations, as well as present and future skill requirements, based on reliable labor market data and social discourse, is a crucial first step after governmental commitment to green the labor market. The participation of stakeholders, including social partners, private companies, nongovernmental organizations (NGOs), and educational and training institutions, is a second essential focus and the cornerstone of any policy strategy for green jobs and skills (Ortina et al., 2023). This approach is founded on the complementary nature of top-down coordinated policy-making and bottom-up sectoral and local initiatives. National and subnational governments should provide a financial and regulatory framework to encourage investments in greening skills at a later stage of policy formulation (Pasichnyi et al., 2024). Finally, a robust governance mechanism must guarantee that decisions are made at all levels and throughout all sectors (UNEVOC, 2024). For this reason, a global political vision and national coordination should coexist with the emergence of a project governance that is primarily multi-actor and decentralized.

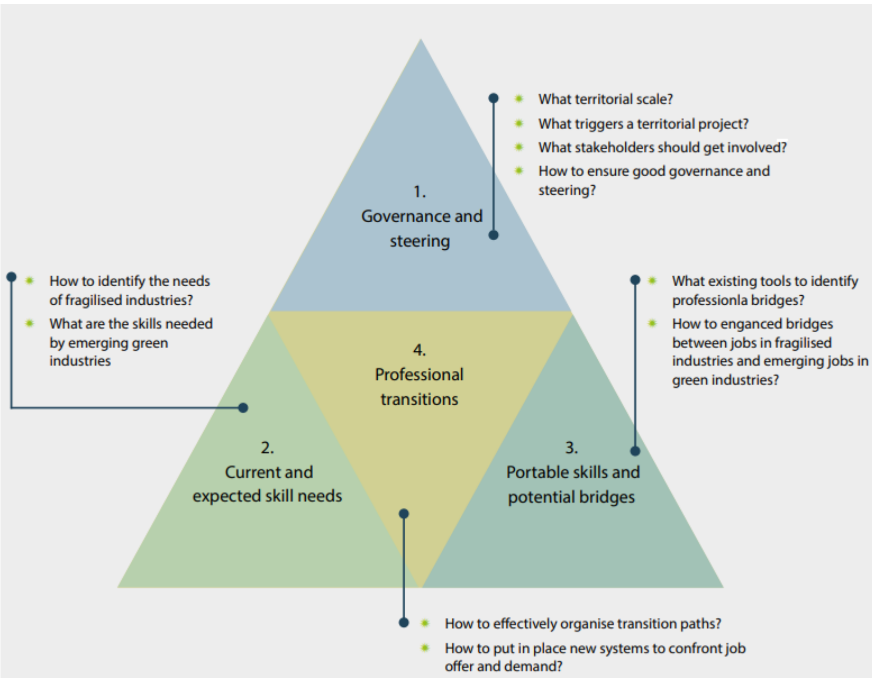
Based on country experiences using the integrated national financing framework (INFF) approach to navigate the dynamic nature of development financing and the changing economic landscape, the UNDP's 2024 report, "Making finance work for people and planet," includes accomplishments, lessons learned, and best practices to date. INFFs, which were first presented by UN Member States in the Addis Ababa Action Agenda, are being utilized by nations to change the finance landscape on a national scale. The INFF strategy is now being used by 86 nations to develop funding plans and implement relevant policies, reforms, resource mobilization initiatives, and governance structures. Over 50 nations are adopting finance policy reforms informed by their INFF, and 13 national and subnational governments have an operational funding plan. A growing number of nations are encouraging investment in climate adaptation and mitigation projects by utilizing their INFF as a platform to match their financial plans with their Nationally Determined Contributions (NDCs) under the Paris Agreement.

Every funding plan is driven by the nation, adapted to the local environment, goals, and difficulties, and integrated into national and subnational organizations. Consequently, a range of strategic approaches are advanced by various finance techniques. Leveraging fresh public money, for instance, is a key component of Djibouti's financing strategy. Private finance is the main focus of more than half of Nigeria's financing strategy's initiatives. More than 70% of the Maldives' projects are made to better connect finance and sustainable development. Ethiopia demonstrates how to coordinate funding across humanitarian, development, and peace agendas with their crisis-sensitive finance approach. All of them, however, take a more comprehensive approach - both public and private - to funding national goals, considering the capabilities and institutional adjustments needed to support them as well as prospects for increased impact and new investment (UNDP, 2024).

According to the aforementioned research, the framework for Advancing Green Human Capital (PAGHC) is an international collaboration that was established in 2015 to offer a framework for leveraging significant synergies between the fields of human capital and the green economy, both of which are essential for sustainable development. Through policy discussions that address the effects of the ecological transition on labor market, training, and educational policies, PAGHC seeks to expedite and create possibilities for a just transition for everyone. One of the topics covered in the policy discussions that PAGHC promotes is how to increase awareness of the abilities needed to handle the ecological transition. Other questions seek to reveal what programs are governments, financial institutions, social partners, and development partners already implementing, and what rules, specifically as they relate to the SDGs, may be suggested.

Together, the French Labor and Environment Ministries created a methodological kit (in French) to support career transitions. Any territorial stakeholders looking to facilitate and protect the professional transitions of workers or job seekers from dwindling industrial sectors to positions in ecological or clean energy activities are the target audience for this instrument. The kit expands on the guiding ideas, methods, and resources tried and tested in several French experimental areas. It gives guiding concepts and instruments to the players (institutions, professional branches, social partners, enterprises, etc.) in charge of territorial economic development policies. Figure 2 shows the kit's four separate sections, which represent the many elements that ought to be included in any strategy to support career transitions (Renwick, 2020).

Figure 2. Components of a plan to accompany professional transitions



Source: Renwick (2020)

The ecological effect of green finance in China, the world's greatest emitter of CO2, is moderated by human capital and strong governance, according to research by Kassi (2024). According to the author, unrestrained green initiatives may have unexpected consequences for environmental quality, contingent on the degree of human capital and governance. Using data from 1992Q1 to 2020Q4, the author employed the moments-quantile approach with fixed-effect models and several spatial econometric estimators in multivariate models. First, he illustrated how green financing reduced CO2 emissions through human capital development and good governance. Second, green financing only slightly improved environmental quality in Central and Western China, where, in contrast to Eastern China, human capital levels and governance quality were above ideal criteria. Third, the combined environmental effects of human capital, green finance, and good governance increased more in high-polluting provinces than in low-polluting areas, with greater magnitudes in Western China than in Eastern China. Finally, the quality of governance, human capital, and green financing all had detrimental regional spillover effects on CO2 emissions. In contrast to Western China, however, their synergy - that is, the interaction terms - had favorable geographical spillover effects on the CO2 emissions of the Eastern and Central regions' bordering provinces.

By employing green finance as a policy instrument to achieve green growth, Tufail et al., (2023) research adds to the body of previous material. The authors examined the relationship between green financing and other control factors on green growth in the 19 chosen OECD nations between 1990 and 2021 using the moment quantile regression approach. The study's key conclusions provide credence to the notion that green funding spurs green growth in the chosen nations. Likewise, there is a strong positive correlation between green growth and human capital. Furthermore, rising GDP and globalization slow down green growth. According to Tufail et al. (2023), policymakers and regulators need to give green financing top priority to encourage green growth and meet the sustainable environmental targets established by OECD economies.

Other scholars highlight the direct relationship between green finance and national security, particularly energy security, that is not mediated by human capital. Based on empirical research from China, Shi and Zhao (2023) examine how green financing contributes to energy security in the development of new energy systems. Energy supply, energy consumption, environmental dimension, and industrial structure are the four ways that green financing may improve energy security, according to the positive effect study. Additionally, the authors demonstrated a long-term cointegration between energy security and green financing. Energy security is significantly improved by long-term green funding (Byrkovych et al., 2023). However, they discovered that there is no discernible short-term impact of shifts in the degree of green finance development on changes in energy security. This is a result of the time lag associated with the involvement of green financing. Therefore, one of the most important components of sustainable public management abilities is long-term vision competency, which should be demonstrated in public management via responsible will and a strong commitment to sustainability.

To ensure regulatory capabilities and impacts, the government must set up an acceptable green finance regulatory agency, define legal and regulatory tasks, and provide enough material and human resources. Second, transparency and information disclosure are required. Green finance addresses social welfare and environmental concerns, necessitating thorough information disclosure of investment initiatives.

Chinese, Canadian, Mexican, and British case studies on financial policy responses to a changing world are presented by Heilmann et al. (2020). There are parallels and contrasts among the many situations that each of these big economies faces. They all provide insightful insights and have in one way, or another, demonstrated leadership or an inventive approach to sustainable finance changes. The UK Climate Change Act, the first to enact a national emissions reduction target, was passed in 2008, which was also the year of the financial crisis. These incidents planted the seeds for a discussion on how to sustainably satisfy the UK's future investment demands. The UK recognized that there was a significant investment gap in green markets, for instance to scale up the development of the onshore wind sector and develop finance models for energy efficiency and buildings. In 2012, the UK established the first national Green Investment Bank in the world, which was privatized a few years later after a change of government. The G20 created the TCFD the following year after the Bank of England took the lead in warning of systemic financial risk from climate change in 2015. The UK and China co-chaired the G20 Green Finance Study Group in that same year. To combat systemic climate-related financial risk, the Bank of England has been taking innovative measures. In 2018, it sent a Supervisory Statement on Climate Change to the banks and insurance firms under its supervision, and in 2019, it declared that it would begin stress-testing UK banks and insurers against climate risk in 2021 (Heilmann et al., 2020). Expecting to develop a Green Finance Strategy, the UK has been pursuing a domestic policy process since late 2015. The Green Finance Initiative was launched in early 2016 by the City of London Corporation, a local government that houses most of the country's financial industry. As part of the Conservative government's Clean Growth Strategy, the GFI hosted the Green Finance Taskforce in 2017 and was the first public sector-led initiative to promote sustainable finance throughout London's financial industry.

Together with the business ministry, which is also in charge of climate and energy matters, the UK's finance ministry announced the Green Finance Taskforce. The Taskforce was requested to make suggestions on how to secure the public and private investment needed to fulfill the UK's carbon budgets and increase the country's market share in the global green finance industry. The European High-Level Expert Group on Sustainable Finance was established in December 2016, and China had organized a Green Finance Taskforce that produced a report in April 2015. Both groups drew on international precedents. Among the thirty recommendations the Taskforce made to the government were policy, budgetary, and regulatory actions. The 2019 Green Finance Strategy was the government's answer. Among the strategy's primary actions, there are the following (Heilmann et al., 2020):

- Establishing a review procedure that will make corporate climate risk reporting mandatory if corporations do not voluntarily provide enough information.

- Establishing a new Green Finance Institute, which was established in July 2019, to spur the expansion of green finance prospects in the UK;

- The government will include climate risk in its next report on budgetary concerns.

A UK government interdepartmental committee that views climate change as a national security problem now regularly discusses green funding.

As was already mentioned above, to provide a roadmap for the required skill adaptation to the needs of the green economy and sustainable development, public and economic players in every nation must work together. These procedures are unique to each nation as they should ideally be tailored to the administrative, social, and economic environment. However, because they are predicated on elements that are difficult to alter, any skill-development strategy should be in line with a vision that supports ecological, social, and economic change.

The impact of green growth, foreign direct investment, human capital, and financial development on Pakistan's carbon emissions from 2004 to 2022 is examined by Farooq et al. (2024). The research employs a strong theoretical framework, the Auto-Regressive Distributed Lag (ARDL) model, which is based on the theory of financial development and green finance. This model aids in explaining the short- and long-term relationships associated with this issue. According to the study's findings, investing in more advanced technology to reduce carbon emissions and enhancing green activities have a favorable correlation with environmental sustainability. The study also shows that human capital is still a major factor in environmental success. This suggests that for intensified workforces to embrace and maintain sustainable green practices, they need more knowledge and training. However, foreign direct investment (FDI) has had a favorable but negligible effect on Pakistan's environment. This data emphasizes the necessity for lawmakers to link economic policy and financial development to maintain economic stability and protect the environment. Pakistan's integrated investment promotion policies and sustainable human capital development may help the country both financially and environmentally.

For public management, the scope of duties and areas of responsibility is growing. Flexibility and agility are qualities that should define sustainable public administration. Agile leadership concepts have the power to revolutionize the way the public sector prepares, operates, and serves its stakeholders and consumers. The current difficulties have highlighted how crucial it is to modify policies, implement cross-agency initiatives, and collaborate well in teams to do so more efficiently and often with decreasing funding. Even for committed public servants and organizations with a clear objective, it is a difficult undertaking. The public sector should ideally be agile and flexible in such challenging circumstances. Agile approaches have the power to revolutionize a government's operations, planning, and service delivery. Significant progress has already been achieved by several government agencies. Every level of government should adopt agile ideas and practices to overcome obstacles to change.

FINAL REMARKS

The conducted research shows that contemporary landscape of sustainable development and national security becomes ever more multi-dimensional, complex, and non-linear, which requires a kind of paradigm shift in public management competencies. Sustainable public management is the only way today to maintain growth and security.

Governments, however, might appear to be stagnant and unchanging. Agile approaches have the potential to improve organizational health and performance. Government efficiency may be significantly impacted using simply a few agile tools. In fact, certain agile concepts like aiming for goals and highlighting significant outcomes in quarterly evaluations might even appear specifically designed to deal with the limitations that are common in government.

Central governments can prioritize critical initiatives with the use of agile approaches. Typically, central governments use the budget process to distribute funds for strategic objectives. However, because this procedure is typically yearly, there is a knowledge gap between initiative funding and impact. The enterprise agility core principles of objectives and key results (OKRs) and quarterly business reviews (QBRs) have the potential to revolutionize central government planning and resource allocation. In terms of structure, ongoing initiatives are given preference over promising new ones in the yearly resource allocation process. Because the process frequently places more emphasis on meeting financial needs than on results, this dynamic may limit the generation of value. Governments have not widely used QBRs because major changes are frequently challenging in the public sector. Still, preliminary findings might be promising.

Furthermore, governments have long tracked program management progress by keeping an eye on key performance indicators, or KPIs. Governments may find it easier to convert their strategic priorities into more precise objectives for teams and agencies to strive for if they adopt OKRs, which clearly manage by outcomes. This will allow solving the above-mentioned task of substitution of financial ratios with sustainability ratios, including those indicating human capital development and national security maintenance. This Agile paradigm should be gradually integrated into the framework of public management competencies within the global and nation-scale landscape of sustainable development and new vision of security.

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B. data research and statistical analysis:	16.6%	16.6%	16.6%	16.6%	16.6%	16.6%
C. elaboration of figures and tables:	16.6%	16.6%	16.6%	16.6%	16.6%	16.6%
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