

## Journey of the agricultural policies reforms in Benin (West Africa) since 1960: A systematic literature review

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**ABSTRACT:** Since gaining independence and transitioning into a market economy, Benin has made significant changes in the governance of the agricultural sector to tackle the challenges. The changes involved experimenting with different approaches reflecting the prevailing ideologies of each period. Despite the implementation of various agricultural policies, an examination of the sector reveals several problems and challenges, raising questions about the effectiveness of these policies. Drawing on existing literature, the objective of this paper is to provide a comprehensive overview of the challenges faced by the agricultural sector in Benin, linking them to historical policy shifts. We explore the performance and outcomes of past and present agricultural policies in Benin, focusing on their ability to achieve intended objectives. Our findings indicate that the key changes observed include aligning agricultural policies with the directives of external powers more than national priorities. More recently, institutional reforms have focused on decentralizing agricultural development and streamlining the institutional landscape, yielding some positive outcomes compared to previous periods. To ensure the successful implementation of reforms, it is crucial to consider the aspirations of all stakeholders and encourage their ownership of agricultural policies.

**KEYWORDS:** governance, agricultural policy, rural development, reforms, Benin.

### 1 INTRODUCTION

The agricultural sector plays a crucial role in the economic and social development of developing countries, including those in Sub-Saharan Africa (Nhemachena et al, 2020). Its contributions extend beyond more production to encompass the supply of raw materials for various industries, income of generation, job creation, and poverty alleviation (Norton, 2014). Recent efforts in Sub-Saharan Africa have focused on transforming agriculture to enhance productivity and ensure food security for the population, emphasizing the importance of strengthening institutional capacities within the sector (AfDB, 2016).

In Benin, the agriculture sector forms the backbone of the economy, supporting livelihoods and generating economic growth. According to the National Agricultural Statistics Office (DSA), agriculture contribute to 26.6% of Benin's GDP and is still the principal source of employment for 54.8% of the population, particularly in rural areas (DSA, 2023). The sector includes crop farming, livestock husbandry, forestry, and fishing, reflecting the country's vast agroecological diversity. Cash crops like cotton, palm oil, cocoa, and coffee contribute significantly to export revenues, while food crops like maize, cassava, yams, and rice provide the foundation of domestic food security. The agricultural sector is also the provider of raw materials for agro-processing companies, helping to drive value creation and industrial growth (Kantchede et al., 2022).

Despite its potential, the agricultural performance in Benin has remained relatively weak over the years, despite various reform initiatives (Honfoga, 2018). These reforms have shaped the institutional landscape of the agricultural sector, often

driven by strategic visions and objectives. However, they have been criticized for lacking alignment with the economic interests of farmers and failing to address local development needs, resembling more of a continuation of paternalistic colonial policies rather than genuine improvements (Anouilh and Mbacké Mboup, 2008; Balié and Fouilleux, 2008).

Several challenges persist within Benin's agricultural sector, including low productivity, insufficient value chain structuring, climate change vulnerabilities, governance weaknesses, and limited access to financing (MAEP, 2017). These challenges are often attributed to policy formulations driven by bureaucratic imperatives rather than genuine efforts to enhance farmer welfare (Kouakanou et al., 2021; Ahoyo Adjovi et al., 2013; Balié and Fouilleux, 2008). Approaching agricultural policies as a reflection of state interventions and their consequences on target populations provides insight into their complexity and outcomes (Leca, 2012). Understanding the historical trajectory of agricultural governance enables us to draw lessons for improving sectoral governance (Payre and Pollet, 2013). This study aims to explore the evolution of agricultural policies in Benin since independence, considering economic, political, and social ideologies that have influenced their development.

By conducting a systematic literature review, this paper identifies trends and discontinuities in Benin's agricultural policies over time. Adopting a diachronic approach allows for a comprehensive understanding of past reflections and analyses on agricultural actions, shedding light on present-day challenges and opportunities (Payre and Pollet, 2013).

Following an overview of the data collection methodology, the paper delves into the scholarly interest in Benin's agricultural policies and reforms. Subsequently, it presents the historical journey of agricultural reforms in Benin and their contributions to national development. The discussion section evaluates the necessity and effectiveness of these reforms, leading to conclusions and implications for future policy directions. In essence, this study contributes to the understanding of the dynamics of agricultural policy formulation and implementation in Benin, offering insights into the country's agricultural development trajectory and informing future policy decisions.

## 2 MATERIAL AND METHODS

### 2.1 DATA COLLECTION

The research is based on the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines, to uphold a high standard of scientific integrity, transparency, and reproducibility in the outcomes (Page et al., 2021). The temporality of our look into the past is based on the period of Dahomey's independence. This period assumes that public actions directed toward the rural world in general and the agricultural sector, in particular, were set on an agenda and shaped independently by national actors. The diachronic approach mobilized for this research is based on the need to reconstruct previous dynamics over time and to present the configurations of the moment to better appreciate the "ways of acting, thinking and feeling" (Durkheim, 2010, p.65) of agricultural actors in the face of current reforms.

Data were obtained from the review of scientific work and policy documents related to agricultural policies. To this end, the search engines GOOGLE SCHOLAR, and SCOPUS were used to search the literature (Akpovo et al., 2022) on agricultural policies in Benin covering the period from 1960 to 2022. Various keywords were entered into the search engines, including "agricultural policies," "reforms," "agricultural sector," "history of the agricultural sector," "Benin," "Dahomey," "agricultural policy," "development" and "reforms." Each key concept was combined using the Boolean operators "OR" and "AND". This allowed us to identify relevant documents that might have used different synonyms for the same word. This method made it possible to identify relevant documents that might have used different synonyms for the same word. The search equations used for this systematic review are in French and English. Documents that were not scientifically rigorous or had not been evaluated were excluded from the selection. After removing duplicates from the search engines, the selection was based on the methodological quality and relevance of the results in terms of public intervention in rural areas, agricultural policies, and Benin or Dahomey (Figure 1).

Open-access documents have been downloaded. For the three (03) restricted publications (paid or requiring organizational membership), requests were made to the authors. Manual and snowball searches were performed to include studies not identified by the search strategy (Wohlin et al., 2022). Bibliographic references of documents downloaded online were searched to identify other works with a focus on agricultural policies in Benin. Various inclusion and exclusion criteria were defined to refine the search and select the most relevant publications (Davis *et al.*, 2014). These criteria are described in Table 1.

In addition, apart from legal texts, the following agricultural policy documents that have been developed and implemented were consulted:

- The Letter of Declaration of Rural Development Policy (Lettre de Déclaration de Politique de Développement Rural - LDPDR) in 1991;

- The Declaration of Rural Development Policy (Déclaration de Politique de Développement Rural - DPDR) in 1999, which is the result of the review of the LDPDR in 1995;
- The Master Plan for Rural Agricultural Development (Schéma Directeur du Développement Agricole Rural - SDDAR) operationalized by the Strategic Operational Plan (Plan Stratégique Opérationnel - PSO) in August 2000;
- The Strategic Plan for the Recovery of the Agricultural Sector (Plan Stratégique pour la Relance du Secteur Agricole - PSRSA) 2011 - 2015;
- The Strategic Plan for the Development of the Agricultural Sector (Plan Stratégique de Développement du Secteur Agricole - PSDSA) 2025 coupled with the National Plan for Agricultural Investments and Food and Nutritional Security (Plan National d'Investissements Agricoles et de Sécurité Alimentaire et Nutritionnelle - PNIASAN) 2017 - 2021 and
- The agriculture component of the Government Action Plans (Plans d'Action du Gouvernement - PAG) 2016-2021 and 2021-2026.

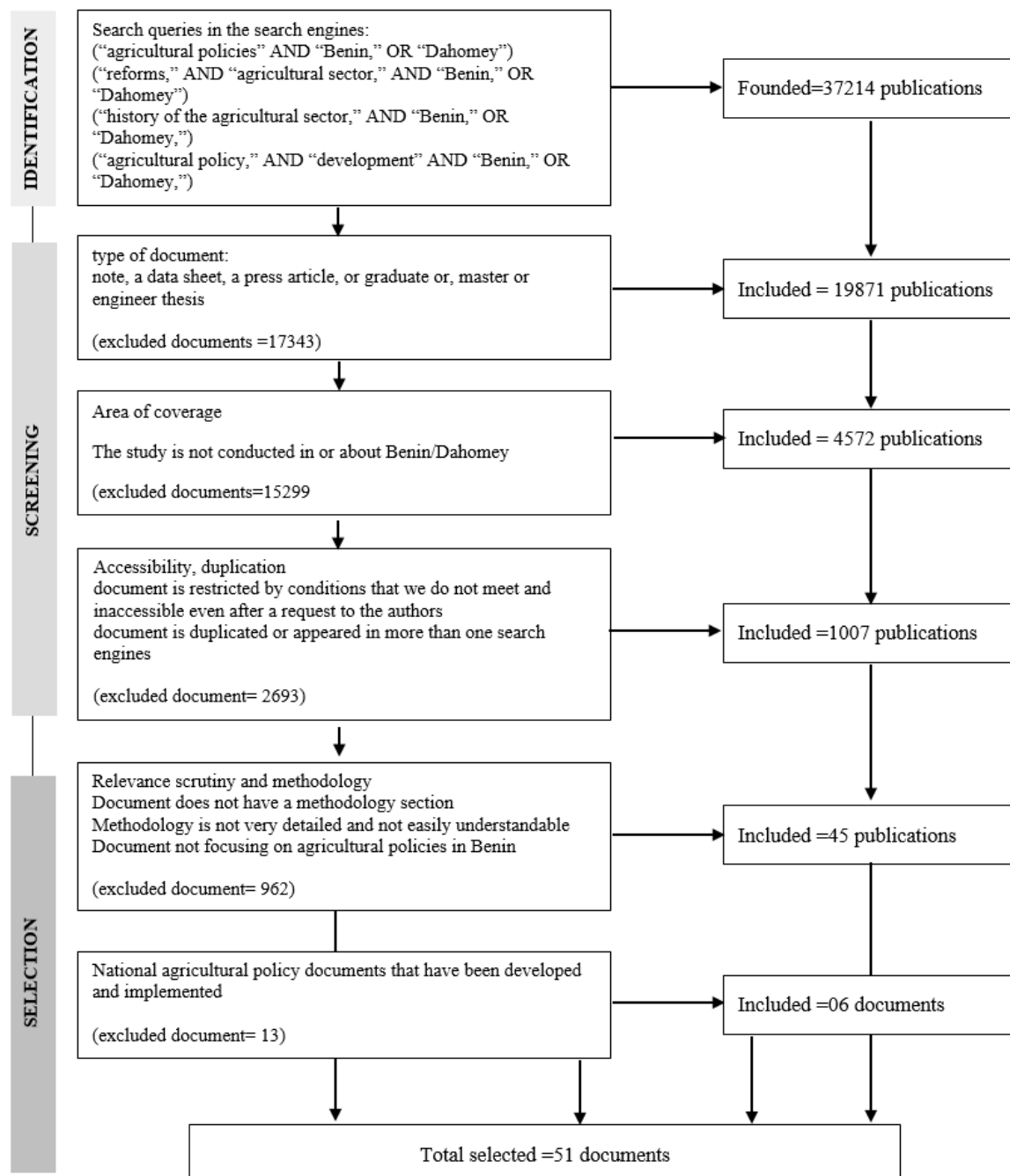


Fig. 1. PRISMA diagram of selection and screening of the documents for the review

Table 1. Criteria for inclusion and exclusion of documents

Items	Document Selection grid	Inclusion criteria	Exclusion criteria
Type of document	1= The document is either a note, a data sheet, a press article, or a thesis (bachelor, master, engineer) 2= The document is a study report or a technical and information document 3= The document is a thesis, a book, or a book chapter 4 = The document is a scientific article	(2), (3) & (4)	(1)
Area of coverage	1= The study is not conducted in or about Benin 2 = The study includes Benin in the area of coverage 3 = The study is conducted on the part of Benin 4 = The study is carried out on the entire territory of Benin	(2), (3) & (4)	(1)
Accessibility	1= Access to the document is restricted by conditions that we do not meet and inaccessible even after a request to the authors 2 = The document is downloadable without conditions or accessible by request to the authors	(2)	(1)
Duplication	The document appeared in more than one search engines	An accessible version of the document is retained	The other versions are not retained
Topic or abstract of the document	1= Title and abstract do not address agricultural policies 2= Title does not address, but the summary does address agricultural policies 3= Title and abstract address agricultural policies	(2) & (3)	(1)
Methodological quality	1= Document does not have a methodology section 2= Methodology is not very detailed and not easily understandable 3= Methodology is clear and transparent but cannot be replicated due to internal and external factors 4= Methodology is clear, understandable, and reproducible	(3) & (4)	(1) & (2)
Relevance of results	1 = Poor 2 = Low 3 = High 4 = Very high 5 = Excellent	(3), (4) & (5)	(1) & (2)

## 2.2 DATA ANALYSIS

First, a reading grid was developed and used to organize the information and examine it according to categories such as geographic coverage, content, quality of methodology, methods, and theories used (Snyder, 2019). Second, the set of documents consulted was subjected to thematic content analysis supported by descriptive statistics, including the frequency, by decade, of works on agricultural policies since 1960. This approach makes it possible to identify what is fundamental in a text, what it is specifically about (Paillé and Mucchielli, 2021). Third, the assessment of the relevance of the documents for the present research was performed using a five-point Likert-type scale: 1 = poor; 2 = low; 3 = high; 4 = very high; and 5 = excellent (Affognon et al., 2015). Fourth, the documents selected were subjected to descriptive statistical analysis and classified according to the year of publication, relevance, document type, and study coverage area. Fifth, the diachronic method allowed for the analysis of the trajectory of reforms over the six-decade period. This method has been useful to emphasize the processes and evolutions that characterize the facts analyzed and define them as objects inscribed in time (Hélaridot et al., 2019). Furthermore, an organized and structured writing of the review was possible thanks to a synthesis of each document selected.

## 2.3 SCIENTIFIC INTEREST FOR PUBLIC POLICIES IN BENIN AGRICULTURAL SECTOR

The search engines used identified 37 214 scientific works on public policies and reforms in the agricultural sector in Benin (Table 2). Application of the first inclusion/exclusion criterion (type of document) resulted in the identification of 19 871 documents. Then, the coverage area criterion reduced the number of documents to 4,571. After eliminating redundancies and

inaccessible documents, application of the criterion of the presence of key concepts in the subject and/or abstract reduced the number of qualified works to 1007. 97 documents were deemed eligible after application of the criterion relating to the quality of the methodology adopted in the document. Only works that presented a clear, transparent and comprehensible methodology were eligible. Finally, only 44 documents were retained following the assessment of the relevance of the results (Affognon et al., 2015) with at least "satisfactory relevance" following the full-text review (Table 3).

A temporal analysis of the documents consulted showed that work on agricultural policies or public intervention in the agricultural sector in Benin has gradually increased (Table 2). It was mainly from 2001 onwards that the number of publications exceeded the 11,000 marks. This is in line with the period of growth in the number of African scientific publications in all fields, due to increased investment in research and development and improvements in infrastructure and human resources (Bonncase and Brachet, 2021; Blom et al., 2015).

**Table 2. Publications on agricultural policies and reforms in the agricultural sector**

Years of publication	Quantity and percentage		Increasing cumulative frequency	
	N	%	n	%
1960 - 1970	346	0,9%	346	0,9%
1971 - 1980	638	1,7%	984	2,6%
1981 - 1990	1 620	4,4%	2 604	7,0%
1991 - 2000	3 780	10,2%	6384	17,2%
2001 - 2010	11 000	29,6%	17 384	46,7%
2011 - 2020	16 400	44,1%	33 784	90,8%
2021 - 2022	3 430	9,2%	37 214	100%

In addition, all the documents selected for research have been grouped into four categories: scientific articles, books or book chapters, theses or dissertations and study reports. Each category makes a unique contribution by providing different perspectives, varying levels of detail and diverse methodological approaches to understanding the trajectory of interventions in the agricultural sector. Emphasis has been placed on the articles in view of the rigorous peer review process, which guarantees a high level of quality and credibility of the data and conclusions presented. Study reports include analyses specific to the national context, assessments of the impact of agricultural policies and strategic recommendations for improving the formulation and implementation of these policies. 25 scientific articles were published in national and international journals. There were six (06) books and book chapters and five (05) theses on agricultural policies in Benin. Finally, nine (09) of the works remained in the form of grey literature. These trends bear witness to the growing interest of researchers, in this case academics, in agricultural policy issues over the last 20 years.

**Table 3. Documents on agricultural policies and reforms in Benin mobilized**

Types of documents	Quantity	References
Research Articles	25	Adjovi, 2020; Oloukoï (2018); Oloukoï <i>et al.</i> (2013); Honfoga (2018), Acha et al. (2019), Affomaï and Koné (2017); Alé (2008), Aplogan <i>et al.</i> (2022); Balié and Fouilleux (2008); Bierschenk (1997); Fouilleux and Balié (2009); Hirsch (2002); Ibikoulé and Lee (2009); Kpadé and Boinon (2011); Lavigne Delville (2018); Le Meur (2000); Mercoiret (2006); Dissou (1992); Delville (2010); Bierschenk <i>et al</i> (1998); Kherallah <i>et al</i> (2001); Dayou <i>et al</i> (2020); N’Goye <i>et al</i> (2021) ; Bendjebbar and Fouilleux (2022) ; Ribier (2002).
Books/Book Chapters	6	Avom and Ongo Nkoa (2019); Koukakanou <i>et al.</i> (2021); Balié and Ricoy (2010); Floquet and Mongbo (1998); Ribier and Baris (2014), Neefjes (1986)
Doctoral thesis	5	Nassi (2013); Bendjebbar (2018); Onifade Fagbemi (1986); Toudonou (1987); Senahoun (2000);
Research reports or Study reports	9	Ahoyo Adjovi <i>et al.</i> , (2013), Amen (2009), CEDEAO (2015); Deniel (2008); Hodonou (2002); Inter-réseaux <i>et al.</i> (2012) ; Soulé (2012) ; Houinsou (2002) ; Balaro <i>et al.</i> , (2015);

### 3 RESULTS

#### 3.1 THE TRAJECTORY OF REFORMS IN THE AGRICULTURAL SECTOR IN BENIN FROM THE INDEPENDENCE PERIOD TILL THE DATE

According to Bonneau and Brachet (2021: p.8), the political trajectories of African societies are shaped by a complex interplay of historical factors, including the slave trade, colonial conquests, imperial formations, and the emergence of nation-states, alongside autonomous social dynamics. Agricultural policies, as defined by Ribier (2002), encompass a range of regulatory measures, structural arrangements, and allocation of resources by public authorities aimed at fostering agricultural development. These policies are heavily influenced by prevailing ideologies and political currents, which serve as frameworks guiding their objectives, orientations, and governance mechanisms.

In Benin, the evolution of public interventions in rural areas has transitioned from a comprehensive approach to a more sectoral and integrated approach, as noted by Affomaï and Koné (2017). Over time, agricultural policies in Benin have experienced five major shifts aligned with prevailing ideologies since the country's attainment of national sovereignty (Nassi, 2013; Adjovi, 2020).

##### ***1960 - 1972: A "forced" quest for economic growth***

During this period, which followed Benin's independence, the overarching ideology of territorial independence shaped the country's approach to governance and development (Adjovi, 2020). The newly established governments aimed to break away from colonial practices while navigating the complexities of rural development management (Ibikoulé and Lee, 2021). Economic liberalism emerged as the prevailing development model, with public actions in the agricultural sector influenced by the evolutionary conception of development and a tendency to mimic Western policies (Fouilleux and Balié, 2009). This approach drew inspiration from Rostow's stages of economic growth theory, which posits these countries must progress through predefined stages to achieve development (Rostow, 1965).

The reorganization of the agricultural sector during this period was characterized by several key initiatives, including the establishment of rural development perimeters, the formation of village cooperatives, and the promotion of food crops like rice for local and subregional markets, particularly in Nigeria. Additionally, there was an emphasis on large-scale processing of agricultural products, as noted by Avom and Ongo Nkoa (2021), who observed an economic shift marked by the establishment of factories for processing raw materials.

However, these initiatives often mirrored colonial-era policies, as pointed out by Ahoyo Adjovi et al. (2013), who highlighted a prevailing model of agricultural cooperation between Dahomey and France. Public interventions targeting peasant organizations were viewed as solutions to agricultural sector challenges, influenced by the education system that primarily produced local leaders and bureaucrats (Austin, 2010).

The establishment of rural development cooperatives resulted in the loss of individual farmers' control over their land holdings, leading to expropriations of farmland by the State for public use. These actions facilitated the creation of rural development zones geared towards producing specific crops for French industries, such as palm oil production under the Société Béninoise de Palmier à Huile (SOBEPALH) and palm nut processing under the Société Nationale des Huileries du Dahomey (SNAHDA).

Furthermore, efforts to boost cotton production involved the expansion of activities by the Compagnie Française de Développement des Textiles (CFDT), aimed at ensuring a stable and profitable price for cotton farmers. However, these endeavors failed to significantly improve the situation for cotton growers, highlighting shortcomings in the institutional model of economic integration (Kpade and Boiron, 2011).

Le Meur (2006) characterized the period following independence (1960-1972) as marked by a dualism stemming from the continuation of colonial-era agricultural policies alongside efforts to break free from metropolitan dominance. This manifested in the "cooperativization" of agriculture and the promotion of food crops essential for local consumption.

However, state interventionism aimed at catching up with developed countries led to forced cotton production and attempts to transform agricultural products. These interventions, coupled with land expropriations and forced labor, ultimately resulted in the pauperization of local farmers (Alé, 2008; Ahoyo Adjovi et al., 2013; Kherallah et al., 2001; Affomaï and Koné, 2017; Nassi, 2013).

Overall, the period was characterized by a struggle to break away from colonial-era policies amid pressures to emulate them. Direct public intervention conflicted with the prevailing economic liberalism ideology, leading to a disconnect between

political actors and rural stakeholders. Failures in the agricultural sector, attributed to constraints inherited from colonialism, contributed to the rise of Marxist-Leninist ideology (Duran, 2018; Bjornlund et al., 2022).

### ***From 1972 to 1990: Benin's agricultural sector in a revolutionary period***

The inception of the Integrated Rural Development paradigm in Benin coincided with a shift in the political trajectory in October 1972, marked by a revolutionary military regime's ascent to power, emphasizing a centralized and planned economy centered around agriculture to ensure food security for the populace (Senahoun, 2000). This era prioritized food self-sufficiency and nutritional balance, with a focus on local production of cash crops to cater to local industries before exporting surpluses. External interventions, including scientific and technological knowledge, were amalgamated with local practices, fostering concentrated actions in rural areas (Nassi, 2013). This integrated rural development policy aims to satisfy the essential needs of rural actors by considering all factors (internal and external, economic and social). Operationally, numerous initiatives were undertaken:

- Establishment of various state-owned entities such as SONAFEL, GMB, SOCAD, SONACEB, SONAGRI, SADEVO (later transformed into SONIAH and OBAR), and CARDERs, aimed at hydroagricultural development, input supply, extension services, and agricultural training;
- Creation of socialist-style organizations like Groupements Révolutionnaires à Vocation Coopérative and Coopératives Agricoles Expérimentales de Type Socialiste, advocating class struggle, collectivization of means of production, and technical modernization (Ibikoule and Lee, 2021).

Overall, this period was marked by a break from the primary satisfaction of the needs of "others" and the prioritization of the needs of "one's own. The interventions were oriented more precisely in rural areas with a consideration of the farmers' knowledge. At the institutional level, one of the major transformations in the agricultural sector during this period was the generalization of CARDERs in 1975 (Adjovi, 2020). As public organizations of an industrial and commercial nature, the CARDERs were intended to guarantee integrated regional development, and brought about profound changes in rural areas throughout the country.

The analysis of public interventions in the agricultural field during the so-called revolutionary period reveals that the actions undertaken were guided by a desire for endogenous development influenced by Marxist ideology, where nationalism and socialism led to the establishment of national structures and societies aimed at improving the conditions of rural actors. However, these initiatives ended in failure and backtracking. For example, SONIAH was only able to develop a total area of 100 ha out of the 7,000 ha initially planned; CFDT, which was dismissed in 1975, was recalled in 1983 for the cotton sector; and SONAPRA, whose objective was to deal with agricultural promotion in general, focused essentially on cotton (a cash crop). These failures resulted from the failure to take into consideration issues of access to and control of land resources and an imbalance between agricultural activities and the geographic and environmental characteristics of rural areas (Bendjebbar and Fouilleux, 2022). Failures stemmed from overlooking issues of land resource access and control, as well as imbalances between agricultural activities and regional characteristics (Bierschenk & Olivier de Sardan, 2003). Neglecting social, cultural, and economic conditions of targeted regions further compounded these failures. The revolutionary period culminated in the state's bankruptcy in 1989, necessitating a structural adjustment plan (SAP) with the IMF. The SAP ushered in liberalization policies in the agricultural sector, reducing direct state intervention in favor of market mechanisms (Balié and Fouilleux, 2008). Accelerated by the debt crisis and SAPs imposed by Bretton Woods institutions, this breakdown led to food shortages and exacerbated import constraints (Mercoiret, 2006; Bjornlund et al., 2022).

In summary, the revolutionary era in Benin witnessed a shift towards Integrated Rural Development, characterized by state-led initiatives aimed at agricultural modernization and rural development. However, shortcomings in policy implementation, coupled with socioeconomic complexities and external pressures, contributed to its eventual failure and the subsequent adoption of liberalization measures under SAPs.

### ***From 1990 to 2006: Agricultural policies with visions***

During the 1990s, the gradual opening of Benin's economy to the global arena ushered in several transformations in the agricultural sector (Houinsou, 2002). A pivotal intervention during this period was the signing and adoption of the Lettre de Déclaration de Politique de Développement Rural (LDPDR) in 1991 between the Government of Benin, the International Monetary Fund, and the World Bank. This strategic instrument delineated Benin's agricultural orientations based on a visionary framework (Lavigne Delville, 2018). Subsequently, the National Agricultural Extension System (SNVA) and the Agricultural Services Restructuring Project (PRSA) were established, aiming to harmonize public interventions in supporting farmers

nationwide. This initiative witnessed the transition of the CARDERs from their erstwhile commercial and industrial activities to focusing on agricultural advisory roles, with SONAPRA assuming their relinquished functions (Adjovi, 2020). Following the principles of economic liberalism, as highlighted by Ahoyo Adjovi et al. (2013), the State redirected its focus from economic activities such as production, processing, and marketing, to concentrating on its regulatory and supportive roles, including extension services and support to farmers' organizations.

Four years subsequent to its enactment, the LDPDR underwent a review in 1995, giving rise to another strategic document for the agricultural sector, the Déclaration de Politique de Développement Rural (DPDR), in 1999. Since 2000, the Schéma Directeur du Développement Agricole Rural (SDDAR) has served as the sector's strategic blueprint, operationalized by the Strategic Operational Plan (PSO) approved in August 2000. The PSO delineates 14 subsectoral and cross-cutting action plans, encompassing diverse facets such as support to farmers' organizations, institutional support, agricultural production diversification, and rural infrastructure development (Hodonou, 2010). The 1990s also witnessed a gradual privatization of input supply and cotton ginning, alongside the establishment of farmer organizations like the Coopérative d'Approvisionnement et de Gestion des Intrants Agricoles (CAGIA) and the Association Interprofessionnelle du Coton (AIC) to streamline functions and serve as intermediaries between stakeholders (Ibikoule & Lee, 2021). Furthermore, in May 2004, through Decree No. 2004-301, the CARDERs evolved into Regional Centers for Agricultural Promotion (CeRPA), facilitated by the establishment of Centres Communaux de Promotion Agricole (CeCPA) at the municipal level, aimed at enhancing proximity to farmers and delivering tailored agricultural advisory services (Aplogan et al., 2022).

However, as observed by Hodonou (2010) and Acacha et al. (2019), the agricultural policies implemented post-2001 primarily aimed at achieving the Millennium Development Goals (MDGs), focusing on ensuring food and nutritional security and reducing poverty through sustainable income increments. Nonetheless, investment spending in the sector remained low during this period, despite administrative decentralization (Kouakanou et al., 2021; Sabourin et al., 2020). The period was characterized by the dismantling of agricultural policy, symbolized by the state's withdrawal from production, marketing, and processing activities, with these roles being transferred to other stakeholders, including producer organizations and the private sector (Kouakanou et al., 2021; Sabourin et al., 2020). Yet, as highlighted by Bauer et al. (2012), the inception of the PSO in 2000 signaled a revival amidst this dismantling, amidst a backdrop of national long-term outlook studies and strategic documents, spurred by international commitments such as the MDGs.

### **2006 to 2016: Resurgence of the Green Revolution**

In 2006, a new government assumed power, prompting a comprehensive and exhaustive diagnosis of the agricultural and rural sectors to delineate a development policy. Consequently, Benin's Strategic Development Orientations (2006-2011) and the Growth Strategy for Poverty Reduction (GSPR/2007-2009) were formulated, envisioning the realization of a "Green Revolution" to propel Benin towards becoming a competitive agricultural economy in the forthcoming years (Honfoga, 2018).

In 2007, a white paper on agricultural advisory services was drafted, culminating in the adoption of the National Agricultural Advisory System (SNCA) and the recruitment of nearly two thousand agents for the Regional Agricultural Promotion Centers (CeRPA) (Aplogan et al., 2022). These centers underwent transformation into Regional Action Centers for Rural Development (CARDER) in 2013 due to perceived inefficiencies (Adjovi, 2020). However, with the adoption of Decree No. 2008-245 of May 6, 2008, the CARDERs were dissolved and liquidated. Concurrently, the food crisis in 2007 prompted the government to institute subsidies on select foodstuffs and necessities and establish the Office National d'Appui à la Sécurité Alimentaire (ONASA).

The Strategic Plan for the Recovery of the Agricultural Sector (PSRSA) was finalized and validated in 2008, yet its implementation was deferred until 2011, representing a three-year gap between policy formulation and execution. The PSRSA, delineated with fourteen strategic objectives, aimed at enhancing Benin's agriculture sustainably to ensure food and nutritional sovereignty, contribute to economic and social development, achieve the Millennium Development Goals (MDGs), and alleviate poverty (N'Goye et al., 2021). The plan prioritized support for designated sectors, encompassing thirteen priority sectors, advocating for productivity, competitiveness, and the development of modern, professional family farming (Bendjebbar and Fouilleux, 2022).

During this period, accompanying measures were devised to augment the efficacy of agricultural sector revival efforts. These measures included securing and enhancing access to production factors and agricultural financing. The National Fund for Agricultural Development (FNDA) was established to provide subsidies to farmers and serve as a guarantee fund for banks and microfinance institutions. Agricultural sector mechanization entailed modernizing rudimentary agricultural equipment through the creation of the Agricultural Mechanization Development Agency (ADMA-SA). The Ministry of Agriculture formulated the National Agricultural Mechanization Strategy, aiming to achieve 20% mechanization of plowed areas by 2015.



Additionally, ensuring access to chemical fertilizers and plant protection products involved allocating a significant tonnage of fertilizer for maize and other crops through cotton tenders annually. To ensure land tenure security, Law 2007-03 of October 16, 2007, on rural land tenure in the Republic of Benin was enacted, legally recognizing land rights established or acquired according to custom, with the aim of simplifying land access rights (Lavigne Delville, 2018). Although agricultural advisory services are ostensibly a shared function, they are predominantly provided by public services with an operational mode centered on addressing farmers' concerns, albeit not very effectively (Aplogan et al., 2022).

Government interventions in the agricultural sector during this period also encompassed tax relief on basic commodities importation and measures to revitalize short-cycle food production (Ahoyo Adjovi et al., 2013). Two programs, the Plan d'Urgence d'Appui à la Sécurité Alimentaire (PUASA) in 2007 and the Programme de Diversification de l'Agriculture par la Valorisation des Vallées (PDAVV) in 2008, were developed for this purpose (Bendjebbar & Fouilleux, 2022). Despite these initiatives, the gains achieved were not sufficiently sustained over time to foster sustainable economic growth, sustained food security, and rational natural resource management (N'Goye et al., 2021; Kouakanou et al., 2021).

### ***From 2016 to the present: the era of rationalization of the agricultural sector***

Amidst the depth of challenges linked to previous policies, the new regime that assumed power in 2016 embarked on significant agricultural sector reforms (Adjovi, 2020) with the aim to elevate the country to the status of a regional agricultural powerhouse, boasting extensive production capacity across crop production, livestock, and fisheries. One of the initial steps taken was the establishment of the Bureau of Studies and Support to the Agricultural Sector (B2A) through Decree No. 2016-351 of June 15, 2016. Comprising experts from various subsectors, B2A's primary mandate was to undertake strategic deliberations and spearhead actions to realize the government's agricultural development objectives.

Subsequently, Decree No. 422 of July 20, 2016, delineated the attributions, organization, and functioning of the Ministry of Agriculture, Livestock, and Fisheries, effecting notable changes from the preceding decree (No. 2012-541 of December 17, 2012). The new decree abolished General Directorates such as the Directorate General of Agricultural Development of Food and Nutrition (DGDAN) and the Directorate General of Planning and Rural Equipment (DGAER). The Directorate of Innovations, Agricultural Advice, and Operational Training (DICAF) underwent a transformation into the Directorate of Quality, Innovations, and Entrepreneurial Training (DQIFE).

Furthermore, Decree No. 2016-681 of November 07, 2016, established the institutional framework of agricultural development, which included the creation of seven Agricultural Development Poles (PDA), twelve Departmental Directorates of Agriculture, Livestock, and Fisheries (DDAEP), and the disengagement of the State from the productive sector. Territorial Agencies for Agricultural Development (ATDA) were established to oversee and administer the seven created poles, aiming for a synergistic blend of sectoral and territorial approaches. Consequently, six Regional Centers for Agricultural Promotion were dissolved based on the repeal of Decree No. 2013-137 of March 20, 2013, transforming them into Regional Agricultural Centers for Rural Development (CARDER).

Addressing failures in various agricultural enterprises, such as cashew nut, mango, orange juice, pineapple juice, cashew juice, tomato puree, peanut shelling workshop, and mini rice mills, the government initiated their transfer to private operators in October 2016. Subsequent actions included the liquidation of institutions such as the Office National d'Appui à la Sécurité Alimentaire (ONASA), the Office National de Stabilisation et de soutien des prix des revenus agricoles (ONS), the Centrale d'Achat des Intrants Agricoles (CAIA-SA), and the Société Nationale de Promotion Agricole (SONAPRA) in November 2016. The following month, the decision was made to liquidate the Agence de Promotion des Aménagements Hydro-Agricoles (APAHSA) and the Agence de Développement de la Mécanisation Agricole (ADMA-SA). Notably, the dissolution of B2A occurred towards the end of 2017, with its members redeployed to alternative roles.

Moreover, the Agence Nationale de Mécanisation Agricole (ANaMA), created by decree n°2019-123 of April 10, 2019, was transformed into the Société Nationale de Mécanisation Agricole (SoNaMA) by decree n°117/21 of April 28, 2021, thereby endorsing the statutes of SoNaMA. In a bid to bolster autonomy in cotton research and foster innovation in cotton byproduct production, the Cotton and Fiber Agricultural Research Center (CRA-CF) of the National Agricultural Research Institute of Benin (INRAB) was transferred to the Interprofessional Cotton Association (AIC) through Decree No. 2020-021 of January 8, 2020.

The promulgation of the law on agricultural orientation, food security, and nutrition in the Republic of Benin in July 2022 marked another significant milestone. Furthermore, the merger of the Central Laboratory of Food Safety (LCSSA) with the Beninese Agency of Food Safety (ABSSA) was enacted by Decree 2022-451 of July 27, 2022. Additionally, the government decided to grant a concession for the Glazoué and Malanville rice mills to a private operator on 11 November 2022.

These restructuring endeavors, encompassing suppression, creation, liquidation, assignment, transfer, merger, or leasing, have contributed to rationalizing the institutional landscape of the agricultural sector (Sossou *et al.*, 2023). Characterized by a shift towards subcontracting, where services previously rendered by the State are now entrusted to private operators adhering to specific specifications, these reforms have ushered in procedural and structural transformations within the agricultural sector and necessitated a reevaluation of the national strategy for agricultural advisory services (Aplogan *et al.*, 2022). As noted by Ribier (2002), the liberalization of services, including agricultural advisory services, once regarded as a shared function, has been instrumental. The Stratégie Nationale de Conseil Agricole (SNCA 2018-2025) envisages diminishing the primary role of the Ministry of Agriculture, traditionally tasked with project ownership and management of agricultural advisory services. Instead, the Ministry will gradually delegate project management responsibilities to farmers and their professional organizations, entrusting private entities with proven expertise in agricultural consultancy to assume project management duties. This approach seeks to enable the State to fulfill its sovereign function of quality control over agricultural advisory services.

A pivotal intervention in the agricultural sector is the territorialization of agricultural development, which includes fostering the commodity chain approach and territorial approach to amplify poverty reduction and bolster food security (Honfoga, 2018). By spotlighting agricultural goods distribution channels and illustrating the impact of public policies on local production systems (Temple *et al.*, 2011), this approach underscores the selection of one or two priority commodity chains based on their significance for grassroots actors and the national economy, subsequently serving as "locomotives" for other diversification commodities. These driving forces have been translated into cohesive structuring projects through National Programs for the Development of Chains (PNDFs), managed and coordinated by territorial agricultural development agencies. Aligned with the ethos of maximizing local potential (MAEP, 2017), this reform strategy aims to harness the collective strengths of various stakeholders to foster sustainable agricultural development

### 3.2 AGRICULTURAL POLICIES AND THE AGRICULTURAL SECTOR'S CONTRIBUTION TO WEALTH CREATION

Cross-referencing the trajectory of public intervention in the agricultural sector with its contribution to national wealth creation reveals an overall decrease (Figure 2). However, this trend contradicts the trajectory of GDP, which has exhibited steady growth since the 1960s. Since independence, agricultural policies predominantly focused on subsistence farming have been implemented. Investment in the sector remained limited, resulting in a decline of 12 % points in the agricultural sector's contribution to GDP, reflecting the transition from a primarily agrarian to a diversified economy. During the revolutionary period, the emphasis on food self-sufficiency and nutritional balance for the populace catalyzed the establishment of numerous national agri-food processing enterprises (Ribier and Baris, 2013). Consequently, this has led to a significant increase in the agricultural sector's contribution to the national economy.

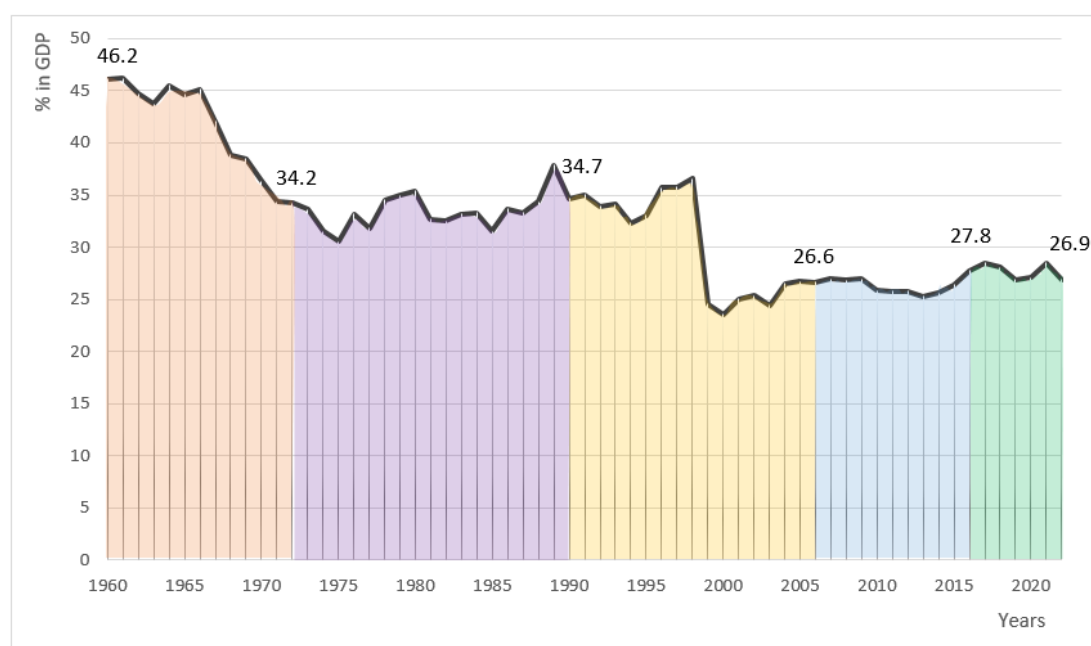


Fig. 2. Agriculture contribution (%GDP) from 1960 à 2022 (Adapted from World Bank, 2023)

The structural adjustments and economic reforms instigated post-1990, including the liberalization of the agricultural sector, engendered stability in the agricultural sector's contribution to the country's economic growth until 1997. Nonetheless, this period was marred by exogenous shocks, notably the volatility of agricultural product prices in the global market. Reflecting a susceptibility to external shocks, despite planning initiatives outlined in agricultural policy documents, the agricultural sector's contribution to the GDP plummeted from 36.6% in 1998 to 26.5% in 1999. Subsequently, post-2006 witnessed the promotion of the green revolution, accompanied by a renewed focus on food security and the development of agricultural value chains. Central to these initiatives were investments in rural infrastructure and the promotion of small-scale farming, culminating in a significant and consistent contribution of the agricultural sector to the national economy, averaging 26.2% over the decade spanning 2006-2016. Since 2016, institutional reforms and the emphasis on main value chains, leveraging the potential of each region, have sustained the agricultural sector's contribution to the GDP. In essence, the observed trend underscores the efficacy of public intervention not only in enhancing the competitiveness of the agricultural sector (Oloukoi *et al.*, 2013) but also in fostering its developmental trajectory (Ahoyo Adjovi *et al.*, 2013).

The institutional reforms enacted in the agricultural sector since 2016 predominantly entail the territorialization of agricultural development and the rationalization of the institutional framework (Sossou *et al.*, 2023). Despite their lamentable top-down approach, these reforms have yielded positive outcomes, propelling Benin from 8th place among African cotton-producing nations in 2011, following the cotton crisis, to the foremost position among cotton-producing countries in 2021, with a production volume of 728,000 tons (DSA, 2023). Additionally, the establishment of the Golo-Djigbé Industrial Zone aims to expedite the processing of agricultural commodities such as soybeans, cotton, cashews, and pineapples

#### **4 DISCUSSION**

"Reform and change are never inevitable," asserts Goldfinch (2009) poignantly. The agricultural sector, serving as the primary contributor to foreign exchange and employment in Benin, remains susceptible to transformation. However, as argued by Olivier de Sardan & Ridde (2014), institutional reforms, as public policy endeavors, must exhibit coherence and effectiveness—a criterion yet to be met by any nation worldwide, notwithstanding the considerable variations in inconsistencies and incoherences across similar reforms among nations. Examining the reforms undertaken within Benin's agricultural sector unveils inherent inconsistencies: these changes often echo the prevailing ideologies of the moment or adhere to the mandates and directives of external institutions or powers, overlooking the nuances of the Beninese rural landscape (Fouilleux and Balié, 2009). Characterized by instability, ambiguity, and a blend of continuity and rupture across successive administrations, agricultural policies in Benin perpetually fluctuate.

From independence until the mid-1980s, the incoherence of agricultural reforms was epitomized by conditionalities imposed on the young sovereign State to secure cooperation with France. Public interventions were devised to compel farmers to cater to the needs of the "metropolis," thus fostering a monocultural constraint antithetical to local production systems and exacerbating food and nutritional insecurity. Moreover, a myopic focus on developing large monocultural systems yielded dismal outcomes, initiating a cycle of infrastructure degradation and repair (Bjornlund *et al.*, 2020). Subsequently, structural adjustment programs ushered in a second era of incoherent logic: "off-the-shelf" reforms, devoid of preparatory groundwork or prior consultation with the intended beneficiaries, became imperatives in the context of global financial negotiations with Bretton Woods organizations. The debt crisis and the implementation of International Monetary Fund's (IMF) structural adjustment policies (SAPs) during the 1980s and 1990s precipitated a decline in import spending, plunging food availability below 1960s levels (Bjornlund *et al.*, 2022; Mercoiret, 2006). The uncritical embrace of economic liberalism as the sole pathway to development, akin to a Rostowian stance, elucidates waves of reforms entailing the withdrawal of the State from agricultural support functions, the dismantling of compensatory mechanisms, and the obligatory liberalization of markets devoid of contextual considerations pertinent to Benin's unique circumstances (Alé, 2008).

Furthermore, the 2000s witnessed a surge in initiatives aimed at establishing common agricultural policies across Africa, with Benin being no exception (Balié and Ricoy, 2010). The absence of explicit, coordinated national agricultural policies, leading to a climate of fragility and confusion at the regional level, spurred the formulation of these common agricultural policies, as posited by the aforementioned authors. Consequently, the inefficacy of public interventions underscores the current state of the sector, characterized by constraints such as (i) difficulties in accessing agricultural inputs and land; (ii) inadequate water and energy management; (iii) limited organization within agricultural sectors; (iv) geographic isolation of production areas; (v) insufficient and inadequate storage infrastructure; (vi) nascent mechanization; (vii) susceptibility of vulnerable populations; (viii) incomplete institutional and organizational reforms; and (ix) inadequacy of financing for the agricultural sector (MAEP, 2017). The repercussions of these interventions persistently reverberate across the sector's organization (Ribier, 2002), functioning (Delville, 2018), rural populace's living conditions (Nassi, 2013; Affomaï and Koné,

2017), regional integration (Balié and Fouilleux, 2008), agricultural advisory services (Aplogan *et al.*, 2022), value chains (Kpade and Boïnon, 2016), and socioeconomic development of communities (Adjovi, 2020).

We advocate for a retrospective examination of the trajectory of public interventions within the agricultural sector to inform agenda-setting and policy implementation. Such retrospection aids in identifying coherences and divergences in policy orientations, as well as evaluating the outcomes of past decisions to steer future intentions. In alignment with Bongueli (2020) and Doliquez (2003), we recommend that ensuring ownership of agricultural policies necessitates the effective consideration of stakeholders' aspirations in reform implementation. It is imperative to engage all stakeholders impacted by agricultural policies in the policy-making process. As proposed by Lambert *et al.* (2003), policymakers should foster dialogue and collaboration among equitably represented stakeholders through participatory workshops, focus group discussions, and other forms of engagement to ensure the incorporation of diverse perspectives. This inclusive approach should encompass farmers, extension agents, researchers, local communities, and civil society organizations.

## 5 CONCLUSION

This literature review presents a chronological examination of public policies and socio-institutional changes within the agricultural sector of Benin up to the year 2022. The analysis delineates five distinct phases in the historical evolution of the agricultural sector. Primarily, the identified transformations pertain to the alignment of agricultural policies with prevailing ideologies, external directives, and to a certain extent, national agendas. Notably, the latest period under review (2016 to present) has witnessed the revision of strategic plans and investment frameworks. Nonetheless, there exists a discernible disjunction between the projected outcomes outlined in strategic documents and the actual achievements, alongside a pattern of discontinuities and continuities.

From a scholarly standpoint, several avenues warrant further investigation or exploration. These include the social perceptions of agricultural stakeholders regarding institutional reforms, the extent of stakeholders' engagement with reforms to realize the objectives delineated in strategic documents, and the ramifications of institutional changes on the organizational and productive dynamics of stakeholders. Given the observed inconsistencies in reform implementation and inefficiencies within the national agricultural sector since 1960, it is pertinent to question the efficacy of current interventions in realizing sectoral objectives. This underscores the imperative of bolstering monitoring and evaluation mechanisms to ensure the coherence and effectiveness of agricultural policies.

Preceding agricultural reforms, an analysis of past intervention failures and a comprehensive consideration of stakeholders' aspirations are imperative. Breaking away from the colonial-era policy paradigm of raw material exportation towards foreign industries is imperative for augmenting the value addition of agricultural products and fortifying agri-food processing capacities within the nation. Furthermore, this stance challenges the prevailing ideological orthodoxy, which often reflects the directives of technical and financial partners, whether bilateral or multilateral. Ultimately, agricultural policies in sub-Saharan nations like Benin would benefit from a long-term, forward-looking, integrated framework that prioritizes the welfare of local stakeholders over international institutional interests.

## DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

“During the preparation of this work the authors used CHATGPT in order to TRANSLATE and CHECK FOR GRAMMATICAL ERRORS IN THE PAPER. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.”

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