

Agrotourism as peripheral and ultraperipheral community livelihoods diversification strategy: Insights from the Okavango Delta, Botswana

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ABSTRACT

The potential of agrotourism for livelihoods diversification in remote (peripheral) and extremely remote (ultraperipheral) traditional, agrarian communities is indeed a testament of its uniqueness to enhance rural entrepreneurship development, employment creation and poverty alleviation. In an arid environment such as Botswana's where traditional agricultural concerns are generally impeded by inclement weather conditions exacerbated by climate variability and change scenarios, identifying opportunities in challenges associated with livelihood activities might provide a better pathway for improving rural socio-economic wellbeing and development. Semi-structured interviews and a literature review were used to document the current status and evolution of agrotourism in rural Botswana; and identify the associated constraints and opportunities, which the subsector might offer emerging entrepreneurs. Major findings reveal that agrotourism activities are relatively new and still fledgling in the Okavango Delta, Botswana. While 4.8 percent of the initiatives investigated accounts for agrotourism initiatives that are fully and currently operational in the area, another 4.8 percent constitutes the business initiatives, which are still not fully operational. Findings also revealed that most agrotourism businesses in the Okavango Delta were challenged by inadequate capital outlays constituting an impediment to running a successful business. While bureaucratic bottlenecks associated with registering agrotourism projects is a challenge for some entrepreneurs, a few others are bedeviled by lack of market for their products. The relatively fledgling status of agrotourism in the area might offer a good business opportunity for potential entrepreneurs and the government to fully exploit the socio-economic benefits of the subsector and push a more sustainable environmental conservation agenda, respectively.

1. Introduction

Agrotourism is contextually an evolving subsector and a corollary of the traditional, mainstream tourism industry. Its many facets and offerings reflect in its diverse connotations including agricultural tourism, agrotourism or agritourism, farm tourism, agri-entertainment, farm vacation tourism, wine tourism, etc. The development of agrotourism is becoming increasingly popular as a tourism niche around the globe. Its main thrust is to diversify away from the traditional, wildlife-based tourism built around national parks, conservancies and game reserves in many tourist destinations. While the development and promotion of agrotourism as an alternative livelihood strategy is underway in some parts of Africa such as South Africa (NWU, 2019; Van Niekerk, 2013),

Uganda (Uganda Tourism Board, 2020) and Botswana (Department of Tourism, 2020), classical examples of this emerging variant of tourism already abound in Asia (Bhatta, 2020; Mazlan and Juraimi, 2014), Europe (Apostolopoulos et al., 2020; Mylonopoulos et al., 2017; Karampela et al., 2016; Koutsouris et al., 2014; López and García, 2006; Sharpley, 2002), North America (Whitt et al., 2019; Van Sandt et al., 2018; Ainley, 2012; Aylward, 1999) and the Oceania (Mackay et al., 2019; Ecker et al., 2010). Its emergence and popularity are driven by the demand for alternative tourism that is far removed from the mainstream, traditional mass tourism (see, for instance, Department of Tourism, 2020; López and García, 2006). Agrotourism, which is a subset of rural tourism, is a leisure-creating platform specially organized by local farmers to meet the needs of people who are mostly urbane

Abbreviations: OD, Okavango Delta; PUC, Peripheral and Ultra-peripheral communities.

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tourists, and who seek tranquility, close relationship with Nature and the yearning to better understand local cultures (see, [Busby and Rendle, 2000](#); [Spanish Ministry of Agriculture, 1992](#)). It is indeed an avenue for promoting environmental conservation and driving rural development ([Eshun and Tettey, 2014](#)). Among others, agrotourism provides shared or independent accommodation within the operator's facilities (including their farms and homes); involves farm families, which uphold the preservation of customs and traditions; and allows a serene atmosphere for tourists who seek a break from the hassles and buzzes of city life ([López and García, 2006](#)). Agrotourism affords the service consumers to participate fully in farming activities including planting and harvesting of crops, fishing and milking of animals, farm tours, tractor driving, ox-driven cart rides, and horse and donkey rides ([Department of Tourism, 2020](#)).

While Botswana's tourism accounts for about 13.1 percent of its gross domestic product (GDP) and is the second major revenue earner for the government after diamonds ([World Data Atlas, 2020](#); see, also, [Jefferis et al., 2020](#)), agrotourism in the country is still at its fledgling state. The exacerbation of the ailing Botswana's diamond-reliant economy, which is induced by diamonds market volatility and the COVID-19 (coronavirus) pandemic that has hit hard on the tourism sector continues to impact on the country's economic leverage; the pandemic has worsened '... existing growth challenges, leading to an estimated real gross domestic product (GDP) contraction of 7.9% in 2020' ([The World Bank, 2021](#)).

Although having the potential to offer alternative sources of livelihoods to local farmers who struggle to earn any substantial returns on investment (ROI) in agriculture due to the paucity of rainfall and poor soil conditions associated with arid environments like Botswana's (see, for instance, [Kolawole et al., 2017](#)), little or no attention has been paid to the viability of the agrotourism subsector in the country. Nonetheless, the COVID-19 pandemic, which paralyzed global economic activities (including the tourism industry) throughout 2020, has further provided an impetus to diversify the local economy from mainstream economic activities to other sources of livelihoods that are more resilient to global shocks. In a bid to enhance local level entrepreneurship development, however, the Botswana Department of Tourism (DoT) in the Ministry of Environment, Natural Resources Conservation and Tourism (MENT), now Ministry of Environment and Tourism (MET) recently revised the guidelines for licensing the operations of agrotourism ([Department of Tourism, 2020](#)). While the Wildlife Conservation and National Parks Act Cap. 38:08 of 1992 recognises both game ranching and game farming as an avenue for driving agrotourism, the former has been commonly practised by farmers who have the financial leverage to fulfil the requirements outlined in the Game Ranching Policy of 2002. The policy requirements include the possession of a considerable land size and a relatively huge capital investment. Thus, the stringent requirements stipulated in the policy apparently place small farmers at a disadvantage in exploring the opportunity associated with game ranching. In realising the need to operationalise the yet unexplored game farming component of the policy, the Department of Wildlife and National Parks (DWNP) recently introduced some guidelines on how smallholder farmers could easily keep game animals on their farms including the management procedures and harvesting plan of stocks ([MENT, 2020](#)). That small-scale farmers are most inclined to diversify into new enterprises as evident in Canadian farms ([Ainley, 2012](#)) might suggest their favorable disposition to agrotourism most especially in an environment where mainstream farming has failed to provide farmers some economic leverage. Rural livelihood diversification could offer a safety net for resource-poor farmers ([Ellis, 2000](#)) who are at the mercy of unfavorable edaphic and climate conditions associated with aridity. Assuredly, livelihood diversification through agrotourism could alleviate the cyclical features of on- and off-farm activities associated with farming seasonality in rural communities. Without doubt, encouraging people to keep game on their farms will enhance local communities' ability to sustainably utilize wildlife resources, boost rural employment creation,

and ultimately national economic growth ([MENT, 2020](#)).

Indeed, farmers in peripheral (remote) and ultraperipheral (very remote) communities and who live within tourism designated areas are better placed to explore agrotourism to enhance their socioeconomic conditions. Aside the advantages, which a combination of mainstream agricultural resources, and historical and natural heritage might confer on farmers who delve into agrotourism, the introduction of game as a tourism product in a farm environment stands the chance of further boosting farmers' income engendered by the attraction of wholesale, nature-intrigued tourists. In its efforts to alleviate rural poverty through livelihood diversification and enhance people's participation in wildlife management, the government has indicated that interested farmers would be allowed to keep small game in their farms ([Dube, 2020](#)) either for the purposes of 'ecotourism' or 'selling game meat and their by-products' ([MENT, 2020](#), p.15). The introduction of game as a tourism product offering on the farmer's farm appears to be a radical departure from the traditional agrotourism, which affords sophisticated tourists the opportunity to participate in farming activities and the preparation of local cuisines; learn more about local people's culture; have direct contacts with domestic animals; and engage in other farm-related activities ([Kiper, 2011](#); [Sznajder et al., 2009](#)). Admittedly, the inclusion of wildlife in land diversification as a form of integrated farming has the potential to offer economic benefits to small farmers ([MENT, 2020](#)) who hitherto had been disenfranchised from taking advantage of game rearing within their farm environment. Aimed at providing Botswana's aspiring citizens the opportunity to include the rearing of wildlife as part of their production activities, the main objective of the guidelines is '... to facilitate the keeping of wild animals or game in small agricultural land holdings' ([MENT, 2020](#)). The budding stage at which agrotourism is in Botswana may have explained the reason why there has not been any cogent research conducted in this new area of interest. So far, the closest study on the subject is on tourism product diversification, which only underscores the need to diversify mainstream tourism (that relies mainly on wildlife and other natural resources) towards cultural events and sports tourism (see, [Nare et al., 2017](#)). This paper, therefore, documents the evolution of agrotourism in the Okavango Delta; and identifies the associated constraints and opportunities, which the subsector might offer emerging entrepreneurs. The first section of the paper provides an overview of agrotourism-related issues in Botswana. While section 2 highlights the theoretical underpinning of the paper, section 3 outlines the methodology of the research. The fourth section provides an overview of the status of agrotourism in the Okavango Delta while the fifth section highlights the opportunities, which agrotourism offers in peripheral and ultraperipheral communities in the area. Lastly, section 6 provides a brief summary of major findings and conclusion of the paper.

2. Theoretical statement – Agrotourism as a corollary of Ostrom's socio-ecological systems framework

Ostrom's complex socio-ecological systems (SESs) is premised on the notion that most resource users are better placed and organised to sustainably manage the natural resources at their disposal ([Ostrom, 2009](#); [National Research Council, 2002](#); [Ostrom et al., 1994](#)) as against the generally accepted belief that people on their own are incapable of investing in those resources and government regulations offer the best solutions for their conservation and sustainability ([Hardin, 1968](#)). Ostrom's ten pertinent variables (embedded within the subsystems in any socio-ecological system [SES]), which she believed might influence people in the management of a resource system include the size of the resource system; productivity of the system; predictability of system dynamics; resource unit mobility; number of users; leadership; norms/social capital; knowledge of the SES; importance of resource to users; and collective-choice rules. In her perceived benefits and costs analysis of the multiple variables associated with how resource users self-organise to sustain the system, [Ostrom \(2009\)](#) may have inadvertently strengthened Garret Hardin's proposition (which she had

critiqued) by arguing that the ‘productivity of the system’ might engender people’s willingness or unwillingness to self-organise for any collective action to protect the resource in question. In other words, the notion that ‘... users will not see a need to manage for the future’ if a fishery resources, for instance, have been overstretched beyond redemption or are still in a state of abundance would automatically suggest the complacency of the resource users. And the fact that ‘[u]sers need to observe some scarcity before they invest in self-organization’ (Ostrom, 2009, p. 421; Wade, 1994) may have partly made Hardin’s theorising a plausible proposition after all. If Ostrom’s viewpoint is worth upholding, it is, therefore, tenable to say that Hardin’s concerns probably arose because of the relative abundance of natural resources for which users may have cared less before and during the 1960s. All that said, while there can be no isolated and straightjacket prescriptions to the problem, the synchronization of a holistic and ‘multi-level, nested framework’ or model (showing the interaction of layered multiple variables), which from the outset is jointly developed and agreed upon by all relevant stakeholders and academic traditions, will offer the best research pathway and solution for enhancing the sustainability of any complex SES (Ostrom, 2009, p. 420; see, also, Kolawole, 2010).

Indeed, the SESs are constituted by multiple subsystems in which are embedded multiple variables at different sub-levels. Based on Ostrom’s (2009) standpoint, the interactions of various but relatively distinct ‘first-level core subsystems’ (that is, the resource system, resource units, resource users and governance systems) within a complex SES ‘... produce outcomes at the SES level, which in turn feed back (Sic) to affect these subsystems and their components as well as other larger or smaller SESs’ (Ostrom, 2009, p. 419). The subsystem components comprise ‘multiple second-level variables’ in which are further embedded ‘deeper-level variables’ that help to understand the dynamics of any complex SES. A thorough understanding of the interrelationships between these variables in space, time and scale might help in advancing the attainment of a healthy SES in the long run (Ostrom, 2009). While self-organising and collective action will substantially help in achieving this objective, and regardless of whether rules are established by either the national government or the resource users, the incongruence between these rules and unique local conditions might eventually jeopardise long term sustainability of the system (see, Ostrom, 2009; Norberg and Cumming, 2008).

Perhaps it is safe to conjecture that resource use mobility, which might constrain community self-organising in the management of a resource unit (like wildlife) that are always naturally mobile and difficult to confine (Ostrom, 2009) could make the introduction of game farming a plausible gesture in a bid to effectively manage wildlife resources and enhance diversified entrepreneurial endeavors in ecotourism destination areas in Botswana. Enabling interested farmers to raise wildlife [within a confined section] on their farms without the trappings of collectivisation may perhaps enhance better management of the resource unit. As the size of the resource system matters and although ‘[v]ery small territories do not generate substantial flows of valuable products’ as against ‘moderate territorial size’, which makes self-organising more realistic (Ostrom, 2009, p. 420), the ability of an enterprising wildlife farmer to oversee their stocks [on an individual basis] within a manageable geographical scale could enhance better management of wildlife resources and substantial economic returns on investment. That an individual is conscious of the potential of keeping wildlife within a farm environment as a diversified livelihood strategy (in relation to bush meat production and the economic benefits conferred by agrotourism) is indeed a point of departure for upholding household-level environmental stewardship and justice, and attainment of sustainable development in the long run. Thus, the introduction of game farming, which could serve as an impetus for furthering agrotourism in Botswana, is clearly an attempt to partly redefine the relationship between people and Nature. In recognition of the benefits, which the ecosystems offer to people, the institutionalization of this [conservation] approach might provide a launchpad for driving

environmental stewardship in peripheral and ultraperipheral communities.

That said, the sustainable livelihood framework (SLF) within which are embedded five categories of capital assets (human, natural, financial, social and physical) that enhance rural livelihood outcomes (see, Chambers and Conway, 1992; Scoones, 1998; Ashley and Carney, 1998; Carney, 1998) is also deemed appropriate in the context of this paper. Visibly intertwined with the SLF, the ten variables identified in Ostrom’s (2009) framework could be categorized into at least three assets, which include natural (farmland, game, fodders, etc.); human (knowledge and skills, security personnel); and social (family labor) capitals. All the three assets, in addition to a measure of physical (fence, equipment, etc.) and financial capitals, are needed for running a successful game farm and by extension agrotourism.

3. Methodology

The Okavango Delta is a wetland of international importance and a Ramsar site notable for its rich biodiversity and ecotourism activities (Fig. 1). It is one of the biggest inland deltas, which derives its water through annual flood pulses from the upland plains of Angola and was inscribed as the UNESCO’s 1000th World Heritage Site in 2014. The interaction of the Okavango Delta’s coupled wetland and dryland environments underscores its significance in the livelihoods of the people who live in the area, and who are predominantly farmers, herders, fishers and fruit gatherers. It is noteworthy that the inhabitants’ choice of livelihood strategies is a function of their diverse ethnic backgrounds mainly comprising the Batawana, Wayeyi, Hambukushu, BaSarwa, BaSubiya, BaHerero, BaXheroku and BaKgalagadi (see, Kolawole et al., 2016; Bock, 1998). Rural communities¹ considered as peripheral and ultraperipheral in this research and where agrotourism businesses are established include Eretsha, Shakawe, Shorobe-Boura, Ditshiping, Boro, Chuchubega, Xhana, Shorobe-Xoxao, Samedupi and Haka. Others include Maphane, Shukumukwa, NG3, Khauga, etc. (see, Fig. 1). The abundance of rare wildlife (both terrestrial and aquatic) in the delta makes the area an attractive, international tourist destination for ecotourism and from which Botswana derives its major annual revenues after the mining sector. All things considered, the presence of wildlife in the Okavango Delta makes it a suitable location where game farming could thrive in relation to devising appropriate and context-specific, rural entrepreneurship development initiatives that are diversified away from the mainstream ecotourism business. As against the limited benefits offered by Safari expeditions, which largely revolve around wildlife watching, a combination of game farming and other agricultural enterprises on a farm could provide a good platform for a more robust interaction between international tourists and local people than it would when foreign visitors who naturally yearn to learn about local cultures (see, Busby and Rendle, 2000; Spanish Ministry of Agriculture, 1992) only engage in wilderness game drives offered by exotic tourism businesses. The integration of game farming into existing farming systems in various local communities could broaden the opportunity for tourists to interact with diverse local people and learn more about their ways of life (Daily Southern and East African Tourism Update, 2018). Better still, the launch of Botswana’s wildlife project in early 2022 for the purpose of propping up agrotourism (Xinhua, 2022) in the country further supports the justification for the integration of wildlife into mainstream farming systems as a variant of agrotourism. Consideration and desire for game farming or ranching in southern Africa as a potential avenue for foreign earning through tourism is an agelong phenomenon, which could be determined by certain factors including biological, cultural, dietary (in terms of preference for game meat rather than domestic meat, among others (see, for example, Mossman and Mossman, 1976). Specifically,

¹ Some of the communities listed above do not appear on the map because they are remote cattle posts, and not available in the GIS database.

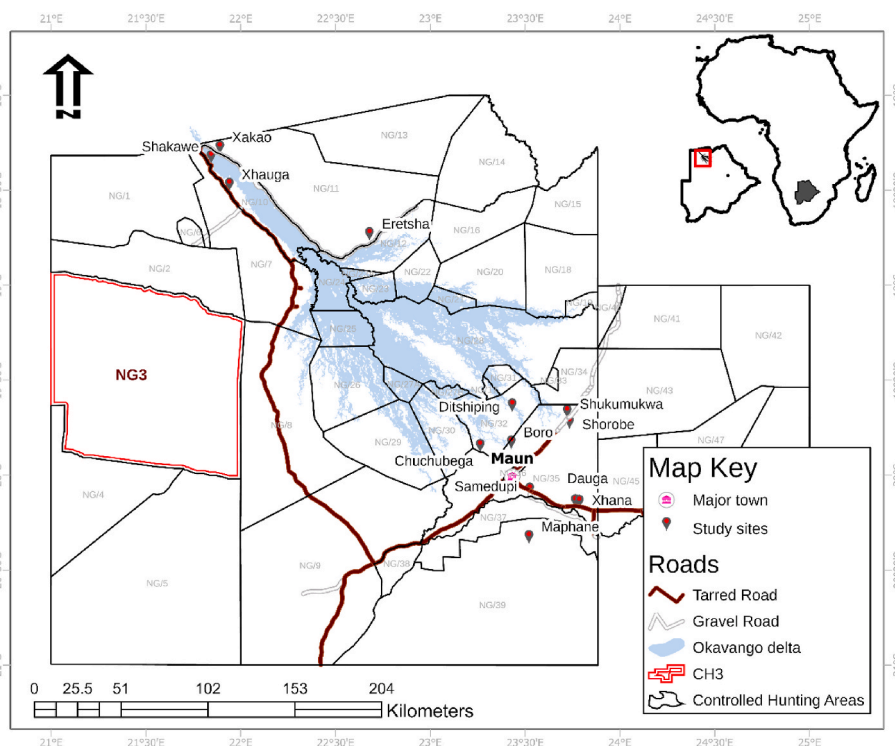


Fig. 1. Okavango Delta map showing remote and very remote communities where agrotourism businesses are established or still being developed (Courtesy of Anastacia Makati, ORI GIS Laboratory, 2021).

the first form of agrotourism in South Africa commenced as ‘... visits to game farms/ranches in the early 1950s’ (van Zyl and van der Merwe, 2021, p. 537). The choice of the area for this research is, therefore, justified based on the above reasons.

The paper adopts a cross-sectional research design involving the use of interviews and desk-based research approach (in addition to the use of secondary information from available relevant records) to determine the status of agrotourism development in the North-West District in Botswana, where the Okavango Delta is situated.

The list of individuals who registered their businesses (with the Department of Environmental Affairs [DEA]) as agrotourism initiatives [whether operational or not] in the North-West District was obtained in June 2021. In order to identify the farms, which were already providing agrotourism services or those in the process of doing so, we used the list (as our sampling frame) to make contacts with registered individuals to determine the scope and status of their operations in the Okavango Delta. DEA’s record shows that about 42 entrepreneurs were registered and from which only 25 available respondents were contacted and interviewed using semi-structured interview schedules from October–November 2021. Primary data were obtained from agrotourism entrepreneurs through a semi-structured, telephone interview technique. The data were summarized using descriptive statistics. Using secondary data and other information sources, analyses on the strengths, weaknesses, opportunities and threats (SWOT) associated with agrotourism were also carried out to determine the appropriateness of the subsector in the Okavango Delta. The analyses thus derived from existing policy documents (Department of Tourism, 2020; MENT, 2020), personal communications and observational evidences.

4. Results and discussion

4.1. Status of agrotourism development in the Okavango Delta, Botswana

Bhatta et al. (2019) mainly delineate agrotourism in developing and developed economies based on infrastructure, farmers’ skills and service

standard. Characterizing agrotourism in developed countries as organised as against developing countries where agrotourism is unorganised, Bhatta et al. (2019) categorised infrastructure as highly organised in developed economies as compared to those in developing countries, which are not organised. Farmers in developing economies who practise agrotourism have low skills as against their counterparts in the West who are highly skilled. In terms of service standard, offerings in the developed world, according to Bhatta et al. (2019), are of high quality as against those in the South, which are of low quality. Unlike the ecotourism industry that has grown in leaps and bounds in Botswana, the development of agrotourism, which is an offshoot of the industry, is still fledgling. While a significant number of game ranches exist in Botswana (Boast, 2014), there are many challenges associated with them including the reliance on livestock husbandry (Sello, 2016). In the context of this paper, however, game ranching or farming is conceived as a corollary of mainstream agrotourism.

Based on the information obtained from agrotourism business owners in the Okavango Delta area, only 4.8 percent apiece accounts for agrotourism initiatives that are fully and partially operational in the delta. This implies that 9.6 percent, which constitutes only 4 of the 42 businesses registered with the DEA, are either fully or partially operational in the study area (Table 1). Further analysis shows that roughly 31

Table 1
Distribution of agrotourism business based on their operational status (N = 42).

S/ N	Business status	Frequency (f)	Percentage (%)
1.	Fully operational	02	4.8
2.	Partially operational	02	4.8
3.	Not in any way operational	12	28.6
4.	Business development still in progress (incubation)	09	21.4
5.	Information not available at all	17	40.5
	Total	42	100.1

Source: Field survey (2021)

percent accounting for 13 of the 42 agrotourism initiatives are either operational or actively in the process of commencing business activities (see, also, Table 1). This finding coupled with the dearth of data on agrotourism business implies that the sub-sector is still fledgling and not widespread in the area. Findings also show that those who are exclusively in the process of business development constitute 21.4 percent of the respondents while those who have not started the process of commencing business account for 28.6 percent among which one of the entrepreneurs is deceased and another respondent indicated that their business operations could not commence because of the inability to secure some production inputs for agrotourism purposes. Nonetheless, almost 41 percent of the targeted population did not provide any information either because they could not be reached via telephone or traced (Table 1). This translates to 59 percent response rate, which is desirable for any social survey research (see, for instance, Fincham, 2008). Findings also show that some of the agrotourism businesses, which have not yet commenced operations, are hampered because they had challenges securing a business registration license² due to the cumbersome and bureaucratic nature of the application process. Also, most of the agrotourism initiatives had challenges acquiring the desired capital outlays needed to run their businesses while some are bedeviled by lack of market.

These are indeed lopsided institutional issues that do not support the vision of the government in promoting agrotourism in Botswana. Some of these challenges are somewhat similar to those identified by Yamagishi et al. (2021) in the Philippines. As highlighted in the SES framework, it must be immediately pointed out that the sustainability of natural resources within a given ecosystem might become problematic if rules and unique local conditions are in dissonance with each other (see, for instance, Ostrom, 2009; Norberg and Cumming, 2008). Elsewhere in Ghana, Eshun and Tettey (2014) identify, among others, lack of government support and poor marketing of agrotourism destination as some of the inherent issues affecting the sector. Nonetheless, Sharpley (2002) identifies some challenges associated with agrotourism, which include lack of essential skills, high costs of establishing the business but with low economic returns, low demand, and the dominance of mass tourism operators. It is, however, instructive to note that making any meaningful comparison between agrotourism activities in Botswana and elsewhere is rather too early because the subsector is generally still in its infancy in the country. In terms of the lifespan of implemented projects, businesses, which are either fully or partially operational and those undergoing an incubation period have existed for 3 months to 3 years and having between 2 and 10 employees. Employees in the agrotourism businesses undergoing incubation are hired to accomplish tasks meant to enhance the smooth take-off of business operations.

The service offered by the existing, active agrotourism businesses in addition to those envisaged by businesses still actively undergoing incubation are highlighted in Table 2. While 15.4 percent apiece accounts for the businesses that are engaged in crop production and accommodation provision, and those that offer accommodation services, about 15.4 percent of the initiatives engage in horticultural production and accommodation services. Only 7.7 percent accounts for each of fish farming and camping, production of hydroponic crops and oranges, small stock and accommodation, game farming and accommodation, etc. It is noteworthy that businesses, which offer accommodation services perhaps because of their stage of evolution or development, indeed do not truly reflect any full fledged agrotourism endeavors.

² While the need to register agrotourism businesses in the North West District (Ngamiland) with the DEA office in Maun is just for noting, acquisition of license to operate is through the Department of Tourism housed within the Ministry of Environment and Tourism (MET).

Table 2

Services rendered by registered agrotourism businesses in the Okavango Delta (n = 13).

S/ N	Service offered	Frequency (f)	Percentage (%)
1.	Crop production and accommodation	02	15.4
2.	Accommodation only	02	15.4
3.	Fish farming and camping	01	7.7
4.	Production of hydroponics and oranges	01	7.7
5.	Horticulture (including fruit trees) and accommodation	02	15.4
6.	Small stock and accommodation	01	7.7
7.	Game farming and accommodation	01	7.7
8.	Bee keeping (apiary), dryland farming and accommodation	01	7.7
9.	Cultural village and farming	01	7.7
10.	Crops and animal (livestock) husbandry and accommodation	01	7.7
Total		13	100.1

Source: Field survey (2021)

4.2. Agrotourism and the opportunities it offers in peripheral and ultraperipheral areas

As earlier indicated, the concepts of 'peripheral' and 'ultra-peripheral' in this paper connote 'remote' and 'very remote' communities, respectively. Table 3 presents the pros and cons of operating agrotourism as an alternative livelihood strategy by local farmers. The SWOT analyses presented is premised on the innovative approach, which Botswana adopts in diversifying economic opportunities in rural communities where farming is one of the primary sources of livelihoods. The ability to identify strengths, weaknesses, opportunities and threats that are associated with any development project or initiative is a starting point for effective planning and management. The foreknowledge about the potential of any livelihood diversification option could enhance the setting of goals and strategies meant to achieve its objectives (see, for instance, López and García, 2006). Weighing the strengths of agrotourism ventures against their weaknesses as well as comparing the opportunities they offer and the threats they might pose could help decision-makers to formulate pro-poor development policies that enhance the development of agrotourism businesses and sustainable economic progress in general. More importantly, it is relatively easier to make an informed decision on the viability of any economic venture when its strengths far outweigh the weaknesses associated with it and vice versa. The opportunities, which the business offers to both the operators and clientele system or customers as against the threat that are associated with its operation might provide a clue on its viability or unviability. Government willingness to allow individual farmers to keep and raise wildlife has, thus, introduced a new dimension to the viability of agrotourism in Botswana. Apart from enhancing environmental stewardship and by that means alleviating poaching, the economic returns derived from holding the custodianship of game in a farm environment either through bush meat sales or tourism is a booster to micro- and macro socio-economic development.

Farmers in remote and very remote locations like those situated within the heart and extreme periphery of the Okavango Delta (where there is abundant biodiversity and wildlife) have the potential to explore the advantages of living side by side with wildlife to 'domesticate' game (small stocks), whose populations are regulated, within a farm and somewhat simulated natural environment. The need for game keepers to offer adequate protection and security for wildlife within the confines of their farms through fence erections (MENT, 2020) might even provide the opportunity to alleviate the persistent human-wildlife conflicts in relation to crop damage and livestock depredation in the delta (see, Noga et al., 2018, 2017). In other words, local farmers' ability to manage a given resource unit (wildlife, in this case) within a well-defined scope as part of a larger SES will most likely ensure a

Table 3
SWOT analysis of agrotourism business in Botswana.

Unit of analysis	Features
Strengths	<ul style="list-style-type: none"> - Agrotourism provides a platform for projecting the country's diverse local cultures and customs. - Government introduction of game farming as a component of agrotourism will further boost service consumers' cravings for experiential varieties. - The subsector has the capacity to reduce the pressure on mainstream ecotourism sector. - Land, which a major input in the subsector, is relatively available to most farmers. - Game keeping alongside other farm activities will substantially contribute to sustainable utilization of wildlife. - Agrotourism alleviates the seasonality associated with on-farm and off-farm activities, thus reducing the slack periods that farmers experience. - Agrotourism could provide a safety net for farmers against climate and global shocks. - Agrotourism activities are largely environmental and cultural friendly.
Weaknesses	<ul style="list-style-type: none"> - Stringent policy guidelines and rules for operating agrotourism ventures could hinder wider participation. - Farmers' lack of skills could pose a hindrance to successful participation. - The start-up financial outlay for infrastructure development could be a challenge for any interested resource-poor farmer. - Poor state of physical infrastructures in small farms is a weak link. - Agrotourism in Botswana is still largely unstandardised. - Keeping of game will require fences and stringent security measures to avoid animal loss.
Opportunities	<ul style="list-style-type: none"> - Agrotourism subsector in Botswana is still new in Botswana and yet unexplored by many. - The subsector is an avenue for rural entrepreneurship development and employment creation. - It is an alternative income earner for small farmers; an avenue for economic diversification and enhancement of farmers' income. - It is an avenue for enhancing 'transforming exchanges' between local farmers and exotic tourists; farmers can learn other people's cultures through agrotourism. - It could create a positive ripple effect on other local businesses.
Threats	<ul style="list-style-type: none"> - Product branding, which is originally imbued in local cultures, might be compromised as a result of competitiveness and standardisation in the long run. - Environmental management might be a challenge over time as it now applies in the mainstream tourism sector. - If not well managed, in-breeding depression and crossbreeding could occur in similar wildlife species and between certain wildlife population, respectively, in a game farm environment.

Source: Authors (2021)

healthy relationship for both people and the environment (Ostrom, 2009). Nonetheless, stringent institutional and procedural issues associated with the implementation of agrotourism initiatives coupled with other factors such as poor infrastructural development, lack of skills and heavy start-up capital outlays may immediately constitute a weak link and constrain the growth and development of the subsector in Botswana.

That said, helping individual small farmers who are interested in game farming to acquire animal stocks through donations by existing ranches and farms; raffles prepared by the DWNP; government and private institutions; and personal purchases from existing game ranches (MENT, 2020) provides a good starting point for the success of an innovative agrotourism. It thus offers an avenue for the enhancement of sustainable rural livelihoods (see, Scoones, 1998; Ashley and Carney, 1998). The cultural and environmental friendliness, which agrotourism potentially offers, is a critical requirement where cultural nationalism and environmental protection are fundamental to national development (see, for instance, Daily Southern and East African Tourism Update, 2018). Wherever they are situated, the positive effect, which agrotourism ventures might have on already existing small and medium scale

enterprises (SMEs) and other future small businesses, is critical for the development of any local economy.

5. Summary and conclusions

This study documented the current status of agrotourism in the Okavango Delta. It also identified the associated constraints and opportunities, which the subsector might offer emerging entrepreneurs. Situated within the contexts of the SES framework (Ostrom, 2009) and SLF (Chambers and Conway, 1992; Scoones, 1998; Ashley and Carney, 1998; Carney, 1998), the paper posited that enabling individual entrepreneurs to oversee the management of wildlife within a limited and confined geographical space might enhance environmental stewardship and sustainability in the long run. While the government exhibits keen interests in promoting game farming as an integral part of agrotourism in Botswana, and an attempt to partly redefine the relationship between people and the natural environment, the stringent requirements and red-tape involved in approving licenses for interested and potential entrepreneurs may have immediately constituted a barrier to the growth and development of the initiative before its take-off.

Contrary to South Africa's experience where agrotourism had first taken shape in the form of visits to game farms or ranches more than 70 years ago (van Zyl and van der Merwe, 2021), the subsector as an alternative to mainstream ecotourism and a potential pathway for socio-economic and rural development has not taken strong foothold in the Okavango Delta, Botswana. Indeed, only 4.8 percent of the initiatives accounted for agrotourism endeavors that are fully and currently operational in the area. Also, 4.8 percent constituted projects, which were not fully operational because they could only offer accommodation service in the first phase of their development. Only 9.6 percent of the 42 agrotourism businesses registered with the DEA were either fully or partially operational in the Okavango Delta. Overall, analysis revealed that roughly 31 percent of the registered agrotourism initiatives were either operational [whether fully or partially] or actively in the process of commencing business activities. It is, however, noteworthy that a very limited number of agrotourism initiatives in the delta offered services that were purely agrotourism related. This is indeed a good opportunity for interested stakeholders to explore the benefits, which the subsector might confer in terms of good returns on investment because it is currently an uncharted business terrain in the delta and Botswana in general. However, findings also showed that most agrotourism initiatives in the Okavango Delta had challenges associated with inadequate capital outlays, which might constitute an impediment to running a successful business. While some were faced with certain bureaucratic bottlenecks of registering their projects, a few others were bedeviled by lack of market for their products.

Regardless of the weaknesses and threats associated with the subsector as outlined in the SWOT analysis conducted in the research, devising appropriate strategies and policies meant to neutralize those negative effects and appropriating the opportunities it could offer might go a long way in bringing about poverty reduction and sustainable development in the end. Put differently, government policies that recognize the benefits, which the ecosystems might offer to people if well institutionalized, could serve as a launchpad for enhancing a sustainable environmental conservation approach in peripheral and ultra-peripheral communities in the Okavango Delta and elsewhere.

CRedit authorship contribution statement

Oluwatoyin Dare Kolawole: Conceptualization, Formal analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing. **Wame Lucretia Hambira:** Conceptualization, Writing – review & editing. **Reniko Gondo:** Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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