

# **Sport as a robust form of ecotourism development: examples from water-based sport tourism activities**

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## **ABSTRACT**

Tourism has many branches and forms, including a growing interest in sport tourism. Water-based sport tourism is often regarded as coastal tourism or marine tourism, either for conservation or sporting purposes. In this paper, it is argued that sport-based activities, whether land or water-based, should be seen as a unique type of tourist attraction for enhancing the potential for sustainability at tourism destinations. This paper presents two case studies from Papua New Guinea, one each from consumptive and non-consumptive recreational uses of the coastal region for surfing and fishing: The Tupira Kumul Long Board Surf League Championship and the Game Fishing Titles in Madang Province Papua New Guinea. Developing sport based activities is an essential requirement for both tourism and ecotourism development in developing nations such as PNG. International sporting events provide opportunities to promote and showcase the host destination to the world. It is important to note that organizing sports events, when properly planned, can help in poverty alleviation and community development. Evidence suggests that sports activities could thus become more prominent component of national tourism frameworks in emerging and developing countries.

**Keywords: Sports, surfing, fishing, ecotourism and sustainable tourism**

## INTRODUCTION

Tourism is seen as having many branches and forms, among which is sport tourism. The products and activities of ecotourism also have been categorized into different elements of various forms of tourism, such as adventure, water and land based activities including sporting events (Kang, Lamore, Synder & Schweitzer, 2010). It has been argued that organizing sporting events, whether land or water based, should be seen as a unique selling point in developing and enhancing tourism potential at tourism destinations (Csoban & Serra, 2014). Pieke (2015) argues that the financial growth associated with staging sports activities have increased over the years.

International land-based sport tourism activities include, among others: trekking; hiking; biking; and so on. Water-based tourism activities: diving; snorkeling; boating, fishing, cruise ships and surfing. Some of these activities are potential ecotourism products. There is no doubt that ecotourism embraces adventure, nature, culture and sport tourism. Many authors have argued that ecotourism is rooted in adventure / nature based tourism (Mohammad & Anisa, 2008 Grabowkis, 2007; Gyimothy & Mykletun, 2004), while others believe that sport activities could be a basis or consideration for ecotourism products, promotion and development.

Water-based tourism activities are often regarded as coastal tourism or marine tourism, for either conservation or sporting purposes. Many development projects have been proposed for coastal regions to extract additional value: initiatives to capitalize the resources and marine environment of many developing nations are seen in such examples as an Exclusive Economic Zone (EEZ). Therefore, the potential economic benefits from the marine and coastal environments have been identified as aligning with poverty reduction and alleviation strategies. The United Nations Environmental Program (2009) identifies two recreational uses of coastal zones: consumptive; and non-consumptive. The consumptive recreational uses of coastal resources are classified under the headings of fishing and collection of shells along the coast line, while the non-consumptive recreational uses of coastal regions are surfing, swimming, and nature appreciation, boating, kayaking, and snorkeling, among others.

Many argue that the marine environment should be protected from mass exploitation and exploration and, accordingly, ecological boundaries, marine ecosystems and marine protected areas have been drawn to the concept of Integrated Coastal Zone Management (ICZM). The

ICZM “is a continuous, proactive and adaptive process of resource management for sustainable development of coastal regions” (UNEP, 2009, p.48). The goal of achieving marine conservation raises concerns for planning and management of the coastal regions.

I present in this paper two case studies from Papua New Guinea (PNG) of recent international sporting events, one each from consumptive and non-consumptive recreational uses of the coastal region for surfing and fishing: The Tupira Kumul Long Board Surf League Championship and the PNG National Game Fishing Titles, both held in Madang Province, PNG. I argue that developing sports based activities may be a way to boost both tourism and ecotourism development in Papua New Guinea. The PNG Tourism Master Plan 2007-2017 draws attention to this under a discussion of ‘special interest or niche market based’ tourism; however, the discussion is brief (TPA 2006: 26, 29). I will argue that sports-based ecotourism should be given greater prominence in national tourism plans.

### **Case Study 1: Tupira Kumul Long Board Surf League Championship**

In 2017, the Tupira Surf Club hosted the world long board championship with participation from ten different countries: Australia, Peru, Brazil, Japan, South Africa, United States, Great Britain, France, Hawaii and Reunion Island (France). There were thirty-four male, eighteen female international participants. In addition, four local surfers were given wild card entries. The Long Board League Championship gave the local PNG surfers the privilege to compete with international professional surfers and to allow for showcasing the local PNG surfers to the world (Figure 1).



**Figure 1. 2017 PNG Kumul World Long Board Championship.**

Surfing as a sport is relatively new to PNG, reference to surfing is often made to the traditional sport of ancient Hawaii. The origin of surfing is traced back to the eighteen centuries, where surfing was seen as a dominant culture of the Hawaiian society (Finney, 1960). Palmer (2017) explains that the connection of surfing to Hawaii is seen as a “cultural connection as well as a shared emphasis on human relationships, nature and waves” (p.6). The spread of Hawaiian surfing started in the nineteen century with Talitan surfing taking the lead after Hawaii to Australia, California, Atlantic Coastline of the United States, Peru, Brazil, South Africa, New Zealand, England, France and Israel (Finney,1960).

Surf tourism has shown a number of potential strengths in advancing the tourism brands of a destination but scientific inquiry is less explored in sport tourism market research (Dolnicar & Fluker, 2003). Csoban and Serra (2014) argue that developing and organizing sporting events present communities with the qualities and abilities to enhance tourism development and to promote rural economies. Evidence suggests that surf tourism is certainly a potential component of any sport tourism development framework that addresses water-based sport activities. Although Mach (2009) says research is needed to determine if surfing is an authentic ecotourism product, there are arguments to suggest that surfing could be considered an ecotourism activity if organized and managed appropriately. Of itself: surfing is non-consumptive of natural resources:

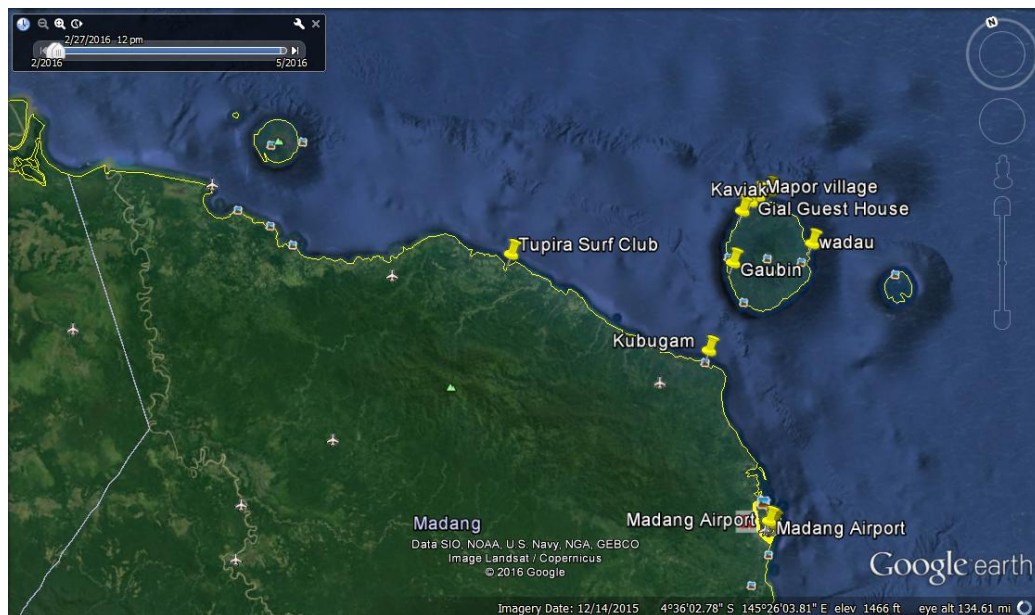
“It is ecotourism because the wave is there all the time; it is not oil palm that needs to be planted, you make good money every day and it is a sustainable project” (interviewee at Tupira, 2017)

Lararow, Miller and Blackwell (2009) state that there is attempt to estimate the total numbers of surfers globally and there is a rise in the in interest in surfing, both at the local and international level. There are specific requirements for surfing, which has been identified to comprise of:

“Talents and confidence; commitment; dedications, practice manuals (traditional and modern) and do it right and get the right score” (Interviewee at Tupira, 2017).

## Location

Tupira is located on the northern coast of the main island of Papua New Guinea (Figure 2). The nearest large town is Madang, the capital of Madang Province.



**Figure 2. Location of Tupira Surf Club**

Source: Google Earth

Madang Province has seven surf breaks (surf sites) within its Surf Management Plan, comprised of: Tabulte, Sukula, Tupira, Rurinat, Simbine, Suwaru and Madabu. The surf season starts in

November and ends in April. The Tupira Surf Club is located in the northern part of Madang Province at Ulingan Bay, Bogia District, in Figure 1. The Tupira Surf Club was launched April 14 2008 and the first international surfers to experience the remote surf club of Tupira were ten Japanese surfers in 2008. The Club has about one hectare of land with abundant surfing space and land for accommodation (guesthouse and camping), restaurants and bar, and a viewer stage that can cater for about 300 persons. The Surf Club is fully built with eco-friendly materials, all bush materials, with Western water closet toilet facilities. The Club attracts a number of surfers yearly, especially individuals and groups who would like to have a remote and unique experience of surfing.

### **Tupira Surf Spot Characteristics**



**Figure 3. Tupira surf spot**

Tupira Surf Spot wave quality is considered to be ‘regional classic’, which could be experienced by all types of surfers. The directions of the wave is left to right with normal length of about 50-100m and at the bottom are reef coral and sharp rocks. The time for surfing is determined by the quality and frequency of waves as there is inconsistency in the wave frequency. The best time for

surfing is in the morning and late afternoon. Seven types of wave riding have been identified: board surfing; bodysurfing; body boarding; kite surfing; stand up paddling; tow-in surfing and wind surfing (Martin, 2013, p.3).(Figure 3) shows the long board, stand up paddling wave surfing at Tupira.

### **The surfing requirements**

“You are allowed to ride 10 waves within 20-30 minutes for the league championship, but only the two best waves will give you high scores, surfers need to combine the traditional and modern manuals. The traditional manual requires walking the plank during wave ride. The event had 5 judges. All the surfers present for the event are professionals and sponsored by their various organizations. Only four surfers allowed in a hit” (Interviewee at Tupira, 2017).

Competing surfing is governing by a series of rules: priority; interference; robbing and pushing. Priority in line with the positions of surfers during wave hits, if there is a peak break, the second person must not take over the first priority.



**Figure 4. Spectators of the Kumul Long Board Championships at the Tupira Surf Club**

While many sporting events have social, economic and environmental impact on the local community and host destination, the Kumul long league board championship at the Tupira Surf Club, Bogia District, Madang had very little economic impact on the local economies and livelihoods of communities living nearby. From Figure 4, it is evident that the major spectators are from the local surroundings. Evidence from the event has shown that there is a need for community involvement and participation; as regards to accommodations and others.

### **Stakeholders' participation in the event**

The 2017 Long Board Surf Championship had participation from local stakeholders. For example, Ipili Porgera Investments (IPI) was in charge of the event catering and food services, and the event also had the participation of Telecommunication Industry (Telecom) for internet and Wi-Fi connection for the live broadcast of the sport event. Divine Word University participated through the organization of cultural performances and the representation of the four

regions of Papua New Guinea. There were both local and international media representatives for the event.

## Economic and organizational aspects

*Table 1 2017 PNG Kumul Long Board Championship Costing*

<b>Costing</b>	<b>Amount in Papua New Guinea Kina (PGK)</b>	<b>Amount in USD (\$)</b>
Catering	100,000	31,250
Construction	150,000	46,875
Cultural performances	7,000	2,188
DWU cultural groups and logistics	10,000	3,125
Freighting	30,000	9,375
Logistics	20,000	6,250
Security	30,000	9,375
WSL Registration	1,000,000	312,500
<b>Total Event Costing</b>	<b>1,347,000</b>	<b>420,938</b>
<b>Estimated Budget</b>	<b>1,090,000</b>	<b>340,625</b>
<b>Additional Spending</b>	<b>257,000</b>	<b>80,313</b>

Note: FX = 3.2

A lot has been invested in the hosting of the World Surf Championship at the Tupira Surf Club, after from the construction which will remain in Madang permanently and engaging locals as regards to cultural performances, also aside from the locals taking part in the construction of some surfing facilities like the provision of locally produced wooden boards and event facilities like stage.

The economic impact of such an event however is limited as key elements of the organization were administered from the capital city, Port Moresby, an hour's flight south from Madang. One factor could be a lack of cooperation among stakeholders especially the Madang Tourism and Commerce Department. The event had such a huge turnout from locals and nearby communities. The last day of the event recorded approximately 10000 local viewers; this gave the organizers some form of achievement and satisfaction. On the other hand, there were no government officials from either national or local level government present for the event.

## **Lessons from Case Study 1**

Tupira has shown the way for community tourism and the importance of engaging local communities. Tourism needs to be developed in partnership with resource custodians and not in isolation, as the gate keepers of resources are essential for tourism development, especially for sustainable ecotourism

While at the Tupira World Surf Championship, the local communities were not given the privilege of selling their arts and crafts on the same field as the event field; many of them recorded zero sales of their handicrafts. Souvenirs are part of tourism and they remind tourists of places visited and memories at tourism destinations.

In order to improve the event next time, there is a need to make it more interesting for surfers as there are two aspects of surf tourism: (1) sport and (2) tourism. The environment has provided for sport and the need for tourists to come and surf. Sport tourism at the same time brings about changes in the physical environment as well as the natural environment. Therefore, it is important that the aspect of tourism in sporting activities be included. This will require inclusive tour packages for sports tourists.

As indicated above, there is also a need for co-operation and promotion from both national and regional tourism promotion authorities and for co-operation across a wide range of government and community agencies, for example, police and road authorities, as well as those responsible for managing marine environments. Although there is a Surf Management Plan for Madang, the Madang Provincial Government did not seem to play an active role in supporting the event or in advocating for the inclusion of wider ecotourism perspectives or activities. International sporting

communities and individuals in a host country may find it difficult to negotiate a web of bureaucracies, so for similar events in the future, a dedicated government coordinator for the event could be helpful.

## **Case Study 2: PNG National Game Fishing Titles Madang Province**

The Game Fishing Association of Papua New Guinea oversees the national game fishing titles with nine affiliated game fishing clubs: Boroko Sports Fishing Club; Lae Game Fishing Club; Lihir Game Fishing and Blue Water Club; Madang Game Fishing Club; Milne Bay Fishing Club; New Britain Game Fishing Club; Port Moresby Game Fishing Club; San Remo Fishing Club; and Star Mountain Sports Fishing Club. The photo in Figure 5 represents Boats from the Game Fishing Association of PNG at the Madang Game Fishing Titles 2017.

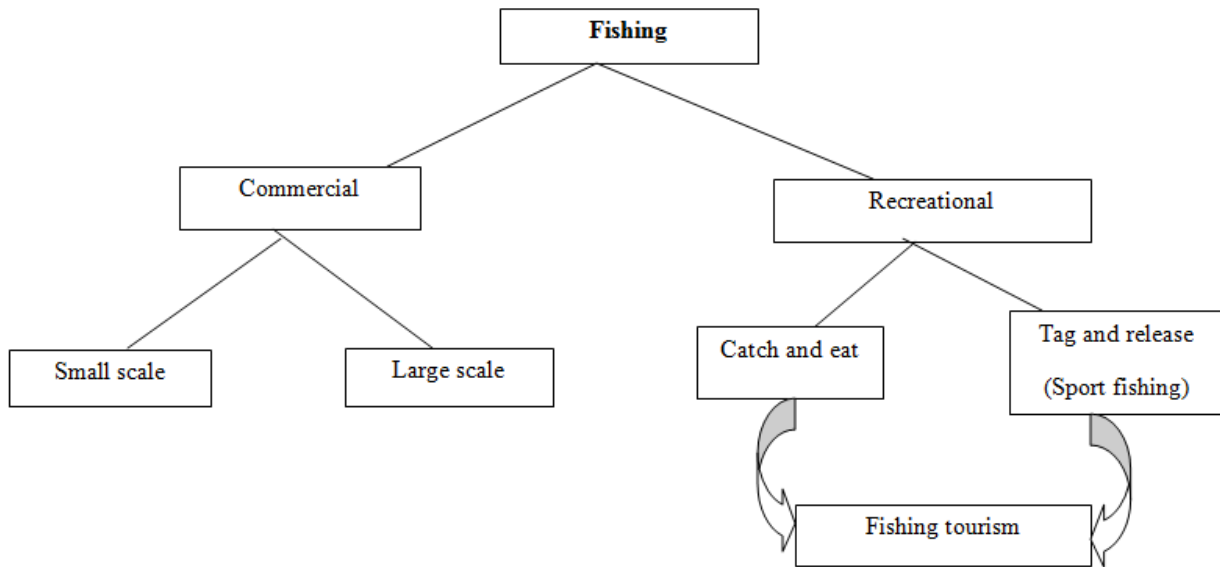


**Figure 5. Boats from the Game Fishing Association of PNG at the Madang Game Fishing Titles 2017**

The Game Fishing Titles are not regarded as money-making tournaments, rather the goal has been to empower and develop communities around especially in the host communities. The focus of the titles is on team fishing and activities are split into classes to encourage all styles of game fishing.

“The whole point about the fishing competition is not to collect fish for sales... Anglers don’t care about the fish caught and neither do the organizers, fish asked is just extra for charity. The financial return only concerns the hotels and restaurants” (Interviewee at Game Fishing Titles Madang, 2017).

Fishing has been grouped into commercial fishing and recreational fishing. There is evidence that commercial fishing is viewed as a threat to the sport or recreational fishing where commercialization of the coastal region exists. Catch and release sport fishing is seen as a substitute for commercial fishing and an alternative means in achieving sustainable use of fisheries resources (Thone-Souza et al., 2014). (Figure 6) presents these distinctions schematically.



**Fishing classification source: Author**

**Figure 6. Classification of Fishing Types**

Fishing has been considered to be beneficial to local and international economic livelihoods of both developed and developing nations. Fishing in PNG society has long been a major source of community livelihoods and mostly considered to be a small-scale industry and community livelihoods until recently, with the introduction of the Pacific Marine Industrial Zone in Madang, which may determine the fate of small-scale community fishermen.

Lovelock (2008) argues that fishing tourism is an essential component of water-based tourism. There is an urgent need, however, to assess the potential worth of sport fishing as an ecotourism activity of a local community (Wood, Butler, Sheaves & Wani, 2013). Game fishing competitions can be viewed as a potential avenue to expand tourism and ecotourism activities through sport fishing.

Large-scale commercial fishing is an exploration of fisheries resources for economic gain, often without any consideration of sustaining the fish population. Small-scale commercial fishing is still considered broadly sustainable, as it does not require large exploitation of fishing resources. On the other hand, catch and release recreational fishing is considered to be a conservation

technique for preserving and sustaining the fish population and protecting the overharvesting of fish stocks (Parker, 2014). Parker further emphasized that ‘releasing fish caught via controlled sport fishing means; these fish will continue to be available for nature purposes: breeding, predation and provision of food to other species as well as available for others to catch again’ (p.1).

“You don’t catch unnecessary fish and the catch and release sport fishing help in sustaining the fish population” (Interviewee at Game Fishing Titles Madang, 2017).

Booth (2013) adds that catch and release sport fishing is an excellent way for anglers to enjoy their sport and to maintain the stocking of fishing species that are likely to be available for future catches. Therefore, catch and release recreational sport fishing or catch to eat is a sustainable harvesting and conservative approach to fisheries resources

### **2017 Game Fishing Titles, Madang Province**

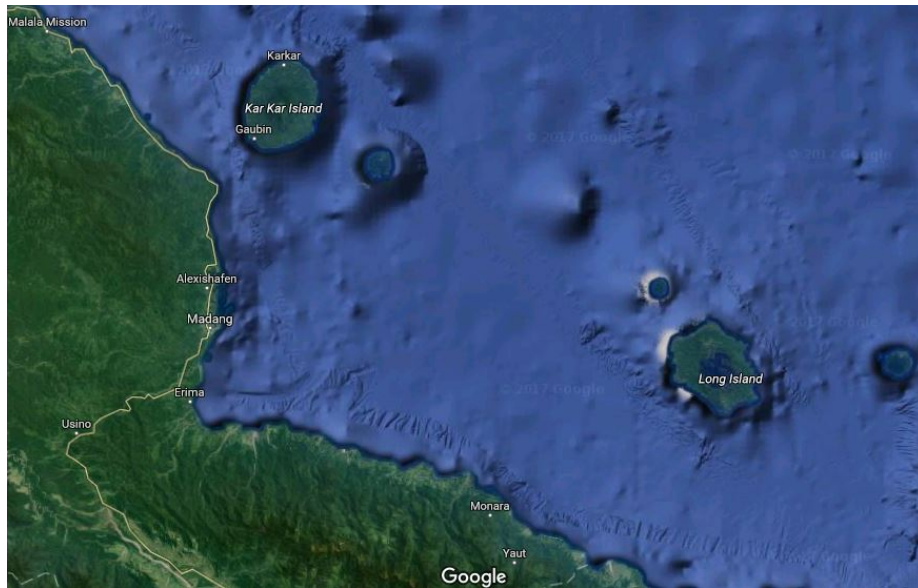


**Figure 7. The Madang Club and Madang Game Fishing Club**

Madang Province hosted the 42th National Game Fishing Titles at the Madang Club in 2017, the thirteenth time Madang Province has hosted the national Game Fishing Titles. The competition had 175 registered teams with 4 international overseas anglers. The competition recorded twenty-two fishing boats, 14 of which arrived from Lae, 3 from Port Moresby and 5 from within the Madang Province.

One motivation behind sport fishing is for recreational fishermen to meet family and friends and it forms part of their social lives. Catching to eat and catch trophy fish is not the prime motivation for recreational fishing but spending quality time in nature and with friends is (Parker, 2014). The PNG Game Fishing Titles are organized to help communities in terms of providing basic amenities for advancing development through expatriate contributions from recreational sports activities like the fishing. Though it is a fishing competition and fishing teams are expected to win a fishing trophy or money on rare occasions, like the game fishing shootout Wednesdays for a marlin catch of over 100kilos. Fish caught during the game fishing titles are sold to restaurants at giveaway prices and the money realized is donated to assist communities and improve basic amenities like hospital facilities. Boat and team composition does not exceed 4 anglers maximum. All anglers in teams are expected to fish on the same boat. Game fishing teams are expected to fish for two days in the competition but the Wednesday of every game fishing titles is the shootout, which requires most of the teams to fish at once.

Madang Province has potential for recreational fishing spot as seen in Figure 12 the hotspot for fishing in Madang are listed as follows: Madang Harbour entrance, Gogol River and surroundings, Gwabi River, Pig Island, Sek Passage to Rempi, the Cape, Malas Reef, Deep Reef, Greigs Bank, Bagabag Seamount, Bagabag, and Hangkow Reef



**Figure 8. Madang fishing hotspots**

Source: Google Earth

### **The Game Fishing Billfish Shootout Wednesday**

The billfish are a group of predatory fish characterized by prominent bills, or rostra, and by their large size; some are longer than 4 m (13 ft). Billfish include sailfish and marlin, which make up the family Istiophoridae, and swordfish, sole member of the family Xiphiidae. The Billfish shootout Wednesdays for the Game Fishing tournaments requires that boats must only report Billfish strikes, hook up and captures. The entry fee per boat was PGK 1000. The winning prize is to harvest a marlin of a minimum of 100kg. Only Pacific Blue Marlin, Striped Marlin and Sailfish captured within the official Madang Game Fishing Club waters qualify for the shootout.



**Figure 9. Game fishing shootout Wednesday. Madang Fishing Harbor**

The shootout on Wednesday of the 2017 game fishing started from the Madang Club at about 6:35 am with 13 boats all together in one competition. Only larger boats that have the capacity to catch mighty fish are allowed in this competition. The competition started with a radio communication from the director of the Game Fishing for the takeoff of the competition. In the shootout, fishing teams are expected to tag, release unnecessary fish; as noted above, only 100 kilos, and above is required for winning.



**Figure 10. Winner for the 109.5kilos of Billfish shootout Wednesday of the game fishing titles Madang 2017**

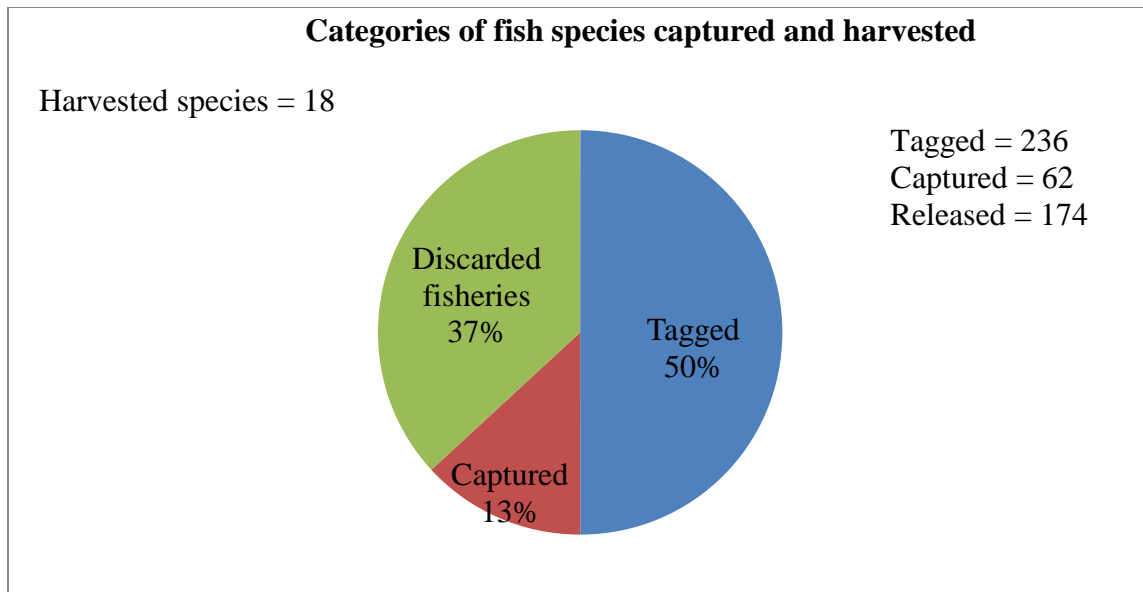
The Game Fishing shootout Wednesday had a winner from four anglers on the boat Real Fish, with one 109.5kg marlin fish harvested, team composition of four anglers. The prize was PGK20000 (\$6,124). All fish weighed and presented for weighing became the property of the Madang Club and were disposed of for charity.

## The economic impact of the Game Fishing Titles for Madang Province

Unlike the Kumul Long Surf League held at Bogia district of Madang Province, that had very little economic impact on the tourism industry and host communities, the 2017 Game Fishing Titles had an immediate economic impact on accommodation and restaurants in Madang town as well as on local shopping centers. The visiting anglers along with their families for the Game Fishing Titles in Madang Province recorded an average of 1500 inbound tourist arrivals, many of whom are from the domestic tourism. The inbound tourism was calculated from the total registered teams of 175 with at least four family members. It was difficult to calculate the daily spending of the incoming tourists for the Game Fishing Titles but it would have been considerable. Apart from the economic impacts on accommodation, in particular, the monetary harvested fishes donated to help host communities cannot be overlooked.

**Table 2 Categories of Species for tagging and harvesting**

Species	Tagged	Captured/ Harvested
Barracuda (Great)	34	1
Barracuda (Pick handle)	1	0
Dolphin Fish	45	1
Marlin Black	1	0
Marlin Blue	26	6
NB Mackerel	14	19
Queen fish	1	1
Rainbow Runner	28	2
Sailfish	3	0
Skipjack Tuna	17	0
Trevally Blue fin	4	0
Trevally Giant	9	11
Tuna Dogtooth	2	2
Trevally <u>Turum</u>	0	1
Tuna Mackerel	4	0
Tuna Yellow fin	45	15
Wahoo	2	1
Whaler Shark	0	2
Total Harvested species = 18	236	62



**Figure 11. Categories of fish species captured and harvested**

A total number of 18 different fisheries species were tagged and harvested for the 2017 Game Fishing Titles Madang Province. Two hundred and thirty-six were tagged; only sixty-two was captured, weighted and harvested. This means 37% of the tagged fisheries were released or considered discarded fisheries.

## **Lessons from Case Study 2**

The Game Fishing Titles certainly provided a tourism boost for Madang Town and, possibly, for Madang Province. The event is well established nationally, unlike the; 'one off' international surfing competition at Tupira. Being based in a town, the Game Fishing Titles were comparatively easy to organize logistically and managerially, given the expertise available from game fishers in Madang. However, the extent to which competitive sport fishing of this form can be considered as a manifestation of ecotourism is debatable.

One the one hand, the activity itself (catch and release fishing) is sustainable, local handicrafts were available for sale as usual in Madang, and local markets and attractions would have been visited. On the other hand, larger commercial operators whose activities are not necessarily environmentally sustainable to any significant degree would have provided much of the accommodation and meals for visitors – other than those who stayed with family or friends –.

One option for the future might be to ask the Game Fishing Association of Papua New Guinea and Provincial Governments to build additional requirements for sustainability initiatives into requirements for hosting the event in future. Again, the active involvement of provincial tourism authorities in coordinating ecotourism practices for such events would be likely to be beneficial.

## **Discussion and Conclusions**

Sports generally are powerful resources that need to be embraced for the development of ecotourism in developing nations. It is important to recognize that organizing sporting events in PNG can bring about changes in the perception of Papua New Guinea to overseas persons and accordingly, help in rebranding the image of the nation, when properly planned and implemented.

“The problem of tourism development in PNG has to do with inviting expensive consultants, who after a few observations will come with some recommendations that are yet to be implemented in their own place of origin. Therefore, the PNG context has been neglected. Tourism is not growing because the consultant do not understand the people, custom, culture, ways of life, land use and others before proposing recommendations” (Interviewee at Tupira, 2017).

The Kumul Long Board Surf League had wide media representation both from local and international with a live coverage for the event, but the Game Fishing Titles lack media coverage. In terms of promotion and marketing, the Game Fishing Titles would gain from need full media coverage of live fishing of anglers in their respective fishing locations. There is no doubt that both events hosted in Madang helped in the awareness and showcasing of the importance of coastal resources for tourism development and conservation. In this regard, one major drawback to water-based sports events in PNG will be the commercialization and privatization of the coastal regions.

Sporting events provide the potential to promote and showcase the host destinations to the world, as noted. In the case of the recreational sport fishing, there is a need to know the total numbers of fish stock as well as the monetary values of the PNG coastal and marine environment. The “WWF assesses the economic value of by aggregating the primary assets of the marine fisheries,

mangroves, coral reef and sea grass, the report estimated that the annual gross marine product of the Melanesian region is worth\$ US 5.4 billion” (Paradise, 2017, p.114). Were the economic benefits of sustainable water-based tourism able to be captured better, governments and investors would be better informed about the trade-offs between consumptive and non-consumptive choices in economic development.

This paper has emphasized the benefit and importance of coastal resources in the development of sustainable tourism for a developing nation like PNG, presenting the potential of coastal resources like fishing and surfing as a potential requirement for ecotourism development. Sport-based activities are essential for destination management to consider while planning for sustainable tourism. At the same time, not all elements of sport-based or water-based tourism necessarily contribute to sustainable tourism or ecotourism. The two case studies indicate that highly active planning and co-ordination is needed to support social development and ecological sustainability in all its forms for tourism based on coastal resources.

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