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Market Segmentation to improve outdoor activities management in natural and protected areas. Case Study: North Patagonian Great Lakes Region.

Publicado en Trends 2000 Symposium. Michigan State University. Lansing. Michigan USA. | 2000.

**MARKET SEGMENTATION TO IMPROVE OUTDOOR ACTIVITIES MANAGEMENT IN
NATURAL AND PROTECTED AREAS. CASE STUDY: NORTH PATAGONIAN GREAT LAKES
REGION ♦**

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Introduction

As recently recognized, there is an obvious shortcoming in the process of data gathering regarding the use of the world's protected area and natural heritage areas, which constitutes a relevant policy problem (1). One of the consequences of such lack of data is that the impact of tourism is in many ways obscured, preventing thus a better assessment of public as well as private uses of these areas. The spectrum of situations, on the other hand is quite differential according to historical and cultural -regional and national- contexts. For instance, the specific forms of data collection and uses of public administered natural heritage in U.S. and Canada allowed these countries to develop different visitor management frameworks, especially for protected areas, such as Recreation Opportunity Spectrum (ROS)(2), Visitor Impact Management(VIM) (3), Limits of Acceptable Change (LAC)(4), and Visitor Activity Management Process(VAMP) (5) among the most well known.

The approaches and conditions to these issues are quite different in Latin America. L.A.C. is routinely quoted as being one of the most applied frameworks in Latin America's protected areas (6). However, and as a paradigmatic example that could be extended to the general situation in the continent, I would like to point to the case that we have been

♦ This article is part of the results of the research project "Guidelines For Environmental Management for Tourist Activities in Argentinean Chilean Great Lakes Corridor" directed by Dr. A. Otero, Co-Directed by Arq. R. Boullón. Research Team: Ms. S. Marioni, Ms.A. Lonac, M s..R. González, (Universidad Nacional del Comahue). Chilean Collaborators: Ms. H. Rivas Ortega, Arq. L. Sandoval Huts (SERNATUR) and Ms. J. Rojas Díaz (GATT Asociados). External Advisor: Dr. E. Salinas Chavéz (Universidad de la Habana. Cuba)

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studying in the Argentinean National Parks, which demonstrates that those frameworks of analysis are insufficiently understood and carried out.

Budget restrictions, associated with lack of criteria and interest shown by park managers in respect to ways of improving the quality of recreational experience, might be mentioned among the causes why these frameworks are neither applied by the administrations, nor demanded by regional administrators as “an every day practice”. The whole absence of data of different park user profiles and updated environmental conditions of different type of settings is one of the consequences. Most of the decisions regarding visitor’s management are contingently taken upon managers’ arbitrary and subjective perceptions of “the average tourist’s necessities”.

Tourist and recreational use of natural and protected areas in North Patagonian Great Lakes Region in Argentina and Chile has experienced a remarkable growth during last years. Notorious and continuous transformations in the structure of circuits of consumption and demands (not only quantitative but also qualitative) do have an impact in social, physical and biological dimensions that characterize these areas. Although the number of visitors is still within these areas’ capacity, taking into account some of the commonly used indicators and frameworks, there are conflicts derived from intensive use in particular settings, as well as social concerns in some areas that could be considered critical for a variety of reasons.

In this context, our research project was developed to describe and understand several issues derived from main outdoor tourist activities. The area of study was an international tourist corridor which links the Nahuel Huapi National Park in Argentina with Puyehue and Pérez Rosales National Parks in Chile, focusing on their management and administration. Guidelines for environmental management were developed for a set of activities, that had been growing faster in terms of demand in last years in the studied area. These were: camping, rafting, trekking and hiking, mountain bike and fishing. The central idea has been to draw management guidelines to allow a better operation of tourist activities considering conservational and commercial interests.

This paper refers to one of the dimensions considered in that research which is *market segmentation* of different types of outdoor activities. The market segmentation of these activities was analysed in order to apply the *Ultimate Environmental Threshold* (UET) methodology (7). Considering that Kozlowski's (1985) original approach to determine UET was focused in territorial features, and that Kuiken (1993)(7) adapted it to landscape planning, including aesthetic criteria, which leads to the establishment of landscape tolerance units in relation to the development activities, the idea was then to complement both approaches considering tourist's necessities and expectations. Market for sustainable tourism is large enough to allow specific segments and sub-segments to be better managed with their specific characteristics in mind. As Wight (1993) (8) argues, sustainable tourism involves a spectrum of experiences, supply characteristics and market demands. A better understanding of consumers' segments could allow not only to design management actions, but also to outline marketing strategies and techniques addressing each segment concerns.

Such analysis has important research, planning and market implications, and is critical to the development of suitable services as well as to the design of appropriate management strategies and techniques for the institutions in charge of tourism planning in wilderness areas. Our findings, we hope, could be valid not only for those activities mentioned in the area of study, but also for other outdoor activities management in the context of North-Patagonian protected areas.

Objectives

- To develop a market segmentation process for the main outdoor tourism activities in natural and protected areas of the North Patagonian Great Lakes Tourist Corridor of Argentina and Chile.

- To characterize outdoor tourism activities supply in order to identify-users' profile in the area of study.
- To identify each market segment environmental behaviour that could be useful to establish Ultimate Environmental Thresholds(UET) for the studied outdoor tourism activities.

Conceptual Framework

As Mahoney (undated) (9) pointed, understanding the market for sustainable tourism involves understanding the tourists, the tourism environments, and the interrelationships between the tourists and their hosts. He suggested that recreation marketing needs to be based on marketing segmentation and target marketing. Market segmentation is, on one hand, the process of grouping existing and potential visitors with similar preferences into groups called market segments, and on the other, a selection of the most promising segments as targets markets to design marketing mixes that satisfy the special needs, desires, and behaviours of the target markets (10).

Eagles' (1995) (10) classification of sustainable tourism niches was taken into account, since some categories used by the author were considered relevant to analyze the main outdoor tourism activities practiced in the area of the international corridor:... "Ecotourism involves travel for the discovery of and learning about wild natural environments. Wilderness travel involves personal recreation through primitive travel in natural environments that are devoid of human disturbance. Adventure travel is personal

accomplishment through the thrills of dominating dangerous environments. Car camping is safe family travel in the interface between the wild and the civilized.

As it has been pointed above as a critical issue, most Patagonian National Parks have just general information about biological dimensions, while social concerns (i.e. in depth profiles of demand are almost nonexistent. In order to overcome the usual lack of information, necessary to build standards and indexes to apply to visitors 'planning and management framework, the research group decided to construct a market segmentation of the studied activities to test Ultimate Environmental Threshold Method (UET) (7), and finally to establish management guidelines for them.

“Tourism development causes changes which result from the adaptation of the environment to the requirements of it, and changes which result from side effects, which represent development consequences .The changes often encounter some physical limitations imposed by the geographic environment. These limitations cause discontinuity in development processes expressed by slowing down or even stopping those processes unless limitations are overcome. The overcoming of limitations would involve variable additional costs of development. Their magnitude depends on how the location and the quantitative and qualitative levels of development and its rate are adjusted to fit the basic features of the geographic environment. These costs, which may be high, would be not only investments costs but also social and ecological costs. A threshold to further development is encountered if it cannot extend to a new area, produce additional output, achieve higher quality, or accelerate production, without involving an increase of investment, social or

ecological cost. The number of units of output of this development at which such a situation occurs indicates the threshold on a development curve (hypothetical or actual).

The four major environmental dimensions, permit the corresponding dimensions of development thresholds to be distinguished:

- Territorial: indicating location, that is the area over which a given development can take place
- Quantitative: indicating scale, that is the level up to which the development can be developed
- Qualitative: indicating type of development, that is the kind of output that can be accepted
- Temporal: indicating timing of development, that is its admissible rate, or the permitted time periods in which it can take place.

Thresholds which cannot be overcome by accessible technical means (as a given level of technology) or which can be overcome only at the expense of serious and irreversible damage to the geographic environment can be described as ultimate (or boundary) thresholds. These thresholds indicate the final boundaries to possible location, scale, type and timing of particular development. The thresholds can be imposed directly by the potential of resources needed for a development, or indirectly by resources which can be seriously affected or even damaged by its side effects".(7)

Development circumstances (7) in the area of study moved the research group to adapt UET method because it offers a “a way of thinking” which, in any specific situation,

allows the definition of which environmental factors, and why and how limit particular developments are needed. Besides, its practical applications in previous experiences had been concentrated on tourism development in environmentally sensitive areas. The method was tested considering it could be a useful tool in formulating developing strategies and policies, and considering the early stages in which planning process is in most of the jurisdictions in charge of natural tourism heritage areas in Patagonia.

Methodology

The tourist corridor or area of study is located in the mountainous and lakes sectors of Lake Region in Chile, and in the South end and NW of Neuquén and Rio Negro Provinces in Argentina: between parallel 40° 38 ' and 41° 20 ' South and meridians 71° and 73° 10 ' of West. The corridor runs along the following tourist centers: San Carlos de Bariloche, Villa La Angostura in Argentina, and Osorno, Puerto Octay, Frutillar, Llanquihue, Puerto Varas, Puerto Montt, Ensenada, Petrohué and Peulla in Chile. (Figure #1)

Figure # 1

For the purpose of this paper, two outdoor tourism activities of the whole set of the outdoor activities researched in the area of study were selected: rafting and fishing . Selection criteria relied on the fact-that they are practiced in both countries of the great lakes tourist corridor.

To develop market analysis, three different techniques were used: tourist surveys, key informants interviews and participant and non participant observation. Data were collected during January, February and March, 1998. The sample size was determined by the research project economic and human resources possibilities. In-depth interviews were applied to twenty sport fishermen, carried out in fishing settings in rivers and lakes near the international corridor. Eighteen questionnaires were presented to tourists after they finished rafting excursions in Manso and Limay rivers in Argentina and in Petrohue river in Chile. Nine key informants interviews were done to enrich the analysis considering the opinion of tourist operators (rafting and fishing operators) and of protected areas management officers in both countries.

Data analysis involved three phases. Initially, fishermen and rafters were segmented according to socio-economic and behavioural characteristics. In an effort to fully appreciate operation conditions and benefits derived from these activities, as well as to know main source of conflict in their practice, qualitative research techniques were used. Individual in-depth interviews were applied to selected tour operators in San Carlos de Bariloche (Argentina) and Puerto Varas (Chile). The selection criteria was based on their recognized experience offering services in the studied area. Their opinions were completed with another set of in-depth interviews, which were applied to key informants from National Parks Administration (APN) in Argentina, and CONAF in Chile, in order to obtain detailed information about their concerns on planning, management and monitoring of tourism activities in the National Parks.

Participant observation was developed during rafting excursions and non participant observation was used to study fishing settings and fishermen distribution on rivers and lakes for each modality: spinning, fly casting and trolling.

A matrix was build with the resulting data. Four major variables were recognized, each including a set of specific sub-variables, depending on the activity studied: *socio-demographic* (place of origin, level of incomes, age, type of group among others), *related to the practice of each activity* (ability in its practice, previous experience, factors affecting overall satisfaction with a recreation experience, frequency of visitation, etc.) *environmental variables* (environmental impact, resilience of recreation sites) *market related* (growth tendency), and finally *variables related to management issues* (use levels, key management issues).

Technical and factual data summarized in each tourism outdoor activity matrix was used to understand key factors involved in specific visitors management problems in the area. Measures of 1.environmental awareness, 2.tourists attitudes, 3. national parks officer's opinions about the effectiveness of alternative policies, strategies and actions, and constraints related to the tourist activity operation mentioned by the industry representatives were the support to applied UET method for considered activities.

Findings

The following discussion begins highlighting the market segmentation results, which are presented in Tables I and II, which show a matrix for rafting and fishermen tourists.

Table III and IV present the application of market data as an input to define Ultimate Environmental Thresholds for both activities. For the purpose of this paper, it has just shown fishing UET in Argentinean corridor area. UET definitions for each tourism activity for the whole corridor are included in the complete research report.

Table I
RAFTING USERS' PROFILE – GREAT LAKES ARGENTINEAN-CHILEAN
INTERNATIONAL CORRIDOR

Segment: RAFTING*	USER'S MICROSEGMENTS		
Variables	Chilean & Argentinean tourists who practice rafting		Foreign Tourists who practice rafting
	Without previous experience	With previous experience	
Socio-demographic variables			
Origin	Chileans and Argentines		North Americans, Germans. In smaller proportion Canadians, French and Spaniards
Income Level	Medium -high / High	Medium	Medium - High
Age	From 14 to 25/30 years old	22/25 to 35/40	Predominantly from 25 to 35 years old
Type of group	Groups of friends Couples Parents and sons Single Tourists	Single Tourists Groups of friends	Couples Parents and sons Single Tourists
Variables related with the practise of the activity			
Ability/Previous experience	Without previous experience	With previous experience at level II or III rivers	With previous experience at level III, IV and V rivers
Main travel motivation	*To have an exiting experience *To Experience "adrenaline" * To know the activity	* To raft in a new river, increasing the level of difficulty. * To know another places of the river. To gain experience. * To revive "adrenaline" sensation	* To know new rivers, preferable at "exotic" destinations, though they are experimented travelers, they don't take in account the river level of difficult.
Factors that influence Tourists' satisfaction	* The single experience of practicing the activity for the first time produces a high level of satisfaction. * Security conditions	* The possibility to raft a river with \higher level of technical difficulty than the experiences lived before.	* Quality in the whole tourist service.
Frequency of visits / Fidelity with the setting	They can repeat the visit one or twice, in order to familiarize with the activity, they could experience the activity in the same river again, or could attempt in other rivers with higher level of difficulty	Generally, they try to raft in others higher technical levels rivers, gradually increasing their level of experience as rafters.	Low frequency, given the long distances from their hometowns and countries.
Requirements related to tourist services.	* Aspects related to security * Quality of the equipment and rafts * Guide's ability and capacity	*Guide's ability and capacity *Good service of staff directly which is related to the practice of the activity * Aspects related to security	* Total quality service: Guides and conductors, snacks and meals, punctuality, guides' capacity, equipment, level of organization of the company
Environmental Variables			
Environmental Impact	Low, due to it is an activity focused on the boat. Tourist transfer to and from the river it is the only terrestrial tract. Empiric studies have demonstrated that the level of impacts is low, since the biggest impacts are associated to motorboat activities. Therefore the environmental impact of the activity is minimum		
Market Variables			
Market Trends	growing , in a sustained tendency		
Management Variables			
Current levels of use	This is the segment that shows the highest use levels, with a tendency to increase the number of tourists in the near future.	High use level, with a smaller rhythm of growth than beginners segment	Although it is important the number of foreigners practice this activity, it don't still reach the volume represented by Argentinean and Chilean tourists
Management key dimensions	Security during the whole trip, guides' relation with tourist and, in general, the behaviour of all the staff in contact with tourists, are very important elements to considered. Quality of equipment and rafts is also important A maximum number of tourists per raft should be set.	Guide's ability and experiences are fundamental for trip satisfaction .As this tourists have had other experience of this type before, it is critical to offer what is really sold , avoiding to promote services that won't be included or perceived by users in the recreational experience.	To carefully consider the quality of each of the services included in the trip, from general aspects to small details. Higher degree of previous experience determines higher demands for the whole set of services offered by the rafting company.

*Chile: Petrohue River
 Argentina: Limay & Manso rivers

Table II
**FISHERMEN USERS' PROFILE – GREAT LAKES ARGENTINEAN-CHILEAN
INTERNATIONAL CORRIDOR**

FISHING (CHILE)	USER'S MICROSEGMENTS		
Variables	Fishermen who only practice Fly Casting	Fishermen that hire embarked trips (spinning, trolling and fly Casting)	Recreational Fishermen
Socio-demographic variables			
Origin	Most of them are Puerto Montt residents . There are also anglers from Santiago and other main cities of the country..	Most of them come from Santiago. They lodge in cabins in Puerto Varas or in those located near the international corridor.	An important percentage come from cities of IX y X Regions (Temuco, Valdivia, Osorno)
Income Level	Medium	Medium – high / high	Medium
Type of group	Small groups of friends. Occasionally they come with their couples or family	Most of them are groups of friends	Families and couples
Variables related with the practise of the activity			
Ability/Previous experience	High level of previous experiences	There is a wide spectrum of levels of previous experience, in general they are tourists with experience in spinning, and learning fly casting	Low level of previous experience
Catching objectives	They are linked, above all, with the quality and quantity of captures	Higher catching objectives, focused in getting the highest number of pieces	
Main travel motivation	To have a good fishing experience based in good quantity of captures, few captures but of a good size, and good fight level with the animal	To take advantage of fishing in a boat, to obtain the biggest number of pieces (The highest capture's objectives)	To Rest. To go on vacation with their families. Related to fishing itself, to obtain the highest number of pieces
Factors that influence Tourists' satisfaction	Appropriate aesthetic and fight conditions	* To obtain the highest number of captures. * Guide's ability to drive the group to the best fishing settings	To rest, to escape and, if it is possible, to capture the highest number of pieces
Frequency of visits / Fidelity to the setting	High fidelity with a fishing setting, repeating the visit almost every weekend during a season	Repeating fidelity, but with a tourist destination, in successive or alternate seasons	Low fidelity, since this segment uses its vacations to visit and to know other regions of the country
Current spatial distribution of the activity	Located on the outlets of Pescado, Blanco and Tepu rivers, in the South riverbank of lake Llanquihue	Especially, near cabins of lodges along South riverbank of the lake Llanquihue,	In beaches and coastal sectors bordering camping areas located on the South riverbank of lake Llanquihue
Concentration level	High concentration degree, especially in the mentioned. places.	Low, as the activity is on boats, no concentration problems were observed	Low. Not overcrowded situations among recreational fishermen were observed
Staying	During the day	4 days (long weekends) to one week until ten days	Two or three days in each camping
Type and Category of accommodation	They don't use local accommodation, since they return to their homes at the end of the day	Cabins or lodges located on the international corridor .	Camping areas on the international corridor.
Requirements as for the benefit of services.	* To increase local buses frequency from and to Puerto Montt, * Control of annoying visitors' access by CONAF (Chilean Protected Areas National Agency).;	<ul style="list-style-type: none"> • Guides' professional attention to tourists. • * Knowing of best fishing settings 	Fishing docks that allow to release at a longer distance
Environmental Variables			
Attitude towards the environment	Extremely careful of natural conditions	Depredator behaviour, taking advantage by fishing embarked, thus obtaining the highest number of pieces..	Great proportion of depredator fishermen
Environmental Impact	Medium. Due to the combination of high degree of fishermen's awareness, so they respect number of pieces captured established limit	Medium, a severe pressure on fishing resource at the lake could happen if this segment go on growing at the current level	Medium. Predatory behaviour where good fishing conditions are available.
Market Variables			
Market Trends	Stable – moderately growing	Growing	Stable - moderately growth
Management Variables			
Current levels of use	Intensive	Medium and intensive	Medium

Management key dimensions

- * To control the number of fishermen preference settings.
- * To manage and control anglers' behavior, especially in relation to both other fishermen

- * To Control of fishing conditions (maximum number of captured pieces permitted), through tour operators and guides.
- * To control and improve security conditions of fishing boats

- * Delimitation of fishing settings for this segment, to avoid interfering anglers activity.
- * To provide facilities that improve the practice of activity.
- * Control and regulation of recreational fishermen's behaviors should be carried out, especially related to maximum number of captures allowed

FISHING (ARGENTINA)	USER'S MICROSEGMENTS		
	Recreational Fishermen	Fishermen in boats	Fly Casting Fishermen
Socio-Demographic Variables			
Origin and income level	Main cities from Rio Negro and Neuquén Provinces. Income level: medium	Main cities from Rio Negro and Neuquén Provinces. Their income level is medium and high	Main cities from Rio Negro and Neuquén Provinces. Federal and Great Buenos Aires. Income level medium and high.
Type of group	Families and groups of friends	Groups of friends. All ages	Groups of friends. All ages
Variables related with the practice of the activity			
Ability / Previous experience	Basic fishing experience in spinning modality	High level of previous experience	
Current spatial distribution of the activity	Located mainly in the beaches and near rivers, at camping areas.	In the lakes	Rivers outlets
Capture Objectives	High level of catching objectives, specially focused in getting the highest number of pieces		They are related to the quality of fights and the quantity of captures
Main travel motivation	* To rest, to go on vacation with their family. * Related to fishing, to get the highest number of pieces allowed	* To take advantage of fishing on boat * To have access to the best fishing settings	To have a good fishing experience based on a good quantity of captures, few captures but of a good size and good fight level with the animal
Factors that influence Tourists' satisfaction	To rest, to escape, if it is possible, to capture the highest number of pieces	To get the highest number of captures. To rest with their family or their groups of friends.	Qualified captures Qualified fights
Concentration level	Concentrated / Very concentrated	Concentrated	Relatively dispersed
Frequency of visits / Fidelity to the setting	Low frequency	High frequency of visits in successive seasons	
Facilities and required services	Latrines, wash rooms, water supply, food store	Latrines, wash rooms, water supply, food store, boating ramp service.	Latrines, wash rooms, water supply, store.
Environmental Variables			
Attitude towards the environment	Predator attitude mostly	Different type of attitudes, depending on the environmental awareness of each group	In general this segment is the group with the highest level of environmental awareness
Environmental Impact	Medium/ High	Medium	Medium-low
Market Variables			
Market Trends	Growing	Stable	Growing
Management Variables			
Current Use Levels	High	Médium - high	Medium – high
Management key dimensions	To manage and control fishermen's behavior, especially in relation to both other fishermen	*Regulation of fishing conditions referred to maximum number of captures should be encouraged. *To control the compliance of rules referring forbidden fishing during night hours *To monitor security conditions on fishing boats.	*To keep preferential fly fishing settings exclusively to anglers segment

Summary of Market Segmentation Analysis

To summarize the market segmentation analysis, the most relevant features of each one of the activities studied are highlighted below:

- ***Rafting***

- Segmentation variables that most discriminate the demand of this activity are *origin* (domestic and foreigners)- and *level of previous experience*.
- Security conditions are one of the most important perceived components of this tourism product for the tourist operator's choice in all identified segments. Secondly, programming and operating conditions (carrying out schedules on time, offered services as promoted, quality of technical equipment.)are important as well.
- In all identified niches, the main factor that influences tourists' satisfaction is that the generic expectation "to experience adrenaline" is completed.
- The range of the users' age is wide and varied. The age spectrum is between 12 to 45/50 years old. Composition of travel groups is heterogeneous.
- Considering tour operators opinion, the growing rate of demand of this activity in the last years (about 15%) makes it one of the outdoor tourism activity with greater potential in the area.
- Foreign tourists niche could be included in the typology of "*collectors* ", since each river is considered a new challenge.
- Key management dimensions are clearly differentiated and in most of the identified niches are determined by both motivation and previous experience of each of them. So, for tourist without previous experience, management actions should pay attention to security conditions on the river; for those with previous experience this actions should be oriented to assure the execution of foreseen conditions (domestic market) and to control the appropriate organizational level of tourist operators (foreigners market).

- ***Fishing***

- Previous experience as fisherman influences in great measure the fishing modality practiced by each sportsman. Besides, previous experience and fishing modality, are two strong conditions of fishermen's environmental behavior.
- In agreement with the previous statement, factors influencing fishermen's satisfaction differ according fishing modality, previous experience and motivation..
- The choice of the type of travel group varies according to the objective of journey, depending if it is recreational or exclusively focused on fishing.
- There is a spatial segmentation depending on fishing modality, what increases the capacity of fishing settings. The Biggest conflicts between different type of users are located in rivers.
- Recreational fishermen , could be considered as a "risk" group in terms of the impact generated by their activity.
- The use is more concentrated in certain fishing settings of intensive use in Chile than in Argentina.
- Fly casting fishermen niche has a bigger rate of growth in the short and medium term in Argentina than in Chile.
- In spite of in both countries the same segments are recognized, according to the fishing modality: fly casting, spinning and on boat fishing (practicing flying cast, spinning and trolling indistinctly). There are, however some important differences between them that have to be pointed out:
- In Argentina, most of fishermen on boats go fishing by themselves in their own boats. In some cases fly casting fishermen go with other type of fishermen to fish on boats.
- In Chile, most of the fishermen on boat, take fishing excursions through well known fishing guides located in some of the cities or villages near to Llanquihue lake or in certain complexes of cabins located on the International corridor.
- Related to fly casting fishermen, it is extremely important to highlight the eminently recreational character of the activity in the Chilean sector of the

international corridor due to influence and proximity of Puerto Montt. Its residents represent the most important local market considering not only their volume but their high fidelity to fishing settings of the area, which most of them visit almost every week during the season.

- Tourists coming from the rest of the country who visit the area are, in general, recreational fishermen or belongs to on boat fishermen niche. On the contrary, in the Argentinean sector, tourists from the Capital city (Buenos Aires) and the countryside represent an important percentage of fly casting fishermen
- In both cases, there is a clear difference between each group catching objectives. Fly casting fishermen have reduced objectives of captures and they are especially related with the quality of their captures. They are extremely careful with the natural resource.
- On the contrary, on boat fishermen and the recreational fishermen niches are characterized by higher catching objectives, trying to capture the biggest number of pieces, with a depredatory attitude, and then committing the stability of the resource.
- Catching objectives and the main motivation of each segment influence on other variables that characterize the activity. Among them, there are factors included in tourist and recreational satisfaction, fidelity with fishing settings, recreational facilities and services requirements, and finally, key management dimensions for each group.
- Some management proposals are outline next, taking into account key management issues in both countries:
 - ✓ To apply control and surveillance measures, or to reinforce the current ones, to improve resource protection against depredator behaviors of recreational fishermen groups on boats.
 - ✓ For fly casting fishermen niche, management actions should be addressed to assure the sport fishing conditions, preventing conflicting situations with other groups for invasion of the fishing space or nuisances of diverse type that avoid the normal development of the activity.

Conclusions

The purpose of this article was to demonstrate that a market segmentation analysis for main outdoor tourism activities in natural and protected areas is both necessary and feasible in the specific context of Argentinean provincial and national institutions. In doing so, it appears evident how important it is to develop case-by-case users' profiles, considering visitor environmental attitudes to identified key management issues related with their expectations, and to define management actions that allow fair public uses and access conditions.

It is recommendable to base tourism planning and management in protected areas taking into account current trends of growth of some specific outdoor activities (i.e. rafters and trekkers). A careful study and analysis of these activities, including visitors management criteria, should be done *in advance* in order to prevent foreseeable social, economic and ecological conflicts

Referred to this need, a market segmentation process as shown above, is a product of a specific research process that generates relevant knowledge about the characteristics of outdoor activities in the context of Northern Patagonia. Up to now, there was no research done on this topic, at least in this area of interest. In our conclusion, we remark the necessity of this kind of field work, producing new information of interest for the qualitative development of tourism.

In spite of the insufficient quantitative empirical data which support these results, this study has taken a step forward proving that, even with limited budget, it is possible for Argentinean and Chilean National Parks agencies to generate basic data that could be applied to any meaningful visitors' management framework.

The question is to what an extent are these institutions *willing* to adopt such organisational criteria? The analysis of institutional circumstances –both internally and at a larger macro level- was far beyond our initial scope. Further research, however, could provide a better comprehension of general political economic conditions in the Latin America context, allowing to understand more complex linkages between causes and consequences of what now appears to be a simple -although manifest- lack of specific policies.

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