

**Tourism in the Conservation by Design Process:
A Study of Tourism Threats, Strategies, and Threat Ranks
in International Conservancy Projects**



Amelia Wolfe,
SACR Ecotourism Intern

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I. Executive Summary

This study uses the recently launched Conservation Project database (ConPro) to identify tourism citations in Conservancy projects as a way of measuring the significant impact on ecosystems and communities the increasing growth of tourism is having worldwide. By observing the data of the project records, comparative charts were created to determine where, how frequently, in what terms, and to what degree tourism is cited.

All projects were divided by region. Projects were classified according to two threats, “Human Intrusions & Disturbances: Recreational Activities” (Recreational Activities) and “Residential & Commercial Development: Tourism & Recreation Areas” (Tourism Development); threatened Projects were contrasted with not threatened Projects. The study focused on projects in South America, Mesoamerica and the Caribbean, and Asia Pacific. Tourism, as cited as a threat or strategy, was compared. For projects that cited tourism as a threat, the threat rank, as labeled low, medium, high, or very high, was recorded.

Approximately one third of the projects in South America, Mesoamerica and the Caribbean, and Asia Pacific are threatened by Recreational Activities and/or Tourism Development. Tourism is frequently cited as a threat to projects, usually as a low level threat, and is less often cited as a strategy for projects.

II. Results

A. Distribution of Projects in ConPro by Conservancy Region

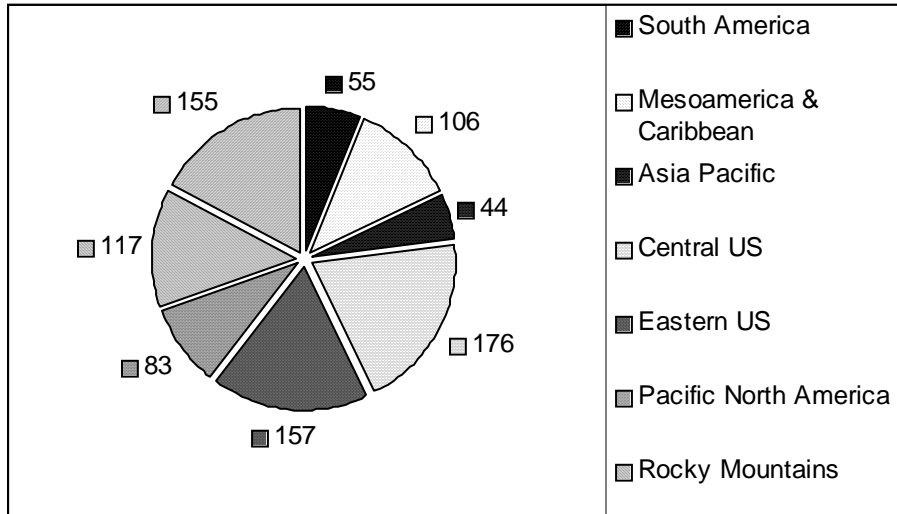


Figure 1: All Projects in ConPro by Region

There are 893 projects in ConPro. They represent 8 regions, 5 of which are in North America and 3 are international.

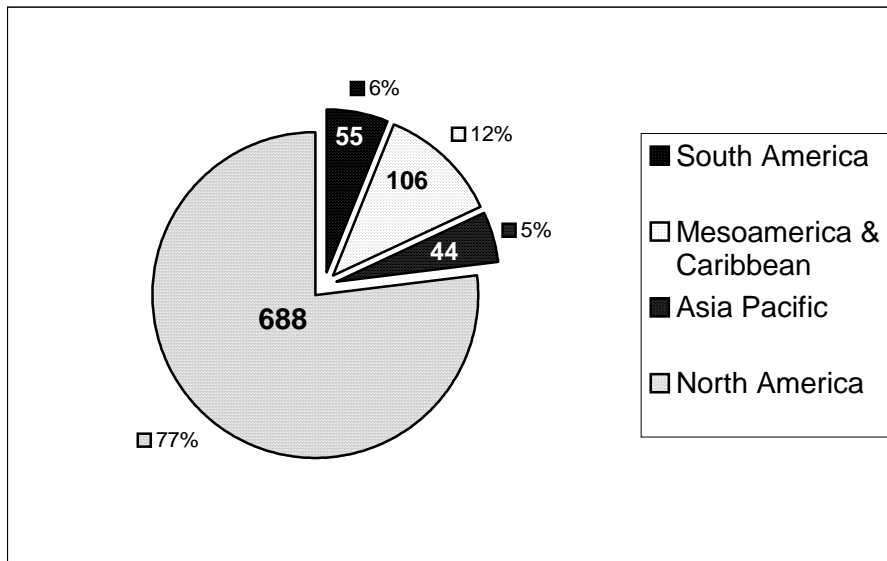


Figure 2: All Projects in ConPro by Region Showing North America as a Single Region

The 893 projects in ConPro can be separated into 4 main regions: North America, Mesoamerica and the Caribbean, South America, and Asia Pacific. Over 75 % of them are in North America. 12%, or 106, are in Mesoamerica and the Caribbean, 6%, or 55, are in South America, and 5%, or 44, are in Asia Pacific.

B. Division of Projects in ConPro by Threat

This study gives a profile of two threats: Recreational Activities and Tourism Development for all ConPro projects, with more in-depth analysis for international projects. Generally, Recreational Activities is more commonly cited as a threat than Tourism Development.

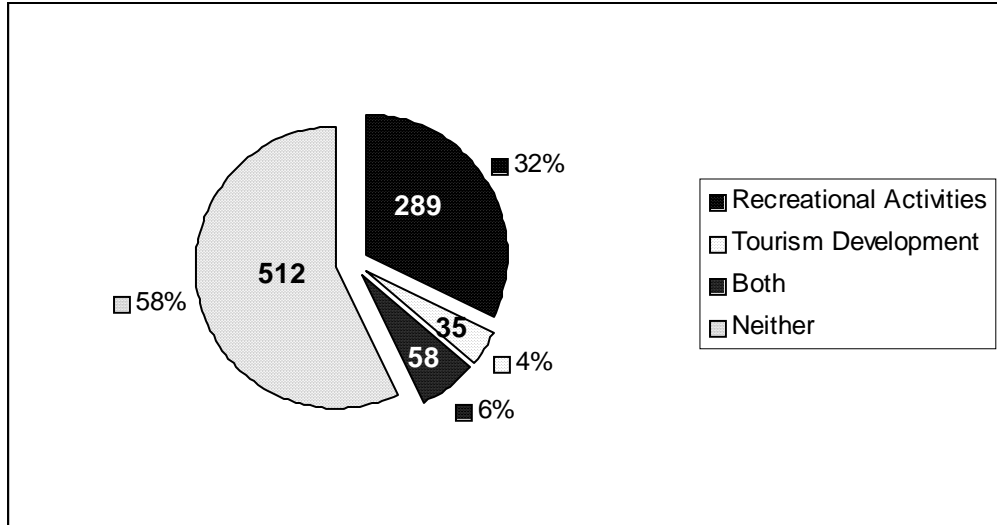


Figure 3: All Projects in ConPro by Threat

Of the 893 projects in ConPro, 42%, or 382, of the projects are threatened by Recreational Activities and/or Tourism Development. A significantly greater number of projects, 32%, or 289 projects, are threatened by Recreational Activities than Tourism Development, which threatens only 10%, or 93 projects.

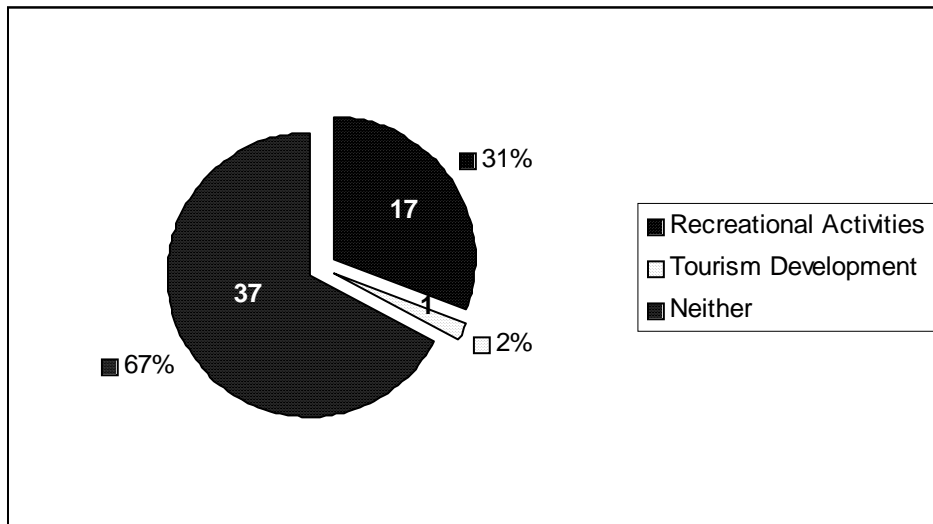


Figure 4: Projects in South America by Threat

33%, or 18, of the projects in South America cite Recreational Activities and/or Tourism Development as a threat. 67%, or 37, of the projects in South America cite neither.

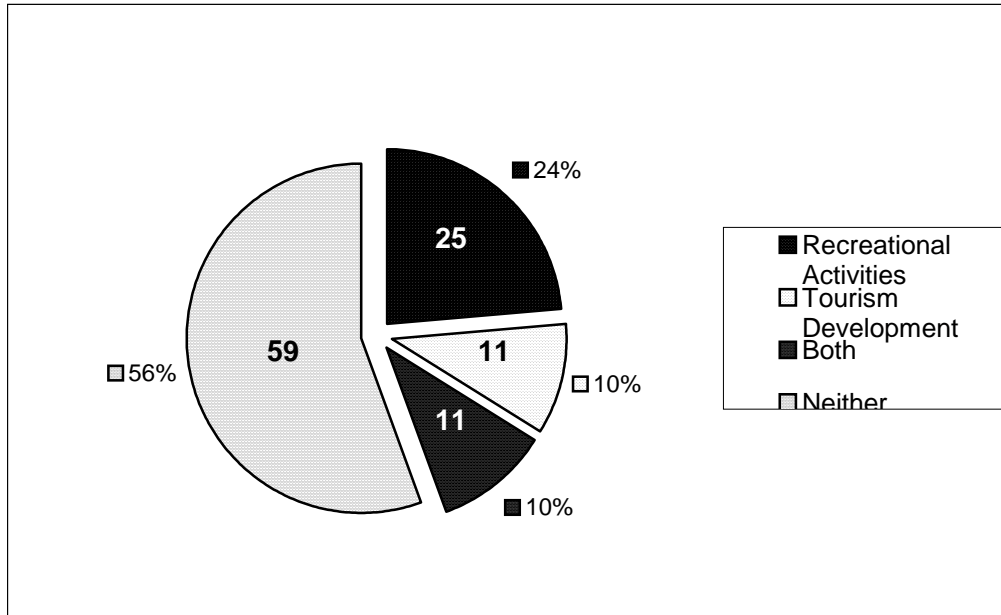


Figure 5: Projects in Mesoamerica & the Caribbean by Threat

Nearly 50%, or 47, of the projects in Mesoamerica and the Caribbean, mention one and/or both of the threats. 24%, or 25, of the projects are threatened by Recreational Activities only, 10%, or 11, of the projects by Tourism Development only, and another 10%, or 11, of the projects are threatened by both.

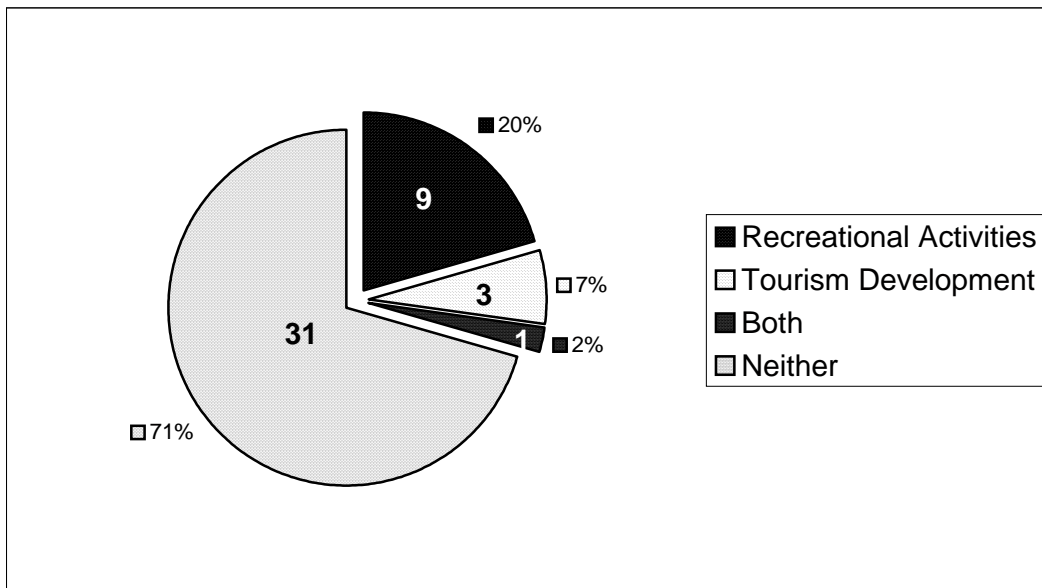


Figure 6: Projects in Asia Pacific by Threat

Recreational Activities and/or Tourism Development are cited as a threat in approximately 30%, or 13 of 44, of the projects in Asia Pacific. 20%, or 9, of the projects are threatened just by Recreational Activities, 7%, or 3, by Tourism Development, and 2%, or 1, by both.

C. Division of Projects in ConPro by Threat and/or Strategy

Tourism may be cited as a threat to or a strategy for a project. All projects in South America, Mesoamerica and the Caribbean, and Asia Pacific cite tourism as a threat. Less frequently they cite tourism as both a threat and a strategy.

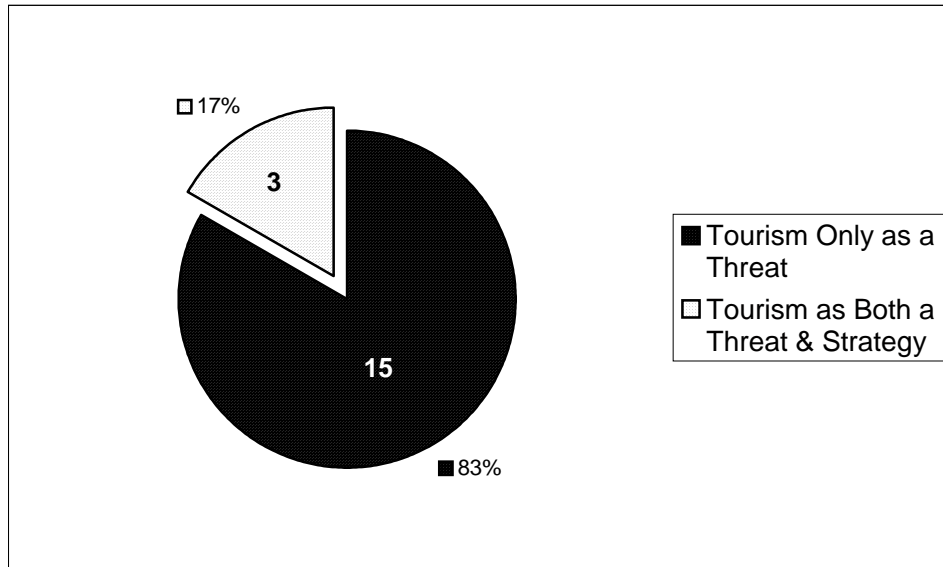


Figure 7: Projects in South America that Mention Tourism as a Threat and/or Strategy

Most of the projects in South America cite tourism only as a threat, however 17%, or 3, of the projects in South America cite tourism as both a threat and a strategy.

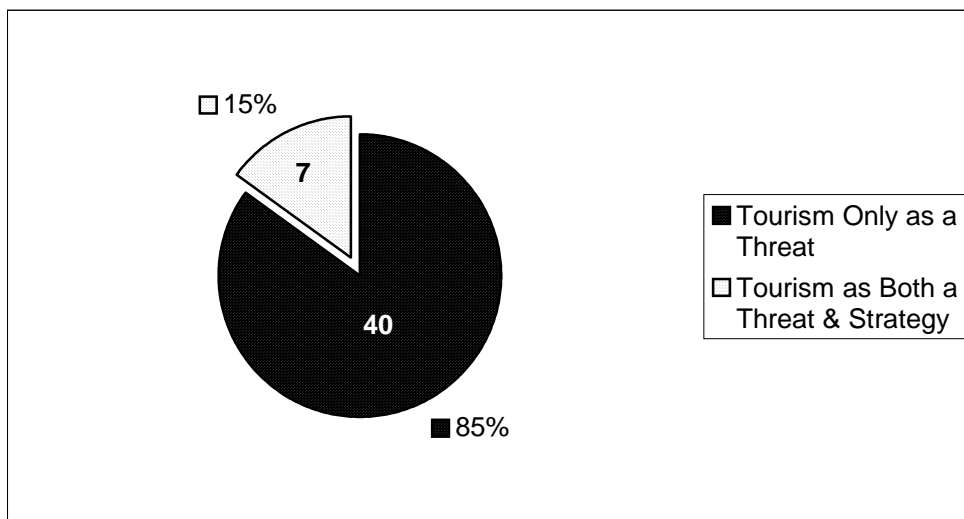


Figure 8: Projects in Mesoamerica & the Caribbean that Mention Tourism as a Threat and/or Strategy

Similar to the trend in South America, only 15%, or 7, of the projects in Mesoamerica and the Caribbean cite tourism as both a threat and a strategy while 85%, or 40, of the projects cite tourism only as a threat.

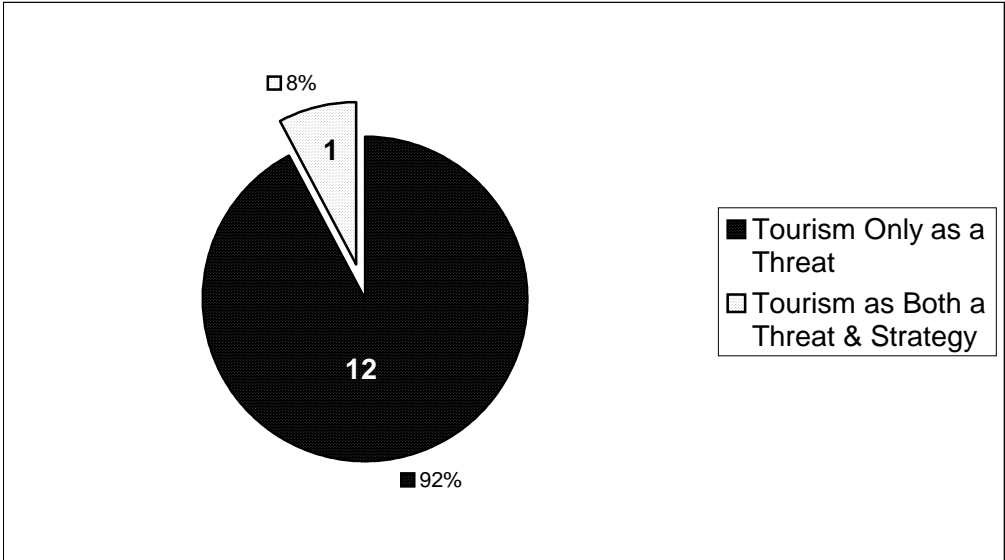


Figure 9: Projects in Asia Pacific that Mention Tourism as a Threat and/or Strategy

Even fewer projects in Asia Pacific cite tourism as both a threat and a strategy; 8%, or 1, of the projects cite tourism as both. 92%, or 12, of the projects cite tourism as a threat only.

D. Division of Projects in ConPro by Overall Threat Rank

In each of the three regions the overall threat rank of tourism is most frequently recorded as low, as opposed to medium, high, or very high, in the majority of projects.

Note: The number of threats in each region may be more than the total number of projects if a project cites tourism as a threat more than once. It may be less if a project has no threat rank data in its records.

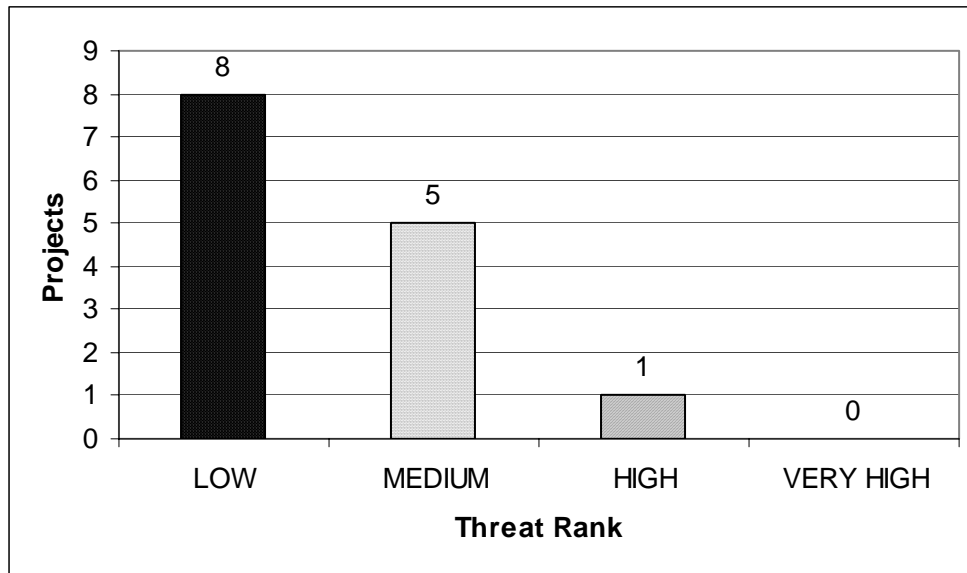


Figure 10: Overall Threat Rank of Projects in South America

In South America, the overall rank for 14 threats was studied because 4 of the 18 project records have no threat rank data. Nearly 60%, or 8, of the projects mention tourism as having a low overall threat rank to targets. Of the remaining 43%, or 6, 5 of the projects mention tourism as a medium threat rank and 1 cites tourism as a high threat rank.

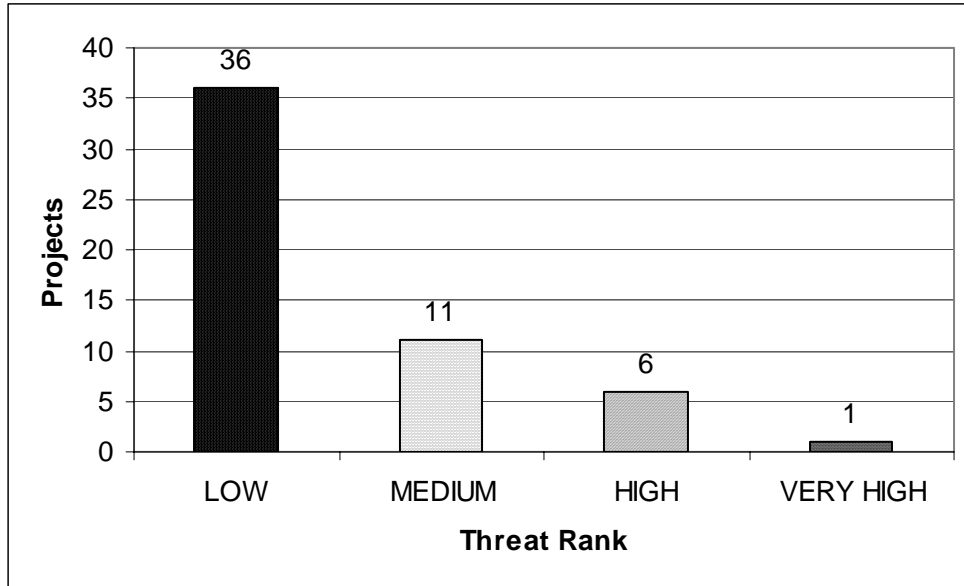


Figure 11: Overall Threat Rank of Projects in Mesoamerica & the Caribbean

In Mesoamerica and the Caribbean, the overall rank of 46 threats was studied. Of the 47 projects that cite tourism as a threat, 12 cited tourism as a threat more than one time and 8 had no threat rank data. 70%, or 32 projects, in Mesoamerica and the Caribbean record the overall threat rank of tourism to targets as low. Of the remaining 30%, or 14 projects, 7 cite tourism as a medium level threat, 6 as high, and 1 as very high.

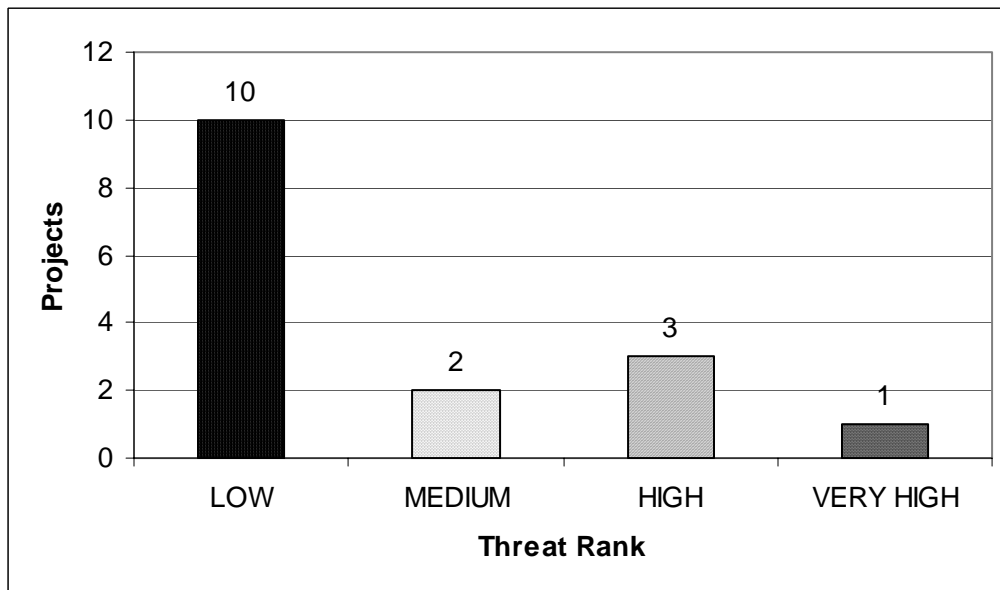


Figure 12: Overall Threat Rank of Projects in Asia Pacific

In Asia Pacific, the overall rank for 16 threats was studied. Of the 13 projects which cite tourism as a threat, 4 cite tourism as a threat more than one time and 1 has no threat rank data. 62%, or 10 projects, record tourism as a low threat level. Of the remaining 38%, 2 cite tourism's threat rank as medium, 3 as high, and 1 as very high.

III. Appendices

Appendix 1: Threat Taxonomy

Residential & Commercial Development: Tourism & Recreation Areas (referred to throughout the study as Tourism Development) and Human Intrusions & Disturbances: Recreational Activities (referred to throughout the study as Recreational Activities) are 2 of 41 threat classifications within ConPro. Their definitions show that tourism's impact is the main concern of the threat.

They are the first and sixth threats respectively in the Taxonomy of Threats list on pages 124-128 in the CAP Users Manual found on the CAP Resources website:

<http://conserveonline.org/workspaces/cbdgateway/cbdmain/cap/resources>

Residential & Commercial Development - Threats from human settlements or other non-agricultural land uses with a substantial footprint

Tourism & Recreation Areas - Tourism and recreation sites with a substantial footprint (ski areas, golf courses, resorts, cricket fields, county parks, afghan goat polo fields, campgrounds)

Human Intrusions & Disturbance - Threats from human activities that alter, destroy and disturb habitats and species associated with non-consumptive uses of biological resources

Recreational Activities - People spending time in nature or traveling in vehicles outside of established transport corridors, usually for recreational reasons (off-road vehicles, motorboats, motorcycles, jet-skis, snowmobiles, ultralight planes, dive boats, whale watching, mountain bikes, hikers, cross-country skiers, hanggliders, birdwatchers, scuba divers, pets brought into recreation areas, temporary campsites, caving, rock-climbing)

Appendix 2: Most Common Threats

Of the 41 threat categories in ConPro, Recreational Activities is the 8th most frequently cited threat, and Tourism Development is the 21st.

This chart can be found on the ConPro website at:

<http://18292.portal.tnc.org/conpro/reportThreatCount>

	Threat	Number of Projects Threatened
1	Invasive & Other Problematic Species & Genes :: Invasive Non-Native/Alien Species	520
2	Residential & Commercial Development :: Housing & Urban Areas	424
3	Natural System Modifications :: Dams & Water Management/Use	401
4	Natural System Modifications :: Fire & Fire Suppression	391
5	Transportation & Service Corridors :: Roads & Railroads	360
6	Agriculture & Aquaculture :: Annual & Perennial Non-Timber Crops	356
7	Biological Resource Use :: Logging & Wood Harvesting	347
8	Human Intrusions & Disturbance :: Recreational Activities	346
9	Agriculture & Aquaculture :: Livestock Farming & Ranching	293
10	Undefined :: Undefined	226
11	Pollution :: Household Sewage & Urban Waste Water	203
12	Biological Resource Use :: Hunting & Collecting Terrestrial Animals	177
13	Natural System Modifications :: Other Ecosystem Modifications	177
14	Energy Production & Mining :: Mining & Quarrying	176
15	Invasive & Other Problematic Species & Genes :: Problematic Native Species	152
16	Biological Resource Use :: Fishing & Harvesting Aquatic Resources	143
17	Residential & Commercial Development :: Commercial & Industrial Areas	117
18	Pollution :: Agricultural & Forestry Effluents	108
19	Climate Change & Severe Weather :: Habitat Shifting & Alteration	105
20	Pollution :: Industrial & Military Effluents	97
21	Residential & Commercial Development :: Tourism & Recreation Areas	94
22	Energy Production & Mining :: Oil & Gas Drilling	65
23	Biological Resource Use :: Gathering Terrestrial Plants	60
24	Pollution :: Air-Borne Pollutants	59
25	Transportation & Service Corridors :: Shipping Lanes	52
26	Pollution :: Garbage & Solid Waste	49
27	Transportation & Service Corridors :: Utility & Service Lines	33
28	Agriculture & Aquaculture :: Wood & Pulp Plantations	27
29	Human Intrusions & Disturbance :: Work & Other Activities	27

	Threat	Number of Projects Threatened
30	Agriculture & Aquaculture :: Marine & Freshwater Aquaculture	21
31	Human Intrusions & Disturbance :: War, Civil Unrest & Military Exercises	21
32	Climate Change & Severe Weather :: Storms & Flooding	18
33	Pollution :: Excess Energy	15
34	Energy Production & Mining :: Renewable Energy	14
35	Climate Change & Severe Weather :: Temperature Extremes	10
36	Invasive & Other Problematic Species & Genes :: Introduced Genetic Material	8
37	Climate Change & Severe Weather :: Droughts	4
38	Transportation & Service Corridors :: Flight Paths	4
39	Geological Events :: Earthquakes/Tsunamis	1
40	Geological Events :: Avalanches/Landslides	0
41	Geological Events :: Volcanoes	0