The Potential for Payments for Environmental Services in Clayoquot Sound: Pathways for First Nations Participation

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Executive Summary

Finding a sustainable balance between development and conservation in Clayoquot Sound, has proven elusive. Clayoquot Sound represents the traditional territories or *hahoulthee* of three First Nations, who rely on healthy ecosystems for economic, subsistence, cultural and spiritual activities. These First Nations have growing populations and own the largest logging rights in the region, the harvesting posing risk to tourism interests. Tourism has become economic mainline to Tofino, replacing fisheries and forestry, yet First Nations are strangely absent from this industry. Coordinating the objectives of different resource users, as well as the activities of the forest, fisheries and tourism industries, is undeveloped and there are no formal mechanisms to negotiate trade-offs between these sectors. This lack of coordination threatens sustainability in the region. One mechanism to help support trade-offs between conservation and development are payments for environmental services (PES). PES are direct payments or incentives for land managers (suppliers), to continue to supply environmental services to the users (buyers) of these services. The advantage of PES is they more closely align the incentives and outcomes of competing resource users.

This paper seeks to answer the following questions to further dialogue on PES (1) to understand and document any PES programs in Clayoquot Sound; (2) to assess the acceptability of PES among a broader group of stakeholders (industry, civil actors, NGOs and the general public); and (3) to explore the potential of PES for First Nations and describe what this involvement will look like. To answer these questions we conducted five focus groups and a discussion in March and April 2016. These groups consisted of representatives from business, First Nations, Tofino Mayor and Council, NGOs and individual tourists.

To answer the first question, the focus groups revealed that PES is occurring in Clayoquot Sound with First Nations, but these arrangements and activities are not formalised. The majority of these programs are based around 'Cultural Services' and are informal. The problem with these regimes being informal is that most ecosystem users simply opt-out from paying and free-ride, and the limited payments are insufficient to manage effectively. Advancing dialogue and understanding on PES can help legitimate these programs, and support a process of formalising and institutionalising these programs. PES was highlighted as a mechanism in focus groups to help resolve any trade-offs and align the incentives of competing resource users in Clayoquot. PES also has the potential to address distributive concerns among First Nations through financial and non-financial payoffs.

In answering the second question, the results highlight that PES is acceptable to most participants in focus groups. However, there are competing views, as PES may involve a re-distribution of property rights and jurisdiction for land use and land management, which is bound up in power struggles and political grievances. Some business operators view PES as creating additional costs which could threaten the competitiveness of the tourism economy, particularly if these costs do not lead to tangible benefits. But PES was also viewed as creating better management outcomes and establishing partnerships with First Nations, which is important given the changing political, social and legal landscape. PES is also gaining traction among First Nations who view it as a mechanism to obtain recognition as stewards of the landscape in ways consistent with their stewardship values, and it offers potential livelihoods outcomes and employment outcomes to members, which are important to these communities

who feel they are consistently missing out on the benefits from the economy and are being bullied on their constrained land-base.

The third question is around the potential for PES in Clayoquot and how First Nations can participate. The results highlight that contractual arrangements are emerging between businesses and First Nations organizations to generate aesthetic, educational and recreational outcomes through stewardship and management, and engagement with tourists. These programs may be expanded and achieve a scale where larger management interventions can be achieved, with broader outcomes to the population. There are some key institutional design questions that need to be addressed, for instance, legitimating PES so that is supported by ecosystem users, which can mitigate free-riding ensure adequate funding.

PES may require the formation of new forms of multi-stakeholder and First Nations governance. These groups may foster understanding and consensus among different actors through group deliberation. Group deliberation, like that in focus groups, can also provide an opportunity to re-affirm collective values and instill these in other stakeholders. Exploring institutional is important to the success of PES going forward and should be a priority for further research.

The Potential for Payments for Environmental Services in Clayoquot Sound: Pathways for First Nations Participation

1. Introduction

Finding a sustainable balance between development and conservation in Clayoquot Sound, British Columbia (BC) has proven elusive. On one hand Clayoquot Sound represents the traditional territories or *hahoulthee* of three First Nations, who rely on healthy ecosystems for subsistence, cultural and spiritual activities, and after a recent court decision, to commercially harvest fisheries and to rebuild their economies and governance. These First Nations also have growing populations and own the largest logging rights in the region, the harvesting of which runs headlong into tourism interests. Tourism has become the lifeblood of Tofino's economy, replacing fisheries and forestry, yet First Nations are strangely absent from this industry (see Table 1 for economic overview of the Clayoquot Region).

Table 1: Economic Overview of Clayoquot Region

Economic Summary 2009 and 2011	
Regional total income	$811.1 Million
Tourism Revenue	$300 Million
Percent of total jobs in Forest and fishing Industry	3.7%
Percent of total jobs in Recreation	3.8%
Percent of total jobs in Retail	7.0%
Percent of total jobs in Trades and Transport	13.7%

The surf, untamed beaches, whale watching, sport-fishing, hot springs and trails through old growth forests, draw tourists from around the world to Tofino. The quality of these activities and the individual's experience are dependent on healthy oceans, forests and fisheries. But, coordinating the activities of the forest, fisheries and tourism industries is undeveloped and there

are no formal mechanisms to negotiate trade-offs between these sectors, which threatens sustainability.

One mechanism to help support trade-offs between conservation and development are payments for environmental services (PES). PES are direct payments or incentives for land managers (suppliers), to continue to supply environmental services to the users (buyers) of these services (Wunder, 2005). These payoffs (both financial and non-financial) are conditional on the continued supply of the service to the buyer. The advantage of PES is they more closely align the incentives and outcomes of competing resource users than other instruments, such as regulation—suppliers are compensated for any losses in continuing to supply environmental services. There are three main types of PES that are regulatory and voluntary in nature. The first and the largest PES program globally is carbon, followed by water (the delivery of clean water and water-rights trading) and biodiversity (payments for the avoidance of habitat loss and compensation for biodiversity enhancement). An important outcome from PES is that it can potentially bring private capital in to address degradation, an important issue since governments (and in BC, forestry companies) have withdrawn their capacity to undertake interventions on the land-base because of austerity. Coinciding with this withdrawal by governments and firms, have been stronger assertions by First Nations to sovereignty and land rights, backed up by court decisions, that create a space for First Nations to manage their land base. But without secure tenure or finances, there are barriers for First Nations to manage their land-base, such as through PES type programs.

PES arrangements involving Indigenous communities have been shown to generate livelihood and socio-economic outcomes along with enhanced biodiversity. Examples from Australia show

that traditional ecological knowledge (TEK) can be applied to conservation programs, especially Indigenous fire management, with great success (Whitehead et al., 2008). Earlier work by Nikolakis et al. (2016) and Nikolakis and Nelson (2016) shows support among First Nations in Clayoquot Sound for involvement in conservation and restoration activities, valued more highly than involvement in tourism or industrial development. The aims of this research then is to (1) understand and document any PES programs in Clayoquot Sound; (2) assess the acceptability of PES among a broader group of stakeholders (industry, civil actors, NGOs and the general public); and (3) explore the potential of PES for First Nations and describe what this involvement will look like.

To accomplish the research aims, the researchers worked with the Gathering Voices Society (GVS), a charitable foundation focused on innovative land management approaches in BC, and the Maaqutusiis Hahoulthee Stewardship Society (MHSS), which is an organization that was established by the Ahousaht hereditary Chiefs, to gain access to the negotiation and communication processes occurring in the region.

2. Background

Clayoquot Sound

Clayoquot Sound, is a designated UNESCO Biosphere Reserve that has some of the largest remaining stands of old-growth temperate rainforest in the world (Hayter and Barnes, 2012). During the last half of the 20th Century, Clayoquot Sound was the scene of "one of the most heated and protracted environmental conflicts in Canadian history" (Lertzman and Vredenburg, 2005 p. 239) culminating in a truce of sorts in 1994 between government, First Nations and the forest sector. A Clayoquot Sound Scientific Panel (CSSP) was established, comprising members

from science and First Nation, and the panel offered recommendations for ecosystem based management in the region. The CSSP (1995) recognised three broad classes of values to guide planning and development in Clayoquot, including ecological services, like hydrological services and air quality; object based values, such as large trees and important species; and spiritual and cultural values. The CSSP also emphasised more integrated and holistic planning scales from watershed to forest and stand levels.

Table 2: Alberni-Clayoquot non First Nation and First Nation Population

Population from 2001- 2011			
	2001	**2006**	**2011**
Total Population	30,345	30,664	31,061
First Nations Population	4,905	4,490	5,120

The truce also resulted in a transfer of logging rights to local First Nations, which are an important economic driver for these communities. The CSSP provided for the protection of ecosystem, cultural and recreational values, and harvesting methods that went above and beyond forest regulations to preserve in-situ values. The effect of these requirements is that it imposed additional costs to logging. First Nations logging tenures also run headlong into recreational and tourism values, and now that tourism become the largest economic driver in the region there are explicit trade-offs with forestry and First Nations livelihoods. Tourism businesses are typically non-First Nations owned. There have also been pressure on the landscape from several large-scale mines proposed for the area, and in marine systems ocean cage fish farms remain controversial and the risk to wild salmon stocks is critical. There are considerable pressures on the landscape and important values to be protected and maintained, but there are few

coordinating mechanisms to integrate these activities and resolve competing trade-offs in ways that winners can clearly compensate the losers.

First Nations

There are three politically autonomous First Nations in Clayoquot Sound, Ahousaht, Tla-o-qui-aht and Hesquiaht. All three are members of the Nuu-Cha-Nuulth Tribal Council and Nuu-Cha-Nuulth language group. The three First Nations have not ceded their territories to the Crown and each are subject to the *Indian Act* which governs their reserve lands. These reserve lands are inalienable and held collectively by the First Nations. However, these reserve lands represent only a fraction of the lands over which the First Nations assert sovereignty over; the First Nations demonstrate a strong claim for collective Aboriginal rights and title in their territories, affirmed by the BC Court of Appeal in the Meares Island case.[1]

Evidence shows that the First Nations have been living in the Clayoquot region for millennia. The perspective of *Hishuk ish Tsawalk*, 'everything is one and all is interconnected', and *Iisaak*, 'a respect for all living things', are driving principles and values for the Nuu-cha-nuulth worldview (Atleo, 2007). Traditionally the First Nations were governed by a hereditary Chief system. A hereditary chief is called a *Ha'wiih.* Hereditary chiefs (plural *Ha'wilth*) were responsible for governing their *Hahoulthee* (ancestral territory and natural resources) and the members of their 'House' called *Muschim* (citizens). In effect the Ha'wiih were stewards of the *Hahoulthee* and the *Muschim* benefited under this rule and stewardship by accessing the *Hahoulthee* for food, water, fibre, materials and medicines (Masso, 2005). The hereditary chiefs

[1] *MacMillan Bloedel Ltd. v. Mullin; Martin v. R. in Right of B.C*. (1985) 61 B.C.L.R. 145 (B.C.C.A.).

still play a role, both formally and informally, in governance, though this co-existence can sometimes be uneasy. The influence of hereditary chiefs is particularly important on land management decisions.

The socio-economic context for First Nations in Clayoquot Sounds highlights under-employment and available data shows relatively low income and a youthful population (see Table 3). There has been a pattern of migration of First Nations people moving off-reserve in Clayoquot, like that reflected across much of BC, so that people can find better employment and education opportunities (Wilson and Peters, 2005).

Table 3: Socio-Economic Context for First Nations

	Ahousaht	**Tla-o-qui-aht**	**Hesquiaht**
Total Population 2016	2132	1118	725
On-Reserve Population 2016	725	377	121
On-Reserve Employment Rate 2011	49.5%	36.4%	54.5%
On-Reserve Unemployment Rate 2011	19.0%	n/a	28.6%
On-Reserve Average Individual Income	$20,583	n/a	n/a
Percent of On-Reserve Population over age of 15	67.3%	76.1%	80.40%
Percent of On-Reserve Population over age of 60	5.7%	6.50%	0%

3. Literature Review

PES are direct payments (both cash and in-kind) to land managers in exchange for the supply of important environmental services to the buyer. PES incentivises behaviour that is conditional on the performance of a service; the advantage of these arrangements is that they more closely align the incentives of competing resource users to achieve mutually agreeable outcomes. Wunder (2015) applies a five-part definition to PES: (1) they are voluntary transactions (2) between

service users (buyers) (3) and service providers (suppliers) (4) that are conditional on agreed rules of natural resource management (5) for generating offsite services.

PES have been viewed as a panacea, of sorts, for Indigenous Peoples and in Australia these have been quite successful in generating ecological and socio-economic outcomes (Muller, 2008; Hall 2008; Burgess et al. 2005; Garnett et al. 2009; Greiner and Stanley 2013; Whitehead 2012). This is because PES appear to fit well with the livelihood and socio-ecological values of Indigenous Peoples. Traditional ecological knowledge (TEK) and spatial location offer Indigenous Peoples a potential competitive advantage in providing services (Nikolakis and Nelson, 2016). PES has been adopted as an important objective and mechanism for IPs groups in parts of Canada (see Coast Opportunity Funds 2010), though their development is nascent and likely constrained by insecure tenure (Nikolakis and Nelson, 2016). However, as the land question is evolving after significant court decisions, the potential for PES has increased.

While PES appear to offer a good fit for First Nations, and recent work by Nikolakis et al., (2016) in Clayoquot shows support among First Nations individuals for conservation and restoration as a preferred land use option (compared to tourism and industrial development), there is little understanding on the practical implementation on PES and how these will be accepted and framed by the broader community in the region. Elsewhere, like choice experiments conducted by Spyce et al., (2012) in Yukon, demonstrates that there is little heterogeneity between the preferences for development and conservation among Aboriginal (n=67) and non-Aboriginal peoples (n=129), and that, in aggregate, a strong conservation scenario was ranked highest by both groups. However, there was significant variation in support for conservation attributes: so while employment was stable in respondent's rankings, the

conservation scenario was sensitive to change in rankings. There was also a higher preference for a strong development scenario than medium development meaning there were no social thresholds placed on development. But, all respondents placed a slightly negative discount rate on development, suggesting they favoured intergenerational equity, which has been identified as a signature value of IPs in previous research (Gregory and Trousdale, 2009).

In Australia, a series of choice surveys, involving both a mixture of face-to-face and mail out approaches, were conducted of individual Indigenous and non-Indigenous Australians, with a focus on the management of tropical rivers in northern Australia (Zander et al., 2010; Zander and Straton, 2010). In terms of managing north Australia's rivers, a conservation focused approach was preferred by most respondents: Indigenous respondents were indifferent to water extraction for irrigated agriculture while non-Indigenous Australians preferred moderate development to low or high development scenarios (Zander and Straton, 2010). In Zander and Garnett (2011), the authors sought to understand the general public's willingness to directly pay for IPs to engage in natural resources management (NRM) and they found that most respondents were willing to pay for this, primarily to enhance biodiversity, reduce carbon emissions and to manage feral animals. But paying IPs to engage in NRM for the social benefits was not a significant motivator for respondents (Zander and Garnett, 2011).

This last finding by Zander and Garnett (2011) mirrors broader concerns around convoluting development and ecological objectives, where social welfare objectives can put pressure on the achievement, and even erode, ecological outcomes (Ferraro 2001, Ferraro and Kiss 2002). Wunder (2015) cautions against putting all instruments that incentivise positive environmental outcomes under the banner of PES. Rather, he argues PES is a functional tool that generates

benefits for others (individual or collective) off-site (or downstream), and payments are conditional on performance. Other tools that are more project based and that generate on-site outcomes for payment (often by government) may be considered Integrated Conservation Development Projects (ICDPs), or Integrated Landscape Projects (ILPs). ICDPs and ILPs tend to be more short term projects that are focused on enhancing social welfare, environmental outcomes are secondary goals, and the outcomes may be on-site; hence the producers are also the beneficiaries. These projects are subject to political cycles and may be less stable. While PES arrangements are often regulated arrangements between parties that are largely distinct, or between private actors as a contractual arrangement.

There are also concerns that PES, through the commodification of ecosystem services, can be inconsistent with the motivation for providing these services, or counter to holistic perspectives of the environment (Gómez-Baggethun et al. 2010, Kosoy and Corbera 2010). Norgaard (2009) argues that effort to frame nature as a form of capital that can be managed to deliver services to users, may have the effect of simplifying land management, as well as underestimating the true costs of managing ecosystems sustainably. Norgaard reasons that ecosystems are far too complex to manage under the PES framework, driven by price signals, and efforts to integrate ecosystems into the economy are misguided. Hence, PES may undermine efforts to deepen our understanding and connection to ecosystems, and may ignore the utilization of traditional ecological knowledge (TEK) and Indigenous worldviews to manage land. Another concern is that the assignment of rights can marginalize vulnerable communities (Pagiola et al., 2005), and weaken their property rights (Engel and Palmer, 2008).

As there are competing perspectives around the use and acceptability of PES, it is important to understand how PES can be designed to meet the values and needs of participants. Part of this requires group deliberation, negotiation and coordination between potential users to identity what kinds of services can be provided and how; whom is eligible to participate; and the desired outcomes and payoffs from participation. The design of PES is fundamental to the success of these programs (Wunder, 2008), and these arrangements are typically nested within existing governance and tenure regimes. However, PES can transform how property rights are allocated and exercised; new forms of property can be established (think water and carbon); and certain behaviours and norms can be adopted or altered to support PES.

The Human Dimension to PES

The human dimension is fundamental to the success of PES. Wunder (2008) argues that PES can deliver modest welfare gains to vulnerable peoples whom exercise control over lands of strategic environmental value, but the following four points are determinative: (1) '*eligibility*', which relates to security of land tenure and property rights; (2) the '*desire*' to participate, including existing opportunity costs, trust, transaction costs and perceived risk; (3) an '*ability*' to participate, including skills, capacity and agency; and (4)'*competitiveness*', which centers on whether participants are efficient providers of ecosystem services. In theory those individuals (or collectives) that rank highly on these dimensions have greater access to participate in PES programs.

We understand that *eligibility* is an important barrier for Indigenous Peoples to participate in PES, commonly land tenure is informal, insecure, unrecognised or contested (Larson 2011,

Pagiola et al. 2008, Landell-Mills 2002), and this applies to Clayoquot. The *desire* to participate relates to the acceptability of PES to Indigenous Peoples, and whether there is a perceived justification to participate. We note that in Clayoquot there is a desire to participate, but without secure tenure the First Nations must work with government and non-state actors to facilitate access to PES programs, and hence the *ability* to participate and receive benefits (Ribot and Peluso, 2003). Participation is necessary for First Nations to be *competitive* in providing ecosystem services.

An important element to this study is understanding what different stakeholders and actors think about PES, which his additional to First Nations desire to participate. If First Nations are to participate in PES in the region they must negotiate access with different proponents such as tourism businesses. Markets are politicized institutions that entrench power dynamics (Friedland and Alford 1991, Granovetter 1985), and certain social groups, through their privileged positions, can establish market rules, and by regulating market access they can maintain power hierarchies (Fligstein 1996, Fligstein and Dauter 2007). Where PES is voluntary, if stakeholders do not see PES as necessary or legitimate then they will not participate. Muller (2008) observes that PES must be closely aligned to the values and priorities of participants for it to be successful—PES must be legitimate to participants. Legitimacy, or the acceptability of PES, is dynamic, and market-based instruments can be legitimated among participants and stakeholders if they deliver outcomes to participants. For example, in Australia, irrigators were first fearful of water markets (Syme et al. 1999), but this fear turned to acceptance as water trading became a useful tool for farmers to deal with scarcity (Wheeler et al. 2014). Hence, PES must deliver outcomes that are important and tangible to participants to be legitimate over time.

Method

To help advance understanding of PES in Clayoquot Sound and accomplish the research aims, five focus groups and a discussion were conducted with stakeholders and First Nations in Tofino and surrounding areas, such as Hot Springs Cove, during March and April 2016. The first focus group was held with Tofino Mayor and Council in chambers; second was with council members from Tla-o-qui-aht; third members of the Tofino Business Association; fourth with MHSS and Parks Canada representatives; fifth was a focus group conducted with hospitality and tour operators, and tourists at Hot Springs Cove; and finally there was discussion with leadership from Ahousaht and The Natures Conservancy. Written notes were made of the discussion during focus groups and a content analysis was made from these data. A report was then prepared from this analysis.

Participatory Action Research (PAR) design

This study was part of a process to facilitate discussion and the development of solutions to addressing conflict over competing land and resource use among diverse stakeholders. A PAR approach is particularly well suited to processes where the knowledge and insights generated through research provides tangible outcomes to communities, a criterion that has been viewed as a pre-condition for any research involving Indigenous communities (Smith, 1999). The PAR approach considers people as central to problem solving. Following this approach, knowledge is socially constructed and embedded within social systems, and it is within these social systems that knowledge takes meaning (McTaggart, 1991). Thus, knowledge is contextual and solutions to problems fit within cultural and social parameters. The value of the PAR approach in this context is that it provides a means by which marginalised and stigmatised populations can

become engaged in independent group decision-making, and it also allows diverse stakeholders to communicate and share their perspectives and worldviews, which can facilitate understanding and potentially consensus on issues that had previously been contentious (Wondolleck and Yaffee, 2000).

As documented by Mackenzie *et al.* (2012), communities and their members need to be active participants in identifying the research problem and mapping out a research agenda. Action research subjects should also define the parameters of the research inquiry and, together with the researchers, identify the most effective design to achieve the research aims. Mackenzie *et al*. (2012) identify that a PAR approach is most effective where there is: (1) a high degree of access to actors and the setting (negotiations); (2) a clear distinction between researchers and participants; (3) pre-existing trust between researchers and participants (bolstered by the collaborators and research partners); (4) a recognition of the sensitivities between 'insiders' (those involved in negotiation and consultation processes) and the 'outsiders' (researchers); and (5) a flexible research agenda to adapt to the dynamics of the engagement between the insiders.

In our study, we, as researchers, worked iteratively to test data in focus groups by presenting and holding our findings up to evaluation, and creating opportunity for communal reflection on our findings and judgements in a large forum. A key benefit of the collaborative nature of the PAR approach is that it empowers participants and values Indigenous knowledge systems as part of the research agenda, with the goal being the production of knowledge that benefits communities.

Smith (1997) sets out four principles for PAR research designs to support validity – all of which have been consciously followed in this study. First is triangulation, where the researchers

enhance the validity of results by combining theory and literature with local knowledge and researcher expertise to interpret results, and to develop actions to address the problems or challenges under examination. It is important to acknowledge the bias that exists in focus groups. Judgments and opinions on the allocation and distribution of rights vary according to the context, and whether the focus is universal or situational in nature (Syme *et al.,* 1999). Universal discussions on rights allocations are typically general and disinterested, while situational discussions (focused local setting) are self-interested and perspectives are adapted to be self-serving. The answers generated by PAR should be tested iteratively with the people it affects most, enhancing its legitimacy and validity. Second, researchers should place the participatory experience in its local context. Third, the research design should provide insightful descriptions of the study context and the social system. The fourth design principle is to reflect on the emergent knowledge and to reveal changes, both structural and personal, for people involved in the study, including the researchers. This research is not a single engagement, but is part of an ongoing conversation between the First Nations, NGOs, businesses and other civic-actors.

As part of our research protocol, during the focus groups a presentation was first conducted, and then questions were presented for discussion. Themes from the discussion were recorded by the researchers, whom acted as facilitators (and clearly demarcated as outsiders), and these themes were then also tested in subsequent focus groups for validity. Where there were commonalities and agreement, these were discussed, and areas of conflict or disagreement were also identified. These themes that were commonly discussed in all focus groups were seen to be validated, and these provide a framework for future negotiations and discussions on the implementation of PES in the region.

In summary, our PAR approach helped set the stage for further discussion among diverse actors in the region to achieve understanding. Importantly, we, as researchers, witnessed a transformative change in the relations between the Indigenous groups and the researchers. Barriers were broken down and trust forged through cooperation and through working towards relevant community objectives– an important goal of PAR (Fals-Borda, 2001).

4. Results

4.1. PES programs in Clayoquot Sound

The results show that PES is occurring in Clayoquot, though these arrangements are not described as PES. Table 3 presents the kinds of programs occurring, the contract type, whether these programs are functioning, and potential programs that are being discussed.

Table 3: PES Type and Contract: Existing and Potential in Clayoquot (program and contract type drawn from Waage et al., 2008).

Type of Program	***Contract Type***	***Existing in Clayoquot***	***Potential for Clayoquot***
Environmental Goods • Food • Fresh water • Fuel • Fiber	Contractual Contractual Informal	*Fish Stream Rehabilitation and Hatcheries-* *Eel Grass Restoration* *Voluntary rod fee-supporting hatcheries*	*Meares Island water and freshwater from other sources for Tofino*
Regulating Services • Climate regulation • Flood regulation • Disease regulation • Water purification	Contractual	*Siting of fish farms according to TEK*	*Carbon*

Cultural Services • Aesthetic • Spiritual • Educational • Recreational	Contractual	*CWR- Resource Guardian Program with Ahousaht*	*Hotel Tax to support Tribal Parks and Guardians Programs*
	Contractual	*Parks Canada and Tla-o-qui-aht Program for Tribal Parks Guardian Services*	*Threatened Species Protection and Wildlife viewing*
	Customary	*Wildside Trail*	*Traditional knowledge interpretation and performance.*
	Informal	*Meares Island Trail and Kayak Fee*	

The focus groups highlighted salmon stream rehabilitation programs that are occurring through voluntary arrangements with fish farm operators, forestry companies and foundation grants. These stream rehabilitation programs help remove debris and sediments from salmon spawning streams. There is also a voluntary fee on sports fisherman to support fish hatcheries. Tla-o-qui-aht are advocating for fee on preserving the Meares Island reservoir that supplies water to Tofino. Meares Island is an important area to Tla-o-qui-aht First Nation who have been stewards of the watershed, and because of mutual need, there is the potential to negotiate an ecosystem service arrangement based on respect and recognition.

Carbon has been explored and there are acknowledged concerns around whether set asides and retention zones by the First Nations logging company that are consistent with the CSSP standards, produce any additionality—for the company was going to do it anyway.

The bulk of activity in Clayoquot occurs in 'Cultural Services', these include a contractual arrangement between the Clayoquot Wilderness Resort to manage the landscape and provide education to tourists. There is also a trail provided and maintained by Ahousaht on Flores Island for tourists, which has a recreational and education component. Tla-o-qui-aht has an informal arrangement with tour companies to provide a fee to maintain the Big Tree trail, a boardwalk through massive old growth cedar forests on Meares Island, and charges a voluntary $4 fee on tourists arriving by kayak or tour boat.

There is also discussion on the First Nations being involved in the distribution of a mandatory hotel tax on tourists coming to Tofino. The funding is distributed primarily to market Tofino, but the First Nations are advocating that a portion of the monies be allocated to the First Nations to engage in land management, particularly in Tribal Park areas. First Nations are also interested in species at risk protection, through voluntary programs with foundations and companies interested in supporting threatened and at risk species such as the Marbled Murrelet, Steller Sea Lion and the Northern Goshawk.

4.2. Is PES acceptable to stakeholders?

There have been a series of engagements between the First Nations and the researchers. This provided background to the researchers in focus groups.

Focus Group One

- *PES needs to be legitimated by institutions like the Municipality through social learning processes that include all stakeholders*
- *PES can co-exist with forestry and fisheries and encourage more competitive tourism*

The first focus group session was with Municipality of Tofino's Mayor and Council in-chambers, there were also a gallery of interested citizens. The researchers presented background on PES and the local context in Clayoquot from the researchers' observations. The first key question emerging from Mayor and Council was the role of the Municipality in furthering PES, as the Council has no jurisdiction to regulate PES. Councillors emphasised the Municipality simply collects taxes and spends monies on infrastructure within Tofino—beyond this role and the municipalities defined boundaries there is no jurisdiction. First Nations representatives discussed the importance of wanting space to engage as government to government with the Municipality; that there is also a blurring of jurisdiction outside of Tofino where tourism is 'free-riding' and Tofino generates its wealth. The role of the Province is identified as the most salient to PES, though the Province has been retreating because of austerity but it holds power for land management and taxation. The councillors and the researchers then discussed that the Municipality could consider PES as a tool to be discussed in addressing problems, there is a power to legitimate these tools in visioning and planning processes. Council asked for some case studies of what is happening locally and elsewhere with PES, particularly around water. It was affirmed that the old model does not work, and it is still the paradigm. A councillor emphasised the importance of seeing nature as a balance sheet, and to place an appropriate value on ecosystem services, recognising these assets require investment to maintain their productivity. This approach is particularly useful at a watershed scale.

The second key question raised in the focus group was around how PES will impact fisheries and forestry. It was discussed that PES is not an exclusive practice, and there can be synergies with these activities. In fact, PES could encourage firms to directly internalise their costs in the area,

rather than directing those monies to the province, who would then undertake management activities. As the province has retreated from managing the land base because of austerity, PES could be a tool to ensure Tofino remains sustainable, which is important to the competitiveness of tourism. PES can also offer better decision making by providing the full range of opportunity costs.

From this focus group it was recommended that: (1) a process be put in place to build public awareness on PES through case studies; (2) more consideration be given to jurisdictional boundaries which are confused in Tofino; (3) more focus be provided on exploring opportunities, including water rights on Meares Island (which is a District issue); and how First Nations can fit with the Hospitality Tax and 5-year plan (Provincial jurisdiction).

Focus Group Two

- *PES can foster equity and reduce free-rider problem*
- *Important to ensure services are not under-priced or avoided to promote success*

There was discussion with members of the Tla-o-qui-aht First Nation. Their main concern was around feeling "bullied in their own territories" and not receiving a fair share of the economy. The representatives argued that the work of Tla-o-qui-aht goes unrecognised for enhancing salmon fisheries and protecting watersheds—these investments in natural capital "are for our grandchildren so they can have an economy", however, tourism is free riding and not paying its way. Tla-o-qui-aht want to have its members on the land, managing according to Tla-o-qui-aht values and enforcing Tla-o-qui-aht laws.

While Tla-o-qui-aht is engaged in some voluntary PES style arrangements, one particular this arrangement delivers only a fraction of what is required for up-keep, to the Meares Island trail,

and the people paying complain the fee is not leading to better service, which is undermining the program.

One representative feels frustrated for trying to further PES in Tofino, because he has been criticised for seeking to impose a tax on small businesses. While another representative suggested that people will realise that the only way ecosystems will remain healthy in Tofino is when people realise they have to pay directly for maintaining them. There is also a legal decision in abeyance that provides leverage to Tla-o-qui-aht in negotiations over Meares Island, which can resolve the confusion over tenure and property rights.

The representatives acknowledged that 2016 is the 30th anniversary for the Hahoulkman Tribal Park., however, the guardian program has no funding, which are the 'eyes of our chiefs' on the land, and the discussion on PES in Tofino has moved painstakingly slow. Tla-o-qui-aht are advocating for a share of the hotel tax to be distributed among the First Nations in Clayoquot to act as stewards on the land-base. While Tla-o-qui-aht want economic development, there are certain things more important than money, like healthy salmon stocks. Tla-o-qui-aht carvers say it is harder to find old cedars to carve out canoes. The First Nations logging businesses are moving towards less-industrial practices. The recent discussion on a conservation package is viewed as important to the sustainability of Tofino and ensuring a holistic approach is essential. A representative suggested there has been too much focus on terrestrial programs in planning, which is important, particularly for species at risk like the Marbled Murrelet, the Red Legged Frog and the Spotted Owl. But fish farms are an issue to the health of wild salmon stocks, and exposes the recently awarded (and unique) First Nations commercial fishery to risk. Another

important step going forward is to resolve border disputes between the different First Nations to encourage more cooperative behaviour.

Focus Group Three

- *TEK is important to guide planning and management, but it must offer direct and practical outcomes.*
- *Protected areas need to integrate livelihood goals and TEK of First Nations to be acceptable—PES is one option to address this.*

The third focus group involved representatives of MHSS and an employee from Parks Canada. The MHSS representative emphasised the importance of TEK in planning; in his experience with the Wya Point Elders Advisory Council, showed that TEK was helpful to design the resort for the protection of cultural heritage and infrastructure, and was used to help market resort. However, the MHSS representative underscored that to use TEK to generate ecosystem services there must be a practical element, otherwise it will be seen as burdensome.

There was discussion around development plans in protected areas, in particular the $20 million planned to be spent on trails in Pacific Rim National Park. These programs could offer an opportunity for First Nations to get involved with building and designing the trail. It was agreed that there are capacity barriers on the side of First Nations, and legislative constraints for Parks Canada to fully harness these opportunities. An important first step could be through meaningful engagement and consensus building among the parties, and to explore PES opportunities. Yet, there is a reluctance on both sides to engage, from the perspective of First Nations they do not want to cede any authority to Parks, while Parks does not have a mandate to generate development opportunities for First Nations.

Focus Group Four

- *There was support for PES, but small business owners wanted to see a direct benefit from PES.*
- *The use of PES may keep Tofino competitive and coordinate different activities occurring in Clayoquot Sound.*
- *Lack of communication between First Nation and the business community.*

The fourth focus group was conducted with members of the Tofino Business Association (TBA). One of the TBA members represents a larger multi-national company who has invested in protocol agreements with First Nations to enhance salmon habitat. The representative lamented that despite hundreds of thousands spent on rehabilitating a particular watershed, there has been little progress on address in-stream impacts from previous logging practices. The representative's interest was around how to institutionalise PES so that "you can get the scale needed to address the degradation?" The representative's second question was around "where do you get money from to support PES?" The representative noted that his company has the resources and capacity to put money towards relationships with First Nations and restoring landscapes.

Another representative from a tour boat company described how they charge consumers additional fees to preserve ecosystems: "a 1% fish fee for salmon enhancement, and a 3% carbon fee, distributed locally and overseas." The tour boat representative wanted more opportunities to invest the monies from these fees locally, so they can see the benefits, however, there are no opportunities to do so. The tour boat representative stated: "We all rely on ecosystems for our livelihoods, but we have gotten used to the seascape or mountain scape being there, and to take a leap to having someone managing it, it's something new, what does it mean, how do you flesh this out?" The tour boat representative also noted that they have been supporting a voluntary PES program, for trail maintenance on Meares Island as well as a 1% rod fee for sports-fishermen that

is redirected into supporting salmon enhancement. However, the representative noted that for the Meares Island trail that up-keep has been insufficient; they understood that the fee is voluntary and income is insufficient, but the representative noted it is difficult to justify paying the fee when the trail is run-down and not everyone is paying for it. They reflected: "It's a flawed business model. Let's avoid that situation in future [with PES], do the numbers and have a front person to deal with to make it work. In a small community if it doesn't work we won't try it again."

The tour boat representative also noted that it has been difficult to establish relations with First Nations. A First Nations representative present at the focus group replied that local First Nations are now developing capacity to engage in these business opportunities, and it was agreed that things have improved and there is better communication, but there is still room for improvement. It was agreed by participants that PES appears to bridge the values of First Nations with the needs of local businesses, a business representative stated "I think it's a good thing for my business, other businesses may not see the link, but for mine I see the link directly." The representative then suggested there is risk to how PES will be perceived by local businesses, it could be seen as a tax, as well there are practical challenges, "there will be a clash between First Nations wanting recognition for their traditional territory with the needs of business", such as getting tourists into areas to explore. A business representative acknowledged that areas need to be managed and maintained, for there is now a gap, for instance, who is looking after salmon? The Federal Government hatchery is chronically under-funded, if PES establishes clear responsibilities around who is protecting and enhancing salmon, and bringing extra dollars in to

manage salmon, then it is a good thing. Representatives agreed. The design of PES is critical, with clear responsibilities, outcomes and accountability being fundamental.

A representative observed that the political and social landscape is changing, with the *Tsilhqot'in* decision that is more expansive on Aboriginal rights and title, "it could be that Nations say, no this [areas] is ours? So we need to stay ahead of the curve and do it voluntarily." Representatives agreed that building relationships with First Nations is important, it needs to be an ongoing engagement of equals at the table.

Focus Group Five

- *Protected areas seen as a commons. Must change people's behaviour and show outcomes so people understand why they are paying.*
- *Costs/fees must be appropriate. Must keep Tofino competitive for tourism as it is a difficult and costly place to get to for foreign tourists.*

The fifth focus group was held at Hot Springs Cove with tourism guides, accommodation owners and tourists. A local tourist described that he did not believe the $4 paid to BC Parks to enter the Hot Springs was fair: "The boardwalk and amenities aren't great, and there is only a caretaker here for the busy periods so the garbage can be an issue. I don't see where the money goes?" Some of the tour operators and accommodation owners agreed that upkeep was not sufficient. They also agreed the area is busy with tourists in summer, and as the spring's area is small it can get crowded. There is concern that without a fee and regulation the area could be degraded, one tour boat operator suggest that: "the number of people that can come here should be limited and the fee increased, otherwise this place will be wrecked." An accommodation owner added: "These tourists that crowd in here in the hot springs they aren't going to come back—it's too crowded. I understand that tourism is the life blood of Tofino, but you have to think long term.

This place gets overrun." While a tour and fishing operator acknowledged that: "If we keep adding costs here and there, and the infrastructure is not improved then tourists will go elsewhere."

A local tourist did not agree that Canadian tourists should pay to use the hot springs, they argued that: "the tourism operators they don't pay anything and they are making lots of money each boat, they can bring 16 odd people out here at $120 bucks a pop." There was recognition that tour companies should take responsibility to clean areas up, particularly where they are bringing tourists into an area that is fragile. The group discussed how tourism is fairly unregulated in the area, there are no discrete tourism tenures, and that a lack of red-tape has allowed entrepreneurs to develop new businesses. One tour boat operator reflected that things are likely to change as First Nations assert their land rights, and the logging businesses owned by First Nations may impact tourism, as he talked he pointed to recent logging above Hesquiaht, and an accommodation owner described "it is ugly up on that saddle, they're not meant to be logging like that, and in a spot that's meant to be pristine, it's just not very strategic." Another tour boat owner reflected: "You know people live in the same area but we don't communicate." The importance of keeping Tofino pristine was emphasised by the group, clear-cuts and reduced salmon numbers could impact the Tofino brand, it was seen as important to coordinate activity to be strategic.

Discussion between The Nature Conservancy (TNC) and Ahousaht

Ahousaht leadership discussed they are exploring all options to develop the capacity of the First Nation and to participate meaningfully in lands management. The role of land and waters stewardship is central to Ahousaht and outlined in the Ahousaht Hawiih Declaration (available

here: <http://ahousaht.ca///Resources_files/AFN%20Declaration_V5_18062012%20.pdf>). This stewardship role is being recognized and supported by TNC who are helping to develop an Ahousaht land use vision. This land use vision will support Ahousaht in developing capacity to manage lands and resources, and to meaningfully engage with external stakeholders to operationalise this vision. TNC brings an international perspective to help the Ahousaht understand the importance of First Nations participation in lands and resources management, and provides the capacity for Ahousaht to gather the necessary traditional knowledge to implement land and resources strategies that are rooted in traditional knowledge.

5. Discussion and Conclusions

This paper seeks to answer the following questions (1) to understand and document any PES programs in Clayoquot Sound; (2) to assess the acceptability of PES among a broader group of stakeholders (industry, civil actors, NGOs and the general public); and (3) to explore the potential of PES for First Nations and describe what this involvement will look like.

To answer the first question, the focus groups revealed that PES is occurring in Clayoquot Sound with First Nations, but these arrangements and activities are not formalised. The majority of these programs are based around 'Cultural Services' and are informal. The problem with these regimes being informal is that most ecosystem users simply opt-out from paying and free-ride, and the limited payments are insufficient to manage effectively—case in point is the example of the Big Tree Trail. Advancing dialogue and understanding on PES can help legitimate these programs, and by bringing the diverse activities occurring under the umbrella of PES can help to organize, formalize, legitimate and then institutionalise PES. Strengthening PES through the

development of policies and institutions to support these activities can ensure the success of such programs. Social and political learning processes are crucial to legitimating PES, but PES can also be legitimated through the achievement of outcomes for participants. As PES develops there is always a risk that PES will be undermined because the service provider does not fulfill their responsibilities, or ecosystem users choose to opt out of these voluntary arrangements and free-ride. However, PES is highlighted as a mechanism that can help resolve the trade-offs and align the incentives of competing resource users in Clayoquot, and it also has the potential to address distributive concerns among First Nations through financial and non-financial payoffs.

In answering the second question, the results highlight that PES is acceptable to most participants in focus groups. However, there are competing views, as PES may involve a re-distribution of property rights and jurisdiction for land use and land management, which is bound up in power struggles and political grievances (Nikolakis et al., 2013; Nikolakis and Grafton, 2015; Nikolakis and Nelson, 2015). Some business operators view PES as creating additional costs which could threaten the competitiveness of the tourism economy, particularly if these costs do not lead to tangible benefits. But PES was also viewed as creating better management outcomes and establishing partnerships with First Nations, which is important given the changing political, social and legal landscape. PES is also gaining traction among First Nations who view it as a mechanism to obtain recognition as stewards of the landscape in ways consistent with their stewardship values, and it offers potential livelihoods outcomes and employment outcomes to members, which are important to these communities who feel they are consistently missing out on the benefits from the economy and are being bullied on their constrained land-base.

Table 4 identifies key themes around the acceptability of PES, the key risks among First Nations are around politicising PES, which could undermine the legitimacy of such programs. While for non-First Nations the key issues are around confused jurisdiction and increased costs. First Nations are wanting greater control and coordination of activities on their land base, as well as greater equity. There was shared agreement that PES could foster communication and partnerships between First Nations and non-First Nations, something that is not done in any systematic way in the region. PES can act as a mechanism to foster collaboration and exchange, based on respect for First Nations jurisdiction and stewardship. PES can also directly address externalities from industry and tourism through targeted payments, which can enhance sustainability in the region, particularly as the role of the province has been reduced and created a land management- vacuum in the region. Previous research by Syme *et al*. (1999) documents that in discussing new allocations of property rights for water, that self-interest was tempered by pro-social motivations. A pro-social motivation is an individual's voluntary behaviour that benefits other individuals or society as a whole. We observed a similar effect in focus groups, where participants focused on public good derived from PES, carefully balancing this against their own self-interest (defined in terms of costs).

Table 4: Themes on Risk and Concerns, and Opportunities and Priorities

	Priorities Addressed	**Opportunities**
First Nations	Protecting Rights and Title Economic future and Employment Values	Recognition Livelihoods Equity Stewardship and TEK
Non-First Nations	Supporting Economy and Community Sustainability Address Reconciliation and Injustice	Money for Interventions Reconciliation Social License with First Nations

	Risks	Concerns
First Nations	Politicised/Short-Term Program Conflict Distribution - Missing Out	Control Symbolic and Non-Substantive
Non-First Nations	Jurisdiction Increased costs on tourism	Increased Taxation Impact on Tourism, fish farms and forestry.

The third question is around the potential for PES in Clayoquot and how First Nations could participate in these programs. The results highlight that contractual arrangements are emerging between businesses and First Nations to generate aesthetic, educational and recreational outcomes through stewardship and management, and engagement with tourists. These programs may be expanded and achieve a scale where larger management interventions can be achieved, with broader outcomes to the population. There are some key institutional design questions that need to be addressed, for instance, legitimating PES so that it is not seen as simply optional to purchase services, which can mitigate free-riding ensure funding is adequate to meet the obligations under PES arrangements to maintain particular ecosystem services. It is also important to address political barriers such as border disputes between First Nations, which can foster better coordination between different actors.

There are also questions around how PES should be operationalised—is it Band Council's that will manage PES schemes directly with industry, or will new forms of polycentric governance be formed to create integrated partnerships between First Nations, firms, NGOs and government. These new forms of multi-stakeholder and First Nations governance can be particularly effective

in fostering understanding and consensus through group deliberation. Group deliberation, like that in focus groups, can also provide an opportunity to re-affirm collective values and instill these in other stakeholders, like in this context 'Hishuk ish Tsawalk' which means 'everything is connected' (see Nikolakis et al., 2016 for more on this topic). Values like 'Tsawalk' offer a means of social control: by guiding land use decisions and encouraging sustainable use of collective resources, as well as offering a basis for evaluating decisions and outcomes. Exploring institutional design and different options is important, and this may be through in-depth action research as these programs are institutionalised and developed in the region.

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