Local inclusiveness in National Parks: 
a case study of Udawalawe National Park, Sri Lanka

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Abstract
National Parks have been used over the years as a model of preserving and conserving plants and animal. Governments also use it as a tool of rural poverty elimination. Although National Parks were located in living and working environment of the locals, surrounding communities are not allowed to gain substantial benefits. This will lead into unsustainable practices including over extraction and illegal use of natural assets. In the above context, this paper examines the role of National Parks in ensuring sustainability and the factors of local inclusiveness using a case study of Udawalawe National park. A value chain based methodology was employed to estimate the local share of the park including a sample of 41 accommodation establishments, 93 tourists, 06 park rangers, 10 three wheel drivers, 10 safari jeep riders, 02 tour operators, and 05 charter bus operators. Results indicate the influence of inclusiveness factors such as human capital, social capital, level of complementarity between tourism and local livelihoods, location, absence of endogenous growth policies, financial capital, gender and tourist type (packaged, non-packaged and local) on limiting local participation and share in park value chain. However land
tenure does not show big influence of Udawalawa National park, though discussed in literature.

**Key Words:** National Parks, Local Economic Development, value chain, Community perceptions, Conservation

**Introduction**

At present Sri Lanka has declared 26 national parks covering 7443.76 sq.km of land area of the country (Department of wildlife conservation, 2015). Similar to ‘western’ countries, the main objective of introducing National Parks in Sri Lanka was to ensure the maximum protection of wildlife & habitats (Ibid). The Department of Wildlife Conservation under the administration of the Central Government manages all these parks. Therefore, all the revenue collected from issuing entry tickets for visitors to renting park bungalows and vehicles transferred to treasury. Although the revenue from the park accounts around Rs. 1.6 billion per annum (Sri Lanka Tourism Development Authority, 2016), there is no any mechanism of revenue-sharing with the local people notwithstanding indirect benefits like local infrastructure development.

Despite the government’s objective of rural poverty elimination through tourism development, local people around the parks bear many costs and risks. For instance, National Parks, strict natural reserves, nature reserves, sanctuaries, and jungle corridors predominantly locate in rural areas utilize around 19.1% of land area (Department of wildlife conservation, 2015) which have limited the land for agriculture, irrigation, housing and other development activities of rural people. At the same time, depredations on crops and livestock by animals, inflation, disruptions to social networks and local culture, external investment pressure create costs and risks to the local economy(Wang, Lassoie, & Curtis, 2006).
Figure 1: Total revenue of National Parks – 2015

Source: SLTDA, 2016

The tourism supply chains around National Parks include many actors like park management (Department of Wildlife Conservation), accommodation providers (guest houses, hotels, villas, etc), food outlets (restaurants, cafes, etc), tour operators, guides, transportation providers (jeep riders, three wheelers, hired vehicles, etc), and shops (souvenir shops, supermarkets, etc). However, the key question is how much share that the local people gain from all these operations around National Parks?
Method and Case study
Method of this research is structured around a literature review, a qualitative exploratory study and a value chain analysis. First, the dual role of National Parks was conceptualized with a literature review on concepts of local inclusiveness, natural asset conservation and socio-economic sustainability. Second, the Udawalawe National Park and its supply chains were used as the case study to measure the local share and to explore factors effecting local inclusiveness. In order to explore the effect of different factor on local inclusiveness, different purposive samples were selected from the case study area (Table 1). For the value chain study, local visitor and foreign visitor value chains were studied with a proportionate sample based on population size of each value chain segment.

The case study, Udawalawe National Park is positioned within the top three highest visitor attractions and revenue compared to all 26 National Parks in Sri Lanka (Sri Lanka Tourism Development Authority, 2016).

Table 1: correlation between land ownership and Accommodation type

<table>
<thead>
<tr>
<th>Survey Instrument</th>
<th>Analysis</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Questionnaire Survey</td>
<td>Human Capital and Land tenure influence on local inclusiveness</td>
<td>41 of accommodation establishments</td>
</tr>
<tr>
<td>-Secondary data Sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Photographic Survey</td>
<td></td>
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<tr>
<td>-Audio recordings</td>
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<tr>
<td>-Observations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>93 tourists</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41 accommodation establishment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 Three wheel drivers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 Safari jeef drivers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Park Rangers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 tour guides</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 local shops</td>
</tr>
</tbody>
</table>
### Impact of social capital and gender on local inclusiveness

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel owners</td>
<td>4</td>
</tr>
<tr>
<td>Guesthouse owners</td>
<td>10</td>
</tr>
<tr>
<td>Homestay owners</td>
<td>6</td>
</tr>
<tr>
<td>Safari jeeps</td>
<td>10</td>
</tr>
<tr>
<td>Park rangers</td>
<td>6</td>
</tr>
<tr>
<td>Chain hotel</td>
<td>2</td>
</tr>
<tr>
<td>Three wheel drivers</td>
<td>10</td>
</tr>
<tr>
<td>Tour operator representors</td>
<td>2</td>
</tr>
</tbody>
</table>

Importantly, this Park is surrounded by rural settlement which justifies the case study. Park lies on 308.21 km$^2$ of land area which was a chena cultivation earlier converted to a park in 1972 (Department of wildlife conservation, 2015).

**Figure 2: Case study area**

Source: Department of Wildlife Conservation
Literature Review

Natural assets conservation and local people
Natural resource economists treat National Parks as a form of capital asset that produce flow of beneficial goods and services over time (Barbier, 2009). These benefits include tourism income, biodiversity protection, development of rural infrastructure, diversification of local economies, etc (Ashley et al., 2000). However if the conservation does not provide economic justification for locals, they will accelerate the depletion of natural capital stocks (Wackernagel & Rees, 1997). This has evident in many developing countries including Sri Lanka. Activities such as illegal constructions, cutting into the forest for agricultural purpose, animal hunting and fishing, livestock grazing, over exploitation, and cultivations are examples of such depletion in Sri Lankan National Parks. In this context, figure 3 below indicates the importance of local inclusiveness which was based on ten (10) most relevant journal articles on natural assets conservation in National Parks published between 2009 to 2017 (Barbier, 2009; Clark & Clarke, 2011; Ezebilo & Mattsson, 2010; Mayer, 2014; Mayer et al., 2010; Palomo et al., 2013; Ramkissoon et al., 2012; Zhou & Edward Grumbine, 2011). Figure summarises the most frequent words in the articles considered in the analysis and locals (19%), tourism (17%) and local development (14%) were with the highest frequencies.

Inclusive development
The roots of the “Inclusive Development” can be found in varied disciplines such as Anthropology, Sociology, Law, Engineering and etc. The term was popular in the 21st century due to its usage in scholarly literature (Google, 2013) and policy documents (UNDP, 2017).
Its multidisciplinary background has given this term varying definitions, where the common belief is that it holistically addresses the development combining economic growth with social aspects. “Development” brings into play dimensions of well-being beyond simply income, while “inclusive” focuses attention on the distribution of wellbeing in society (Rauniyar & Kanbur, 2010). Gupta and others (2015) in their studies assert the inclusive development as development that includes marginalized people, sectors and countries in social, political and economic processes for increased human well-being, social and environmental sustainability, and empowerment. Nicky Pouw and Joyeeta Gupta (2017) discussed the inclusive development in the perspective of four contested terms where they argue that it addresses the social, ecological and relational inclusiveness.
In the above context, this paper argues on the need of more inclusive development of the National Parks specially the locals. Though these National Parks share certain benefits, its disparity in distributing these benefits for the surrounding communities is an evident fact. The root cause lies in the lack of proper mechanism for the National Park development. Hence, the conceptual framework illustrated in Figure 4 can be adapted in developing a detail mechanism for the sustainable National Park development.

However, local inclusiveness in development around National Parks majorly depends on whether and how locals can participate economically in the park supply chain and tourism. At the same time
non-economic impacts such as attitudes, perceptions, culture, and social impacts of tourism must also be considered. A wide range of factors ranging from the local to the policy environment and commercial context under the above identified key concepts were considered as follows for the main analysis.

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Table 2: Link between conceptual framework and inclusiveness factors

<table>
<thead>
<tr>
<th>Concept</th>
<th>Factors</th>
</tr>
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<tbody>
<tr>
<td>Local Community Empowerment</td>
<td>Human capital, financial capital, social capital, and gender</td>
</tr>
<tr>
<td>Benefit for current and future generation</td>
<td>Livelihood strategies, location and assets</td>
</tr>
<tr>
<td>Economic Equity</td>
<td>Market segments, supply chains, value chain, and land tenure</td>
</tr>
<tr>
<td>Environment Conservation</td>
<td>Land tenure (assets ownership), Regulations and Bureaucracy,</td>
</tr>
</tbody>
</table>

Local Inclusiveness of Udawalawe National Park

The Level of local inclusiveness of Udawalawe National Park is discussed below using the factors identified above through the literature.
In terms of human capital, particularly important skills in tourism include language, entrepreneurship and an understanding of tourist expectations. The proficiency in multiple foreign languages is a basic requirement for successful communication in tourism (Bo, 2013). The impact of human capital on local participation in tourism supply chain was studied by examining the language skill levels of different accommodation facility managers around Udawalawe National Park. Sample included (8) hotels, (18) guesthouses and (15) homestay units based on their proportionate presence in the market. Sample showed clear positive correlation between language skill levels and the scale of accommodation establishment (from lowest level of homestay to highest level of hotels). There is a high tendency of high level of operations (fully inclusive) of people with high language skills and low level of operations (partly inclusive) of people with low language skills.

**Figure 5: Impact of human capital on local participation in accommodation industry**

![Impact of human capital on local participation in accommodation industry](source: compiled by authors)

Financial capital is critical for the locals to setup small business activities within tourism. However, they have been marginalized by the large scale outside investors and the Government (bungalows...
inside park under the Department of Wildlife Conservation). Department of Wildlife Conservation has four (04) bungalows inside the park, which charge around Rs. 51,300 and Rs. 12,000 from group of ten (10) foreigners and locals respectively (Rs. 5,130 and 1,200 per head respectively). The local guesthouse charges range from Rs. 500 to Rs. 2,500. In contrast, charges of chain hotels range from Rs. 15,000 to Rs. 24,000 per night, which are operated by outsiders and located around 25km to 60 km distance from the park. Packaged tourists with higher purchasing power always prefer to stay at such chain hotels. Non-packaged tourists usually stay about 2 nights near park and prefer to stay either at guesthouse or park bungalows at a lower price. Majority of local tourists make one-day tour into park and the rest prefer to stay at park bungalows.

Norms, networks and trusts are the three main pillars of social capital leading to collective actions and development (Hwang & Stewart, 2017). When people feel the sense of belonging with each other, they are creating the networks, groups and organizations. Such mutual connections among each other made the organizational strength. When there are better networks among the local groups, they may secure in the benefits (Emery, Fey, & Flora, 2006). In order to evaluate the networks between different groups in the national park supply chain, a perception survey was conducted among park rangers (06), three-wheel drivers (10), guesthouse owners (10), hotel owners (04), homestays (06) safari jeep riders (10), chain hotels (02), and tour operators (02) based on their presence in the market.

These respondents were asked to explain how they operate in the market and their customers through an open-ended question. These statements by different groups were then analysed using cluster analysis measuring the Pearson Correlation between different statements by different groups. Figure 6 below indicates strong networks between tour operators, hotels, and safari jeep drivers.
Hotels and tour operators are the outsiders of the Udawalawe who occupy the economic advantages. Only safari jeep drivers represent the local economy among these three robust links. On the other hand, three-wheel drivers, guesthouse owners, and homestay owners have weak positive correlation that highlights the lower level of social capital which impact local inclusiveness. This also shows the poor linkages between the formal sector and local suppliers. Locals’ access to the tourism market is most constrained where all-inclusive packages developed by outsiders.

Figure 6: Cluster analysis showing the networks between groups

Source: compiled by authors

Location predominantly impact on the locals to engage in the tourism related activities. Udawalawe National Park offers the opportunities to visit the wild life including elephants, birds, reptiles, fish, mammals and cat family species.
According to the visitor survey, 78% of the visitors coming to the Udawalawe National Park for one-day visit. Because, the location does not offer diverse experience for tourists worth staying other than nature safari.

**Figure 7: Tourism activities around Udawalawe**

Source: TripAdvisor LLC, 2018

However, places with more activities and attractions such as Ella in Badulla district, have recorded higher average guest nights (2 to 3 nights) (Sri Lanka Tourism Development Authority, 2016). Because it consists with range of activities such as Ella rock, Dhowa rock temple, Kithal ella, Nine arch bridge, little Adam’s peak and etc. Hence, it is observed high level of local inclusiveness in Ella with many local businesses (accommodation establishments, restaurants, shops, tour operators, activity operators, and etc) compared to Udawalawe area (Figure 7 and figure 8).
Gender is also considered as a factor effecting local inclusiveness. Considering park related activities of the Udawalawe National Park, tour guiding services, three-wheel driving and safari jeeps driving are totally occupied by the males. Female participation is only in the local shops and accommodation sector. In particular, they are engaged in the housekeeping, gardening, and cooking in the Homestay units and Guesthouses. They have little presence in front offices, accounting and Spa related activities of Hotels. Thus, their
level of engagement in the overall supply chain is less than 6% in the Udawalawe National Park related activities (Figure 9).

**Figure 9: Male and female contribution of market segment**

![Graph showing male and female contribution of market segment](image)

Source: compiled by authors

In terms of land ownership and tenure, it was investigated how far land ownership types have impact on the level of accommodation establishments. Sample included (8) hotels, (18) guesthouses and (15) homestay units based on their proportionate presence in the market. Land ownership types were considered as freehold, rented and leasehold. Analysis elicited that ownership types and the accommodation segments have no strong relationship. Accordingly, the impact of land ownership factor is less contributing for the local inclusiveness of Udawalawe area (Table 3).

**Table 3: correlation between land ownership and Accommodation types**

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>Accommodation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Ownership</td>
<td>.199</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.213</td>
</tr>
<tr>
<td>N</td>
<td>41</td>
</tr>
</tbody>
</table>

Source: compiled by author
Level of complementarity between tourism and other rural livelihoods also impact on local participation. The National Park and the surrounding area are irrigated by the Udawalawe irrigation scheme under the Mahaweli Authority of Sri Lanka. Farmers in the area cultivate rice, banana and other field crops during both Maha season, from October till February, and Yala season, from April till August. Although dry months from June to September are the season for elephant sighting in the park, local farmers and fishermen have to compete with tourism and wildlife for water during these months. More importantly this is the time when elephants encroach on human habitation for water and food. According to the statistical reports of the Udawalawe National Park, there were 13 human deaths within the period of 2012-2016 due to the wild elephant attacks. Wild elephants are mostly damaging to the cultivations and infrastructure facilities. There are 163 damage incidents recorded in last four years (2012-2016). Such damages have put pressure on locals with increasing costs and risks. Below map illustrates how the human elephant conflict has spread around the National Park (Figure 10).

Figure 10: Human elephant conflict areas

Source: compiled by authors
From the groups engaged in tourism, 46.6% of people in the Udawalawe area engage in accommodation sector related jobs. Safari jeep drivers and three-wheel drivers also showing considerable engagement in the transport sector of the industry by giving 32.09% and 8.22% percentage respectively.

Generally, both foreign (packaged and non-packaged) and local tourists are visiting the national park with 46% to 56% of visitors respectively (Sri Lanka Tourism Development Authority, 2016). According to the perception survey with 50 local visitors and 43 foreign visitors, foreign visitors are spending more money visiting the places than the locals. Foreigners have to pay more for lodging, food, transportation, and etc. Most of the backpacker tourists use the accommodation such as local guesthouses facilities, home-stay units, transport and eating services provided by local people whereas packaged tourists use chain hotels and restaurants located outside. Regulations and bureaucracy impact on the local inclusiveness of Udawalawe National Park and surrounding area, it elicits that regulations are not much supported for the local community. According to the Sri Lanka Tourism Development Authority (SLTDA) act in 2005, all tourist services should be registered with the SLTDA. Any enterprise or tourist service without proper registration and license will become a punishable offence in accordance with the section 48 (10) and section 63 (2) of the act (Parliament of the democratic socialist republic of sri lanka, 2005).

Every institution licensed under the Tourist Development Act, no. 14 of 1968 should pay a levy of 1% on the income. Therefore, most of the guesthouses and homestays have not registered their accommodations. Due to non-registrations they do not get any support from the SLTDA.

Accordingly locals are marginalized in the national park and associated supply chain compared big outside operators with
advanced human capital, financial capital, and social capital. Institutional and policy environment relevant parks also have not introduced initiatives to support small, medium and infant industries where most of local industries falling in.

**Conclusions**
The underlying hypothesis of this research is that National Parks have the role of not only natural asset conservation (environmental sustainability) but also the local economic development (socio-economic sustainability) with local inclusive development approach. However, planning and management of National Parks in Sri Lanka have not yet developed local development initiatives or benefit sharing mechanisms which has resulted stressing the locals with costs and risks. Lack of human capital, cultural barriers of women, lack of connections between local parties, incompatible with the existing livelihood activities, and lack of government support for locals, restrictions of access to the tourist market has impact on less participation in national park value chain of the local people. The result is local people have small share of benefits from National Parks while bearing larger share of costs and risk associated with park. The value chain of the Udawalawe National Park indicates this benefit cost mismatch of the local community, which discourage locals for conservation.

Through the value chain analysis, it confirms that National Park is not an asset for local people, it has become a burden. Only 33.8% of the economic benefits are gained by the locality while 66.2% of the economic benefits were grasp by the outsiders (Figure 11). Further, out of this 34% local share more than 50% are services which do not add considerable value or local production. For example safari jeep service include labour (drivers) as the only local value addition component and rest (fuel, vehicles, etc) are imported.
Figure 11: Value chain of the Udawalawe National Park
References


