

AUSTRALIAN ABORIGINAL KNOWLEDGE AND ITS USE IN SUSTAINABILITY

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Abstract

Sustainability is the ability to maintain a certain state for a long period of time. In terms of nature, sustainability is utilizing a natural resource in an efficient manner to ensure that it is still available for the future generations use. Knowledge is an awareness of something or an understanding of someone. Indigenous knowledge is a type of knowledge that deals with the practices, customs, and beliefs pertaining to a certain land and the people that inhabit the land. Indigenous knowledge has various other names like traditional knowledge and one particular to Australia called aboriginal knowledge. Aboriginal knowledge is passed on to the aboriginal people through various forms of art and songs. Aboriginal knowledge covers the information of the aboriginal land. The aboriginal people care for and respect the land they live in and utilize the resources of the land in a way that is sustainable. The paper surveys various papers on the subject of Australian aboriginals. The goal is to identify whether aboriginal knowledge pertaining to the land can be used to achieve sustainability, in the various fields it is applicable to. The integration faces obstacles like, ignorance on the topic of aboriginals, or the rigid protocols of the aboriginals. Through careful integration of the two, the problems can be resolved to yield sustainable results in various fields like agriculture, healthcare, and so on.

Keywords: Nature, Natural Resources, Indigenous, customs etc.

Introduction

Knowledge is basically skills, information, and facts that are acquired through either education or experience. It can also be stated as the understanding of a subject either theoretically or practically. There are many types of knowledge's and many ways of categorising them. Indigenous knowledge is a type of knowledge that is unique to a culture or society in particular. (Lynch et al.) Indigenous knowledge can also be called folk knowledge, traditional science, and local knowledge. Indigenous knowledge is passed down in every community in efforts to manage their socio-economic and agro-ecological environments,

over time.(Stocker et al.) The knowledge is usually passed down through the generations as word of mouth or through rituals of the culture.(Senanayake)

Indigenous knowledge can be used in various fields like health of humans and animals, natural resource management, natural resource management, food security, education, and various others. Mainly the poor obtain capital from indigenous knowledge, they use it as a means to earn their livelihood as indigenous knowledge is a main element in the means to control their livelihood.(Gorjestani)Sustainable development puts focus on various factors like economic, human, social, and natural. The protection and acknowledgement of these factors is important.(Sveiby) The Australian government bodies recognise the need for the various indigenous communities it houses, as the indigenous communities hold aboriginal knowledge critical to conserving the biological diversity of the land and useful management of the available natural resources.(Stoianoff)

The aboriginal Australian people are a part of some of the oldest living cultures in the history of humans. The aboriginal people are known to have a rich culture that involves lore, customs and a system based on values of sustaining the spiritual connections, obligations, belonging, and a duty to take care of the environment, land, and the people.(Davies et al.)The familiar knowledge of the areas ecosystem and the natural resources that the aboriginal people possess has been developed through a sustained long-term contact with the land and the respect the landholds from the people who inhabit the land. The aboriginal people interpret the aboriginal knowledge culture as they enact the relationship with the surrounding environment.("What Is Aboriginal Cultural Knowledge?")

Indigenous population in Australia is mainly constituted of people who are of aboriginal or Torres Strait islander origin. In the year 2016, the number of indigenous people in Australia amounted to an estimate of 798,365. The number was made up by the aboriginals and Torres Strait islanders. This figure rounds up 3.3% of Australia's total population. The projected population of the aboriginal and Torres Strait islanders by the year 2031 is about 1.1 million. A breakdown of the indigenous population can be done as,

- 91% of aboriginal origin
- 5% of Torres Strait islander origin
- 4% of both Torres Strait and aboriginal origin.("Profile Of Indigenous Australians - Australian Institute Of Health And Welfare")

The culture of aboriginal knowledge by emphasising the essential relationship the people have with the environment can be identified as, the knowledge, accumulated, that encompasses the associations with the environment, in a spiritual sense,is reflected in the languages, values, narratives, cultural customs, social organisation, and the cultural laws.(McGinnis et al.) Aboriginal knowledge, contrasting to the written word, is not an unchanging entity. It changes according to the new information attained and adapts to the implications caused by the changes. The knowledge is passed through the generations orally

through stories, art, dance, songs, languages and so on that embody the relationship the people share with the land. ("What Is Aboriginal Cultural Knowledge?")

Literature Review

(Bodle et al.) The paper investigates the pertinent factors that impact the success of a business run through the indigenous factors management. The identification of the intervention points is at the structural level as well as the systematic level. This approach allows the first nation communities to attach social and economic values to the unquantifiable indigenous cultural heritage (ICH) and the indigenous cultural intellectual property (ICIP) so that the assets are recognised.

The paper takes a multidisciplinary attitude to tackle the issue of the social and economic importance to the people of the first nations and their business and relation to the aboriginal communities of Australia. The paper adopts the epistemological standpoint of the first nation that integrates the perspectives drawn from a theoretical point, the field having a diverse range. The paper also promotes the use of indigenise methodology for the purpose of research of the critical race theory of the first nation people.

The paper conceptually argues the consideration of accounting, auditing and accountability criteria that are required to completely identify the factors influencing the successful management of the indigenous businesses. In accordance to accounting, specifically, the elders have to be included in assisting the value of the ICH and ICIP assets that are considered intangible. The paper puts emphasis on the need for improving the literacy levels, commercially and financially, of the indigenous entrepreneurs.

The paper recommends the tools to be used in accounting the treatment of ICH and ICIP as indescribable assets through an Australian regulation environment. The paper also recommends defining the auditing process and the accountability model that incorporates the cultural, environment, and social measures. The central tenet of the model conveys improving the commercial and personal levels in financial literacy of the participants from the first nation. All of these factors help promote decision making and informed participation. It may also proclaim the outcomes as more sustainable.

Integrated thinking is essential to consider the factors in a manner that is holistic so that the first nation enterprise and the aboriginal people and the Torres Strait people are able to understand and make informed decisions based on the impact the factors have, overall, on the general society and the stakeholders, the economy as well as the environment.

(Akbar, and Hallak) The entrepreneurs operating aboriginal tourism in the remote regions of Australia draw from the unique heritage of 60,000 years and a distinct experience, culture-wise, to attract tourists both international and domestic. The paper focuses on the work of Foley to detect the characteristics of a successful aboriginal tourism that is located remotely, and the aboriginal entrepreneurs in those remote areas. It also focuses on the creative and

resourceful ways used by the aboriginals to overcome the hardships and find success and to connect with the community and its culture.

The aboriginals and the Torres Strait islanders are the oldest living culture on the planet. The people have cared for the land of Australia for 60,000 years and counting. Along with caring for the land, they practice international trade and production. This shows the evidence as the longest sustainable practice in the history of humans. Australian tourism, mainly aboriginal, is a wonderful example of sustainability through indigenous methods. The world tourism organisation under the UN defines the term stable tourism as, tourism that completely takes into account, its current and future social, economic, and environmental impacts while addressing the needs of the visitors, the environment, the hosting communities, and the industry.

Indigenous tourism in Australia has been linked with the practice of sustainability practice. The paper puts forth a new definition for the aboriginal tourism in Australia. The paper uses characters that Foley used in his study of entrepreneurs of the urban aboriginal kind, like, chaos, education, networking, positivity, and so on to structure the findings obtained. The paper further investigates the connection between the tourism related aboriginal enterprises and the goals for sustainable development. The paper uses the qualitative data obtained from interviewing the aboriginal tourism enterprises to show how the enterprise reflects the contemporary values of sustainability.

The paper defines the Torres Strait Islander tourism and the aboriginal tourism by the people belonging to those lands as participants, owners, and beneficiaries rather than the government way of defining it through the product contents. The paper summarizes the remote conditions in which the tourism operates in and applies the Foley developed framework that is entrepreneurial themed. The framework is applied to identify the challenges, business opportunities, and strategies that are deployed by the aboriginal tourism enterprises. The paper connects all the findings to the sustainability goals and the focus is to identify the aboriginal tourism characteristics and how they are linked to sustaining a practice and the resultant entrepreneurial actions taken.

The data analysis, done on the actions and characteristics of the entrepreneurs, were framed to fit into Foley's work on urban entrepreneurial aboriginals. Like chaos, education, networking, and so on. But some of the themes were unrelated to Foley's work there by showing how different urban and aboriginal remote enterprises key to successful development is. The results of the paper cannot be generalised because of the small sample size that can be drawn by focusing on a particular country and interviews in the context. The success of the aboriginal business relies on economic growth, reducing inequality, and decent work.

(Altman)The paper discusses the intellectual endeavours of the year 2001. The paper is an attempt at progressing a research collaboration between biological scientists at the Australian Research Council ARC Key Centre for Tropical wildlife management in the Northern

Territory University and the author, who is a social scientist at the centre for Aboriginal Economic Policy Research. The paper's aim at a wider collaboration is trying to generate more creative ideas for new development features for the aboriginal people in the aboriginal land.

The twenty first century has been witness to the emergence of a provocative discourse, that is new, in the policy of indigenous affairs. It is hard to predict the number of people who live in land owned aboriginally. The growth in the population attributes to the growth of the aboriginal owned land base. The problems lie in the inadequate intellectual approach to the development of aboriginally owned lands. The author answers the question of how the market can be developed to deliver to remote communities. The answer is to question the entire premise of the question. Why is the market economy the only economy named? A hybrid intellectual framework is required that can combine science, indigenous knowledge, and social sciences. The different approach enhances sustainable development greatly on aboriginal land.

The problem with aboriginal owned lands is that they yield low income when compared to others. People are less inclined to purchase such land because of that reason. The aboriginals have to depend on the Australian government for funds. The indigenous culture can be used to enhance the properties of the land. The focus should be given on educating the people on the aboriginal culture and how it can be applied to produce better and sustainable results. The people need to understand that the land is not the problem but how it can be utilized to yield sustainable results by applying the aboriginal knowledge pertaining to that land.

(Bohensky et al.) Australian aboriginal communities face a disadvantage from the rising complex of pressures from historical, environmental, and social fields. The deeply rooted networks between kin, historical exclusion from being able to access resources, and the external intrusions has created poverty traps and a co-dependent inflexibility. In recent years, indigenous knowledge is being integrated into science. In particular, Australia has increased its involvement. Natural Resource Management in Australia is recognised as one of the trends in environmental management in the 21st century. This involvement has led to improvement in the landholdings of aboriginal kind through recognizing indigenous land rights.

The paper has three aims to exhibit. One, providing examples of integrating knowledge in Australia. Second, to understand the conditions and enable the environment for integrating knowledge. Third, for integrating knowledge into international literature using tools and process as a growing area. The paper compiles the related works that expresses the aims. The paper tries to gain insight on the various dimensions of the relationship among knowledge integration and resilience. It is beneficial to both scholarships as well as global policies on which the diverse knowledge is being bore upon.

The need to carefully process the problem, give time commitments, have an underlying trust, and having proper tools is necessary to achieve the aims mentioned in the above paragraph. Further developments can be identified when the integration of knowledge is achieved. Given

the ambiguity of the environment there is a relatively limited availability of the measures that can be evaluated. There is a further opportunity for collaboration between the stakeholders of the place, the policy, and the academics.

(M. Prober et al.) Scientists specialising in natural resources and managers recognise that indigenous knowledge is a potential contributor to the contemporary management of natural resources thereby resulting in resilient socio-economic systems. Seasonal aboriginal knowledge involves having knowledge about the biota, weather, landscapes, and so on, and their link with the land and culture. Seasonal Australian aboriginal knowledge is used to characterise probable applications to natural resource management(NRM). Aboriginal knowledge is recorded through cross-cultural collaboration in ecological calendars.

Sustainable natural resource management is receiving global interest on a rapid scale. Interdisciplinary research is also required to combine the various branches of western science. The main thing is to find balance between the indigenous knowledge and the western concepts. From the NRM viewpoint, the result is assumed to be increasingly resilient systems that are socio-ecological as it can incorporate information in a broader sense, consider a variety of culturally derived ideals and an elucidation of synergies and many conflicts. Natural resource management requires indigenous perspectives to attain more resilient outcomes. One of the hinderances of aboriginal culture is that it is not easily communicated to the outsiders. Aboriginal knowledge is passed down from generations through oral methods of songs, stories, and the like and therefore are not commonly recorded in the written format.

Seasonal knowledge of the aboriginals involves the knowledge of the plant season cycles, animals seasonal cycles, the weather, and how they link to the aboriginal land and its culture. The aboriginal people relied on the traditional knowledge of the patterns of the seasons to sustain the supply of food, medicines, and other various resources. The stars, various biological indicators, the weather, and various physical factors were interpreted to signal cultural activities and events. Ecological calendars of the aboriginals are formed by predicting the processes performed during the various seasons. Various scientists have collaborated with the aboriginals to document the cross-cultural constructs, over the previous century.

The analysis in the paper pertains to the seasonal knowledge of the aboriginals that can contribute to the natural resource management and management and use of the aboriginal land. The paper also analyses the how the ecological calendar can indirectly affect the aboriginal knowledge systems by making it broader by reflection and communication. The natural resource management has attained resilience due to the contribution of aboriginal knowledge like retention, transfer, recovery, and its applications.

("Aboriginal Perspectives Of Sustainable Development") Aboriginal people have always showcased the qualities of good stewardship in how they interact with the environment. The aboriginal people have developed, over centuries, the environmental knowledge that was

obtained through the observation of seasonal changes and their understanding of these changes. The changes were incorporated into the daily lives of the aboriginal people as well as their decision making.

Aboriginal people relocated to bountiful areas which could yield plenty of food. The four seasons had special timings for various activities like hunting, fishing, harvesting berries, harvesting fruits, and so on. Doing the seasonal rotation garnered the fact that the land can replenish the used resources in the time the aboriginals relocate to another place. Various factors like growth of the plants, reproduction of the birds and animals, and so on could happen in the other seasons. The aboriginal people knew how to maintain the balance so that the results were efficient and sustainable.

The people need to understand the concept of utilizing resources so that the upcoming generations also have the benefit of experiencing them. This is the true meaning of sustainability. Collective responsibility is used by the aboriginal people while using and tending the land. Aboriginal knowledge also focuses on the interdependent nature of all the things in the environment, like, flora, fauna, and humankind that live together on the planet. Aboriginal knowledge is responsible in showing the need to respect the land and environment as it provides the people with necessities required.

Recent times see the aboriginal people embracing the beliefs of sustainability through traditional beliefs and practices. The aboriginal people play a vital role in the management of the environment and its development because of the traditional knowledge and practices they follow. The government should recognise the important role played by the aboriginals in maintaining the sustainability of the land and the resources it has. The government should involve the aboriginal people who can help support the culture, identity, and interests of the community that can lead to the achievement of sustainable development of the land.

Conclusion

The indigenous knowledge of a land and the local community is very important. Indigenous knowledge is based on hundreds of years of gathered, tried, and tested information. Indigenous knowledge is an asset when used to develop sustainable practices concerning the environment mainly, but other factors can also be influenced by indigenous knowledge. Indigenous knowledge is not limited to only a single field, therefore covers a lot of aspects like agriculture, tourism, healthcare, real-estate, and many other topics. People need to understand the importance of traditional knowledge to be able to properly apply it.

The paper focuses on one specific region's traditional knowledge, that is, Australian. In Australia, traditional knowledge or indigenous knowledge is given the term 'Aboriginal knowledge'. As discussed in the paper, the aboriginal knowledge of Australia is one of the oldest ranging from 60,000 years ago. The aboriginal knowledge is passed down through the generations through arts like, songs, dance, stories, and so on. Aboriginal knowledge is not

commonly found in texts as the transfer of knowledge happens through mostly word of mouth.

The paper focuses on various fields where aboriginal knowledge of the land can be applied to yield efficient and sustainable results. The government needs to identify the use of integrating aboriginal people specific to the regions into the administration to ensure that the land is utilized to its full potential and in a proper manner to ensure the land is not damaged. There is a significant gap in the integration of aboriginals into the rest of the community. The difference can be solved by educating the people about aboriginal knowledge and its uses and benefits.

References

- "What Is Aboriginal Cultural Knowledge?". *Environment.Nsw.Gov.Au*, 2021, <https://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09782factsheet1.pdf>.
- "Aboriginal Perspectives Of Sustainable Development". 2000, https://www.edu.gov.mb.ca/k12/cur/socstud/frame_found_sr2/tns/tn-41.pdf. Accessed 26 Jan 2021.
- Akbar, Skye, and Rob Hallak. "Identifying Business Practices Promoting Sustainability In Aboriginal Tourism Enterprises In Remote Australia". *Strategies For Responsible Tourism And Sustainability*, 2019, doi:10.3390/su11174589. Accessed 25 Jan 2021.
- Altman, Jon. "Sustainable Development Options On Aboriginal Land: The Hybrid Economy In The Twenty-First Century". 2001, <https://openresearch-repository.anu.edu.au/handle/1885/40104>. Accessed 25 Jan 2021.
- Bodle, Kerry et al. "Critical Success Factors In Managing Sustainable Indigenous Businesses In Australia". *Pacific Accounting Review*, vol 30, no. 1, 2018, doi:10.1108/PAR-02-2016-0017. Accessed 25 Jan 2021.
- Bohensky, Erin L. et al. "Integrating Indigenous Ecological Knowledge And Science In Natural Resource Management: Perspectives From Australia". *Ecology And Society*, vol 18, no. 3, 2013. *Resilience Alliance, Inc.*, doi:10.5751/es-05846-180320. Accessed 25 Jan 2021.
- Davies, Jocelyn et al. "Applying The Sustainable Livelihoods Approach In Australian Desert Aboriginal Development". *The Rangeland Journal*, vol 30, no. 1, 2008, p. 55. *CSIRO Publishing*, doi:10.1071/rj07038. Accessed 26 Jan 2021.
- Gorjestani, Nicolas. "Indigenous Knowledge For Development Opportunities And Challenges". 2004, https://web.worldbank.org/archive/website00297C/WEB/IMAGES/IKPAPER_.PDF. Accessed 25 Jan 2021.

- Lynch, Jasmyn et al. "Indigenous Guidance In Australian Environmental Management". *Australasian Journal Of Environmental Management*, vol 25, no. 3, 2018, pp. 253-257. *Informa UK Limited*, doi:10.1080/14486563.2018.1507448. Accessed 26 Jan 2021.
- M. Prober, Suzanne et al. "Australian Aboriginal Peoples' Seasonal Knowledge: A Potential Basis For Shared Understanding In Environmental Management". *Ecology And Society*, vol 16, no. 2, 2011, https://www.jstor.org/stable/26268886?seq=1#metadata_info_tab_contents. Accessed 26 Jan 2021.
- McGinnis, Gabrielle et al. "Indigenous Knowledge Sharing In Northern Australia: Engaging Digital Technology For Cultural Interpretation". *Tourism Planning & Development*, vol 17, no. 1, 2020, pp. 96-125. *Informa UK Limited*, doi:10.1080/21568316.2019.1704855. Accessed 26 Jan 2021.
- Senanayake, S. G. J. N. "Indigenous Knowledge As A Key To Sustainable Development". *Journal Of Agricultural Sciences*, vol 2, no. 1, 2006, p. 87. *Sri Lanka Journals Online (JOL)*, doi:10.4038/jas.v2i1.8117. Accessed 25 Jan 2021.
- Stocker, Laura et al. "Aboriginal World Views And Colonisation: Implications For Coastal Sustainability†". *Local Environment*, vol 21, no. 7, 2015, pp. 844-865. *Informa UK Limited*, doi:10.1080/13549839.2015.1036414. Accessed 26 Jan 2021.
- Stoianoff, Natalie P. "Sustainable Use Of Indigenous Ecological Knowledge: A Case Study For Implementing The Nagoya Protocol". *Sustainability And Law*, 2020, pp. 431-451. *Springer International Publishing*, doi:10.1007/978-3-030-42630-9_22. Accessed 25 Jan 2021.
- Sveiby, Karl-Erik. "Aboriginal Principles For Sustainable Development As Told In Traditional Law Stories". *Sustainable Development*, vol 17, no. 6, 2009, pp. 341-356. *Wiley*, doi:10.1002/sd.389. Accessed 26 Jan 2021.