

Religion and Conservation: A Review of Use and Protection of Sacred Plants and Animals in Nepal

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ABSTRACT

The objective of this paper is to examine the socio-cultural and spiritual values of plants and animals. It focuses on how religious beliefs and practices affect the way these species are understood, utilized and managed. Large number of plant and animal species with religious importance has been found to be conserved and protected in Nepal. Religious prospect has played a significant role in conservation of plants and animals.

Keywords: Hindus, natural resources, animals, tradition, spiritual practices.

INTRODUCTION

Religions have played a significant role in developing views and also defining relationships of the role of human in nature, thereby creating a link between religious life and natural systems (SCB 2008). Religious and spiritual practices of human being can contribute to rethinking and responding to the world environment and the management of natural resources. There are four major religions followed by the people Christians (31.5%), Muslims (23.2%), Hindus (15%), Buddhists (7.1%), Jews (0.2%) and 6 percent of people of the world population practice various folk or traditional religions around the world (Pew Research Center, 2012). Peoples in Nepal follow Hinduism (81.34%) and Buddhism (9.04%) and the remaining Islam (4.38%), Kirat (3.04%) and Christian (1.41) (CBS 2012). Both Hinduism and Buddhism believe the world to be resided by a number of supernatural beings playing various roles of destruction, protection and creation and are a part of the forces of nature (Halladay & Gilmour 1995).

Plant and animal species are used in the religious functions, rituals and also in celebration of festivals. Several species are considered sacred and are offered to particular God during different festivals (Hedge & Bhat 2012). Most of the Nepalese families perform Puja to host, honor and worship deities daily, seasonally, monthly, annually or occasionally.

Animals are mostly sacrificed in the form of offerings to Gods, which is called *Bali* (Fuller 2004). The goal of *Bali* is to secure well-being through the worship of God. Goat, chicken, pigeons, etc. are some of the commonly used offerings for *Bali*. Some animals are also considered to be the vehicle of particular Gods can never be sacrificed

and are protected (Table 3). People conserve the religious plant and animal species by planting or protecting them in the forests. Small patches of forests have become refuges for plants, birds, mammals, and other terrestrial animals. An introduction to the new species from pilgrimage tour has been preserving in sacred grove (Bhattarai & Baral 2008).

Deforestation, habitat loss, environmental pollution, over-exploitation of resources, fragmentation, industrialization and many other factors are responsible for the depletion. In this context, the objective of this paper is to review the impacts of religious belief on biodiversity conservation and management. It also focuses on the issues of sacred value of plant and animal species.

Religious beliefs and use of plants and animals in Nepal

People have great faith and belief in their religions. The variation in religious and ritual practices that can observe the differences in the use of religious plants and animals as well. Hindus worship species of some plants i.e., *Kush* (*Dsebotachya bipinnata*) *Tulasi* (*Ocimum basilicum*) and *Pipal* (*F. religiosa*) as a symbol of *God Vishnu*. The leaves and branches of *Pipal*, *Bar* (*Ficus bengalensis*), *Dumri* (*F. glomerata*), *Bhalayo* (*Rhus succedanea*), and *Chiuri* (*Bassia butyracea*) are commonly used by Hindu people to perform rituals such as *Pooja*, *Bratamanda* (*Thread wearing ceremony*), marriage and death rituals (Sapkota 2013).

Buddhists and Kirats also perform different rituals where they used use *Pipal* (*F. religiosa*), *Bar* (*Ficus bengalensis*), *Mango* (*Magnifera indica*), *Dumri* (*F.*

glomerata), *Pakhari* (*F. globerrimata*) for making *Toran* (sacred garland) in *Bastupooja*. The leaves of *Pipal* and *Bhalayo* are needed during the *Nwaran* (naming ritual) for all people including the Christians (Poudel 2009). Hindus use leaf of *Bel* (*Aegle marmelos*) tree to worship God Shiva. They offer leaves of *Bel* tree to God Shiva in ritual like *Swastani* (*worship of god shiva*). It is believed that if someone offers a leaf of *Bel* tree to the Shiva, he/she can get the emancipation from the sinful deed (Acharya 2003). The *Newar* people perceive *Bel* as symbol of God Vishnu which is needed in their initial marriage ritual called *Ihee*. They marry their daughter with the fruit of *Bel*, symbol of the God Vishnu, before their menarche. The *Newar* women never become widow after the death of their husbands (UNESCO 2007).

The Kirant people commonly use *Chibung* (*Bauhinia variegata*), *Lolowa* (*Nephrolepis cordifolia*), *Wahi* (*Castanopsis indica*), *Amlabung* (*Dendrobium eriaeflorum*), and *Nagatungpu* (*Melocanna baccifera*), and wild-bananas while performing the rituals; *Sakela/Sakewa* (a ritual of nature worship), *Chabang* (*god of water*) and ancestor worship. Plants like *Bar*, *Kush*, *Jamuna* (*Syzygium cumini*), *Pipal*, *Saal* (*Shorea robusta*), bamboo (*Bambusa vulgaris*) and mango are taken as holy

trees in Buddhism because various events of Buddha's life are interconnected and interwoven with these plants. Buddha got first knowledge about life under the *Jamuna* (*Syzygium cumunii*) tree. The four events i.e., the birth, the enlightenment, the spreading out of enlightenment and *Mahaparinirvana* (salvation) in Buddha's life took place under the *Ashok* (*Saracaka indica*), *Pipal*, *Bel*, and *Saal* trees. Buddhist people perceive *Ashok*, *Bar*, *Bel*, *Jamuna*, *Kush*, *Pipal*, *Saal*, bamboo and mango trees symbolically meaningful in their religious life (Poudel 2009).

In Tihar, (Hindu festival of light), religious animals like cow, crow, and dog are worshipped in the memory of different Gods (Table 3). The bull is worshipped as *Mahadeva's* steed. The temples dedicated to *Mahadeva* have an image of the bull before them. God *Ganesh*, has the head of an elephant, the animal is held sacred and worshipped. The monkey is also sacred, because *Hanuman*, the legendary monkey, with his hordes, once assisted *Ram* in the war against *Ravan* (Majpuriya 2000). Of the winged creatures, ducks and chickens are offered as a sacrifice. Sometimes, eggs may be offered as a substitute for them. No sacrifice may, however, be made in a Buddhist temple, nor eggs and meat taken inside it.

Table 1. List of worshipped plants and their Goddesses

Species	Nepali name	Worshipped for	Role of individual goddesses
<i>Ficus bengalensis</i> , <i>Aegle marmelos</i> <i>Elaeocarpus sphaericus</i> <i>Saraca indica</i> <i>Cannabis sativa</i>	Bar Bel Rudraksha Ashok Ganja	Shiva	Destruction
<i>F. religiosa</i> <i>Eulaliopsis binata</i>	Pipal Babiyo	Bishnu	Continuation
<i>F. bemjamina</i> <i>Cynodon dactylon</i>	Swami Dubo	Ganesh	God of good luck and success
<i>Ocimum spp</i> <i>Phyllanthus emblica</i>	Tulsi Amala	Lakshmi	Money
<i>Dsemotachya bipinnata</i> <i>Butea monsperma</i>	Kush Palash	Bramha, Bishnu and shiva	Bramha is for creation
<i>Acacia catechu</i>	Khayer	Agni	Fire

Source: (Sapkota 2013)

Table 2. List of plant species and plant products required during different Hindu festivals

Nepali name	Species	Species nature	Major ritual function	Parts used
Aank	<i>Calotropis gigantea</i>	Shrubs	Naming ceremony	leaves, stems
Aduwa	<i>Zingiber officinale</i>	Herbs	All	roots
Akamaro	<i>Solanum tubersum</i>	Herbs	Tija (Womens worshipping God Shiva)	stem and branches
Amala	<i>Phyllanthus emblica</i>	Tree	Sacred tree	fruit
Anp	<i>Magnifere indica</i>	Tree	All	leaf

Asna	<i>Termalelia alata</i>	Tree	Sacred fire	wood
Ashok	<i>Saraca indica</i>	Tree	Sacred tree	leaf
Babiyo	<i>Eulaliopsis binata</i>	Herbs	All	leaf
Bans	<i>Dendrocalamus spp</i>	grass	All	stem
Bar	<i>Ficus bengalensis</i>	Tree	All	leaves and wood
Baramase	<i>Hibiscus rosasinensis</i>	Shrub	All	flowers
Barley	<i>Hordeum vulgare</i>	Herbs	All	grain
Bel	<i>Aegle marmelos</i>	Tree	All	green leaf and fruit
Besar	<i>Curcuma longi</i>	Herbs	All	tubers
Bhalayo	<i>Rhus succedanea</i>	Tree	Naming ceremony	stem
Bhang	<i>Cannabis sativa</i>	Herbs	Shivaratri (Worshipping god Shiva)	leaves and seed
Bhimsen pati	<i>Eclipta prostrata</i>	Herbs	All	leaf and flower
Bhogate	<i>Citrus spp</i>	Tree	Tihar	fruit
Bhringaraj	<i>Eclipta alba</i>	Herbs	Luto phalne (Removal of Scabies)	whole plant
Bibiro	<i>Citrus spp</i>	Tree	Tihar (Deepawali)	fruit
Chameli	<i>Jasminum spp</i>	Shrub	All	flowers
Chandan	<i>Santalum album</i>	Tree	Daily	wood and incense
Chyuri	<i>Bassia butyracea</i>	Tree	Marriage	seedlings as gift
Dhatura	<i>Datura stramonium</i>	Herbs	Shivaratri	fruit/latex
Dhrusul	<i>Solanum verbascifolium</i>	Herbs	All	flowers and leaf
Dubo	<i>Cynodon dactylon</i>	Herbs	All	whole plant
Dumri	<i>F. glomerata</i>	Tree	All	leaf and latex
Faledo	<i>Erythrina stricta</i>	Tree	All	flowers
Galaincha	<i>Ficus spp</i>	Tree	All	flower
Godawari	<i>Chrysanthemum spp</i>	Herbs	All	flowers
Gulaf	<i>Rosa spp</i>	Shrub	All	flowers
Gurans	<i>Rhododendron spp</i>	Tree	All	incense
Harro	<i>Terminalia chebula</i>	Tree	Sacred plants	fruits
Jau	<i>Hordeum vulgare</i>	Herbs	All	grain
Jute	<i>Corchorus capsularis</i>	Shrub	All	fiber
Kabro	<i>F. lacor</i>	Tree	Death	leaf and branches
Kadam	<i>Anthocephalus cadamba</i>	Tree	Sacred tree	leaf
Kans	<i>Sachharum spontaneum</i>	Herbs	Sacred fire	leaf
Kapas	<i>Gossypium arborium</i>	Shrub	All	fruit
Kapoor	<i>Cinnamomum camphora</i>	Tree	All	extract as incense
Katahar	<i>Artocarpus integrifolia</i>	Tree	Sacred tree	fruit
Kera	<i>Musa ferra</i>	Herbs	All	leaf, whole plant
Keshar	<i>Curcus sativus</i>	Herbs	All	extract as tika
Ketuki	<i>Yucca gloriosa</i>	Shrub	All	leaf
Khayer	<i>Acacia catechu</i>	Tree	Fireworks in jagnyab (Fire hearths)	branches and wood
Kush	<i>Dsemotachya bipinnata</i>	herbs	All	leaf
Lalupate	<i>Euphorbia pulcherima</i>	shrubs	All	flowers
Lotus	<i>Nelumbium nucifera</i>	water plant	Sacred	whole plant
Lutelahari	<i>unidentified</i>	Herbs	Luto phalne	whole plant
Makhamali phool	<i>Gompherna globasa</i>	herbs	Tihar	flowers
Manak	<i>Rabies nigrum</i>	Shrub	All	leaf
Mandar	<i>unidentified</i>	Herbs	All	leaf
Mane pat	<i>Cuauchun cuesicultion</i>	Tree	Mariage	Leaf

Mango	<i>Magnifera indica</i>	Tree	All	leaf
Mans	<i>Phaseolus mungo</i>	Herbs	All	grain
Nareshwar	<i>Musea ferra</i>	Tree	All	leaf and fruit
Nariwal	<i>Coconut</i>	Herbs	All	fruit
Nimaro	<i>Ficus. spp</i>	Tree	All	leaf
Okhar	<i>Juglans regia</i>	Tree	Tihar	fruit
Painyu	<i>Prunus cerasoides</i>	Tree	Bratabandha (thread wearing ceremony)	branch
Pakhari	<i>F. globerrimata</i>	Tree	all	leaf
Palash	<i>Butea monosperma</i>	Tree	Bratabandha (Thread wearing ceremony)	branches
Pan	<i>Piper bittle</i>	Climber	Tihar	leaf
Pharsi	<i>Cucurbita maxima</i>	Herbs	Dashain	fruit
Phurse	<i>Benicasa hispida</i>	Herbs	Dashain	fruit
Pine	<i>Pinus spp</i>	Tree	Ratha jatra	wood and log
Pipal	<i>F. religiosa</i>	Tree	All	leaf and wood
Potato	<i>Solanum tubersum</i>	Herbs	All	tuber
Rice	<i>Oryza sativa</i>	Herbs	All	grain
Rudraksha	<i>Elaeocarpus sphaericus</i>	Tree	All	weeds from ripen fruit
Sal	<i>Shorea sobusta</i>	Tree	All	leaf, wood, incense
Sayapatri	<i>Tagetes erecta</i>	Herbs	All	flowers
Simali	<i>Vitex negundo</i>	Shrub	All	Branch and leaf
Siundi	<i>Euphorbia royaleana</i>	shrubs	Leaves	leaf
Sunflower	<i>Helianthus annus</i>	Herbs	All	flowers
Supari	<i>Areca catechu</i>	Tree	All	fruit
Swami	<i>F. benjamina</i>	Tree	All	leaf
Til	<i>Seasmum indicum</i>	Herbs	All	grain
Tite Pati	<i>Artemisia spp</i>	Herbs	All	leaf and flower
Tori	<i>Brassica compestris</i>	Herbs	All	grain
Tulsi	<i>Ocimum spp</i>	Herbs	All and daily	leaf and stem
Ukhu	<i>Saccharum officinarum</i>	Herbs	Dashain, Shivaratri	leaf

(Source: Ackarya 2003)

Table 3: List of worshipped animals and their Goddesses

Species	Common name	Worshipped for	Role of individual goddesses
<i>Bos taurus</i>	Bull	Shiva	Destruction
<i>Grus grus</i>	Crane	Bishnu	Continuation
<i>Rattus rattus</i>	Rat	Ganesh	God of good luck and success
<i>Bos taurus</i>	Cow	Lakshmi	Money
<i>Cygnus atratus</i>	Swan	Bramha,	Bramha is for creation
<i>Equus caballus</i>	Horse	Agni	Fire
<i>Elephas maximus</i>	Elephant	Indra	Rain
<i>Macaca mulatta</i>	Monkey	Hanuman	Energy/ Knowledge
<i>Panthera leo</i>	Lion	Durga	Power
<i>Bubalus bubalis</i>	Buffalo	Yama	Justice
<i>Strix varia</i>	Owl	Varaha	
<i>Pavo crystatus</i>	Peacock	Kartiikeya	God of good luck and success
<i>Corvus brachyrhynchos</i>	Crow	Yama	Justice
<i>Canis lupus</i>	Dog	Yama	Justice

(Source Majpuriya 2000)

DISCUSSION

Some ceremonial and ritual acts are common in every religions, which focus on sacred objects and symbols with the supernatural power (Sapkota 2013). People worship them as icons of Gods and Goddesses, thereby grown or protected with special care (Manandhar 2002). Sacred plants have been conserved by the people on the basis of their category, habitat, need and availability (Poudel 2009). Plants like *Ficus religiosa*, *Ficus benghalensis*, *Aegle marmelos* are highly respected and are planted in the public places like temple or even in the private area. People belonging to different religions have different priorities of conservation and ultimately large number species are conserved (Shrestha *et al.* 2010). Large number of *Shorea robusta* tree are planted and protected in the Lumbini Groove of Nepal as it is worshipped by Buddhist people as a mother Goddess (Bidari 2004).

Sacred animals are worshipped and protected in their common habitats. Animals like Bull, Cow, Dog, are kept at home by the people. Animals like Elephant, Tiger, Monkey, Rat, and Owl are wild in habitats so are conserved and protected in the forests and reserves. Birds like Crane, Swan, Pea-cock and Crow are also worshipped and protected and not killed by Hindus (Majpuriya 2000).

Acharya (2003) reported 82 sacred plant species from Nepal that is used in different religious ceremonies. The species categories are tree, shrubs, herbs, climbers and aquatic plants. Felling and destruction upon religious species is considered against the spirit of religions, which helps to protect ecological habitat (Poudel 2009). There are 40 religious forests in Kathmandu valley (NBAP, 2001). The maintenance of religious forest especially in hilly regions has positive impacts on soil and micro-climate conservation (Acharya 2003).

The role of traditional belief systems in the conservation of natural resources in some communities in Nigeria have been found very useful tools in natural resource management (Rukeh *et al.* 2013). The sacred values of different plant and animal species have significant conservational values (IUCN 2007). The date palm tree (*Phoenix dactylifera*,) has been honored by different religions in different ways (IUCN 2007). For instance, in the Islamic tradition, it is honored as aunt on the father's side and is believed to be made of the same stuff as Adam. In Jewish history, the palm is a symbol of justice and righteousness, associated with Deborah, a wise and powerful prophetess and judge whose custom it was to sit under the palm tree. In Christianity, Palm Sunday

is celebrated (the Sunday before Easter) in memory of Jesus when he rode into Jerusalem and the people waved palm fronds and laid palm leaves before him to celebrate his coming.

About 73 species in three sacred groves of Kerala have been reported and among them 13 are endemic to south Western Ghats, 3 are endemic to Western Ghats and 1 is endemic to peninsular India (Khan *et al.* 2008). The Lembata Island, Indonesia, WWF Indonesia has worked with the Catholic Church to limit the number of whales hunted by the local community and to find alternative livelihoods for the community. In Papua New Guinea, pastors from the Evangelical Alliance of PNG led a rubbish collection movement in the town of Goroka, spreading the message of environmental awareness in the streets (SCB 2008). After Dalai Lama's appeal to Tibetans to stop using animal skins (tiger and leopard) for clothing in late 2005 and they quickly responded by burning animal skins in token of banning animal skin clothing. At Wat Plak Mai Lai, a forest monastery in Thailand, Abbot Phra Acharn Somneuk Natho has used a hands-off approach to reforestation and local involvement to restore the forest on the temple site. Ganga Raksha Manch, a group religious leaders and Hindu organizations, launched a "Save the Ganga" river campaign in 2008. A Balinese environmentalist worked with local Hindu leaders to ban sea turtle meat from their ceremonies. Hindu groups have cooperated with the Orissa government and the Alliance of Religions and Conservation to develop a management plan for the state's sacred forests (SCB 2008).

CONCLUSION

The plants and animals are regarded to be incarnations or symbols of the Gods or deities and therefore; their worship became more common. The increased realization of the importance of the biodiversity from any prospect would be helpful to solve the problem of species extinction. The creation and maintenance of religious forest has positive impacts on ecological and biodiversity balance. The followers should realize that their responsibility and duty towards nature because earth is the habitat of species. The religious and cultural beliefs are particularly relevant to understand the potential role of sacredness in the protection and conservation of various species. The holistic understanding of the current status of sacred plants and animal species is essential for assessing their ecological role and formulating strategies for their conservation.

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