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# Shifting Focus: Redefining the Goals of Sea Turtle Consumption and Protection in Bali

Audrey Jensen  
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SHIFTING FOCUS: REDEFINING THE GOALS OF SEA TURTLE CONSUMPTION  
AND PROTECTION IN BALI

Audrey Jensen  
Advisor: IB Windia Adnyana, PhD  
School for International Training  
Bali- Indonesia Arts and Culture Program  
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**Introduction:**

Many would say that the environment and human culture consists of an evolutionary process, complete with necessary adaptations to current situations and the availability of resources. However, religion is usually thought to be a constant, an entity that grounds the individual believer in a “truth” that transcends time. Ultimately, the boundary between culture and religion is especially hard to decipher, particularly in the daily rituals of the Balinese. While religious beliefs are often rooted in history, they too transform through inevitable reinterpretation. The following paper describes the tremendous environmental and cultural impact of the controversial turtle trade in Bali, specifically in regards to the use of turtle in religious ritual.

The majority of Bali practices Hinduism, which (in the Balinese context) fundamentally strives for a life of balance and harmony between man and man (*Pawongan*), man and god (*Parahyangan*), and man and the environment (*Palemahan*)- a concept referred to as the *Tri Hita Karana*. As one Hindu priest stated, “protecting the environment is logical” and compliments the religious teachings of Bali (I Made Arta Wira Ratha, personal communication, 19 Nov 2009. Tabanan). Yet, Bali’s current environmental situation does not coincide with that statement. “As many as 300,000 animal species inhabit the many ecosystems” of the Indonesian archipelago, including more than 4,000 species of fish and 240 species of coral (Moss and Van der Wal 1998; 85). Amazingly, this abundance of biodiversity covers only 1.3% of the world’s landmass and ocean territory ([http://www.profauna.org/content/en/hawksbill\\_trade\\_in\\_indonesia.html](http://www.profauna.org/content/en/hawksbill_trade_in_indonesia.html), 16 Nov 2009). Unfortunately, the majority of the species are no longer used sparingly for survival and

cultural and religious necessity, but rather are exploited in pursuit of economic gain. As a result, Indonesia is home to the greatest number of endangered species in the world, including five of the seven species of sea turtles.

The massive extent of sea turtle hunting in Bali from the 1960s-1990s ignited international outrage and, consequently, the government of Indonesia passed legislation in order to protect the endangered sea turtle populations (and to avoid the large threat the heated international community posed to Bali's developing tourism industry). Nevertheless, many questions remain regarding the effectiveness of government regulation and enforcement, allowing the illegal sea turtle trade to continue. As a result, the relationship between the environmental, cultural, and religious triumvirate has become extremely complicated, paralleling the modern state of the *Tri Hita Karana*. One may question if balance really is possible in this circumstance. Is Bali capable of striking a balance between ecologically protecting the endangered sea turtles for sustainable use in the future while supporting their established belief systems that depend on the species?

This key question served as the basis for my research, which began on Turtle Island or Pulau Serangan. Pulau Serangan is home to The Turtle Conservation and Education Center (TCEC), a 29 acre facility dedicated to raising sea turtle awareness and providing raised turtles for ritual needs (Juniartha, 22 June 2006). I volunteered at the center from the 9<sup>th</sup> of November to the 5<sup>th</sup> of December and during that time I hoped to learn the different conservation methods the Balinese government, non-governmental organizations, and local communities like Pulau Serangan were utilizing while maintaining TCEC as my home base. Every day I would go to the center and help one of the employees, Wayan Rey, "*bikin data*" or collect the data. We would go from tank to

tank (there are ten) and count the amount of turtles alive, dead, or sick. I quickly learned that many of the small turtle hatchlings, or *tukik*, died (as many as 15 a day) due to competition for space or hatching complications. Typically, the stronger turtles would consume the majority of the food, leaving the remaining hungry animals no choice but to adopt cannibalistic behavior. Therefore, sick turtles were identified by having bite marks on their flippers and for floating statically, without much motion. Once the sick turtles were recognized, they were moved into one tank to improve their chances of acquiring food. Next, the number of turtles that died, the species, the size, and the age of the turtles were computed and recorded in a notebook. This process of recording data occurred twice a day, before or after each feeding, which consisted of small fish (a huge expense for the center at 12.000 Indonesian Rupiah each) and sea grass. Following this the staff members and I would often relax, sit around, and talk. In the beginning I was frequently frustrated by the lack of work at the center. I then realized that it was not a lack of work, but rather a lack of motivation or managerial organization. Even the manager's sat around, smoking, and staring (with unintentional intimidation) at guests as they arrived. When an English speaking tourist visited I was often sent to give a tour, but the tours led by the other staff members were often lacking in information. Obviously, there is a large language barrier between me and the staff and the staff and the guests; however, I also wondered what the staff knew or wanted to share. Not once did I hear explanations of the center as a source of raised turtles for Hindu ritual and I never heard any suggestions on how to help the turtles in Bali, other than to leave a donation at the center. In the beginning, I often questioned what the center's purpose was.

However, it took my days away from the center (for interviews, *sate penyuru* surveys, observing the DNA lab at Udayana University etc.) to fully appreciate the hard work that does go into the center. It never looks like there is much activity going on, but I realized that the Turtle Conservation and Education Center does the best it can in the face of many complex limitations. While much improvement is still needed at the turtle center, including formally greeting guests, standardized information to be learned and recited on tours, available informational pamphlets in a variety of languages, and a more motivated staff, the center has become a staple in the Pulau Serangan community. The locals are in search of ecological, religious, and cultural balance, for the Balinese and implemented by the Balinese, as am I.

## **PART I.**

### **A Brief History of the Turtle Trade in Bali:**

Despite the fact that Balinese Hindu rituals developed centuries ago, the capture and trade of turtles did not actually begin until the 1960s (Adnyana, 2004; 1). Before this period, the Balinese relied largely on the environmental resources available in their immediate grasp to sustain themselves and their ritual duties. However, the flood of tourist activity that essentially began in the 1960s opened the island to commercialization in many different capacities, one of which may be referred to as a commercial sale of ritual. With an improved standard of living, the Balinese were obligated to dedicate more time and funds to their religious ceremonies. In doing so, the Balinese were completing their religious duties while simultaneously (and possibly unintentionally) generating an elaborate spectacle for the tourists traveling in search of the “exotic”. Ultimately, the social perspective equating intricate, large-scale ceremonies with prestige and high social

status was born. Since then the rare, more costly animal species used in sacrifice for special occasions, including the sea turtle, have been sought after for even minor rituals.

However, the increased demand for sea turtles was not only to supply ceremonial activities. The turtle quickly became an icon of the island and its products could be easily found and readily bought. Similarly, the island was able to satisfy other countries' (namely Japan, Singapore, China, and the United States) demands for turtle products and in 1978 the industry peaked, making Bali one of the leading export centers of turtle goods alongside Palembang, Jakarta, Surabaya, Pontianak, and Ujung Pandang (Adnyana 2004; 2). While the full extent and reach of the trade during this period will never be completely understood, as collecting data was not yet a priority for many places, it can be postulated that much of Southeast Asia and beyond was involved in the trading activity.

In contrast, the vast majority of the turtle trade on the island of Bali was concentrated in only two villages in the south, Pulau Serangan and Tanjung Bena (Adnyana 2004; 2). In these two locations, the total amount of green sea turtles traded each year fluctuated from approximately 9,682 to 30,121 turtles (Adnyana 2004; 3). This statistic is roughly based on the limited available data, which was recorded by the Conservation of Natural Resources Agency (BKSDA Bali) from the years of 1969-1994. "The BKSDA office is the formal governmental agency under the Ministry of Forestry, which has been mandated to be the local management authority to ensure the implementation of the conservation management of natural resources, including marine turtles" (Adnyana 2004; 2). The more recent data collected since the green sea turtle was declared an endangered and protected species does not seem to be as thorough. Now that the trade of turtle species and products is illegal in Indonesia, the recorded numbers of

turtles imported and traded in Bali, specifically in Tanjung Bena, must be done in secret, evading government documentation. Therefore, government documentation is reduced to cases of confiscated turtles and the recorded permits approving turtles to be used for ritual each year. My experience working with the archive of BKSDA government permits coincides with the noticeable decrease in available data as few turtles are actually documented (roughly 20-30 cases per year), indicating that the majority of turtles used for ritual and for secular purposes are attained illegally (See Appendix A: BKSDA Bali Permits 2004-2008).

Accordingly, non-government organizations, such as ProFauna Indonesia, have taken it upon themselves to collect data on the number of traded turtle products. A statistic that is now commonly accepted and referred to in various newspaper reports and academic writings on the topic is that at least 27,000 turtles, in Bali, were bought and slaughtered for secular use (sate and handicrafts) in 1999, which also may be a low estimate ([http://www.profauna.org/content/en/hawksbill\\_trade\\_in\\_indonesia.html](http://www.profauna.org/content/en/hawksbill_trade_in_indonesia.html), 16 Nov 2009). When I asked ProFauna's sea turtle campaign leader, Wayan Wirdanyana, how this statistic was calculated, Wayan described a process of conducting monthly undercover investigations and direct questioning surveys across the major animal markets of Indonesia (Wayan Wirdanyana, personal communication, 17 Nov 2009. Denpasar). Evidently there are large discrepancies between the data agency collecting the data, whether it is a government organization, a non-government organization, or in some cases, a private company, and the findings recorded. This is just one example of a critical need for coordination and cooperation among the parties in Indonesia, since the

combined power of two agents will only aid in regulation, enforcement, and a greater understanding of the trade.

While the exact number of turtles associated with the turtle trade in Bali is contested, officials do have definite knowledge on the methods of transport, capture, and preparation before the animals reach the Balinese market. Firstly, contrary to popular belief, Bali was never a prime nesting or feeding site for sea turtle species compared to other islands in the Indonesian archipelago. While nesting occurred in Bali historically, the turtle populations around Bali and neighboring islands were exhausted relatively quickly, forcing turtle hunters and traders to undergo lengthy voyages to find the desired species. Traders frequented the “Java seas, Flores-Banda, Arafure, and the Sulu-Sulawesi seas” along with the waters bordering “West Sumatra, West Java (Pangumbahan), East Java (Alas Purwo), and the southern part of Nusa Tenggara islands” (Adnyana 2004; 4). Even remote islands, such as the Aru Islands in the Maluku province, which had previously found the turtle eggs and meat commercially worthless due to their inaccessible location, were visited. As a result, the exposure to the new market in Bali led Aru to “become one of the locations where turtle hunters are most active” (Persoon, de Jongh, and Wenno 1996; 108). The majority of these voyages, to even the most remote islands, ranged between “14- 55 days depending on the catching site and the year of capture” and almost always returned to Bali for sale (Adnyana 2004; 4). Interestingly enough, this fact reveals that other Indonesian islands did not use turtles to the extent of the Balinese. While other islands, such as Papua, practiced small scale, local rituals celebrating the sacred animal and used the turtle meat for subsistence purposes, “Bali was

the only island to commercialize the use of the turtle” (Creusa “Tetha” Hitipeuw, personal communication, 26 Nov 2009. Sanur).

Once the turtle species are found there are two typical methods practiced for catching sea turtles- the direct, active or the indirect, passive approaches. “The most common catching method is netting, using gill nets (locally called *jaring penyu*) made of monofilament nylon that consist of a coarse, fine mesh. The nets are about five to seven meters deep and 50-70 meters long” and remain on the ocean floor due to connected lead weights (Adnyana, 2004; 5). A fisherman can either use the nets to herd an identified turtle into a contained area for “immediate retrieval” or one may passively leave the nets in the “shallow coastal channels for several hours” hoping for sea turtle bycatch in addition to commercially viable fish (Adnyana 2004; 5). Internationally, the use of similar, larger nets has had a disastrous effect on a great deal of marine life. Shrimp trawler nets and sharp ‘L shaped’ hooks used in long-line fishing have been critically blasted in recent times for the amount of bycatch that becomes tangled and ultimately drowns. Nevertheless, as the turtle fisherman wait for the netting to fill, one may also harpoon the turtles coming up to the surface for air or opt to dive and spear the turtle carapace by hand. Lastly, as is common in the Aru Islands where there is a high number of nesting females that come ashore each night, traders flip the animal over where it remains defenseless on the sand (Persoon, de Iongh, and Wenno 1996; 108). At this point, the already laid eggs are confiscated and the animal is taken to a holding pen until the trader is ready to sail back to Bali’s landing port. Once the boat is ready to depart, the turtles are arranged in extremely tight quarters on the bottom level, below the deck. In this condition the animals do not have enough space to move around, especially since a

piece of plastic rope is tied through incisions in each flipper (the flippers are tied together above the head of the turtle). In this defenseless state, the turtles usually become extremely weak, as they are unable to move and have been out of an adequate supply of water for days at a time. “Based on the interview with some skippers and boat owners, mortality on any one boat because of delays due to adverse weather or mechanical failure (as well as bad husbandry procedures during capture and transports) could reach 50%” (Adnyana, 2004; 6).

Eventually, the boat will dock at the landing ports of either Tanjung Benoa in the Nusa Dua Peninsula or Pulau Serangan (Persoon, de Iongh, and Wenno 1996; 108). It is typical for the boat captain or turtle trader to hire up to ten men, depending on the size of the catch, to unload the vessel (Adnyana 2004; 6). This process will be done at high-tide so that the vessel can dock as close to the beach as possible, for convenience purposes as a typical size load may house up to 200 turtles (making the estimation of 9,682 turtles entering Bali in a year seem like an extremely low figure, see above) (Persoon, de Iongh, and Wenno 1996; 108). Next, the men will unload each turtle and create a scene similar to those represented in the well-known photographs of the turtle trade; each turtle is arranged by size, in rows along the beach, constrained, weak, and literally crying (as a mechanism to balance the salinity in the turtle’s body after being out of the water for a long period of time).

At this point, the owner of the boat or the turtle trader can attempt to sell the sea turtles immediately to costumers based on the “body size and body condition of the turtle, rather than weight” (Adnyana 2004; 7). However, if the turtle is not sold, it will be relocated to holding pens, located either on the beach itself or next to the slaughter-house.

The 50x25 meter collection sites on the beach are surrounded by bamboo fences and “during high tide the collection place is covered with water, but when the tide is low, the collection place is dry for hours and one can see many turtles. After the turtles have been held in the collection place, they are slaughtered” (Kaleran, Interactive dialogue, 20 Sept 2003). Therefore, it can be assumed that the turtles that are not bought directly during the beach unloading process or from the holding pen will not be used for ritual, but rather for meat.

The alternative holding site for the captured turtles was in a separate concrete room adjacent to a slaughtering facility, which was most commonly found in Denpasar (*rumah potong penyu*). Unlike the beach collection places, the turtles awaiting their fate in the slaughtering facility remained tied up and were only splashed with water once or twice a day (Adnyana 2004; 8). This pre-slaughter waiting period could last between “one to fifteen days, depending on consumer demand” (Adnyana 2004; 8). When the turtles finally faced their doom, an extremely harsh yet standardized process occurred as is described in detail by Professor IB Windia Adnyana of the School of Veterinary Medicine at Udayana University (turtle biopsies performed on lifeless specimens for scientific purposes follow a similar cutting procedure).

“First, the turtle was placed on its back, and washed with tap water. A sharp knife was inserted straight into the heart chamber through an incision made between the anterior edge of the plastron and the neck to kill the turtle. Blood was collected in a bucket. The bridges between the carapace and the outermost plastron plates, which are composed of cartilage, were then cut. Incisions were continued through the skin along the anterior and posterior edges of the plastron, which were removed from the underlying muscle masses, by pulling it upwards. Evisceration began with removal of the heart and the throat, which were separated from the body by cutting the major blood vessels namely the aortic arches, subclavian, pulmonary, thyroid, and common carotid arteries, and the pulmonary, hepatic, and postcaval veins. The throat was removed by making a mid-ventral incision posteriorly along the neck from the mandibular symphysis. The skin was reflected, exposing the underlying trachea and esophagus, which were then exteriorized, bringing with them the gastrointestinal tract, liver and the lungs. Finally, the kidneys and the gonads were removed” (Adnyana 2004; 8).

In laymen's terms, as described by the high priest, Ida Pedanda Gede Ngurah Kaleran, the slaughtering occurs while the turtles are still alive, making the process an exceptionally cruel one. The turtle is turned onto its shell and a sharp knife is used to stab around the neck of the turtle. The knife follows the line of the carapace until the flesh can be lifted, the neck cut off, and the turtle is skinned, half-alive" (Paraphrased from Ida Pedanda Gede Ngurah Kaleran, personal communication, 18 Nov 2009.Sanur).

Ultimately, a question remains: if turtles were not only consumed for ritualistic purposes in Bali, but also for commercial use, how economically valuable were these animals? When the turtle trade intensified dramatically from 1969- 1978 and after 1987, turtle meat was more abundant and consequently, cheaper than meat from more domestic animal sources (Adnyana 2004; 6). Thus, if the turtle trade was successful based on a copious supply of the animal before it reached endangered and protected status, does the sale of turtle remain a lucrative trade today?

After questioning sellers of *sate penyu* (turtle meat cooked on a skewer) during my independent study period, the answer seems to coincide with basic economics. When turtle species were more easily found in the waters surrounding the Indonesian archipelago, an abundant supply was brought back to Bali, which bombarded the market. If one wanted turtle meat, one could undoubtedly find it and at a competitive, low price. For example, Professor IB Windia Adnyana's field observations in 1995, recorded large turtles to be valued between 550,000- 200,000 Indonesian Rupiah, while mid-sized turtles were priced between 200,000-100,000 Indonesian Rupiah, and the smallest turtles sold from 100,000-50,000 Indonesian Rupiah (Adnyana 2004; 8). According to recent information gathered from *sate* sellers, turtle meat is sold by weight and one kilogram of

meat can cost 60,000 Indonesian rupiah (Made Jaya Ratha, personal communication, 25 Nov 2009, Pulau Serangan). As a reference point, a large sized turtle could weight at least 55 kilograms, making the price of turtle meat today, exceptionally high in comparison to when the trade was legal and openly thriving. Therefore, now that all turtle species are protected in Indonesia, the sale of meat must be done undercover. The product is rare, the trade is risky, and the value of the meat adjusts accordingly. Knowing this, for *sate penyu* sellers to make a profit, the *sate* itself must be more expensive and the meat must be used as sparingly as possible. In that case, the preparers of *sate penyu* often mix the turtle meat with pork (*daging babi*), to extend the use of one kilogram of meat (Made Jaya Ratha, personal communication, 25 Nov 2009, Pulau Serangan).

All and all, the turtle trade does continue to exist illegally today, but vast improvements have been made. While proper legislation, regulation, and enforcement strategies are far from perfect, the use of turtle has been greatly reduced to large-scale ceremonies and those Balinese individuals who can afford the more expensive meat. One pertinent issue that needs to be addressed further is a source of alternative livelihood for the ‘former’ turtle traders.

### **The Use of Turtles in Ritual:**

The complexities regarding the turtle trade do not end with the act itself, as the religious and cultural components of the turtle, as a sacrifice, continue to play an imperative role in the trade’s existence. As a result, it is increasingly difficult to differentiate between the actual belief and what has become a justification or excuse to engage in illegal behavior. To further complicate matters, I quickly realized that the simple question, “What are turtles used for in Hindu ritual?” did not come with an easy,

standardized reply. The Balinese's level of knowledge on the subject of Hindu ritual differs according to one's personal experience and geographic location. Whether or not an individual had access to formal education, a spiritual mentor, or simply grew up being told to do something without further questioning it, determines one's personal answer to the meaning and philosophy behind Hindu ritual today. Additionally, the geographic location determines components of the ritual as well. While religion is typically characterized as a belief system that is thought to be eternal, I feel as though its physical practice tends to vary on available resources. For example, Balinese Hinduism depends a great deal on the practice of physical, tangible offerings. However, what these offerings consist of adjusts regionally. The southern parts of Bali including Pulau Serangan, Tanjung Benoa, Sanur, Kuta, Kedonganan, Jimbaran, Bualu, Nusa Dua, Panjer, and Pemogan have depended on the sea for centuries and their rituals and dietary tastes embrace the consumption of turtle and other marine life, accordingly. In contrast, it is not typical for the central and northern Balinese to use sea turtle species for ritual or personal consumption. It could be argued that other industries and means of livelihood developed in these regions, based on environmental resources and restrictions. In turn, personal communication with a Balinese from the central or northern regions of the island would say that if a turtle was sacrificed, it would only be for an extremely auspicious occasion.

Therefore, the use of turtle for sacrifice is certainly rooted in the sacred texts and beliefs of the Balinese Hindus. By assigning religious value to the turtle, the religion simultaneously recognizes its existence as valuable. The turtle is sacred and accordingly, its use is recommended for only the holiest practices in Balinese Hinduism. Yet, as one can see, adaptation is inevitable, whether it takes the form of commercialization of the

animal or consequently, finding alternative sources of sacrifice. The fact that eternal “truths” may be molded to better fit contemporary circumstances is often an uncomfortable evolutionary process for some religious believers to admit. However, as I have come to understand it, the practices may alter because it is the philosophy that remains everlasting. As a result, almost every person will provide a different answer or interpretation to the engrained philosophy behind the ritual (or plainly say that they do not know), but this only adds to the complexity of the study. The fact that turtles are used as sacrifices in ceremonies is generally accepted, but what does the turtle symbolize in Balinese Hindu belief? Why sacrifice and what occasions call for such a ritual? How have these rituals changed over time and through what influences?

While religion and culture tend to be heavy terms, full of pre-conceived notions and exceptions, I have tried my best to maintain an anthropologically sensitive and open-minded approach in attempting to decipher the meaning behind the ritual acts and symbols. The following information is an accumulation of the most common responses I received through personal communication with high Balinese priests and through the recent documented efforts (by the World Wildlife Fund (WWF) and the Hindu Dharma Council of Indonesia, Appendix B) to standardize ritual knowledge in an effort to promote alternative sacrifices for the conservation of endangered species.

#### The Symbolic Meaning of the Turtle in Balinese Hinduism:

The turtle has proven to be an extremely prolific animal in terms of cultural and religious symbolism. Numerous cultures, with or without contact, have identified with the turtle in one way or another. Similar to other aspects of Balinese Hindu ritual, not one constant answer can explain the symbolic meaning of the turtle. However, on the most

basic level, turtles are important because they represent the Hindu god Wisnu. One explanation of Wisnu's affiliation with the turtle relates to a Hindu creation and revelation story which states that "the gods are split up when human beings are created. Therefore, in the end when a human achieves "*moksa*" the soul is released and returned to the gods to be created again. At this point, Wisnu returns to the earth as a turtle" (I Made Arta Wira Ratha, personal communication, 19 Nov 2009, Tabanan).

The turtle is also thought to be one of the main elements of the Earth. In this way, the actual sacred animal is the tortoise (a land-based turtle), which is thought to carry the world on the back of its shell. However, over time the sea turtle has become symbolically synonymous with the tortoise species (Ida Pedanda Gede Ngurah Kaleran, personal communication, 18 Nov 2009, Sanur). To expand on this idea, because the species spans the entire earth, the turtle has served as a connection between the land and the sea. Furthermore, the turtle symbolizes longevity and a long life as the combined effect of land meeting water, provides life and prosperity (I Made Arta Wira Ratha, personal communication, 19 Nov 2009, Tabanan).

Lastly, turtle eggs serve a significant purpose in neutralizing taboo activities. For example, in illegal cases of incest, which may tarnish a family's legacy, one would offer 108 turtle eggs to counteract the activity's negative effects on future generations. While eggs typically represent the next life, the number 108 symbolizes the number of cells surrounding a mother's placenta. When a baby is born to the earth, it is thought to have 108 invisible siblings. Therefore, the placenta is buried in the ground during a Balinese ritual in order for the 108 siblings to protect the life and lineage of the newborn (I Made Arta Wira Ratha, personal communication, 19 Nov 2009, Tabanan).

## The Structure of the “*Banten Caru*” (Offering)

In order to appreciate the use of the turtle for ritual in Balinese Hinduism, one should have a basic understanding of the meaning and structure of the offerings themselves. While the type of offering often varies by name, form, and size according to the region and village, the basic contents remain the same. Offerings typically include “rice, side dishes of meat and vegetables, fruits, and cakes that are arranged on palm-leaf bases” (Brinkgreve 1997; 229). Furthermore, these offerings are usually used as part of a set of five rituals called the *Panca Yadnya*, which are held in honor of the “deities, demons, souls of the dead, souls of the living, and holy men” (Brinkgreve 1997; 229). The overall purpose of the offerings within the *Panca Yadnya* rituals is to help achieve “a proper balance between the two sets of godly and demonic forces”, which occupy the invisible world of the *niskala* (Suastra, 24 Sept 2009).

The aforementioned rituals can either be held at the highest elaborate level (*utama*), an average level (*madia*), or a simple level (*nista*). The level of the ceremony often dictates the social status of the hosts and in contemporary Balinese culture wealthy individuals will frequently dedicate a greater amount of time and funds to host a ritual at the *utama* level (while wealthier individuals may be expected to dedicate more to the community or *banjar*, the larger, private ceremonies usually only serve as markers of social status and prestige). Consequently, these high level rituals utilize more elaborate offerings, which may contain “raw meat and blood” (Brinkgreve 1997; 230). While the animal providing the raw meat and blood varies by ceremony, many high-status Balinese misconstrue this to mean that they should seek out the rarer, sacred animals, such as the turtle, to bring their offering to the highest level of holiness (Ida Pedanda Gede Ngurah

Kaleran, personal communication, 18 Nov 2009.Sanur). Although certain ceremonies do recommend using sacred animals (like the sea turtle) for their sacrificial offerings, no ceremony practiced by individuals will ever require this. Therefore, in many cases the host aims to display their prosperity by being able to serve their guests the remaining sacred animal meat, a rare delicacy.

However, this view of ritual as a determinant of social status has been criticized by many for tainting the true meaning of the offering. Offerings are meant to be selfless acts. Through sacrifice one must control their behavior, desires, impulses, and ambitions in order to offer something to the forces bigger than the micro cosmos of human beings. Ultimately, sacrificial offerings are a means of showing gratitude to the gods, forces of good and evil, ancestors, and to the animal being sacrificed, in hopes of appeasing the cosmos and attaining a balanced life that will continue into the afterlife. The practice of sacrifice is not to ask for something in return and it is definitely not to show others one's material status (I Made Arta Wira Ratha, personal communication, 19 Nov 2009.Tabanan). The Hindu religion describes four ways to communicate with the gods- through spiritual concentration, balance of the body, physical ritual, and most importantly, through a person's individual behavior (*karma*) (I Made Arta Wira Ratha, personal communication, 19 Nov 2009.Tabanan). "If one cannot behave well, the ritual offerings and ceremonies are useless. Therefore, it is important for Balinese Hindus to understand how the ritual is performed and the underlying philosophy and purpose of the ritual" (I Made Arta Wira Ratha, personal communication, 19 Nov 2009.Tabanan). In this sense, it is okay to host a simple ceremony without the use of rare, sacred animals as offerings; the animal is only a symbol of the philosophy. "God knows everything and god

knows that one has already tried or cannot use a turtle (or sacred animal) for the ritual. It does not matter how big or small the ritual is, it only matters where your heart is” (I Made Arta Wira Ratha, personal communication, 19 Nov 2009.Tabanan).

#### Balinese Hindu Rituals Requiring a Turtle Sacrifice:

Due to the aforementioned inconsistency among Balinese regarding the appropriate ceremonies to sacrifice a turtle as an offering, the Conservation of Natural Resources Agency (BKSDA Bali) began a permitting process allowing religious practitioners to attain a turtle legally. The application for the permit requires the interested party to specify the type of ceremony the turtle will potentially be used in. After compiling the BKSDA Bali permit data from 2004-2008 with Made Jaya Ratha, I discovered the most common ceremonies listed were “*Karya Mamungkah, Mupuk Pedagingan, Ngenteg Linggih, Padudusan Agung*, and the Chinese New Year ceremony, *Imlek*” (See Appendix A: BKSDA Permits 2004-2008).

Upon further investigation, the majority of these ritual ceremonies do not require a turtle as it is not listed in any sacred texts (such as the *Weda*) and there is an acceptable alternative. According to the high Balinese priest and conservation activist, Ida Pedanda Gede Ngurah Kaleran, only the *Padudusan Agung, Pancabali Krama, Ekadasa Rudra, Tri Buana, and Eka Buana* ceremonies actually require the sacrifice of a turtle. Furthermore, these ceremonies are considered the largest in Balinese Hinduism and are categorized as “*agung*” which literally means to bring a ritual to the highest level of holiness” (I Made Arta Wira Ratha, personal communication, 19 Nov 2009.Tabanan). These turtle-approved ceremonies are held at the most sacred temples in Bali, such as *Pura Tanah Lot* and *Pura Ulu Watu* so that Balinese Hindus from all over the island can

visit and participate (I Made Arta Wira Ratha, personal communication, 19 Nov 2009, Tabanan). Therefore, they are held collectively, on behalf of all Balinese Hindus, versus the large-scale individually hosted ceremonies that strive for social recognition.

As mentioned beforehand, the basic meaning of the animal sacrifice is not only to demonstrate one's gratitude to the gods and to appease evil spirits but more importantly, "it is the way through which man maintains or restores the balance and harmony of the *Tri Hita Karana*. Through *caru* or animal sacrifice, man pays his debts to nature, thus pacifying the forces of nature (prevent natural disasters, disease epidemics, or bloodshed) (Juniartha and Hati, 16 Nov 2002). Specifically, turtles are used in these elaborate ceremonies to represent the balance in the universe. Furthermore, their use in these particular rituals is not the cause of sea turtle population decline being that the *Pancabali Krama* occurs once every ten years while the *Ekadasa Rudra*, *Tri Buana*, and *Eka Buana* occur once every century. Not only are these larger ceremonies obligated to sacrifice turtles, but also many other rare species, including a lion, tiger, elephant, and eagle (Juniartha, 10 March 2005). Nevertheless, Balinese Hindus are obligated to fulfill these sacrificial offerings as they "complement and coincide with the god or goddess that they manifest" according to the concept of *Saiwa Siddhanta* or *Tatrikyana* (Kaleran, Interactive dialogue, 20 Sept 2003). However, because these ceremonies are observed extremely infrequently, the sacrificed animals used should not drastically alter or threaten the animal populations.

According to the *Dharma Caruban* manuscript, before the actual sacrifice can be performed, one must carry out a designated process or technique in order to prepare the animal or meat (Kaleran, Interactive dialogue, 20 Sept 2003). Once this step is complete,

it is typical for a minor ceremony to occur before the actual sacrifice where one prays for the animal to reach a higher level or status when it is born again in the next life (Juniartha and Hati, 16 Nov 2002).

These great sacrifices occur during the *Tawur Agung* (meaning great payment or great sacrifice) portion of the ceremony, which is held on a *Sanggar Rong Tiga* or Three Division Altar constructed of bamboo (Kaleran, Interactive dialogue, 20 Sept 2003). When the sea turtle is sacrificed, only the head is used and placed on the highest level of the altar. One can automatically assume that the Balinese symbol of “three” plays a significant role in the use of the *Sanggar Rong Tiga*. Firstly, the Balinese believe in three main deities, *Brahma*, *Siwa*, and *Wisnu*. Accordingly, the universe as the Balinese understand it is divided into three sections known as the *Tri Toka*, which then coordinates with the three divisions of the body as described by the *Tri Mandala* (Hunter, Lecture, 10 Sept 2009). The netherworld, *Bhur*, is commonly represented by the lower portion of the body, or the feet, referred to as *nista*. The next division is the *Bhwah* or neutral, middle world where humans reside. This world is symbolized by the *madia* or human torso. Lastly, the *Swah* or upper world dedicated to the deities coordinates with the *utama* or head (Hunter, Lecture. 10 Sept 2009). Therefore, to bring the sacrificial turtle to the highest level of sacredness, only the head would be utilized.

#### The Release of Sea Turtles in Observance of Imlek: A False Claim?

The last ritual that was commonly recorded on the BKSDA Bali permits is the *Imlek* ceremony, celebrating the Chinese New Year according to the Chinese lunar calendar. I quickly found that the majority of Balinese Hindus, including my mentor Made Jaya Ratha, knew very little about *Imlek* except that it was a “Buddhist ceremony”,

which obviously is not solely true. Due to time constraints, I was not able to dedicate as much time to the use of sea turtles in this context. Nevertheless, the permits usually requested one or two sea turtles (*penyu*, meaning a large-sized turtle) for the purpose of release (See Appendix: BKSDA Permits 2004-2008). The legitimacy of this claim on the permit, however, is questionable. Apparently, the release of turtles does not automatically occur on the *Imlek* holiday, but rather can take place on any day (preferably an auspicious day) (“Pak Yoki” Tan Lioe Ie, personal communication, 4 Dec 2009. West Denpasar). Furthermore, one source said that after the influence of Buddhism, the use of live animals decreased significantly (“Pak Yoki” Tan Lioe Ie, personal communication, 4 Dec 2009. West Denpasar). Now, it is a perfectly acceptable, if not preferable, to use a symbolic cake shaped like a turtle, called a *kueku*. These cakes can be found extremely easily throughout Bali and are now commonly used instead of performing the symbolic release. This ritual of release, called “*fangshen*” can also be performed with a variety of animals, including birds and catfish. However, when it occurs with a turtle, the individual carves their name into the back of the turtle’s shell, wishing for a long life. Additionally, the Chinese symbolically release the turtle as if it were releasing an ancestor’s spirit. This form of ancestor worship is common within the many Chinese religious forms and has greatly influenced Balinese Hinduism in the form of the *sanggah*, or family/ancestor temple.

#### Can Balinese Hinduism and Conservation Co-Exist?

When one asks a Balinese (of any age) the meaning of a certain ritual, it is highly common to receive an answer with extremely minimal information. At first, this was a highly difficult concept for me to relate to as I instinctively study, label, and weigh the

merits of religion. To practice ritual everyday and not be able to recite a detailed purpose of one's actions seemed inauthentic to me at first. As apprehensive as I am to admit this, there were also times where I questioned how important an unexplainable ritual could be. Is the end result actually worth using an endangered sea turtle? In addition, it was difficult to pin-point the actual written history of the use of turtles in sacrifice. Evidently, Balinese Hinduism has been influenced by a great deal of religious tenants and followers over time, resulting in a very unique mixture of Hindu practice. These inconsistencies confused me at first, and possibly still do. For example, one of the main principles of Hinduism practiced in India is non-violence towards all living things (*ahimsa*). In fact, the word "Hindu" actually stems from "Him" meaning violence and "Du" or "Dur" meaning far away from (Kaleran, personal communication, 18 Nov 2009.Sanur). This value of *ahimsa* is such a staple in many Indian's lives that the majority practice vegetarianism. Even more so, one of the sacred texts of Hinduism, "the *weda*, does not allow any slaughtering, especially of the turtle, a holy animal" (Kaleran, Interactive dialogue, 20 Sept 2003).

How did Balinese Hinduism get so far from this principle of *ahimsa*, promoting the actual killing of animals in the name of ritual? A short answer would be through reinterpretation and adaptation to cultural differences. "In Bali, the offering and physical action of the ceremony itself is the actual prayer, while in India the same result can be achieved by reciting mantras and prayer" (Kaleran, Interactive dialogue, 2-4 February 2002). Today, "animal sacrifice is almost inseparable from traditional Balinese Hindu ritual, influenced by a certain minority Hindu sect in India, the teachings of the Bhairawa and Tantrayana" (Juniartha and Hati, 16 Nov 2002). While the Balinese are not supposed

to consume the remainder of the *caru* offering (some argue it is used to make traditional ritual food, such as *lawar*), the influential Bhairawa sect practices the eating of the offering, putting a great emphasis on its taste. In Bali, the word *caru*, referring to animal sacrifice, literally means “tasteful” (Juniartha and Hati, 16 Nov 2002). Therefore, “that is why the most common way of sacrificing animals is by killing them, and later cooking the meats into various traditional delicacies” including the Balinese *lawar* dish (a traditional dish cooked with raw vegetables mixed, meat and blood) (Juniartha and Hati, 16 Nov 2002).

While animal sacrifices are a quintessential aspect to Balinese Hindu offerings, the practice does not necessarily conflict with wildlife conservation efforts. Not only does Hinduism as a whole strive for balance within the *Tri Hita Karana*, but also the holy book Bhagawad Gita XVIII<sup>5</sup> states that the Yadnya ceremonies relate to the relationship between humans beings and nature specifically. In this way, “the offering is thought to serve as a medium for the Yadnya’s spirit to be active in balancing and maintaining natural resources” (Kaleran, Interactive dialogue, 2-4 Feb 2002). The Sarasmucaya 135 text states that it is “impossible for humans to achieve their goal of balance between the three points if the environment is not in good condition. With every offering, the Hindus should be reminded to preserve the natural resources of the earth” (Kaleran, Interactive dialogue, 2-4 Feb 2002). Ultimately, sustainable resource use is built into the teachings of Balinese Hinduism.

However, the commercial uses of turtle are the main cause of the animal’s endangered and protected status, today. The rituals that require turtles for sacrifice occur so infrequently, they could not possibly effect the animal’s population to such an extent.

Therefore, one must ask if attaining turtles for the purpose of religious ritual is just a cover-up. It is entirely possible that one may use the head and consume the rest or consume the entire turtle once it is in their possession, under false pretenses. However, this is an extremely difficult situation, as personal religious belief is not a topic many like to dispute.

Ultimately, if Hinduism has undoubtedly been reinterpreted and changed over time, it is possible for alternative practices to be adopted without changing the underlying principles themselves, in order to meet the needs of today. The first step must be raising awareness of ritual knowledge and alternatives in Bali. If people learn that the use of the turtle is not required for the majority of rituals, attaining a turtle for ritual purposes cannot continue to be used as a frequent excuse. Furthermore, if an individual believes that they do need a turtle for their ritual, approved alternatives have been stated and standardized by the Hindu Dharma Council of Indonesia, recognizing that religion must adapt to contemporary issues. The Hindu Dharma Council of Indonesia's published guidelines and alternative sources for animal sacrifice include the following (See Appendix B: The Hindu Dharma Council of Indonesia) To start, one must always remember the purpose of the living thing and the ceremony itself; if using the living creature in Hindu ritual threatens the balance of the natural world, then the slaughtering is not a necessity. Secondly, the Hindu Dharma Council of Indonesia promotes the government permit process, which states that in order to attain a turtle for the ceremonies on the level of *Yadnya Padudusan Agung Linggih*; one must obtain permission from one's local conservation agency and the Republic of Indonesia's Ministry of Forestry. Those requesting permission must include recommendation letters from the priest and

head of the village. In addition, to protect the adult turtles of reproductive age, the size of the shell cannot be greater than 40 centimeters. The ritual including a legally attained turtle cannot be done by an individual or on a private site, but rather must be used at a public temple (*pura*). Lastly, the recommendations previously stated should be incorporated into each village's local law (*awig-awig*) (See Appendix B: The Hindu Dharma Council of Indonesia).

**The Use of Turtle in Secular Activities:**

As I established previously, the use of the sea turtle for ritual has not been the cause of decline in the population. Moreover, this reasoning has been used as an excuse for the southern Balinese to consume turtle meat and eggs for pleasure in recent times. The “turtle-eating habit has been around for hundreds of years” as the meat, eggs, and fresh blood is believed to enhance ones “physical and mental condition” (Unknown, 31 Aug 2000). However, the act of consuming sea turtle meat, eggs, and blood has surpassed the level of subsistence survival, depending on the sea for one's basic livelihood, and has turned into a commercial enterprise. This commercialization poses the biggest threat to the endangered sea turtle populations and it unfortunately, takes a variety of forms. On one hand, the sale of turtle meat, eggs, and shells have required an abundance of turtles, taken from the wild, to satisfy human demand. Another type of commercialization, however, occurs in conjunction with human development, which encroaches upon the sea turtle's wild habitats. Pressure to develop Bali's coastal regions has coincided with the immense increase in tourism. With the construction of new hotel resorts, villas, and coastal recreational centers, the capacity for sea turtles to nest has diminished greatly. Consequently, adult sea turtles of reproductive age (30 years of more) do not have

adequate space to return to the original beach sites of their birth to lay eggs and maintain the wild population. To summarize, the principle reason behind the endangered status of the seven species of sea turtles today, is the use of sea turtles and their habitats for purposes other than religious ritual (secular).

Sate:

One of my main tasks while volunteering at the Turtle Conservation and Education Center in Pulau Serangan was to help Made Jaya Ratha conduct a *sate penyu* survey around the south of Bali (sponsored by the World Wildlife Fund). A great deal of information was uncovered through a very simple process. First, Jaya and I would drive or bike around to different areas in southern Bali and look for women or *Ibu's* on the side of road cooking *sate* on traditional stoves. When one was located, Jaya and I would purchase one portion of *sate* and begin to eat it. Therefore, when we later asked if the meat was turtle and consequently, illegal, a comfortable, relaxed atmosphere was already established. This tactic emphasizes the fact that if I am eating the turtle, it does not seem as though I am against the animal's consumption. Jaya was immediately able to tell if the *sate* had turtle meat and blood in it, however, it took me a long time to differentiate between turtle meat and *daging babi*, or pork. After our taste test, the questioning began, asking if it was turtle meat, where the turtle meat was purchased, how many kilograms were purchased and how many kilograms were typically sold in a day. Additionally, depending on how communicative the *sate* sellers were, we would ask where we could get turtle meat in Bali. In some cases, being a foreign student helped the process in that it diluted the situation from seeming like a criminal investigation. One tactic used was to ask to take a photograph of the 'authentic' Balinese food, stove and of Jaya and me eating

the *sate*. These photographs were later used to chronically organize the information received along with a general description of the interaction and a GPS marker of the exact site. Secondly, I would often say that I wanted to try turtle meat before leaving Bali and was really hoping to find it.

Once it seemed as though I was their side, the sellers relaxed and opened up a bit more. The typical first response of a *sate* seller regarding the sale of turtle meat is “*tidak boleh*” or “not allowed”. Therefore, one can conclude that the vast majority of Balinese now know that the seven species of sea turtles are endangered and protected animals according to Indonesian and Balinese legislation. With a bit more prompting, the following information was received. Typically one portion contains nine to fourteen skewers of *sate (tusuk)* that sold for 6.000- 12.000 Indonesian Rupiah depending upon the amount of turtle meat. The locations of purchase differ from seller to seller; however, three out of the four sellers that I specifically observed said that turtles could be acquired in Pulau Serangan. These sellers stated that a kilogram of meat could be bought for anywhere from 60.000-100.000 Indonesian Rupiah while turtle meat imported from Java cost less per kilogram (around 40.000 Indonesian Rupiah). In addition to the cheaper price, the sellers often buy meat from Java because turtle meat is not as easily accessible in Pulau Serangan and Tanjung Benoa anymore. As described before, the price of meat per kilogram has definitely increased since the turtle trade was openly practiced and legal. Therefore, the sellers have to extend the meat in order to gain the most profit possible. The *sate penyus* is commonly mixed with *sate babi* (a cheaper meat) so that a kilogram will make more skewers (one kilogram will be used sparingly to produce at least 100 skewers). Additionally, the price is raised, as a typical portion of *sate babi* may

cost 4.000-5.000 Indonesian Rupiah. Yet, attaining the turtle seems like much more effort than selling other types of *sate*. However, in the end, there is a large available profit margin since turtle meat is still in demand (people enjoy the taste and are willing to pay more for it) and therefore, the product can be sold quickly and with less effort. One seller said that she often sold 2.000 pieces of *sate* a day or seven kilograms of product when it was mixed with turtle meat.

Culturally, the southern Balinese have eaten turtle meat as often as other marine seafood, such as shrimp or tuna, because the sea was a major source of their livelihood. The fact that people know the sea turtle is protected and its capture and sale is illegal, but are still willing to seek out and purchase *sate penyu*, emphasizes the central role the turtle still plays in the dietary taste of the southern Balinese. Ultimately, legislative action has not proven to be the sole answer in overcoming what has become a cultural norm.

#### Collection of Sea Turtle Eggs:

Throughout the one month independent study period, I did not come across one sea turtle egg that was intended for consumption in Bali. While the Turtle Conservation and Education Center hatched eggs, very few people I met consumed eggs or found them to be healthier food options. Therefore, I believe that the collection of sea turtle eggs is a bigger phenomenon in other countries of East and Southeast Asia, including China and Malaysia. The illegal sea turtle egg trade definitely exists, while possibly on a smaller scale, because there are many written reports regarding egg thieves on nesting beaches throughout Asia. For example, it is estimated that 30 percent of the nesting eggs in Meru Betiri National Park in Banyuwangi, East Java are stolen each year (Nugroho, 2 Sept 2008). Once the eggs are found or stolen they are brought to the market where

individuals from numerous cities journey to Banyuwangi in hopes of finding eggs at the “lowest market rate” to eat because of the “myth that the eggs contain extra energy, making customers extremely vigorous” (Mahmudah, 19 Jan 2009). The eggs are about the size of a ping pong ball and can cost anywhere from 2.500 Indonesian Rupiah- 10.000 Indonesian Rupiah depending on supply and demand.

While egg collection is not a major issue in Bali it is detrimental to the recovering sea turtle populations. Despite the fact that about one in one thousand sea turtle hatchlings will survive to reproductive age (30 years) in the wild, egg thieves and consumers lower that remaining opportunity even further. One conservation strategy in place is to transport the eggs from the natural nesting site on the beach to an artificial nest where it can be monitored and protected from human and feral animal predators. In many cases this relocation is necessary; however, it must be done extremely carefully as the egg itself is extremely sensitive to movement and tampering. If the transfer is not executed smoothly, one risks a high mortality rate when the eggs hatch. The Turtle Conservation and Education Center in Pulau Serangan receives eggs from Java since nesting turtles are no longer found in Bali. In exchange, the eggs must endure car transport and a great deal of movement. Under these circumstances, an optimum hatching success consists of a 50-60 percent mortality rate (Made Jaya Ratha, personal communication, 28 Nov 2009.Pulau Serangan).

#### Traditional Chinese Medicine:

Similarly to the illegal trade of sea turtle eggs, not much information about Traditional Chinese Medicine is readily available in Bali. However, it can be assumed that many sea turtles involved in the Balinese turtle trade were exported for medicinal

uses in China. As China is the largest consumer country in the world, it is also known for engaging in the turtle trade and therefore, impacting the decline of sea turtle species in Southeast Asia (Chen, Chang, and Lue 2009; 11). “The annual trade volume of live turtles in Asia have exceeded 13,000 metric tons (1 metric ton = 1000 kg), and a high proportion of them are believed to be collected from the waters of Southeast Asia” for the purpose of traditional Chinese food and medicines (Chen, Chang, and Lue 2009; 11).

“Traditionally, turtle shells have been used as a common ingredient in Traditional Chinese Medicine prescriptions. It is well-known that turtle shell is used for the production of *guilinggao* (turtle jelly), a glue-like residue produced by long-term boiling of turtle shells and some other herbal ingredients. In Taiwan, turtle shells were used in the formula of “*Gui Lu Er Xian Jiao*” and “*Gui Ban Jiao*”. *Gui Lu Er Xian Jiao* is a semifluid extract of turtle plastron and deer-antler jelly, usually mixed with some herbal ingredients such as ginseng and *Lycium* berries (*Goji*). *Gui Ban Jiao* is a glue-like jelly, extracted from turtle shells by long-term boiling” (Chen, Chang, and Lue 2009; 11).

The aforementioned medicinal remedies are only two of many, which use the endangered and protected sea turtle species. Although it is widely accepted that turtle shells have broad pharmaceutical effects, I cannot identify what they are specifically.

#### Handicrafts:

The use of the sea turtle in artistic craft and jewelry production dates back thousands of years. Many cultures that had contact with the animal have incorporated its components in artistic practice. For example, grave markers including pendants, carved ornaments and various types of jewelry can be found dating back to the Khok Phanom Di and Nil Kham Haeng period in Thailand. On the same note, “bangles made of tortoise-shell (mainly from hawksbill turtles) are reported from several grave sites in pre-dynastic Egypt, estimated to date back more than four millennia (Shanker and Pilcher 2003; 46). Therefore, the practice of using tortoise-shell in various handicrafts is not new; however its commercial demand in Bali is.

Today's tortoise-shell industry (despite the product deriving from sea turtles) is referred to as *Bekko* and began operating on a much larger scale after the first waves of tourism hit Bali in the 1960s. The shell used to make the distinctive patterned jewelry, glasses, and trinkets is of the hawksbill turtle, whose meat is generally not eaten. So, the animals are killed simply for their shells, making the tortoise-shell industry partially responsible for the massive declines in the wild populations over the past four or five decades" (Shanker and Pilcher 2003; 46). Despite the internationally protected status of the hawksbill turtle, tortoise-shell handicrafts are still readily found throughout Asia and exported to other countries including the United States. However, like much else regarding trade beyond one country's borders, international enforcement is not nearly enough and "awareness raising incentives should be initiated to help promote the local enforcement of the law" (Shanker and Pilcher 2003; 49).

According to the illegal wildlife trade surveys conducted monthly by the non-governmental organization ProFauna, there are several methods traders use to bypass the loose international and domestic enforcement laws in place as of now. For one, "the exporters often declare the tortoise-shell product to be made of the unprotected buffalo horn instead" (Wayan Wirdanyana, personal communication, 17 Nov 2009. Denpasar). Additionally, the tortoise-shell handicraft may be placed in between "other stockpiles of sea harvest such as mollusk and pearls" during shipment, disguising the illegal items from custom authorities ([http://www.profauna.org/content/en/hawksbill\\_trade\\_in\\_indonesia.html](http://www.profauna.org/content/en/hawksbill_trade_in_indonesia.html), 16 Nov 2009). Lastly, ProFauna has identified the safest and most full-proof method of shipment to be alongside other "ready stock souvenirs" in the form of bracelets, necklaces, rings, glasses

frames, and trinket boxes. The custom officials usually decide the contents of the shipment are either buffalo horn or tortoise-shell patterned plastic (popular in the United States) allowing the transfer of the protected goods to occur. One of the greatest problems with the trade today was summarized by ProFauna's sea turtle campaign leader, Wayan Wirdayana, as he frustratingly conceded "when the custom and quarantine official are successfully bribed everything will work smoothly" ([http://www.profauna.org/content/en/hawksbill\\_trade\\_in\\_indonesia.html](http://www.profauna.org/content/en/hawksbill_trade_in_indonesia.html), 16 Nov 2009).

## **Part II. The Three Major Agents in Need of Coordination/Redefinition**

As is evidenced by the aforementioned information, the turtle trade in Bali is comprised of several entities in pursuit of different goals. The ecological well-being of the ocean and of the sea turtles themselves is far from the only aspect in need of attention in this situation. It is equally as important to remember that the turtle trade consists of human beings as well and while, yes, humans are the major cause for the sea turtle population decline in Bali; man is also struggling to cope with the results (in terms of tourism, development, and potential sources of future employment, etc). For this reason, individuals cannot redeem themselves and the current situation without greater support from "above". This savior should come in the form of the government (local and national), the non-governmental organizations, and the communities themselves. As difficult as it can be to work with others, it is even harder, if not impossible, to work alone. Therefore, productive collaboration, efficient coordination, and an overall redefinition of an approved strategy to end the illegal sea turtle trade activity while supporting the economy and well-being of those dependent upon it, is a necessity. This mission needs to be streamlined in order to be accessible, straight-forward and plausible

for each of the agents mentioned above. At this point in time, effective legislation and enforcement is not possible because the only information widely accessible to the Balinese (and greater international) community is that sea turtles, legally, are off-limits. But without the creation of further opportunities, how can one expect the trade to gently dissolve? What makes the sea turtle trade in Bali such an interesting yet complex case-study is the fact that sea turtles and their predators, us, are both in need of help. As of right now, there is no clear means to provide such aid.

I will be the first to admit that I am far from an expert on the scientific, legal, and Balinese social issues at hand. However, after learning and observing the effects of the trade for the past month I feel as though the following projects need to be enthusiastically implemented: greater awareness and education on the biological, social, and political conflict of the trade, local initiatives, more effective and complete law enforcement strategies, and a further development of conservation projects aimed towards protecting the remaining sea turtle species and their habitats.

#### The Role of the Government

As of now the predominant role of the national and local government is to create legislation through declaring the seven species of sea turtles endangered. This declaration took several steps. The first law regarding turtle conservation in Indonesia was passed in 1978, protecting the *Penyu Belimbing* or leatherback turtle (*Dermochelys coriacea*) through the Government Act no 371/kpts/um/5/1978. Then, in 1980, the Government Act no 716/kpts/um/10/1980 was passed to protect the *Penyu Tempayan* also known as the loggerhead turtle (*Caretta caretta*) (Adnyana 2004; 12). During this time, the Governor of Bali initiated a quota program, which allowed for 5.000 non-protected sea turtles

(which at the time consisted of the green, flatback, and hawksbill sea turtles) to be consumed per year for religious or *adat* (traditional, communal) purposes (Adnyana 2004; 12). The quota would supposedly be enforced through the BKSDA Bali permit program (the use of a turtle would require written permission) and the turtles were only allowed to enter Bali through Tanjung Bena, where a sufficient conservation authority strategy would be implemented. After much deliberation and lobbying on behalf of individual communities and conservation agencies in Bali, the quota calling for 5,000 turtles was terminated. However, much conflict surrounds the Balinese media currently regarding reinstating a new quota allowing 1,000 turtles to be used a year for religious and cultural purposes. My personal contacts, synonymously, agree that the quota is a “disgrace” (Pak Made Geria, personal communication, 1 Dec 2009, Pulau Serangan). As indicated by the high Balinese priests, sea turtles are not common requirements for ceremonies and can be easily replaced by approved alternatives. In fact, because Bali consists of “1400 *desa adats* (traditional villages) in Bali and each will host a big religious ceremony every ten years, thus approximately 150-200 turtles would be used a year” (Pak Made Geria, personal communication, 1 Dec 2009, Pulau Serangan).

Next, the Government Act no 882/kpts/11/92 protected the *Penyu Pipih* or flatback turtle (*Natator depressus*) and the *Penyu Sisik* or hawksbill turtle (*Eretomochelys imbricata*). “Lastly, in 1999, the *Penyu Hijau* or green sea turtle (*Chelonia mydas*) was declared an endangered/protected species in Indonesia with the national law no. 5 and rule no 21, which states that anyone who engaged in the trade of a protected animal or its parts will be sanctioned to a maximum of five years in prison or a hundred-million rupiah fine (Adnyana 2004; 12). Now, the Indonesian national law summarizes in “legislation

no. 7 (1999), that all sea turtles are protected animals” (Kaleran, Interactive dialogue, 20 Sept 2003). In between each of the legislative steps listed above, a great deal of lobbying was done by conservation agencies within Bali and international treaty efforts, such as CITES, which identifies and emphasizes the listed endangered species in need of protection (Indonesia is a signatory).

Thus, with all this legislative effort in place how can the turtle trade continue illegally? An oversimplified answer based on my observations, would include a lack of coherent knowledge and training among government officials and employees, which therefore, leads to corruption and bribery practices and a lack of coordination among the islands of Indonesia. Firstly, the turtle trade does not only occur in Bali, but also includes much of Asia. While the country of Indonesia consists of so many island provinces, each with its own language, religion, culture, and ecosystem, it seems highly unrealistic to even propose an efficient monitoring and enforcement system within the country, let alone Asia as a continent. Secondly, as the NGO ProFauna states, government officials do not have the skills or training to properly identify endangered species in transit. This was extremely obvious to me as government officials from the province of Bali and also the local government of the city of Denpasar visited the Turtle Conservation and Education Center in Pulau Serangan. These men in green suits did not have any knowledge of turtles in general, let alone the ability to assess the species type and health of the animal. Lastly, these “efforts to stop the smuggling of protected species have come up against a brick wall, as we have found out that police and military personnel are behind the rampant smuggling of protected animals” (Kurniawan, 29 March 2003). In my opinion, the law enforcement agents are distant to the cause, making the potential of easy

money very appealing. Consequently, a great deal of work remains in effectively enforcing these policies.

#### The Role of Non-Governmental Organization:

From what I can tell, the role of the non-governmental organization (NGO) is to fulfill what the government cannot. NGOs have increased opportunities for funding from private donors which can go towards lobbying for the cause (legislation), creating awareness campaigns, and conducting scientific and social research. Because the NGO is a private entity, it has the ability to report facts as they are, without the same amount of caution national and regional governments must use. Throughout my independent study project, I met with a variety of sea turtle campaign leaders from different NGOs across Bali. Interestingly, all of these NGOs in Bali are regional offices for a larger institution that aside from ProFauna was founded in America. Below briefly discusses the basic action plans ProFauna, The World Wildlife Fund (WWF), and Conservation International are utilizing to redirect the sea turtle trade campaign in Bali.

Firstly, ProFauna is a NGO working for the protection of wild animals and their native habitats. Unlike the other predominant NGOs in Bali, ProFauna was founded in Malang City, East Java in 1994 and has its main offices in Jakarta and Bali. Yet, similarly, ProFauna operates on a membership system which allows for more possibilities for campaign funding and manpower. While ProFauna supports the legitimate religious use of animals, the organization primarily works to further investigate the capture and trade of these wild animals and rescue accordingly, using non-violent means. My impression of ProFauna is that while the NGO does understand the use of animals for human consumption, it takes a rather extreme preference against it. As ProFauna models

its campaign strategies after the non-violent, yet ‘in your face’ style of Greenpeace, there are no questions that ProFauna aims to keep wild animals in the wild regardless of human desires. To me, the most important information ProFauna provides on the sea turtle trade in Indonesia and specifically in Bali, is the survey data. The government organizations often do not have the funding or staff to conduct thorough investigations like ProFauna is able to do. Once a month, staff members from around Indonesia conduct undercover research of the types of wild animals being traded and their whereabouts. These investigations often serve as tips to law enforcement agencies so that they can assess the situation and decide when it is appropriate to confiscate the illegally captured animals. “Research by ProFauna has resulted in several major raids on traders in sea turtles, with the trade reduced by up to 80 percent as a direct result”

([http://www.profauna.org/content/en/profauna\\_indonesia\\_taking\\_action\\_for\\_indonesian\\_wild\\_animals.html#about](http://www.profauna.org/content/en/profauna_indonesia_taking_action_for_indonesian_wild_animals.html#about), 7 Dec 2009). While this is a large claim, ProFauna undoubtedly conducts the behind-the-scenes investigations, filling in the missing link the government conservation agency is not able to complete. As a result, ProFauna is a successful example of a non-governmental organization coordinating with the government conservation agency in order to maximize the benefits. If each agent does what they do most efficiently, cooperate with one another, and share information, more effective policies will result.

While ProFauna is concerned mostly with the wild animal trade in Indonesia on a large-scale, the World Wildlife Fund (WWF) has worked the most with the sea turtle trade in Bali specifically. According to the WWF Indonesia mission statement, “WWF works with governments to develop and enforce implementation of national, regional,

and international turtle conservation agreements” as well as working alongside individual communities in Bali to organize locally initiated campaigns ([http://www.wwf.or.id/tentang\\_wwf/](http://www.wwf.or.id/tentang_wwf/)). One example of this is the campaign for targeting alternative sources of income for those formerly involved in the turtle trade in Pulau Serangan and Tanjung Benoa (poachers, dealers, and vendors). WWF understands and strongly believes in this effort, which gives locals an opportunity to make a change. Similarly, this NGO has the funding capacity to up-start scientific, educational, and social programs on the local level. For example, one of WWF’s most successful projects is the Turtle Conservation and Education Center in Pulau Serangan. In this case, the local community founded the center, but only with the guidance and financial aid of the World Wildlife Fund. Once a program is created and settled, WWF typically backs away and takes less of a dominate role in its daily operations. Yet like the turtle center, WWF continues to advertise for the projects, stimulating additional interest and funding whenever possible. I definitely had the most amount of contact with WWF staff members during my independent study project and have come to believe that the organization takes a great approach by realizing the necessity of involving local populations in conservation efforts. While ProFauna acknowledges the human component in conservation, its campaigns do not seem to seek out compromise as an effective strategy. WWF realizes that the trade exists for a reason, human beings want to consume animals, whether for ritual or secular purposes, and therefore, a compromise based on increased awareness is the only way to actually change the behavior.

Lastly, I had the least amount of contact with Conservation International, but from what affiliates have said, the organization seems to work a great deal with science based

research in the field. While working with the social issue of human use and consumption of animals, Conservation International utilizes its significant funding sources to collect data on the health and status of sea turtles throughout Indonesia (as does WWF). All of these organizations play an imperative and unique role in ending the illegal activity of the sea turtle trade. Because of this, each one serves an intricate purpose in the overall conservation effort. With continued consultation and coordination, numerous strategies can be implemented simultaneously, hopefully maximizing the benefits.

#### The Role of the Serangan Community/ the Turtle Conservation and Education Center:

“No less important than turtles, industrial pollution, invasive species, massive environmental perturbations, including altered shorelines and food web manipulations, are the socio-economic problems for marginalized, rural communities; it is unclear what will happen to hundreds of thousands, perhaps millions, of coastal people in the area of influence, human beings who have little or no livelihood alternatives, not to mention capital – either monetary or political. How will they respond when land and coastal areas, economic systems on which they and their forefathers have sustained themselves, are dramatically altered, or made inaccessible? (Frazier 2008; 31). I urge the non-governmental communities and other conservation and enforcement agencies in Bali, to not forget the local community. They are at fault, *to a point*, but deserve new opportunities to remedy the situation.

As was stated earlier, incorporating local communities into the conservation program is a necessity. The human component in the sea turtle trade is undeniable and therefore, changes must begin and end with the source itself.

The history of Pulau Serangan is one of ecological paradise spoiled by the overexploitation of surrounding marine species and habitats. This is partially due to the turtle trade, but also to the massive tourism industry, which was to take the form of a full-service resort. In the process of construction, the ecosystem of Pulau Serangan was ravaged and unfortunately, it was fated to remain that way without the benefits of the resort for some time. Due to the Indonesian Financial Crisis in 1997-1998, the foreign

investors withdrew their interest and funds (Pak Made Geria, personal communication, 1 Dec 2009, Pulau Serangan). All that remains today is the skeleton of a former construction site, complete with sand and gravel hills, old construction machinery, and open deserted space, which now seems to be used as a landfill. Interestingly enough, this island (now connected by a highway) is home to one of the most sacred temples in Bali, *Pura Sakenan* (Juniartha, 11 Oct 2001). “The ancient Balinese text of *Usana Bali* mentioned that *Sakenan* Temple was built by one of Bali's most revered spiritual figures, the legendary Mpu Kuturan, during the reign of King Masula-Masuli in the 12th century” (Juniartha, 11 Oct 2001). Obviously, the history of Pulau Serangan has changed as the *Tri Hita Karana* principle is surely at risk as man and his environment live in discord.

However, Pulau Serangan has expressed a desire to clean up its image and work towards rejuvenating and conserving its environmental ecosystems once again. One of the first steps was initiated by the local community in devising the plan for the Turtle Conservation and Education Center (TCEC), mentioned previously. The original vision for this center was the product of the locals themselves and continues to provide employment and stimulate Serangan's economy. For example, the center employs a day and night-time manager, two full-time maintenance men who clean, feed, and monitor the turtles, a woman to oversee the gift shop, and countless others who are hired for the physical maintenance of the complex. Additionally, the constant supply of fish and sea grass needed to feed the turtles is bought from the local fisherman on Pulau Serangan, which helps to fuel a dwindling profession.

The center has also helped to reshape the community during these tumultuous years by hosting a series of educational outreach programs for local and foreign visitors alike. My initial impression was that educational outreach was the main objective of the turtle center. Firstly, many local school groups host fieldtrips to the turtle center where the young students meet the turtles and then go into the center's classroom facility to watch an educational film on the endangered status of the sea turtle. I also frequently saw chartered buses drive into the center and unload many tourists, expecting to see turtles nesting on beaches versus the center's ten tanks. And while this source of educational outreach and awareness is a big part of the financial structure of the center, which relies heavily on donations, the center had another (not-so-clearly) defined purpose to directly aid the local Balinese community. As explained to me by my advisor Pak Windia, the center's ultimate purpose actually goes against typical conservation principles. At first I felt as if Pak Windia and I were the only two who knew this privileged information since the center surely seemed as though it was primarily operating as an educational resource. Even the center's co-founder and manager, Pak Made Geria states that the center was "specifically designed to serve as a tourist attraction as well as an education and research facility" (Juniartha, 22 June 2006). Consequently, I still do not know if the genuine mission of the center is defined and advertised well enough. Nevertheless, according to the conservation expert, Pak Windia, the purpose of the center is to raise baby sea turtle hatchlings (*tukik*), which will be cared for at the TCEC for a period of time until they are inevitably sold or provided to those with government permits approving their use for religious ritual (IB Windia Adnyana, personal communication, 16 Nov 2009, Pulau Serangan). According to this theory, only five to ten nests a year will be dedicated to

religious ritual and will hopefully serve to satisfy the demand (so that the search and capture of sea turtles in the ocean is no longer necessary).

When the center cannot sustain the amount of turtles it has occupying its tanks, a release occurs, which I soon found out to be a misleading “conservation” strategy. Realistically, only one in one-thousand hatchlings will survive and that statistic is also dependent upon the quality of the nesting environment. Therefore, the sea turtle eggs hatched in an artificial nesting site in the center’s facility have even less of a chance of survival. So while many tourists line the beach and watch the release of hundreds of sea turtles thinking they are adding new life to the sea turtle population, they are not. The release of sea turtle hatchlings is not a conservation strategy that will biologically effect the wild sea turtle population in any way. It does seem better for the majority of the animals to die in the ocean, providing food and sustenance to the connected food web, than to die in the center. However, releasing turtles cannot possibly be the only means of conservation and problematically, it is definitely the most publicized. Several articles reporting the release of turtle hatchlings are published in *The Jakarta Post* each year, providing romantic descriptions of children picking up their first turtle and giving it life again (Suriyani, 3 Oct 2008). And to a great extent, those romantic descriptions are legitimate. It is a magical feeling that hopefully will appeal to human emotion and create new dedicated turtle conservationists. In order to tap in and solidify this instant connection, successful programs have included turtle-based ecotourism including “adopt a nest” (complete with a certificate of authenticity and personalized information on one’s adopted turtle) or volunteering to “turtle guard” nesting beaches. At the same time, as one reads these articles, the majority describe tourist release programs. Providing information

to tourists is incredibly important as they should know how to protect the beaches, reefs, and sea turtles during their stay in Bali and beyond. However, when will the locals be involved in these projects? Luckily, after spending a month volunteering at the TCEC, I can confidently say that the locals are involved in Pulau Serangan. The fact that many of the center's employees are former turtle hunters and traders, who can now be seen assessing the health of baby hatchlings, possibly reflects an amazing change of heart. I cannot speak for all, but the Serangan community's center, despite its inefficiencies in motive, management, and operational limitations, has accomplished transformative work and I am proud to have been a part of the process, if even for a short period of time.

#### Concluding Remarks: Is Coordination and Balance Possible?

While I learned an immense amount of information during my independent study project, a lot of questions have gone unanswered- possibly, because they are not yet known. Initially I thought I had to choose, the turtle or the culture, and I went about my study trying hard not to pass judgments or assign value to a certain side. However, I had many doubts and frustrations regarding the current turtle situation in Bali. I realized that these doubts solely consisted of my own point of view, which was characteristic of a 20 year old, middle-class American, and I greatly feared transferring them onto a new culture that I knew little about. Therefore, in the body of my paper, I have tried my best to maintain a removed voice, fearing that in my quest for balance, one side would inevitably triumph. Now, however, I would like to take an opportunity and address a few of these concerns as they plagued my mind and work journal for the majority of the independent study process.

Firstly, I often questioned the authenticity behind the Balinese Hindu ritual when so few Balinese could explain the basic meaning. After much deliberation I realized that the Balinese simply do not have the need to define their beliefs in a similar manner as I do (or possibly the “west”). I constantly weigh the positives and negatives of religion, deciding what system of beliefs works best for me and my lifestyle. Yet, the answer for the Balinese might just be simpler. Religion for the Balinese is life and there is no differentiation required. The rituals provide an organized system of morals, socialization, identity, and faith that all human-beings desire. And therefore, even at the most basic level, the Balinese rituals are of course, a worthy pursuit.

Secondly, I had an extremely pessimistic view towards the possibilities for effective law enforcement regarding the turtle trade. Once I learned about the trade’s sweeping range across countries, I could not get my head around what effective coordination would need to entail. I was greatly conflicted about the concept of Indonesia as a country. Indonesia, alone, is made up of more than 17,000 islands, each with their own dialect, culture, tradition, access to education and technology, and available natural resources. How can such uniqueness be fairly represented by one government? How can a democracy ever occur under such circumstances without the nation conceding to one homogeneous identity? Furthermore, how will the number of government agencies necessary in regulating the turtle trade ever be coordinated, trained, accountable, and yet remain sensitive to their regional culture? It seems natural for humankind to want to be represented, heard, and understood on some basic level. Now, who is doing the talking, who is doing the listening, and who is forgotten in Indonesia today? While I strongly believe that regional advances (within Bali) and improvements with international treaties

can be made in regards to cooperation and coordination towards regulating the turtle trade, I am less optimistic about the possibility of actual enforcement across seas.

Uncertainties aside, over the course of this month I have come to terms with the fact that many of my questions cannot be answered and I have learned that it is okay. The state of balance that the Balinese strive for and the turtle trade needs entails a mixture of give and take. The term balance implies that one may have to give up a bit of one thing to attain more of another, whether it is accepting alternative methods in ritual, beginning a new career after formerly being involved in the trade, or literally choosing to eat pork instead of the similar tasting turtle *sate*. This principle of balance is similar to the idea of compromise, which I would argue is the redirection the turtle trade conservation strategies should adopt.

The basic message of this study is that the turtle conservation programs at this moment in time, regardless of the agency that implements them, are sending mixed messages. In the religious sense, very few understand what types of ceremonies require the use of a sea turtle. In the cultural sense, while the capture and sale of turtle products is known to be illegal, turtle *sate* and handicrafts are still readily available around the island, as is evidenced by the *sate penyus* survey. In the context of the government, officials have been known to ‘look the other way’ when illegal trading activity occurs, as long as they reap some sort of small benefit. All things considered, why would anyone expect the Balinese to change their cultural consumption patterns? This is especially true if the other agents are not pulling their weight. Change *is* underway; however, there is vast room for improvement, which may simply begin with redefining and streamlining the current goal of ending the illegal trade and the strategies that will be utilized in doing

so. For starters, stricter regulation and enforcement is required and secondly, it must be made easier for people to attain raised or bred sea turtles from government approved facilities for ritual use.

While the idealized, harmonious perspective of *balance*, that many relate to religious peace or tranquility, would preferably apply to the condition of the turtle trade in Bali, due to the never-ending complexities involved, it is more realistic to think in terms of compromise. A philosophy I learned to appreciate as I encountered local government agencies, non-governmental agencies, and local communities in Bali during this independent study project sums it up nicely, we will do the best we can.

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#### Recommendations for Further Study:

I cannot pretend to have done justice to the majority of topics explored in this paper, as it only skims the surface of the amount of potential the issues entail. With the limited time allotted for independent study and the complexities involved in the subject matter, a great deal of research is still required for a more complete understanding. An example, for the scientifically inclined, would be to monitor the biological health of the sea- turtles surrounding Bali's waters today compared to the health of the turtles being raised and bred in centers similar to the Turtle Conservation and Education Center in Pulau Serangan. Furthermore, an in-depth study on the numerous influences that helped to foster the unique aspects of Balinese Hinduism would be extremely interesting, particularly regarding the adoption of animal sacrifice versus traditional non-violence teachings. Another potential topic would be an update on the ability of government agencies, non-governmental organizations, and private institutions to coordinate strategically regarding issues of conservation awareness, enforcement, and regulation. Additionally, further investigation on the notorious illegal wild animal trade in Indonesia would be helpful to the NGO, ProFauna. Lastly, any study concerning the current status and livelihood (new job availability, economic status of former fisherman/traders, cultural changes since legislation prohibiting the use of turtles etc.) of the residents of Pulau Serangan and Tanjung Benoa (villages that relied heavily on the turtle-trade) would serve as a fascinating case study. If interested in pursuing any of these topics, the following may be useful contacts:

Adnyana University, Faculty of Veterinary Medicine (Bukit Campus)  
IB Windia Adnyana, PhD.  
08123828010

Udayana University, Turtle Satellite Tracking  
Made Jaya Ratha, MA.  
+6285237043661

High Balinese Priest/Conservationist, Sanur  
Ida Pedanda Gede Ngurah Kaleran  
+620361283109

Turtle Conservation and Education Center, Pulau Serangan  
I Wayan Geria, Manager  
081236127202

Coral Reef Rehabilitation, Environmental Activist, Pulau Serangan  
Pak Wayan Patut  
081338675298

ProFauna NGO, Denpasar  
I Wayan Wiradnyana, Sea Turtle Campaign Coordinator, Bali  
+62361766068

World Wildlife Fund  
Creusa "Tetha" Hitipeuw, Sea Turtle Campaign Coordinator, Indonesia  
+628124856441

Conservation International  
Ketut Sarjana Putra, Sea Turtle specialist  
08123805729

BKSDA Bali Office, Local Government Conservation Agency  
Director: Istanto  
08124607442

Appendix A: BKSDA Permits Bali 2004-2008  
 Compiled by: Made Jaya Ratha and Audrey Jensen

Figure 1-1: 2004

Tanggal Ijijn	Tanggal Upacara	Lokasi Upacara	Pura>Nama Orang	Tipe Upacara	Jumla Penyu (ekor)
16 Sept 2004	26 Sept 2004	Besakih	Pura Agung Besakih	Karya Aci Kapat	1
25 Oct 2004	28 Oct 2004	Kec. Selat, Kab. Karangasem	Pura Pasar Agung Sebudi	Karya Pujawali Purnamaning Sasih Kelima	2

Figure 1-2: 2005

Tanggal Ijijn	Tanggal Upacara	Lokasi Upacara	Pura>Nama Orang	Tipe Upacara	Jumla Penyu (ekor)
28 Jan 2005	29 Jan 2005	Kab. Harangasem, Kab. Klungkung	Pura Agung Besakih dan di Segara Batu Klotok	Karya Peneduh Dirga Yusa Bumi	2
19 April 15		Kab. Bangli	Pura Ulun Subak Bukit Jati	Ngusabha Nini	1
17 June 2005	17 Oct 2005	Banjar Duda, Kec. Selat, Kab. Karangasem	Pura Kahyangan Desa Adat Duda	Karya Mamungkah dan Tawur Agung	1
4 Aug 2005		Bendesa Adat Punggul Kec. Abiansemal, Kab. Badung	Pura Dalem Desa Adat Punggul	Karya Mamungkah Mupuk Pedudusan	1
3 Aug 2005		Banjar Balun Padang Sambian Denpasar Barat		Pedudusan Agung	2
10 Aug 2005	18 Sept 2005	Kab. Karangasem	Pura Jagatnatha	Karya Pujawali Nubung Daging Ngenteg Linggih	1
19 Aug 2005		Desa Pakraman Bayad, Tedalalang, Gianyar	I Made Latra	Fitra Yadnya (Ngasti)	1
30 Sept 2005	25 Oct 2005	Desa Bedulu, Kec. Blahbatuh, Kab. Gianyar	Pura Dalem Tagallinggah	Karya Mamungkah, Mupuk Pedagingan Pedudusan Agung	1
Oct 2005	7 Oct 2005	Desa Adat Kapal Kec. Mengwi, Kab. Badung	Pura Kahyangan Jagat Para Sada	Karya Tawur Panca Wali Krama	2
13 Oct 2005	17 Oct 2005	Desa Tajen, Kec. Penebel, Kab. Tabanan		Karya Agung Ngusabha Desa/Nini	1
17 Oct 2005	14 Oct 2005	Kab. Karangasem	Pura Agung Besakih	Karya Aci Kapat	1
19 Oct	26 Oct	Desa Adat	Pura Penataran	Karya Mamungkah	1

2005	2005	Blahkiuh, Kec. Abiansemal, Kab. Badung	Desa	Mapadudusan Agung	
19 Oct 2005	25 Oct 2005	Desa Jahem Kelod, Kec. Tembuku, Kab. Bangli	Pura Dalem	Karya Pamungkah, Ngenteg Linggih	1
27 Oct 2005	29 Oct 2005	Desa Tanjung Benoa- Badung	Ir. Ida Bagua Raka	Upacara Yadnya	1
11 Nov 2005	16 Nov 2005	Kec. Selat, Kab. Karangasem	Pura Pasar Agung Sebudi	Karya Pujawali	1
23 Nov 2005	25 Nov 2005	Banjar Dharma Sabha, Kec. Selat, Kab. Karangasem	Ida Pedanda gede Pinatih	Yadnya Atma Wedana/Memukur	1
30 Nov 2005	20, 28 Dec 2005	Desa Takmung, Kec. Banjarangkan, Kab. Klungkung	Pura Merajan Jro Takmung	Karya Pamungkah dan Ngenteg Linggih	1

Figure 1-3: 2006

Tanggal ljin	Tanggal Upacara	Lokasi Upacara	Pura>Nama Orang	Tipe Upacara	Jumla Peny (ekor)
26 Jan 2006	27 Feb 2006		Made Sujana	Upacara Imlek	2
27 Jan 2006	28 Jan 2006	Sinaraja	Pura Pabean, Pura Gede Pulaki	Upacara Pekelem	1
27 Mar 2006	27 Mar, 10 Apr 2006	Kab. Karangasem	Pura Agung Besakih	Tawur Agung, Karya Ida Betara Turun Kabeh	2
27 Mar 2006	27 Mar 2006	Kab. Klungkung	Pura Kentel Gumi	Karya Pakelem	1
27 Mar 2006	27 Mar 2006	Kab. Bangli	Pura Batur	Karya Pakelem	1
18 Apr 2006	27 Apr 2006	Kec. Gianyar, Kab. Gianyar	Ida Bagus Ketut Mencep	Upacara Atma Wedana Ngasti	1
7 Apr 2006	7 May 2006	Desa Adat Ungasen, Kec. Selatan, Kab. Badung	Pura Desa	Karya Mamungkah, Ngenteg Linggih	1
11 May 2006	13 May 2006	Desa Adat Angantelu, Kec. Manggis, Kab. Karangasem	Pura Penataran Pande	Karya Pedudusan Agung, Caru Walik Sumpah, Ngubung Pedagingan, Ngenteg Linggih	
22 Jun 2006	23 Jun 2006	Kintamani, Kab. Bangli	Pura Segara Geger	Karya Mapahayu Jagad	2
5 Apr 2006	10 Apr 2006	Desa Penjeng Kelod, Kec. Tampaksiring, Gianyar	Pura Balai Agung	Karya Memungkah, Ngenteg Linggih	1

3 Jul 2006	30 Jul 2006	Kec. Bebandem, Kab. Karangasem	Griya Kecicang	Upacara Baligya (Mukur)	1
31 Jul 2006		Kec. Bangli, Kab. Bangli	DRS Ida Idewa Gede Oka Mantara	Karya Meligya Punggel	1
1 Aug 2006	19 Aug 2006	Desa Sibetan, Kab. Karangasem	Ida Pedanda Gede Pasuran	Karya Atiwa-tiwa, Atma Wedana	1
2 Aug 2006	19 Oct 2006	Kec. Blahbatuh, Kab. Gianyar	Pura Tanggaling	Karya Agung memungkah, Mupuh Pedagingan, ngenteg linggih	2
3 Aug 2006	7 Aug 2006	Desa Pejeng, Gianyar	Pura Pusering Jagat	Karya Agung Memungkah, Ngenteg Linggih	4
4 Aug 2006	9 Aug 2006	Desa Pekraman Bedulu, Kec. Blahbatuh, Kab. Gianyar	Pura Pengastulan, Pura Desa	Karya Mamungkah, Mapadagingan, Ngenteg Linggih, Mapadudusan Agung, Ngusaba Desa/Nini	2
22 Aug 2006	23 Aug 2006	Desa Pakraman Panjer	I Gusti Ngurah Mayun Winangun	Upacara Panileman	1
30 Aug 2006	30 Sept 2006	Kec. Kintamani, Kab. Bangli	I Ketut Sudana	Karya Pedudusan Agung, Ngenteg Linggih	1
7 Sept 2006	4 Oct 2006	Desa Adat Sembung, Kec. Mengwi, Kab. Badung	Nyoman Suwela	Karya Melaspas, Ngenteg Linggih	2
Sept 2006	27 Sept 2006	Desa Adat Ulakan., Kec. Manggis, Kab. Karangasem	Wayan Supatana	Karya Ngeroras Dadia Taman Sari	1
25 Sept 2006	25 Sept 2006	Desa Batus, Kintamani	Pura Tuluk Biyu	Karya Pujawali	4
27 Sept 2006	22 Sept 2006	Desa Songan, Kec. Kintamani, Kab. Bangli	Pura Ulun Danu Batur	Karya Mamungkah, Ngenteg Linggih	9
27 Sept 2006	6 Oct 2006	Desa Peliatan, Kec. Ubud	Pura Penataran Pande	Karya Agung Memungkah, Ngenteg Linggih, Pedagingan	1

13 Oct 2006		Kab. Karangasem	Pura Besakih	Karya Aci Kapat	1
18 Oct 2006	20 Nov 2006	Kab. Karangasem	Nengah Rai	Upacara Pitra Yadnya, memukur	1
Nov 2006	19 Nov 2006	Desa Adat Jimbaran, Kec. Kuta Selatan, Kab. Badung	Pura Dalem, Pentaran, Pura Desa Puseh Bale Agung	Karya Mamungkah, Ngenteg Linggih, Pedudusan Agung, Tawur Agung	4
22 Dec 2006		Kec. Bebandem, Kab. Karangasem	Pura Puseh Panti Banjar Adat Mumbul	Karya Nubung Daging, Ngenteg Linggih	1
14 Dec 2006	20 Dec 2006	Desa Bongan, Kec. Tabanan, Kab. Tabanan	Pura Kahyangan Luhur Desa, Luhur Puseh	Upacara Melaspas, Ngenteg Linggih, Ngusaba Desa/Nini	2

Figure 1-4: 2007

Tanggal Ijin	Tanggal Upacara	Lokasi Upacara	Pura>Nama Orang	Tipe Upacara	Jumla Peny (ekor)
14 Feb 2007	18 Feb 2007		Nyoman Santajaya	Ciswak	1
26 Mar 2007		Temesi, Gianyar	Pura Desa Temesi	Karya Ngusaba Desa/Nini	2
4 Apr 2007	12 Jun 2007	Banjar Adat Tegalbesar, Desa Negari, Kec. Banjarangkan, Kab. Klungkung	Pura Segara	Karya Agung	2
1 May 2007	17 Jul 2007	Desa Pakraman Abianbase Gianyar	Pura Puseh	Karya Mamungkah, Mendem Pedanginan, Ngusaba Desa/Nini	2
23 Jun 2007		Klungkung	Pura Taman Sari Tojan	Karya Ngenteg Linggih	10
23 Jun 2007	1 Jul 2007	Klungkung	Pura Goa Lawah	Upacara Pakelem	10 tukik
4 Jul 2007	24 Jun 2007	Desa Pemogan Denpasar Selatan	Pura Luhur Candi Narmada	Karya Pujawali	2
4 Jul 2007	15 Jul 2007	Kab. Klungkung	Pura Goa Lawah	Karya Pujawali	6
2 Aug 2007	8 Aug 2007	Nusa Dua	Ibu Pranantio	Imlek	2
6 Aug 2007	21 Aug 2007	Desa Pekraman Manikliyu, Kec. Kintamani, Kab. Bangli	Pura Dalem Manikliyu	Karya Ngusaba	1

10 Aug 2007	11 Aug 2007	Desa Abuan, Kec. Susut, Kab. Bangli	Pura Desa Abuan	Karya Ngenteg Linggih	1
4 Sept 2007	14 Sept 2007	Kec. Nusa Penida, Kab. Klungkung	Pura Penataran Ped	Karya Mamungkah, Pengenteg Linggih, Pedudusan Agung, Tawur Panca Walikrama	5
18 Sept	25 Sept	Desa Sidan Klod, Kab. Gianyar	Pura Merajan Agung Semeton, Puri Sidan Kelodan	Karya Mamungkah, Mupuk Pedagingan, ngenteg linggih, Padudusan Agung	1
10 Sept	26 Sept	Desa Tunjuk, Tabanan	Pura Merajan Grya Tegeh Tunjuk	Karya Agung Mamungkah, Ngenteg Linggih, Padudusan Agung	1
24 Sept		Desa Pekraman Abang Batudinding, Desa Pekraman Suter, Kintamani			3
19 Nov	24 Nov	Banjar Bungsu, Desa Adat Kebon, Singapadu, Gianyar	Pura Dalem Banjar Bungu	Karya Pedudusan Agung, Ngenteg Linggih	1
23 Nov	24 Nov	Desa Gelgel, Kab. Klungkung	Pura Dasar Gelgel	Upacara Pemagpag	1
23 Nov		Desa Pekraman Bias, Kec. Dawan, Kab. Klungkung	Pura Puseh, Bale Agung, Prajapati	Karya Agung Mamungkah, Pedagingan, Taqur Labuh Gentuh, Padudusan Agung, Pedanan, Ngenteg Linggih	1
22 Nov	28 Nov	Desa Pekraman Kelan Abian Tuban, Kec. Kuta, Kab. Badung	I Ketut Kadi (Pemohon)	Upacara Dewa Yadnya	1
21 Sept	26 Sept	Kab. Karangasem	Pura Tuluk Biyu Abang	Karya Agung Memungkah, Mendem Pedagingan	No permit

Figure 1-5: 2008

Tanggal Ljin	Tanggal Upacara	Lokasi Upacara	Pura>Nama Orang	Tipe Upacara	Jumla Penyu (ekor)
3 Jan 2008		Desa Jehem, Kec. Tembuku, Kab. Bangli	Pura Dalem Desa Pekramam Galiran		1
6 Feb 2008	13 Feb 2008	Banjar Keraman, Abiansemal, Badung	Pura Ida Pedanda Putra Mas	Pitra Yadnya	1
20 Feb 2008	23 Apr 2008	Banjar Buduk, Desa Bengkel, Kec. Kediri, Kab. Tabanan	Pura Pasek, Pura Swagina	Mupuk Pedagingan, Ngenteg Linggih	1
27 Feb		Kabu Tambahan,	Pura Penegil		1

		Buleleng	Darma		
27 Feb	21 Mar	Desa Bunga Makar, Kec. Nusa Penida		Karya Agung	1
27 Feb		Desa Beringkit, Kec. Marga, Kab. Tabanan	Pura Dalem Batan Waru, Pura Tegeh, Pura Anyar	Karya Agung Pemelaspas, Dudus Agung, Ngenteg Linggih, Mupuk Pedagingan	1
28 Feb	9,11,14 Mar	Puri Klung Kung, Kab. Klungkung	Puri Klung Kung	Pecaruan, Tawur Penyegjeg Jagad	4
4 Mar	6, 21 Mar		Pura Agung Besakih	Tawur Tabuh Gentuh, Karya Ida Bhatara Turun Kabeh	2
2 Apr	7 Apr	Desa Adat Tengkulung, Kelurahan Tanjung Benoa, Kec. Kuta Selatan		Mediksa/ ngelinggihang maha rsi di kesian	1
10 Apr	14 Apr	Desa Bedulu, Blahbatu, Kab. Gianyar	Pura Samuan Tiga	Karya Mapadudusan Agung	2
14 Apr		Banjar Pasekan, Munggu, Mengwi, Badung	Ida Bagus Jaya Adhi	Mecaru	1
17 Apr		Bangli	Pura Ulun Subak Bukit Jati	Karya Mapadusunan Agung	1
5 May	19 May	Bondowoso Malang	Pura Dwijawarsa Malang	Karya Pemelaspas, Mendem Pedagingan	2
4 Jun	14 Jun	Bangli	Pura Taman Narmada	Karya Pujawali	2
7 Jul	15 Oct	Desa Mas, Ubud, Gianyar	Pura Desa, Pura Puseh	Ngusaba Desa/Nini	2
23 Jul	6 Aug	Desa Sogsogan, Cemagi, Mengwi	Pura Pemerajan Ageng Ida Pedanda Gede Rai Tembaru	Dewa Yadnya, Ngusaba Nini	1
29 Jul	11 Aug	Kec. Bebandem, Kab. Karangasem		Pitra Yadnya (Ngaben, Memukur)	1
23 Aug		Desa Manggis Karangasem	Pura Merajan Manik Mas Alit	Ngenteg Linggih, Nubung Pedagingan	1
19 Sept	9 Oct	Desa Mas, Ubud, Gianyar	Pura Desa, Pura Puseh Desa Pakraman	Karya Ngusaba Desa/Nini	2
25 Sept	11 Oct	Desa Wanasari, Kec. Tabanan, Kab. Tabanan	Pura Merajan Suci Grya Gede Abianlalang	Melaspas, Ngenteg Linggih	1
9 Oct		Desa Pakraman Tengkulak Kaja, Kemenuh Sukawati Gianyar		Karya Tawur Agung, Ngusaba Desa/Nini	3
10 Oct	13 Oct	Banjar Blahtanah Batuan Kaler Kec. Sukawati, Kab. Gianyar	Pura Dalem Puri Alit	Karya Mamungkah, Mapadudusan Agung	2
23 Oct		Banjarrangkan, Kabu.	Pura Agung	Karya Agung	12

		Klungkung	Kentel Gumi	Pamungkah	
23 Oct	7 Nov	Geria Keniten Pendem Amlapura		Karya Baligia	1
4 Nov	12 Nov	Sebudi, Selat, Karangasem	Pura Pasar Agung Tolangkir		1
4 Nov	9 Nov	Desa Adat Ungasan, Kec. Kuta Selatan, Kab. Badung	Pura Paibon Delod Bingin Pasek Tangkas Kori Agung	Karya Mamungkah, Ngenteg Linggih, Padudusan Agung, Tawur Balik Sumpah	3