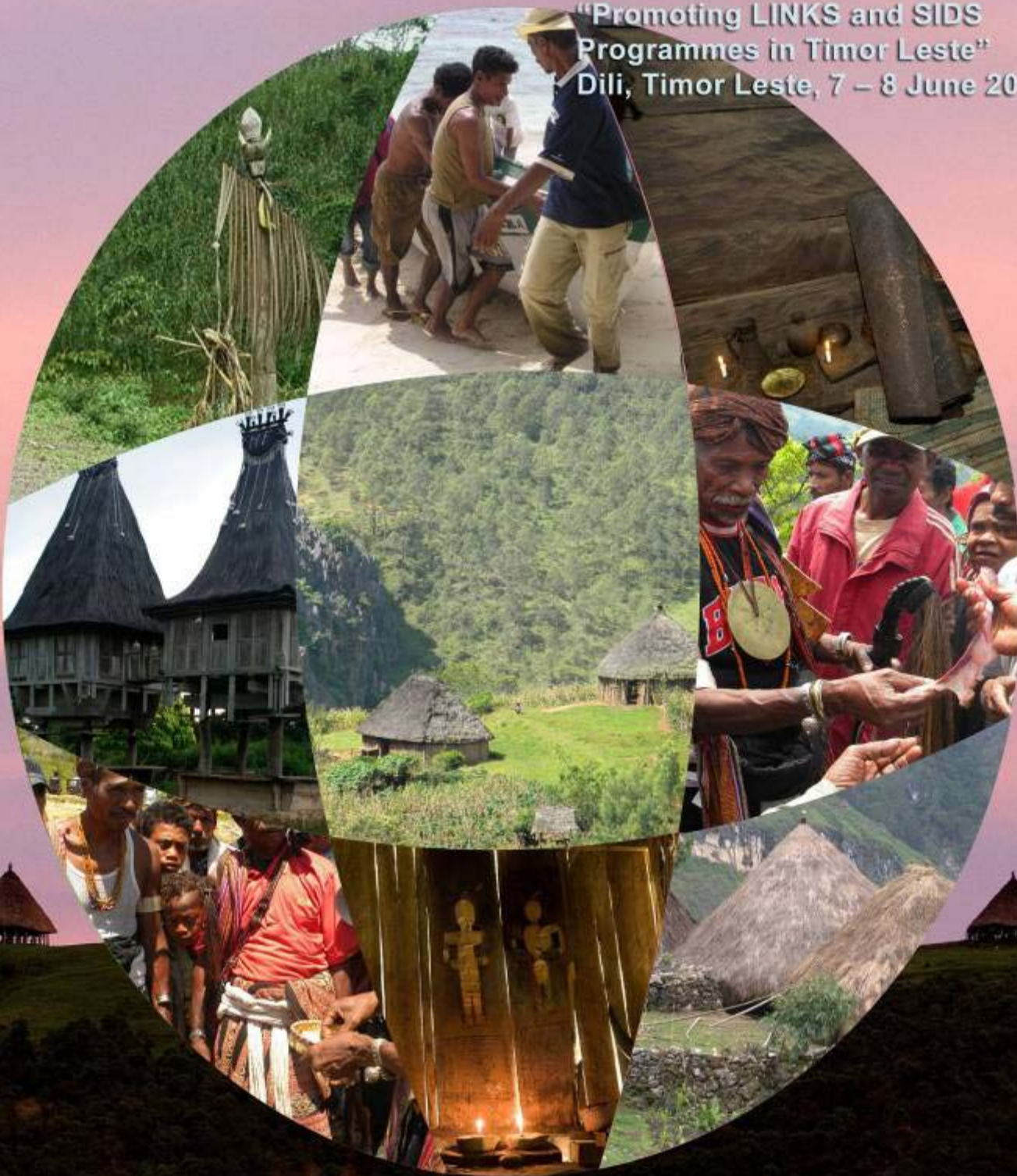
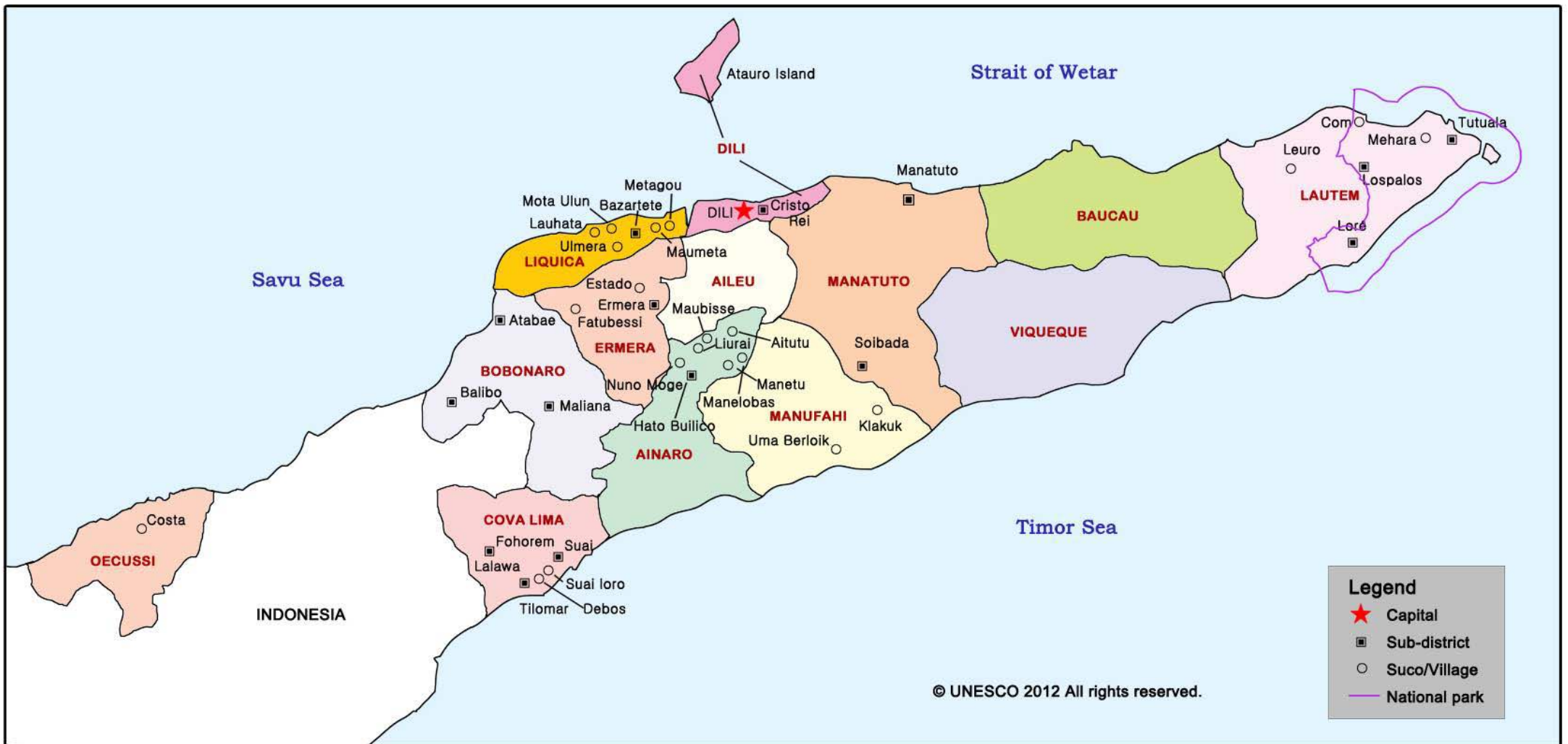


LOCAL KNOWLEDGE OF Timor Leste!

Based on the national workshop on
"Promoting LINKS and SIDS
Programmes in Timor Leste"
Dili, Timor Leste, 7 – 8 June 2011



Editor
Demetrio do Amaral de Carvalho

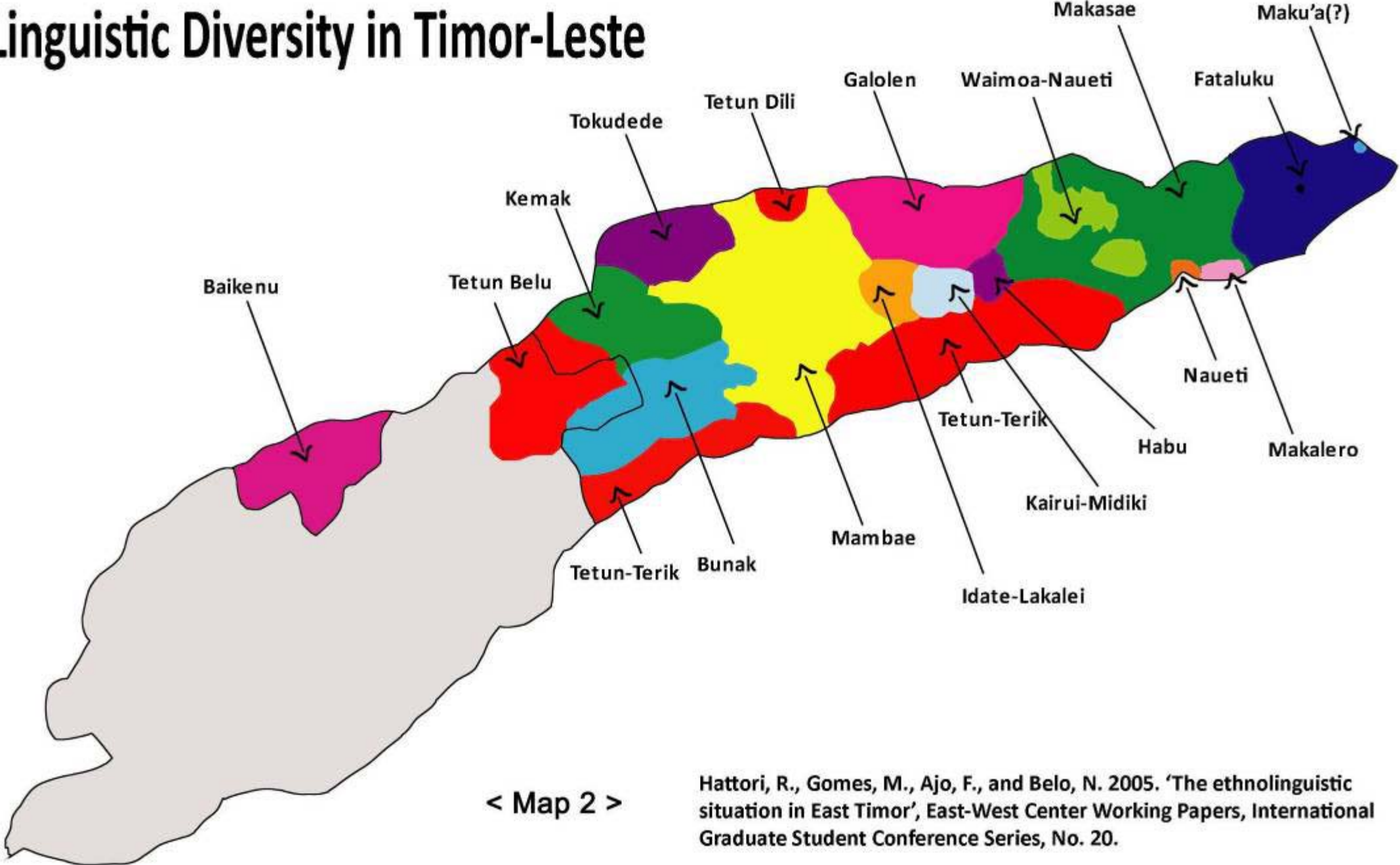


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Legend

- ★ Capital
- ▣ Sub-district
- Suco/Village
- National park

Linguistic Diversity in Timor-Leste



< Map 2 >

Hattori, R., Gomes, M., Ajo, F., and Belo, N. 2005. 'The ethnolinguistic situation in East Timor', East-West Center Working Papers, International Graduate Student Conference Series, No. 20.

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The authors are responsible for the choice and the presentation of the facts contained in this book and for the opinions expressed therein, which are not necessarily those of UNESCO and do not commit the Organization.

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FOREWORD

Timor Leste is a Small Island Developing State (SIDS) whose national wealth lies in its natural resources. For generations, the people of Timor Leste have used their knowledge of the environment to survive in its sometimes harsh conditions. An example of such knowledge still in use today, *tara bandu*, developed from the Timorese people's long history of interaction with the environment, and has contributed to its conservation. Such local and indigenous knowledge has been passed on over generations, while adapting to changes in the climate and environment over time.

Timor Leste is rich in ethnic and cultural diversity, resulting in a wide variation in indigenous knowledge systems, customs and governance structures in spite of its relatively small geographical area. Recent rapid changes that have taken place in Timor Leste, especially since its independence in 2002, have had tremendous impacts on the environment and the unique systems of traditional knowledge which underlie its sustainability.

Over-exploitation of natural resources, shorter fallow periods in swidden agricultural systems and rapid population expansion all put heavy pressures on the natural environment, including disruption of hydrological cycles, soil erosion and destruction of crucial water catch areas. It is estimated that more than 70% of Timor Leste's land has already been severely degraded by deforestation, overgrazing, and agricultural practices. In light of these challenges, it has become very important to develop strategies to manage societal, cultural, and environmental changes.

This book is the result of the national workshop "promoting SIDS and LINKS programmes in Timor Leste" held in Dili, Timor Leste, on 7-8 June 2011. The workshop was organized by the Haburas Foundation, Timor Leste National Commission for UNESCO and the UNESCO Regional Science Bureau for Asia and the Pacific in Jakarta. The objective of this meeting was to develop a strategy to address issues such as those mentioned above, and an action plan for implementing activities under UNESCO's SIDS and Local and Indigenous Knowledge System (LINKS) programmes for the period 2012-2013. For the first time in Timor Leste, a range of stakeholders—representing government, NGOs, universities and community leaders—gathered to share their perspectives and experiences about traditional ecological knowledge and practices, and build dialogue among them.

As is clear from this book, environmental knowledge of local and indigenous peoples is an essential building-block of sustainable development and the conservation of biological and cultural diversity, all of which can be used to build their resilience to face global changes. UNESCO recognizes its importance and has committed to promote local and indigenous knowledge for sustainable development in SIDS such as Timor Leste. This has been reflected in UNESCO's medium-term strategy (2008-2013) in particular through its SIDS Platform to implement the Mauritius Strategy for Sustainable Development of Small Island Developing States, and the LINKS programme.

We hope that this book will be used by governments, NGOs, scholars and community leaders to understand the various aspects of traditional ecological knowledge and see how it could be integrated in environmental conservation and sustainable development in Timor Leste. For its part, UNESCO will continue to work on promoting LINKS activities in Timor Leste, in partnership with local partners such as the Haburas Foundation.



Hubert Gijzen, PhD

Director UNESCO Regional Science Bureau for Asia and the Pacific

UNESCO Representative to Brunei Darussalam, Indonesia, Malaysia, the Philippines, and Timor Leste

Message to the SIDS/LINKS workshop

In the name of the UNESCO National Commission I would like to welcome all of the participants and express many thanks to Haburas who are one of the important partners in this Workshop. I also thank UNESCO Jakarta for their presence and support.

Local knowledge is integrated in all areas, including agricultural practices and systems, culinary systems, food production, the treatment of various diseases, and others, in government programs, including in formal education as a guarantee of sustainability, and giving respect to the culture and customs of Timor-Leste which have been passed down from the ancestors.

The integration of local knowledge into national policies and programs demands courage, investment and trust from all parties, particularly from the government. There is also a need for cooperation between all entities to strengthen and revitalise traditional knowledge as an important form of social capital for development. Local knowledge is threatened with being lost if we do not take some concrete measures to respect, develop and enrich knowledge, practices, customs and mother-tongues that the ancestors gave to us.

I believe that with this Workshop, we will begin to outline a plan and system for the gathering of information and a concrete plan of action.

Success, and thanks.



Kirsty Sword Gusmão

President of the UNESCO National Commission in Timor-Leste

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List of Abbreviations

A

ABRI Angkatan bersenjata Republik Indonesia – Indonesian Armed Forces

B

BABINSA Badan Bimbingan Desa (in Indonesian) Community police

C

CBD Convention on Biological Diversity

CGT Core Group for Transparency

CPA Casa de Produção Audiovisual – House Audiovisual Production

CPLP Comunidade de Países de Língua Portuguesa – Community of Portuguese Language Countries

CRS-TL Catholic Relief Services in East Timor

CTI The Coral Triangle Initiative

CTSP The Coral Triangle Support Partnership

D

DNAA / SEMA Direcção Nacional para os Assuntos Ambientais Internacionais / Secretaria do Meio Ambiente – International Environmental Affairs / Department of the Environment

F

Falintil Forças Armadas da Libertação Nacional de Timor Leste – The Armed Forces for the National Liberation of East Timor

FCS UNTL Faculdade de Ciências da Saúde, Universidade Nacional de Timor Leste – Faculty of Health Sciences, National University of East Timor

Fongtil Forum ONG Timor Leste – NGO Forum in East Timor

H

Hasatil Hametin Agrikultura Sustentavel Timor-Leste – Sustainable Agriculture
Hametin in East Timor

HTI Hutan Tanaman Industri – Forest Industry Plantations

I

ICH Intangible Cultural Heritage

ICOM The International Council of Museums

IK Indigenous Knowledge

IPCC Intergovernmental Panel on Climate Change

K

KBK Konservasaun Baseado Bakomunidade – Community-based Conservation

L

LINKS Local and Indigenous Knowledge Systems

LMMAs Locally Managed Marine Areas

N

NATCOM National Commission

O

OHCHR The Office of the High Commissioner on Human Rights

OPMT Organicao Popular da Mulher de Timor – The Organization of Timorese
Women

OXFAM Oxford Committee for Famine Relief

P

PNTL Policia Nacional de Timor-Leste – The National Police of East Timor

R

RDTL Republik Demokratik Timor Leste – Democratic Republic of East Timor
RTL Radio Timor Leste

S

SCBD The secretariat of the Convention on Biological Diversity
SPFII The Secretariat of the UN Permanent Forum on Indigenous Issues

T

TEK Traditional Ecological Knowledge
TVTL Televisão de Timor-Leste – Television of East Timor

U

UNDP United Nations Development Programme
UNESCO United Nations Educational, Scientific and Cultural Organization
UNTAET United Nations Transitional Administration in East Timor
UNU United Nations University

W

WMO World Meteorological Organization

INTRODUCTION

From the very beginning the ancestors accustomed themselves to have an interaction that was in balance with the natural environment that influenced their lives. Because they accustomed themselves to the physical, social, cultural, economic, political and ecological conditions, in the end, they started to construct a system of governance, for survival, in their customs, that they practiced as an important part of their daily lives, one generation after another.

In the name of all of the authors, we would like to present this book to all local communities in Timor-Leste, because they are the owners of this 'local knowledge'. To all local communities, storytellers and local experts we offer this book as an observation and reflection from the ancestors upon complex and dynamic socio-cultural and ecological phenomena, which in the end construct their conclusions matched in conjunction with these phenomena. It can be said that these conclusions are truly constructed from a collective logic that has great intelligence and its own certainty within the dimensions of any period of time and of space. The practices of accustomization themselves are part of what we call 'local knowledge'. When local knowledge has a relationship to the management of natural resources, some experts call this 'traditional ecological knowledge'.

Even though Timor-Leste is a small nation, when we examine the daily activities of communities and observe them at work or in the application of cultural values and rituals, from Tutuala to Oecussi and from the Betano Coast to Atauro, it can be said that, the people of Timor-Leste have a great deal of local knowledge. The application of this local knowledge can be seen in activities such as: tides and fishing, the protection of marine resources, the conservation of forest resources and water sources, the conservation of lagoons or rivers and coastal areas, farming and tending traditional lands, tilling rice paddies and managing irrigation systems, raising animals and hunting, traditional medicines, food preservation, housing technologies and the conservation of building materials, the technique and art of production of clothing (*Tais*), the capacity to communicate with the powers of nature or predicting future social, cultural, economic, political or ecological phenomena.

Rock paintings in Ili Kere-kere¹ are an historical reference from local knowledge of life in Timor-Leste over thousands of years (Tutuala Monograph, 2007). This is also the same type of interaction for many communities in Timor-Leste, such as the community of Tutuala who have various concepts that relate to their daily lives and rituals as follows: 1) *mua-navarana* or the naming ritual for new-born babies; 2) *tei-fai* or the ritual of giving thanks to the ancestors for keeping illnesses away from their descendants; 3) *futulehen palai-fai* or the work that is done to prepare the land prior to planting any food crops; 4) *pala caca* or making offerings to the ancestors prior to undertaking any work; 5) *aca'kaka* or the important ritual

¹ Footnote inserted by UNESCO: Limestone caves near the beach of Tutuala on the eastern tip of East Timor. In the caves, there are paintings that are dated to about 2000-6000 years.

for sacred houses once they have been built; 6) *haware* or activities for collective hunting to control wild animal numbers; 7) *lupurasa* or placing signals that there is a ban in a specific location on any other people exploiting are destroying it; 8) *masule* or the ritual for re-opening a place where a ban has been place against any other person's utilization or exploitation (such as the opening or removing of the ban, in Liquiça, Oecussi, Ermera and other places); 9) *aya ceru* or the ritual called *uda* and *aya toto* or the ritual for stopping or starting rain. These rituals are very complex and occur within the cycle of overall resource management and activities from birth to death. The same kinds of practices can be seen in other communities throughout all of Timor-Leste. One of the important words for local mechanisms demonstrating sustainable development concepts and practices, particularly sustainable resource management, can be found in the terminology relating to the *tara bandu*. In Liquiça it is referred to as *temi kdesi*, in Makasae as *lobu*, in Bunak as *ucu bilik* or *ucu ai-tahan*, in Tetum Terik as *kahe abat*, in Baikeno as *bonuk* or *kerok*, in Mamba *tar-badu*, and in Fataluku as *lupurasa*.

The application of 'local knowledge' to ecological aspects is classified as 'traditional ecological knowledge'. The application of traditional ecological knowledge in daily activities can be seen in cultural and ritual practices relating to the use of water resources, the use of soil resources, the use of forestry resources, the use of resources used for food, the use of plant medicine resources and others. In this way also the terminology used to refer to these important resources with expressions that place living and non-living resources as friends, or ancestors connected to the present generations. Examples are diamond python (*samea boot, foho rai*), and crocodile (*lafaek*) as grandparents or ancestors (also 'abo' in Tetum and 'tata-bei' in Tokodede). We also refer to sacred mountains (*foho lulik*), sacred rocks and caves (*fatuk lulik* and *fatuk kuak*) and special sacred places (*fatim lulik*) as the homes of the ancestors. Based on the same perspective the old growth forests of Lautem, now already named as the Nino Konis Santana National Park, have been very well conserved collectively by the community for hundreds of years because of the idea of sanctifying that place.

In order to properly understand the concepts and practices of local knowledge, the Haburas Foundation cooperated with Timor-Leste National Commission for UNESCO and supported by UNESCO Jakarta to conduct a two-day workshop on 7-8 June 2011, to gather ideas and reflections on the 'local knowledge' practices. Experts and representatives from organizations worked together to work on the promotion of 'local knowledge' presenting their ideas and critical reflections at the workshop. This publication is an important document to assist the process of strengthening and revitalizing 'local knowledge' that formerly existed or continues to exist in Timor-Leste today. This publication is also the initial part of the process of promotion and revitalization of 'local knowledge' as part of the socio-cultural capital of the people of Timor-Leste.

Local knowledge is social capital for development. Many nations have already invested resources in re-identifying, revitalizing and promotion to strengthen 'local knowledge'. There was some argument regarding the conceptual definition between the options of 'traditional knowledge' and 'local knowledge' with the majority of the authors at this two-day meeting concluding that the terminology 'local knowledge' is more appropriate in the context of Timor-Leste. The reason for this is that 'local knowledge' is seen today as being adopted or used as a guide for the management of socio-cultural resources, for the management of

physical and natural resources, for social, economic, political, cultural and ecological development and the protection of environmental resources that have come from the process of long practice, through a dynamic empirical verification of social, political, cultural, ecological, spiritual and cosmic theses which have their own '*relative verdict*' or relative certainty.

This first publication series of 'local knowledge' brings together content relating to 1) land and local knowledge; 2) natural resources and local knowledge; 3) sacred houses and local knowledge and also 4) technology and local knowledge. This book is also an important initial resource that will assist the valuing of local knowledge as important human heritage from the small country named Timor-Leste.

I would like to express thanks to Sra. Kirsty Gusmao the President of Timor-Leste National Commission of UNESCO who encouraged the process of development and publication of this book. Thanks also to Sr Koen Meyers (UNESCO Representative in Timor-Leste) to Sra Lisa Hiwasaki (UNESCO Regional Office in Jakarta), Estradivari (UNESCO Regional Office in Jakarta) and also the other staff at the UNESCO Regional Office in Jakarta who patiently promoted and assisted with ideas, finance, and relevant information for this publication. Thanks also to Jacinta Barreto (Timor Leste National Commission for UNESCO), Pedro Pinto (Forestry-MAP), Jose Coreia (*Lia-na'in* in Suco Lauhata), Nuno Vasco Oliveira, Cecilia Assis (National Director for Culture), Rui Pinto (CTSP), Alberto Fidalgo (Researcher from the University of La'coruna), Rui Pereira (National Department of Environmental Issues), Abel dos Santos (UNTL Lecturer), Joao Corbafo (OXFAM), Cecilia Fonseca (Alola Foundation), Anne Finch (Timor Aid) and also to all those others who contributed to the workshop and the creation of this publication.

Thanks to all of the staff at Haburas Foundation, Meabh Cryan, Lucio, Roberto, Hugo, Lia, Gil, Reinaldo, Milton, Ivonia, Horacio who worked with active dedication to support the process. The materials developed for this publication are not yet perfect and have many limitations.

Criticism from all readers will further enrich the concepts and discussions about 'local knowledge'.

Demetrio do Amaral de Carvalho

Editor



A photograph of a rural landscape. In the foreground, a stone wall runs across the bottom. To the left, a traditional hut with a thick, thatched roof is partially visible. A large, dense green tree with many leaves dominates the middle ground, partially obscuring the hut. The background shows a grassy field and a hazy, overcast sky. The text 'CHAPTER I LOCAL KNOWLEDGE AND INDUSTRY' is overlaid in yellow on the tree.

**CHAPTER I
LOCAL KNOWLEDGE AND
INDUSTRY**

SACRED HOUSES IN TIMOR-LESTE

(Traditional architectural knowledge and practice)²

by: Alberto Fidalgo Castro, Universidade da Coruña³



Photo: Haburas Foundation

Firstly I will explain why I chose the theme of traditional knowledge in the context of sacred houses for this article. My research in Timor-Leste commenced in 2007 continuing to the present day together with the team from the University of Coruña. These researches have many themes, one of which relates to the sacred houses of the districts of Ainaro and Liquiça. This research has been undertaken by the team from the University of Coruña/ALGA, together with the Secretary of State for Culture and Haburas Foundation. Arising from this research there has already been one book written with the title *As uma lulik do distrito de Ainaro* (“the sacred houses of the district of Ainaro”. Forthcoming book) which will be published in 2011.

The data presented here was obtained at the time of undertaking research about sacred houses (November 2009 to January 2010) with further research being undertaken at the

² Author's note for the English translation: *This is a translation of a paper written in Tetum for a Timorese audience without anthropological background. Most of the terms used in the Tetum version are local ones that could have been translated into analytical concepts for an English version. The use of local terms instead of analytic terms and local examples is for didactic purposes. Some of the original examples or concepts may lose their sense in the translated version.*

³ Doctoral candidate from the University of Coruña (UDC), member of the Luso-Galega Association of Applied Anthropology (ALGA). Supported by a scholarship from the Spanish Agency for International Cooperation and Development (MAE-AECID) to conduct research for his doctoral thesis. He is a lecturer in scientific investigation at the National University of Timor Lorosa'e (UNTL). He can be contacted at: afidalgo@udc.es

present time regarding the economic dimension of the rituals (from September 2010 to the present).

Sacred houses and traditional knowledge: Provisional definition

I think that we must first look at the title of this article before moving on to other question. Because of this I will explain what my thoughts are about the terms sacred house (*uma lulik*) and traditional knowledge.

Sacred house

We can speak at some length about the term scared house, however it is not my specific intention to do so at this point so I will just provide a provisional definition that will be used in this presentation. I use the term *uma lulik* as a symbolic representation of a descent group (*uma lisan*). It is a symbol for one descent group and those other groups that have a direct or



Photo: Haburas Foundation

indirect relation with it (such as between *fetosaa* and *umane* – wife-givers and wife-takers). It means that the *uma lulik* is a symbol of the larger family, its history, its roots, its trunk and its branches.

When we speak about *uma lulik* we must consider two aspects. One is the *uma lulik* as a material construction, which we will call the material aspects. If we see the *uma lulik* as a

construction, we can say that it is a building made of only natural materials such as timbers, bamboo, wooden planks, twine, and *arenga pinnata* fiber rope and others. When we look at the *uma lulik* in terms of its materials we can say that it is a simple building and that there are few differences from buildings made in other countries (for example the sacred houses of parts of Indonesia such as Flores or West Timor).

If we look at the *uma lulik* in its intangible aspects, then the *uma lulik* of Timor-Leste is not the same as those buildings in other countries. The intangible aspects include ceremonies and rituals, the history of the houses, and people's beliefs relating to an *uma lulik* (for example as a protective house). The *uma lulik* also provides a scenario for the adoration of rocks and plants, and as the place for people from one descent group to communicate with their ancestors.

Traditional knowledge

UNESCO defines traditional knowledge as a representative set of understandings and practices that is dynamically built up over time. This knowledge is the result of being added to by the history of a people and their relationship with nature. These understandings are

related to language, social relations, beliefs and cosmology. Normally traditional knowledge is something that belongs to communities.⁴ Traditional knowledge is no one simple thing but involves everything, as a symbolic universe (Berger and Luckmann, 1995). I think that there is a need to clarify this term.

What is the symbolic universe?



Photo: Haburas Foundation

The symbolic universe is the structure of meanings that people use to explain why the world is the way it is and why the world cannot be any different (Berger & Luckmann 1995).⁵

Through the symbolic universe people can explain the unknown

and also questions that relate to phenomena (including both natural and social phenomena). There are many symbolic universes not just one. Within science there are also symbolic universes, and the traditional knowledge of Timor-Leste is also another symbolic universe. This does not mean that one is real or correct and that the others are wrong or false. Both systems (traditional and scientific) seek to understand and explain phenomena.

I will give an example that aims to explain the natural phenomena of the **rainbow** (*baur*). When we look at the skies sometimes we can see rainbows occurring. If we explain the rainbow **through science** it signifies *the occurrence of optical and meteorological phenomena when the sun's rays encounter raindrops that in the earth's atmosphere*. However if we explain **through traditional knowledge**, it has a different significance. Some Timorese believe that when a rainbow comes down to a river or dry land, this means that it is a being that is thirsty, going to drink water. According to what people have told me, when this happens the rainbow transforms into an eel (if it touches the water) or if not a snake (if it comes touches dry land), which makes it as the owner of this place. If this phenomenon happens at a spring then it will never run dry even though the dry season is long and other springs have dried out. So for this reason if people go to the same place and find a snake or an eel they will not kill it because it is sacred. It is the owner (or keeper) of the land or the water there. If it is killed people believe that it will punish them by making them crazy or killing them.⁶

⁴ Author's translation.

⁵ This information came from one person in Turiscai.

⁶ The *lia-na'in* Eugenio Sarmiento told me this. I asked the names of the months in the Mambae language of Aileu and Ainaro; the Tokodede language of Liquiça and also the Bunak language of Ainaro. Maybe I have not yet asked the right way or I haven't yet found someone who really knows until now. But this shows that many people have already forgotten, and so this traditional knowledge is going to be lost or has been lost already.

Some of the causes for the loss of traditional knowledge

At the present time a great deal of traditional knowledge has been lost already. I can give an example from my own experience when conducting research. When I was researching the relationships between the cycles of traditional economic production and traditional knowledge I asked many people about the name of the animist months and meanings. From 2007 until the present I have only found those from Tetum-Terik. I have never found a complete response from any of the other languages. Some can still remember one or two months names, but they never be able to state the names of all of the months of the year. Previously an anthropologist came to research in Timor-Leste and recorded the complete names of the months because they were still in use (see Forbes 1884). Now people use the names of the month from Portuguese (February, March and so forth), the animist months are no longer in use.

The loss of traditional knowledge occurs for many reasons. One is the history of Timor-Leste. If we look at history we can find information which show that the destruction of *uma lulik* and the loss of traditional knowledge had already started to occur when the Portuguese first came to Timor (see De Castro 1867). However we can say that the period during which traditional knowledge was lost most strongly was the 20th century. This occurred during at least three periods:

1. The Second World War (February 1942 to January 1943). At that time the Japanese occupied Timor with the consequent death of 40,000 Timorese. During this time a great deal of cultural heritage was lost and knowledge relating to *uma lulik*.
2. Civil War (1974). At the time of research when we asked *lia-na'in* when their sacred houses were destroyed, some responded that it happened during the Civil War. They said that family members killed each other, destroyed or burned their *uma lulik*. Many people have been afraid to speak about these events because some people are still unhappy about this. Some people said that people fought and killed each other because of party allegiances. Some people also said that they used the name of the political party to hide their ill intent (similar to fighting between *fetosaa-umane* and other problems).
3. The Indonesian invasion and occupation (1975-1999). During the Indonesian period, many *uma lulik* and much culture and traditional knowledge were lost, particularly at two specific times: when Indonesia invaded Timor, and again during the militia period (1999) (McWilliam 2005: 1).

A great loss of traditional knowledge occurred during the war.⁷ Because this knowledge is not something that is learned at school but is learned by listening to parents, giving and receiving knowledge from one generation to the next. When someone dies and has not yet passed on their knowledge to the next generation, that knowledge will be lost never to be regained.

At the present time the preservation of a great deal of traditional knowledge is at risk, some have already been lost. Why this becomes a case if the country is at peace? From my point of view there two causes presented here which have great influence:

⁷ *Translator's footnote:* the war with Indonesia.

1. **Social change.** At present many people have come to live in the city and towns. Many people's work no longer has any relationship with nature. They no longer depend on agriculture for their daily food, they don't grow their own food. Because of this the things they need to be able to work don't require much knowledge of how to farm but rather about learning English, Portuguese and information technology. This means that many people no longer have time to learn traditional knowledge because they have to seek their livelihoods. Social change also changes the meaning of knowledge. Because of this, its meaning and practices have already changed. A good example can be seen in the practice of *barlake*. Formerly people didn't think of *barlake* as *buying a woman* but rather as *giving her value*, her dignity. Today – particularly in the city – there is already a discourse that says that *barlake* is buying a woman. This is occurring because the meaning has changed.
2. **Transmission of traditional knowledge from the older generation to the younger generation.** When old men and women die there is no one to carry their traditional knowledge. They have not passed it on to the next generation. This often happened during times of war, but is still ongoing at present.

Who are the custodians of traditional knowledge?

UNESCO says that the custodians of traditional knowledge are the community. But from what I have seen everyone's understanding of traditional knowledge is not the same. Even though many people may have traditional knowledge, in all societies there are always people who know more than others about specific things. These people are *specialists*.



Photo: Gil Gamukai

In order to explain in more depth, we can compare two people. A person living in the mountains lives from their fields and rice-paddies. A person living on the coast derives their living from fishing (a fisherman). So the person who lives in the mountains will have more knowledge than the person living on the coast about farming vegetables and rice. The person living on the coast will have more knowledge than the farmer about catching fish. This is a simple example that shows that knowledge is also influenced by adaptation to the environment.

There are also people who live in the same places but have different traditional knowledge. This cannot be explained because of different environments because they live in the same place and their means of sustenance is the same. This is also influenced by the social structure or the social roles of individuals. Each person is a specialist in one area. People call upon them as needed. Some of the specializations are in carpentry, story-telling (*lianain*), village chiefs, medic, catechists, teachers or anthropologists. They may all live in the same place and make their living in the same way (for example through farming vegetable

fields or rice-paddies) but their knowledge is different, each has their own. This is what we call specialists.



Photo: Haburas Foundation

We can compare with the Church in order to understand more deeply. We may all be baptized but within the Church everyone is different, each with their own roles. For example: a person who goes to Church to pray to God, has a different role to the priests. If we are going to be baptized for instance, the priest performs the baptism, we cannot baptize ourselves. We can continue this example: the role of priests is not the same as the role of bishops, the bishops' role is not the same as the cardinals, and the cardinals' role is not the same as the Pope's. Together we form the Church but within the Church each person has their own role.

In relation to traditional knowledge there are specialists, because it is made up of various parts. So there is no one person who can have all traditional knowledge because it includes many things. Here we can give the example of some of the specialists whose knowledge is the use of traditional medicines or determining people's illnesses (*matan-do'ok* – soothsayers). Ordinary people and *matan-do'ok* all know that when we use plant medicines we can cure people. Despite this, there is a difference between the knowledge of the *matan-do'ok* and that of ordinary people: the *matan-do'ok* knows how to use plant medicines and can predict what will cure an illness but most ordinary people do not know this technique. Thus for traditional knowledge of plant medicines the *matan-do'ok* knows more than ordinary people.

There are other specialists of traditional knowledge such as those who know how to tell the stories of each of the *uma lisan* - totem houses (known as *lulik-na'in*, *lia-na'in* or *makoan*), how to resolve problems (*tesis lia-na'in*), how to assist pregnant women to give birth (*daia* – traditional midwives), and others.

How does an individual become a specialist? Where do they derive their knowledge and skills from? According to Eller (though he talks about religious specialists) specialist knowledge can be obtained through training, learning from their own lives, through inheritance,

from spiritual powers, and through other means (Eller 2007: 72).

In order to find examples of this we can look again at the Catholic Church. A man wishing to become a priest must undergo training in a seminary. There he obtains knowledge to become a priest over a period of years. Some priests also say that in order to become a priest they must have vocation, they feel that God has called them to work for the Church. From this example we can see that priests obtain their knowledge as *religious specialists* through training and also from spiritual powers (God).

If we look at the example of traditional knowledge in Timor-Leste we can look at the example of the *matan-do'ok*. If a young person wishes to become a *matan-do'ok* they can obtain their knowledge from another *matan-do'ok*. They can follow him, listen to him, in order to learn the art of the *matan-do'ok*. A father may pass the knowledge on to his child, as the inherited wealth that is passed on from generation to generation.

Another example from Timor-Leste is that of the *rai-na'in* (the *rai-na'in* are those who use *buamalus* – betel nut). They have spiritual powers that enable them to communicate with the land and the water. Thus they are able to perform rituals such as calling rain, casting spells to keep people away from particular resources – *tara bandu* and others. Their powers are derived from their *uma lisan* because they were the first *uma lisan* in a given place (their ancestors came from that place or were the first to come and live in that place). Only they can conduct rituals like these in their place, people from other *uma lisan* cannot. However it also occurs that one *uma lisan* can confer power on another *uma lisan* (such as their *fetosaa*, *umane* or *maun-alin* –wife-givers, wife-takers or other kind of kinship relations. If they do this then the other *uma lisan* has the right to perform the ritual because it has been conferred upon them.⁸

Through the example of *rai-na'in* we can see that in order to become specialists there are also rules and processes that must be followed in order to obtain knowledge (or powers/rights). If we go quickly back to the example of the priests we can see that some of the rules for becoming priests are the same: they must be Catholics who have received the sacrament through baptism, confession, and holy-communion; only men can become priests; women cannot; they cannot marry (celibacy) and so forth.

Ordinary people's traditional knowledge is also not just told to other people arbitrarily. If we look at fishermen we can see that they hang onto their knowledge of fishing as a form of wealth. They know when they can catch large numbers of fish by monitoring the weather and climate. They also know those places where many fish can be found. This knowledge is kept secret and not just told to everyone because their livelihoods depend on it. If they tell other people then they may suffer great losses. As Enrique Alonso said about fishermen in Galicia: "the most important inheritance is not land [...] but rather secret knowledge for undertaking

⁸ This often occurred frequently during the Portuguese occupation with the rights of the *liurai* to govern. One *uma lisan* with the right to govern conferred that power upon another. There were many causes for this but people have indicated that it occurred particularly because some had education and others did not (one that did not know the Portuguese language conferred power on another that did).

their work” (Alonso Población: 221). This signifies that traditional knowledge also has a relationship with economy and also that the keepers of knowledge each have their own interests (Berger & Luckmann 1995: 161).

I share this to show that the custodians of traditional knowledge are not communities (as UNESCO says) but some individuals and groups who are looking after their own interests. Some custodians of knowledge may be social institutions (such as *uma lisan*), or individuals (such as ritual specialists).

Traditional knowledge of *uma lulik*

The *uma lulik* (animist totem house) is a social institution that stands within the centre of the culture of Timor-Leste. It has relationships to many things. Because of this we cannot define it simply through its relationships with family, economy, governance or belief. It is a total social phenomenon (Marcel Mauss⁹) because it is related to everything. Governance has relationships to *uma lulik*, fertility (of a person or the soil) has a relationship to an *uma lulik*, adoration has a relationship to the *uma lulik*, *lia-moris* or *lia-mate*, and the rituals of birth and death have a relationship to the *uma lulik*... Thus if we are seeking for one particular traditional knowledge related to the *uma lulik* only we will not be able to find it.

Despite this, if we are looking for some traditional knowledge related to the architecture of *uma lulik* we can obtain this from specialists such as tradesmen or traditional architects (Barros Duarte 1975: 2-3). Tradesmen are responsible for the construction of *uma lulik*. They understand the design and materials used for constructing *uma lulik*. They know how to build them and other people who come to work to build *uma lulik* must follow their direction. They also work together with *lulik-na'in* and *lia-na'in* to build a given *uma lulik*. They understand the construction process, including the rituals that must be performed. If you want to know the materials that people use to build an *uma lulik* then ask the tradesmen. For example what grasses are used for the house's roof (such as *imperata cilindrica*), what timber is used to make the posts and planks (such as the white gum or casuarina), what they use to tie the house parts together (*arenga pinnata* fiber, bamboo skins) and others. Even though we may think that the *badaen* only has relationships with the material aspects, they also have relationships with the intangible.

If we look at the intangible aspects we can obtain traditional knowledge of the *uma lulik* specifically from those specialists such as *lia-na'in*, *lulik-na'in*, *makoan*, or front custodians of the house. This does not mean that other people have no knowledge about the *uma lulik* but the knowledge of specialists is deeper. Through their knowledge we can look at the story of the house in relation to the myths, legends and oral history of Timor-Leste. We can also look at the functions of the house in the traditional social structure such as governance and bans, *uma biru* (the place where warriors go to receive their protective amulets), *uma adora* - houses of worship or adoration, and so forth.

⁹ Footnote inserted by UNESCO: French sociologist. In his classic work, *The Gift*, Mauss argued that social behavior or cultural phenomenon is related to social relationships imbued with spiritual mechanisms.

Despite this, in order to obtain traditional knowledge to protect and promote traditional heritage and knowledge regarding *uma lulik* we need to do this in the proper way and with respect. If a group or individual who have strong traditional knowledge do not wish to share it then we cannot force them because it is part of the rights of the individual or group. As we said already today, some traditional knowledge is the wealth of one individual, family or group. If we oblige them to share their knowledge they may feel that this is not good. This is like a thief coming to steal someone's wealth. Because of this we need to consider first if the custodian of traditional knowledge is willing to register or preserve their traditional knowledge in order that it not be lost in the end.

Some traditional knowledge related to *uma lulik* is itself sacred. Many old men and women have told me stories but many more have only told me parts of the stories. They say that these stories are secrets for their families, that outsiders cannot know. Only when they feel that they are at their last breath can they pass these stories on to their children. Thus when we are collecting this information it must be done with respect for the individuals involved and we cannot force them to recount their knowledge or stories.

Though getting information about *uma lulik* is always difficult, I feel that we must prioritize the collection of information regarding traditional knowledge from the intangible aspect because many of the people who hold this knowledge at present are already old men and women. When they die, this information will be lost, never to be recovered. If one *lia-na'in* dies without passing on his information to another person, this is like closing a library. This knowledge cannot be obtained again.

Conclusion

Lastly I present several suggestions that from my point of view can help to protect, promote and broadcast traditional knowledge of *uma lulik*.

1. Gather together the documents that already exist regarding *uma lulik*. There is already a great deal of materials regarding *uma lulik* but most people have no access to them. Some materials are stored in private collections and may already be in poor condition. This, from my point of view, is the role of the National Library. Some documents can also be translated from other languages into the national languages Tetum and Portuguese. With Tetum *uma lulik* can be promoted inside Timor-Leste. With Portuguese the wealth of Timor-Leste can be shown to the CPLP nations.



Photo: Haburas Foundation

2. Promote research about *uma*

lulik and prepare people for conducting research. Provide assistance to researchers in their studies of *uma lulik*. If a digital database containing these documents is created, many people would be able to have access. In this aspect it is important to promote the use of the internet to learn how to use existing websites where documents are available (such as academic website). From my point of view, this also has a relationship with education policies. A good discipline for conducting research regarding *uma lulik* is anthropology. Even though there are already some Timorese anthropologists, there are not very many. Because of this I suggest that there is a need to promote Timorese to study anthropology in order to conduct research into their own culture.

3. Promote good traditional knowledge and practices. As already expressed in this article, traditional knowledge is not something simple but is comprised of many parts. From it a great deal can be learned that can be applied to national development. This does not mean that all traditional knowledge is automatically good. UNESCO says that traditional knowledge must be mixed with scientific knowledge to get the best from it. This is very true... However from my point of view we must consider traditional knowledge and practices' political and moral aspects when promoting them. If some people use traditional knowledge to do harm or negative purposes, then we should not support these people. The positive aspect of the *matan-do'ok* is that they can cure people, but some negative side of some *matan-do'ok* may also do harm to all people. Knowledge of the use of tree barks is also part of traditional knowledge but if people use their knowledge of tree barks to bewitch other people... what are we continuing to support them to do? If traditional knowledge and practices are used to protect the environment this is a good thing, but if some people 'sell' traditional knowledge for their own gain, not in accordance with the laws that protect the environment but destroying it instead... where is the good in this?
4. Create a cultural interpretation centre for *uma lulik*. Because we know that there are many people who want to know the meaning of *uma lulik* if we build a cultural centre for *uma lulik* they can be explained there. This has a further relationship with economy, tourism and development. In a cultural interpretation centre people with real understanding of traditional knowledge (such as the Council of *Lia-na'in*) can come to work and they can feel that their knowledge is valued. This may help to raise the value of the culture of Timor-Leste. Tourists will also be able to go there to get information about the culture of Timor-Leste. This kind of project will prevent the original *uma lulik* from becoming tourist sites, something that can be a threat and make them lose their identity.

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Sacred houses:

INTANGIBLE HERITAGE FOR THE CULTURAL IDENTITY OF TIMOR LESTE

by: Eugenio Sarmento, National Directorate of Culture



Photo: Haburas Foundation

The origin of the culture of Timor-Leste truly comes from Timorese people because culture exists when there are people. In the context of Timorese Culture today our culture is always based on the awareness of Timorese people and the knowledge that resides in the *uma lulik* and *uma fukun*. In other words the original culture of Timor is the *uma lulik* because the *uma lulik* is the centre for the socio-cultural, religious, political, security, historical, architectural, economic, agricultural and generational foundation (Family Tree).

In the context of modern life people don't really value the *uma lulik* but people still use the *uma lulik* as the means to understand the family relationships of totemic intermarriage *Fetosaa-Umane*. The reality shows that many Timorese people do not know the names of their own *uma lisan* (animist totem houses), this can be seen in my students when I ask them their *uma lisan*, may do not know, and do not know the function of their *uma lulik* or its origins and so forth.

In other aspects marginal communities continue the reconstruction of new *uma lulik* and the various associated traditional ceremonies and rituals. The most unique aspect are some of

the traditional arts that can only manifest when undertaking the process of reconstruction leading to the inauguration of the *uma lulik* such as the *tebedai* (welcome dance), *dahur* (festivals) and other traditional rituals. There are some *dahur* that are very sacred indeed and can only be conducted in front of a major *uma lulik* when about to go to war against one's enemies such as the *dahur* "Se Mai" (in the ancient language of Fatuluku) meaning; death flies. This *dahur* is not just unique but cannot be performed arbitrarily as it will lead immediately give rise to a great war and will affect the suffering of many people. With implications such as these, and in these modern times it is very difficult pass on the messages of tangible and intangible cultural values to the next generation.

Even though many marginal communities have reconstructed their *uma lulik* there are many others that have been built as 'white houses' with tin roofing and with computers being used inside. Culture is not something static but is instead dynamic. Even though it is dynamic if we go too fast we will lose our cultural foundations.

In 2009-2010 two anthropologists from the University of Coruna in Galego, Spain, Prof. Dr. Luis Garate and Dr. Alberto Fidalgo came to conduct research on *uma lulik* in the districts of Liquiça and Ainaro in which I was involved. They were surprised and proud during the research at the wealth of our *uma lulik* in terms of both their tangible and intangible aspects and they thought to be able to ask UNESCO to list the *uma lulik* of Timor-Leste as **World Heritage**. **But despite this at present we are in the process of losing this current generation's own culture. If we are not careful we will lose our cultural identity in the end.**

Because of the great importance of the *uma lulik* I took the initiative to write about culture in the Timor Post and I started with **UMA LULIK INTANGIBLE HERITAGE FOR THE CULTURAL IDENTITY OF TIMOR-LESTE.**

The geography of *Uma Lulik*

In Timor-Leste each aldeia or village has an *uma lulik*. The *uma lulik* is a traditional institution which has high standing within each of the entities whose custom is dependent on the *uma lulik* in question. As well as the *uma lulik*, there is also the *uma fukun* (in the Tetun-Terik language) or *fada lisan* (in Mambae) which depends upon the *uma lulik*. An *uma lulik* may serve as the umbrella for 2 – 20 *uma fukun* and each *uma fukun* may incorporate other *uma fukun* at lower levels in the social structure. Each *uma fukun* may be the umbrella for 5 – 20 *uma kain* (households) or more. The *uma lulik* are always matched or known by the name *uma feton* and *uma na'an*. *Uma feton* are always more sacred than *uma na'an* and the *uma feton* functions as the highest sacred place for the worship of the *Bei-ala* (ancestors) and *Maromak* (god) through sacred objects that are worshipped within the house. The *uma na'an* is also sacred but its functions have more to do with governance.

The *uma lulik* can only be built within a Suco or the customary land of each totem that is part of that *uma lulik*. The *uma fukun* can also be built in other areas depending on need or because of any incidence of war. For example the *Uma Fukun Samoro* in the Suco Estado has its origin in Keumauk Samoro in the sub-district of Soibada. The *Uma Fukun Lokmeta* in

the Suco Leorema in the sub-district of Bazartete has its origin with the *Uma Lulik Lokmeta Darlau* in the sub-district of Hato Bulico. The *Uma Fukun Uma Rama* in Suai Loro in the sub-district of Suai has its origin in *Dato Tolu* in the sub-district of Fohorem. The *Uma Fukun Luca Viqueque* in the sub-district of Hermera in the district of Ermera has its origin in the district of Viqueque.

The boundary of an *uma lulik* (*baliza* in Portuguese) is known as the border between two nations for example the *Uma Lulik Bere Bein Bein Koli* in the sub-district of Tilomar has its many *uma fukun* distributed in the district of Belu NTT,¹⁰ within the territory of Indonesia. Similarly some *uma lulik* in the district of Belu have their *uma fukun* distributed in the territory of Timor-Leste. This also occurs in the district of Oecussi.

In Sarau, Suco Aileas in the sub-district of Manatuto has an *uma lisan* named Ambo. According to Sr. Joaquim Amaral Alves (69), the former *Liurai* of Suco Aiteas in the sub-district Manatuto explained that this *Uma Lisan Ambo* has relationships with Ambon, Maluku in Indonesia. This *uma lulik* is very sacred (hot) and has existed since the time of the birth of the ancestors (*Bei-ala*).

All Timorese women or men (biologically) always have an *uma lulik* and *uma fukun*. A citizen who is sheltered by an *uma lulik* or *uma fukun* depends on their system of customs of *habani* (the man entering marriage depends on the totem of the woman) and the custom of *hafoli* (the woman departing for marriage depends on the man's *uma lisan* or totem).

Sacred houses : Timorese socio-cultural centre

1. Uma Lulik as the identity of Timor

Uma Lulik is the Socio-Cultural Centre and foundation (origin in Portuguese) for our original culture from each clan or entity in Timor-Leste and the principal and specific culture for the

entities "...right to value, promote, preserve and divulge cultural values" (Constitution: 59:6)¹¹ in order to strengthen familial relationships and unity within the community at the lowest level.



Photo: Luis Garate

¹⁰ Footnote inserted by UNESCO: Nusa Tenggara Timur, the eastern part of the Lesser Sunda Islands in Indonesia.

¹¹ Footnote inserted by UNESCO: the Constitution of the Democratic Republic of East Timor can be accessed at: http://www.constitution.org/cons/east_timor/constitution-eng.htm

Through the *lulik-na'in* and *lia-na'in* of one *uma lulik* and the *lia-na'in* from the *uma fukun/lisan* relationships are created between one ethnology and other ethnologies (Fataluku-Mambae-Makasae-Bunak-Tetum-Dawan, etc.) through the wife-giver and wife-taker relationships (*fetosaa-umane*), from one generation and power or 'Ukun and Badu' (governor in Portuguese) to the next and from there we can bring peace, tranquillity, and cultural identity to better strengthen national unity.

2. Uma Lulik as a means of seeking God

The *uma lulik* provides spiritual influence to all entities for various spiritual ceremonies to worship, ask for assistance and make offerings to God through feeding the ancestral beings of sacred mountains, sacred rocks, sacred trees, sacred headlands, sacred springs, *Lulain* (ancestors from seven generations), birth ceremonies, death ceremonies (ceremonies to send the soul to the next world or heaven), justice, security, to call rain including traditional annual rituals such as the ritual to increase the corn crop. Despite this, "the *uma lulik* is not God's birthplace or residence, but the *uma lulik* is the means to seek God" (His Holiness Bishop D. Basilio do Nascimento at the inauguration of the Aitara National Sanctuary, Soibada October 2004). Inside the *uma lulik* (*ksadan* in West Tetum language, *nanur* in Eastern Tetum, *ai-tosa/fatu-bosa* in Mambae, *thala* in Bunak, *burak* in Galolen, *eteu-ruha'a* in Fataluku, *robo* in Makasae, *faut kanaf* in Baikenu),¹² there are sacred places or altars for the placement of offerings or the making of animal sacrifices to ask for or seek God's grace which traditionally we do not understand as God but as what? Timorese people continue to believe in God and always seek God through various means particularly in the village in the *uma lulik* and *ai-tosa*. St. Paul when conducting his evangelical duties in Greece said "Percorrendo a vossa cidade e examinando os vossos monumentos sagrados, ete encontrei um altar com esta inscrição "Ao Deus desconhecido", "Pois bem! Aquele que venerais sem o conhecer é esse que eu vos anuncio"¹³ (Act.17:23). Ritual ceremonies are undertaken by various entities throughout the year with the objective of giving thanks to God for giving life and soul.

Cultural values which are naturally socialized by the various social entities through the *uma lulik* and *uma fukun* can strengthen out belief in God and guarantee peace and tranquility within the community and make us Timorese very proud to be Timorese citizens who live with our own cultural identity in the midst of other nations.

3. The contribution of Uma Lulik to national liberation

As a system of polytheistic belief the *uma lulik* also provides the means for traditional oracles (bringing luck and predicting the future) through divination using Betel chewing, *buti surik isin*, or reading the entrails of chickens, pigs, goats and buffalo and also for taking traditional leaders to be the *Liurai*. *Uma lulik* also contributed to the process of Independence through providing protective amulets (*birun*) which were obtained at the *uma lulik* to protect warriors in battle during the resistance period.

¹² Footnote inserted by UNESCO: for the various locations and ethnic groups in Timor Leste, see < Map1 >.

¹³ English Translation inserted by UNESCO: For as I walked around and looked carefully at your objects of worship, I even found an altar with this inscription: TO AN UNKNOWN GOD. Now what you worship as something unknown I am going to proclaim to you.

Just as our Leader Kay Rala Xanana Gusmão (Kay Rala is the name of the totem house of Xanana's mother) during the resistance period obtain his protective amulet from the main *uma lulik* of Berelaka on the top of Mount Kablaki to protect and hide he and his Falintil comrades with clouds to be able to pass through the midst of their enemies without their enemies knowledge.

At the beginning of 1999 the community of Lenuk Hun Kameia in the sub-district of Cristo Rei conducted a *Toli Mate* traditional ritual ceremony at the *uma lulik* Bilese, with the objective for determining when Timor-Leste would achieve Independence. The divination indicated that it would be a further three years (1999-2002) before Timor-Leste would achieve its Independence and this indeed became reality.

During the resistance period the custodians of many *uma lulik* abandoned them until they fell into disrepair, because they were all wiped out or in some cases survived with a real desire to pass on again their inheritance from the ancestors and to re-establish their *uma lulik* or *uma fukun*, but did not have then means (the economic and customary systems were no longer favourable) to be able to reconstruct them. Many of the *uma lulik* in question were burned or destroyed by the enemy with an impact on many of the sacred objects (gold, silver, *Belak* –metal crest shaped ornament worn on the chest by a man, *kaibauk* – crescent shaped headpiece or crown, *fugadór* - necklace of gold and coral beads, *carta patente* – letters of commission, military or otherwise, *rota* – rattan cane marking authority, *surik* - swords etc.) of intangible value were lost to the present day.

Because of the excessive happiness once National Liberation was achieved the *uma lulik* as the principal wealth of our culture became a concern of all people. Thus almost the entire population demonstrated their tangible and intangible customary value by reconstructing their *uma lulik* with pride, which has truly enriched the entire territory. These ideas and attitudes are a great honour for Timor-Leste's Independence.

The traditional architecture of the *uma lulik* and the beautiful carvings, site of traditional oracles and traditional fortresses have deep aesthetic, artistic and historical value that we need to protect and enrich because these things are very important for the next generations of Timor, and their traditions, sciences, history, art, ethnography, traditional dances, folklore, identity, humanism, nature and belief in God. When the community restore the heritage of their *uma lulik* and their various types of traditional architecture, beautiful carvings and sculptures, it will bring further great advantages in giving rise to individual talent and increasing and enriching cultural activities because they will enable us to attract people from overseas (i.e. tourists) to come and invest their capital and create employment to build the economy of our country and bring the benefits of improved livelihood.

Traditional values from the *uma lulik* can become a means to filter cultures from other countries which may not be good to integrate, enrich and make abundant in our own culture.

According to the spirit and conscience of customs other people who do not have family relationships cannot provide material or financial assistance to build some else's *uma lulik*.

Because of this the tangible and intangible values of *uma lulik* are without measure.

4. Uma Lulik as traditional museums

4.1. Origins of the museum

In order to consider the *uma lulik* as a traditional museum, first of all we should talk a little about what is the foundation of a museum and its coming into being.

“We human creatures have always had a custom or spirit of gathering things (a collecting instinct). Archaeologists undertaking research in caves in Europe have shown that Neanderthal's at Neander (the origins of white people in Europe) more than 85,000 years ago gathered beautiful pebbles of ochre, shells with various shapes and colours and animal types of animal bones that they stored together in one secure place. These collections are known to the science of museology as the “Curio Cabinet”. The Curio Cabinet is the first museum in the history of museums or the Museum of the Ancestors”. (Asiarto, 1988, Pedoman Pendirian Museum page 3)



Photo: Haburas Foundation

In colonial and imperial times, the kings of Europe gathered collections of various beautiful cultural and natural objects that were sent from the Orient such as from America, Africa, India, China and Asia including Timor in their great halls as symbols of power, pride and prestige. These things were only to be seen by important people and other royalty.

The etymology of the word Museum is from the word Muse. The Muses in the mythological heritage of the people of Greece were the seven children of the god Zeus. Of these seven children there was one with the role of the science of knowledge named Muse. From the word “Muse”, it was transformed to the word “Museum”.

Museum was first established during the Renaissance of Western Europe and was known by the name “encyclopaedia of time”. With the start of the Renaissance people started to take the opportunity to delve deeply into the sciences of humanism, various things, flora and fauna of the land, the heavens, astronomy and so forth. Prior to that, everything had to be based on the values and doctrines of the Catholic Church.

4.2. Museums in the global context

Experts (professionals) in the field of Museums from across the world have established a forum called ICOM (the International Council of Museums) and have defined Museums as follows:

"A Museum is a permanent institution which does not seek profit, serves the people, is open to the public, that seeks, preserves, creates linkages to conduct exhibitions, conducts research, education and happiness from human heritage and nature" (Asiarto, 1988, 15).

ICOM also accepts the following according to the above definition:

- a. *Institutions that conserve and make permanent exhibition from libraries and archives.*
- b. *Archaeological, ethnographic and natural heritage, pre-historic and historic places with the spirit of a museum that undertake conservation and communication with the people.*
- c. *Those institutions that conduct exhibition of biology, botanical gardens and zoos, aquariums and so forth.*
- d. *Centers of science and planetariums* (Asiarto, 1988, 16).

From this we can see that the meaning of the word Museum is indeed very wide. We are very proud at present because Timor-Leste already has a natural museum, the Nino Konis Santana National Park in Lospalos, and has further plans to create other national parks.

4.3. Museums in the context of the *Uma Lulik*

As humans our ancestors also liked to gather things of historical value, arts and knowledge. Just like the Neanderthals who gathered special items together our ancestors also stored things like this in caves, some painted plants and animals and other things like the sun, stars and moon in caves such as those at Likere-Kere in the sub-district of Tutuala in Lautem.

In the end they built houses with beautiful forms and architecture to gather these special items together that we now know as *uma lulik*.

In 1991 I undertook a course in basic Museology in Jakarta. My lecturer Dr Bhasrul Akram said: *"The oldest museum in South Asia is the Batavia Asch Genootschap Van Kunsten en Wetenschappen which is now known as the National Museum of Indonesia"*. I stood immediately and responded: *"If museums are just places to store cultural items, then in "Timor Timur" we already had them before colonialism came to dominate us, because the people of Timor have always had uma lulik and houses whose functions are to preserve the cultural items of Timor considered to be sacred and of historical value"*. Some of my colleagues from Province 27¹⁴ laughed at me, but the lecturer said: *"if that is so then in the final exam try to write an article about*

¹⁴ *Translator's note:* Timor-Leste was the 27th province of Indonesia before its independence in 2002.

these uma lulik". I did indeed write that article at the end of the year and because of this I was invited to attend a course in Special Museology. In this last course I did not see the faces of those colleagues who laughed at me.

Uma lulik contributes greatly to the preservation of the cultural objects of Timor-Leste including both things considered to be sacred and not sacred. These objects stones of various shapes and colours (precious stones), animal bones, *belak*, *kaebauk*, *morteen* – coral bead necklaces, *keke* – talisman bracelets, *loku* - armlets, *mutisala* – slave collars made from red beads, usually coral, *fugadór*, *butiliman* – bracelets, *manu-lain* – feather head-dress, *dasa-rai* – brooms, *tambór* – drums, *rota*, *trasada* – drawings, *surik*, *carta patente*, *farad liurai* - clothing of the liurai, *xapeu* – hats, *devisa* – emblems, usually of military rank, *estatua* - statues and so forth.

Uma lulik gives spiritual power to the *liurai* to govern the people and only the *uma lulik* can give spiritual power to the *dato* (noblemen, chieftains) to become *lulik-na'in* or *lia-na'in*.

The relationship of epic poems to *uma lulik*



Photo: Haburas Foundation

< Original poem in Tetum >

*Uma Lulik Rai Timur Uma rin besi,
Kakuluk osan mean didin osan mutin,
Uma laran kakuluk lulik Rai Na'in
Tau Lulik Hafutar Aman Maromak*

Katak:

*Uma Lulik iha rai Timor ne nia espirito bot tebes
Nia kakuluk ho nia didin nia valor sasukat laek
Buat hotu iha uma laran ne lulik hanesan ho Rai Na'in
Maibe buat sira ne hotu nia objetivo mak adora ba Aman Maromak*

< English translation >

*The uma lulik of Timor have post of steel
Roofs of gold and walls of silver
Inside are the sacred things of the sacred earth spirits
Placing the sacred to decorate God
Meaning that:
The uma lulik of Timor have a great spirit
Its roofs and wall are of intangible value
Everything inside is sacred like the earth spirits
But the objective of all these things is to worship God*

Tais Weaving

LOCAL KNOWLEDGE AND SPECIALIZATION

from the Mothers of Timor-Leste

by: Cecilia da Fonseca, Alola Foundation

The importance of local knowledge in the process of weaving tais

Tais are made through a range of processes including: starting with spinning cotton balls into thread, then using plants to make natural dyes to colour the thread, soaking the thread in the dyes that have already been produced from natural, local materials. Following that the thread is oiled to fix the dyes and make the colour shine and finally the tais is woven from the thread.

In the time of the ancestors all of these processes utilized traditional and natural methods. People who weave tais utilize the wealth of nature that they are able to obtain from places near their villages as the basic materials for making tais. The local knowledge of the highest value in making tais are the processes of making thread and dyeing it. The thread is made from tree cotton that grows abundantly in Timor-Leste and the dye colours come from many types of plants. The plant materials used to make the dyes include leaves, roots, bark, seeds, and other plant parts. The majority of plant materials used can be found in the places where people weave tais.



Photo: Alola Foundation

Similarities and differences in tais motifs

Tais weaving uses the local knowledge of many districts in Timor-Leste, but the districts of Aileu and Manatuto and also the sub-district of Atauro do not weave tais. In the district of Aileu, people do not weave tais because of a belief that has been passed down from the original ancestors and passed on to the present day that mothers, single women and teenage women from that district are banned from weaving tais because of the traditional belief from the ancestors that during the weaving, they may die or cut short the generations (be prevented from having children).

In the district of Manatuto and also the sub-district of Aileu, from the beginning the ancestors

did not keep local knowledge for them, and also the ancestors did not weave tais because the materials to make them are not available.

Traditional tais are made in twelve districts of Timor-Leste. In each district there is local knowledge that is unique for each place for the processes of weaving and colouring the thread. The basic plants that are used to dye the thread are mostly the same.



Photo: Alola Foundation

There are differences in the methods and recipes used for preparing the dyes for thread. In communities that weave tais, the majority used recipes and methods that were passed down from their ancestors that they still use today. Each district has its own unique colours that are obtained from the plants that can be found there. The biggest differences are the motifs and patterns and the colour combinations.

These differences can be seen in the weaving motifs of all districts. In each district there are unique motifs. The majority of motifs represent the shapes of animals, *uma lulik*, flowers and statues of Jesus that have been obtained through the process of the enculturation of the catholic religion in Timor-Leste. Many of the tais motifs come from different time periods, such as the Portuguese colonial occupation period, when people wove tais using symbols that baptized people believe in, such as angels, Jesus and others. Also during the Indonesian occupation period, many tais were made using the motif of the bird Garuda. There are many motifs that follow the movement of the times, but the older and principal motifs are maintained and are dominant in the today's markets.

The inspirations of Mothers for tais weaving

When mothers from earlier generations wove tais, they took inspiration from their daily interactions with nature, from the various activities in which they were involved, such as from the patterns of woven palm products and mats. They also took inspiration from the rituals practiced by the ancestors in their daily lives and also from the motifs that can be found in the construction of *uma lulik*. The motifs of various objects and carved figures that can be found in the places where they live that they considered sacred, such as the figures from Lospalos that can be found in the cave paintings of Ilikere-kere. According to their belief, these stones are sacred. These stones are considered to be things of spiritual value to the local communities that live there. The cave paintings in this sacred place of Ilikere-kere themselves are cared for by the people of Tutuala.

In Oecussi, the principal motifs handed down from the ancestors are the fish and the crocodile, because the ancestors believe that they are descended from these two animals, and therefore eating them is banned.

In other districts the inspiration for motifs are obtained from the animals and plants that they encounter in their daily lives.

Obstacles for the conservation of local knowledge of tais weaving

There are economic factors in the process of tais production, because of the long periods of time involved from one step to the next. Creating one traditional tais of the highest quality takes a very long time, as long as one and two years. This has made people who weave tais turn to the use of synthetic thread and synthetic dyes to reduce the costs of production.

According to weavers, the time taken to weave tais using synthetic materials maybe be just two weeks to six months, and they may be able to produce more than one tais during this time, depending on the time available and the needs of the household. The price of tais in the marketplace is also low and the people who purchase tais often do not value the process of production of tais made from traditional methods. This condition arises from people who are lacking in awareness to the originality of these types of tais. If people do not value the traditional tais production methods and just purchase tais made from synthetic materials then in the future the traditional tais will be lost.

Another obstacle is the lack of people who know the complete traditional methods of creating tais. The majority of people who have knowledge of tais weaving are old women. For a long time they have used the women of their households such as younger women, children, daughters-in-law and granddaughters in various steps in the process of weaving tais. Models of education which do not value the process of production of traditional tais in supporting the transfer of knowledge from one generation to the next may also threaten local knowledge of tais production.

Other threats that may arise come from groups that undertake the certification of intellectual property, particularly those who at present make collections or develop tais as primary materials for the production of clothing, bags and other handicraft items that they register as their products without valuing the communities as owners of that local knowledge. Cases like this have already occurred and have affected many local communities with the results of the policies of Intellectual Property Rights (IPR) being the loss of local knowledge rights that were handed down from the ancestors. To reduce this threat, the Ministries with responsibility for protection/guardianship in particular the Ministry for Tourism, Commerce and Industry need to work with the Secretary of State for Culture to identify and issue



Photo: Aloia Foundation

national certification for 'collective knowledge rights' for tais production to community groups or based on the motifs of the districts that produce tais. Another way would be to integrate a policy of using tais as a symbol of national costume.

The process of teaching and passing on knowledge of the richness of life moves according to daily life. Because awareness and the education system of Timor-Leste have not yet integrated the concepts, processes and local knowledge of tais production, people don't know the history and value of tais, the processes, investment of time, local knowledge and resources and the use of local technologies that were formerly used in the production of tais.



Photo: Alola Foundation

Other potential risks are that if many female children or young single women are involved in the production of tais as a principal means of livelihood for the household then it is possible that school attendance will not be prioritized for them.

The Alola Foundation and also Timor Aid are Non-Government Organizations (NGOs) that have taken an interest in valuing and promoting tais. These two organizations have made great efforts to revitalize the local knowledge of the production of tais and have also supported the development of products made from tais to strengthen the role of making a living that involves mostly mothers. The methods used in the transfer of local knowledge have also conducted awareness-raising for young single women as the next generation who will preserve and practice the local knowledge of tais production. Because many young women have been involved in their tais production programs, this local knowledge of tais weaving is being passed on to the next generations.

Program

Alola Foundation and Timor Aid work together with communities that weave tais to conserve and promote traditional tais made from local natural materials. Activities that have already been conducted include:

- Promoting to communities the notion that they should weave tais using original, older motifs;
- Taking part in national, regional, and international events to promote traditional and original tais from Timor Leste;
- Opening a shop at the Alola Foundation Office and at the airport to sell the traditional tais and goods made from tais of Timor Leste;
- Becoming members of fair trade networks;
- Replanting species that provide the principal materials, that are used to spin and dye the thread for tais.

Recommendations

- Improve the capacity of the new generations in the processes of tais weaving;
- Provide financial support to national and district NGOs and facilitate the production of high-quality traditional tais;
- Document the history, process, practices and spiritual value of tais;
- Conduct wider promotions of traditional tais in international and national arenas, to raise the price and value of traditional tais, leading to increased economic benefits for communities that make tais and the conservation of local knowledge;
- Preservation of the plants that are used to dye thread.





CHAPTER II
LOCAL KNOWLEDGE AND
NATURE CONSERVATION

MARINE AND COASTAL RESOURCE MANAGEMENT

based on local knowledge

By: Rui Pinto, CTSP Timor Leste



Photo : Haburas Foundation

Introduction

Timor-Leste became a member of the Coral Triangle Initiative (CTI) several years ago at the World Oceans Conference in Manado, Indonesia. The National Action Plan for Timor-Leste to the Coral Triangle Initiative recognizes the cultural wealth and epistemological diversity of Timor-Leste and seeks to learn from and utilize it as a means for to advance the idea of endogenous development (sustainable development that does not forget culture and the interactions of people with nature). As a program of the CTI, the Coral Triangle Support Partnership (CTSP) is the first CTI program to be conducted in Timor-Leste. The government of Timor-Leste identified the Lautem District as a priority geographical area and requested CTSP to focus its efforts in coastal communities living in the Nino Konis Santana National Park the country's "priority area" and integration site. In Timor-Leste the CTSP works together with the National Directorate of Fisheries and Aquaculture to support this Directorate to strengthen the management of marine and coastal resources. In order to prevent the imposition of exogenous models, the CTSP has supported a small process to assist the National Directorate for Fisheries and Aquaculture to learn about and register what communities and local leaders think about marine and coastal resources so the National Directorate for Fisheries and Aquaculture can commence the participatory processes to strengthen existing knowledge and introduce new concepts and ideas in order to facilitate better community monitoring and management of their resources.

Description

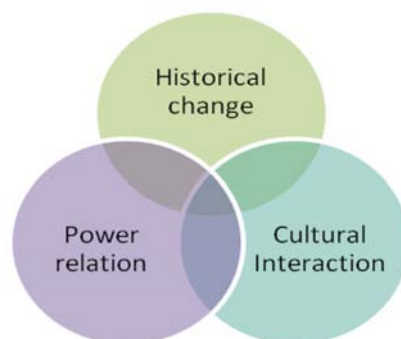
This short article is a compilation of some ideas and information that arose during discussions with the National Directorate of Fisheries and Aquaculture during and after discussions between the community and the Directorate. Though the discussion with communities are documented in the program and are often referred to as "public

consultations” it is important for readers to understand that the process of “consultations” conducted was not intended to create marine parks or sanctuaries (which is the responsibility of the National Directorate for Fisheries and Aquaculture together with the Department of the Environment) but rather to facilitate the Directorate’s thinking regarding models for Locally Managed Marine Areas (LMMAs) and how Timor-Leste can strengthen the management of marine and coastal resources.

Analysis and discussion

Traditional ecological knowledge can support the modern management of marine and coastal resources. Bringing local knowledge and scientific knowledge together, two systems of knowledge that arise from different logical and epistemological pathways is difficult, and managers must recognize this difficulty.

Even though local knowledge has an historical component and relevance to the places where we work, fisheries managers must always recognize that all knowledge has relationships with historical practices, cultural interactions and power relationship (oppressors and the oppressed). Similarly when we start to work in a particular location, the knowledge systems that people follow arise according to the interactions between the three aspects mentioned above. These relationships give rise to a fusion between *alternative knowledge* and other knowledge structures that the colonial powers and occupation forces brought to Timor-Leste. In the next illustration readers can visualize the interactions between time, culture and power and see the possible areas of overlap.



Readers and managers must not forget Timor-Leste’s history when looking at different ways of knowing and their origins. We must accept that oppression, trauma and the movement of communities from one place to another has had an impact on the processes associated with local knowledge and has given rise to the fusion of knowledge in Timor-Leste.

People who have an interest in marine and coastal resources management must also see in traditional and local knowledge an important part of Timor-Leste’s intangible cultural heritage (ICH). Therefore the processes and methodologies that are to be employed to register, evaluate and utilize this knowledge must be done to safeguard ICH using appropriate research and sound protocol to reduce the folklorisation of the Timor-Leste’s intangible cultural heritage.

As readers and students of the history of Timor-Leste are aware, the colonial powers and the Indonesian occupiers went to great lengths to transform the relationships Timorese had with their land and their resources. This was done through the process of the introduction of taxes, the process of the introduction of individual property titles, the process of the alteration of eating habits, the process of establishing monocultures and the introduction of new cultures which enriched the oppressors (colonial and invaders) and disempowered and oppressed (Timorese).

In some places this interference started when experts from outside the country brought new crops such as coffee. In this case, the external force (colonial) suppressed local knowledge with their “scientific knowledge”, interrupted, reduced or accelerated activities that transformed traditional knowledge.

The means through which managers from the northern hemisphere (natural resource managers indoctrinated with scientific knowledge) choose to incorporate local knowledge to improve and strengthen management systems must be done according to the understanding of circumstances (why is local knowledge the way it is) and also whether people (the community) choose (or not) to follow or submit to the guidance suggested by the local knowledge.

If managers of natural resources do not deal with these two issues, the process that they believe to strengthen natural resource management will actually lead to the destruction of Timor-Leste’s intangible cultural heritage.

It is very important to value local knowledge and to insert this system of knowledge into the joint management system. However people must take care to avoid the process of valuing traditional knowledge and practices that may lead to conflicts to do with property and rights of access to natural resources.

Timor-Leste is different to other nations where the community says that someone is the “owner” of a resource. In Timor-Leste when we hear the word “*na’in*” (rather than owner, caretaker or perhaps custodian may be the adequate word) often does not mean that that person has the right to use that resource over the others, but rather that person has the role of ensuring that all people in the community obtain positive benefits from the resource and that in the future they will be able to continue to derive benefits from that resource. This is the case at Iralalaru in Loré where people have said the “the *na’in* (custodian) of the reef” or “the *na’in* (custodian) of the water”.

During the processes of discussions with the community the fishing techniques in the district of Lautem, women demonstrated that they have specialized knowledge, knowledge that relates particularly to the ecology of marine invertebrates (shellfish, prawns, crayfish/lobster, mussels and octopus).

This knowledge also arises because women dominate the “tidal” activities, and so they add to this knowledge over time. An interesting case is the use of fish poisons to kill fish and animals close to the coral.

In the Fatuluku language community members use the name “*Txa*” (which in Tetun-Terik is called *Tuha* (*Derris spp.*)). This is a plant that people use in rivers to catch river prawns and eels. In the district of Lautem people classify two types of derris (*txa*). One they call white and the other they call red. The community at Suco Com and Mehara say that they find white derris (*txa-mutin*) in their Suco and that the red derris (*txa-mean*) comes from Loré.

People don’t use the words ‘red’ and ‘white’ because the bark is red of the other white but because when it is pounded and the wood chips cast into the sea, one makes the water turn red and the other makes the water turn white. The two forms of *txa* come from *Derris*, and according to what the community reveals the red is stronger and kills many animals.

It is interesting that communities in the Torres Straight islands also classify derris in the same way; one is red and the other one is white. According to Torres Straight Islander communities the classification system for the genus of *Derris* (which is the same genus for *Txa*), *Derris scandens* makes water turn white. In reality *D. trifoliata* has many tannins and when the bark comes into contact with water make the water turn red.

So we can say that the classification system and the local knowledge that women use in Lautem can be a guide for managers to better manage the use of traditional poisons to catch fish in the coral zones.

As a fish poison *Txa* (*Derris*) has a component in it called rotenone, and according to the National Directorate of Fisheries and Aquaculture, and the Basic Law for fishing techniques, those from the District and National Fisheries are looking for ways together with communities to control this practice in order to guarantee that this poison doesn’t destroy marine habitats in the district of Lautem.

From discussions with community leaders and women’s groups from the Suco Mehara, the community suggests the use of *Txa* in controlled locations, and the fishing using *Txa* should be open to women and children from the Suco three times a year. In other sucos preliminary community discussions had the idea and wish to locate places for the use of *Txa* within the process of community zoning for coastal and marine areas (to 3 miles offshore).

Conclusion

For natural resource managers, particularly if they wish to manage marine and coastal resources using local knowledge, such knowledge must be used properly to guarantee that this process does not destroy intangible cultural heritage and create conflict within communities. Managers must be alert to register the community aspirations and ensure that during their work they always have links with other Government agencies and community leaders in order to avoid failures of understanding of the process and to reduce mistrust.

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The Functions of LOCAL KNOWLEDGE in the Management of Protected Areas and National Parks

by: Pedro Pinto, Forester - MAP



Photo: Haburas Foundation

As a nation, Timor-Leste is graced with a wealth of biodiversity (plants and wild animals of various species). The source of well-being in many nations comes from natural resources including land and marine ecosystems. These resources are vulnerable and must be managed with care in order to support development for the next generations. Even though there is already strong commitment from Timor-Leste to protect its natural environment, there is a trend of conflict between the conservation agenda and demands of socio-economic development. Rapid population growth, economic development and associated social change, have impact on the serious threats to those natural areas that exist in Timor-Leste. The negative impacts taking place include interruptions to the hydrological cycle, soil erosion and the loss of natural habitats to support the biodiversity of Timor-Leste. As part of its strategies to protect the natural environment, the Government has created a network of protected areas, including the Nino Konis Santana National Park to protect and conserve the values of biodiversity, socio-economic, cultural, historic and pre-historic. Although the priority function of protected areas is the maintenance of biodiversity and ecosystems to provide environmental benefits to communities that live close to these areas, sometimes other important functions connected to some ecological, economic and development sector needs are abandoned.

In reference to these conditions the National Department of Forestry has created policies and strategies for the forestry sector and a Strategic Action Plan for the Department of Protected Areas and National Parks to guarantee the active participation of local communities in the forestry development sector including the role of traditional knowledge in the management of Protected Areas and National Parks, which can become a model guide to strengthen the means to sustainable development in terms of the conservation of the natural resources of Timor-Leste. In order to guarantee participatory management there is a need to strengthen, enrich and value the traditional knowledge system associated with the *tara bandu* to promote solutions to resolving biodiversity issues and its sustainable utilization because the *tara bandu* is a model of traditional conservation which the earliest ancestors

used to protect, regulate and place collective sanctions for natural resource management.

Seeing the strong interrelationships between protected areas and communities, the commitment of the Department of Protected Areas and National Parks, within the National Directorate of Forestry, Ministry of Agriculture and Fisheries in its experience of planning for the establishment of 30 protected areas is to involve stakeholders from relevant



Photo: Haburas Foundation

institutions including communities and traditional leaders regarding how to be able to convey the protected areas program through traditional knowledge to the whole of our society so that they can become accustomed with this program, in order to protect and conserve our resources and to be able to ensure that traditional knowledge is integrated into the sustainable management of protected areas. Similarly the involvement of traditional leaders in identifying relevant issues regarding the socio-economic and cultural potentials/values so that the National Directorate of Forestry can develop a strategic plan for the establishment and management of protected areas that can guarantee the well-being of communities and minimize conflicts between traditional knowledge and the development of protected areas.

In other aspects the government must promote traditional knowledge regarding traditional ecological management systems such as how the community utilizes plants for traditional medicines, the mythology that gives rise to springs and the management of sacred water sites, the conservation of plant species that ensures water supplies, the conservation of sacred forests, the conservation of wild animal species such as sacred fish, sacred crocodiles and other wild land animals such as sacred bees, sacred snakes, sacred rats and others. All of that signify emotional relationships between humans and nature in aspects of traditional beliefs that no one can separate/terminate because through cultural ritual ceremonies that are continued from generation to generation it is demonstrated that they have sanctified all these things. A history of sacred objects and people's belief in these sacred objects such as protective amulets for war or for communicating with their ancestor spirits exists in all parts of the world.

In order to understand the roles of work, legal frameworks and participatory planning for the establishment protected areas, and the obstacles and opportunities, the Department of Protected Areas and National Parks prepared presentation materials for the two-day workshop on Traditional Knowledge in June 2011 as follows:



The protected area network for Timor-Leste are shown (and named) in relation to the major towns in Timor-Leste. Protected areas are different stages of implementation. Final boundaries have not been identified except for one so these boundaries are only a rough guide and were only developed specifically for this assessment. Map produced by CNRM Solutions Pty Ltd.

The Legal Basis for Conservation Programs in Timor-Leste

- The RDTL Constitution
- UNTAET Regulation No. 19/2000 about Protected Areas
- Government Resolution No. 8/2007 regarding the creation of the Nino Konis Santana National Park
- Government Resolution No. 9/2007 regarding Forestry Sector Policies and Strategies
- Ministerial Diploma No. 429/DM/10/XI/10 regarding Admission to Protected Areas and National Parks
- Ministerial Diploma No. 430/DM/11/XI/10 regarding the Undertaking of Nature Based Tourism in Protected Areas and National Parks Utilization Areas

Protected Areas System in Timor-Leste

- 1 National Park, 2 Forestry Reserves, 27 Protected Areas
- Percentage of the national territory: 10 - 14 %
- Management Authority: Department of Protected Areas and National Parks, 8 staff in head office, 8 district based staff.

Linkages between the *Tara Bandu* System and the Management of Protected Areas and National Parks

The RDTL Constitution article 6 states that the State recognizes and respects cultural practices that exist in Timor-Leste. Because of this, the RDTL Government respects the system and practice of *tara bandu* and rituals that are the same as natural resource conservation, such as:

- a. Respect for traditional rights as land owners (the traditional system of land usage and distribution in the Nino Konis Santana National Park)
- b. The practices of local knowledge in Protected Areas and National Parks, such as:
 - The traditional ceremonies of *Api lopo* and *Mechi*
 - Traditional fighting ceremonies associated with harvest times including corn bundling and rice threshing

- Bans against activities including hutting, burning, timber cutting, framing, entering and taking people's property in sacred places
- e.g. Sacred places such as *Ain fatin* – foot prints (*kio hakupoto*), sacred ancient burial sites (*Leneara*), sacred mountains and rocks (*Iline taimanu*), sacred springs (*Iralafae*), and others.



Photo: Haburas Foundation

Plans for the establishment of participatory management of protected areas and national parks and their challenges

1. Framework for Participation in Management
 - Create a Consultative/Advisory Committee
 - Create Suco Consultation Meetings
 - Create a Consulting Network (informal)
2. Benefits of Participatory Management
 - Helps to protect and conserve species
 - Reduces threats that may arise
 - Strengthens positive relationships with other sectors
 - Creates conditions to obtain maximum support for protected areas to be able to manage them effectively and efficiently
3. Challenges
 - Limited human and financial resource capacity
 - Laws to guarantee rights to resources (for land rights) does not yet exist
 - Coordination systems between sectors are not yet strong
 - A very high population growth rate
 - Fragmentation and illegal activities
 - Conservation has not yet become a national priority (actual investment and budgets remain small year after year)



An aerial photograph of a rural village built on a hillside. The houses are constructed from stone and brick, with some having corrugated metal roofs and others thatched roofs. The surrounding landscape is lush green, with terraced fields and a dirt road winding through the village. In the background, there are large, rolling mountains under a clear sky. The text 'CHAPTER III LOCAL KNOWLEDGE AND LAND MANAGEMENT' is overlaid in yellow on the image.

CHAPTER III
LOCAL KNOWLEDGE AND LAND
MANAGEMENT

The Social Functions of Land as Local Knowledge

by: Meabh Cryan and the Land Guidance Team, Haburas Foundation

Introduction

Just recently the Haburas Foundation's Land Guidance Team travelled through 7 districts to conduct consultations about what people think about land. One thing that became clearer for the team, which listened each day about land, community stories about land and the people's thoughts about land is this: land is fundamental to our lives, to our culture, our society, our traditions, our economy and our nation.

In this article we would like to examine two questions:

- First, what are the relationships between land and local knowledge because according to the author's points of view, from more than one year's work conducting consultations about land, it is clear that there is a very strong relationship between local knowledge and land;
- Second, we will examine how traditional or local knowledge can resolve threats of conflict over land that arise from threats coming from internal factors and threats that come from external factors.

Opinions in this article are an articulation of my observations during one and a half years' work together with the Land Guidance Team, from case studies, observations from the community and all situational analyses come from a great deal of work undertaken by the entire team (Roberto Aleixo da Cruz, Lucio Savio, Carlos Salsinha and Hugo Imanuel Garcia) since 2010. In particular, the two case studies, the first about Suco Lalawa, was written by Roberto Aleixo da Cruz and the second about Tutuala was written by Lucio Savio. Many thanks to them for their support and information.

This article reflects observations that arose during consultations made by the Land Guidance Team, the article is not able to cover all discussions and debate that took place in various place in Timor-Leste, with academic groups, at universities and other institutions, but we hope that some of the observations in this article will be able to contribute something to discussions about the social functions of land, local knowledge and the importance of land to the political, social, cultural and economic identity of all people, their resource access, residences and ecologies.



Photo: Meabh Cryan

Land context in Timor-Leste

According to the researcher Daniel Fitzpatrick¹, 97% of the land in Timor-Leste is managed by customary systems or cultural systems, meaning that despite the intense influence of Portuguese colonialism and the Indonesian occupation, the cultural system remains very strong in Timor-Leste to the present day.

When we ask at the local level, we hear a great deal of knowledge about the importance of land. According to the people of Timor-Leste, 'land is a very fundamental issue for the lives of all people'.

*'We place importance in cultural land because whenever we do anything on the land we always follow the customs of the land such as that sacred mountain, sacred land because it is a custom that is difficult to alter.'*²

*'My land here is ½ ha. My land here, I use it to make fields to plant corn. The results from this are 50-60 kg sacks of corn that once threshed yields more or less 30 sacks per year. On this plot of land I also raise animals like cows. When I sell them I get around \$500.00 - \$600.00. I make my living from this land.'*³

*'My thoughts about cultural land are like this, at the graves of our ancestors in sacred trees each year we conduct cultural ceremonies or in our sacred place we go to worship. Our land, we can pass on as inherited property. We will not sell our land because our livelihood is our land, so the time when we sell our land, will be the time when we cease to exist.'*⁴

According to De Carvalho⁵ in his article 'Perspectives of the People of Timor-Leste regarding land':

*'It is very important when we speak about land in Timor-Leste, to have a very wide viewpoint, because in Timor-Leste land is not just the physical, chemical and biological material, but land has socio-cultural dimensions that are traditionally linked to cosmic aspects and important rituals because the social perspective and cultural land, is in the context of Timor-Leste. Particularly in the time of the ancestors, land was seen as a common economic resource that belonged to one uma lisan or one village from a group of uma lisan.'*⁶

De Carvalho adds to this in another article, saying that, 'land in the context of Timor-Leste has seven separate but interrelated dimensions'. According to him, 'land provides political identity for us all, land has its social dimension, its cultural dimension, the land system is the system for resource distribution (sharing) for families. Land also becomes the basis for our economy and ecology. Lastly, land provides life and a place to live for us all'.

¹ Fitzpatrick, D (2002) 'Land Claims in East Timor', Asia Pacific Press.

² Consultation with the people of Suco Dotik, Manufahi District undertaken on the 9th of June 2010. Notes from Carlos Salsinha.

³ Interviews regarding the Supply Base in Suco Camanasa – 23 February 2010. Notes from Hugo Imanuel Garcia.

⁴ Interviews regarding Cultural Land in Suco Tutuala – 12 November 2010. Notes from Lucio Savio.

⁵ De Carvalho, D (2011), Presentation to the National Parliament of Timor-Leste regarding the Context of Land in Timor-Leste.

⁶ De Carvalho, D (2009), Perspective of Timorese People regarding land.

In the following section are some case studies that provide further in-depth information about the dimensions and functions of these lands, from which we can better understand the importance of land for Timorese people. However as the point made by De Carvalho above asserts, the key to current discussions about land issues in Timor-Leste is our own perspective, we cannot consider land just as something physical but, *'we need to see it from a wider perspective'*.

Case studies about the importance of land

In the next pages are three case studies which demonstrate the various importance of land. In almost all sucos and aldeias in Timor we can hear about and find many cases that are almost identical, but with differences in details. The first case looks at the importance of land for cultural uses for the people of Suco Lalawa who live on



Photo: Meabh Cryan

land called Tulaeduk and Halimea. The second case looks at the relationship to political identity in Suco Tutuala and also looks at the land system as a very effective means for the management and sharing of natural resources. The last case looks at the *tara bandu* ceremony in Suco Ulmera in the district of Liquiça and its importance for community unity and the ecology of the community of Ulmera.

The importance of cultural land for the people of Tulaeduk and Halimea – Suco Lalawa

During the Indonesian occupation the Indonesian State occupied land known as Tulaeduk and Halimea to establish HTI (Hutan Tanaman Industri – Forest Industry Plantations). Just recently the Government of Timor-Leste has expanded this plantation.

Previously the majority of the community living there depended on this land for their livelihoods. The community used it for farming, rice-cultivation, for animal raising and as a place for hunting wild animals that live on that land in large numbers. This area is sacred land and very important to the community. This land is very important to their lives and culture and has various functions. What follows are some of the really important functions of this land to our community's culture and daily lives:

Weowe (the name of the sacred water)

- The function of people coming from other districts when they are building *uma lulik* to get water for blessings
- For blessing houses
- During the dry season chickens and pigs are sacrificed to sanctify the sacred water for consulting oracles and to ask for rain

Sukabi-Lahuit (a hill)

- Previously our parents took chickens and pigs there for sacrifices asking for rain
- As a place for rituals performed prior to hunting and upon successful return for having parties for 3 days and nights asking for rain
- Placing coconut shell cups on hilltop of Sukabi-Lahuit

Kanokar rock

- This boundary placed by the ancestors already has HTI and has the hand and footprints of the ancestors

During the Indonesian period the Indonesian Government used force to occupy some lands to create HTI. The community gave it to them because they were afraid that the Indonesian military would kill them. The community gave this land to the Indonesian government but did not give it with their full consent (with their whole hearts), because they were under psychological pressure.

An area of 250 hectares of land was given to the HTI program. Six aldeias were victim to the forced subsuming of land for HTI. The objective for the use of the land was an area for HTI but the community never heard or knew of this at the beginning. The land was just taken with the reason that it was to be used for development, which the former second President of the Republic of Indonesia General Suharto always said 'in the service of development'. *"During the Indonesian period we never got any benefits from this land under the HTI program, so this was an impact on us, because we were not able to access the places for our fields and animals."*

Formerly during the Indonesian period these could be used to become Forest Industry Plantations but the community could access the HTI area, all of the community could access these lands according to cultural norm to farm and raise animals. To the present day the sacred places are still sacred and ceremonies continue to be conducted involving ritual sacrifice of chickens and pigs to ask for rain, and the rain comes immediately.

This situation got worse with independence. The State considered that land to be the property of the State. Because the State made great efforts to take back the land being used by the community. The Government of RDTL has never undertaken consultations and coordination with the community, the Government has only sent members of the Forestry Directorate to move the boundaries and make the area larger. When the community protested, they were further threatened by the PNTL. Now the State has banned people from accessing the area for farming and raising animals.

The question is this: **'if the State really wants to take it, where are we, the population, going to go?'**

At present the communities from the 6 aldeias who are part of the area of HTI want to reclaim the land to be able to have access for agriculture, social and cultural purposes and for economic activities. This land belongs to the community of Lalawa and not to the State. In order to understand more deeply the history of this land, one would need to discuss with the *lia-na'in* there.



Photo: Meabh Cryan

The community felt sad because the State of Timor-Leste through the National Directorate of Forestry has moved the boundary further into the community areas. If it keeps being moved, then where is the community supposed to go?

Because of this, the community from Suco Lalawa will not give the land to the State because this place provides us with our livelihood. This land is ours and our place of residence. This is the inheritance that our ancestors left for us. This place also has sacred places: sacred trees and sacred springs.

The importance of *Tara Bandu* in Suco Ulmera to the ecology and to community unity

Just an hour and a half from Dili on a small road into the mountains, we travelled along a road surrounded by forest with teak trees and coffee. Before we got to Suco Ulmera we heard the sound of drumming. According to the guide who was taking us there, the drumming signifies that the members of the entire community are being called to participate in the *tara bandu* ceremony that day. According to the 'uncles and aunties' who are drumming, the drum has been calling for two days already. Once all of the community is there, the ceremony will begin.

We got to Suco Ulmera and the aunties were singing and drumming. The Village Chief explained that the drumming and singing represent and strengthen the unity of the community. On the other side the women were hard at work preparing food, rice, beef, chicken and other things. The Village Chief explained that 'the *uma lulik* of Ulmera has not yet been rebuilt but the ceremony will take place where the *uma lulik* formerly stood, because this site is very sacred and important to the ancestors'. It is a place of worship that the ancestors established with stones and hardwood. On this site they have placed baskets with food, palm wine and betel-nut. The food is an offering to the ancestors. In another location we can also see a black post, for the *tara bandu* that has already been raised. This black post already has various bundles of leaves hanging on it. There are also local products like betel-nut and *malus* (the leaf that is combined with lime powder to be chewed with the betel-nut). We can also see some animal bones such as goat horns and chicken wings hung there. Demetrio Amaral de Carvalho, Director of the NGO Haburas Foundation, explains that

these things hung on the post are symbols that represent the three relationships which govern the custom of the ban or *tara bandu*. These relationships are important in the practice of *tara bandu* which regulates the relationships between people and people, the relationship between people and the natural environment, and the relationship between people and the State.



Photo: Meabh Cryan

The ceremony started with incantations from the *kableha* and from the *lia-na'in* and worshipping of the ancestors.

The food was shared with everyone and the entire community ate together in the ritual site to sanctify and invigorate the sacred spirits of the *tara bandu* system, the greatest cost was the feeding of people and the killing of larger animals such as cows, pigs and goats to start the *tara bandu*. If people violate this ban in the future, the penalty for this is to pay a fine to 'revitalize the ban'.

According to Haburas Foundation members who have been monitoring the *tara bandu* system in Ulmera for a long time, they have already seen a difference between this area and other areas that have stopped the practice of *tara bandu*. In other places the forests are not as lush as at Ulmera and the community does not have the same solidarity as the community of Ulmera.

In Suco Ulmera, the community has also integrated prohibitions against the destruction of mangroves as part of the rules of the *tara bandu*. The integration of these prohibitions into the management of mangroves is placed on the digging of mangrove worms in the place where the aldeia chiefs indicate or have placed signs. The community cannot just dig for mangrove worms wherever they want in the mangroves, except in those places that have been predetermined. There is also a ban on cutting mangrove trees along the shore-line.⁷

Land as political identity and the resource management system in Suco Tutuala

Interview with Metodio Lopez, Lia-na'in (67) and Jose Lopez (33) Maino Chailoro Lauhe

According to 'uncle' Metodio, this story about the land is the road called '*olava'i*' (in Tetum '*dalan-boo'* or large road). Saying that, 'we came from the sea and then arrived at Tutuala and here (the houses where they are now living), at that time the ancestors received us here

⁷ This case study was adapted from Cryan, M, (2008), A literature review and analysis of the perceptions of the strengths and weaknesses of Tara Bandu as it is being revived in Timor Leste, Concern International.

and gave us (the first foreigners) land and we used the land to build homes, to farm and raise animals. In earlier time the ancestors considered this as the method of giving land to each other so that as a foreigner I could have land in this other country because the ancestors made agreements to give land to each other. If our ancestors didn't consider each other in this way then they would each have lived in their own lands but that was not the case.'

In the time of the ancestors a law was made, even though it was not written down on paper, but they believe it and thought of it like this:

"(if) a foreigner (a person from another shore/island) comes from their other place/land we consider them as brothers and can call them and send them to live on a piece of land, so that they can use it for farming. This practice still exists to the present day".

The way I consider land, it is linked with culture and with this short story I can say that cultural land is land which we use to conduct cultural ceremonies and put our place for putting sacred tree symbols and places where the first ancestors footsteps are, which are all sacred.

"though that land is empty it is not really empty like you see but there are spirits that live there that are like ours".

The function of land that we use for cultural ceremonies for raising animals and for farming, for hunting and for hallowing the old lands or making protected areas is something which comes from the community itself.

We can give this land as an inheritance to our children.

Because we have this cultural law, we do not need certificates, these are not important, in order to pass the land on to our children.

The Government must give consideration to the culture we have if they want to undertake any development. They must consider us as having been here first so that if we allow then they can, but if do not want to then they cannot.⁸

The relationship between the social functions of land and local knowledge

All nations have a great deal of local knowledge. However in this article we propose that the main local knowledge that is specific and very important for Timor is the people's knowledge or research that land is fundamental to their lives. All communities in Timor have conceptualized for themselves that land is the fundamental resource for their political, social, cultural, economic resource distribution and ecological systems and for the habitations (the

⁸ This case study was taken from the book 'Povu nia lian kona-ba assuntu rai: Resultadu konsultasaun Matadalan ba Rai (The people's voice on land issue: Results of the *Matadalan ba Rai* consultations)' which will be published by Haburas Foundation in September 2011.

dimensions that have already been mentioned above). The system of local government, the cultural and political systems that flourish at the local level, reinforce all of these functions and dimensions of land.

De Carvalho raises the question in his article 'Timorese People's Perspective on Land':

'Land in nations with the capitalist system is an important commodity for any entity (with individual rights) or collective (such as companies or non-profit organizations). In the communist system the land is a common asset which belongs to the State and according to its ideals, the State is the main manager of common progress (well-being). But what is it in Timor-Leste?'

The conclusion of De Carvalho's article is that 'of most of the customs of Timor-Leste it can be said that the people of Timor look at land and the things that are on top of it and under form one cosmic unity.'

We would like to reinforce in this article that this fact is part of the traditional knowledge that is very important to the Timorese people. Because of the existence of symbiotic relationships between the social functions of land and traditional knowledge:

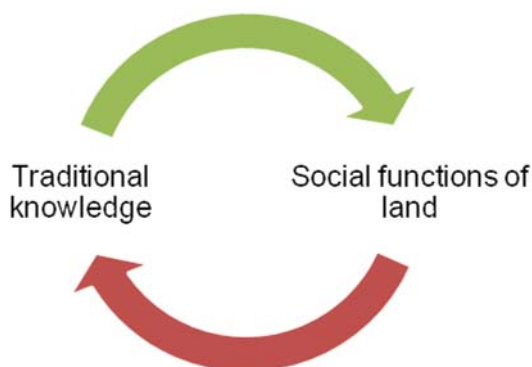


Figure 1: Positive symbiotic relationship

Because the political, cultural and other systems exist to strengthen and protect land and its social functions but on the other hand land is also fundamental to the political system, the social system and all of these dimensions.

In other words, if we destroy or take land this threatens us with the loss of other associated systems. This means that we destroy or lose these political, social and cultural systems as the social functions of the land.

In the graphic above there is a positive symbiotic relationship between the two aspects which reinforce each other and complete each other but if we take away or lose one aspect this gives rise to fundamental impacts and can give rise to a negative symbiotic relationship as shown in the graphic below:

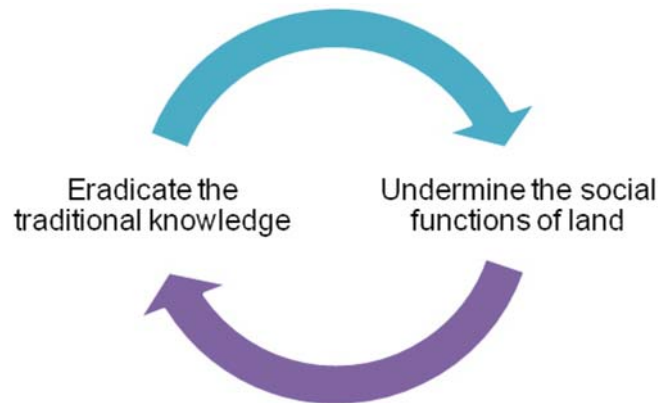


Figure 2: Negative symbiotic relationship

Just recently when the Land Guidance Team went to conduct consultations regarding land issue in the Suco Suai-Loro, the people gave an example that really demonstrates this symbiotic relationship. There is a place with oil in the midst of the community and sacred lands. Recently the Government gave this land to companies to develop a supply base with the potential of negative impacts on the community because it will negatively impact their *uma lisan* and destroy their plants and other resources in areas that they have considered sacred for a long time.

The *uma lisan* in Suai-Loro is a major *uma lisan*. This *uma lisan* is the *uma balis*⁹. We can say that its relationship with other *uma lisan* is it is the parent or big brother and that it gives what according to custom is believed to be the spiritual power to the other *uma lisan*. According to the community during consultations in Suai-Loro:

*'We, the community, don't agree about the Government and companies destroying this sacred house. The uma balis is the most important uma lisan in Suia Loro. If the Government does not respect it, then it is certain that the other smaller sacred houses will be worthless.'*¹⁰

The community added that according to the customs of the ancestors, this major *uma lisan* must be close to the sea because if they move (it) to the mountains then many of them will die immediately because of the loss of the relationship with the sea.¹¹

How traditional knowledge can respond to events that threaten the social functions of land

When we talk about land as discussed above, we are not talking about the issue of land as merely something physical but we are talking about the entire political, economic and cultural system (together with its seven dimensions mentioned above). Because land is the basis of

⁹ Translator's note: possibly meaning house of well-being or health.

¹⁰ According to 21 participants in the consultation at Suco Suai-Loro on the 1st of June, 2010. Notes from Roberto Aleixo da Cruz.

¹¹ In the tradition of the people of Timor-Leste there is a belief that the crocodile is the transformation of the body or spirit of the ancestors. Because of this they call the crocodile 'abo' (Tetum) – grandparent, tata-bei (Mambae or Tokodeden), poicolor (Fataluku).

politics, culture, the economy and daily life, we can say that conflict and disagreements are 'normal' and occur daily.

When there is a positive symbiotic relationship between local knowledge and the social functions of land and both things reinforce each other, there is already much knowledge about how to resolve the conflicts that arise daily.

We can take as an example of the first land distribution system that has existed from the time of the ancestors to the present day. These systems exist to reduce conflict between families and future generations. The facilitator of the Land Guidance Team's consultation with the people from Suco Klakuk in the district of Manufahi explains that

*'Cultural decisions look more at the history, such as the trees that have been planted in the community's lands particularly at the boundaries, and the community's plantations, the community considers these as signs that are the equivalent of certificates and cultural symbols that they use to the present day to resolve their problems'*¹²

De Carvalho's article "Timorese Perspectives on Land", also explains the Fataluku tradition of distributing land between people from other islands and within families that they call '*irik haliwana*'. Because these systems are already well established and accepted by the community, major conflicts about boundaries do not arise. De Carvalho also notes something else, saying:

- 'The oath between two parties (one giving and one receiving) is taken in a very sacred ritual and the one that violates it may be cursed with a heavy penalty or may die.'
- Because of this oath-taking process, today's generation who have had this land handed down to them from their ancestors believe that they cannot make any contracts (to sell that land).¹³

When we look for other examples we can see that when conflicts arise in communities, in many of these cases we find that a very strong and effective system of conflict resolution also exists. In many areas the tradition of '*nahe biti*' exists as a mechanism to resolve various disputes that occur.

The community at Suco Leuro explained in the thematic meeting saying that:

'All problems that occur in Suco Leuro are resolved with the 'Nahe Biti Boot'. During the Nahe Biti Boot, the community uses the following system; before commencing make offerings of bua malus (betel nut and betel pepper leaf), placed inside a woven basket together with palm spirit. During the nahe biti boot they will sit together as follows: 1) on the right hand side are the lia-na'in and local community leaders, 2) on the left are those who are involved in the dispute, and the community sits around the

¹² From consultation notes made on the 7th of June with 24 people from Suco Klakuk, Manufahi. Notes by Carlos Salsinha.

¹³ De Carvalho, D, (2009), Perspectives of Timorese People regarding Land.

*biti as witnesses. The people with the most power to decide the matter according to custom are the 'katuas lia-na'in sira' (the traditional leaders/story keepers). The decision that is reached on the matter will not result in an outcome in which just one party wins, but the decision will be fair for both parties.'*¹⁴

We can refer back to the example of the practice of *tara bandu* in Suco Ulmera. The *tara bandu* system is used to protect forest and ecologies that are important to the community, to strengthen unity within the entire community and to regulate any problems that occur if for example people damage the forest or someone else's fields.¹⁵

From these examples we can see that there are already various forms of local knowledge that exist to protect land and to protect the social functions of land. Local knowledge such as the *nahe biti*, *irik haliwana*, *tara bandu* and others include components that ensure the protection of land. In addition components such as the *tara bandu* at Ulmera ensure the unity of communities through which the community can better protect the social functions of land.

Conflicts and threats as discussed above can be called 'internal' conflicts because these kinds of matters already have mechanisms or mechanisms that can be adapted, within the local knowledge system to resolve them. Despite this, there are also conflicts that come from outside of these systems. Some examples are the system of land acquisition during the Portuguese colonial period for the creation of coffee plantation, or the system of relocation during the Indonesian occupation that saw many communities removed from their land and placed within other communities.

Under the current system of governance itself, State land has been subsumed from many communities in order to undertake 'development' that presents a new threat to communities. This is because these communities were part of the struggle for the liberation of the country and have the expectation that the higher values of independence would 'revive the people's justice for the little people' who previously lost their land through unjust processes accompanied by human rights abuses, and might now once again find light and exemplary behaviour from the government of the nation of Timor Loro-sa'e.

In the Fatubessi area in the district of Ermera we can see the negative impact on traditional owners. The example regards four original (traditional) owners who lost their land during the Portuguese period. Governor Celestino da Silva used various mechanisms, including force, the use of taxes, and political manipulations to take their land and in the end established the coffee plantation at Fatubesi. This resulted in these groups losing their cultural lands. Recently the Government leased this land to the company Timor Global. This indicates that the Government recognized the actions of Governor Celestino and thus did not return the power to the original owners.

In many areas (Suco Costa in Oecusse, Suco Debos in Cova Lima, Suco Com in Lautem), conflict and land issues can be observed because these were relocation areas and because of the policy of Indonesia of forced removals of people, families and entire communities.

¹⁴ Thematic Meeting with people from Suco Leuro conducted on the 22nd of November 2010. Notes by Hugo Imanuel Garcia.

¹⁵ See de Carvalho D, (2009), 'Perspectives of Timorese People regarding Land' to obtain more detailed information on the various ceremonies and practices that exist throughout Timor-Leste.

Another example is the case of the State of Timor-Leste taking the customary land of Uma Balis in Suai Loro.

We need to examine these cases closely, because often these external threats have a great potential than internal problems to create negative symbiotic relationships.

When *uma balis* is taken according to the community's explanation the cultural hierarchy and relationships between the *Uma Lulik Balis* and other *uma lisan* will all be impacted. This may have negative impacts on those people with cultural relationships, on their political identity, on social dimensions and in other ways. With the loss of the *uma lisan* 'Uma Balis' it will not be long before some ceremonies associated with that *uma lisan* are lost and because of the loss of these ceremonies and their associated relationships it may lead to a reduction in community unity and relationships. With this loss of unity and relationships some people may sell their land and move to other places, leading to worsening problems of urbanization and further loss of land by communities. This will give rise to a negative symbiotic relationship and the diminishing of both local knowledge and its relationship to the social functions of land.

The data gathered by Land Guidance Team shows that, people are worried about these external problems. The graph below shows the percentage of people who believe that each issue relating to land becomes a priority issue. The results show that generally, Timorese people consulted during the process of the Land Guidance Team's study are concerned mainly about the threats or conflicts described as follows:

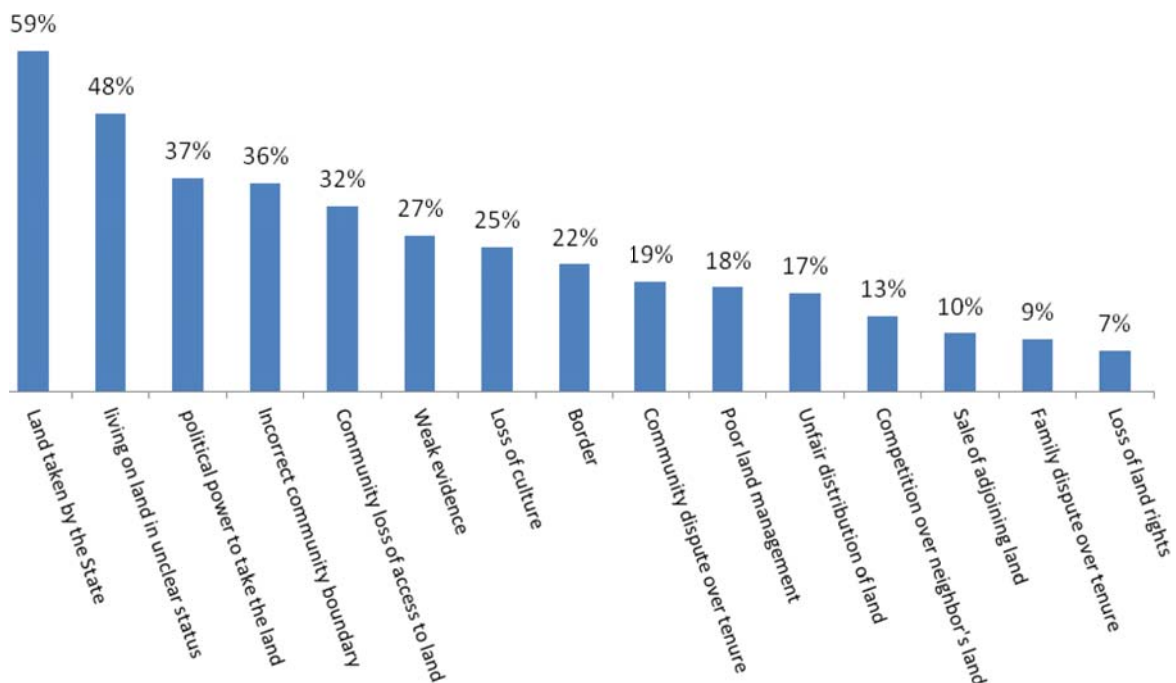


Figure 3: Percentage of participants identifying specific issues as priorities

In summary the issues identified are 'the State taking the land', 'people living on land with no

clear status', 'people using their power to take land', 'incorrect community boundaries', 'the community loses access to land'. Generally these issues are described as external matters: 1) there is no clear status regarding land often because of the Indonesian system of forced relocations or forced subsuming of land, 2) incorrect community boundaries arose because of the impact of relocations and also because of the Portuguese and Indonesian governments' practice of creating administrative boundaries at the local level using processes that lacked any involvement from local people and authorities.

Problems such as 'land-grabs within families', 'land-grabs between neighbours', 'selling of adjoining land' and others we identified in smaller percentages. Here we would like to underline that it is not that these issues did not occur, because we all know that these problems occur often however when they do occur, the community has a system in place to regulate and resolve these problems. There are certainly some cases that are so complex that it is not possible for them to be resolved at the local level.

How can positive symbiotic relationships between the two aspects be promoted and protected?

In observing the opinions recorded above, we can see that this is a very strong and symbiotic relationship between the social functions of land and local knowledge. This gives rise to a very critical question for all of us who live on the land. How can we promote and protect a positive symbiotic relationship between these two aspects and prevent situations that may give rise to negative symbiotic relationships? According to the observations of the author during the Land Guidance Team's study:

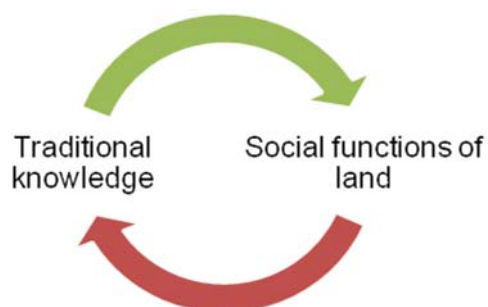


Figure 4: Positive symbiotic relationship

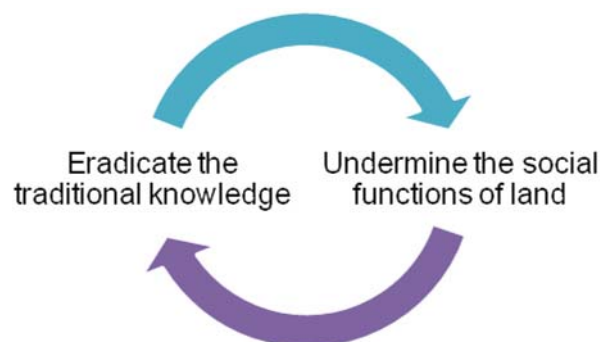


Figure 5: Negative symbiotic relationship

1. The first measure is for all people, civil society, government, international agencies and the community themselves to value local knowledge of the social functions of land, to listen to the messages from the communities and establish legislation and policies based on existing local values and knowledge in Timor-Leste. According to participants from Suco Uma Berloik 'the State must create good laws to enable implementation according to the reality of the people's daily lives and that have a relationship with cultural laws in use by communities because at present they continue to use traditional law to resolve their own problems, particularly relating to land',
2. At present, the nation of Timor-Leste is in a critical phase of development, there are

many laws, policies and institutions which have been created during the first ten years, and there are many laws, policies and institutions that will be created in the future, in order to be able to further value local knowledge and the social functions of land an important key is that the process of establishing legislation and policies needs to be participatory and inclusive. Meaning that the process itself should be a means of valuing the knowledge of the people and not just that the final result values the voice of the people with mere rhetoric.

During the one-year process of the Land Guidance Team study's undertaking, we obtained a great deal of comments from communities. Many communities really want to express their ideas. The communities really want to participate with their government, to create good laws and policies that truly respond to the real context. The identification of problems and the analysis of solutions that each community finds for their problems themselves show the complexity of these problems, and also show the great capacity on the part of communities to become the solutions to their own problems. This is the mechanism for strengthening independence through mechanisms in which the community becomes the agent for 'ensuring sovereignty from the grassroots'.

Another fundamental aspect is how we can reduce and prevent the immediate negative impacts from external threats such as those mentioned above. It is clear that there are external problems and conflicts that exist because of events that took place in the past (the Portuguese State taking land for coffee plantations, the transmigration policies, conflict and other reasons) and we must also listen to the concerns of the people. In this way we can define solutions and collective action for these problems. At a time like this, this is needed to reduce the risks and conflicts that arise today and have the potential to recur in the future (such as the State taking land for 'national development', companies taking advantage of their economic strength to take large amounts of community land, and powerful individuals accumulating large amounts of land and so forth).

If cases such as these continue to occur this can quickly give rise to further destruction of the social functions of land, local knowledge, and of all of the dimensions of land mentioned above (political identity, social, cultural, ecological, and economic and the system of land distribution and habitation).

Starting immediately, before more cases arise, the people of Timor-Leste must take care to manage their land and be watchful of the advice that the people of Betano expressed when the State took their land to build the heavy oil power plant, saying: '*we all want development but the people must not become victims of development*'.¹⁶

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¹⁶ Suggestion from the people of Suco Uma Berloik, in the district of Manufahi made during consultations on the 11th of June, 2010. Notes by Carlos Salsinha

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Tara Bandu as Traditional (Local) Ecological Knowledge

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Keywords: Traditional Ecological Knowledge (TEK), *Tara bandu* (placing a prohibition), *kasu bandu* (removing a prohibition), *kableha kab'roda*, forest conservation, *fukun* ('root of the problem') and prohibited, environmental protection.

Methodology

The material in this article was gathered through participatory discussion methods between the authors and also through discussion groups that were conducted during the workshop on 'local knowledge'¹. In this way ideas were gathered from the ritual processes of the *tara bandu* which were conducted three times from 2001 to the present in Suco Lauhata.



Photo: Haburas Foundation

The information was also revised based on interviews with *kableha*, *lia-na'in* and communities relating to the application of *tara bandu* from many locations. The principal basis for other information is from secondary sources and the work reports of Haburas Foundation relating to monitoring and evaluation of the application of *tara bandu*.

Introduction

Suco Lauhata is a Suco in the sub-district of Bazartete in the district of Liquiça, with a boundary with Suco Metagou on the southern and western sides of Mount Pisulete, and a boundary with Suco Maumeta on the western part of the coast of Liquiça and with Suco Mota Ulun to the east from the mountains to the plains on the Aipelo coast. Lauhata is one of the first Sucos to revitalize the practice of the cultural ritual of *kdesi*

¹ Footnote inserted by UNESCO: National Workshop for Promoting Local and Indigenous Knowledge Systems (LINKS) and Small Island Developing States (SIDS) programmes in Timor Leste, from 7 to 8 June 2011.

badu (in Tokodede) or *tara bandu* in Timor-Leste, since independence. In April 2001 the community of Suco Lauhata gathered at Pisulete, the place where the traditional leaders with the *liurai* first established a black post as a symbol of their rule and of prohibitions, to become the principal location for conducting *tara bandu* rituals in Pisulete.



Photo: Haburas Foundation

During the years 2000-2003 (see Sandlund et al. 2001, Pompeia et al. 2003, De Carvalho et al. 2003), Haburas Foundation conducted integrated coastal resource management programs in Suco Lauhata. At that time Haburas Foundation approached the local community to become the owners of the coastal and forest resources in the midst of the community.

This approach conducted the following programs or activities:

1. Participatory planning for analysis of coastal resources in Suco Lauhata. The results of this activity were that the community came to understand the potential, difficulties, threats and opportunities of the natural resources in the coastal areas of Suco Lauhata. An analysis was conducted of potential problems and threats to the degradation of coastal resource in Suco Lauhata. This strengthens the ideas and initiatives to reduce the risks of ecological threats and also identified local initiatives for solutions to the ecological problems that had been identified.
2. Strengthening of community initiatives for forestry resource management, using a model of creation of nurseries based on the interests of local communities and integrating community reforestation programs at the household level. This program also included planting fruit trees such as *Citrus spp.*, jackfruit (*Artocarpus heterophyllus*), breadfruit (*Artocarpus communis*), pineapple (*Ananas comosus*), tamarind (*Tamarindus indica*), guava (*Psidium guajava*), sugarsop (*Annona sp.*), coconut (*Cocos nucifera*) and others.
3. Strengthening local economic initiatives through support for organizational and individual capacity building for the marketing of local fruits, the production of furniture from bamboo, and the establishment of a beachfront restaurant at Lauhata.
4. Strengthening institutional capacity, particularly the Suco structure to have the ability for effective and efficient self-governance. One way was through the identification of social capital used by the ancestors to govern and conserve natural resources. The

tara bandu was identified as important social capital for the protection and conservation, and also for ensuring grassroots governance, including models of conflict resolution and their participation in the conservation, protection and use of natural resources in a sustainable manner.

One aspect of this approach was the final identification of a program of revitalization of the *tara bandu* in Pisulete that was conducted in April 2001.

Haburas Foundation's community organizers firstly undertook studies of: 1) What is *tara bandu* according to the knowledge of the Lauhata community, 2) what structure can help to apply the *tara bandu* effectively, 3) how a *tara bandu* is conducted, including what is needed to achieve a *tara bandu*?

In Pisulete there is also an area of sacred old-growth forest that was sanctified by the community a long time ago that the community protect because it is a place where sandalwood (*Santalum album*) grows. There are other species of plants that are protected within this sacred forest.

Periods of application of *Tara bandu*

1. Influence from Portuguese colonialists

The process of influence and the imposition of the colonial regime gave rise to much confusion and many inconsistencies in the practice of the traditional law *tara bandu*. From research conducted by Haburas Foundation in 2003 into *tara bandu* in 12 districts excluding Oecussi it was shown that the Portuguese Crown gave ranks (symbols of power) to the *liurai* according to criteria that they developed that disrupted the traditional system. Older people who were in governing roles said that during the pre-colonial times, the *tara bandu* was conducted throughout all of Timor (see: Pompeia et al 2003, De Carvalho 2003).

This process was undertaken during the same period and started with the tradition of oath-taking between those *liurai* who governed areas with adjoining boundaries, some with *fetosaa-umane* relationships and others with tradition of oath-taking making them like siblings.

According to Jose Coreira (De Carvalho, 2003) large trees are a symbol of life, because large trees provide shelter, give breath (oxygen or O₂), give water and other essential things that are useful to other life forms. Because of this,



Photo : Haburas Foundation

according to the *lia-na'in* Jose Coreira from Lauhata-Pisulete, Liquiça (Pompeia, et al, 2003), during worship the rulers (*kableha* and *kab'roda*) start by mentioning the first place where the *liurai* received the songs of prohibition and from there they recount the lineages of other *liurai* or *dato* who are related including through cultural processes like oath-taking (see also Yoder 2006).

This model of cooperation between kingdoms is the same as those that took place in the application of the *tara bandu* in Lauhata-Pisulete with other kingdoms. According to their history invoked during the *tara bandu* ritual, they were passed the prohibition system from Sica and Bidau Kerketu and from Pisulete they passed it on to Lisadila, Railaco, Cailaco and other places.

During the Portuguese period, there were changes from the monarchic system to the republican system in 1910 (Gunn 2005), but changes to state administration and policies were conducted just as they had been in Portugal. In Timor-Leste they just created more confusion by bringing military influences into the traditional administration system's structure with various levels of military rank with some *liurai* in whom they placed greater trust receiving the rank of colonel, and those *liurai* who were perceived as having great political influence but who had not demonstrated their loyalty to the Governor (as the representative of the State of Portugal), were given lower ranks such as lieutenant or major (see also: Gunn 2005).

The policy of issuing rank (hierarchical levels) was used to spread their influence and also gave rise to new *social confusion*. This policy and other influences from the Portuguese were full of the strategy *divide and conquer*. The imposition of this system gave rise to discord between the *liurai* or *dato* some of whom had made agreements (taken oaths) to conduct the *tara bandu* together or to receive and pass them on to one another.

Even though Gunn (2005) does not explain in depth the objectives of the ranking system that the Portuguese gave to the *liurai*, the facts of history show that from the ranks received by the *liurai* and the system of overseas territory administration security of Timor-Leste, the Portuguese had three classification groups, i.e., the regular military (from Europe, Goa (India) and Africa), the native soldiers (including people conducting business with or working directly with the Portuguese in the city) and the last group being the *liurai*. Thus whenever any of the *liurai* revolted, the Portuguese used armed groups from the *liurai* who were loyal to the Portuguese (and who had already received rankings) to lead their people against the revolting *liurai* and to go to war against them.

This confusion destroyed the friendship and loyalty between the *liurai* and at some levels (requiring more in depth research) destroyed the system of the structure of traditional law that had previously bound the *liurai* together in relationships with each other.

2. Influence from the Indonesian Military Regime

During the Indonesian colonial occupation, Timor-Leste (Timor-Timur) was declared as the 27th province with a structure and system the same as the other provinces except for

the special provinces of Yogyakarta and Aceh.

The Government of Indonesia officially banned the practice of *tara bandu*, but did so through policies that were militaristic and centralized giving rise to cultural influences (see: Palmer and De Carvalho 2008).

1. They imposed a system of political homogenization according to the laws in vigour in Indonesia.
2. They terrorized communities and authorities had better physical conditions when compared with areas that were not yet conducting the *tara bandu* or areas where that already had the *tara bandu*. This positive change correlates strongly indicating that there is a need to strengthen the traditional law of *tara bandu* in some places. This practice also correlates with positive changes in the situation of the environment in those areas that were already conducting *tara bandu* and had better functioning of the structure of the traditional institution of *tara bandu*.

The custom is also related to the positive change for the environment in areas where the ceremony of *tara bandu* has been conducted and has good functions of the structure of traditional institution for *tara bandu* itself.

The public administration system from the Indonesian period that was strongly influenced by the military also influenced and generated social confusion at the grassroots. The Kepala Desa ² (village chief) who was head of a sub-district or Suco undertook his role together with the BABINSA (*badan bimbingan desa* – ‘community police’) who were part of ABRI (*Angkatan bersenjata Republik Indonesia*) – the Indonesian military. The



Photo: Haburas Foundation

The intervention of the police and military at the grassroots level prevented and totally paralyzed the traditional functions and structure for conducting the *tara bandu*. The concept of *kableha* or *maksabar*, who had broad functions within the structure of traditional law, were reduced and exchanged with *polisi hutan* – forest police. During the Indonesian period the traditions that were chosen or passed on by the *kableha* or *maksabar* from one generation to the next were already no longer practiced. The *kepala*

² The *kepala desa* is the person with the position of today's Xefe do Suco - Suco Chief.

desa often guided the *polisi hutan*. Because of this mutual guidance, some of the *kepala desa* would often conduct the *tara bandu* but according to the community they were weakened. According to the traditional 'ruler' of Suco Ulmera Sr Mautasi (79 years old) who is the keeper of the *uma lisan* Maulalu who provided his ideas during the *tara bandu* ceremony in Suco Ulmera (21 June 2008), during the Indonesian period the process of weakening the ritual of *tara bandu* (deconsecration) took place because the *kepala desa* didn't know the proper conduct of the *tara bandu* nor the proper invocations.

According to Sr. Mautasi these were prohibited behaviours, in the culture and tradition of Timor-Leste, there are two ways to punish people who went against the prohibitions. The first way is to 'arrest' that person and conduct proceedings before the assembly of community leaders, composed of the principal and lower *kableha* from all aldeias and sometimes also the *lia-na'in*. The second way is when the person contravening the prohibition is not taken by the *kableha* but according to traditional beliefs because the person has contravened customary law they will suffer a curse - *malisan*³. According to the customs of Ulmera, that person will suffer a minor curse such as pests attacking the crops in their fields, becoming sick or the death of their large animals (horse, cow, goat or pig). A more serious curse involves greater difficulties, such as the death of the person who has broken the prohibition. However, according to Sr. Mautasi, because they chose a person (to perform the rites) who did not know the proper conduct of the *tara bandu*, the processes actually weakened the prohibition (and its effects). In Ulmera the person who traditionally has the role as the principal *kableha* comes from the *uma lisan* of Boro. This decision was made because according to the oral culture tradition of conducting the *tara bandu*: 1) the people from one generation of *uma lisan* have had frequent contact over a long period of time to learn together, 2) the aspect of belief from within the house that the role of *kableha* brings awareness from the ancestors (the *kableha* continues the work of the ancestors), 3) the *uma lisan* undertaking this role have an agreement to share the work with those who govern the administration of the Suco (formerly called the *liurai*, today known as the Xefe do Suco – village chief – *editor's note*).

The perspective that forms the basis for the application of the *tara bandu*

The community who participated in the group discussions or were interviewed provided their various ideas about why they conducted the *tara bandu*. These opinions provide conclusions about the general perspective of the community and of the *lia-na'in*, as follows:

1. As people need to drink clean water, need water for daily use and also need water flowing in the streams, they also need to protect, conserve and take care of the trees and forests that hold the clouds and bring rain to the earth to feed the springs. This perspective has the dimension of **protection and conservation of water**. Based on this perspective, De Carvalho (2005) developed the methodology for Haburas Foundation's approach for integrating ecological conservation with livelihoods.

³ A person who contravenes customary law will be cursed or punished by the forces of nature. According to the tradition of *tara bandu* that invokes fortune in which the ancestors have great power to regulate nature, and will give a sign or place a curse on the person in the form of some difficulty that comes from the ancestor serpents, lightning, main rivers and so forth.

2. If a person farms in forests/old lands, then within some time, two or three years, the land needs to be rested to recover and to bring back the living things that may enrich that land for the future (see: De Carvalho, 2009). This perspective has ecological dimensions relating to sustainable land management and the conservation of land. Similarly there is the **principle of biodiversity conservation**.



Photo: Haburas Foundation

3. If fields are made close to forests, then within some time, the population of wild animals may increase. Wild animals such as deer, civets, opossum and rats (as in the case of Maliana) will increase and the community will remove the prohibitions against hunting to control their populations by hunting (and eating). In the case of Maliana there was a mobilization of the community to hunt rats, called the plague ceremony. The removal of the prohibition for hunting is based on the perspective of **principle of maintaining ecological balance**.
4. Local communities believe that any old growth forest has its own custodians, but that these forests need to be shared with other communities (they are common resources). Because of this, there is a need to conduct the *tara bandu* or some other broader mechanism named the *kdesi badu* (in Tokodede) so that the trees that give fruit (or other products) have time to ripen or be ready for the community to use. When these fruits are ripe then the *kasu badu* (in Tokodede) or the removal of the prohibition can take place so that the community can harvest. This mechanism itself comes from the perspective and principle of **ecological ethics** that is practiced by the community, signifying that ecological resources also have social functions (see: Keraf, 2002 and also De Carvalho, 2003). This mechanism what Veira (2003) described in her 'white paper' on sustainable development as the **principle of ecological equity between generations**.
5. If prohibitions are made to conserve old growth forests or ancestral lands this is because they have important ecological significance, this example is to prevent the loss of species through over-exploitation of species such as sandalwood (*Santalum album*), eucalypt hardwoods (*Eucalyptus globules*), cinnamon (*Cinnamomum burmani*) bamboos (*Bambusa spp* and others), pandanus (*Pandanus sp*), white beech (*Canarium commune / C. Avenue*), and other species with their own social and economic values to communities, because they are used in the construction of *uma lulik* and for other needs. This perspective is based on the principle of the sustainable

use of natural resources (**ecological sustainability**). This principle is in line with the principle of sustainable development as described in the Rio convention, particularly the principles of **inter- and intra- generational equity** (see: Vieira, 2003).

6. Some communities conduct the *tara bandu* to prohibit people from destroying the environment, such as not burning land, not cutting trees, not leaving animals to wander without restrictions, not littering and so forth. This mechanism is based on the principle that if nature is destroyed then our quality of life will be reduced and there may be risks for living things. This mechanism applies a group of principles such as: do no harm to the environment and the polluter pays principle. This mechanism is also influenced by the perspective that damage to the environment is a serious **ecological crime** that puts at risk people's lives and the ecological balance. Based on this perspective, Yoder (2007) concluded that despite the strong influences of the past and from Indonesian law, the people of Oecussi continue to believe that destruction of the environment by human causes including contravening **bunuk** or **kerok**, is a crime.

Tara bandu within the dimension of governance

According to Jose Coreira (*lia-na'in* from Lauhata), in the model of traditional governance people made these prohibitions to regulate three issues, as follows:

1. To regulate the relationships between people,
2. To regulate the relationships between people and nature;
3. To regulate the relationships between people and the State.

Because of this the *tara bandu* in Suco Lauhata prohibits people not just from destroying nature or the environment, but also ensures that they respect other people's goods and property (people's land, trees, fields and plantations, people's homes, and other people's own dignity). In this way it also creates conditions for people to respect local authority and also the mechanisms of governance that may be applied, including conflict resolution mechanisms that have already been adopted.

There are many similarities relating to the practice of *tara bandu* in the five Sucos surveyed by Haburas Foundation in 2007 (see: De Carvalho et al, 2007).



Photo: Haburas Foundation

Discussions with many communities in Timor-Leste demonstrate that they respect the tradition of *tara bandu*. The reasons why they respect the practice of *tara bandu* are: 1) to protect the natural resources and assets that belong to their region, 2) the processes involved are seen to involve the forces of nature that they believe have an influence on people.

Lia-na'in also asserts that the process of *tara bandu* itself involves cultural ritual processes and judicial-politics that follow the traditions that the ancestors passed down to them.

The opinions of the communities as described above correspond with the opinion of the respondents, with 85.4% saying that people still respect the *tara bandu* and just 3.3% saying that people no longer respect it. A total of 8.3% say that there has been no change, that the situation remains the same. These opinions may also arise because community members do not yet have any means of measuring (indicators) the influence of the practice of *tara bandu*.

From observations in all areas we see that there is a correlation between strong traditions and respect for the *tara bandu* and ecological conditions. As much as 79.2% of respondents say that there has been a change (small/large). Of this 79.2%, some 18.8% classify the change that has occurred as being significant and 60.4% say that they have started to see positive changes.

The significant changes described above, according to the community's perspective and as confirmed by observations in the field are that:

1. The forests (fauna and flora) have started to flourish once again;
2. Degradation by human causes has really reduced;
3. The traditional structures for conducting the *tara bandu* are functioning well and have been able to practically apply those things that were declared in the *tara bandu*;
4. Local authorities (*Xefe do Suco*, District Police Units, District and Sub-district Administrators) have supported the implementation of the *tara bandu*;
5. People are indeed complying with the decisions taken by the traditional structures for the implementation of the *tara bandu*;
6. Social relationships of clans and inter-marriage groups are strong;
7. There is support from religious and civil society entities.

Respondents have varying opinions about the traditional structure of the *tara bandu*. In the five Sucos surveyed, 69.8% of respondents feel that the traditional structure that has implemented the *tara bandu* is performing well and has asserted control over prohibited activities. While 19.8% of respondents indicate that it is not being asserted and 10.4% say that it depends on other institutions such as the police.

According to respondents, structures that have the power and influence for positive change can arise when the decisions taken are properly respected and complied with by people. From the ideas expressed by the respondents, there are indications that they feel that there is compliance when actions contravening the *tara bandu* result in fines based on the decisions of the *kableha*, *kabroda* or local leaders after having heard from witnesses and weighing all of the evidence presented. As much as 83.3% of respondents responded that fines are paid with animals according to the decision of local leaders. There are also some fines that can be paid with money, as expressed by 9.4% of respondents that said that fines can be paid with money if the local leaders so decide.

To understand whether people respect these structures or not, we can seek confirmation based on what happens in instances of contravention of the *tara bandu* laws, as to whether

people report first to the traditional leadership structure such as the *maksabar/kableha* or *kab'roda*. Approximately 88.5% of respondents indicated that when problems occur relating to contravention of the *tara bandu* they go directly to the *maksabar/kableha* or *kab'roda*. While 10.4% of respondents said that they prefer to go first to local authorities such as the Xefe do Aldeia or Xefe do Suco. Another 1% indicated that they prefer to report directly to the police.

To the present, many organizations, particularly those organizations that defend human rights, say that decisions made according to traditional mechanisms contravene the principles of universal human rights and are not fair.

The evaluation also measured community perspectives regarding the fairness of decisions made by the local traditional leaders in cases of contravention of *tara bandu* prohibitions. Approximately 92.7% of respondents indicated that they consider the decisions of traditional leaders to be fair according to the mechanisms and proceedings of the traditional *tara bandu* law. Just 4.2% said that these decisions were not fair. Those who offered this latter opinion also explained that the decisions made gave heavier penalties than what was contravened in the *tara bandu* law. However, there were also others who said that they were not fair because the decision made was considered too light.

According also to the *lia-na'in* Jose Coreia, when a person contravenes the *tara bandu* law, the ruling is made through a process of investigation conducted in the forum (assembly) of traditional leaders. *Maksabar/kableha* or *kab'roda* presents all of the evidence and all materials relating to the case of contravening the prohibition. *Maksabar* or *kableha* also present all witnesses who may have anything to add to the case. In other aspects, if the case involves two people (victim and perpetrator), both parties themselves give testimony (testimony to add weight or mitigate the case) so that the opinions of all parties can be properly weighed and measured with full knowledge before the principal *maksabar/kableha* determine the case and issue sanctions against the perpetrator who has contravened the *tara bandu* law.

The forum of traditional leaders in Suco Bucoli in finalizing their *tara bandu* law, also demonstrated that there are important aspects relating to sanctions based on a classification of cases. If a person contravenes the prohibitions they will be sentenced as described in articles IV-XI (see: **Internal Regulations for Suco Bucoli**, 2006). Example: People contravening article IX (Internal Regulations for Suco Bucoli), “*using poison or otherwise dirtying clean water*”, the following sanctions will be imposed:

1. For prawns, eels, crabs and fish will incur a fine of \$ US 100.00;
2. Using electricity to kill animals in the water will incur a fine of \$ US 100.00;
3. Poisons that kill cows/buffalo (one), horse (one), goat (one), pig (one) will be paid with those animals (one) and for a pig (one), 50 kilograms of rice and two boxes of beer/*tua*.

From discussions undertaken with the Xefe do Suco of Bucoli, Sra Maria Terezinha dos Reis indicated that the Suco Bucoli Council felt proud of the development and documentation of their *tara bandu* law and its implementation. According to the Xefe do Suco of Bucoli people

have stopped making problems and fruits trees are giving good results because people are no longer destroying them and the forests have started to flourish and become green again.

Approximately 92.7% of respondents confirmed that the processes used by the traditional leaders to judge matters were democratic and transparent. However a small percentage, 3.1%, stated that they were not democratic and were not transparent.

In relation to this issue, the *lia-na'in* Jose Coreia also indicated that the word democratic is a new word for the ancestors, but in the practice of processing disputes or seeking resolutions within the traditional culture, it can be explained as *luhu mane* (according to the Tokodede culture) when sitting together on the *biti bot*⁴ or *hadak*⁵.

The effectiveness of the mechanism and resolution obtained through the *tara bandu* is as described in previous parts that people respect and comply with all of the resolutions decided within the law and proceedings of the *tara bandu*, and that there is a reduction in environmental damage. Many respondents said that the mechanisms and resolutions of the *tara bandu* are effective. A total of 86.5% confirmed this opinion. There were also 10.4% who said that it is not yet fully effective and there is a need for further strengthening of the practice of *tara bandu*.

Prior to undertaking this evaluation, many people were particularly critical saying that the people who were violating the traditional *tara bandu* are the new generation of young people.

The correlation obtained by disaggregation of data according to the age of those violating the *tara bandu* law shows a great variation of opinion.

Table 1: Correlation from Age Disaggregation for Crimes in Contravention of *tara bandu*

Age	Percentage of contraventions of the prohibitions
Young people	41,7%
Older people (old men and women)	4,2%

The community also said that the majority of violations of the *tara bandu* were committed by men. This opinion was confirmed by the results of the opinions of respondents, with 37.5% indicating that men committed the most violations whilst only 4.2% said that it was a mixture of men and women and 58.3% said that sometimes it was men and sometimes women, particularly in relation to picking fruit or taking goods from within fields.

⁴ The *biti bot* is an assembly/forum or space traditionally used to sit around and face each other to decide the outcomes of various matters or to reach a resolution.

⁵ The *hadak* is a traditional place made from bamboo, rattan, palm stem or wood that is built in the house and used for sleeping or used for sitting together to decide on various matters.

During the process of implementation of the *tara bandu*, according to the community there were some entities and agencies that influenced the process of ensuring its implementation. The majority of influence from these institutions was seen as positive as reflected by the opinion of many respondents. Despite this, there were opinions expressed that there were also negative influences being contrary with the mechanisms and procedures of the *tara bandu* traditional law.

One example is that in Suco Lauhata, even though the community already declared a *tara bandu* and that people respect this law, the companies and government made contracts to build a fuel station in Lauhata without any consultation with the community and in particular without consulting the traditional leaders. Consultations like this are important to conjugate ideas in the national interest of development and in the local interest of communities for the conservation of nature or for local development.

Table 2: Level of influence of other institutions on the implementation of the *tara bandu*

Institution	Percentage
Catholic church	37,5%
NGO/INGO	37,5%
Government	18,8%
Companies and others	6,2%

Local authorities and communities in many locations expressed the idea that it is very important to have legislation relating to the *tara bandu*. This legislation is important to provide recognition of the practice of the *tara bandu* traditional law and also to give rise to uniformity of legal interpretation regarding the traditional structures that conduct the *tara bandu* and of the mechanisms and proceedings of the traditional law. There were a total of 45.8% of respondents of this evaluation who expressed the need for some sort of law or legislation relating to the *tara bandu*. Despite this, 20.8% of community members felt that it is not legislation that is most important, but rather civic education in order that people respect the *tara bandu* traditional law, which is important. According to community groups, often there is already law but it is people's lack of awareness that gives rise to behaviours that do not respect ecological values and ethics that have long been defended by the ancestors.

In other aspects, 16.7% said that there is a need for support from local authorities. Community groups said that the enforcement of formal or traditional law really needs the support of the competent authorities.

Despite this, there were also 16.7% of respondents who said that all of the above issues are important to guarantee the better functioning of the process of the *tara bandu*. According to community groups if there are good laws (for example about the *tara bandu*), and awareness and also good support from the structure of authorities at all levels, then the implementation of the *tara bandu* will be better.

Positive aspects of cases involving *tara bandu* in Lauhata-Pisulete

In Lauhata there is an innovative response to the question of gender equality and discrimination within the justice system of traditional law. In any case involving a female victim, the female victim is accompanied by a women's representative from the community to sit with her during the processing of the case. The woman accompanying the female victim has the right to participate actively in the process to listen and also to defend (advocate) based on their knowledge of the case. Generally the women who accompany the female victim are women's leaders (members of the Suco council – *editor*) and sometimes they are members of the Organizasaun Popular das Mulheres Timor (OPMT). Previously, during the process of the hearing of testimony the victim was asked to sit alone in the place where the hearing was being conducted.

In the community of Lauhata the environment was already generally in better condition prior to conducting the *tara bandu*. In Lauhata, there have been significant changes to the trees on the hillsides which are flourishing well again. People also do not cut eucalyptus for sale as firewood when it is green as is the practice in other places. There are some sources of firewood that the community sells using the method of gathering dry wood or taking dry branches only.

Domestic violence, theft, and land disputes showed positive changes prior to instituting the *tara bandu*. The frequency of such cases has reduced in number during the implementation of the *tara bandu*. The *tara bandu* is generally re-declared each year and they may be more declarations correlating with people contravening the prohibition, because whenever anyone contravenes the prohibition the process needs to be repeated to re-enliven the prohibition, through making further offering of meat to the ancestors. The annual re-declaration is also a means of socializing the prohibition so that people may give it further respect.

The sub-district of Bazartete is one in which the practice of *tara bandu* has already been revitalized. Because of this there has been extensive socialization and often neighbouring communities have agreements to strengthen the *tara bandu* in places that share common boundaries.

Negative aspects of cases involving *Tara Bandu* in Lauhata-Pisulete

Even though the *tara bandu* has been well received by the community, there remain issues particularly in relation to the enforcement of penalties for those who have contravened the *tara bandu* law. For example in Lauhata, often people who have contravened the law do not want to submit to traditional law and would rather submit to the formal justice system. However if the police become involved and refer the case to the courts often these cases are lost because of the great number of criminal and civil cases that are pending within the judicial system.

For minor cases such as the theft of a chicken, the proper use of the traditional law system is easier and it is easier to reach a decision at the community level and so there is no need to go to the courts that in the end may not result in any solution, because such cases may be classified as not urgent and may be placed on the pending list immediately. Sometimes minor cases such as these are not given priority by the police for investigation and once cases such as these are taken to a



Photo: Haburas Foundation

higher judicial level, often the information and evidence is insufficient and the case is again classified as pendent immediately. There is an idea from the community that the government might make formal recognition of the judicial process under the *tara bandu*.

There are also problems with some young people who refuse to accept the process. In some situations they show their lack of respect for the traditional process, particularly if they were drunk. For others, there is a relationship with lack of education and lack of understanding of the content of the practice of *tara bandu*.

An area of 10 hectares in the coastal area of central Lauhata has just recently been granted under a concession to an oil company by the RDTL government (Secretary of State for Natural Resources) to construct a fuel distribution station. According to local authorities and the community of Lauhata, this development has the potential to disturb the impact of the process of *tara bandu* which has been ongoing in Suco Lauhata. The community said that no one from the company or the government consulted with the community or local authorities (Xefe do Aldeia, Xefe do Suco) about the process of clearing the site and other activities that may have possible contradictions with the practice of *tara bandu* at the present time. The community gave evidence that before the company cleared the area of 10 hectares, many of them sold the wood that the company had felled and from their perspective this activity also contravened the prohibition that they had already adopted.

Conclusions

1. In places where there is strong belief in the *tara bandu*, positive correlations are indicated between people's behaviour that respects the *tara bandu* traditional law and improved ecological changes;
2. The implementation of the *tara bandu* traditional law also depends on the traditional structure of the Suco that conducts the *tara bandu*;
3. The mechanism for making decisions based on the *tara bandu* traditional law is

already fair according to the community, though there is a need to further strengthen the values of universal human rights and to comply with those principles enshrined in the RDTL Constitution;

4. The implementation of the *tara bandu* traditional law has had a positive impact in reducing social problems and conflict at the grassroots because people begin to respect other people's property and the traditional structures have given rise to the resolution of some conflicts at the grassroots (preventing further escalation);
5. Even though the culture of *tara bandu* is strongly influenced by the culture of paternalism, the Xefe do Sucos, *kableha* and members of the local leadership also believe that there is a need to promote greater participation from women in the process of implementing the *tara bandu* and the determination of various resolutions;
6. The condition of the forest, the management of land and other ecological aspects have all started to improve, particularly in places where the *tara bandu* is already being conducted properly;
7. There are many institutions that have influenced the conduct of the *tara bandu* such as: the Church, NGOs, the Government, and Parliament as well as other institutions (companies, academics and others).

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**CHAPTER IV
LOCAL KNOWLEDGE AND
NATURAL RESOURCE
MANAGEMENT**

Rituals for Water Management as the Application of **LOCAL KNOWLEDGE** in Timor-Leste¹

by: Demetrio do Amaral de Carvalho, Haburas Foundation

Keywords: *Water rituals, water resources, social resources, local knowledge, customary houses and sacred houses (uma lisan and uma lulik).*

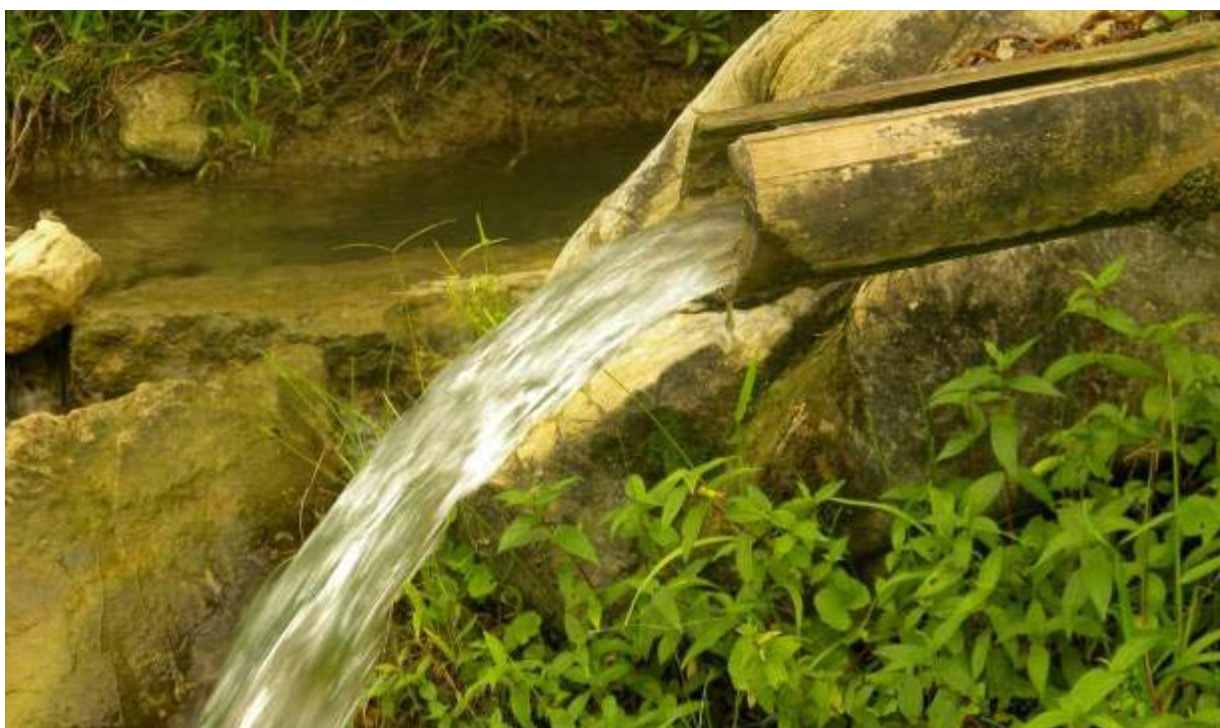


Photo: Demetrio do Amaral de Carvalho

Methodology

This case study was developed with a participatory research methodology through active interactions, discussions, dialogue and observation in the field at times when the community was conducting water rituals. In order to obtain in-depth clarifications from the community, individual and group interviews were conducted. An analysis was conducted regarding prior studies on natural resource management based on local knowledge.

¹ This document was written by Demetrio do Amaral de Carvalho, Haburas Foundation, 2011 as the documentation of joint research conducted with Dr Lisa Palmer from Melbourne University regarding The Politics of Water in Timor-Leste. Document presented in the workshop on local knowledge in Dili, 7-8 June 2011

Introduction

When commencing this research about water, there were several principal questions that became the focus for discussions. The first question was about what cultural rituals exist and are practiced by the communities of Timor-Leste in relation to water? The second question was whether these rituals are based just on traditional mythology or if there is a relationship with local knowledge for the management and use of water? Upon what principles are the prohibitions and sanctifying of particular springs and water courses based?

In order to respond to these questions, the author would like to draw the attention of readers to several theoretical concepts regarding 'traditional knowledge' itself.

Local knowledge about water is also classified as traditional ecological knowledge, according to Berkes, 1993 from Casimirri (2003) it is a term that is problematic and also ambiguous. In the literature this term often arises in reference to the knowledge of local people (Berkes, 1993, says indigenous people) about their natural environment that surrounds them as something resulting from intimacy and a permanent connection with nature.

According to Casmiri (2003), traditional ecological knowledge is itself connected to other specific knowledge. These inter-relationships can be seen in the following graphic:

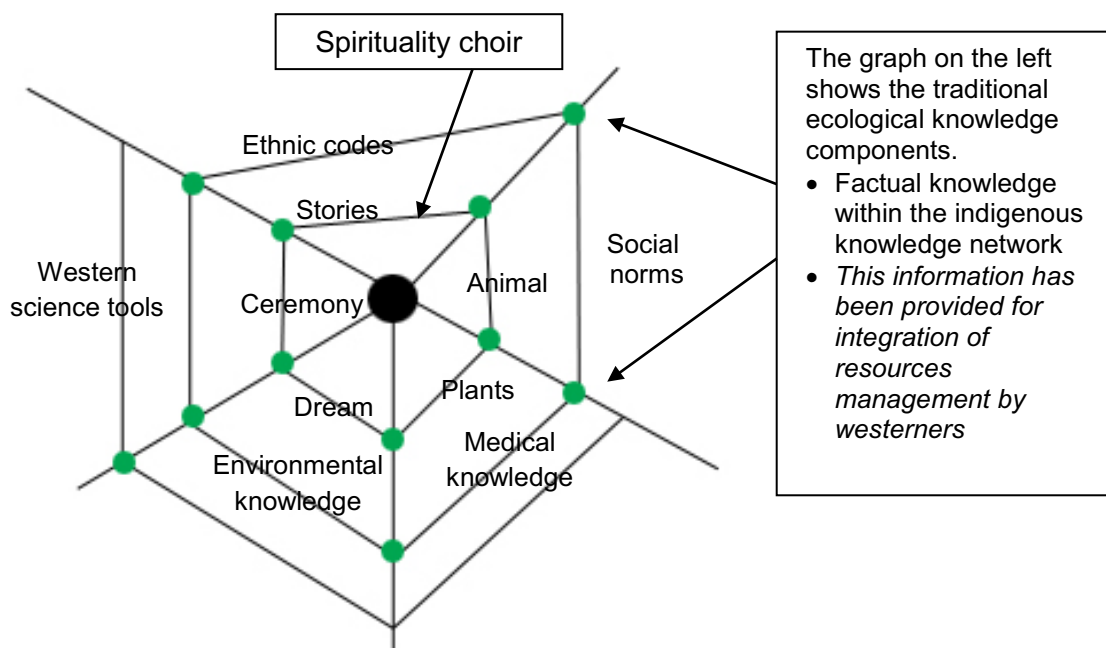


Figure 1. Conceptualization of TEK within an Indigenous Knowledge web

Escobar (1999) clarifies that there are three regimes for the articulation of traditional knowledge. The three regimes are based on the historical and biological perspectives known as: organic nature, capitalist nature, and also techno-nature. The definition of organic nature, means nature and society that are bound together (cannot be separated ontologically). Thus

there are relationships between biophysical, human and supernatural factors. In this way also the manifestation of this perspective is undertaken in rituals that are part of cultural practices and practices that are embedded within social relations that are different to the capitalist nature system or techno-nature system (Escobar, 1999).

Today's world is dominated by reductionist sciences that have started to cause problems for the planet. Because of this, the struggle for the natural environment has arisen all over the world today. The question of the natural environment became a global cause since the 1990s. The situation has become more urgent because of issues relating to tropical forest, biodiversity, water, seeds, energy production technology, food, rivers and oceans, urban development, melting glaciers in the north and south, and also major effects from global warming in the world (Escobar, 1998). Many organizations have recommended the promotion and revitalization of local knowledge. The process of revitalization of local knowledge has been undertaken using a model of promotion of 'development or management of natural resources based on the knowledge of local communities and their local resources' (Kenderick, 2003).

Cultural rituals have been practiced in Timor-Leste since the time of the ancestors and some remain applicable today, such as rituals relating to water, the use and conservation of water as important social capital for development. These models of management based on local knowledge can strengthen community sovereignty and invigorate social cohesion between local communities. Local communities with tighter social cohesion will have higher resistance to outside influences. Communities that also have mechanisms for self-governance based on their local knowledge will reduce their dependency on outsiders (see: Palmer and De Carvalho 2007). Practices such as *tara bandu*, *metxi*, *pleigou*, *saur to'os* and others are mechanisms that apply customary law, local knowledge or local ecological knowledge to the management of natural, social and cultural resources.

According to Shukla (1993), the concept of community-based conservation (KBK) arose as an institutional innovation to respond to conflicting objectives between poverty reduction and scarcity and biodiversity education. Similarly, community-based conservation arose directly from traditional ecological knowledge. This fact made Berkes (2003) consider that the utilization of local knowledge systems as local ecological knowledge can contribute to ensuring conditions for success for models of natural resource management (including water resources) based in local communities.

There is a large difference between the local knowledge model and knowledge models that come from western sciences. Because of this, Pandey (2002) states that the management of natural resources must not become the subject of just one knowledge system, such as western science, but that there must be consideration of the plurality of local knowledge systems. There is a fundamental reason for the integration of these knowledge systems. The application of scientific research together with local knowledge can contribute to equity, opportunity, security, and increased capacity of local communities as well as ensure the sustainability of natural resources. A further reason is that local knowledge can enable the strengthening of scenarios of analysis, data collection, management of the planning, design and adapting of strategies based on lessons learned and feedback, and of institutional support to put policies into practice (Getz et al. 1999).

Based on the above concepts of local knowledge and of local ecological knowledge, the definition of traditional ecological knowledge in Timor-Leste is 'reflected in the content of oral histories, the intention of ritual practices and also often from its being intertwined with mythology in the context of culture and beliefs and also in the traditional practices that have sometimes been ongoing for a very long time'. For example: the sanctifying of wild animals that live in the water has the intention of protecting springs against any damage.

Local knowledge practices in Timor-Leste relating to water resources

Almost all older habitation sites in the world have relationships with springs, rivers, ponds, lakes, seashores, and other places where there is water. In the relationship between these older habitation sites and water is the mythologies from the ancestors about springs or other places where they first found water, such as 1) the history and mythology of the village Lo that was drowned in the lake at Iralalaru, 2) the mythology about *Wee-Malae*, 3) the mythology of the old spring at Moru-Lautem called *Ipar-ira*, that the water was found by a dog (*Ipar in fatuluku*), 4) the mythology about *Wee'tano* that a dog called *Tano* found the spring at the seashore in Same called Betano today (*Wee-tano*), 5) the mythology about the crocodile and *Irabere* from the *uma lisan* Irabin at Watucarbau in Viqueque (see: D'Andrea, 2003), 6) the mythology about the place where salt water and fresh water met at Wesoru in Viqueque, 7) the mythology about the dog, the old lady and the old spring at Suco Leohitu in Balibo where today the small forest at the spring is considered sacred and is well conserved, 8) the mythology about the female and male springs in the area of Maubisse, and other mythologies (see also: Palmer 2011).

The basis of local knowledge of rituals relating to water

Rituals relating to water come from the perspective that water is the primary substance and is especially fundamental to support all life in the world. The ancestors believed that water or springs, like the sea, rivers, lakes and ponds each have their own custodians (a spirit that watches over or sits in the springs or water there). This perspective gave rise to rituals such as:

- 1) The sanctifying of eels (*Thunnus spp.*), crocodiles (*Crocodylus spp.*), turtles (*Celodina spp.*) and other wild animals as transformations of these water-keepers. Thus many communities made prohibitions against killing these wild species that they believed watched over the water;
- 2) Ritual preparations for entering a boat or launching a boat to sea. When fishermen construct a fishing boat, before it is launched, they perform a ritual of washing metal and asking the permission of the spirits who govern the sea before they go fishing at sea;
- 3) Ritual for summoning rain, such as are practiced in Ermera in the village Eraulu and also the community of Suco Leotela or Asmanu in Liquiça from the river Laueli which is the principal water course of the river Loes, where at the time for summoning the rain they ask for assistance from the *lia-na'in* from the *uma lisan* Laueli-reti;

- 4) Eye-washing ritual, within seven days or one week of the birth of a child the family performs the eye-washing ritual as a ritual to help the child in the future to have good fortune (to be *matak-malirin* – to receive the blessing), and similarly to cleanse the hands of mid-wives before assisting a woman in childbirth;
- 5) The ritual of washing buffalo's feet/legs, used when a buffalo goes to work to prepare the rice paddies there is a ritual of thanks performed for the spirit that looks over the buffalo to help the buffalo avoid sickness and have a strong and healthy body;
- 6) The ritual of opening the water to send water into the rice paddies;
- 7) The ritual of opening the water-course for catching fish in Bemalai (between Balibo and Atabae) and also Welalihuk in the district of Manufahi;
- 8) The ritual of *tara bandu* or in the Bunak language *bonuk* or *kerok* practiced in several places in Oecussi to make a prohibition protecting the springs and streams or rivulets and main rivers (see: Sandlund et al, 2001 and Yoder, 2006), as well as other rituals about water that still exist today in Timor-Leste (Palmer, 2011).



Photo: Demetrio do Amaral de Carvalho

When visiting *uma lisan* that have been many years without moving from their original location, particularly in the mountainous zone of central Timor-Leste, in Ermera, Bobonaro, Aileu, Ainaro and Manufahi one will hear a great deal of mythology about springs.

Traditional communities in Timor-Leste believe that the trees trap the rain and transform it into springs. Because of this, according to Manuel Mendonça from the *uma lisan* Felapu in the *aldeia* Lekitehi in Suco Maubisse, the ancestors prohibited people from cutting the large trees close to springs or living along water-courses that flow together to form rivers. They also prohibited the burning of land close to water springs or water-courses. The practice of placing prohibitions through sanctifying locations was indeed put into practice by communities who perform these rituals annually. Because of the annual rituals performed at these sites, the communities name these places as sacred sites. An example is the case of the spring Ertama where the community of the aldeias Lekitehi and Tartehi perform rituals (the case is explained in more detail below).



Figure 2. A sacred post placed in a sacred fig tree's trunk (Photo: Demetrio do Amaral de Carvalho)



Figure 3. *Uma lulik* from the seven *uma lisan* at Lekitehi (Photo: Demetrio do Amaral de Carvalho)

Rituals at springs as part of traditional Easter celebrations

The community in the sub-district of Maubisse from 7 Sucos, Suco Maubisse, Suco Liurai, Suco Aitutu, Suco Manetu, Suco Edi, Suco Manelobas and Suco Nuno Moge or Suco Mausiga from the sub-district of Hato Bulico, perform an important ritual at all of the springs in the aldeias or knua that are dispersed throughout that region.

The springs in all of the Sucos in Maubisse have two circular wells that the ancestors laid from stone known as the woman's spring and the man's spring. This celebration is known by the community as their traditional Easter.

There is an explanation provided by the *lia-na'in* that the ritual is called the traditional Easter because the ritual is performed in the month of April just before the Christian Easter. There are also some ideas from the *lia-na'in* that at the traditional Easter they also make offerings to the ancestors and to god as the source of life.



Figure 4. *Uma lulik* from the seven *uma lisan* at Lekilehi (Photo: Demetrio do Amaral de Carvalho)

The rituals for the springs that are performed in Maubisse, particularly in the aldeia or knua Lekitehi, Tartehi and Goulala, are the main part of the three most significant rituals performed by the communities each year. These three major rituals are:

The *Ispara* Ritual

The *Ispara* is a ritual that is performed at the time when the community is preparing land for planting. In Maubisse they plant corn, potatoes, red-kidney beans, soy beans, peas and wheat. The objective of this ritual is to ask permission of the ancestors and also of the cosmic powers that are locally called the *rai-na'in*² which are the spirits that watch over these places as their custodians or keepers. In this ritual, the community through the *lia-na'in* who has the role of leading the ceremonial ritual such as the senior *lia-na'in* for aldeia Lekitehi and Tartehi Manuel Mendonça, from the *uma lisan* felafu. The *lia-na'in* begins by

² *Rai-na'in* is a term from Tetum with a broad set of meanings. One meaning is a person, family, *uma lisan* or *knua* that is the owner of land. The term means the physical and the political administrative land owner. Another meaning of *rai-na'in* refers to the spirit or cosmic power that has influence over a given location and from the socio-cultural perspective is often seen as the custodian or keeper of that place. Because of this, when preparing fields or building a new house, several ritual ceremonies are needed to ask permission of the *rai-na'in* for that place. This permission may mean asking the spirit to leave the place or to authorize farming or building a house in that location. In social phenomena sometimes it is perceived that a snake, rat, wild bird or other wild animal is the transformation of that spirit. During the performance of the ritual if an animal passes or flies or calls close to the site this may be interpreted as communication with living people. *Rai-na'in* in the usage above refers to the spirit being.

sanctifying and roasting meat (sometimes piglets or chickens). The ritual is also used to make predictions about or to divine the future. If the *lia-na'in* sees that the liver shows bad signs, he will call for guidance to see where the cause of the problem is, or the person who has caused the problem. The *lia-na'in* will use a baby chicken or an egg to make a divination about how to repair the divination or how to avoid the bad luck that may occur, if something is not done correctly. All of these signs are interpreted by the *lia-na'in* for the community who work in the fields to attend to the hands and feet when working and also to prevent damage to seeds and crops during the period of preparing the land for planting.



Figure 5. Community members performing the ritual in front of the sacred spring at Ertama in Lekitehi-Maubisse (Photo: Demetrio do Amaral de Carvalho)

The *Mambiuka* Ritual

The *mambiuka* or *saur to'os* is a ritual for giving thanks to the ancestors and to the light as the source of life, for the help that has been given for the production of crops and of good health during the work of production.

All of the households from the *uma lisan* Felafu, Hatilu, Liurai, Taut, Ausmeta, Hatudosa, Goufu and other *uma lisan* such as Hiutlele, Hautlolo, Maubisse, Airit and Malikusa symbolically bring the crops from their fields such as a sheaf of corn, or a basket of beans, or soybeans and also a bundle or a small basket of sweet potatoes or taro as an offering to the *uma lulik* that has the lead role in the *mambiuka* ritual. When the old men that attend the fire and water of the *uma lisan* lead their own *mambiuka* ritual they make offerings of these crops to their *uma lulik* from the other *uma lulik*. Despite this, in the case of the aldeias of Lekitehi and Tartehi the *mambiuka* ritual is performed together with the ritual for the springs

and the *piut besi* ritual, and therefore often a ritual may be lead by the *lia-na'in* that has been chosen by consensus such as Manuel Mendonça from the *uma lisan* Felafu.

The *mambiuka* is the principal ritual in Maubisse and is similar to the *piut besi* ritual or in Tetum the *tebe besi* (beat metal). The *piut besi* ritual is performed annually to celebrate the victory of the ancestors in a legendary war in which their opponents who wanted to overthrow the ancestors at Lekitehi-Tartehi in Maubisse were vanquished. In the Mambae language the original name of *Fatuk Maubisse* or *Hat-Maubisi* was *Maubisi Mauloko Sibau nor Lakoda*, being the sacred name used to invoke these ancestors. This celebration is performed with drumming at the top of *hat'maubisi* or *fatuk maubisi*. The person who loses the *hafetu malu* (kickboxing match) and falls to the ground must summon his spirit and remove the curse. This ritual is very costly because people must make sacrifices of large animals such as pigs, a large goat or buffalo to raise up or summon his spirit (compare also with: McWilliam, 1991).



Figure 6. *Hat'maubisi* (Maubisse stones) in the place where the *piut besi* is performed (Photo: Demetrio do Amaral de Carvalho)

One day prior to this ritual the community gathers together to stamp, dance, sing, beat the drums and blow buffalo horns. Often it is a lively event preformed near rocky outcrops and continuing day and night until the full moon. When more visitors arrive, the community dances to meet the guests with their stories and dressed in their ritual costumes for dance. On the night of the full moon the community will set out the food that they have brought as offering for the *uma lulik* and perform the *saur to'os* ritual as the climax of the *mambiuka* ritual. According to Manuel Mendonça (2011, press conference), the *saur to'os* is a ritual to give thanks to the ancestors, to the stars and the sun that provide light and the cold of night to enrich their crops. The *saur to'os* is also performed to ask for help from the ancestors to invigorate the crops with their blessing (*matak-malirin*) so that their grandchildren can be healthy. The *saur to'os* can also be said to be a collective family offering to the source of life. Because of this the community often calls it the traditional Easter.

The Aihuka Ritual

The *aihuka* is a ritual to complete the *saur to'os* or *mambiuka* ritual. This ritual is a process in which the entire community walks to all of the springs in the village to give thanks to the ancestors and the custodian spirits of the water. The *aihuka* ritual is the end of the *saur to'os* and *piut besi* rituals.

In Suco Maubisse, particularly in the villages of Tartehi, Lekitehi and Goulala, the *aihuka* ritual is performed at the springs Ermatu and Ertama.



Figure 7. Male and female springs at Ermata (Photo: Demetrio do Amaral de Carvalho)

The community walks from the village and goes first to the spring Ermatu which is considered a sacred site and called '*Helumau Aitir Ermata nor Usnei*'. This place has an important symbol of a black post set in a fig tree which is very wide and many hundreds of years old.

All of the springs in Maubisse have two circular wells, one named the man's spring and the other named the woman's spring³. The classification of these springs as male and female follows the tradition of eye-washing. When a male child is born he is taken and has his eyes washed with water drawn from the man's spring within seven days of his birth. The same is done for girls with water drawn from the women's spring.

³ The male and female springs were constructed by the ancestors by laying stone in the form of a tank or well that are called the women's and mans' springs. (*bee-matan mane* is literally - man eye water, and *bee-matan feto* is - woman eye water – translator's note).

Local knowledge about water resources

Based on rituals and traditions relating to water usage in Timor-Leste, specifically in Maubisse, it can be said that the concept is very broad. When a child is born and within seven days of the birth of a child the eye-washing ritual is performed. This is based on the idea that the women who help to birth the child have dirty hands and the eyes will still be dirty, and they need to be washed through the eye-washing ritual. On the day of the eye-washing the parents offer a *tais* or *batik* cloth to the woman who assisted the birth, as a symbol of thanks. This ritual is an important application of the conceptualization of water as an important substance for **purification**.



Figure 8. The spring Ermata and the sacred fig tree where the ritual is performed each year
(Photo: Demetrio do Amaral de Carvalho)

The concept of water as a primary substance for purification can also be seen in the ritual of the washing of the buffalo's legs/hooves, when it is working in the rice paddies.

Another ritual is the *fase besi* ritual (cleansing of tools) that are used for any heavy work so that any heavy tools or equipment used can be purified, so that those people using them in future do not suffer any difficulties.

People returning from battle also need to cleanse their bodies and cool their weapons, to remove any bad spirits that may have attached themselves during battle. This ritual is used to cleanse weapons before being stored and also to remove the protective amulets used in battle, which are placed in water (or in a river). This ritual arises also from the idea that water is the substance which can cool and freshen or which removes anger and 'sharpness' or provides **reconciliation**.

When land is being prepared for planting food crops, the community also conducts rituals to bring rain. This ritual arises from the concept that water is the principal life giving substance of **reproduction and production**.

Another concept is of rituals conducted in Maubisse to give thanks to the spirits that watch

over the water to give life and assistance for reproduction and the production of the food needed by the community.

Another of the rituals used in Maubisse is the use of water to bring good fortune or to cure illnesses that may arise from bad spirits. This practice comes from the concept of water as the principal substance of **vitality**.



Photo: Demetrio do Amaral de Carvalho

When a house's construction is completed and before occupying it, the *lia-na'in* splashes water or coconut water throughout the house. The main meaning of this is to keep bad spirits from the house. By bringing coolness and vitality to the house, the occupants will have vitality for reproduction and production and will have 'coolness and vitality' in the daily life of the household.

The community of Maubisse protects their springs and streams through the concept of the conservation of the forest resources that are important for the protection of the land and water. This can be seen in the above photo. The community plant bamboo species as a form of biological control against erosion, for land stabilization, to capture rain or to plant alongside water-courses and streams.

This practice can be seen in the prohibition against cutting trees or burning grass and other plant species close to all river banks and springs. There is also the practice of sanctifying springs, river sources and also of making the animals that live in the water sacred such as eels, turtle, crocodiles and rats that dig out the water's course. In Lekitehi and Tartehi rats

are considered to be a sacred animal. There is a traditional legend from Tartehe-Lekitehi that recounts the story that in the beginning there was water everywhere in their location, one of the ancestors transformed into a rat to dig the water channel to release the water and prevent a disaster.

The community also has knowledge of plant species that are appropriate for protecting the land and water such as species that are important for planting on river banks, and close to springs. The species that are used to protect water courses include bamboos, figs, pandanus and others.

In Maubisse, especially in the aldeias of Lekitehi and Tartehe, the community has started to plant bamboos along the river banks. They have also banned the cutting of trees, the burning of land and of removing soil from the river banks.

The community does not use chemical fertilizers when planting vegetables in the fields. They are using techniques that apply organic compost from coffee husks and other organic materials that they produce themselves.

The community also has knowledge of using water that has ponded close to springs to plant taros as an important product for food security and which fetch a good price in the market. From observations, it can be seen that almost all ponded water areas are being used by the community for planting species such as taro, watercress and mint.

One of the difficulties that remain is the issue of rubbish that has an impact on water courses including its effect on the biotic components in the water. Despite this, the community has taken the opportunity of capacity building to start to obtain information about the impacts of rubbish (such as plastic, rusty tins, bottles and batteries) and also about pollution from the soap and detergents they are using.

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THE USE OF LOCAL KNOWLEDGE

for Climate Change Adaptation

by: Joao Curbafo, OXFAM

Introduction

Our global climate is currently changing. Average temperatures have started to rise over the last 100 years because of the large increase of greenhouse gases in the atmosphere. These greenhouse gases (the majority of which are carbon dioxide and methane) are emitted by the burning of fossil fuels such as coal, oil and petroleum. These materials are burned to produce electricity, to drive cars and other machinery.



Local knowledge practices for climate adaptation

The local knowledge being used by communities to adapt to climate change are as follows:

1. Respect for the ancestors before undertaking any work with the tradition of animal sacrifices in the fields with the belief that this will increase the results obtained from planting materials at the time of harvest. These inherited practices have been passed on from the ancestors to their children and grandchildren for them to follow in order to benefit from the results of their plantings. From the resulting crops they make offerings to the ancestors according to tradition: at the time of the corn harvest they make a procession taking this food directly into the *uma lulik*.
2. Diversification of crops in their fields, such as corn, cassava, bananas, taro and so forth. Some crops are also scattered throughout the fields not for food but to help other crops.
3. Terracing and making fences with stonewalls. This action is performed to reduce the cutting of timber (for fencing) and to reduce erosion, and the use of stones is a means whereby a community can better manage their fields and larger land holdings and prevent conflict with other communities. The construction of fences using stones also includes the sacrifice of animals such as pigs or chickens and splashing the blood over the stones. Often this process is conducted according to cultural methods with the complete structure of *lia-na'in* (communities have strong belief in the practice of traditional customs), witnesses, families and the entire community. This is from a desire to demonstrate that the entire community has an obligation to look after these fences so as to avoid any problems arising in the future from moving fields back and forth.
4. Food bartering. This is a means that many communities use in rural areas if it is not possible to access markets during the wet season when rivers are high. If for instance one family has had good corn production, if they wish to exchange this for mung

beans then they are able to negotiate a contract according to the system for negotiation that already exists between the two families. This is a system of direct barter that does not use cash.

- Oxfam's approach for utilizing local knowledge to respond to climate change. This approach has five components that focus on: 1) situational analysis, 2) analysis of threats from climate change, 3) assessment of vulnerability, 4) assessment of capacity, 5) planning to respond to and reduce risk (participatory action planning). These components are focused as described in the following Table 1.

Table 1: Methodology for Program Design to Reduce Climate Change Risk

Process Steps	Means (Facilitation of questions)	Final question results
Situational analysis	Transect walk Map of social resources and threats	General information about the community
Threats from Climate Change	Weather history Analysis of environmental trends Seasonal calendar	What changes have already taken place in your community? Why do you think these changes have occurred?
Vulnerability Assessment	Vulnerability Tree Focus group discussions	What impacts have occurred?
Capacity Assessment	Group work Focus group discussions	What have you already encountered from these changes? What assistance have you already had access to? What is important for you in terms of external knowledge?
Planning for Risk Reduction	Analysis of future environmental trends. Map of the future Action Plan	What changes do you think may occur in the future? Why do you think these changes may occur? What impacts do you think may occur as a result of these changes in the future? What can you do to adapt to these changes in the future?

Failures of local knowledge to respond to climate change

- Shifting of fields each year (experience shows that often the seasons are not following the calendar passed down from the ancestors) is made more complicated when it is linked with the issue of community lands, where communities have been moving their field problems arise when they are moved into the land holdings of neighbours. This was the case in the district of Baucau.
- Practice of slash and burn agriculture in forests to establish new fields, is something very difficult for traditional customs to manage when fields are newly established in the forests. This takes place when there have been very long dry seasons, as the land loses its fertility, and communities want to use new land to grow crops to support themselves. When the community practices slash and burn agriculture in old

growth forests this has very serious impacts on the local environment.

Solutions that can be applied:

1. The tradition of sacrificing animals to respect the ancestors (Based on case studies in the districts of Suai, Oecussi, Liquiça and Baucau).
2. Continue to plant crops under a system of diversification.
3. Continue terracing of fields and the use of stone fences to demarcate fields.

Civil society approaches to strengthen local knowledge to respond to climate change

- Use of stone terraces to prevent erosion in fields and to reduce damage to plantations and to prevent the loss of rich topsoil.
- Crop diversification to provide crops that can be harvested when there is continuous rainfall or when there is lower rainfall to enable communities to ensure that they have crops to harvest.

Challenges to the use of local knowledge for climate change adaptation

- Rainfall does not follow normal weather patterns.
- Some crops fail or do not perform well (such as local cassava, potato/sweet potato and corn varieties).
- Continued use of shifting agriculture, and the practice of slash and burn agriculture combined can have short term results for new fields, however there are major impacts from erosion, landslides and the drying of springs.

Recommendation

Local knowledge is customs that respect the ancestors and must be continued, the government needs to recognize this as the wealth of Timor-Leste and as an inheritance that was established and has been passed down by the ancestors from the beginning. The government must create laws to better strengthen the system of *tara bandu* to reduce the cutting of trees and the burning of land to better protect the future of the environment of Timor-Leste.

UNESCO's Programme on Local and Indigenous Knowledge Systems

by: Lisa Hiwasaki, Programme Specialist for Small Islands and Indigenous Knowledge
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What is Local and Indigenous Knowledge and Why is it Important?

Local and indigenous knowledge, as defined by UNESCO's programme on Local and Indigenous Knowledge Systems (LINKS), refers to "understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings." For rural and indigenous peoples, such knowledge allows them to make decisions about fundamental aspects of everyday life.

Local and indigenous knowledge is synonymous with terms such as traditional ecological knowledge (TEK), indigenous knowledge (IK), local knowledge, and rural peoples' and/or farmers' knowledge. As is clear from these synonyms and UNESCO's definition, local and indigenous knowledge is not necessarily restricted to knowledge owned by people officially recognized, or consider themselves, as indigenous people.

Local and indigenous knowledge takes diverse forms, such as stories, songs, folklore, proverbs, cultural values, beliefs, rituals, customary laws, language, and agricultural practices. Traditional knowledge can make significant contributions to the conservation and the sustainable use of biodiversity.

Activities of UNESCO's programme on LINKS are implemented with the understanding that sustainable development will result when indigenous knowledge (a) is acknowledged, transmitted, and practised by communities; (b) adapts to changes over time; and (c) is integrated with scientific knowledge. In an emerging country like Timor-Leste, it is thus particularly important that local and indigenous knowledge is promoted and valorized in the sustainable use and management of land and resources.

The importance of local and indigenous knowledge for sustainable development is further made clear by its relevance to various issues that are fundamental to the well-being of people. Traditional knowledge has proven to be relevant for various issues, including climate change (monitoring and adaptation), food security (as food production is usually informed by local knowledge), biodiversity conservation, health and well-being (through traditional medicine, to which 80% of the global population still depend), and natural disaster preparedness and responses.

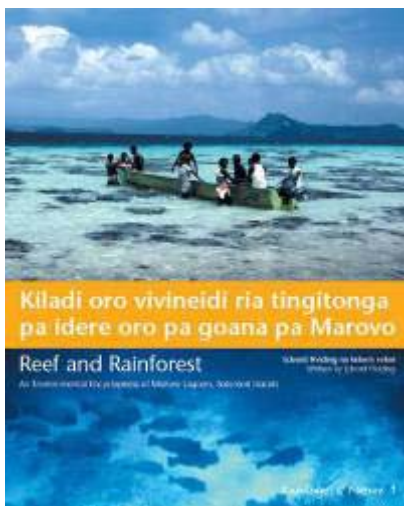
What is UNESCO's Programme on Local and Indigenous Knowledge Systems (LINKS)?

The objectives of UNESCO's LINKS programme are (a) to empower local and indigenous peoples in environmental management by advocating recognition and mobilization of their unique knowledge, know-how and practices; and (b) to contribute to safeguarding of traditional knowledge by reinforcing their inter-generational transmission. Activities implemented under LINKS fall within three main themes: (1) revitalizing knowledge and indigenous education; (2) local and Indigenous conservation and management; and (3) climate change and adaptation.

Three projects implemented under the LINKS programme are described below. Two are field projects that integrate two of the themes mentioned above: knowledge revitalization through education, and conservation and resource management. In both projects, transmission of knowledge and language was encouraged, and communities were empowered in environmental management. Experience and lessons learned from these projects provide models for working with most vulnerable communities, such as those with local and indigenous knowledge. The third is an internet-based discussion forum, which also has an international network of field projects documenting local observations and knowledge related to climate change.

Village-level documentation and transmission of local environmental knowledge using online communication tools: Marovo Lagoon, Solomon Islands

The Marovo Lagoon is one of the world's largest coral reef lagoons, covering about 700 square kilometres. The Marovo area has a population of about 11,000 people living in dispersed villages. Located in the Western Province of the South Pacific nation of Solomon Islands, it is internationally recognized as an area of extraordinary biological and cultural diversity. Similar to other Pacific islands, the area faces a range of environmental threats, including increasing exploitation of near and offshore marine resources, the logging of forests and their replacement with commercial plantations, sedimentation and tourism development.



In 2005, a multilingual UNESCO publication, "Reef and Rainforest: An Environmental Encyclopaedia of Marovo Lagoon" was published. The book's author, Dr. Edvard Hviding (University of Bergen, Norway), and the Solomon Islands Ministry of Education saw the book as a starting point for a process whereby students in village primary and secondary schools, rural vocational training centres and provincial secondary schools could be actively involved in the bridging of generations, knowledges, languages and places by carrying out assignments of environmental knowledge documentation as part of their ongoing school work.

The objective of activities in Marovo is not to implement classical environmental awareness programmes in schools, but to redesign content across the curriculum to incorporate knowledge systems which are seriously endangered today and have been repeatedly recognized as having crucial ramifications for biodiversity conservation in these sites of global significance. Hence, the project serves as a practical demonstration and testing of the role of educational material in vernacular language for fostering the transmission and development of indigenous environmental knowledge through dialogue across generations, from a primary anchorage in the school system that highlights the connections between local knowledge and science.

Central to the ongoing work is the development of online educational resources that are locally accessible and in the Marovo language. Based on the wiki-format, these resources are designed to allow users to easily modify and add content in the form of text, images and video. Using a wiki-based online edition of the Encyclopaedia and associated lesson plans, teachers and students in Marovo communities are able to work in their own language to moderate, improve and expand educational content relating to local knowledge of local environments. The work will continue throughout 2011, with follow-up training events scheduled for February and April.

Incorporating Mayangna knowledge in management of Bosawas Biosphere Reserve, Nicaragua

The Bosawas Biosphere reserve in north-central Nicaragua is renowned for its rich biodiversity and numerous rare or endangered species. The territory is also the home of the indigenous Mayangna, or Sumu, people, who have lived in the area for centuries. They have developed an intricate and extensive knowledge of the local flora and fauna and have shaped the biological system through their cultural practices.

Today these interlinked biological and cultural systems are under threat by a rapidly advancing agricultural frontier, increasing contamination of watercourses originating outside the reserve, illegal logging, as well as some trade in endangered animal and plant species. The LINKS project seeks to ensure that the knowledge possessed by the Mayangna, as well as their unique ecological, social and cultural relationship with the natural environment, are appropriately recognized and fully incorporated into the design and implementation of resource management processes in the Bosawas Biosphere Reserve.



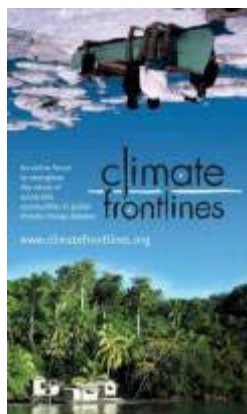
As a first step to understanding Mayangna relationships with their natural environment, the animals, plants and other natural entities that Mayangna people recognize were compiled in a book entitled “Conocimientos tradicionales del pueblo Mayangna sobre la convivencia hombre y naturaleza: Peces y Tortugas” (English title: Mayangna Knowledge of the Interdependence of People and Nature: Fish and Turtles).

After extensive consultation and in agreement with the local Mayangna leadership, the documentation focused initially on fishes and turtles, two important food sources in the reserve. A photo library of the thirty-two taxa of fish and six turtles that the Mayangna identify were compiled, and for each of these animals, Mayangna names, knowledge and know-how on natural history, harvesting techniques and use, as well as legends and myths were documented.

This project was initially carried out by the habitants of the Lakus River, one of the five Mayangna groups in Bosawas, under the joint supervision of Nacilio Miguel of Arangdak, Lakus, and Dr. Paule Gros (International Center for Tropical Ecology at the University of Missouri Saint Louis, USA). It later extended to the entire Mayangna community within Bosawas Biosphere Reserve. The encyclopaedia was launched in its Spanish language version in January 2010 in Paris and in its Mayangna language version in Managua in July 2010.

In 2010, the project entered into a major new phase, during which materials on local knowledge in the Mayangna language will be developed, with a view to introducing them into the school curriculum in the Bosawas Biosphere Reserve and eventually elsewhere in Nicaragua. Ultimately, it is expected that by bringing recognition to their knowledge and practices, and demonstrating their influential role in natural resource management, the Mayangna people will be conferred an increasingly prominent role in the sustainable development of the region.

Climate Frontlines: A global forum for indigenous peoples, small islands and vulnerable communities



Many small island, rural and indigenous communities are already facing the first impacts of climate change. Their high vulnerability relates to their reliance upon resource-based livelihoods and the locations and configurations of their lands and territories.

Ironically, despite broad recognition that small island, Arctic, high altitude and other vulnerable communities are on the frontlines of climate change, their voices have remained largely on the sidelines of climate change debates. Indeed, this exclusion has generated discord and protests by indigenous peoples and community representatives at recent international conferences and meetings on climate change.

In response to this outcry, the grassroots Internet forum On the Frontlines of Climate Change (www.climatefrontlines.org/) was launched by UNESCO, in partnership with the Secretariat of the Convention on Biological Diversity (SCBD), the Secretariat of the UN Permanent Forum on Indigenous Issue (SPFII) and the Office of the High Commissioner on Human Rights (OHCHR).

The forum connects more than 60,000 people from small islands, indigenous, and other vulnerable communities. The platform provides support to community-based research

projects worldwide. It forms specific collaborations with various agencies and organizations to support traditional knowledge in scientific assessments of climate change (e.g., with IPCC, CBD, UNDP, UNU) and to explore how traditional forecasting can interact with global meteorological forecasting to improve adaptation policies (WMO, Indigenous Peoples of Africa Coordinating Committee, Conservation International).

What does UNESCO Jakarta Office want to do with LINKS in Timor Leste?

The focus of activities implemented in 2011 by the UNESCO Office, Jakarta under the LINKS programme is in Timor-Leste.

The first of these activities is the workshop “Matenek Tradisional riku soin ba Desenvolvimentu”, which was held to develop a strategy and an action plan for implementing activities under UNESCO’s LINKS programme for the biennium 2012-2013. Another aim of the meeting was to bring together stakeholders, including government agencies and local and international NGOs working on relevant topics in Timor-Leste, for coordination and consultation so that activities can be implemented efficiently and in a coordinated manner.

Furthermore, two more activities are also being implemented. First, as an activity with the objective of revitalizing knowledge and indigenous education, a project to develop educational and awareness-raising material for youth and adults based on traditional ecological knowledge pertaining to plants used in *tais* dyeing began in June. This will result in building capacities of communities to transmit such knowledge to children and youth. Second, as an activity related to climate change and adaptation, a project to conduct action research on local and indigenous knowledge related to hydro-meteorological hazards, will begin in October 2010. This activity is part of a larger project on strengthening resilience of coastal and small island communities towards hydro-meteorological hazards and climate change impacts, a project launched in 2010 and being implemented in Indonesia, the Philippines and Timor-Leste. The research will result in development of awareness-raising and educational material to contribute to disaster risk reduction and climate change adaptation.

Finally, it should be noted that LINKS projects described above were developed by UNESCO and/or benefitted from seed funding from UNESCO, however, the primary source of funding and support have come from various universities and governments (both national and foreign), as well as from other international organizations. In this regard, we expect to develop further activities in cooperation with external partners who can provide funding and support to LINKS activities to be implemented in Timor Leste.

For more information on UNESCO’s LINKS programme, please go to:

<http://www.unesco.org/new/en/natural-sciences/priority-areas/links/>

For more information on UNESCO Office, Jakarta’s activities on LINKS, please go to:

http://portal.unesco.org/geography/en/ev.php-URL_ID=8681&URL_DO=DO_TOPIC&URL_SECTION=201.html

RECOMMENDATIONS

1. Local knowledge and practices need to be strengthened as part of the practices that derive from people's mother tongues, in their daily lives.
2. There is a need to integrate local knowledge concepts into the development of agriculture, fisheries, water management, and forestry, and also to base this on modern sciences such as mathematics, physics, chemistry, biology, ethics, culture and other social sciences.
3. There is a need to consider the differences in the logical approach and epistemology of local knowledge and modern sciences, to avoid reduction of the holistic nature of local knowledge.
4. There is a need to revitalize and value local knowledge for the management of natural resources (forestry resources, water resources, coastal and marine resources, land management, traditional medicines, culinary systems, housing construction systems and so forth).
5. The State needs to protect the customary rights of local communities in the process of the application of conservation policies (forestry resources, biodiversity resources, marine resources and others).
6. There is a need to strengthen coordination between institutions to protect and develop local knowledge.
7. There is a need to integrate the philosophies of local knowledge as the spirit of the Basic Law for Cultural Heritage (that is currently under discussion).
8. There is a need to promote local knowledge in the media at national events and in academic debates.
9. There is a need for further surveying and mapping of traditional knowledge (for example: surveys of knowledge of natural resource, land and forest management, of dance, music, oral histories, *uma lulik* and so forth. There is a need to create a database of local knowledge.
10. There is a need for training of civil servants to improve their understanding of local knowledge and to be able to apply local knowledge in development programs working with local communities.
11. There is a need for the State to create financial resources to support entities undertaking research into local knowledge and also for cultural activity groups to promote local knowledge in the area of arts and culture.
12. Promote local knowledge for climate change adaptation and strengthen local knowledge with modern science for the analysis of complex climate change effects.
13. There is a need for laws to strengthen the practice and valuing of local knowledge.

14. Promote local ecological knowledge to strengthen conservation and sustainable development policies.
15. There is a need to integrate the concept of the revitalization of *uma lulik* as dynamic living museums and also to place *lia-na'in* in the context of the process of development and the transformation of local knowledge.
16. Promote local knowledge philosophies as the ethical basis for citizens and also as the cultural identity of the people of Timor-Leste.
17. There is a need to strengthen networks (local, national, regional and international) for research, collaboration, development and promotion of local knowledge.

Appendix 1. Glossary

* All terms in the glossary are in Tetum unless otherwise specified.

A

Aca'kaka An important ritual conducted for sacred houses once they have been built.

Aldeias [or knua in Tetum] [in Portuguese] Village.

Aya ceru [uda or aya toto] A ritual for stopping or starting rain.

B

Barlake A term that refers to all traditional exchanges of goods between families connected by married couples, particularly at significant ceremonies such as births, weddings and funerals. Often translated as bride price.

Bee-matan mane Literally, 'man eye water'. A spring in Maubisse used in the eye-washing ritual for a baby boy.

Bee-matan feto Literally, 'woman eye water'. A spring in Maubisse used in the eye-washing ritual for a baby girl.

Bei-ala Ancestors.

Belak Metal crest-shaped ornament worn on the chest by a man.

Birun Protective amulets.

Biti bot An assembly or forum in which people sit around and face each other to decide various matters or to reach a resolution.

Bua-malus Betel nut. Used by *Rai-na'in* during rituals.

Buti surik isin The process of grasping the blade of a sword hand-over-hand from the base to the top, as a method of divination.

Bunek [or Kerok] Tara bandu.

Butiliman Bracelets.

C

Carta patente Letters of commission, military or otherwise.

D

Dahur Festivals.

Daia A midwife who are specialist of traditional knowledge on how to assist pregnant

women.

Dasa-rai Brooms.

Dato Noblemen, chieftains.

Derris A plant species called *Txa*. Its root contains a strong insecticide and fish poison.

Devisa Emblems, usually of military rank.

E

Estatua Statues.

F

Farad liurai Clothing of the *liurai*.

Fatin lulik Sacred places which are the homes of ancestors.

Fatuk kuak Caves.

Fatuk lulik Sacred rocks.

Fetosaa- umane Wife-givers - wife-takers.

Foho rai [or samea boot meaning a big snake] Diamond python.

Foho lulik Sacred mountains.

Fugadór Necklace made of gold and coral beads.

Futulehen palai-fai The work of preparing the land prior to planting food crops.

Fase besi A ritual conducted before undertaking work involving heavy tools or equipment. Through this ritual, tools are purified so that people using them do not suffer from accidents.

H

Habani A man entering marriage depends on the totem of the woman. All Timorese women or men have *uma lulik* and *uma fukun*, and they follow the customs related to *uma lulik* when they get married.

Hadak A traditional place made from bamboo, rattan, palm stem or wood not only for sleeping, but for sitting together to discuss various matters.

Hafoli A woman departing for marriage depends on the man's *uma lisan* or totem.

Haware Collective hunting to control wild animal population.

Hafetu malu A kickboxing match performed in the *piut besi* ritual.

I

Iralafae Sacred springs.

Irik haliwana Land distributing system by the ethnic Fataluku.

Ipar-ira A mythology about the old spring at Moru-Lautem. *Ipar* means dog in Fataluku language.

K

Kableha [maksabar or kab'roda] The local leader who adjudicates on cases related with contraventions of *tara bandu* within the structure of traditional law.

Kaibauk Crescent-shaped headpiece or crown.

Kasu bandu [in Tokodede) Lifting of *tara bandu*

Katuas lia-na'in sira The traditional leaders. Story keepers.

Keke Talisman bracelets.

Kio hakupoto Foot prints.

L

Lafaek [or Abo] The crocodile as grandparents or ancestors. *Tata-bei* in Mambae or Tokodede, *poicolor* in Fataluku. In Timorese belief, the crocodile is the transformation of the ancestors' body or spirit.

Leneara The sacred ancient burial sites.

Lia-na'in Story teller. A shaman.

Liurai A village chief. Head of a sub-district or suco known as Xefe do Suco, Xefe do Aldeia or Suco Chief today. Kepala desa in Indonesian.

Lline taimanu Sacred mountains and rocks.

Loku Armlets.

Luhu mane A democratic way to resolve problems in Tokodede culture.

Lulain Ancestors from seven generations.

Lulik-na'in [lia-na'in or makoan] A specialist of traditional knowledge on *uma lisan*.

Lupurasa [in Fataluku] Placing signals to where there is a ban on destroying nature.

M

Malisan A curse attached to the person who contravenes customary law.

Malus A leaf that is combined with lime powder to be chewed with the betel-nut.

Manu-lain Feather head-dress.

Maromak God.

Masule The ritual for re-opening a place where a ban has been placed against any

utilization or exploitation.

Matak-malirin Receiving the blessing.

Matan-do'ok Soothsayer.

Maun-alin Relatives through the marriage of two clans.

Morteen Coral bead necklaces.

Mua-navarana A ritual for a new-born baby.

Mutisala Slave collars made from red beads, usually coral.

N

Nahe biti A ritual which acts as a mechanism to resolve various disputes related to land.

Na'in Literally, owner or custodian. The person who plays a role in ensuring that all community members receive benefits from resources.

P

Pala caca The work of making offerings to the ancestors prior to undertaking any work.

Piut besi [or Tebe besi] A ritual performed annually to celebrate the victory of the ancestors in a legendary war in Maubisse. *Tebe besi* is the word meaning 'beat metal'.

Polisi hutan [in Indonesian] Forest police. During Indonesian colonial rule, forest police often conducted the *tara bandu* with *kepala desa*.

R

Rai-na'in One meaning of *rai-na'in* is political and administrative land owner. Another meaning is the person who has spiritual and cosmic power that can influence a given location as the custodian or keeper of that place. Because of this, when preparing fields or building a new house, several ritual ceremonies are conducted to ask permission from the *rai-na'in* who are in charge of that place.

Rota A sacred rattan stick that signifies traditional leaders' prominence and legitimate rule over land and people.

S

Saur to'os Traditional Easter. It is performed to give thanks to the stars, the sun and the ancestors that provide light and the cold of night to enrich crops. The *saur to'os* is also a collective family offering to ask help of ancestors to invigorate the crops with their blessing.

Se Mai [in the ancient language of Fatuluku) A kind of *dahur*, which literally means 'death

flies'. This ritual is conducted before men go off to war.

Suco Subdistrict of East Timor. There are 442 sucos and 2,336 communities (aldeias) in the country (as of June 2012).

Surik Swords.

T

Tambór Drums.

Tara bandu [Metxi or pleigou] A taboo practiced to protect natural and cultural resources that are important to the community and that acts to strengthen unity within the entire community. In Liquiça district it is called *temi kdesi*, *lobu* in Makasae, *ucu bilik* or *ucu aitan* in Bunak, *kahe abat* in Tetun Terik, *bonuk* or *kerok* in Baikeno, *tar-badu* in Mambae, and *lupurasa* in Fataluku.

Tebedai Welcome dance.

Tei-fai A ritual for giving thanks to the ancestors for keeping illnesses away from descendants.

Tesi lia-na'in A specialist of traditional knowledge on how to resolve problems.

Toli Mate Traditional ritual ceremony at the *uma lulik* Bilese.

Trasada Drawings.

Txa [In Fataluku language] *Tuha* in Tetun-Terik. The plant that people use to catch river prawns and eels. In Com and Mehara, two kinds of *txa* are used: *txa-mutin* (white derris) and *txa-mean* (red derris).

U

Ukun and Badu [in Portuguese] Governor.

Uma adora The houses of worship or adoration.

Uma biru The place where warriors receive their protective amulets.

Uma feton Functions as the highest sacred place for the worship of ancestors and the gods through sacred objects that are worshipped within the house.

Uma fukun *Fada lisan* in Mambae. Subordinate to *uma lulik*. *Uma lulik* may serve as the umbrella for 2 – 20 *uma fukun* and each *uma fukun* may incorporate other *uma fukun* at lower levels in the social structure. Each *uma fukun* may be the umbrella for 5 – 20 *uma kain* or more.

Uma kain Households.

Uma lisan Ancestral house composed of a descent group that share ceremonies, rituals, family history, and people's beliefs.

Uma lulik Sacred house. *Baliza* in Portuguese, *ksadan* in West Tetum, *nanur* in Eastern Tetum, *ai-tosa* or *fatu-bosa* in Mambae, *thala* in Bunak, *burak* in Galolen, *eteu-ruha'a* in Fataluku, *robo* in Makasae, *faut kanaf* in Baikenu.

Uma na'an The sacred place for worship but its functions have more to do with governance.

W

Wee'tano A mythology about a dog called *Tano* which found the spring at the seashore in Commonly called *Betano* today.

X

Xapeu Hats.

Xefe [in Galisian language (old Spanish)] Boss, chief.

Appendix 2. List of Participants

No.	Name	Institution	Telephone
1.	Pedro Pinto	Forestry-MAP	728 7432
2.	Mario Nunes	Forestry	723 3137
3.	Koen Meyers	UNESCO	732 6669
4.	Lisa Hiwasaki	UNESCO	-
5.	Estradivari	UNESCO	-
6.	Brigida Boavida	UNESCO National Commission	-
7.	Jacinta Barreto	UNESCO National Commission	740 4522
8.	Jacinta da Cruz	Alola Foundation	332 3855/ 743 9832
9.	Ilda da cruz	Alola Foundation	332 3855/745 4973
10.	Carlos Fermon	Student	746 6118
11.	Alberto Fidalgo	Uni. Lacoruna	743 7330
12.	Alexander Cullen	Uni. Melbourne	726 8510
13.	Santina A. Fernandes	Rede Ba Rai	792 2648
14.	Remigio Laka Vieira	Farming Study Group	732 1327
15.	Calistro da Costa	Farming Study Group	755 7620
16.	Tessa Koppert	UNDO-Pre	742 4009
17.	Agostinha Pinto	CPA	725 0298
18.	Ermelindo dos Neves M.	University	780 6561
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20.	Sean Ben	Oxfam	-
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22.	Jose Correia	Lia Nain	729 2947
23.	Nuno Vasco Oliveira	JEC	736 9666
24.	Abel	FCS-Universidade Nacional de Timor Leste (UNTL)	743 5987
25.	Anastacio Ribeiro	UNTL	740 3004
26.	Cecilia Pereira	FCS UNTL	728 9606
27.	Zacarias F. da Costa	UNTL	-
28.	Anne Finch	Timor Aid	
29.	Albino Amaral	Timor Aid	726 2656
30.	Aurelia Rodrigues	Haburas Foundation	331 0103
31.	Pedrito Vieira	Haburas Foundation	331 0103
32.	Lucio J. Savio	Haburas Foundation	741 0476
33.	Hugu Immanuel Garcia	Haburas Foundation	758 9891
34.	Demetrio A. de C	Haburas Foundation	331 0103
35.	Reinaldo Ramos X. da Costa	Haburas Foundation	728 1768
36.	Anibal Soares	Haburas Foundation	-
37.	Meabh Cryan	Haburas Foundation	730 7800
38.	Roberto A. da Cruz	Haburas Foundation	725 7797
39.	Carlos Salsinha	Haburas Foundation	331 0103
40.	Juan Milton	Haburas Foundation	742 3019
41.	Horacio G. da Costa	Haburas Foundation	725 5534
42.	Gil H. Boavida	Haburas Foundation	728 7429
43.	Cancio da Costa	Haburas Foundation	727 5765
44.	Ivonia Maria	Haburas Foundation	331 0103

45.	Joaninha Da Cruz	Haburas Foundation	331 0103
46.	Virgilio Silva Guterres	Haburas Foundation	796 1515
47.	Adolinda	Permatil	333 9811
48.	Domingas Caldanha	Timor Post	735 6663
49.	Arlindo Silvara	DNAAI – SEMA	761 5530
50.	Eugenio Sarmento	National Directorate of Culture	723 5826
51.	Clement	TVTL	737 8827
52.	Priscilla Fonseca	TVTL	
53.	Liliana Amaral	CRS – TL	723 0863
54.	Helio Dias da S.	CGT/MOI	741 1052
55.	Jose Amaral	Fongtil	726 5169
56.	Viriato Soares	Fongtil	760 7154
57.	Rui Pinto	CTSP	736 3220
58.	Arsenio Pereira	Hasatil	725 3144
59.	Rogério Soares	HAK	725 9297
60.	Adelio da Costa Fernandes	HAK	733 9953
61.	Sisto dos Santos	HAK	726 6564
62.	Manuel Monteiro	HAK	-
63.	Lucas da C. U	RTL	-
64.	Toby R.	RTL	734 1550

Appendix 3. Pictures from the workshop



Ms. Kirsty Sword Gusmão, President of Timor Leste National Commission for UNESCO, delivering an opening speech



The participants of the workshop





Haburas Foundation

Haburas Foundation gathers together Timorese to work in the belief that the meaning of independence will be achieved when Timorese people as individuals and collectives have ownership of the development that the State or development partners undertake. The idea that guides Haburas Foundation is that development work, however small, must be conducted with objective of improving all Timorese people's lives and lifting them out of poverty, rather than conducting mega projects that sacrifice Timorese people's lives, only to enrich a small group of people. Worse than this is when development merely serves the interests of people from other countries. Virgilio da Silva Guterres, Co-founder & Program Manager for Haburas Foundation



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Comissão
Nacional da
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UNESCO National Commission for Timor Leste

The UNESCO National Committee for Timor-Leste was officially launched on the 23rd of April 2009 in Dili, and is lead by Sra Kirsty Sword Gusmão, who is also the Goodwill Ambassador for Education and President of the Alola Foundation. The Committee is comprised of 23 executive members whose function is to oversee the work of the National Commission regarding what its priorities should be. The National Commission has its secretariat headed by Secretary General Sra. Jacinta Barreto and is made up of two divisions. The Division of Strategic Programmes is for Education, Culture, Sciences, Communication and Information, and the Administration and Management Division. Kirsty Sword Gusmão, President of the UNESCO National Commission for Timor-Leste



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Sciences for Society (SCS) Unit of UNESCO Office, Jakarta

Sciences for Society (SCS) Unit of UNESCO Office, Jakarta is responsible for implementing two intersectoral programmes of UNESCO: the Small Islands Developing States (SIDS) platform and Local and Indigenous Knowledge Systems (LINKS) programme. Both programmes foster interdisciplinary activities that facilitate dialogue between science and policy, and generate usable (rather than merely "useful") and context-specific scientific knowledge for society and decision makers. Although housed in the Natural Sciences Sector of UNESCO, the work of the SCS unit cuts across the Organization's programme sectors, dealing with intersectoral themes such as climate change, disaster preparedness and education for sustainable development. Currently, the SCS Unit is implementing the following activities in Timor Leste: (1) strengthening and revitalizing local and indigenous knowledge; (2) developing extracurricular booklets and materials on environmental issues based on traditional ecological knowledge, as support tools for Community Learning Centres (CLCs); and (3) a project to strengthen the resilience of communities towards hydro-meteorological hazards and climate change impacts.

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