

UNDERSTANDING TIMOR-LESTE: 2019 TLSA RESEARCH CONFERENCE

*Buka Hatene Timor-Leste: Konferensia 2019 TLSA Nian
Compreender Timor-Leste: Conferência da TLSA 2019
Mengerti Timor-Leste: Konferensi TLSA 2019*

ABSTRACTS

7th Timor-Leste Studies Association (TLSA) Conference
Liceu Campus, Universidade Nacional Timor-Lorosa'e (UNTL)
Avenida Cidade de Lisboa, Dili, Timor-Leste
27 – 28 June 2019

**Co-hosted by Universidade Nacional Timor-Lorosa'e (UNTL),
Swinburne University of Technology, and Centro Nacional Chega!**

Session 1: Thursday 9.30am–11.00am

History, Memory and Nationalism

Vicente Maia, *The Collaboration Between Centro Nacional Chega! and Key Partners in Education Sector in Implementing Chega! Recommendations*

Centro Nacional Chega!, Timor-Leste

According to decree law number 48/2016 the mandate of ETU is to utilize the past History and Memory of Timor-Leste, to promote Dialogue and Non-Violence, respect of HR between youth, and to develop common understanding. It is tasked to monitor, provide technical assistance to Government partners and Civil Society Organizations and to ensure Chega! Recommendations are integrated in their development planning policies, including the Ministry of Education to integrate into school curriculum, and also integrated in Training materials for other government institutions. CNC has signed MoU with key Government partners and CSOs in the education sector, and the discussion of TWG are ongoing to discuss issues regarding the implementation of those MoU. Numbers of CNC initiatives have been introduced in collaboration with the MoE, such as Chega! Tour, Intergenerational Transmission Memory, Chega! Library to School, and Modules for Higher Education.

Clinton Fernandes, *Indonesian Policy in 1999*

University of New South Wales, Australia

This paper considers Indonesian policy towards the Question of East Timor in 1999. It examines the different approaches taken by the President, the Foreign Ministry, and the Armed Forces. It discusses the ambivalence of the President and his like-minded technocrats towards East Timor's future. It reveals the Foreign Ministry's attempts to stave off international pressure to withdraw until almost the very end. It reveals the Indonesian military's determination to retain its 27th province, and its internal high-level deliberations once it understood it would have to withdraw.

Fernando Ximenes, *Narrating the Past: Nationalizing the Past Through Monument Lifau and Dom Boa Ventura*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

Timor-Leste has repeatedly practiced the nationalization of the past since independence in 2002. This has been intimately part of the broad nation-building and ritual-making of 'political recognition' toward past events and actors in the realm of Timorese national histories. This paper aims to analyze how the state narrating the past led to the nationalization of the past. Using the cases of Monument Lifau in Oecusse and Monument of Dom Boa Ventura in Ruac, Manufahi, this paper will explain these two cases, compare each epoch, and each cultural and political moment according to contemporary state affairs, in order to explore the political discourse, historical narrative and cultural representation from both 'nationalized monuments', in Timor-Leste's post-colonial identity and nation-building process. Finally, this paper argues that these two nationalized monuments certainly contest and differs with the historical production and cultural existence of the nation.

Dezenvolvimentu Ekonomia Makro no Mikro

Estanislau Saldanha, Elizita Vilhena Gusmao, Domingos Barreto & Jorge Ribeiro Freitas, *Influensa Orientasaun Merkadoria Ba Dezempenhu Bisnis: Estudu Iha Stasaun Ense Mina Timor-Leste*

Dili Institute of Technology (DIT), Timor-Leste

Objetivu peskiza nee atu analiza influensa orientasaun merkadoria ba dezempenhu bisnis. Peskiza nee halao iha Stasaun Ense Mina (SEM) Timor-Leste hamutuk 69. Peskiza nee uza kuesioner nebee adopta husi peskiza sira anterior, nunee la presiza ona halo teste validade ho reliabilidade. Hipoteza peskiza nee teste uza instrumentu analisis, Smart-PLS 3.0. Rezultadu peskiza hatudu katak orientasaun merkadoria nebee refleta husi dimensaun orientasaun ba kliente, orientasaun ba kompetitor, ho koordenasaun interfunsonal iha influensa pozitivu no signifkante ba dezempenhu bisnis nebee refleta husi Dezempenhu finansial ho non-finansial. Estudu nee hariku estudu empiriku konaba orientasaun merkadoria ho dezempenhu bisnis nebee rezultadu estudu empiriku anterior sei variativu.

Elizaria Febe Gomes & Celestino Gusmão, *Implikasaun Husi Projetu Greater Sunrise no Projetu Tasi Mane ba Sustentabilidade Finansa Estadu*

La'ó Hamutuk, Timor-Leste

Indústria Petrolíferu nudár parte ida ba dezenvolvimentu nasonal Timor-Leste. Atu atinje mehi ne'e Governu hahú dezenvolve infraestrutura boot sira iha parte Costa Súl mak hanesan Projetu Tasi Mane no komponente sira seluk. Governu Timor-leste gasta ona iha fin 2018 ba projetu Tasi Mane maizumenus tokon \$410 ne'ebé inklui mós tokon \$340 ba aeroportu no auto-estrada. La'ó Hamutuk no proponente ba projetu hirak ne'e estimatiza katak kustu kapital ba Tasi Mane maizumenus billaun \$10 too \$20. Maibé ema barak mak sei kestiona kona ba relatóriu ne'ebé uza atu promove projetu Tasi Mane inklui informasaun ne'ebé la kredível ka la detallu ba analiza kustu, benefísiu no risku sira husi projetu ida ne'e ba povu nia moris no sustentabilidade finansa estadu. Estudu ida ne'e sei deskreve no analiza deskritivu ho métodu kuantitativu ba dokumentu sira ne'ebé relasiona ba gastu indústria petrolíferu no mós hare ba dezafiu sira iha futuru ba sustentabilidade finansa estadu.

Jovelinho Saldanha, Alvaro Menezes Amaral, Jorge Ribeiro Freitas & Estanislau Saldanha, *Orientasaun Empreendedorizmu ho Dezempenhu Finanseiru: Estudu iha Industria Restaurante iha Dili, Timor-Leste*

Dili Institute of Technology (DIT), Timor-Leste

Objetivu peskiza nee mak analiza influensa orientasaun empreendedorizmu ba dezempeinu finanseiru industria restaurante iha Dili laran. Peskiza nee halao iha restaurante sira iha Dili laran hamutuk 65 nudar respondentu. Unidade analiza ba peskiza nee mak restaurante na'in ka manejer restaurante sira. Peskiza nee uza kuesionariu nudar instrumentu hola data, no SMART-PLS 3.0 hodi analiza data, no teste hipoteza. Rezultadu peskiza hatudu industria restaurante sira iha Dili uza orientasaun empreendedorizmu hodi hasae dezempeinu finanseiru. Dimensaun empreendedorizmu nebee dominante hasa'e dezempeinu finanseiru mak pro-ativu, ho inovasaun, maibe dimensaun hola risku ladun kontribui barak ba dezempeinu finanseiru. Peskiza nee hatudu empreendedorizmu iha influensa pozitivu no signifkante ba dezempeinu finanseiru nebee refleta husi kresimentu profitu, rendimentu total, no retornu investimentu.

Educação 1

Câncio Freitas & Fátima Cunha, *A Compreensão do Professor de Ciências Físico-Naturais*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

O trabalho tem como objetivo de identificar o pensamento crítico dos professores acerca da disciplina de Ciências Físico-Naturais. Essa disciplina foi incorporada ao currículo nacional a partir da reforma curricular de 2009-2010, com o objetivo de agregar conhecimentos de quatro áreas distintas: Química, Física, Biologia e Geologia. Assim, buscamos identificar o olhar dos professores, acerca dos conhecimentos de/sobre Ciência e Tecnologia, focalizando o conteúdo sobre Sustentabilidade. Para tanto realizamos a observação em uma turma do Oitavo ano numa escola pública de Vemasse e uma entrevista com a professora atuante da disciplina. Para a interpretação dos dados foram utilizadas como referência da Análise de Discurso francesa (AD) e estudos de Paulo Freire. Conforme a interpretação do professor, identificamos que há limites na compreensão acerca do conteúdo, parece ter relação com a dificuldade apresentada pelo professor em interpretar os discursos sobre o conhecimento científico em língua portuguesa.

Rosito Quintão, António Fernandes, R L. Cruz, A. Barros, J.P. Mati, *O Ensino e Aprendizagem da Química Física e Matemática na Faculdade Ciências Exatas da UNTL*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

O estabelecimento da Faculdade de Ciências Exatas e a implementação do programa do Curso Inaugural de Ciências Exatas, com habilitação em Matemática, Física e Química, em 2015, constitui uma solução adequada para a escassez de recursos humanos qualificados nestas áreas científicas, tão necessários para o desenvolvimento sustentável de Timor-Leste. Ao nível nacional não existia qualquer unidade académica com esta designação, antes de 2015. A licenciatura em Ciências Exatas desempenhará um papel muito importante na consecução dos objetivos de desenvolvimento sustentável, visto que produzirá graduados qualificados, aptos a trabalhar em empresas, serviços, investigação científica e indústrias (como por exemplo, as indústrias químicas). A Matemática, a Física e a Química são o conhecimento básico e as fundações da inovação que, por sua vez, é um requisito primordial para alavancar o desenvolvimento sustentável no país. Ao longo dos seus quatro anos de existência, a Faculdade de Ciências Exatas demonstrou ser uma unidade académica única, com uma ligação privilegiada à comunidade, sendo membro de redes internacionais de ensino e investigação, e disposta a alavancar o seu prestígio nacional através da produção científica. Com os primeiros finalistas da Faculdade envolvidos num programa de mobilidade em Portugal, frequentando, na Universidade de Aveiro, uma parte substancial das unidades curriculares do 5º ano e o projeto final do Curso Inaugural, e tendo em conta a chegada, no corrente ano de 2019, de um grande número de novos estudantes, os autores julgam ser relevante fazer uma análise dos desafios e dos progressos da Faculdade, no que respeita ao desempenho académico dos estudantes, no período de 2015 a 2018, em particular para apresentar os fatores relevantes que afetaram o desempenho avaliado. São estudados os fatores identificados como tendo influência no desempenho académico dos estudantes, através do teste ANOVA, fazendo uso do *software* SPSS.

Egas Manuel Guterres & Mariana da Costa, *Como Pensam os Estudantes do 12.º ano da Escola Secundária Sobre o Manual da Biologia*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

Este presente trabalho visa apresentar resultado parcial de uma pesquisa em andamento, que tem como objetivo principal compreender as falas dos estudantes do 12^o ano do secundário geral acerca de aprender os conteúdos presentes no manual do aluno. A pesquisa efetua-se nas duas distintas escola, uma em centro capital de Dili e outra em Município de Liquiça. As informações do estudo vão ser recolhido por meio de uma entrevista semi-estruturado aplicado aos 3 melhores alunos na nas escolas mencionados. Para a análise de dados utilizamos análise Discurso Francesa fundamentado nos estudos de Michel P. traduzido por Eni Orlandi e os estudos de Paulo Freire. E esse trabalho seria estrutura-se em considerações iniciais, objetivo do estudo, procedimentos metodologicos, resultado e analise dos dados e considerações finais

Nelson Belo, Lázaro Carlos Boavida & Gaspar Varela, *O que Dizem os Estudantes do Ensino Secundário Acerca de Aprender Física*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

O presente trabalho visa apresentar os resultados de trabalho intitulado “O que dizem os estudantes acerca de aprender física no ensino secundário. A pesquisa foi desenvolvida com os discentes do decimo ano de ensino secundário no último trimestres de 2018. O objetivo do trabalho é entender as falas produzidos pelos estudantes acerca de aprender a física no decimo ano do ensino secundário. As informações da pesquisa foram recolhidas por meio de questionário com 8 questões abertas, que foram organizadas em 4 categorias de analise. Essas categorias são seguintes A) Importância de aprender Física para a vida, B) Relevância do estudo de Física com a vida diária, C) Dificuldades dos estudantes em aprender a física. Para analise de dados, utilizamos a analise de conteúdo fundamentados nos estudos de Bardin. O resultado mostra que os estudantes compreendem a importância de Física e eles conseguem enxergam a Física na sua realidade, apesar de que esses estudantes apresentam inumeras dificuldades em aprender a física principalmente nos conteúdos e no uso de matemática. Essa pesquisa será estruturada em considerações iniciais, formulação do problema, objetivo, procedimentos metodologicos, apresentações e discussões e as considerações finais.

Languages & Linguistics

Norberto Gonçalves, *Identifying a Person's Origin Through their Pronunciation of Tetun Dili: Who Can Do It?*

Dili Institute of Technology (DIT), Timor-Leste

The majority of Tetun speakers are not native, but grew up speaking other local languages, whether Austronesian or Papuan. The major way in which people's native language influences their Tetun is pronunciation. Indeed, most East Timorese claim to be able to tell where someone is from by their Tetun pronunciation. This research looked into how well people can identify another person's origins from their speaking, and what clues they use. The author first hypothesised differences in pronunciation based on his own experience. He then recorded 30 people from different language backgrounds speaking, and asked 30 other speakers to listen to recordings and to judge where the speakers were from, and what their native language was, as well as to state why they made this judgment. The results showed that 88% of language judgements were correct, but that the listeners were less accurate at judging district of origin.

Francisca Cecilia X. dos Santos, *Character and Emotion in Makasae, a Papuan Language of Timor-Leste*

Dili Institute of Technology (DIT), Timor-Leste

Makasae, a Papuan language spoken in the eastern part of Timor-Leste, has a range of terms to metaphorically express character, emotions and physical condition. These consist of a body-part noun followed by a verb, adjective or noun, such as *d'ae ko'ulu* (head hot) “abnormal”, *fanu molu* (face lose) “absent” and *tana asana* (hand long) “habitual thief”. This paper focuses on the metaphorical meanings of each of the body parts used in these expressions, including *mutu* “inside”, *atugu'u* “buttock”, *fanu* “face”, *wali* “ear”, *muni* “nose”, *a'a* “mouth”, *sada* “lungs”, and *namu* “hair”. For instance, *wai* “blood” is associated with anger, while *da'e* “head” expressions relate to cleverness or commitment. Some expressions have two meanings, one literal and the other metaphorical, for instance *da'e losa* (head empty) can mean either “bald” or “stupid”.

Adelina da Conceição Soares & Francisca Cecilia X. dos Santos, *Code-Switching in Classroom Teaching*

Dili Institute of Technology (DIT), Timor-Leste

Timor is a multilingual country. Different languages are used for different functions, but there is overlap. This study aims to find out which languages are used in teaching at university level, what function each language is used for and what influences code switching. Data was collected through classroom observation and face-to face interview with students and lecturers from various universities in Dili. The preliminary result shows that most of the explanations are in Tetun but the technical terms are explained with language used in the slides and handouts such as Portuguese, Bahasa Indonesia and English. When giving examples related to real life the language used is mixed.

Culture & Society

Chris Parkinson, *Passing Through Walls: The Transfiguration and Circulation of Graffiti from East Timor*

University of Melbourne, Australia

This paper outlines an assemblage of ideas developing a broader understanding of graffiti from East Timor. The paper illustrates nuanced representations of identity and resistance in the country's graffiti, tracing its lineage from early cave paintings, through to the 2006 crisis. What emerges is a creative practice tethered to culturing spaces across both the public and private sphere, linking theoretical promise in Southern Theory, Practical Aesthetics, art and resistance.

Maria José Sacchetti, *Tais: A Woven Expression of Timorese Culture Identity*

University of Lisbon, Portugal

This paper focuses on tais, the name given to the Timorese traditional woven textiles. The study of these textiles essentially woven by women, are relevant because they offer important insights into the history, culture identity and customs of the Timorese people. These cloths are an important part of the cultural heritage of this people, which is very fragmented into different ethnics' groups and religions. These textiles distinguished themselves not only by their stylistic and technical weaving terms but also by their cultural meaning. These tais carry in them the signs of the tribes, their values, their beliefs, traditions, rites of passages and so on. This first investigation took place in site on the island of Timor by the author and it should be looked as a starting point for its further examination, especially in the case of the tais of East Timor, where previous wars and political instability did not make this kind of study possible.

Damian Grenfell & Frederica Rosa, *Everyday Veneration in the Age of Digital Deaths in Timor-Leste*

RMIT University, Melbourne

The veneration of ancestors remains of great social significance in contemporary Timor-Leste. As has been regularly recognised, custom and faith-based practices, as well as state recognition in certain instances, are frequently used as ways to demonstrate respect for the deceased. This is important as ancestral spirits can be both a source of protection as well as the cause of ill-harm. Proper veneration can help ensure prosperity, good health, and a procreative capacity for the still-living, while neglect can draw ancestral ire and lead to sickness, poor fortune and calamity. This presentation will overview new research, including the framing questions and methods used to date, and explore how everyday practices of veneration of the dead are being reconfigured across the independence period. Different forms of mobility, changing patterns of economic activity, new technologies, and the diffusion in systems of governance are each having an effect on how people show respect to their dead. While “tradition” and “war” remain central themes in public and academic discourses on death in Timor-Leste, the experiences of death for the still living are generally being re-shaped at the intersection of custom and religious practices and changes in technological and economic structures.

Sexual & Reproductive Health

Heather Julie Wallace, Susan McDonald, Suzanne Belton, Agueda Isolina Miranda, Eurico da Costa, Livio da Conceicao Matos, Helen Henderson & Angela Taft, *Sexual and Reproductive Health Decision Making in Timor-Leste – Hearing the Voices of Timorese Women and Men*

La Trobe University, Melbourne, Marie Stopes Timor-Leste, Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

Improving maternal wellbeing is impacted by women's ability to make autonomous sexual and reproductive health decisions. Although much improved, maternal mortality remains a public health challenge in Timor-Leste, where despite supportive national policies, barriers to women's autonomy, equality and rights persist. Using a collaborative qualitative design informed by Decolonising methodology and Critical Medical Anthropology, we investigated how sexual and reproductive health decisions are made in Timor-Leste and what influences these decisions. We spoke with 80 men in nine focus groups; body mapped with 67 of these men; and conducted reproductive history interviews with 17 women in four municipalities. We found that contextual, historical, social, familial and knowledge factors influence this decision making, impacting on maternal health. Women's reproductive agency is reduced and women are at risk of adverse outcomes including forced sex and unwanted pregnancies. This presentation will share emic insights into sexual and reproductive health decision making in Timor-Leste.

Rosemary King, *Exploring the Barriers and Enablers to Women's Access to Services during Pregnancy and Childbirth*

Federation University, Ballarat, Australia

Timor Leste's maternal mortality ratio (MMR) is one of the highest in Southeast Asia, in some districts 15-25% of women birth in a facility with a health professional. The purpose of this research was to determine the socioeconomic and cultural barriers and enablers to women's

access to services during childbearing in Timor Leste; including women's expectations and needs for care. Qualitative research using focused ethnography, data collection methods included semi-structured interviews, focus groups and participant observation. Barriers to woman's access included lack of roads and transport, costs associated with accessing services, lack of availability, poor quality services, lack of privacy, multiple caregivers, poor communication and other culturally incongruent care. Rural women, women from low socio-economic and other marginalised groups have less access to services. Poor quality services reduced women's demand. Expenditure on health service infrastructure, staff training and community outreach will improve women's access to healthcare during pregnancy and childbirth.

Laura F. Burke, *Planning for Life: Reproduction and the Next Generation in Timor-Leste*
University of Kent, United Kingdom

This paper considers the multiple ways life is planned for in Timor-Leste and what creating the new generation means 17 years since independence. It comes out of the preliminary findings of over 18 months of ethnographic research on the topic of reproduction, carried out in Maubisse subdistrict, the neighbouring areas of Ainaro and Manufahi municipalities, and Dili. Working with and beyond biological categories of reproduction, such as fertility, pregnancy and birth, this research explores the social importance of reproduction in the lives of individuals and families. In this research, 'planning' emerged as a key theme in conversations about reproduction and the future. This planning operates across multiple levels of life and society, ranging from individual families' plans for starting their family, or for family members education and work, to state-level planning for population and fertility. Ideas and logics related to these topics are informed by past experiences of individuals national history and international development. These ideas reveal different ways in which life is valued in Timor-Leste and ideas about how it should be prepared for the future.

Session 2: Thursday 11.30am–1.00pm

Solidarity in 1999

Charlie Scheiner & Pam Sexton, *Solidarity in the Field – Observing Timor-Leste’s Consultation*

The International Federation for East Timor, USA

The International Federation for East Timor (IFET) was formed in 1991 by groups from Europe, Asia, and North America to coordinate international solidarity campaigns. In 1999, the IFET Observer Project (IFET-OP) was 30, 125 people from 20 countries were living with communities in every district. IFET-OP did not advocate for autonomy or independence, but hoped that their presence would deter Indonesian violence. This paper will explore the rationale for the project and the model it offers for people-to-people solidarity. It will discuss the experiences of teams in the field during campaigning, voting and in the aftermath of the vote, and their role in deterring and reporting on violence. It will also examine the ongoing results of IFET-OP during the ensuing two decades.

David Webster, *The Transnational Timor Solidarity Movement as History: Public Rhetoric and International Clandestinity*

Bishop University, Canada

This paper aims to underline the importance of Timor-Leste for the study of international and transnational history, and the importance of seeing the international in the study of Timorese history. It does so through a historical exploration of the transnational solidarity groups in the campaign for the independence of East Timor (1975-99), reading these group's activities as "social texts" which amplified the voices and activist performances of the Timorese resistance globally. The methodology is to analyze solidarity group newsletters – what the groups said publicly – alongside unpublished activist strategies and efforts drawn from newly available private archives – what the groups did not say publicly. Thus it explores transnational solidarity-movement rhetoric alongside what might be called transnational “clandestine” networks. I will also share selected materials being posted publicly as part of a new Timor International Solidarity Archive.

Ros Dunlop, *The Audio-Visual Music of Martin Wesley-Smith; A Protagonist of the East Timorese Resistance to the Indonesian Occupation and their Right to Self-Determination Using Music as a Medium Advocating for Change*

Independent Scholar

On the 7th of December 1975 Indonesia invaded East Timor. From 1975 to 1999 more than a third of the Timorese population died as a direct result of this brutal occupation. In 1999, after 24 years of resistance the East Timorese voted for independence in a UN run referendum. Resistance took many forms, including musical. Australian composer Martin Wesley-Smith, became a musical activist for the cause of the East Timorese, a champion for their human rights and freedom from Indonesian rule for the duration of this occupation. He composed numerous pieces of music which documented the plight of the East Timorese. Many of these pieces are audio-visual. Wesley-Smith’s hope was that those viewing would be stirred into action and join the campaign to help end the genocide and illegal occupation of East Timor. This paper looks at the effectiveness of these pieces to elicit change.

Prosesamentu Ai-han no Industria Ki'ik

Filipe Xavier, *Produsaun Jelatiña Husi Karau Baka nia Ruin Uza Métopu Hidroliza*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

Karau baka nia ruin ne'ebé soe husi komunidadade loroloron sempre aumenta bá bebeik nune'e hamosu iis dois no halo imajen ambiente ladi'ak. Karau Baka nia ruin tuir siénsia kímika iha Konpostu minerál hanesan lípidu, proteína (ojeína no proteína fibrozu). Ojeína hanesan estrutura ne'ebé hela momentu halo mineralizasaun. No ojeína/kolajéniu kontinua hidroliza hodi prodús jelatiña. Jelatiña mak buat proteína ida ne'ebé halo estrasaun husi redi kolajéniu nia kulit, ruin ka ligamentu animál ne'ebé iha proteína (Pope, 1992). Vantajen jelatiña iha indústriia ai-han hanesan, produtu jeli, indústriia susu been no út, hahan suportasaun nian (*food suplement*) no seluk tan. Jelatiña uza iha indústriia la'os ai-han hanesan farmasia, fotografia, kosmetika no indústriia surat-tahan no seluk tan (Ward no Court, 1977). Ho nune'e Peskizadór prodús jelatiña liuhusi fatór rua mak hanesan konsentrasaun solusaun (HCl 2 % no 5 %) no durasaun hoban (óras 72). No kada rezultadu jelatiña maran rua refere nia valór mak 3,6806 % no 6,0578%. Hafoin analiza fali karaterístiku kímika ba barametru pH mak 5,0 no 4,3. teor bee nia valór mak 0,17% no 0,12 %. teor akudesan nia valór mak 0,029% no 0,019%. teor proteína nia valór mak 19,88 % no 15,29%.

Adilsonio da Costa Junior, Maxi Tahu, Mariano Ferreira, *Dezafiu ba Industria Ki'ik Prosesamentu Produtu Agríkola iha Timor-Leste*

La'o Hamutuk, Timor-Leste

Estudu kona-ba dezafiu no oportunidade indústriia ki'ik prosesamentu produtu agríkola ne'e nudár meius atu buka hatene no komprende fatór tékniku no polítika sira ne'ebé sai dezafiu ba kreximentu indústriia ki'ik prosesamentu produtu agríkola iha Timor-Leste. Peskiza ne'e mós halibur informasaun oin-oin kona-bá poténsia indústriia sira ne'e nian no halo analiza ba fatór sira ne'ebé sai obstákulu ba poténsia sira ne'e. Peskiza ne'e uza metodolojia kualitativa ho kombinasan entrevista individual no diskusaun grupu, hodi rona esperiénsia no ideas sira husi parte sira ne'ebé durante ne'e direktamente halo prosesamentu ba produtu agríkola no parte sira ne'ebé involve indiretamente liu husi sira nia apoiu ba produtór sira. Aléinde ne'e halo mós estudu ba dokumentu no relatóriu sira husi governu no ajénsia sira seluk. Peskiza ida ne'e kobre Munisipiu Baucau, Ainaro, Bobonaro, Same no Dili. Rezultadu husi peskiza ne'e sei ofere dadus importante balu ba Governu no Parlamentu Nasionál atu kria polítika ida ne'ebé bele inkorpora kreximentu setór indústriia ki'ik iha rai-laran. Peskiza ne'e mós bele sai referénsia ba ajénsia dezvoltamentu sira seluk bainhira dezaña no implementa sira nia programa dezvoltamentu sira.

Helio Xavier Mau-Quei, *Karaterístika Seitór Informal iha Timor-Leste*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

Peskiza ne'e analiza karaterístika ema sira ne'ebé hala'o atividade negósiu iha seitór informal iha Timor-Leste. Aplika dadus primariu, amostra husi estudu ne'e hala'o ho métudu estratifikada lori identifika uma-kain hamutuk 349 ho total partispantes adultu hamutuk 658 mai husi área enumerasaun sensu nian iha Dili nomos distritu sira ne'ebé haleu Dili. Estudu ne'e aplika modelu regressaun lojístiku lori identifika fatores sira ne'ebé ligadu ho partisipasaun iha seitór informal. Rezultadu hatudu katak pursentu 65.8 husi amostra invole iha seitór informal. Proporsaun fetu aas liu mane iha seitór informal. Nível edukasaun menus signifíkativu entre sira ne'ebé hala'o negósiu iha seitór informal. Disagregada jéneru hatudu

katak feto ou mane kaben-nain ladun interese envolve iha seitór informal ho nia efeito aas liu husi parte mane. Impaktu husi menus edukasaun no área urbana estatísticamente significativu ba de'it feto sira. Análize husi parte autor seitór informal hatudu momos dimensaun jéneru, liu-liu iha atividade spesífiku balun. Feto sira hatudu papel importante iha negósiu retallu (hahan, bebidas), soru tais i mos homan. Mane sira domina liu iha atividade konstrusaun no minerasaun

Ciência Política e Relações Internacionais

Rui Feijó, *Nos Alvares da Auto-Determinação: A Prisão e Cativoiro dos 23 Oficiais Portugueses pela UDT e Indonésia (1975-1976)*

Universidade de Coimbra, Portugal

O golpe de 10 de Agosto de 1975, levado a cabo pela UDT em Díli, iniciou uma nova e decisiva fase no processo de autodeterminação do “Timor Português”. A breve e sangrenta guerra civil que se lhe seguiu acabou por criar as condições para que a FRETILIN proclamasse unilateralmente a independência, e que a Indonésia tivesse desencadeado a operação de invasão militar que conduziria a 24 anos de dominação estrangeira. Antes, porém, da invasão indonésia, as partes em confronto aprisionaram militares portugueses. Se a FRETILIN veio a libertar todos os portugueses que em determinado momento havia aprisionado, com uma exceção – a do Tenente-coronel Rui Alberto Maggiolo Gouveia, que viria a morrer em cativoiro em Dezembro de 1975 – a UDT não procedeu do mesmo modo. Assim, este partido aprisionou 23 militares portugueses em Setembro de 1975, mantendo-os numa primeira fase perto da fronteira com a Indonésia, e depois, a partir de Outubro, em território indonésio, sob custódia dos militares desse país. Este cativoiro durou até Julho de 1976, e teve como objectivo condicionar as atitudes portuguesas em relação à questão timorense – primeiro tentando forçar a sua intervenção, depois com o intuito de forçar um “convite” português à intervenção estrangeira, e finalmente, para pressionar Portugal a reconhecer a anexação indonésia. A presente proposta de comunicação visa desenvolver o que já tive ocasião de publicar recentemente, aproveitando o conhecimento que deriva de um novo acervo documental referente a este caso, que se encontra depositado no espólio da associação Ephemera.

Tiago Machado, Sandrina Antunes & Alena Vieira, *Tão Perto e Tão Longe: Timor-Leste e ASEAN*

Universidade do Minho, Portugal

Findos mais de 25 anos de resistência armada e luta pela autodeterminação, Timor-Leste trava uma outra luta há mais de 17 anos: a do reconhecimento regional enquanto Nação ao integrar a Associação das Nações do Sudeste Asiático (ASEAN). Porém, o processo de adesão tem-se relevado longo e penoso. De igual modo, a explicação para este bloqueio tem sido insuficiente, centrando-se apenas na perspectiva da ASEAN. Partindo de um pressuposto construtivista (Fearon e Wendt, 2002), este artigo sugere a inversão desta lógica explicativa, dando a conhecer a visão de Timor-Leste sobre este processo de adesão. Com base na recolha de entrevistas de profundidade, este artigo dá conta da posição dos sucessivos governos timorenses (2002-2019) perante as orientações da ASEAN. Ao procedermos desta forma, seremos capazes de compreender de que forma as ponderações do agente no pensamento construtivista justificam as opções tomadas pelos diferentes governos timorenses no âmbito deste processo de adesão.

Rui Feijó, *Os Poderes do Presidente da República*

Universidade de Coimbra, Portugal

A eleição de Francisco Guterres “Lu Olo” para a presidência da República constitui um facto novo no quadro da história política de Timor-Leste, na medida em que pela primeira vez se assistiu à chegada à suprema magistratura da nação de um quadro dirigente de um partido político com representação parlamentar. No espaço de poucos meses, e depois das eleições legislativas de 2017, veio a verificar-se que existe controvérsia relativamente aos poderes efectivos do chefe de Estado, nomeadamente no que respeita à sua relação com o governo. A comunicação que proponho efectuar situa-se no quadro de uma análise própria da Ciência Política, e numa perspectiva comparativa, e versará o que tem vindo a ser chamado de “co-habitação” (ou seja, a existência de um PR e de um PM pertencentes a famílias políticas diversas, sendo que no governo o partido do presidente não tem representação, antes se assumindo como oposição ao executivo). Partindo dos episódios que mais marcaram os dois anos de mandato de “Lu Olo”, a comunicação pretende contribuir para o debate sobre os limites do poder presidencial.

Education 1

Tim Blackman, *Experiences of Vulnerability in Poverty Education: Developing Reflexive Ethical Praxis*

Western Sydney University, Australia

In Timor-Leste’s education system poverty is widespread and vulnerability is experienced by both students and teachers, entangled in the fragile web of policies and day-to-day challenges. Policies focused on developing Timor-Leste’s education system are set against global neocolonialism through dominant development discourses that maintain a variety of binary opposites such as developed/developing. As a teacher and researcher working in high poverty education across two contexts, I have been interested in exploring my own situatedness in the policies and discourses that perpetuate and define such realities, as well as how ‘vulnerable subjectivities’ are enacted, constructed and experienced within poverty education. How can further engagement with poststructural notions of subjectivity and an autoethnographic methodology help develop praxis within poverty education, with the goals of resisting and working against - whilst embedded within - the forces of neoliberalism and neocolonialism.

Marie Quinn & John Buchanan, *Teachers in Timor-Leste: Retention and Attrition in the Primary School Context*

University of Technology Sydney, Australia

The Timor-Leste Education Ministry has identified Human Resource Management as a Priority Program goal in its current Strategic Plan for Education 2011-2030, including developing a system to manage "teacher supply and demand" (p. 163). Guaranteeing a supply of qualified and capable schoolteachers is a critical responsibility of government, both recruiting and retaining good teachers. Kelchtermans (2017, p. 91) defines the "wicked" problem of attrition in terms of "the need to prevent good teachers from leaving the job for the wrong reasons". Teachers remaining or leaving the profession have been studied in many settings (eg. Bastick, 2000; Ingersoll et al., 2014; Varadharajan, Buchanan & Schuck, 2018), with Bastick (2000) suggesting differences in motivations between "metropolitan" and developing country settings. This presentation will report on the early findings of a small investigation into Timorese teachers' reasons for remaining or leaving teaching, with reference to an earlier study of teacher motivations (Quinn, 2005).

Lucia Guterres de Araujo, *Teachers' Perspectives and Implementation of the Child-Centred Curriculum for Preschool Education in Timor-Leste*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

The Ministry of Education reforms to the curriculum in 2014 included creating a child-centred pre-school curriculum. The teachers implementing this are mainly high school graduates, trained through the Ministry's own teacher training. The quality of teachers' pedagogy and knowledge must support a positive experience in preschool education in Timor-Leste. This presentation reports on pre-school teachers' experience of the new curriculum. The findings suggest mismatches between policy and implementation as teachers' transition from a rote learning style to child-centred curriculum. Although principals, teachers and parents view the curriculum reform positively, inadequate professional knowledge, resources and basic needs remain significant barriers. It explores the need for a robust plan for professional development, including follow-up and the addressing of the needs and barriers that preschool teachers encounter, as well infrastructural issues such as the distribution and management of resources, clean water and toilet facilities in schools.

Sustainable Tourism & Conservation

Roxane de Waegh & Jenny House, *Eco-Tourism and Community-Based Marine Conservation; The Benefits of Working Together*

Blue Venture, Timor-Leste

Atauro Island has some of the most biodiverse waters in Timor-Leste and is therefore a major conservation priority. However, data on the status of the marine ecosystem is severely lacking, with limited monitoring and research. Blue Ventures (BV), a marine conservation NGO, has worked with coastal communities on Atauro since 2016 to collect data on the island's marine ecosystems and support effective marine management. Eco-volunteers undertake scientific scuba-diving to assist our team of international and local scientists with collecting coral reef data. Furthermore, BV supports community-based monitoring groups with collecting fisheries and seagrass data. By combining citizen science efforts from staff, eco-volunteers, and the local community, BV is able to gather unique data on Atauro's coastal ecosystems. This research demonstrates that the integration of distinctive skills from international and local citizen scientists is an effective method to collect data to inform and increase engagement in locally led marine conservation.

Karen Edyvane, Olive Andrews, Trudiann Dale, Avelino Fernandes, Jose Lucas, Mufizah Moslim & Jose Quintas, *Whale and Dolphin Conservation and Ecotourism Development in Timor-Leste*

Charles Darwin University, Australia; University of Auckland, New Zealand; Conservation International; Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste; Ministério Turismo, Arte no Kultura, Timor-Leste; Roman Luan, Timor-Leste; Compass Charters, Timor-Leste

Timor-Leste's deep nearshore waters provide some of the best, and most accessible, whale-watching in the world. Timor-Leste is a recognised global cetacean biodiversity hotspot, with at least 24 species of cetaceans confirmed, including resident, semi-resident species and also, spectacular, annual migrations of endangered and vulnerable threatened species, such as the pygmy blue whale and sperm whale. Previous studies in Timor-Leste have identified the significant economic potential of sustainable whale and dolphin tourism. Meanwhile,

increasing threats from marine pollution, catchment impacts, shipping and major coastal infrastructure development have highlighted the critical need for cetacean conservation and management. We outline the latest, collaborative efforts in developing a whale and dolphin ecotourism industry - including cetacean monitoring, ecotourism training, and promotion and marketing. Significantly, we also outline a strategic framework and potential key steps to developing a national cetacean conservation plan and developing sustainable cetacean ecotourism in Timor-Leste, including identifying current cetacean management priorities, policy/legislative gaps, and also, key knowledge and capacity-building/training needs.

Dezenvolvimentu Dalén Lokal no Nasional iha Timor-Leste

Catharina Williams-van Klinken, *Tinan 20 Dezenvolvimentu iha Lian Oficial*

Dili Institute of Technology, Timor-Leste

Tinan rua-nulu liu ba, ema uitoan deit mak hakerek Tetun Dili. Ba maioria, lian nee lian ida hodi koalia iha situasaun informal ho mos iha igreja. Depois too preparasaun atu halao referendum iha 1999, derepenti ema hahuu uza Tetun hodi hakerek kona ba prosesu politiku modernu nian. Komesa hosi tempu nebaa, Tetun Dili nia influensia aumenta makaas. Porsentu populasaun nebee hatene koalia Tetun Dili sae, nunee mos numeru populasaun nebee mak koalia Tetun Dili iha uma. Tetun nia funsaun mos aumenta lalais, Tetun tama ba parlamentu, eskola, media, servisu fatin ho mos konferensia kona ba topiku oi-oin deit. Tanba ema uza Tetun iha situasaun foun ho kona ba topiku foun, sira dopta liafuan barak hosi lian seluk (liu-liu Portuges), uza modelu linguajen keta-ketak tuir nia kontestu, no aumenta estrutura gramatika nebee foun. Mudansa hirak nee, maioria mosu tuir dalan ‘informal’, liu hosi ema baibain nebee halo inovasaun iha sira nia lian.

Francisco Mariano dos Santos, *Oinsá atu Hariku Lia-Tetun ho Dialeitu Lolein*

Dialeitu katak nu’udar sasan komunikasaun entre ema ida ho ema seluk hodi fó komprensaun kompleitu kona-ba moris hamutuk iha klaken ka comunidade ruma. Lolein, mak dialeitu ida ema uza de’it iha lokál uma lisan Lakoto suku Balibar besik Dare, nia leten sa’e ba mai to’o Dukurai, nomós Namalai-Darlau nian, Mais umenus ema na’in ba rai sira mak hela haleu Dili, balun maka ko’alia Lolein no seluk maioria ko’alia Mambae ho Dialeitu sira seluk tán ne’ebé namkari iha Dili Laran.

Objetivu peskiza kona-ba Dialeitu Lolein tamba título ida ne’e intersante tebtebes mai peskizadór, nomóssai dokumentasaun ba Linguística. Dialeitu ne’e lais ou kle’ur bele lakon hanesan makuva(makua) iha Mehara Lautem tamba influensa Lia- estranjerus ne’ebé naklekar iha sidade Dili, ho distansia mais umenus KM 6 to’o 15. Ho razaun iha leten ne’e maka peskizadór foti título no dados originál hodi análiza liafuan Dialeitu Lolein sira balun ne’ebébehariku Lia-Tetun. Métopu ne’ebé peskizadór uza mak métopu Kualitativu deskretivuhu gravasaun ihakerek. Liafuan xave: Liafuan Dialeitu Lolein sira ne’ebé hanesan: anan, ata, Dialeitus hotu-hotu iha aku (ha’u(kaiwaimina), nunuk (hali(kaiwaimina), butin (mutin(midiki), haru (faru(kaiwaimina), ran, (ran(kaiwaimina), sole (Galolen), lari (halai(Indoneziu). Liafuan xave Dialeitu Loleinnian ne’ebé mak hanesan ho Dialeitus seluk Peskizadór foti hodi hariku Lia-Tetun.

Justino da Silva & Cesaltina Martins Tilman, *Jiria iha Lian Tetun - Ne’e U*

Dili Institute of Technology, Timor-Leste

Jiria mak linguajen informal nebee uza liu iha situasaun informal, maioria joven sira mak uza. Ninia funsaun mak atu uza hodi koalia halimar entre joven sira ho nia objetivu atu falun segredu no mos hodi halo komik. Iha lian Tetun ita hetan liafuan jiria barak, liafuan sira nee laos mai husi lian Tetun deit maibee kahur mos husi lian seluk hanesan Indonezia, ez. URKEKE katak URusan Ketak-Ketak, U boot, iha Portuges ez: U grande no moos fatin nia naran hanesan U plaza. Jeria iha lian Tetun fahe ba parte tolu: transformasaun sei haree ba ninia estrutura, semantika haree liu ba signifikadu no metonomia mak kona-ba atributu nebee reprezenta ninia signifikadu. Husi kategoria no formasaun jiria iha lian Tetun, ita identifika ninia estrutura mai husi lian Indonezia ez: KONFESA 'KON[m]plotan FEra SAnan' signifika grupu joven nebee aproveita han deit. Ezemplu seluk mak '92' katak ema nain rua.

Health

Jorib da Costa, *Pioneering Multi-Sector Nutrition Through Innovation in Timor-Leste*
Catalpa International, Timor-Leste

Stunting is an intergenerational cycle, with long-term negative effects on child development, economic opportunity, and educational attainment. In Timor-Leste, it affects up to 46% of children under five. Global evidence suggests no single action can create sustained reductions; it requires coordinated interventions addressing all causes. Hamutuk emerged to support collective action through multi-sector nutrition programming. It aims to strengthen partners' capacity to reduce stunting through existing programs in agriculture, family planning, health, WASH and more. Gaps in coordination have been identified and are being addressed, leveraging technology to enhance multi-sector collaboration. More than 20 organisations are already involved, including KONSSANTIL and municipal authorities. An outreach pilot covering 27% of households in Holarua over 7 months demonstrated its potential reach, with multiple partners contributing to joined up behavioural interventions and collaborative data collection. The Hamutuk model shows potential to increase quality and coverage of existing efforts to end malnutrition and stunting.

Teresa Hall, *Social Inclusion and Exclusion of People with Mental Illness in Timor-Leste: A Qualitative Investigation with Multiple Stakeholders*
University of Melbourne, Australia

Social inclusion is a human right and an important part of recovery for people with mental illness. We investigated the experiences of social inclusion and exclusion of people with mental illness and their families in Timor-Leste to inform ongoing mental health system strengthening. Through interviews with key stakeholders, we found that people with mental illness in Timor-Leste were widely believed to be dangerous and lack capacity. They experienced instances of bullying, physical and sexual violence, and confinement, and barriers to formal employment, educational, social protection and legal systems. Nonetheless, people with mental illness were included through family and community structures that promoted unity and acceptance. They also had opportunities to participate in activities surrounding family life and livelihoods that contributed to intergenerational well-being. These findings highlight the need to combat social exclusion of people with mental illness and their families by harnessing local Timorese sociocultural strengths.

Emily Toome, *Hanesan Buat Ida Xoke Ita - East Timorese Conceptualisations of Post-Conflict Trauma*
RMIT University, Australia

In this paper I describe what I have identified during my doctoral research fieldwork as four main ways that “trauma” (particularly as related to past conflict) is conceptualised and addressed in contemporary Timor-Leste. First, there are prevailing lay understandings of trauma as fear; second, a psychological or psychiatric category of trauma as pathological mental distress or disorder; third, descriptions of women’s trauma as the embodied legacy of experiences that are often silenced and stigmatised within existing social structures; and finally, local cultural accounts of madness or other enduring suffering arising from events during the war, which while not using the word trauma bear conceptual similarities. These four notions of trauma are not exclusive (nor exhaustive), and I give examples of both synergies and tensions between them, suggesting that failures to take these into account can potentially heighten people’s suffering.

Session 3: Thursday 2.00pm–3.30pm

United Nations in Timor-Leste

Helen Hill, *The April 1999 Melbourne Conference on Strategic Development Planning: Its History and Impact on Development Thinking in Timor-Leste*

Victoria University, Melbourne, Australia

In December 1998 Foreign Affairs Minister of Australia, Alexander Downer, decided to fund Victoria University to organize a Conference in collaboration with the *Conselho Nacional de Resistencia Timorese* (CNRT), the National Council of Timorese Resistance. This was before any agreement had been made to hold a referendum, but President Habibie had already rejected John Howard's suggestion to hold a postponed referendum on the lines that France was doing in New Caledonia and there was widespread belief that a referendum would be held during 1999.

The brief was actually to design a Strategic Development Plan for East Timor which would apply whether or not it became independent or an autonomous province of Indonesia. The Conference was significant way beyond the recommendations made by its working groups. It brought together members of the CNRT Diplomatic Front with Timorese who had been inside the country for the whole of the occupation. It also gave rise to several other conferences before and after independence, including the one at which the Timor-Leste Studies Association was founded. This paper looks at some of the development debates which emerged at the conference and what has become of them in the subsequent two decades.

Michael Leach, *Kaer-Rasik Kuda-Tali: CNRT Activists' Recollections of the 1999 Referendum Campaign*

Swinburne University of Technology, Melbourne, Australia

This paper examines the recollections of three East Timorese activists in the 1999 referendum campaign. Highlighting the high pressure and dangerous environment of political education through the orchestrated militia violence, these interviews recall the concerted campaign to explain the new policy of national unity, following the announcement the National Council of Timorese Resistance CNRT at the 1998 Peniche conference. It also examines parallel efforts of the Student and Youth Forum for Monitoring the Referendum FORUMATU-JP (Forum Mahasiswa dan Pemuda untuk Jajak Pendapat – FORUMATU-JP), established by RENETIL, which worked with CNRT to conduct political education with East Timorese in Indonesia.

Sue Ingram, *UNTAET's Legacy in Timor-Leste's Political Institutions*

Australian National University, Canberra, Australia

UNTAET consciously stepped back from shaping the substance of Timor-Leste's constitution, with the UN Transitional Administrator, Sergio Vieira de Mello, emphasising in the lead-up to the Constituent Assembly elections in August 2001 that the formulation of the constitution must be done by the Timorese people alone. But by then the approaches pursued by UNTAET had already influenced aspects of Timor-Leste's future political institutions in fundamental ways. This presentation will illustrate this proposition by looking at the policy positions adopted at several key points along the path to independence: decisions in New York about the nature of UNTAET's mandate which informed the engagement between UNTAET and local actors; UNTAET's championing of political parties as the vehicle for political mobilisation

after the initial stabilisation phase of the mission was complete; and the mechanism advanced by UNTAET for the election of the constituent assembly.

Preventivu no Kurativu

Inês Lopes, Franki Baba, Alexandrina Marques da Silva, Helen Henderson, Sérgio Esperança, Mário de Jesus Ximenes, John Rule, *Implementasaun no Rezultadu Sira Husi Relatoriu Índice Estigmatizasaun HIV iha Timor-Leste*

Estrela +; Marie Stopes Timor-Leste; UNFPA Timor-Leste

Estrela+ lidera implementasaun peskiza Índice Estigmatizasaun HIV iha Timor-Leste. Harii komite kolektivu hodi suporta implementasaun peskiza. Implementasaun tuir matadalan Rede Global ema Pozitivu. Kestionáriu inklui pergunta kona-ba informasaun socio-demográfiku, esperiensa estigma no diskriminasaun asociadu ho ema ne'ebé moris ho HIV (EMHIV). Enumerador sira mak EMHIV. Partisipantes hetan konsentimentu eskrito. Peskiza hetan aprovasaun étika hosi INS. Análiza dados ho prosesu partisipativu. Respondente hamutuk 81, maioria idade entre 25-39, liu médiu (57%) hatene ona estatutu HIV ba tinan 1-4. Maioria (61.73%) hela iha area urbanu. Dezafiu signifkante inklui teste sein konsentimentu, difikuldade asesu ba tratamentu mediku, esperiensa abuzu verbal no fiziku, falta konfidensialidade no estigma internál. Peskiza hatudu katak sira hasoru dezafiu signifkante kona-ba inkluzsaun sosiál, asesu ba informasaun, atendimentu ne'ebé komprehensivu no ho kualidade ba EMHIV iha Timor-Leste. Mudansa prezisa akontese iha mensajen sira relaciona ho HIV atu redús estigma no diskriminasaun iha Timor-Leste no hadia teste ba HIV, ninia tratamentu no prevensaun.

Maria Chang & Yovita Bere, *Hadia Sistema ba Follow-Up After Training Salva Bebe Foin Moris Nia Vida*

Health Alliance International; Institute Nacional de Saude, Timor-Leste

Komplikasaun durante tempu partu mak kauza primeiru mortalidade neonatal iha Timor-Lestei. Barak liu husi mortalidade sira ne'e bele prevene liu husi kuidadu partu ne'ebe kualidade, maibe oportunidade ba fornecedor atu pratika sira nia abilidade depois formasaun mak limitadu. HAI servisu hamutuk ho Instituto Nasional de Saude no Ministeriu da Saude desenvolve modelu ida husi follow-up after training ba pesoal saude sira atu pratika sira nia abilidade, ne'ebe kunhesidu ona ho naran Learning Lab. Learning Lab implementa ona kuase Timor laran tomak. Asesmentu depois formasaun no entrevista ho partisipantes Learning Lab iha Munisipiu Bobonaro iha 2018 hatudu katak parteira nain 34, hotu-hotu sira nia kompetensia no konfiansa atu resusita bebe foin moris sa'e. Fulan neen liu, bebe lima ne'ebe iha problema ho dada iis bainhira moris hetan salva husi parteira ne'ebe partisipa ona iha Learning Lab.

Katy Cornwell, Evangelita Pereira, Jesuinho Gusmao, Nuno Alves da Costa, Antonia Salamat, Brian Hilton & Margy Dowling, *World Vision nia Projetu Aihan Diak Liu, Saúde Diak Liu Melhora Nutrisaun iha Timor-Leste*

World Visision Timor-Leste; World Vision Australia

World Vision nia projetu Aihan Diakliu ba Saúde Diakliu nudar projetu agrikultura sensível ba nutrisaun ida ho objetivu atu melhora nutrisaun ba benefisiariu direita ho total 31,806 iha Timor Leste. Projetu ne'e promove produsaun no utilizaun 'aihan-super' neen: forekeli, foremunggu, koto-mean, fehukmidar laranja, marungi tahan no manu-tolun. Rezultadu husi estudu midline hatudu mudansa boot iha comunidade nia produsaun no utilizaun aihan-super

sira ne. Liu husi metode hakiak manu ne'ebe promove husi projetu ne'e aumenta boot numeru manu no manutolun para sira bele han no faan.

Educação 2

Suzani Cassiani, Vicente Paulino, Gaspar Varela, Nelson Correia & Irlan Von Lin, *Repositório de Práticas Interculturais: Proposições para Pedagogias Decoloniais*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste; Universidade Nacional de Santa Catarina, Brasil

Ao pesquisarmos o impacto de cooperações educacionais realizadas entre o Brasil e Timor-Leste, concluímos que muitas vezes, elas acabam travando um monólogo eurocêntrico, verticalizado, em que o cotidiano e os saberes locais são silenciados. Esse trabalho trata de um projeto de internacionalização em desenvolvimento, o qual conta com mobilidade internacional de professores e estudantes. O que pretendemos é: 1) Aprofundar parcerias entre professores/as de ciências de vários níveis (professores/as: formadores/as, em formação, da escola básica), a comunidade, a escola e a universidade. 2) Levantar temas locais que fomentem o desenvolvimento de intervenções pedagógicas e a produção de materiais didáticos, as quais visem o diálogo de saberes e a emancipação 3) Alimentação e publicização desses materiais num repositório na Internet. Procurando encontrar caminhos de contraposição aos efeitos de colonialidade, pretendemos propor um diálogo de saberes, favorecendo a emancipação e a não criação de dependência ou subalternização e uma cultura de paz.

Antero Benedito, *Pedagogia da Terra Maubere*

Universidade Nasional Timor-Lorosa'e, Timor-Leste

Pedagogia da Terra de Maubere e uma tentativa de contextualização da pedagogia da terra dos Latinos Americanos, Moacir Gadotti e do La Via Campesina, para corresponder a situação ecológica e cultural de Timor-Leste. Vivemos mesma planeta e enfrentamos fenômenos ambientais global como efeitos in-expectativas do progresso da ciências, tecnológicas. Mas o Timor-Leste também tem a sua contexto local ecológicos e cultural, por isso, e necessário de aproximar-se numa perspectiva de eco-epistimo-pedagogico, local, para a sustentabilidade da ecologia comunitário e da ilha de Timor.

Afonso Pinto, *Atentos Com o Neo-Obscurantismo*

TBA

Resource Management 1

Jose Lucas do Carmo da Silva, *An Evaluation of Stakeholders Views Regarding the Potential Development of the Oil Industry in Timor Sea and South Coast: Case of East Timor*

Universidade Nasional Timor-Lorosa'e, Timor-Leste

This study is undertaken as a new venture to explore potential environmental management approaches for the development of the oil industry in East Timor. Particular focus will be given to environmental legislations in order to assess the possible impacts and control of oil industry development in East Timor. The country has newly emerged in the past decade and is still heavily reliant on immediate development of oil resources in order to boost the country's economic prospects. Environmental laws and regulation are, however, still in an embryonic stage. Of course, oil industry development mostly takes place offshore but it is vital for this

pilot study to evaluate stakeholders' views on the possible impacts of an oil refinery along the South Coast of Timor. Stakeholders were interviewed to gain insight into opinions on how the Timor Sea environment should be managed, and how a new country can raise the living standards of its people in equilibrium with the natural environment of the region. Data collected from stakeholders was analysed, with multivariate and univariate statistical tests employed to assess the significance of differences in responses. Stakeholders views suggested that development of the oil industry should go ahead, but environmental regulations should be in place. The bottom line conclusions of this study is that while economic development should go ahead, measures for environmental protection should also be in place.

Carla Eisemberg, Elda Guterres & Bertanizo Costa, *Links between Timor-Leste Independence and Wildlife Conservation: A Case Study of the Critically Endangered Timor-Leste Long-Necked Turtle*

Charles Darwin University, Australia

From a conservation point of view, a noteworthy result of self-determination was the strengthening of traditional practices associated with wildlife management. The persistence of populations of the Timor-Leste long-necked turtle (*Chelodina mccordi timorensis*) is an example of the benefits of these practices. This species is listed under the IUCN red list as critically endangered. Once found also on Roti Island (south-west of Timor), it is now extinct in the wild in Indonesia – loss of this sub-population was due to collection of animals for the international pet trade. The species is now restricted to the eastern tip of Timor Leste (Lautém District), at Lake Iralalaro. Prior to independence, these turtles were sold for around \$2 USD. After independence, commerce with outsiders became extremely rare. Currently, there is a traditional ban on the harvest of this species at Lake Iralalaro. We call for recognition of the iconic status of the Timor-Leste long-necked turtle as a national symbol of Timor-Leste wildlife conservation.

Alexandre Sarmiento, *Community Forest Carbon Schemes in Timor Leste: 20 Years On*
Fundação Carbon Offset Timor (COTI), Timor-Leste

The level of forest degradation in Timor-Leste is alarmingly high due to continuous demand for firewood and traditional shifting agriculture practices of slash and burn. The rate was high during the Indonesian 24-year military occupation but continued unabated after the country's independence in 1999. The increasing human population has also exacerbated the situation. Although community reforestation programs in Timor-Leste have been going on since independence most of these programs failed or weren't sustainable due to the lack of financial incentives and immediate benefits provided to the communities. Forest carbon credit sales have potential to break the vicious cycle of unsustainable tree planting programs. Forest carbon credit sale can provide immediate economic benefits to rural farmers enabling them not only to plant trees but ensure their long-term survival. This proposed paper explores lessons learned and best practices from implementing a community forest carbon program in Laclubar and Soibada.

Perspetivas Timorenses Sobre Assuntos Regionais e Globais

Simon Haberle, Larissa Schneider, Sue Rule & Simon Connor, *Alterações Climáticas ao Longo Prazo, Impactes Antrópicos e Mudanças Ecológicas em Timor-Leste*

Australian National University, Australia

Atualmente, a quantidade de precipitação é o fator mais significativa na variabilidade do clima tropical do Timor-Leste, e está associada com os maiores riscos naturais, tais como cheias, secas, ciclones e incêndios. Uma questão importante para os residentes nestas regiões tropicais é "Como as mudanças climáticas globais irão afetar a frequência das chuvas?" Neste estudo, nós apresentamos um novo projeto científico que analisará a história do clima e dos impactos antrópicos de longo prazo, através da análise de pólenes, das partículas de carvão, e dos sinais isotópicos conservados nos sedimentos lacustres de Timor-Leste. Os resultados fornecerão informações importantes para o manejo conservacionista, comunidades tradicionais e para as agências responsáveis pelo desenvolvimento de recursos naturais sobre o impacto que as mudanças climáticas e as populações humanas antigas têm tido nas paisagens tropicais e nos ambientes de água doce.

Lara Guterres, Filipa Monteiro, Nuno Cortez, António Mexia & Maria M. Romeiras, *Sustentabilidade da Cultura do Cajueiro*

Universidade de Lisboa, Portugal

O cajú (*Anacardium occidentale* L.), originário do Brasil, foi introduzido em África e Ásia como cultura de rendimento no desenvolvimento económico de diversos países tropicais e subtropicais. Em Timor-Leste, o Ministério Agricultura e Pescas considerou o cajueiro como uma cultura alternativa ao cafeeiro, com potencial de cultura agrícola de exportação. A introdução do cajueiro em Timor-Leste ocorreu pelos Portugueses antes de 1974, e foi promovida em pequenas áreas agrícolas, tendo se expandido até ao período armado de 1999. O presente trabalho tem como objectivos: mapear a distribuição actual das áreas de cultura de caju, determinar o estado fitossanitário, caracterizar as variedades de Timor-Leste por biologia molecular, e propor medidas sustentáveis da cajucultura. Assim o presente estudo pretende funcionar como uma base para o estudo do potencial agrícola e económico do cajueiro como cultura de rendimento em Timor-Leste, com o objectivo de promover a produção sustentável.

José Sabino Xavier & José Pinto Casquilho, *Algumas Plantas Medicinais Mencionadas em Práticas Fitoterapêuticas Tradicionais de Timor-Leste*

Universidade Nacional Timor-Lorosa'e, Timor-Leste

O presente trabalho situa-se no desenvolvimento de uma dissertação de mestrado em curso na UNTL, ancorada numa pesquisa efetuada junto de quarenta e cinco curandeiros (*matan dook*), onde estes foram inquiridos livre e anonimamente sobre quais as menções que quereriam reporter relativas a plantas associadas a práticas fitoterapêuticas tradicionais em Timor-Leste. Nesta comunicação, vai-se incidir exclusivamente sobre as espécies vegetais que foram objeto de pelo menos cinco menções por parte dos curandeiros, totalizando um conjunto de trinta e quatro plantas relativas a vinte e quatro famílias botânicas, indexadas a um máximo de doze grupos de patologias/desordens orgânicas compiladas a partir da literatura consultada. Não nos pronunciamos sobre a eventual relevância terapêutica das menções efetuadas pelos curandeiros, mas salienta-se a grande tradição do domínio da etnobotânica no sudeste asiático e em Timor-Leste, neste caso impregnada do conceito *lulik* e amplificada pelas necessidades decorrentes do isolamento nas montanhas de bolsas de resistência timorense à ocupação indonésia.

Dezenvolvimentu Foin sa'e: Dezafiu no Poténsia sira

Leonardo F. Soares & E. da Costa Araujo, *Estudu Kona-bá Fenomena Kaben Sedu ba Foinsa'e Sira iha Timor-Leste*

Dili Institute of Technology, Timor-Leste

Realmente káben sedu akontese iha Nasaun sira ho nivel kiak a'as hanesan iha kontinente Africa, Medio Oriente no Asia (inklui Timor-Leste). Timor-Leste nudar País ida ho rendimentu baixu-mediú (*lower-middle income country*) ne'ebé purvolta 42% husi populasaun moris iha liña kiak. Istória deskobre ita nia bei-ala sira hatutan katak iha sekulu hirak XI to'o sekulu XIX liu ba, pratikamente káben sedu kauza husi kultura no tradisaun lokal sira, iha ne'ebé hametin relasaun familia ida forte entre umane no mane-foun liu husi hakabén pa'ar ida ho obrigatoriu máske pa'ar ne'e rasik seidauk pruntu.

Cesario de Lourdes, A. Stevenson, K. Dunphy, N. Pereira, *Dezenvolve Foinsa'e Sira Nia Kapasidade liu Husi Programa Arte Partisipasaun: Konkluzau Husi Peskiza no Prátika*

Many Hands International, Timor-Leste; University of Melbourne, Australia

Aprezentsau ida ne'e explora rezultadu partisipasaun iha programa arte ba foinsa'e iha Timor-Leste. Ida ne'e hatudu husi revizaun literatura oi-oin husi parte Arte Partisipasaun, dezenvolve kapasidade foinsa'e sira no dezenvolvimentu internasionál atu bele esplika ho detallu rezultadu ne'ebé halo ona dokumentasaun ba foinsa'e sira liu husi involvimentu kultura husi rejiaun oi-oin: Kultura, sosiál, ekonomiku, ambientál no siviku. Antsedensia teorikal ida ne'e uza hodi halo teoria mudansa ba programa Arte Partisipasaun kontemporáriu Timor-Leste. Estudu kazu ba programa Arte Partisipasaun ne'ebé mak hala'o iha Centru Cultura Lautem ne'e atu bele ilustra matéria ida ne'e. Konkluzau métudu evaluaun ne'ebé mistura haforsa espetasaun husi literatura, hatudu benefisiu ne'ebé signifkante no oi-oin ba foinsa'e sira no comunidade sira husi sira nia partisipasaun iha programa kreatividade arte. Rekomendasaun ba programa sira iha futuru sei diak liu bele informa desizaun kona-ba fundu no suporta sira no ida ne'e sei suporta planu no implementasaun programa ne'ebé efetivu liu.

Alexandrina Marques da Silva, L. Fernandes, J. de Jesus & H. Henderson, *Kompriende Idade no Esperienza hosi Menstruasaun Dahuluk nian iha Timor-Leste Liuhosi Intrevista ba Komentáriu kliente*

Marie Stopes, Timor-Leste

Marie Stopes Timor-Leste (MSTL) servisu liuhosi parseria ho Ministériu Saúde no ho suporta hosi Embaixada Australia iha Timor-Leste hodi fornese informasaun no atendimentu saúde seksuál reprodutiva, inklui kona-ba menstruasaun. Intrevista ba Satisfasaun Kliente (ISK) hala'o iha kada tinan rua hodi monitoriza satisfasaun kliente. ISK hala'o hosi enumeradór esternu sira, depoizde atendimentu, iha fatin atendimentu MSTL nian hotu. Iha tinan 2018, husu perguntas kona-ba idade no koñesimentu ba menstruasaun dahuluk nian. Iha aprovasaun étika nian hosi INS. Komentáriu kona-ba menstruasaun, simu hosi fetu sira hamutuk na'in 777 ho idade entre 14 no 75. Idade médiu hosi menstruasaun primeiru nian mak 14.65. Pursentu 27% hosi kliente sira la hatene kona-ba menstruasaun, antes menstruasaun akontese ba dahuluk. Maioria kliente sira hatene kona-ba menstruasaun dahuluk hosi sira nia inan (55%), hosi membru família seluk (13%) no hosi nia biin sira (12%). Rezultadu hirak ne'e bele ajuda orienta desizaun programatiku nian kona-ba oinsá no bainhira mak atu tarjeta intervensaun programa nian kona-ba saúde menstruasaun iha Timor-Leste, hodi hadia rezultadu saúde ba ema hotu.

Helio Afrano, C. Rivery, M.B. Correia, N. da Silva, H. da Costa, S.A. Mendonca & T. dos Santos, *Hakbesik ba Foin-sa'e sira ho Informasaun ne'ebé ho Kualidade ba Saúde Seksuál Reprodutiva liuhosi Liña Kontaktu Nasionál ba Foin-sa'e*

Marie Stopes, Timor-Leste

Marie Stopes Timor-Leste (MSTL) servisu liuhosi parseria ho Ministériu Saúde no ho suporta hosi Embaixada Australia iha Timor-Leste hodi fornese informasaun no atendimentu saúde seksuál reprodutiva. MSTL loke liña kontaktu nasionál ida ba foin-sa'e, 'Liña Foin-Sa'e' iha tinan 2011 hodi hasa'e foin-sa'e nia asesu ba informasaun saúde seksuál reprodutiva ne'ebé ho kualidade no referál ba atendimentu sira. Liña kontaktu ne'e loke hosi Segunda-Sesta hosi tuku 08.30 dadeer – tuku 7 kalan, gratuita ba bolu na'in TT no Telemor. Iha operadór feto no mane ne'ebé ho esperiensa mak atende liña kontaktu. Xamada no informasaun konfidensiál no anónimu hotu gravadu iha sistema jestaun ba informasaun. Kualidade ba atendimentu nian hetan monitorizasaun. Iha total xamada hamutuk 24.581 mak tama iha liña kontaktu ne'e iha tinan 2018, hosi munisípiu 13. 87% hosi bolu na'in sira ho idade menus hosi 25 no 71% mai hosi mane sira. Tópiku komún hodi bolu mai liña ne'e inklui relasaun saudavel, sirkunsizaun no infeksaun ne'ebé hada'et hosi relasaun seksuál. Liña Foin-Sa'e ne'e nu'udar atendimentu inovativu ida ba foin-sa'e ne'ebé hakbesik ba no suporta foin-sa'e barak iha Timor-Leste laran tomak.

Economics: Grassroots Perspectives

Helen Abbott, *Moris ho Tasi, Living with the Sea on Atauro Island*

The Australian National University, Australia

The paper seeks to interrogate the meaning of moris ho tasi or living with the sea, as experienced by people of Makili on the south-eastern corner of Atauro Island. As with inhabitants of other small islands, people's lives are inextricably linked to the sea as a means through which to seek a living (buka moris) and a pathway (dalan) to other places. Understandings of people's relationship to the sea have been under researched in East Timor; therefore this paper seeks to contribute to our understanding of people's practices and perceptions of the sea, and human-environment relations more broadly.

Martin Hardie, *Setting the Economic Fundamentals of Timor-Leste: Lessons from UNTAET, the IMF and the National Consultative Council*

Independent Researcher

In this paper, I will focus upon two issues and their continuing effect on policy making in Timor-Leste. The two central factual issues concern the debates regarding, one, the adoption of the US Dollar as the official currency for Timor-Leste and two, those concerning the income tax laws in early 2000. Both debates occurred during the time of the United Nations Administration in East Timor (UNTAET) behind the closed doors of the National Consultative Council. They occurred prior to formal political or territorial independence of the country was achieved.

Therese Tam, *Mutual Obligation or Exploitation of Female Students' Time? Shared Experiences of Female Students Living with Extended Families in Dili*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

The education sector is considered widely as an essential foundation for country development in a post-war Timor-Leste. Seeking higher education is much more difficult for young people in remote and isolated areas. Annually there are a high number of young people, 65% leaving their home in rural areas and moving to Dili, the capital of Timor-Leste, to seek for jobs, continue studying in higher education (EDG, 2015). Most of these youth do not live on their own, but they have to lodge in an extended family member who has a house in Dili. The

research started since 2014, 2015, 2016, 2017 and 2019 with 120 students of community department who are interested in doing they diary on daily activities, and three focus group discussions with female students in the year 2017, 2018 and 2019. Besides, the differences in term of time use between male and female students are significant. Variety of sad stories about exploitation, physical abuse, and dehumanized treatment to the female students were expressed with tears and frustration. This type of practices are hidden, continued, and considered as “common” in society could perpetuate the tradition of exploitation and the situation of the gender inequity and inequality.

Session 4: Thursday 4.00pm–5.30pm

Archives & Activists

John Waddingham, *Timor-Leste Archival Sources, 1974-1999: Reflecting on Twenty Years of Finding, Protecting, Using and Questioning*

Clearing House for Archival records on Timor (CHART) Inc., Australia

Large numbers of documentary records from the 1974-1999 period have become public in the past twenty years - in Timor-Leste and internationally. This paper will briefly review what has been achieved and what needs to be done to secure and access the still-private archival record. The review will be supplemented by a reflection on the importance and limitations of primary source documents. The reflection will include examination of two very different primary sources and asks: Are they authentic records of the event they describe? What do we know of the creators of the documents? In what way does this help us to understand or interpret the documents? How should institutions handle documents which some may regard as too sensitive for public access and discussion?

Nuno Rodriguez Tchailoro, *The Destruction of Social Movements in Timor-Leste*

Independent Researcher, Timor-Leste

The collapse of Indonesian rule in Timor-Leste is due to strong Timorese social movements. However, soon after its independence the social movements have gradually domesticated. The recent social movements diminished thus decrease its political influence. The retreat of social movements occurred at the present time not only because of internal factors but also because of the systematic destruction by external intervention since the Indonesian occupation. This article will examine the external systematic intervention to destroy social movements in Timor-Leste and its impact.

Anya Dettman, *Unlocking Timor's Treasures*

National Library of Australia, Australia

The National Library of Australia (NLA) has a wealth of material which supports Australian scholarly research on Timor-Leste; however, equivalent resources are not readily available for researchers in Timor-Leste itself. Initiatives such as digitisation can help address the imbalance by providing greater access to a library's collection. The NLA has commenced digitising some of its Timorese holdings, beginning with the historic newspaper *A voz de Timor*, which will be made available through its online Trove platform (<https://trove.nla.gov.au/>). Trove is unique in not only providing free and open access but also in enabling participation from the wider community. This session will explore recently digitised materials and opportunities for Timorese themselves to engage with and value-add to Timor-related content on Trove through subject tagging, correcting text and adding annotations. The session will also outline how organisations or individuals can nominate and support the digitisation of other Timorese titles, through Trove's partnership program.

Development & Society

Ann Wigglesworth & Alberto de Jesus Barros, *Does Friendship Provide a Basis for Development?*

Covalima Community Center, Timor-Leste; Victoria University, Australia

In September 1999, Australians watched images of atrocities taking place in Timor being screened across the TV news networks in Australia. It generated a mass movement, to demand government action, and also to answer the question ‘What can I do?’. Now, twenty years later, *friendship* has been at the heart of many initiatives to support remote communities in Timor-Leste. Friends of Suai/Covalima works with the Timorese-run Covalima Community Centre. This paper will discuss how FOS/C and CCC work together to provide training and education services to Suai youth, and have established partnerships to support health and education, a project for the promotion of women’s economic, social and political engagement, and provided scholarships to Suai youth for further study elsewhere. This paper analyses the contribution that Friendship made to Development, what has been achieved and what has been learned along the way.

Josh Trindade & Ivete De Oliveira, *Household Decision Making Process in Timor-Leste*

Ministry of Legislative Reform and Parliamentary Affairs & Former President of Rede Feto, Timor-Leste

Household decision making processes in Timor-Leste are an important component in the development process both for the Government and civil society organizations. Understanding decision making processes at household level can facilitate development practitioners to better design their program aiming at improving the quality of life of the households at the grassroots level. The aim of this research is to document gender based decision making processes at household level in rural areas in Timor-Leste. The primary data in this research was primarily collected from the Municipality of Viqueque, covering 11 sucos (village) and four ethno-linguistic groups of Nauti, Makasae, Tetun Terik and Waima’a. The research unravels how decisions are made in terms of food preparation, family gardens (*to’os*) and rice farms (*natar*), decisions on the use of animals (water buffalo, pig, goat and chicken) and finances of the family.

Ros Dunlop, *Mau-Lelo Bui-Lelo, A Ritual Performance by the Mambae of Hatubuiliku and its Relevance to the Society It Originated from Today*

Independent Scholar

On the 7th of December 1975 Indonesia invaded East Timor. From 1975 to 1999 more than a third of the Timorese population died as a direct result of this brutal occupation. In 1999, after 24 years of resistance the East Timorese voted for independence in a UN run referendum. Resistance took many forms, including musical. Australian composer Martin Wesley-Smith, became a musical activist for the cause of the East Timorese, a champion for their human rights and freedom from Indonesian rule for the duration of this occupation. He composed numerous pieces of music which documented the plight of the East Timorese. Many of these pieces are audio-visual. Wesley-Smith’s hope was that those viewing would be stirred into action and join the campaign to help end the genocide and illegal occupation of East Timor. This paper looks at the effectiveness of these pieces to elicit change.

Língua

Ricardo Antunes, *A Língua Portuguesa em Timor-Leste: 20 Anos Depois*

Independent Researcher

Em 1999, a população timorense que foi às urnas para votar no referendo, na sua esmagadora maioria, não dominava a língua portuguesa. Alguns dados, do Banco Mundial, com base nos censos realizados em 1999, apontavam para uns meros 5% da população com domínio da língua portuguesa, quase todos acima dos 40 anos. Ainda assim, o país, nos anos que se seguiram, aprovou uma Constituição em que estabeleceu o português como uma das duas línguas oficiais. Passados 20 anos, e depois de muitos projetos de cooperação nesta área, convém fazer um balanço para sabermos onde estamos. Os dados dos censos de 2015 mostram uma realidade bem diferente. Hoje, a maioria dos falantes com algum domínio da língua está nos escalões etários mais baixos, até aos 15-25 anos, o que mostra que o efeito do uso da língua portuguesa no sistema de ensino começa a dar alguns frutos. Nesta comunicação apresentamos alguns dados sobre a situação atual da língua portuguesa em Timor-Leste.

Karin Indart, *Estado Timorense e Povos Timorenses: Qual a Relação?*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

A proposta desta pesquisa é avaliar a relação entre um Estado e os povos que o constituem fundamentando-se na teoria de modelos de Estado de Breton (1998) e aplicar tal teoria à relação entre o Estado timorense e os povos timorenses. Consideramos, então, cada grupo etnolinguístico distinto como um diferente povo timorense. A análise do Estado timorense baseia-se nas descrições históricas de Thomaz (2002 e 2009) e Durand (2009 e 2010), assim como, nas decisões políticas e linguísticas após a independência.

Martinha Santos Silva, Basília Simões & Estela Seixas Santos, *Será que o Inglês é Mais Fácil do que o Português?*

Dili Institute of Technology, Timor-Leste

Uma língua tem suas particularidades, algumas de mais fácil à percepção que outras. Mas é frequente alguns discentes falam que o português é mais difícil de aprender do que inglês. Esta pesquisa é realizada com o propósito de saber a percepção dos estudantes acerca da dificuldade de línguas, português e inglês, designadamente das quatro competências (leitura, escrita, oralidade e audição), a gramática, o vocabulário e a pronúncia. Realizou-a com aplicação de questionário aos alunos da UNTL e do DIT, com o total de 50 inquiridos e analisá-los. O resultado mostrou que os estudantes da UNTL afirmaram o português é mais fácil, porém, do DIT considerado o inglês é mais fácil. Isso mostrou que depende da língua de instrução. Todavia todos concordam que o aspeto mais difícil do português é a conjugação verbal e do inglês é a pronúncia.

Resource Management 2

Jose Lucas do Carmo da Silva, *Review of the Natural Environment of the Timor Sea*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

It is incontrovertible that the natural environment of the Timor Sea was still in a pristine condition till recent decades. But recent discoveries of a major offshore hydrocarbon province and the local government plan to proceed with the development of the oil and gas industry in the region might lead to future environmental concern. Yet, regarding environmental protection there is a general lack of high quality information on the biological and physical environment of the region. This review consulted information from scientific papers, technical reports and conference papers. In order to effectively and efficiently oversee matters on environmental protection from the oil and gas industry in Timor Sea and the country, the researcher is

convinced that an effective environmental management system needs to be developed based on the specific features of the regulatory. Successful environmental management can only be achieved by giving a proper level of consideration to these factors as these are very important in determining ‘specific environmental management strategies’ which must be taken into account.

Mario Boavida Jnr (Marcel James Grinter, Jaime Ku & Noel Mathew), *Water Treatment Plant Design in Oyu Tolgoi (Mongolia)*

RMIT University, Australia

The following report focused primarily on the design and maintenance of a proposed water treatment plant in Mongolia, which could be implemented in East Timor. The purpose of the research was to devise a plan that could effectively utilize the countries resources to provide treated water to local communities for both domestic and industrial use. A treatment process was then formulated with accordance to the conditions existing to the country under analysis. Each individual component in the design was decided upon its practicality and how it would act under environmental conditions. As a country, East Timor demonstrated very close Gross Domestic Product (GDP) revenue when it was compared to Mongolia.

Domingos de Sousa Freitas, *Optimization of Cross Flow Blade Inclination to Enhance Turbine Efficiency*

Universidade Nasional Timor-Lorosa’e (UNTL), Timor-Lest

The two main power plant stations installed in Timor Leste supply energy with a total capacity of 250MW and as a result all the territory within the country has electricity from diesel power plants. However, on the other hand, Timor Leste renewable energy sources from hydropower with the capacity of 352MW can produce a clean energy and guarantee sustainable energy development in the future. This study aims at the optimization of cross flow blade inclination to enhance turbine efficiency as clean and reliable energy. The objective of this study is the optimizing of flow blade inclination to enhance cross flow turbine efficiency. In this study three types of blade inclination, 7⁰, 14⁰ and 40⁰, were investigated in order to get optimum turbine cross flow efficiency. The study proved that the optimum inclination at 40⁰ reached 97% optimum efficiency with a load of 78.28N.

Simon Haberle, Larissa Schneider, Sue Rule & Simon Connor, *Long-Term Climate, Human Impact and Ecological Change Research in Timor-Leste*

The Australian National University, Australia

Rainfall is the most significant component of current climate variability in Timor-Leste tropics and is associated with the major natural hazards, namely floods, drought, cyclones and fire. A critical question facing people living in tropical regions is “How will a rapid and significant change in global climate affect moisture availability?”. In this paper we report on a new project to study the long-term history of climate and human activity derived from the pollen, charcoal, and isotopes records preserved in the lake sediments of Timor-Leste. The outcomes will provide important information for conservation management, traditional owners and resource development agencies on the impact that past climate change and people have had on the tropical landscapes and freshwater environments.

Educação 3

Micaela Ximenes & Gaspar Varela, *A Utilização do Desenho Livre No Desenvolvimento de Habilidades de Escrita e Leitura de Números e Alfabetos das Crianças da Educação Pré-Escolar Sta Madelena de Canossa*

Universidade Nacional Timor-Lorosa'e (UNTL), Timor-Leste

O trabalho tem por objectivo identificar as possíveis potencialidades de actividade de desenho livre no desenvolvimento de habilidades das crianças do grupo B no sentido de identificar características de alfabetos e de números na educação pré-escolar de Canossa. Temos duas possíveis maneiras para realizar as actividades para recolher informações da nossa investigação. 1) Levar as crianças para observar arredores da escola e orientá-las para desenhar o que elas tiverem observado na realidade. O nosso trabalho é fundamentado com as concepções sobre educação pela arte com Raquel Reis, sobre pensamento e linguagem com Vygotsky (1998, 2001) e sentido de número com Castro e Rodrigues (2008). Estudo será realizado junto a uma turma de trinta e seis crianças onde sete dentre trinta e seis crianças serão seleccionadas intencionalmente para analisar os seus dados. O texto será estruturado por introdução, questões orientadora, finalidade de investigação, fundamentação teorica e algumas considerações finais.

Alexandrino Amaral, Julião da Coosta & Gaspar Varela, *O Uso do Jogo no Ensino de Quatro Operações Básicas*

Universidade Nacional Timor-Lorosa'e (UNTL), Timor-Leste

O presente trabalho intitulado “uso do jogo no ensino de quatro operações básicas das crianças” visa indagar a potencialidade de jogos dados que contribuam para aprendizagem de quatro operações básicas de matemática dos alunos do 6^o ano do ensino básico. O quadro de tabuada e jogos de dados serão utilizados como instrumentos metodologicos de pesquisa. As actividades serão realizadas juntos com 33 alunos. Depois de analisar esta actividades com 33 alunos iremos escolher 10 alunos com intencionalidade como sujeito da pesquisa para entrevistar. Como fundamentos teoricos deste trabalho escolhemos teoria de Piaget e outras concepções teoricas. Não podemos apresentar o resultados da pesquisa porque ainda está em andamento. O trabalho vai ser estruturado por meio de introdução, formulação de problema, objetivos de pesquisa, procedimentos metodologicos e algumas considerações finais.

Maria Angelina do Carmo & Gaspar Varela, *Uso de Jogos e Brinquedos no Ensino de Números da Educação Infantil de Canossa*

Universidade Nacional Timor-Lorosa'e (UNTL), Timor-Leste

Este trabalho tem por objectivo identificar as possíveis potencialidades dos jogos e brinquedos utilizados no ensino do sentido de números e organização de dados às crianças da educação pré-escolar de Canossa. Criamos ambiente com situação que envolvem jogos e brinquedos para as crianças jogar e brincar com instrumento metodológico para o ato de recolha informações da pesquisa. O nosso trabalho será fundamentado com as concepções de Castro e Rodrigues (2008), Vasconcelos (2004) e Vygotsky (1998, 2001). Estudo será realizado junto a uma turma de trinta e seis crianças onde cinco dentre trinta e seis crianças serão seleccionadas intencionalmente para analisar os seus dados. Não podemos apresentar o resultado, pois, deste trabalho por que ainda está em desenvolvimento. O texto será estruturado por introdução, questões orientadora, finalidade de investigação, fundamentação teorica e algumas considerações finais acerca do nosso trabalho.

Rikusoin Naturál no Kulturál ba Turizmu iha Timor-Leste

Inês Amorim, *Tempu-Livre iha Tasi-Ibun: Oinsá Konseitu ne'e Mosu iha Timor-Leste no Dezafiu Globál sira ne'ebé Tenke Hasoru*

Universidade do Porto, Portugal

Komunikasaun ne'e diskute oinsá Europa Osidental sei hamosu kultura tempu-livre nian. Kestaun maka ne'e: oinsá tasi ibun ne'ebé uluk fatin ida de'it atu hola rekursus sai fatin ba férias mós? Iha Timor-Leste, pareseke fenomenu ida-ne'e foin akontese no la'o neineik tanba timór-oan sira la rekoñese kedas utilidade nafatin ba fatin mamuk sira-ne'e. Oinsá Timor-Leste, nu'udar rai ne'ebé foin sai independente, define ona programa jestaun ba dezentvolvimentu ekonómiku ne'ebé bazeia ba rekursu ne'e? Oinsá Timor-Leste hasoru "kultura tempu-livre" ne'ebé eziste daudaun no dezafiu globál sira-seluk? "Kultura tempu-livre" mak liafuan ida ne'ebé eziste iha Timor-Leste ka lae? Ba sé? Tempu-livre ba timór-oan sira ka ba malae sira? Buat sira-ne'e hotu kona loos ba comunidade lokál sira ka lae?

Joaquim Pereira de Silveira, *Turizmu Luku iha Timor-Leste: Potensiál Patrimóniu Tasi Okos ba Dezentvolvimentu Komunitade Lokál sira – Kazu Dili nian*

FLUP, Timor-Leste

Komunikasaun ida-ne'e analiza dezentvolvimentu turizmu luku iha Timor-Leste, iha kontestu promosaun patrimóniu tasi-okos iha "Triángulu Ahu-Ruin" rejiaun Pasífiku nian. Komunikasaun analiza liuliu kazu Dili no rikusoin tasi-okos ninian. Identifika fatin luku nian no valór konservasau no analiza sira-nia potensiál turístiku no impaktu sira ne'ebé ligadu ba. Estuda turista sira-nia motivu no analiza impaktu negativu husi merkantilizasaun patrimóniu nian. Buka apresenta nesesidade atu envolve comunidade lokál iha atividade ida-ne'e hodi garante dezentvolvimentu sustentável ba indústria turizmu iha Timor-Leste.

Jesuína Maria Mendonça, *Turizmu no Lazer iha Area Tasi-Ibun Dili nian: Kazu Areia Branca nian*

Universidade Nacional Timor-Lorosa'e (UNTL), Timor-Leste

Komunikasaun ida-ne'e ko'alia kona-ba atividade turístika no lazer iha espasu tasi-ibun Areia Branca, Dili, Timor-Leste. Komunikasaun ne'e avalia ninia potencialidade no rekursu turístiku sira, indústria turístika, infraestrutura, ekipamentu no asesibilidade. Komunikasaun apresenta mós política pública ne'ebé planeada ba atividade turístika no lazer ho foku ba área ne'ebé refere. Analiza inkéritu ne'ebé halo tiha kona-ba utilizasaun espasu tasi-ibun husi turista lokál no internasionál no ninia rekomendasaun kona-ba jestaun di'ak ba espasu tasi-ibun, konservasau ambiente tasi-ibun no dezentvolvimentu sustentável turizmu tasi-ibun nian.

Politics & International Relations

Rui Graça Feijó, *Against Formidable Odds: Timor-Leste Decision to Build Simultaneously a State and a Democracy*

Coimbra University, Portugal

In 1999, Timor-Leste decided to embark on an original process of building simultaneously a state (destroyed by the scorched earth policy of the withdrawing Indonesians) and a democracy. Moreover, the construction of a democracy faced formidable odds. In a sense, one might say that Timor-Leste challenged several well-established assumptions in Political Science. 20 years

on, Timor-Leste seems to have been successful in this endeavour. The proposed communication will look at the odds facing Timor-Leste in 1999 and the ways in which the country developed in order to sidestep the major obstacles and make the most of the limited capacities to engage in democracy building

Jose Cornelio Guterres, *Tradition and International Relations: Alternative Conflict Resolution through “Nahe Biti Boot Initiative in the Border Dispute Settlement between Indonesia and Timor-Leste*

Universidade da Paz, Timor-Leste

Border disputes constitutes one of the most challenging issues in the normalization of the relations between Indonesia and Timor Leste. Two land borders separate the two countries. Oecusse is Timor Leste’s enclave inside Indonesian province of West Timor. The eastern part of the border has successfully been negotiated, while the western part of the border remains disputed until today. Different interpretations exist between Indonesian and Timor Leste negotiators. The failure of the border dispute settlement has more seriously led to uncertainty and instability in the relations among the people occupying the border area. Tension, conflict and violence emerged as a result of this uncertain situation. This study is an effort to answer the above problems, in order to understand the extent to which the traditional society may initiate to provide alternative problem solving to the impasse and unresolved border dispute.

Session 5: Friday 9.30am–11.00am

Gendered Violence

Angela Taft, Lidia Gomes & Luisa Marcal (Kayli Wild, Guilhermina de Araujo & Angelina Fernandes), *Curriculum Development in Timor-Leste: Results from the Pilot of WHO's Pre-Service Curriculum on Responding to Violence against Women.*

La Trobe University; Universidade Nacional Timor Lorosa'e; PRADET; Instituto Superior Cristal, Timor-Leste and Australia

The World Health Organisation (WHO) has prioritised health provider training as an important component of a systems approach to addressing violence against women. Timor-Leste is one of the first countries to adapt, pilot and evaluate the WHO's new pre-service curriculum in their nursing and midwifery degrees. We report on learning outcomes as well as the collaborative adaption process. The evaluation results indicate significant learning gains in knowledge and self-efficacy, and the challenges that remain in shifting prevailing attitudes to violence. Key findings in adapting the curriculum to the Timorese context include the importance of video-based learning materials, broadening the scope beyond intimate partner violence to include family and children, and the significance of conceptual and linguistic adaptation in order to capture meaning in Tetum. The findings have implications for how to support ownership and impact when implementing new curricula in teaching institutions.

Kayli Wild, Guilhermina de Araujo & Angelina Fernandes (Lidia Gomes & Angela Taft), *Women's Stories of Trauma and Resilience: The Use of Video Narratives in Promoting Empathy for Health Providers Responding to Violence against Women*

La Trobe University; Universidade Nacional Timor Lorosa'e; PRADET; Instituto Superior Cristal, Australia and Timor-Leste

Empathy and compassion are some of the most fundamental components of a person's experience of health care. The ability of health providers to be able to respond empathically is particularly important for survivors of violence, who are often stigmatised and blamed for the abuse. We interviewed 28 women who had experienced domestic or sexual violence in Timor-Leste, to understand what forms of care are important to them. The findings are presented in three video narratives where women talk about the trauma from violence, barriers to getting help and what helps them open up. This research illustrates the importance of including the concerns and priorities of people with lived experience of the issues. Communicating research through visual stories has the power to increase understanding and emotional connection and can help transform the way health providers care for victims of violence.

Megan Hirst, *Child Sexual Abuse: Barriers to Reporting Abuse Against Girls and Boys in Timor-Leste*

Independent Researcher

Some existing indicators suggest that child sexual abuse is a significant problem in Timor-Leste, with boys suffering particularly high rates of abuse. However it appears that few cases are reported or reach the formal justice system. Reporting rates appear to be especially low for abuse committed against boys. Research and programming in this area have been minimal. This paper aims to use an existing (if imperfect) data source to generate preliminary conclusions, from which it is hoped that attention to this issue may be generated. The paper

will analyse client data from the women's and children's legal service ALFeLa (accessed by agreement). Data from ALFeLa and other sources will be used to assess reporting rates. ALFeLa's data will then be used to analyse the circumstances in which child sexual abuse is reported in order to draw preliminary conclusions regarding areas for further research and potential programming to increase reporting rates.

Prosesu Rejistrasaun Rai no Propriedade

Ortensio Pedro Vieira (Pedrito Vieira), *Rejistrasaun Rai iha Timor-Leste (Analiza Legal no Peskija iha Terrenu, Estudu Kazu husi Suai)*

Rede ba Rai, Timor-Leste

Prosesu rejistrasaun rai hahu ona iha Timor-Leste desde tempu 2008 ho programa Ita Nia Rai ne'ebé implementa ho tulun husi USAID. Iha tinan 2013 Governu RDTL fô fali kontratu foun ba kompañia rua hodi implementa tan prosesu rejistrasaun rai haleu Timor laran tomak. Programa ida ne'e iha impaktu ne'ebe boot ba comunidade haleu Timor laran tomak. Panel ida ne'e sei ke'e klean ba impaktu husi programa ne'e rasik. Orador primeiru sei apresenta en jeral kona-ba enkuadramentu legal ba prosesu rejistrasaun rai, lala'ok programa no progressu to'og agora. Orador segundu sei apresenta espesifiku kona-ba prosesu rejistrasaun rai ninia impaktu ba rai lisan no mos grupu vulneravel sira. Orador terseiru sei apresenta kona-ba susesu no desafiu ne'ebe programa rejistrasaun rai hasoru, oinsá prosesu ba futuru no oinsá ninia sustentabilidade ba oin. Objetivu husi panel ida ne'e atu hamosu diskusaun kreativu no dialektiku entre parte oioin ne'ebé servisu kona-ba prosesu administrasaun rai.

Mariano Ferreira, *Registrasaun Rai, Espesifiku ba Rai Lisan, Feto no Grupu Vulneravel sira*

Rede ba Rai, Timor-Leste; La'og Hamutuk, Timor-Leste

Peskiza kona ba registrasaun rai iha Timor-Leste husi kompañia SNC ne'ebé hetan kontratu husi governu TLs liu husi Ministériu Justisa, hahú husi tinan 2014 to fin de tinan 2019. Peskiza nee buka hatene kona ba oinsá SNC registu rai lisan sira, lala'ok, prosesu no partisipasaun comunidade liu-liu Feto no grupu vulneravel sira. Tanba bainhira rejistrasaun rai la iha prosedimentu espesifiku ne'ebé promove no proteje feto sira nia direitu ba rai, iha potensia hamenus feto nia direitu ba rai. Peskiza nee hatudu katak SNC nia informasaun públiku no prosesu rejistrasaun rai iha terrenu la tau matan ba direitu feto sira atu sai na'in ba rai. Bazeia ba rezultadu husi observasaun ba deklarasaun hamutuk 10,441 iha distritu 9 mak deklarasaun mane mak barak (64%) kompara ho deklarasaun husi feto iha deit (22%). Fallansu hanesan ne'é sai violasaun ba obrigasaun legal ne'ebé hakerek iha Konstituisaun no mos Lei 13/2017, tanba hatudu katak rejistrasaun rai husi SNC fo impaktu negativu no hamenus feto nia direitu ba rai. Metodolojia ba peskija mak análise dokumentu, lei no informasaun públiku hanesan publikasaun iha Jornal da República, informasaun husi SNC (website no Facebook), lee peskiza seluk no artigu akadémiku kona-ba asuntu rai iha Timor-Leste, estudu kazu iha terrenu, FGD (focus group discussion), observasaun ba registrasaun rai husi SNC, entrevista ho entidades oin-oin no dokumentasaun.

Sekretariadu do Estadu Terras Propriedade, *Susesu no Dezafiu iha Administrasaun Rai: Oinsá Futuru Rejistrasaun Rai iha Timor-Leste*

Sekretariadu do Estadu Terras Propriedade, Timor-Leste

Assuntu rai iha Timor-Leste kompleksu no la fasil atu resolve. Desde tempu ukun rasik an Governu Timor-Leste esforsu an ho intervensaun oiain atu resolve problema rai iha Timor laran tomak. Foin lalais iha tinan 2017 Governu Timor-Leste konsege aprova ona Lei 13/2017 ho nia objetivu atu regula diak liu tan assuntu rai iha Timor-Leste. Bazeia ba lei ida ne'e mak bele halo rejistrasaun no entrega titulu nain ba rai ba sidadaun sira. Alende Lei ida ne'e iha tinan 2013 Governu hahu programa foun ida ho naran Sistema Nasional Cadastro (SNC) hodi halo rejistrasaun rai haleu Timor laran tomak. Apresentasaun ida ne'e sei esplika kona-ba susesu no dezafiu ne'ebé Governu hasoru bainhira implementa prosesu rejistrasaun rai ida ne'e no sei apresenta mos kona-ba implementasaun ba programa rejistrasaun rai no Lei rai ba futuru.

História e Tradição 1

Ricardo Antunes, *As Mauberíadas a Epopeia Timorense, por Xanana Gusmão*

Independent Researcher

Em 1975, José Alexandre Gusmão (Xanana Gusmão) ganhou o primeiro Prémio do Concurso Literário do CITT (Centro de Informação e Turismo de Timor). Este prémio foi-lhe atribuído por um poema épico. Este poema, que viria depois a ser publicado, por partes, no jornal Voz de Timor, durante o ano de 1975, aparece originalmente sem título. O título *Mauberíadas*, surge mais tarde, numa publicação de excertos do poema, na Coletânea “Enterrem o meu coração no Ramelau – Antologia de Poesia Timorense”, publicado pela União Angolana de Escritores, em 1982. Por ter sido publicado por partes, no jornal, cujos arquivos se perderam quase por completo, e apenas em excerto, na coletânea citada, o poema, na sua totalidade, é praticamente desconhecido. Nesta comunicação, pretende-se fazer uma análise completa do poema, apresentando as suas linhas estruturais internas e externas, e verificar de que forma se estabelece a intertextualidade com as epopeias clássicas, nomeadamente com a obra *Os Lusíadas*, e com textos contemporâneos do mesmo autor.

Gisele Bertin, *Entre Tradição e Inovação: Como a Essência Artística Pode Potencializar a Identidade e o Desenvolvimento do País do Século XXI: Timor-Leste*

Universidade Paul Valéry de Montpellier, France

Entre euforia e preocupação, a virada do século presenteia o povo timorense com o alcance da liberdade nacional. Independência que também subentende auto responsabilização pessoal e coletiva, mas não significa retorno à forma original. Os nativos continuaram a crescer durante os anos de colonização e seguiram as práticas impostas, apesar de não abandonarem sua conexão essencial com a natureza. Por consequência, através de um viés artístico contemporâneo, olharemos as criações da timorense Maria Madeira, ressaltando e comparando sua intenção estética com a da malagasy Razakaratrino Zoarinivo, mais conhecida como *Mme Zo*, e a da portuguesa Grada Kilomba. Processos criativos que serão correlacionados com exemplos de impactos socioculturais efetivos, como os do artista brasileiro Ernesto Neto com a tribo Huni Kuin e o do camaronês Barthélémy Togo com a residência *Bandjoun Station*. Esse conjunto de obras nos encaminhará para a composição dos agentes essenciais de desenvolvimento, citados pelo líder Xanana Gusmão.

Martinho Gusmão, *Ukun Rasik-An Descolonização da Interioridade*

Instituto Superior de Filosofia e de Teologia Dom Jaime Garcia Goulart, Timor-Leste

A hermenêutica “*ukun rasik-an*” de Nicolau Lobato, entendida como uma filosofia política, assenta essencialmente sobre a reflexão e acção. Na óptica dele, a existência de tipos de

colonização e opressão, que estão a exigir não apenas uma filosofia da «liberdade» (em forma da *reflexão* crítica), mas uma filosofia da «libertação», i.e., «*ukun rasik-an*» em forma da acção ou *praxis*, cujo ponto de partida é a colonização e cuja a meta a atingir é a libertação. Etimologicamente, essa expressão composta pela palavra «*ukun*», da Língua Malaia «*hukum*» que significa: lei, regra, ordem; e pelo Tétum «*an rasik*», si próprio. Segundo Nicolau Lobato, “a ideia da *liberdade* e o desejo pela *independência* (*libertação*) nasce como povo, vive como o povo, e pulsa todos os dias no coração do povo”. Porém, a luta pela independência nacional seria “um salto qualitativo”, “uma reviravolta”, “uma viragem histórica” da *descolonização na interioridade*. Ele definiu essa descolonização como “*retoma a consciência de si própria*” – consciência de ser oprimido, e consciência crítica de si mesmo. Essa consciência traduz-se necessariamente na luta pela libertação. Neste sentido, Nicolau Lobato adaptou o conceito básico de Paulo Freire.

Nicolau Lobato: A libertação não é uma dádiva; é uma conquista; todos os povos lutaram para a conquistar. É uma constante histórica. Para libertar é preciso lutar. Porque havemos nós de fazer excepção!

Paulo Freire: A liberdade, que é uma conquista e não uma doação, exige uma permanente busca. ... Ninguém tem liberdade par ser livre: pelo contrário, luta por ela precisamente porque não a tem. Não é também a liberdade um ponto ideal, fora dos homens, ao qual inclusive eles se alienam.

Enquanto Nicolau Lobato articulou o seu pensamento filosófico político, Francisco Borja da Costa escreveu os poemas «*Foho Ramelau*» (Monte Ramelau) e «*Kdadalak suli mutuk*» (Ribeiros convergindo). Podemos dizer que, Borja da Costa trata os conceitos filosóficos de Nicolau Lobato, não como a matéria das discussões, mas como matéria da visão, ... é uma imaginação visiva. Timor-Leste é uma comunidade imaginaria, na interioridade dos timores; “Não há como realmente, de facto Timor-Leste é dos timores”.

Economics / Development Policy 1

Ameeta Jain & Jerry Courvisanos, Is it Possible? Multi-Stakeholder Perspective on the Sustainable Development Goals

Deakin University & Federation University Australia

United Nations’ global agreement by all member states is to achieve 17 Sustainable Development Goals (SDGs) for tackling the world’s major challenges from poverty to ecological decay and social inequality. Success requires transformation and innovation, led by the major stakeholders of these countries. With great fanfare in 2016, Timor-Leste promoted the adoption of its SDGs development agenda called “roadmap”. Research conducted on multiple stakeholders by interviews with NGOs, CSOs, financial institutions, social and private businesses, and government departments enabled examination on how deep the SDGs have penetrated major development stakeholder communities. This paper explores discrepancy in the government’s SDGs agenda with its fossil-based gas extraction policy, and roadblocks in successful spread of agenda and its implementation by major stakeholders. Stakeholders’ own inability to articulate clear vision for the SDGs themselves, and the challenges they face in implementing even their own limited SDG aims, indicates huge challenges going forward to 2030.

Joana de Mesquita Lima & João Pedro Costa, *The Context of the [un]Planned Urbanscape*
Universidade de Lisboa, Portugal

Urbanscapes are the dynamic result of the interaction between people, policies, investment and interests, with different actors claiming roles in this realm. Dili has sprawled since independence, responding to migratory movements and to natural rates of growth. Although city development has taken place, the expansion of the urbanscape has occurred in what appears to be an actor-centred approach. Although strategic documents have been produced and plans have been drawn-up, these have largely not been implemented. This paper presents a desktop analysis of strategic planning documents, ranging from government, development partner and donor programmes, to planning project documents developed by the actors of this urbanscape. It sets forth an opportunity to map out how urban planning has been proposed and considered over time, identifying overlapping areas and proposing discussion on the effectiveness of the varying approaches to planning the Dili urbanscape.

Charles Scheiner, *Implications of Recent Changes to Timor-Leste's Petroleum Fund*
La'o Hamutuk, Timor-Leste

Since 2008, Timor-Leste's Petroleum Fund has paid for 86% of state expenditures, enabling a wide range of services, infrastructure, and other government activities. The Fund has already received USD \$22 billion in oil and gas revenues and \$5 billion from its overseas investments, and now holds about \$16 billion. However, its sustainability is threatened by declining petroleum reserves, an uncertain investment climate and high government spending, and the Fund could be entirely spent within a decade. Recent political and governance changes to 'invest' the Fund in the Greater Sunrise project may empty it even sooner. This paper will review the background, history and governance of the Petroleum Fund, and explain the specifics and likely consequences of the changes made this year.

Gestão de Recursos e Política de Desenvolvimento 1

Jesuína Mendonça, *Turismo e Lazer no Espaço Litoral de Díli: a Praia da Areia Branca*
Universidade Nacional Timor-Lorosa'e (UNTL), Timor-Leste

A comunicação debruça-se sobre a atividade turística e de lazer no espaço litoral da Areia Branca, Díli, Timor-Leste. Avaliam-se as suas potencialidades e os seus recursos, as atividades, infraestruturas e acessibilidade. Apresentam-se as políticas públicas planeadas para as atividades turísticas e de lazer, com um enfoque especial na área referida. Discutem-se os resultados de um inquérito sobre a utilização do espaço litoral por turistas locais e internacionais e as suas recomendações para uma boa gestão do espaço litoral, a conservação do ambiente costeiro e o desenvolvimento sustentável do turismo costeiro.

Joaquim Silveira, *Turismo de Mergulho em Timor-Leste: Potencialidades do Património Subaquático como Motor de Desenvolvimento das Comunidades Locais - O Caso de Díli*
FLUP, Timor-Leste

A comunicação analisa o desenvolvimento do turismo de mergulho em Timor-Leste no contexto da promoção do património subaquático na região do «Triângulo de Coral», no Pacífico. A comunicação foca-se no caso de Díli e na riqueza do seu património subaquático. São identificados os sítios de mergulho e os valores de conservação e analisadas as suas potencialidades turísticas e os impactos associados. A comunicação discute as motivações dos

turistas e o impacto negativo da mercantilização do património. Defende-se a necessidade de envolvimento das comunidades locais para garantir um desenvolvimento sustentável do segmento turístico em Timor-Leste.

Dezenvolvimentu Seitor Peskas ba Hadia Rendimentu no Nutrisaun

Mario Pereira, *Benefisiu Rumpon Moris Loron-Loron Peskador no Siguransa Nutrisaun*
WorldFish, Timor-Leste

Timor-Leste nasaun foun ho maioria teritoriu hadulas ho tasi. Nudar nasaun foun, dezafiu atual maka oinsa hadia seitor saude no nutrisaun ba Timor oan hotu liu-liu labarik sira. Dezenvolvimentu seitor peskas sei dook husi ema barak nia mehi no pratika ezistente peska artezenal fornese produktu ikan ba konsumu nasional sei kiik liu (estimasaun 6.1 kg/tinan/ema). Servisu parseria entre WorldFish ho MAP liuhusi Dirasaun Geral Peskas dezenvolve ona teknolojia simples “rumpon” nebe teste ona iha tasi parte norte no sul Timor-Leste. Rezistencia rumpon hasoru korente no laloran tasi husi fatin ida ba fatin seluk la hanesan. Tamba ne’e sei foka liu ba oinsa dezenhu ankor nebe bele fo kapasidade diak hodi tahan unidade rumpon nebe dezloka ona. Rezultadu kaer ikan husi rumpon sira nee hatudu signifikante kompara ho area besik sira seluk. Seluk tan, teknolojia ida **ne’e mos efesien no efikas hodi sustenta vida moris loron-loron nian, no hadia seguransa aihan no siguransa nutrisaun ba comunidade kosteiru sira. Rekomenda katak teknolojia ida ne’e bele dezenvolve diak liu tan no replika ba fatin seluk ho gestaun peskas nebe prudente hodi fo benefisiu ba peskador sira no kontribui ba siguransa aiha no nutrisaun iha rai laran.

Joctan dos Reis Lopes, *Enerjia Solar ba Sistema Tracking Ro’o Bele Koleita Dadus Importante ba Jestaun Peskas iha Timor-Leste*
WorldFish, Timor-Leste

Obstakulu persistente iha peskas eskala ki’ik mak difikuldade iha rekoilasaun dadus ne’ebe diak kona ba bainhira, iha ne’ebe no oinsa frekuentemente peskas eziste. Felizmente, advansu teknolojiku foun sira ho kustu ki’ik halo ida ne’e sai viavel liu. Ami hakarak teste karik instalasaun ba unidade Pelagic Data Systems (PDS) ho enerjia solar ba sistema *tracking* ro’o (VTS) bele ajuda orienta jestaun peskas iha Timor-Leste. Depois ho inisiu 85 unidade ne’ebe instala tiha ona iha Fevereiro 2018, dadaun iha tan 300 ne’ebe akompana peskador artezenal sira loron-loron husi fatin hatun ikan iha munisipiu 11. Rezultadu hatudu katak *tracking* ho rezolusaun a’as bele asesu ba karateristika peska husi tempu no espasu no liu-liu iha area remota sira, no bele fornese akuradu “esforsu” ho numeru viajen, media distansia no tempu gastu. Sujestaun no partisipasaun husi peskador sira hatudu pozitivu, no integrasaun sistema ida ne’e ho dokumentasaun kaer ikan bele fornese estimasaun kaer ikan nasional nebe akuradu.

Agustinha Duarte, *Kontribuisaun Jeneru ba Hahan no Rendimentu Husi Eskala Ki’ik Peska Iha Timor-Leste*
WorldFish, Timor-Leste

Peska hanesan aktividade vidamoris nebe importante iha Timor Leste. Mane ho fetu peska, maibe kontribusaun jeneru ba hahan no rendimentu husi peskas skala ki’ik laiha dokumentasaun global, no informasaun barak nebe mak ajuda ganha aprosimasaun jestaun no dezenvolvimentu. Uza livru diaria partisipatoriu, Fokus ba diskusaun grupo no dadus deskaregamentu ikan husi comunidade 6, ami halo komparasaun aktividade peska fetu no mane. Rezultadu hatudu fetu uza metudu/ekipamentu hotu maibe meti mak metudu peskas

nebe uza bebeik ho rendimentu rata-rata \$1.10/horas. Jeralmente rendimentu feto sira mais menus metade husi rendimentu mane sira, maibe, nivel peska feto hatudu konsisten liu ho nivel peskas 99%, kompara ho mane sira ho 84 %. Meti nia viajem ho nivel atingimentu 100% peska hetan. Peska ba feto iha Timor Leste importante tebes ba seguransa aihan ho aseguara prepara hahan no rendimentu direita ba uma kain. Infelizmente iha tendencia atu ignora feto no grupo minoridade sira ba foti desizaun iha peskas no konservasaun.

Session 6: Friday 11.00am–12.30pm

Public Policy for Sustainable Peace

Amaro Ximenes, *Seguransa ba Ai-an*

Sua, Exelencia Diretor Nasional Agrikola, Hortikultura e Extensaun

José Filipe Dias Quintas, *Turismu no Dezenvolvimentu Komunitaria*

Sua Exelencia, Diretor Jeral Turismu Sr.

Pedro Canizio, *Akua no Saneamentu*

Sua, Exelencia Diretor Saude Publik (MinestrioSaude)

Yazalde Manaka Savio, *Vizaun Ekonómika PEDN no Teoria Akumulasaun Primitiva: Karl Marx*

Peskizador no Fundador Movimentu Letras

Villiam Dominico Xavier Sozinho, *Estudu kona ba Seguransa ai-han iha Area Basia Hidrográfika Raumoko – Municipio Lautem*

Estudante Graduadu Faculdade Agricultura, Departamento Agro Socio-Ekonomia UNTL)

Silverio dos Santos, *Rede, Radio Telekomunikasaun*

Estudante Finalista Fakultade Siensia Teknolojia & Departamentu Elektronika

Ilham Bazher, *Degradasaun Ambiental iha Tasi Timor*

Engenerio Geologia, Estudante Graduadu, Institutu Teknologia Nasional Yogyakarta

Justaquio Fabiano Lasi, *Oceanu no Biodiversidade Sustentavel*

Ambaixador ba Biodiversidade Oceanu

Women's History

Annie Pohlman, *Reading the CHART Archives for Women's Testimonies and Experiences*

The University of Queensland, Australia

Human rights archives—governmental or community-based archives which record primarily human rights abuses—have evolved since the 1960s and are grounded in social justice concerns. CHART (Clearing House for Archival Records on Timor) is an Australian human rights archive ‘created to ensure long-term preservation and access to documentary records on East Timor history for the period 1974-1999’. Built upon the dedicated work of human rights campaigners—primarily John Waddingham and Pat Walsh—CHART has become a major centre for online, public and private collections of activists, their campaigns, and the materials they amassed over the period of Indonesia’s military occupation of Timor Leste. This paper reflects on the ‘archival turn’ in women’s studies (Eichhorn 2013) and on using the CHART archives. These archives are not ‘a destination for knowledge already produced or a place to recover histories [...but] where knowledge production begins’ (p. 3). In particular, I discuss the reports, letters and personal testimonies written by and about women gathered from CHART in my reconstruction of patterns of human rights abuses during the Indonesian occupation.

Nuno Rodriguez Tchailoro, *Houses as Sites of Women's Resistance in the Occupied Zones*
Independent Researcher

In the occupied areas, after the destruction of liberated zones, the Indonesian military oppressed Timorese resistance movement through controlling public spheres. All political dissent against the regime in public spheres was brutally suppressed. The Indonesian military presence is everywhere with no public sphere available to contest against the domination. From personal initiative, Timorese women started to discover houses as less political risk sites to organize themselves to resist clandestinely. Gradually, through women's participation houses became the sites of resistance against the Indonesian occupation. This article will examine the role of women in the shift of apolitical domestic spheres become political realm and show that the counter public spheres in the occupied zones as merely an extension of political organization from the houses.

Economics / Development Policy 2

Brett Inder, *Where Lies the Future for the Timor-Leste Economy?*

Monash University, Australia

Timor-Leste faces some big challenges in navigating the next steps of economic development. With a relatively small private sector, there is great reliance on Government spending for generating demand and creating employment. Until now, this spending has largely been supported by petroleum fund revenues. Can this continue into the future? Current plans pin hopes on developments in the Timor Sea and the South Coast, with more Oil and Gas royalties, and broader development through onshore activities – supply base, processing facilities and associated infrastructure. This paper undertakes a simple economic analysis of these proposed developments, taking account of risks, employment creation and poverty impacts. The analysis suggests that while economic benefits are possible, there are many risks associated with over-reliance on a narrow set of economic activities. Continued pursuit of a genuinely diverse set of economic activities is of vital importance in creating prosperity that benefits all people of Timor-Leste.

Acacio Pinto & Detavian Freitas, *Review of Australia's Contribution to Private Sector Development in Timor-Leste*

DFAT, Australia; House: Buka Hatene, Timor-Leste

Reflecting the priority of the Government of Timor-Leste to develop its non-oil economy, the Australian development program contributes to private sector development (PSD) through creating more jobs, increasing rural incomes, and developing people to be workforce ready. An independent review of Australia's contribution to PSD in Timor-Leste was undertaken to evaluate and make recommendations for their PSD portfolio. The review methods included literature review and key informant interviews. The review found the Australian development program's approach to PSD in Timor-Leste is relevant, and addresses many constraints in a mutually reinforcing way. Recommendations included, but were not limited to: policy reform should focus on implementation; Australian investments should leverage a gender-responsive budgeting processes; and additional reintegration support should be given to returnees from the Seasonal Worker's Program.

João da Cruz Cardoso, *Making Sense of Infrastructure Investment in Timor-Leste*

Ministry of Planning and Strategic Investment, Timor-Leste

This paper examines relations between investments on infrastructure with development in Timor-Leste. In the last five years, the Government of Timor-Leste has allocated at least US\$4 billion to develop the infrastructure sector with the aim to support and promote economic activities. Recent incidents related to the failure of the highway in the south coast and other national roads do not only raise questions about the quality of infrastructure, but also their overall value in contributing to the improvement of people's well-being. In this regard, this research explores the significance of infrastructure's impacts on growth and elaborates how such impacts are assessed for different types of infrastructure. Expanding on ongoing debates about the link between infrastructure and growth as well as taking into account the experiences from other countries, the paper discusses challenges and opportunities that infrastructure brings to development in Timor-Leste.

National Identity

Emanuel Braz, *Communicating National Identity in Timor-Leste*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

This paper presents the results of a qualitative research study on national identity but looking specifically at how it is being communicated in contemporary Timor-Leste. If all nations possess a national identity, what then is Timorese national identity and how and who is it being communicated by and to whom. The reflections of the respondents of this qualitative research study assist in the understanding of key issues surrounding the national building processes currently taking place in Timor-Leste; in the strengthening of a unique national identity post-independence in 2002. The findings of this study reveal the Timorese are fully socialised to feel and believe and act as Timorese, independently from attachments to other local or group identities from birth. It also sheds light on the pivotal role of the Timorese parents and other caregivers in this regard and much more so than the mass media and State institutions including the formal education system, in communicating national identity to the Timorese.

Martinho G. da Silva Gusmão, *“Barlaki” and “Barbini”: The Sacred Soul of Timorese Communitarianism*

Instituto Superior de Filosofia e de Teologia Dom Jaime Garcia Goulart, Timor-Leste

The “*barlaki*”/ “*barbini*” is the traditional marriage system in Timor-Leste. From a western perspective, this is “pagan” and “merchandise based/oriented”. This paper aims to grasp that system from a communitarian philosophy. Its overriding philosophy is based upon the belief that a person's social identity and personality are largely molded by community relationships. Etymologically, “*barlaki*” is derived from “*ber + laki*” (Malay): to have man, husband; it is a patrilineal system; “*barbini*” is from “*ber + bini*”: to have woman, wife; it is a matrilineal system. Commonly, *barlaki* is the system for “*Firaku*” and “*Kaladi*”; Barbini: “*Dadi*” and “*Tetum*”. In a famous debate (1970), Nicolau Lobato argued that “*barlaque*” is “*os escaninhos mais recônditos e sagrados da alma de um povo*”. He concluded that the Timorese woman is not an object of purchase and sale, she is not merchandise in a cycle of take and give; the Timorese husband cumulates her affectionately and surrounds her with respect.

Steven Farram, *Social and Political Dimensions of 1980s East Timorese Popular Music*

Charles Darwin University, Australia

This paper concerns commercial popular music recorded in East Timor in the 1980s. East Timor was under Indonesian occupation from December 1975, but it appears that the first commercial music recordings made in the occupied territory only occurred in the mid-1980s. Recordings of East Timorese popular music continued to be made until the end of the Indonesian occupation in October 1999; during the 1990s this music was recorded in Dili as well as Indonesian centres such as Surabaya and Jakarta. While some consideration is given to East Timorese music from the 1990s, it is argued that the 1980s recordings deserve special attention because they can reveal much about the social and political dimensions specific to the times.

Cultura & Sociedade

Kelly Silva, Domesticando o Barlake: Projetos de Transformações das Trocas Matrimoniais Entre Jovens de Dili

Universidade de Brasília, Brasil

Este trabalho aborda projetos de transformações na configuração das trocas matrimoniais propostos por jovens adultos, mulheres e homens, entre 25 e 35 anos, em Dili, com base em pesquisa realizada em 2012 e 2013. Discutem-se as racionalidades que informam a diminuição nos investimentos materiais implicados nas prestações matrimoniais. Explora-se como esta demanda responde ansiedades como: 1. um individualismo emergente que se constrói por oposição a aquisição de dívidas compulsórias; 2. individualização das despesas implicadas nas trocas matrimoniais pelos noivos; 3. empoderamento das mulheres recém-casadas morando nas unidades domésticas de seus sogros; 4. garantia de condições materiais aos membros da família recém-constituída em se qualificar; 5. sobrevalorização do sacramento do casamento na Igreja Católica; 6. reprodução da *kultura* enquanto símbolo das subjetividades leste-timorenses.

Renata Nogueira da Silva, Economia da Dívida e o Espírito da Dívida: (Sobre) Viver e Comer com os Antepassados em Casas Timorenses

Universidade Brasília, Brasil

Baseada em pesquisa etnográfica em uma aldeia de Same (Município de Manufahi), realizada entre setembro 2016 e dezembro de 2017, a apresentação busca compreender os modos pelos quais a convivência entre pessoas, ancestrais e outros agentes místicos ganham sentido nas práticas cotidianas de comensalidade. Usualmente descritas na literatura como rituais predominantemente realizados nas casas cerimoniais, o convívio entre pessoas e entes místicos podem igualmente ser compreendidas como parte do fluxo da vida que ocorrem nas casas utilizadas preferencialmente para moradia. A comunicação explora a ideia de que as etapas da feitura e consumo da comida são entre outras coisas momentos de comunhão entre humanos e aqueles que ocupam outra dimensão da existência. À luz dessa ideia, a relação entre pessoas e agentes místicos é constituída por um constante dar-e-receber de alimentos, na qual a dívida e a expectativa da retribuição são deliberadas e o ato de dar não é desinteressado.

Câncio Freitas, A Construção de Característica das Crianças nas Famílias Timorenses GEECITE, Timor-Leste

Este trabalho pretende apresentar resultados de uma pesquisa sobre o tratamento de gênero na família que tem como objetivo principal discutir e compreender como se pode contribuir para construção das características das crianças e reduzir pensamentos que separam as atividades dos homens e das mulheres. Sabemos que famílias são instituições importantes por responsável na

educação dos filhos, influenciar os comportamentos dos mesmos no meio social e na construção dos pensamentos críticos das pessoas. Conforme no que está escrito no Decreto-lei No 7/2007 de 5 de Setembro “promover ações de formação e de educação com vista a sensibilizar a mudanças de atitudes discriminatórias que se manifestam em relação à mulher” (artigo 90, cap I, parte i). Segundo o plano estratégico 2011-2013 “dão prioridade às medidas para acabar a discriminação que as mulheres e os jovens em todas as áreas e erradicar a violência com base no género”. Isto significa temos de melhorar as situações das mulheres e das jovens ao combater a desigualdade indicado ao género no Timor e permitem os timorenses tomam em consciência sobre as existências das mulheres em toda parte, ao mesmo tempo, elas têm se preocupado cada vez mais em ocupar o espaços públicos, apesar dos preconceitos ainda existentes. É a parte da pesquisa que está no começo e será baseada em produção de dados quantitativos e qualitativos. Além disso, realizamos entrevistas com vinte famílias diferentes e analisamos as atividades diárias que se trata a questão da desigualdade de género. Os resultados mostram as atividades praticadas diariamente constroem as características separadas entre as crianças, “menino e menina”, ou seja, os pais separam coisas dos homens e das mulheres deste período de infância. Aliado a isso, percebemos que os sentidos construídos pelo entrevistado acerca do conceito de género varia, conforme o contexto sócio-histórico e cultural do sujeito.

Oinsá Hasoru Ema sira-nia Nonook, Lian no Arkivu

Joana Matilde Gaio, *AMRT Nu’udar Fatin Atu Dada Turista Sira: Proposta ida Kona-ba Roteiru Sira Rezisténsia Nian*

Universidade Nasional Timor-Lorosa’e (UNTL), Timor-Leste

Komunikasaun ida-ne’e fó sujestaun katak Arquivo & Museu da Resistência Timorese (AMRT) bele dada turizmu ne’ebé istóriu no kulturálno mós bele sai hanesan baze atu haruka vizitante ba fatin sira ne’ebé importante iha funu libertasaun. Komunikasaun propoin roteiru istóriu sira ne’ebé kahur patrimóniu Rezisténsia nian ho patrimóniu istóriu seluk (maka patrimóniu koloniál Portugál nian, patrimóniu Funu Mundiál Daruak nian, patrimóniu okupasaun Indonézia nian) no mós ho kultura tradisionál Timor-Leste nian. Komunikasaun foti konkluzau katak turizmu istóriu-kulturál ne’e bele serve hanesan estratéjia ida atu proteje patrimóniu Timor-Leste nian, promove dezvoltamentu comunidade lokál sira no promove edukasaun-ba-sidadania.

Inês Amorim, *Arkivusira no Prosesu Harii Hikas Identidade Istórika*

Universidade Nasional Timor-Lorosa’e (UNTL), Timor-Leste

Komunikasaun ida-ne’e analiza arkivu koloniál sira nu’udar fatin sira ne’ebé rai informasaun. Foin daudaun krikita ida mosu katak sira-nia kontribuisaun ba istória koloniál mak limitadu. Dalaruma, organizasaun resente ba arkivu foun la fó valór ka haluha ona arkivu administrativu sira-ne’e. Maibé, karik ita uza abordajen luan liu (“historic turn”), arkivu sira-ne’e bele hetan signifikadu foun bainhira ita kahur sira-nia dadus ho fonte-informasaun sira-seluk no tutan informasaun/dokumentasaun ne’ebé prodús tiha iha kontestu no ho objetivu la hanesan iha perspetiva pós-koloniál foun. Oinsá Istória Timor-Leste nian no ninia identidade bele sai luan no maka’as liu karik ita halo refleksaun ho klean kona-ba polítika koñesimentu, analiza filafali arkivu sira-ne’e no hatutan fonte-informasaun foun (purezemplu istória orál, foto, sasán no sira-nia signifikadu)?

Natalino de Jesus Dias, *Hatene Hodi Prezerva: Uma Lulik Sira Iha Timor-Leste no Patrimóniu Kulturál Postu Administrativu Hatu-Builico Nian*

Instituto de Ciências Religiosas São Tomás de Aquino, Timor-Leste

Komunikasaun ida-ne'e analiza Uma Lulik sira-nia importánsia iha Timor-Leste no, ein-gerál, valór patrimóniu kulturál materiál no imateriál iha kontestu harii filafali independénsia iha tinan 2002. Komunikasaun analiza liuliu projetu ida kona-ba jestaun patrimóniu kulturál iha Ainaro no hatete katak preziza identifika, prezerva no estuda patrimóniu ida-ne'e no promove nu'udar rikusoin ba jerasaun foun no ba dezvoltamentu comunidade lokál sira.

Education 2

Veronica Pereira, *Corporal Punishment in Schools in Timor-Leste*

University of Arkansas, USA

Corporal punishment is a controversial topic that people are debating today, especially in education or school settings. Corporal punishment is the way one person uses physical punishment such as hitting, spanking, slapping and paddling to educate and train other people – especially children. Some people think that using corporal punishment is an appropriate way to teach and motivate children (Middleton et al., 2008). Corporal punishment has been an ongoing issue at schools in Timor-Leste. It has been such a tradition that people use to educate children since the colonial era, which leads to many parents holding this idea still in today's society. However, many researchers show that corporal punishment is actually a bad way to educate children because it can harm the victims' body, mind, and emotions, in addition to destroying relationships between parents, children, teachers (Mulvaney and Melbert, 2010). The effect of the corporal punishment can be in physical and mental problem that can lead to depression, low self-esteem, and drop out. Therefore, it is important to take care of children's right by listening, tolerating, guiding, and loving might be some great alternatives for teachers. Also, it is significant to put into consideration of making laws that that ban the use of corporal punishment at schools as well as at home.

Margarida dos Santos, *Lived Experiences of East Timorese Students in the Philippines*

La Salle University, the Philippines

The Philippines has been one of the destinations for East Timorese students to pursue tertiary education. The continuous enrollment of East Timorese students in universities in the Philippines demands a proper understanding of the essence of this experience, of which, one study alone cannot suffice. An interpretative phenomenological analysis (IPA) of the lived experiences of five participants was conducted. This analysis extracted four themes: preparation and excitement; disorientation and challenges; assimilation and coping mechanisms; and adaptation and development. Important elements such as the ability to adapt, social support, and better environment were contributing factors to better adjustment, which can lead to personal development. The results of this study include recommendations for programs, improvement of services, and further studies involving students from different types of schools and relevant groups in academic society and the community.

Session 7: Friday 2.00pm–3.30pm

Decolonising Knowledge

Josh Trindade, *The Colonization and Decolonization of Minds in Timor-Leste*

Ministry of Legislative Reform and Parliamentary Affairs, Timor-Leste

This paper is aimed at exploring the issues related to the topics of colonization and decolonization of minds in Timor-Leste. During my work, one of the issues that I encountered frequently was the colonization of the minds through the degradation of local ideas, concepts and cultural values which have damaged the Timorese conception of themselves as a society. As a result, Timorese people have suffered a sense of cultural insecurity and inferiority in relation to the outside world. I will discuss these issues from the perspective of the colonized, arguing that the decolonization of minds is an essential part of the context of nation-state building processes in the newly independent post-conflict Timor-Leste.

Lisa Palmer & Balthasar Kehi, *Hola Wani: Courting Bees in a Divided Land* (Film Screening and Discussion)

The University of Melbourne, Australia

Hola Wani is a rare insight into critical cross-species relationships between people and bees. Relationships which, in this case, have prevailed over more than a century of political conflict and upheaval, and which now, as elsewhere in the world, continue to face the challenges of decreasing agrobiodiversity and increasing forest commodification. This film tells a unique story of the ways, despite such pressures and obstacles, a border people continue to forge their lives and their shared connections with bees and each other. The setting is the island land border between present-day Timor-Leste and Indonesia where ongoing conflict and displacement has materially divided and separated peoples, places, languages and histories. Yet through all of this, ancestral connections have continued to be honoured, connecting and binding together what cross-island politics has otherwise held apart. Challenging divisions between more than just countries, in this film we are also entreated to consider Timor's wild honey bees as people, as ancestors whose bi-annual visits to the forests and fields are essential to the ongoing flow of life in this place. The film's main protagonists are male tree climbers, known locally as *Laku* or civet cats. A group whose job it is to court the queen bees with nocturnal forest love songs, enticing and imploring them to at once give up some of their sweetness and to maintain their biannual visits to the people and the places who depend upon them. We follow the *Laku*'s harvest preparations and the nocturnal practices through which they woo and ultimately placate their 'lovers'. We join with the wider community as they gather nearby to celebrate the joy of the taste of bee larvae and to honour the life-giving flow of honey enabled by this essential mingling of places, flavours and beings from the east, from the west, from the forest and the sea. This is a story of a diverse community coming together to celebrate the sweetness and allure of love songs and of honey and, despite its challenges, determinedly maintaining a commitment to practices which ensure the cross-species flow of life.

Politika no Seguransa Nasional

Ato Lequinawa Costa, *Problema Arte Martesiais: Saida mak Lao Sala ho Politika Publikas*

Centro Nacional Chega!

Hau nia apresentasaun ida ne'e nudar tentativa ida hodi avalia problema violencia 'artes marsiais' mak akontese iha tinan barak nia laran. Avaliasaun sei haree hosi perspetiva politika publik nian, no halo referencia ba a relatoriu peskija sira, no rezultadu monitoring mak halo hosi organizasaun sociedade civil sira no hosi publikasaun media nian. Avaliasaun ne'e halo tanba mekanismus nebe kria ona no implementa ona hodi fo solusaun ba proble 'arte marsial' maibe to'o agora seidauk iha solusaun definitivu ida problema ne'ebe ema barak hanaran violencia 'artes marsiais'. Apresentasaun ne'e sei halo esforsu hodi haree problema violencia ho perspetiva istoriku no halo ligasaun ho violencia mak pratika iha modalidade desportu 'arte marsial'. Sei halo observasaun ba partidu politiku sira mak kapitaliza ona 'arte marsial' ba sira nia politika. Sei foka mos ba saida mak seidauk tau iha konsiderasaun bainhira halo desizaun kona ba solusiona problema 'arte marsial'.

Joao Almeida & Robin Perry, *PNTL iha 19: Progresu no Problema ba Reforma Kontinua*
Fundasaun Mahein and the Asia Foundation, Timor-Leste

Iha aniversariu ba dala-20 Timor-Leste hetan liberdade husi okupasaun Indonézia, nomos foin lalais iha mudansa ba lideransa PNTL, tempu too ona atu rekonese katak iha tinan hirak liu ba Timor Leste reforma ona institusaun setor seguransa. Klaru katak iha mudansa boot, ezemplu, agora PNTL estabelese ona nia modelu polisiamentu komunitaria Timor-oan nian, ne'ebé hetan apoiu husi doador sira. Modelu ida ne'e agora daudaun implementa no adapta iha teritoriu laran tomak, ita bele hare hanesan harii ona Konsellu Polisiamentu Komunitaria (KPK) iha nivel suku. Maske nune'e, sei iha dezafiu balun ne'ebé kontinua difikulta hodi impede esforsu desenvolvimentu servisu polisia ne'ebé orientadu ba comunidade, transparante, efikas ba povu Timor-Leste. Artigu ida ne'e foku liu ba parte dezeña evidencia, prinsipalmente ba avaliasaun no prepsepsaun levantamentu sira, hodi ajuda atu kompriende natureza husi dezafiu sira no dalan potencia sira hodi hadi'a.

Nuno Rodriguez Tchailoro, *Destruisaun Movimentus Sosiais iha Timor-Leste*
Independent Researcher

Indonezia ne'ebé lakon funu tanba Timor-Leste nia movimentu sosiais ne'ebé forte tebes. Biar nune'e, hafoin Timor-Leste hetan nia independénsia movimentus sosiais gradualmente domestikadu. Movimentus sosiais ohin laron hatudu retrosesu/hakiduk ba kotuk ho nia influencia polítiku mínimu. Movimentu sosiais ohin laron ne'ebé hakiduk ba kotuk la'ós de'it tanba fator internál maibé mós liuliu tanba destruisaun sistemátiku husi intervensaun esternál. Artigu ne'e koko atu haree intervensaun sistemátiku esternál atu harahun ba movimentus sosiais iha Timor-Leste no nia impaktu.

Gestão de Recursos e Política de Desenvolvimento 2

Inês Amorim, *A Criação do Lazer Costeiro: Enfrentando Desafios Globais em Timor-Leste*
Universidade do Porto, Portugal

O artigo discute a invenção de uma cultura de lazer, inventada pela Europa Ocidental. A questão é como uma fronteira marítima se tornou num espaço simultâneo de colheita de recursos marinhos para se transformar num cenário de férias. No caso de Timor Leste, parece ser uma descoberta recente, uma aproximação lenta a um espaço vazio, porque não tinha sentido continuado e útil para os seus habitantes. Como país recentemente independente, definiu um programa de gestão de desenvolvimento económico baseado neste recurso,

enfrentando a corrente visão de “cultura recreativa”. Existe essa palavra em Timor-Leste? Para quem? Os de dentro, timorenses, ou os estrangeiros? Faz algum sentido para os seus habitantes?

Mariman Oliveira, *Regime Jurídico da Contratação Pública*

Universidade Nasional Timor-Lorosa’e (UNTL), Timor-Leste

A presente dissertação do mestrado debruça-se sobre o Regime Jurídico da contratação pública num contexto global de Timor-Leste. O desenvolvimento deste trabalho procurou enveredar na importância da contratação pública a nível internacional e em Timor-Leste, e transmitir o impacto que este instrumento tem produzido nas economias de vários Estados como um meio fundamental para a concretização de políticas públicas, através de uma boa gestão dos dinheiros públicos. O objetivo principal da nossa investigação centrou-se na análise do procedimento de ajuste direto na legislação timorense e em fazer uma comparação entre o referido procedimento no âmbito da legislação portuguesa de forma a identificar as *nuances* entre as duas legislações. A partir da análise e comparação efetuadas nas duas legislações apresentamos as nossas sugestões para melhorar não apenas o procedimento de ajuste direto em Timor-Leste como também outras regulações nacionais relativas a contratação pública que necessita de uma reforma para acompanhar a evolução atual que se verifica no contexto global.

Ricardo Brito, *Timor-Leste e a História do Planeamento Urbano*

KonsolidArte, Timor-Leste

Existem determinadas circunstâncias “Geográficas (casuais) / Geoestratégicas “que foram determinados pelas suas características, como “prefeitas” para o desenvolvimento de grandes massas populacionais. Densidade populacionais essas que tendem perfeitamente a viver juntas em níveis complexos de organização social, religiosa-moral, poderia se chamar a este fenómeno de (D.D.M.C.- Densidades Diversificadas Multi Culturais). Estaremos condicionados pelo Presente da humanidade? Condicionados por uma construção social que funcione como uma pre determinada fórmula e que não alberga em si as necessidades que particularizam o desenvolvimento de sistema vigente como em Timor Leste? Analisar o passado e o presente dos factores que consideramos “Urbanos” e as razões históricas que a levaram a suas destituições, em alguns casos a sua reconstrução ou que incentivaram a sua construção inicial será crucial. Provando com factos que “urbes” se preparam em alguns casos para suportar um processo de re-actualização. Como guardam as urbes na sua memória a resiliência de uma multi-cultura de ações e hábitos (quais as principais formulas de arquitectura cultural)? De igual forma, esta grande arqueologia, o engenho que fica registado nos mapas, planos ou nos levantamentos, como fazer passar do tempo para os projectos? O que é implantar ou re-descobrir? Seriam esses planos antigos, representações lógicas eficazes e repletas de conhecimento para suportar a continuidade e o desenvolvimento dessas urbes? Qual o planeamento das novas Megametropoles, como o caso “Dubai”? Idealismos que se projectam sobre a capacidade de inovar e actualizar, pela emergência imperativa de políticas unificadoras, técnicas culturais e tácticas de regulação mais precisa, que determinam factores que deveriam ser tomados em conta nas inter-relações e no reflexo que essa produzem em termos de: Capacidade e autonomia produtiva urbana, megametropoles, estritos federais, micro estados.

Women’s Health and Wellbeing

Brian R. Hilton, Katy Cornwell, Margy M. Dowling, Heather K. Grieve, Evangelita Pereira, Nuno Alves da Costa & Antonia de la Pena Salamat, *Alarming Anaemia Rates Amongst Women Represents a Critical Gender Gap in Timor-Leste*

World Vision Australia; World Vision Timor-Leste; Nutrition Consultant, Chiang Mai, Thailand

Women and children in Timor-Leste have more stringent nutritional requirements and are at greater risk of malnutrition than men. In 2017, World Vision conducted a baseline study in three municipalities which included taking anthropometry measurements and anaemia testing (using HemoCue®) for 232 pregnant women and 1819 children (0-59 months). Anthropometric results were similar to the DHS (2016). Stunting in children (aged 6-59 months) was 46% and wasting 24%. The prevalence of anaemia in pregnant women and children was higher than the DHS, at 50% for children (0-59 months) and 54% for pregnant women with some municipalities as high as 64%. Mild anaemia (Hb 10-10.9g/dl) was rampant. World Vision promotes 6 superfoods rich in micronutrients and protein, trains men and women in cooking and undertakes intensive behaviour change aimed at men. Early results indicate high uptake of producing and consuming superfoods and greater participation of men in families with improved nutritional knowledge.

Marce Soares, Helen Smith, & Jessica Botfield, *Overcoming Social and Cultural Barriers in Sexual and Reproductive Health: A Health and Gender Awareness Program for Men in Timor-Leste*

Cooperative Café Timor/ Family Planning Australia

Men in Timor-Leste are not typically targeted with sexual and reproductive health education; rather, these are commonly focussed on women. However, as men in Timor-Leste traditionally make most family decisions and often control their family's access to healthcare, targeting men is one strategy to address gender inequalities and improve health outcomes. Using a peer education model, the Men's Health Program was implemented in rural Timor-Leste to deliver sexual and reproductive health information to men, with the aim of breaking down social and cultural barriers impacting women's and children's health, and with an emphasis on shared decision making. The evaluation undertaken indicated positive changes but also found that men continued to make important family health decisions alone, highlighting the complexities of cultural views of men and women's roles in Timorese society. The program has subsequently been refined to include women and to strengthen the concept of shared decision making.

Economics / Development Policy 3

Helio Xavier Mau-Quei, *Characteristics of the Informal Sector in Timor-Leste*

Universidde Nasional Timor-Lorosa'e (UNTL), Timor-Lorosa'e

This study analyzes the characteristics of people working in the informal sector in Timor-Leste. Using primary data, a stratified random sample was used to draw a sample of 349 households composed of 658 adult respondents from 38 CEAs in Dili and the surrounding districts.

A logistic regression model applied to identify factors associated with informal sector activity. Results indicated that 65.8% of individuals in our sample were engaged in the informal sector, with a significantly higher proportion of women than men. Education was significantly lower among those employed in the informal sector. Gender disaggregated shows that both married women and men are less likely to engage in the informal sector; this effect is larger for men. The effects of no education and urban location are only statistically significant for women. Further analysis of informal sector actors revealed a gender dimension in some specific activities. Females play a major role in food and beverage retail, as well as weaving and plaiting activities. Males dominate in other activities such as construction and quarrying.

Teresa Freitas Belo, *The Impact of Microcredit on the Growth of Micro, Small and Medium Enterprises in East Timor*

Dili Institute of Technology, Timor-Leste

Microcredit has an important role in the growth of the Small and Medium Enterprises (SMEs) in developing countries, especially East Timor. So, this paper will examine the impact of microcredit on SMEs growth in Dili, East Timor, controlling for SME age and size, micro saving and also for the firm's activity sector, firm's investment type and the gender of the owner/manager of the firm. The study provides primary data analysis from 269 SMEs in Dili, East Timor of the determinants of SMEs growth. The main result is that microcredit has a positive impact on the growth of SMEs in Dili, East Timor. So, microcredit institutions have a significant impact on the growth of SMEs, either by financing business as well as the possibility of creating jobs and increasing micro saving of the SMEs.

Maria Martins da Silva, *How Can Timor-Leste Benefit from WTO Accession Process*

Independent Researcher, Timor-Leste

Timor-Leste became a WTO observer in December 2016, at the same time, its Working Party group was established to commence its negotiation process. An inter-Ministerial Working Group was created to support this process and successfully submitted TL's Memorandum on the Foreign Trade Regime (MFTR) in June 2017, containing the country's economic policies and legislations. However, there is a long technical process to be completed, but due to the political impasse this process was interrupted. Subsequently, with very little knowledge on WTO accession process, Timor-Leste needs to fully utilize the accession benefits. Only a few technical supports took place during these two years, meanwhile as an observer, Timor-Leste is entitled to more opportunities to fully utilize its accession benefits from WTO, through their technical assistance and capacity building offers. Hence, this research will focus on some benefits that Timor-Leste should utilize to fully prepare itself prior to becoming a WTO Member.

Política no Relasaun Internasionál

Ines Martins, *Deskolonizasaun iha Timor Leste*

OXFAM, Timor-Leste

Maski peskiza barak hala'o ona husi agensia no INGOs, no dala barak involve NGO local sai nudar data kolektor, maibe iha analiza, hakerek nomos publika hala'o tiha husi ema internasional iha lingua ingles deit. Ne'e sai nudar kolonizasaun foun iha Timor Leste. Oxfam liu husi programa Dezenvolvimentu Inklusivu ne'ebe estabelese iha 2015, servisu hamutuk ho organizasaun lokal iha parseria, atu aborda ba asuntu politika, legal nomos sosial iha Timor Leste, maibe ladun iha baze evidensia hodi involve iha advokasia. Tanba ne'e Oxfam servisu hamutuk ho organizasaun parsieru no Tahan consultancy atu dezenu no implementa Ajenda Peskiza ida nebe koko atu halo deskolonizasaun ba peskiza. Liu husi dezenvolvimentu abilidade no konesimentu peskiza kolaborativu nian, Oxfam ho parseiru sira, no apoiu husi Tahan mak hala'o prosesu dezenu peskiza, koleta dados no analizasaun to'o hakerek relatoriu final, uza lian Tetum. Prosesu ne'e atu apoa ema Timor atu kaer prosesu peskiza tomak. Ho preokupasaun iha leten ezize atu iha maneira foun, uza no fahe konesimentu liu husi peskiza kolaborativu no partisipativu iha Timor Leste nunee ita, ema Timor oan, mak nain duni ba ita nia istoria.

Jose Neves, *Edukasaun iha Reconstrusaun Sociedade Timorese depois Referendum*
Independent Researcher, Timor-Leste

Referendum konduz sociedade Timor-Leste ba estatuto politiku definitivo, livre no independente ho kustu destruisaun infraestruturazika, destruisaun fabrika social timorese maibe husi parte seluk halo reintegrasaun social komunidadade timorese (timorese iha Frete Armada, timorese iha diaspora). Iha periodu tuir kedas referendum too restaura independencia – 20 Maiu 20012 – Timor-Leste sai “kampu konsentrasaun” sidadaun multi-kontinental nebe forma fenomenu social foun ho governasaun makina politika no administrativa centralizada boot no kompleksu nebe seidauk iha referensia ruma. Iha ambiente ida ne’e mak setor edukasaun formal reativa fali husi baze ho inisiativa informal sidadaun balu, hafoin reforsa ho mekanismos formais hosi UNTAET. Funcionamento edukasaun formal atual herda husi periodo ida neba no periodos anteriores. Plano Estrategiku Dezenvolvimento projeta katak too 2030 Timor-Leste atingi sociedade ida ho rendimentu mediu alto, laiha ona pobreza extrema, hatudu identidade nasional unika, eksklusiva no civika. Setor edukasaun nudar industria multi-disciplinar no multi-setor ba rekonstrusaun sociedade Timor-Leste hodi atingi vizaun strategiku ida ne’e. Ho andamentu durante 17 anos, setor edukasaun liu-liu edukasaun formal enkuadra-an loloos ona iha linha nebe orienta ba vizaun strategika nee?

Education 3

Tahmina Rashid, *Literacy, Language and Development in Newly Independent States: A Case Study of Timor-Leste Adult Literacy/Recurrent Education Programme*
University of Canberra, Australia

Timor-Leste is a young state emerging from the experiences of colonization and taking initiatives to develop state institutions. Successive governments, international NGOs and donor agencies have initiated various literacy programmes. This paper explores the non-formal literacy programmes in Timor-Leste, with a particular focus on the Second Chance Education Project. This research examines the impact of SCEP in Timor-Leste through community learning centres established in 8 municipalities. It analyses SCEP and the public policy framework, and scans through commitments made by the government to eradicate adult illiteracy. This research examines public policies and literature on adult learning in Timor-Leste, and incorporates field research to examine stakeholders’ views to assess the impact and sustainability of the programmes. The research concludes that programme and policy level structural limitations hinder efforts to eradicate illiteracy among adult learners; this needs to be addressed to achieve the goals set in the national education plan.

Trina Supit, “*Anak di Jalan Kembali ke Sekolah*”. *The Kids in the Street Went Back to School*
Independent Researcher

In October 1999 Education was in crisis: no department/ministry of education; no desks or chairs left in burnt out classrooms; no curriculum materials; no textbooks; no senior administrators; no secondary teachers, but a gradually budget-bursting number of purported primary teachers. The East Timorese collaborated with the UN, World Bank and NGOs to rebuild the education sector from scratch. The Timorese elite maintained the continuity of policy from 1974 when all parties had platforms whereby Portuguese would be the official language and hence medium of instruction. The Timorese determined education policy

implementation in areas as diverse as teacher recruitment, textbooks, classroom furniture and the design of schools, overcoming opposition from the World Bank and NGOs. Their champion was a Timorese Jesuit priest, Fr Dr Filomeno Jacob SJ, the Cabinet Member for Social Affairs. However, the best-laid plans can founder when nepotism or other forms of corruption enter a process, such as teacher selection.

Samuel Venancio de Sousa Freitas, Thomas Spurling & John Webb, *The Role of Chemistry and Chemical Education in Achieving the Sustainable Development Goals*

Universidade Nasional Timor-Lorosa'e (UNTL), Timor-Leste

Chemists and chemical engineers will have crucial roles in achieving most of the sustainable development goals but in particular goals 2,3,6,7,9,13,14 and 15, those concerned with food production, water quality, clean energy, industry and the environment. For example to achieve Goal 6 –Clean water and sanitation will initially require chemical engineers to design, build and maintain plant and equipment and then require analytical chemists to monitor and control the quality of the output of the plants. In 2019 Timor-Leste does not have the laboratory facilities in its schools and universities to train the needed workforce. The paper will outline a strategy to achieve the desired outcome.

Session 8: Friday 4.00pm–5.30pm

Women's Empowerment

Helio Brites da Silva, *Factors Effecting the Career Advancement of Timorese Women Managers in the Hotel Industry*

Dili Insitute of Technology, Timor-Leste

The purpose of this paper is to explore the factors that have an effect on women's leadership in the hotel industry in Dili, Timor-Leste. The present study adopted a qualitative research methodology within a content analysis by interviewing women and men managers and their perspectives on supervisors. A thematic analysis of a qualitative study conducted about Timorese women and men hotel managers provided rich insight into the antecedent factors of women's leadership in the hotel industry. These results can be summarized under three broad categories: individual, interpersonal and organizational. The limitations are the small sample size and the qualitative nature of this study. An important implication of the results of this study is that they can be used for cross-cultural comparisons. Most previous studies that have focused on the effects of gender on career advancement have used western conceptualizations. The findings of this research suggest designing organizational initiatives that can help women's professionalism in order to create their own leadership identities. The study takes an important part step toward developing a better understanding of the factors affecting the career advancement of women managers by contextualizing the ways in which women professionals perceive their career advancement. The findings of this study can aid policymakers in assisting women leaders in the hotel industry.

Sara Niner, Therese Tam, Berta Tilman, & Cristina Benevides, *Research on Public Perceptions of Women as Leaders in Timor-Leste*

Monash University, Australia; Universidade Nasional Timor-Lorosa'e (UNTL), La'o Hamutuk, Timor-Leste; Timor Surveys

The project focuses on women's local level political leadership where women's representation is low at around 4%. This research investigates what is holding women back from being elected, by specifically looking at public perceptions of women as political leaders, and the influence that societal gender norms have on women's chances of being supported by both the public and their communities and political parties. The aim of this research is to provide the background or baseline with which to inform advocacy, policy and programs that strengthen women's participation in political leadership and encourage a more enabling environment for emerging women leaders. More egalitarian societies, which it is hoped would follow such progress, are known to increase overall well-being for all citizens.

Jenny House, *Fisheries Monitoring as a Tool for Empowering Women and Informing Marine Management*

Blue Ventures, Timor-Leste

Lack of data impacts the management of Timor-Leste's small-scale fisheries. Since 2017, Blue Ventures supported the establishment of locally managed marine areas, using *Tara Bandu*, in three communities. The need for fisheries data was clear during the community consultation process because many people are concerned about the status of their fisheries. We observed that consultations tended to be dominated by men. In order to address these concerns, Blue

Ventures began a monitoring programme aimed at informing local fisheries management decisions. Group members are all women and their aim is not just to collect valuable data, which will be useful for the adaptive management of the *Tara Bandu*, but also to take a more active role in influencing community decisions around marine management. For example, last year they participated in pre-consultations for the national fisheries strategy. They use smartphone technology, which allows fisheries data to be collected quickly, easily and cheaply.

Dalan ba Harmonizasaun Psikolozia no Reziliensia

Inês Amorim, Natalino de Jesus Dias & Joana Matilde Gaio, *Oinsá Hasoru Ema Sira-Nia Nonook, Lian no Arkivu (Tuan no Foun)*

FLUP, Timor-Leste

Iha debate ida ne'ebé la'ó daudaun kona-ba oinsá ema harii memória sira no uza nu'udar rekursu istóriu. Liuliu kona-ba arkivu koloniál tradisionál ne'ebé ema barak sente katak laiha signifíkadu no utilidade ba sosiedade pós-koloniál no rai independente foun ne'ebé buka sira-nia identidade. Hodi promove debate públiku, ami sei halibur perspetiva oioin kona-ba fonte arkivistika Timor-Leste sira-nian, kona-ba interpretasaun elementu kulturál ruma (Uma Lulik) ka kona-ba ema Rezisténsia sira-nia lian ne'ebé seidak rona (roteiru istóriu sira Rezisténsia nian).

Kayli Wild, Guilhermina de Araujo, Angelina Fernandes Lidia Gomes, Angela Taft, *Feto Sira Nia Istória Kona-Ba Trauma no Reziliénsia: Uza Video Hodi Promove Empatia ba Fornesedor Saúde Sira Ne'ebe Responde ba Violénsia Hasoru Feto*

Universidade La Trobe, Australia; Instituto Superior Cristal, Timor-Leste; Universidade Nasional Timor Lorosa'e, Timor-Leste

Empatia no kompaisaun mak komponente fundametál ba ema ne'ebe esperiénsia iha kuidadu saúde. Fornesidor saúde sira nia kapasidade atu responde ho empátia mak importante tebes ba sobrevivente hosi violénsia, sira ne'ebé dala barak hetan kondena no fo sala ba iha abuzu. Ami entrevista feto 28 ne'ebé mak esperiénsia ona violénsia doméstika ka violénsia seksuál iha Timor-Leste, atu komprende kona-ba kuidadu ou assistensia ida ne'ebe mak importante ba sira. Rezultadu sei apresenta uza video tolu iha ne'ebé feto sira ko'alia kona-ba trauma hosi violénsia, difikuldade atu hetan tulun no saida mak bele ajuda sira hodi nakloke. Peskiza ida ne'e ilustra kona-ba importánsia hosi reokupasaun no prioridade ba ema ne'ebe esperiénsia hela kona-ba asuntu ne'e. Komunika kona-ba peskiza liu hosi istória visual iha potensial boot hasa'e komprensaun no emosional no bele ajuda transforma dalan ne'ebé fornecedor saúde halo hodi tau matan ba vítima violénsia sira.

Manuela Leong Pereira, Celestina de Almeida, Anina Goncalves, Merita Manuela de Araujo, Umbelina Amaral Soares, Emily Toome, *Trauma iha Isin-Lolon: Uza Mapa Isin Lolon Hodi Komprende Konsekuensia Husi Konflitu Pasadu ba Feto Sobrevivente sira*

ACBit, Timor-Leste; RMIT University, Australia

Liu tiha besik tinan rua-nulu husi remata de okupasaun militar Indonesia nian, feto sobrevivente sira sei rai hela iha sira nia isin-lolon efeitu husi konflitu pasadu no mos dezafiu ne'ebé mak sira enfrenta nafatin iha tempu ukun rasik an. Iha apresentasaun ida ne'e, ami fahe rezultadu no observasaun husi atividade "Mapa Isin-Lolon", parte ida husi Peskiza Asaun Partisipatoria (PAP) ne'ebé mak ACbit hala'ó ho sobrevivente sira iha Baucau, Covalima no Oecussi iha tinan 2018. Sobrevivente sira deskreve oinsá violénsia no terus ne'ebé uluk sira

hetan fó impaktu ba sira-nia isin-lolon. Ami fahe ami nia reflesaun kona ba oinsá atividade ida ne'e lao, dezafo ne'ebé ami hasoru, no benefisiu ne'ebé mak metodu ida ne'e bele oferese. ACbit uza metodu Mapa Isin-Lolon atu identifika sobrevivente sira nia problema atu hamutuk buka solusaun. Mais prosesu ida ne'e mos ajuda ita atu komprende kle'an liu oinsá feto Timor sofre no espresa sai sira nia trauma no terus baibain.

História e Tradição 2

Natalino Dias, *Conhecer para Preservar: As Uma Lulik de Timor-Leste e o Património Cultural do Posto Administrativo de Hato-Builico*

Instituto de Ciências Religiosas São Tomás de Aquino, Timor-Leste

A comunicação discute a importância das *Uma Lulik* (Casas Sagradas) e, mais genericamente, do património cultural material e imaterial no contexto da restauração da independência de Timor-Leste em 2002. Mais especificamente, a comunicação analisa uma proposta de gestão do património cultural de Ainaro. Defende-se a necessidade de identificar, preservar e estudar esse património e de o promover enquanto recurso para as gerações futuras, bem como para o desenvolvimento das comunidades locais.

Joana Matilde Gaio, *O AMRT Como Atração Turística*

Universidade Nacional Timor-Lorosa'e (UNTL), Timor-Leste

A comunicação sugere que o Arquivo e Museu da Resistência Timorese (AMRT) pode atrair um turismo histórico e cultural e servir de difusor de visitas aos lugares que foram importantes para a luta de libertação nacional. São propostos diversos roteiros históricos que combinam o património da Resistência Timorese com outro património histórico (património colonial português, património da Segunda Guerra Mundial e da ocupação indonésia) e a cultura tradicional leste-timorese. A comunicação defende que o turismo histórico e cultural pode servir para promover a preservação do património, o desenvolvimento das comunidades locais e os valores cívicos em Timor-Leste.

Carolina Pinto, *Da Materialidade à Imaterialidade dos Tais em Timor Leste: Património Como um Processo Continuum*

ISCTE-IUL / NOVA FCSH / CRIA

Perspectivas antropológicas sobre o património convidam-nos a compreendê-lo como um processo continuum a partir do qual as diferentes categorias patrimoniais se interligam e fundem. A emergência do património cultural imaterial vem amplificar o olhar e abrir caminho para novas reflexões a partir de um regime senciente. Ao refletirmos sobre a criação e uso dos *tais* ao longo do tempo encontramos ilustrações do seu dinamismo e fluidez. Pretende-se compreender como é que os *tais* se intersejam com os estudos críticos do património despertando interesse para investigar a materialidade, imaterialidade e agencialidades dos têxteis em Timor Leste.

Decolonising Knowledge: Power & Economics

Kelly Silva & Daniel Simião, *Playing with Ambiguity: The Making and Unmaking of Local Power in Post-Colonial Timor-Leste*

Universidade de Brasília, Brasil

The paper analyses the relation between state-centred forms of governance and local forms for regulating social life focusing on the status of local authorities. We propose that their ambivalent status is a central point to understand the way “culture” and “state” intertwine in the imagination of the nation. To explore this idea, we rely on the notion of local governance complexes, assuming that the legitimation of governance practices in the village level rests on elements of different origins which include, but not only, native conceptions of power and agency. Political actors as *xefe suku* are important operators of this connections and the way they are represented, either by the central state and by local dwellers, may give important hints about the imagining the nation in Timor-Leste. By the analysis of Timorese legislation on legal authority, contrasted to a case study from Liquiçá, we suggest that local authorities are expected to play different roles according to the perspective taken, either by the central government or by the local dwellers.

Guteriano Neves, *20 Years On: The Lessons – Learned: Economic Growth, Employment and Well-Being*

Independent Researcher, Timor-Leste

One important feature of the Timor’s economy over the past fifteen years is the excessive domination of oil sector. This is reflected in the GDP shares, the structure of the growth, state’s finances and the trade patterns. Since 2001, the economic growth has been primarily driven by the high growth at the oil economy. Despite high economic growth, it has not been going alongside the newly employment creation particularly, at the formal sector. In other words, the economic growth has not accompanied by new wealth creation. This poses tremendous threats toward overall well-being of the people, since it is the jobs that bridges the economic growth and the well-being. This paper will draw some lessons from the economic policy over the last fifteen years and what does it means for the long-term development goals, which is the wellbeing of the people.

Laurentina ‘Mica’ Barreto Soares, *China’s Belt and Road Initiative: What it Means for Timor-Leste?*

Swinburne University of Technology, Australia

Over the past decade, China has asserted itself as a growing global economic power. The launching of the “Belt and Road” Initiative for global connectivity in 2013 was indicative of Beijing’s assertiveness as one of the important economic players in the world. Beijing regarded the proposal partly as a revitalization of its ancient trade route to build friendly relations with countries around the world through infrastructure, trade and investment. While Beijing’s stated plan focused on economic activities, critics have argued that this initiative is not merely commercial but also geopolitical in nature. Timor-Leste is among 65 countries that China has indicated as important points for its Belt and Road links. China frames its relationship with Timor-Leste as part of its overall practical cooperation under the initiative of building the *21st Century Maritime Silk Road*. This paper explores how this ambitious initiative comes into play in Timor-Leste, and what it means for the country’s development and its engagement vis-à-vis the region. The paper argues that while this single-minded initiative may eventually help boost Timor-Leste’s development and regional connectivity, it also serves as soft power investment for China’s strategic interests. The Belt and Road initiative aims to portray China’s civilizational existence and help Beijing to propagate influence in the region, particularly for securing its naval mobility in the Indo-Pacific region so as to assure market opportunities and balance other major powers’ influence in the region.

Geology, Waste Management & Scientific Research

Elizabeth Baptista, *Assessing the Effectiveness of Crowdsourced Geographic Information for Solid Waste Management in Developing Countries*

Massey University, New Zealand

Dili, the capital city of Timor-Leste has been faced with serious solid waste problems in recent years. Responding to this issue, the government has adopted various policies including setting up solid waste collection sites in community areas and outsourcing collection service to the private sector. Despite, these efforts, waste is still found scattered on the roads and disposed of in rivers and open lands. A proper solid waste management strategy is necessary to transform the city into a clean city. Developing an effective solid waste management strategy requires reliable data. This study, therefore, investigated whether crowdsourcing-based data collection method can effectively be used to collect data about solid waste disposal and collection practices in Dili. The study demonstrated that a crowdsourcing-based data collection method could be an adequate substitute for traditional data sources because of its ability to collect data in real-time with lower operational costs.

Domingos de Sousa Freitas, Minoru Yamashita, Evangelino Candido Gaio, Sawada Keita & Komuro Shohei, *Uniaxial Tensile Test of Mild Steel Sheet under Cold Conditions*

Universidade Nasionál Timor Loros'ae (UNTL), Timor-Leste; Gifu University, Japan

Currently Timor-Leste has no automobile industry; however, its citizens are consumers of various automobiles: Toyota, Nissan, Mitsubishi, Jeep, Datsun, etc., which are imported from industrial countries and their many parts constructed from mild steel sheets known as low carbon steel where the carbon content varies from 0.05 to 0.25 %. The objective of the present study is to evaluate the mechanical properties and to observe the deformation behavior of 0.6 mm thick mild steel sheet by uniaxial tensile test. The dimensions of specimens are prescribed in Japanese Industrial Standards. The parallel length and the width are 60 and 12.5 mm, respectively. The gauge length is prescribed 50 mm, which is used to determine the total elongation. The specimen elastically deforms up to the yield stress, then it exhibits plastic deformation. The tensile force or nominal stress reaches its maximum (Ultimate tensile strength), subsequently it decreases exhibiting diffuse necking. Finally, it suddenly drops at breakage. True stress σ_t can be calculated using nominal stress σ_n and nominal strain ε_n : $\sigma_t = \sigma_n \times (1 + \varepsilon_n)$. The plastic property usually approximated by n -th power hardening law using true strain ε_t : $\sigma_t = c \varepsilon_t^n$. The larger n -values is preferable for sheet metal forming, especially stretching, because the ductility increases with n -value. By the experiment the ultimate tensile strength was determined to be 293MPa.

Nicole Cox, Ron Harris & Stephen Carey, *Australia Downunder: International Undergraduate Field Study of Active Arc-Continent Collision in Timor-Leste*

Federation University, Australia; Brigham Young University, USA

In 2018, a group of undergraduate geoscience students from Federation University Australia visited Timor-Leste as part of an advanced fieldwork course, supported by the Australian Government's New Colombo Plan. The aim was to expand student's geological understanding of active tectonic collisional processes. The island of Timor is part of the youngest mountain range on Earth, which is forming due to subduction of the northern edge of Australia beneath the Banda Arc. Over 16 days, both Australian and Timorese participants visited localities including Dili, Same, Viqueque, Baucau, Com and Tutuala. The itinerary was designed to

provide insight into the geological complexity of Timor-Leste as the group walked through the oldest rocks and structures to some of the youngest. Participants applied a variety of geological skills, including the identification and measurement of geological structures, lithostratigraphic and biostratigraphic documentation, mapping, assessment of geological hazards and recognizing the significance of orogens in natural resource formation. The involvement of Timorese geologists from the Instituto do Petróleo e Geologia (IPG) and students from the Universidade Nacional Timor Lorosa'e (UNTL) provided a local perspective on the geology and facilitated the Australians' access to Timorese culture.

Partisipasaun Feto iha Rezistensia no Dezenvolvimentu Nasional

Nuno Rodriguez Tchailoro, *Uma Sai Fatin ba Feto nia Rezisténsia iha Zona Okupadas*

Independent Researcher, Timor-Leste

Iha zona okupadas, hafoin destruisaun area libertadas, militar Indonézia halo operasaun ba movimentu rezisténsia Timoroan liuhusi kontrolu ba espasu públiku. Ideia polítika ne'ebé kontrariu ho rezime iha espasu públiku brutalmente harahun. Militar Indonézia nia prezensa iha fatin hotu-hotu ho laiha espasu públiku ne'ebé iha atu uza hodi kontra dominasaun. Husi inisiativa ema ida-idak ninian, feto Timoroan hahú deskobre uma nu'udar fatin ne'ebé menus risku polítiku organiza an reziste klandestinamente. Neneik-neneik, liuhusi feto nia partisipasaun uma sai fatin ba rezisténsia hasoru okupasaun Indonézia. Artigu ne'e sei explora kona-ba papél feto halo mudansa husi espasu doméstika ne'ebé apolítiku sai polítiku no kontra espasu públiku iha zona okupadas nu'udar estensaun de'it husi organizaun polítika husi uma.

Dulce Martins da Silva, *Estudu Kona-Ba Partisipasaun Feto ba Dezenvolvimentu iha Area Rural*

Dili Institute of Technology, Timor-Leste

Dezenvolvimentu feto mak sai assunto importante ida ba desenvolvimento nasaun nian. Iha nasaun Timor-Leste governo tau prioridade ba feto atu iha acesso ba edukasaun no mos iha área hotu. Kontituisaun Timor-Leste RDTL artigo 17, nebe garantia igualdade entre feto ho mane, katak feto ho mane iha direito no obrigasaun hanesan iha domínio hotu-hotu iha vida família, cultura, social no politika. Ida ne mak sai ponto partida ida peskizador atu halo sasukat ida hodi foti distrito ermera sai hanesan fatin peskiza, atu hare desenvolvimento feto iha área rural no nia dezaflu no mudança sira.

Estudu ne'e ho objetivo atu buka hatene kona-ba situasaun iha munisipiu Ermera, liuhusi atu descobre dezaflu desenvolvimento feto rural no nia mudança sira ligadu ho investimento ne'ebe Governu hala'o durante ne'e.

Estudo ne'e halo ho método quantitative descritivo, iha nebe peskizador sei sukat maioria no minoria, no nia razaun descritivu sira.

Angela Taft, Lidia Gomes, Luisa Marcal, Kayli Wild, Guilhermina de Araujo, Angelina Fernandes, *Dezenvolve Kurrikulu iha Timor-Leste: Rezultadu Pilotu Organizaun Mundiál Saúde (OMS) Nia Kurrikulu Pré Atendementu Hodi Responde ba Violénsia Hasoru Feto*

La Trobe University, Australia; Instituto Superior Cristal, Timor-Leste; Universidade Nacional Timor Lorosa'e (UNTL), Timor-Leste

Empathy and compassion are some of the most fundamental components of a person's experience of health care. The ability of health providers to be able to respond empathically is

particularly important for survivors of violence, who are often stigmatised and blamed for the abuse. We interviewed 28 women who had experienced domestic or sexual violence in Timor-Leste, to understand what forms of care are important to them. The findings are presented in three video narratives where women talk about the trauma from violence, barriers to getting help and what helps them open up. This research illustrates the importance of including the concerns and priorities of people with lived experience of the issues. Communicating research through visual stories has the power to increase understanding and emotional connection and can help transform the way health providers care for victims of violence.

Identifikasaun Rekursu Natural, Potensia Turismo no Ameasa sira

Leonardo F. Soares, *Estudu Kona-bá Konservasaun We'e Matan iha Komunidade*

Dili Institute of Technology, Timor-Leste

Estudu ida ne'e ho intensaan atu ezamina ezistensia be'e-matan iha komunidade baze sira hodi bele fornese solusaun alternativas ruma ba solusiona problemas mak akontese iha baze sira relasaan ho fornese be'e matan ba komunidade. Tan ne'e peskizadór uza metodu "*Causal Comparative no Quantitative Comparative*" hodi hala'o peskiza ne'e iha baze sira. Metodu Causal Comparative nudar metodu peskiza ne'ebe foka ba identifika kauza no impaktu sira husi asaun ne'ebe komunidade sira halo liga ho ezistensia be'e matan, liu tan ne'e halo komparasaan ba fatór kontributór sira hodi bele buka solusaun apropiada. Quantitative Komparativu uza hodi hatene nivel kontributor sira no nivel risku sira mak akontese iha komunidade. Atu tulun prosesu halibur informasaan sira ho diak, Peskizadór dezeń instrumentu sira hanesan Observasaan Kampu, Questionariu ba Intervista Interpersonal no Dokumentasaan nudar dalan atu halibur informasaan sira konaba situasaan real mak akontese iha baze sira relasaan ho ezistensia be'e matan no ai-horis hirak ne'ebe kontribui ba hamosu be'e matan iha komunidade. Dadus ne'ebe kolekta husi peskiza sira iha kampu, peskizadór uza metodu Analiza Kuantitativu hodi hatene konaba numeru husi be'e matan hirak mak *laiha risku ba maran, iha risku ba maran no maran ona*. Liu tan ne'e, peskizadór mos uza metodu analiza kualitativu hodi hatene konaba fatór sira mak kauza risku sira ba be'e matan no identifika solusaun sira hodi solusiona proble sira mak deskobre iha peskiza ne'e. Peskiza ne'e kobre baze komunidade 5 (lima) ne'ebe pertense ba Uniaun Agrikultór Ermera-UNAER nian. Baze komunidade hirak ne'e mak hanesan: Gou-io, Lipelhei, Hatugu, Sacoco no Maudiu. Total be'e matan ne'ebe peskiza kobre ba, iha be'e matan 34.

Ildefonso da Silva, Kim Dunphy, Nelinha Pereira & Holly Schauble, *Salvuarda Patrimóniu Kultural Ema Fataluku Iha Timor-Leste Ne'ebé Ameasadu Atu Lakon: Peskiza Dansa Tradisionál no Arkivu Dijital*

Many Hands International, Timor-Leste; The University of Melbourne, Australia

Aprezentasaan ida ne'e, atu koalia kona-ba dezeńvolvimentu ne'ebé foun ho inisiativu hodi suporta ema fataluku sira atu halo gravasaan, arkivu no partilla elementu patrimóniu kultural immaterial ne'ebé atu lakon iha forma dijital. Projetu ne'e inklui mos elementu husi patrimóniu kultural immaterial lubuk ida, maibe ida ne'ebé agora dadauk hala'o hela mak forma dansa tradisional fataluku. Agora dadauk estabesele tiha ona Web-publisidade ba plataforma OMEKA ba kolektaan fataluku ho material sira ne'ebé kolekta tiha ona liu husi projetu peskiza ne'ebé hala'o iha komunidade. Funsaan ida husi uza OMEKA mak atu promove kualidade no asesibilidade informasaan sira ne'ebé fó sai ka hatudu ba komunidade fataluku sira iha Timor-Leste no diaspora no perkizadór sira iha Timor-Leste no iha nivel internasional. Aprezentasaan ida ne'e dezeńvolve sumáriu ida kona-ba saida deit mak inklui iha dansa ne'ebé

arkivu tiha ona, hanesan vídiu sira, fotografia no informasaun sira ne'ebé hakerek. Hato'o mos kona-ba difikuldade no progresu sira ba inisitiva hodi halo dokumentasaun no apresentasaun elemnetu património kultural immaterial sira ne'e. Dadus analítiku sira preparadu hodi indika kona-ba bainhira no iha ne'ebé mak bele asesu ba arkivu sira ne'e.

AGRICULTURE PROGRAM

Session 1: Thursday 9.30am–11.00am

Koko Vaidade Batar ho Liis

Leandro C.R. Pereira, Armindo Moises, Felisberto Amaral Soares, Claudino Ninas Nabais & Albertino Geronimo, *Peskiza Batar Adaptasaun ba Klima no Rai iha Centro Peskiza Loes*

Batar hanesan ai-han ida ne'ebe importante ba ita nia agricultor sira consumo iha sira nia moris loro-loron liu-liu iha area rurais. Batar mos hanesan ai-han ida ne'ebe fasil moris iha fatin ne'ebe de'it. Produsaun batar iha kada tinan ne'ebe ita nia agricultor sira produz menus husi 1.0 toneladas/ha Geralmente Batar la persija rai ne'ebe mak especial maibe ba rai ne'ebe fila, bokur, riku nutrisaun no udan ben suficiente bele fo produsaun batar diak no a'as nomos bele kuda iha rai tetuk no a'as ho nia altitude husi 50m – 1800m husi tasi. Iha fulan Marcho 2014 MAP introdus tan fini foun variedades 19 husi IITA Nigeria hodi koko nia adaptativo ba rai no klima iha Timor Teste no hasa'e produsaun liu husi halo komparasaun entre varidade lokal ho introdus. Tuir fontes katak batar sira ne nia kor musan kinur nia kontiudu nakonu ho vitamina A no resistencia ba moras downy mildew ho aflatoxin. Metode ne'ebe uza halo peskiza mak hanesan prepara rai, halo mapa, sukat kanteiru ho nia luan 25m² (5m x 5 m). Kada testo halo ho dezenho bloku randomizado ho replikasaun kompletu tolu, kada bloku iha 24 kanteiru. Iha sentru Loes observa katak iha signifikante entre variedades ba produsaun t/ha (0.005) no todan musan 100 (gr)(0.013) maibe lahatudu ba komponente sira seluk. Peskiza Pesqa ba batar adaptasaun analiza uja multi lokasi hahu husi tinan 2014 to'o 2018 ba fatin 4 hatudu katak laiha varidade nebe mak konsistencia ba produsaun maibe iha varidade foun balu nebe mak fo produsaun boot liu mak PVA SYN 6(2.7 t/ha), PVA SYN 20(2.11t/ha) no Aflatoxin R SYN 2 Y(2.6 t/ha) aleinde varidade foun iha varidade local ida mak konsege eleva ho varidade foun mak hanesan L.fatulurik (2.7t/ha).rezultadu produsaun batar tinan hirak nia laran iha varidade hat mak mensional iha leten fo nia produsaun konsisten ona ho ida ne mak hato ba DNPEIG hodi bele hare no tetu atu bele hato'o ba MAP hodi husik ba to'os nain sira kuda.

Claudino Ninas Nabais, Manuel Guterres, Paul da Costa & Abertino Gerónimo, *Dezenvolvimentu Hibridu Batar (Zea Mays, I) iha Timor Leste*
Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Batar konsideradu ai-han importante iha Timor-Leste. Batar musan nebe nakunu ho karbohidratu, proteina, mina no buat midar nebe sai materiais essenciais ba dezenvolvimentu ema ninia isin. Dezenvolvimentu batar hibridu bele hamosu varidade foun nebe ho produsaun as no nakunu material esensial sira. Dezenvolvimentu batar hibridu iha Timor-Leste hahu tinan 2004, bainhira péritu ida ho naran Prof. Kim husi Korea Sul nian hodi hahu melhoramentu batar. Métudu nebe uza mak, koleksaun rasas lakal sira (local races) ho kruza ho germaplasma ezótiku sira hodi hetan linhas parentais nebe produsaun as, rezistente moras importante no udan bee menus. Gerasaun F₁ sira hamutuk 24, inkluidu hibridu China (ChH) no Bisi-2 husi Indonesia, koko ona iha Centro Pesquisa Loes (CPL) no Fatin Pesquisa-UNITAL, Hera iha fulan Dezembru, 2015. Parametru sira mak ami sukat no analize: as-hun (PH), as-fulin (EH), naruk-funan (TL), diametru-fulin (ED), total linha-musan (TR), total musan per linha (TGperR), naruk-fulin (EL), todan fulin (EW) no todan musan-maran (GW). Rezultadu Anova todan-musan maran la hatudu diferensia signifikativu iha CPL ho valor produsaun ChH = 8.1

tha¹, Bisi-2= 7.1 tha¹ no T-22 6.9 tha¹; hatudu diferensia signifkativu iha CP-UNITAL ho valor produsaun T-22 = 5.3 tha¹, ChH = 4.1 tha¹ no Bisi-2 = 3.7 tha¹.

Decio A. E. D. C. Ribeiro, Claudino Ninas Nabais & Juliberto Dos Santos, *Peskiza Adaptasaun Variedades Liis no Tempo Kuda ne'ebe Diferente iha Municipio Baucau*
Ministeiro da Agricultura e Pescas (MAP), Timor-Leste

Peskiza adaptasaun ai-horis Liis ida nee, nune'e ita bele hatene ai-horis Liis adapta no fo produsaun diak ka lae ba ita nia klima neebe interval tempu entre durasaun fulan rua-rua (2). Objetivo husi peskiza adaptasaun Variedades Liis ba intervalo tempu kada fulan rua-rua (2), ba tinan ida (1) nee hodi fo produsaun diak no adapta ba tempu udan no bailoron no klima iha Timor Leste. Defini Variedades ne'ebe produtividade as no adapta diak tur tempu kuda. Atu buka respond no nesidade Agricultor/ povo nia economia uma laran. Fatin implementasaun atividades peskiza adaptasaun aihoris Liis halao iha suco Lahomea, Aldeia Galusapulu, posto Adminitrasaun Maliana Municipio Bobonaro, tempu implementasaun atividades fahe ba epoka dala neen (6), signifika katak tinan ida nia laran atividades peskiza ida nee sei halao durante kada fulan rua-rua to'o tinan ida no tempu implementasaun atividades peskiza ba epoka primeiro mak iha fulan Julho 2018. Rezultadu produsaun Liis ba epoka primeiru nebee implementa iha tinan 2018-2019 nebee halao iha Municipio Bobonaro hatudu katak variedade Liis introdus Lokananta nebee fo produsaun as ho ninia produsaun 12.5 t/ha no Tuktuk nia rezultadu produsaun menus mak hanesan 7.29 t/ha nee dadus statistika hatudu la iha signifikan maibe komparasaun ba ninia prdusun kada variedades ida idak iha diferente.

Felisberto Amaral Soares, Leandro C.R. Pereira & Armindo Moises, *Peskiza Adaptasaun Batar ba Rai No Iklima iha Centro Betano*

Batar mos riku karbohidratuu depois aihan seluk ne'ebe mak nakonu ho karbohidratuu mos, batar kuasze populusaun Timor Leste hotu gosta han. Batar fobenefisiu no saude ba ita ema durante iha nia moris tomak. Testu replikadu batar adaptasaun tinan 2016 hala'o ona iha centro peskiza Betano no testu ne'ebe iha uza metodu randomized complete block (bloku kompletu) ho replikasaun tolu. Medida kantadeiru testu mak 5 x 5 m. Medidas Fini batar ne'ebe kuda hetan fini husi rai liur variedade sanulu resin sia (19) no lima (5) fini lokal. Fini batar kuda musan ida kada raikuak ho espasu 0.75 x 0.25 cm (ai-horis hun 4/m²). peskiza ne'e sei rekolla dadus hotu no hatama ba excel sheet depois analisa uza soft word programa genstat versi 64. Estasaun Betano, Efeito husi filleira/kolomLae, Testu ANOVA no Tipu General Analysis of Variance. Peskiza batar adaptasaun ba tinan 2018 varidade introdus UP2 produsaun 3.80 (t/ha) parte permeiro no VB1 produsaun 3.22 (t/ha) segundu. Variedade sira seluk mos bele diak wainhira udan been tu'un ho normal.

Agriculture 1

Acacio Cardoso Amaral & Ian Robertson, *Production System and Market Chain for Poultry in Timor Leste*

Unversidade Nacional Timor Lorosa'e (UNTL), Timor-Leste; Instituto Politécnic de Betano Kay Rala Xanana Gusmão, Timor-Leste; Murdoch University, Australia

The poultry industry in Timor Leste involves village chickens (*Gallus domesticus*) and ducks (*Cairina moschate* & *Anas platyrhynchos*). The main poultry industry in Timor-Leste is classified as a traditional system based on free-range poultry production with minimal biosecurity and the birds and their products are consumed locally. Even though, chickens are

generally free-ranging with minimal inputs, they play an important role in the economy of villages in Timor Leste. The objective of this study is to know the production system and market chain for the poultry industry in Timor-Leste based on a sound knowledge by survey covering 76 villages out of 442 villages in the country. The result showed that most poultry lost were due to predation and diseases. Predation accounted for 23.6% and 38.2% of village chickens and ducks respectively and diseases accounted for 13.5% and 16% of village chickens and ducks respectively. The marketing is limited to local consumption.

Antonia Salamat, Yoseph Suni, Feliciano Luis, Tito Adelo Soares, Baltazar Ximenes, Alex Salamat, Brian Hilton, Katy Cornwell & Margy Dowling, *Eggsplasion - The Rapid Scale Up of Rural Chicken and Egg Production in Timor-Leste through Improved Housing and Training*

World Vision Timor-Leste (WVTL), Chicken Facilitators (WVTL), Salamat Consulting Services and World Vision Australia

Timor-Leste has one of the highest rates of under-nutrition in the world associated with a low protein diet. Adequate chicken and egg production is prerequisite for many countries to lower malnutrition. Although chickens are common in Timor-Leste ownership may be limited to one or two birds that lay few eggs irregularly. Mortality from disease and predation is high. Farmer knowledge of chicken husbandry practices is low and veterinary extension services are lacking. World Vision Timor-Leste has initiated a program of chicken improvement and egg production using improved housing and intensive management training of farmers. The program uses semi-free-range techniques to save feed. It changed the mindset of farmers from raising chickens as hobby to a business that increased availability of food and income in the household. Farmers practicing these management methods are experiencing an explosion of chicken numbers along with sharply increased egg and chicken consumption and selling.

Acacio Cardoso Amaral, *Prevalence of Toxocara Canis in Community Dogs in Central Region of Timor-Leste*

Universidade Nacional Timor Lorosa'e (UNTL) and Instituto Politécnico de Betano Kay Rala Xanana Gusmão

It is well known that *Toxocara canis* is considered to be one of the most common worms in dogs. However, there has never been a study conducted to record the prevalence of *T. vitulorum* in Timor-Leste. Therefore, the present study was designed to detect the prevalence of this round worm in community dogs in selected villages across three municipalities in the central region of Timor-Leste. A total of 6 villages were selected randomly from the three municipalities for site surveys. After that, a total of 111 fresh dogs' faeces samples which belonged to the three municipalities of Aileu (32), Ermera (43) and Manufahi (36) were collected using non-random sampling. All samples were examined according to the standard McMaster technic (flotation method) for detection of *Toxocara canis*' eggs. The findings indicated that the highest prevalence (37.2%) of *T. canis* was detected at the municipality of Ermera, followed by 21.9% in Aileu and 5.6% in Manufahi. Overall, the prevalence of *T. canis* in the central region was 22.5%.

Session 2: Thursday 11.30am–1.00pm

Adaptasaun ba Varidadae Oin Oin

Armindo Moises Claudino Ninas Nabais, Albertino Geronimo, Robert Williams & Luis Almeida, *Teste Observasaun Variedade Koto Badak (Phaseolus Vulgaris L.) iha Timor-Leste*

Seeds of Life (SoL), Agricultural Innovations for Communities (AI-Com), Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Koto badak nu'udar ai-horis leguminosa ida ne'ebé di'ak tebes ba ema nia saude tanba kontein nutrisaun ne'ebé mesak oin-oin liu-liu proteina ne'ebé boot tebes. Problema ne'ebé agrikultór sira infrenta iha Timor-Leste mak sei menus produsaun, kauza folin koto iha merkadu mós aas tebes, difikulta comunidade ba hetan nesesidade ai-han ho suficiente. Problema menus produsaun tanba agrikultór sira seidauk identifika variedade koto badak ne'ebé mak iha nia katareistika di'ak, hodi bele hasa'e produsaun iha sira nia to'os. Haree ba problema refere, mak esforsu Ministério da Agricultura e Pescas (MAP), liu husi direasaun peskiza ho apoiu husi parseru dezenvolvimentu sira introdús koto badak variedade foun husi rai liur hodi koko hamutuk ho variedade lokál. Objetivu husi teste ne'e mak oinsa buka variedade ne'ebé mak bele adapta di'ak ho kondisaun klima Timor-Leste, atu nune'e bele hasa'e produsaun iha agrikultór sira nia to'os. Teste ne'e hala'o iha Estasaun Peskiza Ululefa/Maubisse tempu bailoro, tinan 2018 ho total variedade hamutuk 66 (inklui lokál 4). Rezultadu teste hatudu katak, variedade foun G51149 mak iha rezultadu aas liu ho nia produsaun 25.1 g/hun kompara ho médiu produsaun variedade lokál ne'ebé ho nia médiu produsaun 12.4 g/hun. Entre variedade ne'ebé teste, identifika ona variedade koto badak oin 40 mak sei uza ba kontinua halo teste ho replikasaun iha tempu tuir mai. Liu husi teste ne'ebé sei halo, mak sei bele identifika variedade koto badak ne'ebé sei sai nu'udár variedade superiór, atu nune'e bele hasa'e produsaun iha tempu tuir mai.

Armindo Moises, Claudino Ninas Nabais, Albertino Geronimo & Robert Williams, *Teste Adaptaun Variedade Fore-Keli (Glycine Max.) iha Timor-Leste*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Fore-keli nu'udar armazen ba nutrisaun ne'ebé importante tebes ba ema nia saude tanba bele proteje mós ema husi moras oin-oin. Ai-horis ida ne'e bele sai troka na'an ba sira ne'ebé kategoria vejetarianu tanba iha kontein proteina 40% no mina kuaze 20%. Problema ne'ebé agrikultór sira iha Timor-Leste infrenta mak sei menus produsaun fore-keli kauza menus ai-han ba nesesidade konsumidór sira iha moris loron-loron. Bazeia ba problema refere, mak esforsu Ministério da Agricultura e Pescas (MAP), liu husi Divisaun Peskiza ho apoiu husi programa Seeds of Life (SoL), introdús variedade foun husi rai liur hodi koko hamutuk ho variedade lokál. Objetivu husi teste mak oinsa buka variedade fore-keli ne'ebé iha adaptaun di'ak ho kondisaun klima Timor-Leste, atu nune'e bele hasa'e produsaun iha agrikultór sira nia to'os. Teste variedade fore-keli hala'o iha Estasaun Peskiza Ululefa husi programa SoL husi tinan 2015 to'o 2016 no kontinua implementa hela husi Divisaun Peskiza/MAP hodi avalia kona-ba variedade nia potenciabilidade. Rezultadu teste hatudu katak variedade Anjasmoro mak iha rezultadu produsaun boot liu ho médiu produsaun 1.2 t/ha kompara ho médiu produsaun variedade hotu 1.0 t/ha.

Armindo Moises, Inácio Savio Pereira, Claudino Ninas Nabais, Albertino Geronimo & Robert Williams, *Teste Adaptaun Variedade Fehuk-Ropa (Solanum Tuberosum L.) iha Timor-Leste*

Seeds of Life (SoL), Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Fehuk-ropa nu'udar fontes ba nutrisaun ne'ebé di'ak tebes ba ema nia saude tanba bele proteze ema husi moras oin-oin. Problema ne'ebé agrikultór sira iha Timor-Leste imfrenta mak alende seidauk identifika variedade ne'ebé iha produsaun aas para bele hasa'e produsaun iha sira nia to'os, tanba mós moras ne'ebé afeta fehuk-ropa kauza produsaun menus. Haree ba problema refere, mak esforsu Ministério da Agricultura e Pescas (MAP), liu husi Divisaun Peskiza ho apoiu husi programa Seeds of Life (SoL), introdús variedade foun husi rai liur hodi koko hamutuk ho variedade lokál. Objetivu husi teste mak oinsa buka variedade ne'ebé mak iha produsaun aas no iha mós resistensia di'ak ba moras, atu nune'e bele hasa'e produsaun iha agrikultór sira nia to'os. Teste variedade fehuk-ropa hala'o iha fatin tolu mak hanesan Hohrae Ki'ik, Larigutu no Ululefa durante periodu tempu tinan 2009 to'o 2015 hodi implementa variedade oin 15 (inklui lokál 3). Rezultadu teste indika variedade 39184.5 mak sai nu'udar variedade foun superiór ne'ebé bele propoin ba Governo/MAP hodi lansa, tanba variedade ne'e alende iha produsaun di'ak, iha mós resistensia di'ak ba moras ne'ebé afeta fehuk-ropa iha Timor-Leste. Variedade refere iha vantajen produsaun boot liu pursentu 27 no resisténsia ba moras di'ak liu pursentu 16 kompara ho variedade lokál.

Felisberto Amaral Soares, Leandro C.R. Pereira, Armindo Moises, João Bosco Belo & Denisia Raquela Brito, *Peskiza Adaptasaun Fehuk Midar ba Iklima no Rai iha Centro Peskiza Betano*

Fehuk midar (*ipomoea batatas* (L.) Lamb) husi Amerika kontinental no habelar ba nasaun ne'ebe ho iklima tropika iha dekada 16 to'o iha kontinental asiatiku. Tuir ita hotu nia hatene'e fehuk husi ita nia avon sira, husi okupasaun Portuques ho Indonesia, iha tempu ukun an fehuk mai husi Centro International Potatoes (CIP) Indonesia no to'o agora Timor – Leste halo ona testu adaptivu iha fatin peskiza centro 5 (Betano, Aileu, Loes, Darasula nomos Ululefa). Fehuk midar introdus alende husi variedade ne'ebe halo testu hamutuk ho lokal hodi halo komparasaun entre rezultadu no karakteristika atu nune'e bele mos variedade ida ne'ebe maka hetan valor rezultadu aas no resistensia kondisaun rai no klima ne'ebe reve. Alende husi fehuk variedade hirak ne'ebe uza halo testu, iha variedade balun mak produsaun a'as, konsisten no diak liu lokal mak Ministerio da Agricultura e Pescas lansa ona iha tinan 2010 no 2015 hanesan Hohrae1, Hohrae2, Hohrae3, Sia TL no Darasula. Husi variedade ne'ebe lansa tiha ona agora espalla kuaze iha teritorio Timos - Leste. Agora sei nafatin uza variedade balun halo peskiza iha centro peskiza hodi buka nafatin variedade ida ne'ebe mak konsisten ba produsaun atraves husi ai-horis introdus nomos lokal balun atunune'e bele kria tan variedade balun ne'ebe iha karakter forte no produsaun a'as durante testu iha tempu no tinan hirak nia laran. Fehuk midar mos agora sai nu'udar hahan ida ne'ebe famozo iha comunidade sira nia let tanba bele konsume ba iha dader nu'udar matabixu, merenda iha lokraik no nia tahan no dikin nurak bele halo modo nomos bele fo han animal hakiak. Dala ruma ema balun han fehuk midar durante dader to'o kalan bain hira iha tempu rai hamlaha, liu-liu ba fatin rurais balun mak susar aihan. Objetivohusi peskiza ne'e bele defini ai-horis fehuk balun mak nia produsaun a'as, asegura menus aihan iha tempu hamlaha nomos aumenta persija iha uma laran.

Agriculture 2

Lara Guterres, Filipa Monteiro, Nuno Cortez, António Mexia & Maria M. Romeiras, *Sustainability of Cashew in Timor-Leste: An Approach towards Subsistence Agriculture and Agroforestry System*

Universidade de Lisboa, Portugal

O cajú (*Anacardium occidentale* L.), originário do Brasil, foi introduzido em África e Ásia como cultura de rendimento no desenvolvimento económico de diversos países tropicais e subtropicais. Em Timor-Leste, o Ministério Agricultura e Pescas considerou o cajueiro como uma cultura alternativas ao cafeeiro, com potencial de cultura agrícola de exportação. A introdução do cajueiro em Timor-Leste ocorreu pelos Portugueses antes de 1974, e foi promovida em pequenas áreas agrícolas, tendo se expandido até ao período armado de 1999. O presente trabalho tem como objectivos: mapear a distribuição actual das áreas de cultura de caju, determinar o estado fitossanitário, caracterizar as variedades de Timor-Leste por biologia molecular, e propor medidas sustentáveis da cajucultura. Assim o presente estudo pretende funcionar como uma base para o estudo do potencial agrícola e económico do cajueiro como cultura de rendimento em Timor-Leste, com o objectivo de promover a produção sustentável.

Robert L. Williams, Acacio Guterres, Adao Barbosa Marcal Gusmao & Claudino Nabais, *The National Benefits of Making and Using Rice Hull Biochar as a Soil Amendment in Timor-Leste*

Rice hulls are a by-product from rice milling that is normally burnt and not used in any way. Recent research has shown that half burning the rice hulls to charcoal can turn this waste product into a very effective soil amendment in rice but even more so in horticulture crops. Every year, 33,000 t of rice hulls are produced and burned in Timor-Leste. If half of this was converted to rice hull biochar, it could produce approximately 11,000 t of rice hull biochar. The rice hull biochar could be used to produce an extra one to 2 million dollars extra horticulture, or reclaim more than 250 ha of acid soils. As rice hull biochar is resistant to degradation, the impact on soils will last many years. In addition to increasing agricultural production, rice hull biochar will sequester carbon into the soil, reducing the increase in CO₂ concentration of the atmosphere. The national impact of carbonising half the rice hulls will be a 3% reduction of Timor-Leste's annual CO₂ emissions.

Luis Almeida & Rob Williams, *Resource Survey of Wild/Planted Sandalwood to Identify Candidate Mother Trees*

AI-Com

Sandalwood (*Santalum album*) is an indigenous species to Timor-Leste and grows naturally across the country. This unique tree species has been well-known as the most valuable among all global existing sandalwood species. *Santalum album* has a strong connection with the economic, ecological, social and spiritual life of Timor-Leste, therefore its role in the society can not be overestimated. The aim of this resources survey of wild sandalwood in TL was to identify mother trees for the future development. Approximately 15 trees were observed in 10 locations across 10 districts. The value of the tree is based on the volume of the oil containing heartwood at the center of the trunk. Significance variation for the heartwood development and growth rate were observed, between and within locations. External tree diameter was a poor indicator of heart wood content. Trees with a 20cm diameter at 1.2m above ground level had between 4 and 16% heartwood. Average growth rate of trees was estimated at 0.7cm/year. The finding of this study offers a pathway for the selection and the development of *Santalum album* for Timor-Leste's future economic generation.

Session 3: Thursday 2.00pm–3.30pm

Peskiza ba Adaptasaun Varidadae Haree ho Duhaen

Thomas Lopes, Claudino Ninas Nabais & Albertino Geronimo, *Testu Adaptasaun Háre Mean Lokal (Oryza Sativa L.) Ihavarietade Neen Hodi Kuda ho Sistema Irigasaun*
Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Háre (*Oryza sativa* L.) mean nu'udar ai-horis principal nebe produz fós ho nutrisaun ne'ebe diak ho ninia valor ne'ebe aas. Nutrisaun iha fós mean maka vitamina B, iha nutrisaun seluk mak hanesan karbohidrat, proteina, vitamina no mineral. fós mean iha beneficio diak ba krescimento labarik sei kiko ka labarik sei bebé, iha alien de seluk fós mean iha antioksidan. Atu buka hatene lolos háre mean lokal ida ne'ebe maka adapta ho diak no bele fo produsaun diak. Fatin Peskisa nee implementa iha suku Berkoli Posto Administrativo Venilale, Munisipio Baucau no hahu iha dia 12 de Janeiro de 2017 to'o 12 de Junu de 2017. Metodu ne'ebe ujametodo randomized Complete Block Design no tratamento 18, variedade neen (6) maka hanesan RM1 (Maliana Raimaten), RM2 (Aileu-Seloi Kraik), RM3 (Maliana-Raimaten/p), G1 (Goa1 Baucau Venilale), G2 (Goa2 Baucau Venilale) no G3 (Goa3 Baucau Venilale). Genotipu háre nia aas ho badak maka hanesan variedade G2, R2, G3 no G1. Aihoris nia aas ho natoon iha genotipu R1 no R3. Total hare nia oan maksimum ba variedade neen ho nia oan barak liu iha tratamento maka hanesan G2, G1 no háre nia oan natoon iha tratamento makan hanesan RM1, RM2, G3 no RM3. Total Háre oan produtivo nebe nia oan barak iha tratamento maka hanesan G2, háre nia oan productivu natoon iha tratamento maka hanesan G1, RM2, G3 no hare nia oan productivu menus iha tratamento RM1 no RM3. Tempo kholeita (loron) ba variedade neen ho idade natoon iha genotipu G1, G2, G3 no. variedade háre fós mean ba idade boot iha genotipu RM1, RM2 no RM3. Hare musan 100 nia todan ba variedde neen iha tratamento G3 no RM2, no háre musan 100 ladun todan liu maka hanesan RM3, G1, G2 no RM1. háre mean ba variedade neen(6) ho productividade háre musan nia todan ka resultado ne'ebe diak liu iha tratamento maka hanesan G1 ho resultado 4,212 t/h, G2 ho resultado 3,38 t/h, G3 ho resultadu 3,63 t/h no resultado ne'ebe natoon iha tratamento RM2 no resultado ladun diak ka menus maka hanesan RM1 ho resultado 2,22 t/h no RM3 ho resultado 2,016 t/h. Produsaun (ton/ha) hare mean lokal ba variedade neen ho resultadu boot maka hanesan genotipu G1 (3,369 t/h), G2 (3,097 t/h), G3 (2,908 t/h) no produsaun natoon maka hanesan variedade RM2 (2,440 t/h) no produsan menus liu maka hanesan genotipu RM1 (1,781 t/h) no RM3 (1,612 t/h). Persentasaun entre variedade neen iha signifikan. Persentasaun boot liu maka hanesan genotipu G1 (22%), G2 (20%), G3 (19%). Presentasaun natoon maka hanesan variedade RM2 (16%) no Persentasaun menus liu variedade RM1 (12%) no RM3 (11%).

Luis da Costa Patrocinio, Claudino Ninas Nabais & Albertino Geronimo, *Testu Adaptivo Hare Natar (Oriza Sativa L.) Ba Rai No Iklima*
Ministerio da Agricultura e Pescas (MAP) Timor-Leste

Ai-horis hare (*Oriza sativa* L.) hanesan ai-horis ne'ebe koinesidu liu ba to'os nain liliu natar nai sira iha Timor-Leste. Hare hanesan ai-horis ne'ebe importante ba ema no ita hatene katak iha mundu hare fornese fós sai hanesan primeiru ai-han ne'ebe konsumu iha mundu, depois ai-han sira seluk hanesan; trigu, fehuk midar, aifarina, no seluk-seluk tan. Hare ne'e mos iha gradiencia hanesan fo'o forsa, proteina, karbohidrat, phosphorus, potassium, nomos folat ne'ebe boot ba ema nia saude. Iha Timor-Leste maizumenus liu 80% husi populasaun hala'o sira nia vida moris iha setor agricultura; halo natar, to'os hakiak animal no seluk tan. Maibe seidak tau atensaun ho di'ak ba variedade fini hare ne'ebe barak liu kultiva iha area rural, sistema irigasaun ne'ebe ladun diak ho klima ne'ebe la normal. (relatório peskiza anuál 2014 Seeds of Life). Peskiza adaptasaun ne'e fo vantajen atu kontinua haburas variedade hare lokal ne'ebe fo produsaun diak no introdus iha natar nain sira nia natar. Rejultadu analiza pesquisa adaptasaun variedade hare natar periodo 2016 / 2017, hatudu katak variedade hare natar lokal

Nona Lotan rua (NL2) positivu fo produsaun ne'ebe singnifikante boot bainhira kompara hare natar variedade sira seluk ho valor 2.4 t/ha. Variedade hare natar ne'ebe fo rejultadu produsaun nato'on mak hanesan variedade hare natar M17 ho valor produsaun 1.8 t/ha. Nune'e mos variedade hare natar ne'ebe fo rejultadu produsaun tun liu maka variedade hare natar M03 ho variedade natar N2, variedade hare natar rua ne'e fo valor produsaun ne'ebe mak hanesan 0.3 t/ha. Ho rejultadu ne'e persija kontinua kuda variedade hare natar Nona Lotan (NL2) no M17 iha natar nain sira nia natar no to'os.

João Bosco Ribeiro Belo, Rojino da Cunha, Claudino Ninas Nabais & Albertino Geronimo, *Efeito Husi Variedade Introzida Kuda iha Pot, Kompara ho Variedade Lokal Afeita ba Moris no Produsaun Aihorishare Rai-Maran Variedade 24*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Peskiza nee halao tiha ona iha centru peskiza Darasula municipio Baucau hahu husi fulan Juni too Setembru 2017 iha tenpu bailoro dejenu nee.uja RCBD Randomized complitly block design,Analiza uja (ANOVA HSD) turkey 5% iha replikasaun 3 variedade 24 kompara ho local, area nia luan 100 m² no elevasaun a'as husi tasi 685m. tuir dadus nee hatudu katak iha komponente 3 mak iha signifikan diferente hanesan: A'as Planta, numiru hare oan, no naruk hare kain, maibee ba komponente sira seluk hanesan: SPAD value, Leaf Area index, naruk hare saren, Index koileta, numiru,hare saren sanak, numiru hare musan, porsentu hare musan, todan musan 1000, produsan t/ha no indexu koiletha laiha signifikan entre komponente hirak nee hotu tuir analisa nebe mak iha, maibee entre produsaun iha variedade oin 7 mak fo resultado produsaun atu hanesan,(2.1 t/ha too 2.9 t/ha), soke boot liu oitoan maka (RO47: 3.41 t/ha), wainhira kompara ho variedade sira seluk maioria fo resultado produsaun hanesan deit. planta nebe aas liu mak: FATU MAS 125 cm, no hare aon barak liu mak (RO36: 32) no hare kain nebe mak naruk liu mak (Fatu mase 102 cm) todan musan 1000 todan liu RO92 no kaman liu RO48 bele hare tebela no grafiku iha kraik.

Leandro C.R. Pereira, Jose da Costa Ronald Freygen, Claudino Ninas Nabais & Albertino Geronimo, *Peskiza Duhaen Adaptasaun ba Klima no Rai iha Timor Leste*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Duhaen hanesan ai-horis leguminosa no bele moris iha rai bokur no krekas nomos bele resisten ba bailoro naruk. MAP iha planu atu hadia seguransa ai-han iha rai laran, ho ida ne'e mak Direcção Pesquisa introdus Duhaen variedade foun oin 6 mai husi Nasaun Indonesia,Nigeria, Papua New Guinea ho Thailandia. Agora dadaun kuda hela iha to'os nain nia to'os iha Distritu parte balun nomos iha Centru Pesquisa iha Timor Leste. Tuir fontes nebe'e hateten katak fore duhaen (*Psophocarpus tetragonolobus*,L.DC) nia nutrisaun nebe mak a'as teb-tebes mak hanesan Aran, Proteina, kalsium, fosfat, karbohidrat, besi no vitamin.Vitamina nebe iha fore duhaen nia laran mak hanesan Vitamina A no vitamina C. Ho ida n'e mak koko no buka nafatin variedade nebe adapta ba iklimo no rai iha Timor laran tomak.Methodene'ebeuza halo peskiza mak hanesan prepara rai , halo mapa, sukat kanteiru ho nia luan (5m x 5 m) 25m². Kada testo halo ho dezenho bloku randomizado ho replikasaun kompletutolu, kada bloku iha 8 kanteiru. Recolha dadus hotu-hotu hatama iha program excel dpois analiza uza GenStat edisaun 17. Produsaun Duhaen tinan 2017/2018 ho nia meú produsaun mak 1 ton/ha iha centru Pesquisa Loes. Iha sentru Loes observa katak iha singnifikante entre variedades ba produsaun t/ha, todan musan/plot (kg), densidade ai-horis (m²) no total hun/plot maibe lahatudu ba komponente sira seluk. Produsaun duhaen ne'e be mak diak mak Local Venilale (1.80t/ha), PNG 13 (1.19t/ha) no PNG 31 (1.11 t/ha).

Agriculture 3

Domingos de Sousa Freitas, Junior Raimundo da Cruz, Evangelino Candido Gaio & Andre Silva Aparicio, *Study on the Production of Palm Wine to Local Liquor (Tua Sabu) with Traditional Method for Improved Livelihood; A Case Study in Laclubar, Manatuto Municipality*

Universidade Nasionál Timor Loros'ae (UNTL)

Palm wine is made from the *Arenga pinnata* plant. *Arenga pinnata* is a wild food plant that grows throughout Timor Leste particularly in the tropical forest in Orlala, Mane-Lima and Batara Villages, Laclubar, Manatuto Municipality. Using Laclubar as the research target area it is identified that each household produces great amounts of palm wine from *Arenga pinnata* that is converted to local liquor named Tua Sabu. In producing Tua Sabu conventional handmade devices are used; however, it has its economic market advantage and it provides the highest economic benefit for the Sabu producers in Laclubar. So, the objective of this study is to 1) analyze the energy consumption during the process, 2) design an efficient process and equipment, and 3) measure particulate matter indoor. The results show that cooking palm wine from 60 liter/day resulted in 15 liters of Tua Sabu. The process needed 7 hours, and also involved huge amounts of biomass (30 kg) to be ready in place for cooking. Consequences of burning wood released CO₂ emission 16981.83PPM at indoor fume. This occurred due to the inefficiency of the equipment installed in place to produce Sabu.

Joaquina Barreto, Pyone Myat Thu, Abril Soares, Maria Fernandes, Valerio Ximenes, Anita Ximenes & Robert Williams, *The Role of Tara Bandu on Maize/Velvet Bean System*

The velvet bean system of maize production plants velvet bean (*Mucuna pruriens*) one month after maize is established. After the maize is harvested, the velvet bean continues to grow, smothering the corn stalks and all weeds in the fields. The system increases soil fertility, maize yields while reducing weeding time. Velvet bean acts as mulch for future crops, and increases soil fertility through nitrogen fixation. Nevertheless, livestock control was identified as a key issue to velvet bean adoption, because cattle need to be kept out of the fields after maize harvest, allowing the velvet bean to smother the fields. This research compared a range of sucos, some using tara bandu for animal control in velvet bean systems and those that did not. Sucos applying *tara bandu* as a way to control free grazing animals did not differ to other sucos in terms of animal control practice and maize yields.

Kay Bailey & Robert Williams, *Mist Flower (Ageratina Riparia): A Very Invasive Weed in Timor Leste's Highlands that has an Effective Biological Control Option*

Mist Flower (*Ageratina riparia*) is a low growing, perennial daisy that is native to Mexico and the Caribbean. The plant produces creeping stems that root at the nodes, the plant forming a dense mat of interwoven stems. It has been distributed around the world as an ornamental plant, and has been highly invasive in other parts of the world, including southern Africa, Madagascar, tropical Asia, New Zealand, the east coast of Australia, the Canary Islands and Hawaii. In Timor-Leste Mist flower now dominates water courses, forest and open areas as well as eroded gullies of the central highlands. This paper describes the spread of this invasive species from only the southern side of Kablaki Mountain to significant coffee and upland grazing areas in Ainaro, Ermera, Aileu and Bobonaro. Biological control of Mist flower has been very successful in Hawaii, New Zealand and Australia. Control has been obtained with

the release of a white smut fungus native to Mexico. This paper describes an initial baseline survey required prior to considering the use of a biological control agent.

Session 4: Thursday 4.00pm–5.30pm

Konservaaun Agrikultura ho AI-Kameli

Inácio Savio Pereira, Claudino Ninas Nabais & Albertino Gerónimo, *Tékniku Konservasaun Agrikultúra Kuda Batar Uza Tipu Legumes ho Fila Rai ba Produsaun Batar (Zea Mays L)*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Konservasaun agrikultúra sai hanesan tékniku ida mak importante tebes hodi implementa iha to'os hodi proteze rai bokur nebe menus ikus hasa'e produsaun ai-han, liu-liu ai-horis batar, hare rai maran nomor hare natar. Tuir tékniku konservasaun agrikultúra presiza tebes rai nebe la fila, la sunu hodi nune'e residual ai-horis bele fornese sai mulsa iha rai leten. Peskize ne'e ho objetivu atu proteze no promove diak ba rai nia bokur, aliende hadia testura rai, no sai matéria orgániku ida, nune'e hatene impaktu tipu legumes no fila rai ba produsaun batar. Dezeñu nebe uza ba peskiza konservasaun ida ne'e mak dezeñu hafahe kanteiru (split plot design) iha níveis kombinsauun tratamentu 12 nebe replika dala3 hamutuk 36kanteiru esperimentasaun. Tuir rezultadu nebe análize ona katak níveis kombinsauun tratamentu 12 ba produtividade no komponente produsaun laiha interasaun entre fatór rua, esepu persentase biomassa mak iha interasaun entre fatór rua. Tratamentu fila rai la iha signifikante ba produtividade ton/ha no komponente produsaun hotu. Nune'e mos rezultadu boot iha tratamentu fila rai ho rezultadu 1.23 ton/ha nomos rezultadu ki'ik iha tratamentu la fila rai tuir matemátika nominal. Lehe iha 5.06 % nitrojéniu nebe boot no duhaen iha 2.00 % mak iha nitrojéniu.

Paulo da Costa, Claudino Ninas Nabais & Albertino Geronimo, *Peskiza Conservasaun Agrikultura iha Timor Leste*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Teknologia konservasaun agrikulturahanesan tekniku ne'ebe ho ninia kontekstukuda kahur (*intercropping*) batar no koto ou legumenosa ne'ebe produs biomassa barak hodi taka rai no hadia kondisaun rai hanesan strutura rai, aumenta materia rai bokur, liu-liu nitrogeniu hodi bele hasae produsaun batar. Aleinde ne'e bele hasae infiltrasaun be'e ba rai laran no aseguara umildade rai. Pesquisa ne'e hahu iha fulan outobru 2016 to'o fulan dezembro 2016 iha Centru Pesquisa Loes, Aldeia Lebulugor, Suco Gugleur, Postu Administrativu Maubara, Municipio Liquisa ho altitude metru 70 husi tasi leten. Metodologia pesquisa hanesan prepara rai, hanehan ou rolling batar kain no koto sira, sukat kanteiru ho luan 15 m X 25 m kada testo halo dezenho bloku randomizado kompletu ho replikasaun 3, kada bloku iha kanteiru 5 hamutuk kanteiru 15. Rekolha dadus hotu sei hatama iha programa excel hodi analiza uza Genstat. Rezultadu pesquisa hatudu katak tratamentu lehe hasae produsaun batar 2.55 ton/ha, tamba lehe taka rai optimum, hadia strutura rai no hasae rai bokur, liu-liu nitrogeniu raihodi bele aselera kresimentu batar iha faze vegetativu no generativu no mos hasae infiltrasaun be'e iha rai laran no aseguara umildade rai. Aleinde ne'e tratamentu koto ervilha produsaun batar 1.85 ton/ha, duhaen 1.47 ton/ha no foremasin 1.44 ton/ha tamba biomassa ne'ebe taka rai la ho optimum no materia orgániku iha rai laran la sufisienti ikus mai fo impaktu ba produsaun batar tun.

Ida Pereira dos Santos, Claudino Ninas Nabais & Juliberto dos Santos, *Tratamentu Doze Husi Hormoniuga3 Ho Durasau Tempo Hoban ba Jerminasaun Fini Ai-Kamel (Santalum Album)*

Aquaculture / Fisheries

Kim Hunnam, *Sardines in Timor-Leste: Contributions from a Small-Scale, Small Pelagic Fishery*

Charles Darwin University and the Australian National University, Australia

Marine-related research in Timor-Leste, like much of the Asia-Pacific region, has tended to focus on coral reefs and their fisheries, particularly from a biodiversity and conservation perspective. However, most fish caught in Timor-Leste are small pelagic fish, such as sardines and small mackerels. These fisheries are by their nature, more productive and more resilient to fishing than reef fisheries, and can be as, or more important for income and the supply of nutritious food. This study is investigating the operation and importance of sardine fisheries in Timor-Leste with the overall aim to identify potential opportunities for delivering and sustaining greater benefits. Fish landing surveys, household surveys, semi-structured discussions and observations were undertaken over an 18-month period in 2017 and 2018. Findings demonstrate that sardines are seasonal but widely caught, traded and consumed, providing important income for fishers and traders, and essential diversity to diets in coastal communities, and also inland.

Joctan dos Reis Lopes, *Solar Powered Vessel Tracking Enables Collection of Critical Data for Fisheries Management in Timor-Leste*

WorldFish

A long-standing challenge in small-scale fisheries has been the difficulty of obtaining good quality data on when, where and how frequently fishing occurs. Fortunately, new low-cost technological advances now make this more feasible. We wanted to test if the deployment of Pelagic Data Systems' (PDS) solar-powered vessel tracking system (VTS) units could help drive informed fisheries management in Timor-Leste. After an initial 85 units were deployed in February 2018, now more than 300 are following artisanal fishers everyday from key landing sites in 11 municipalities.

The results show that high-resolution tracking can assess fishing behavior over time and space in even the most remote parts of the country, and provide very accurate 'effort' in terms of number of trips, average distance & time elapsed. Fisher feedback and participation is positive, and the integration of the system with catch documentation allows for the most accurate national catch estimate to date.

Adriano Dani Fernandes du Karmu, Lucas Soares De Jesus, Shwu Jiau Teoh & Jharendu Pant, *Sustainable Tilapia Seed Production and Dissemination Model for Timor-Leste*

¹Ministerio de Agricultura no Pesca and WorldFish, Timor-Leste and Malaysia

Nile tilapia (*Oreochromis niloticus*) is a tropical fish, which is suitable for year-round production in Timor-Leste. However, development of sustainable tilapia farming system is constrained largely by low access to and availability of quality seed. A Genetically improved farmed tilapia (GIFT) hatchery was established at Gleno of Ermera district in 2016 by the Ministry of Agriculture and Fisheries, with technical assistance from WorldFish and funding support from the New Zealand Aid Program. Since then, the hatchery has been maintaining

genetic quality of broodfish by following rotational breeding of GIFT cohorts. Annually, it has been producing and disseminating around 0.3 – 0.5 million high-quality monosex fingerlings across the country. Whilst the hatchery at Gleno has limited capacity to address rapidly growing demand for quality GIFT fingerlings, development of decentralized seed production and distribution systems through the establishment of a multiple of hatcheries and nurseries based on Public Private Partnership (PPP) is very much needed. The Gleno hatchery providing GIFT broodfish and technical assistance and private hatcheries focusing on multiplication of seed production and their dissemination is vital to the scaling of tilapia aquaculture in Timor-Leste.

Jharendu Pant, Silvino Gomes, Shwu Jiau Teoh & Adriano Dani Fernandes du Karmu, *Aquaculture for Diversification of Rural Livelihoods: A Case Study from Timor-Leste*

Session 5: Friday 9.30am–11.00am

Plasmanova, Klima ho Rai

Telesfóro F. Moniz, Claudino Ninas Nabais & Albertino Geronimo, *Kuntuusaun Mantein Rekursus Genetika Ai-Han Lokal no Suporta Asistensiateknik Ba Grupu Biodeversidade Iha Centro Pesquisa Loes*

Sustainable Aquaculture Program and WorldFish, Malaysia and Timor-Leste; Ministerio de Agricultura no Pesca, Timor-Leste

Aquaculture development has been identified by the government of Timor-Leste as a means of improving food and nutrition security as well as diversifying rural livelihoods. Partnership for Aquaculture Development in Timor-Leste (PADTL) project, which is funded by New Zealand Aid program, is aimed at developing viable aquaculture systems following a holistic approach. Key focuses of the project include: establishment of Genetically Improved Farmed Tilapia (GIFT) hatchery; development of low-cost feed and pond fertilization options; and transfer of viable aquaculture technologies through Farmers' Field School (FFS) approach. FFS participants realized an extrapolated fish productivity of 4.3 t/ha (max up to 11.0 t/ha) in 2018. A total of over 9.0 t fish was produced (Gross return= USD 36,000) by the project farmers (n = 174) across Baucau, Bobonaro and Ermera municipalities. Nearly 50% of the fish produced was used for household consumption and through the sale of the remaining the household income was also augmented. Confirming the significant role of aquaculture in diversification of rural livelihoods, these results provide a strong basis for scaling of tilapia aquaculture in Timor-Leste.

Nilton Jorge Ribeiro & Florindo Morais Neto, *Aplikasaun Teknologia Sistema Informasaun Geografika No Sensoriamento Remota Hodi Identifika Existensia no Kondisaun Ai-Parapa, Habitat no Biodeversidade Parte Tasi Feto*

Ekosistema ai-parapa nudar tipiko ekosistema kosteira tropiko nebe'e fornese funsaun importante maibe risku tebes ba estragus. Pesquisa refere halao iha area kosteira munisipio Bobonaro no Liquica parte tasi feto ho objetivu hodi bele hatene existensia no kondisaun ai-parapa inklui mos tipo habitat no biodiversidade tasi nian. Pesquisa ne'e halo kombinasaun ba dadus iha kampo, imagem satelit Landsat 8 OLI akuisisaun 2018 no imagem fotografia, depios sei prosesa ho Sistema Informasaun Geografika. Metodo nebe'e utiliza hanesan deliniasaun no kalkuasaun area existensia ai-parapa, spesie no kondisaun ai-parapa nomos tipo abitat no bioversidade tasi. Resultado pesquisa hatudu total area distribuisaun iha parte Biacou Munisipio Bobonaro hamutuk 11.76 ha agrupamentu ba parte tolu (3), parte Mota Ulun

Munisipio Liquica hamutuk 5.37 ha agrupamentu ba parte rua (2), no identifika nudar spesie familia Rhizophora no Sonneratia. Grafiko laloran tasi hatudu kondisaun tasi maran iha tempo dader, hafoin sae iha loran meudia to'o tasi nakonu iha tempo loro kraik. Tipo habitat no biodiversidade tasi hamosu zonamento ba habitat, no zonamento nebe'e iha hafahe tipo biodiversidade tuir spesie ikan nomos tipo manu migratorio tuir adaptasaun moris iha zona ida-ida.

Florindo Morais Neto, José Quintao Amaral Gonçalves, Rita da Costa Soares & Nilton Jorge Ribeiro, *Klasifikasaun Iklima Iha Timor-Leste ba Atauro Dare, Maubisse, Maliana, Laga, Fohorem no Zumalai*

Agronometeorologia no Estatiska Ministério da Agricultura e Pescas, Timor-Leste

Dadus hirak ne'e kolekta husi tempo Português nian hahu husi tinan 1954 – 1974 fontes husi Timor Agri, dadus worldclim IPCC 4 dadus ne'e hotu sei analiza ho Excel baibain. Peskiza literatura ida ne'e utilija dadus udan ben historiku husi tempo Portugues. Klasifikasaun klima liu-liu ba elemenu udan ben iha Timor Leste spesifiku ba area 7 mak hanesan Atauro, Dare, Maubisse, Maliana, Laga, Fohorem no Zumalai hatudu katak iha diferente volume udan ben husi fatin ida ba fatin seluk. Husi area hirak ne'e Atauro no Laga klasifika klima tuir Sientista Oldeman tama iha kategoria tipu klima E4 katak tinan ida bele kuda palawija ka crops dalaida no la kuda hare maibe Laga bele kuda hare natar dala ida iha tinan ida nia laran depende mos ba volume udan ben iha tempo fulan bokon. Area seluk hanesan Dare, Maubisse, Fohorem no Zumalai tama iha klasifikasaun tipu klima D3 katak iha tinan ida nia laran agrikultor bele kuda aihoris (palawija) dala ida no hare natar dala ida. Maliana tama iha klasifikasaun klima ho kodigu C3 katak iha area refere bele kuda palawija ka crops dala rua no hare natar dala ida iha tinan ida nia laran. Kuda palawija ka crops ba sengundo epoka depende ba kondisaun rai sei bokon ka maran liu tan ba aihoris balun persija mahun ben hodi sustenta ninia dezvoltamentu no kresimentu to'o koleita. Nunemos ba total loran ba total udan ben $\geq 10\text{mm}$ ba dekade 1 (1953-1963) barak liu kompara ba dekade 2 (1964-1974) jeralmente. Estasaun Atauro no Laga total loran ba total udan ben $\geq 10\text{mm}$ barak liu iha dekada 1 kompara ba dekade 2 signifika hetan total loran aumenta ho 1.80% ba Atauro no ba Laga aumenta ho 83.45%. Persentajen total loran ba total udan $\geq 10\text{mm}$ ba area seluk hanesan Maubisse tun liu to'o -29.66% kompara dekade 1. Ba area seluk hanesan Dare, Maliana, Fohorem no Zumalai ida-idak persentajen total loran ba total udan ben $\geq 10\text{mm}$ tun ho -7.41%, 8.97%, 15.85% no 5.01%.

Celestino Luis Moreira, Ida Pereira Santos & Decio Arista Estanislau DC Ribeiro, *Analiza Rai Nudar Indikator Nivel Rai Bokur ba Area Funsional Agricultura iha Municipio Bobonaro, Baucau no Aileu*

Ministerio da Agricultura e Pescas (MAP), Timor Leste

Atu mantein no hasae produtu agricola iha rai laran presiza iha estudus bazikus hanesan klasifikasaun no analisa ba karakteristika, no kualidade rai bokur (nutrisaun). Estudu kona ba analisa rai bokur hanesan parte ida ne'ebe importante tebes, tanba antes atu kuda aihoris presiza hatene kompozisaun nutriente iha rai laran hodi nune'e bele rekomenda adubus saida no mos kuantidade hira maka bele introdus ba area refere hodi hasae produsaun agricola. Tanba bainhira ita laiha dadus kona ba karakteristika no kapasidade area ne'ebe atu kuda maka, dala barak la fo rejultadu ne'ebe diak, nomos esforsu atu hasae produsaun agricola iha rai laran sei infrenta problema. Objetivu husi levantamento no analisa rai bokur nee mak: prepara dadus bazikus ba area fungsional agricultura hodi fo garante ba agricultores sira oinsa utiliza rai ho diak hodi hasa'e produsaun atu nunee bele aseguira siguransa ai-han iha rai laran no hamenus importasaun ai-han husi rai liur. Estudu ne'e hala'o iha Municipio Bobonaro, Municipio

Baucau no Municipio Aileu, iha tinan 2017-2018, hahu husi survei area, preparasaun material ho equipamentus, foti sampel to'o remata analiza sampel rai iha laboratorio. Sampel rai ne'ebe foti analiza iha Agricultural Soil Laboratory-MAP, Comoro. Parametru ne'ebe analiza iha laboratorio mak: pH, C-organik (%), Electro conductivity (mS/cm), Fosforu (ppm), Nitrogen (ppm), Potassium (ppm). Rezultadu husi estudu nee hatudu katak; 1) Rai husi Maliana, spesifiku husi Suco Leolima, Kowa, Saburai, Kauloko leten, Saheu, Atudara, Soilesu, Raifu foho, Lahomea ho pH rai entre 6.78 – 7.56 (neutru), material organiku naton (mediu) too menus iha fatin hotu, Salinidade menus (low) iha fatin hotu. Suco Meligou, Manapa, Ritabou ho pH rai 5.18 – 5.50 (acido uituan). Olsen P (phosphorus) as (high) iha Atuaben/Marobo no menus iha fatin sira seluk; 2) Rai husi Baucau, spesifiku husi Suco Welaha 6.60 (neutru), Suco Watuhaku, Wailili, Buruma, Bucoli, Uatulari ho pH rai entre 5.16 – 6.20 (acido uituan), Gariwai/Darasula, Gariwai/waibehana, Ostico, Loilubu ho pH rai 4.14 – 4.67 (acido liu). Material organiku naton too menus iha fatin hotu, Salinidade menus iha fatin hotu. Olsen p (phosphorus) menus iha fatin hotu; 3) Rai husi Aileu, spesifiku husi Ornai, Ramerlau ho pH rai 5.36 – 5.50 (acido uituan), Kotolau ho pH rai 4.33 (acido liu). Salinidade menus iha fatin hotu. Material organiku naton (mediu) iha Kotolau ho Ramerlau, as (high) iha Ornai.

Agriculture 4

Alipio de Almeida, Alberto APDC Joao & Salvador Fernandes, *Bali Cattle (Bos Sondaicus) in Timor-Leste: A Review*

Universidade Nacional Timor Lorosa'e (UNTL) and Ministry of Agriculture and Fisheries (MAF), Timor-Leste

Administratively, Timor-Leste consisted of 12 municipalities and one especial zone called ZEEMS Oecusse. This country occupies the eastern part of Timor island with 260 km long and up to 80 km wide; 14,874 km². Atauro and Jaco are another two small islands belong to this country. The Timor-Leste national census revealed more than 87% (178,363; 204,597) Timorese households involved in livestock rearing and 30% (52,864; 178,363) of them are rearing Bali cattle. The importance Bali cattle to Timor-Leste because it can be used for consumption, a living bank, traditional and modern ceremonies, and for gift. Bali cattle is predominant ruminants in Timor-Leste due to its advantages including prolific ruminant species, well adapted to Timor-Leste environment, high conception and pregnancy, and calving rates. This review aimed to know the importance of Bali cattle to Timor-Leste, to explore factors limiting its reproduction, and proposed potential strategies to improve reproduction.

Alipio de Almeida, Salvador Fernandes, Adelaide JP Cristovao & Alberto APDC Joao, *Bali Cattle (Bos Sondaicus) Calf Mortality and its Causes in Timor-Leste: A Review*

Universidade Nacional Timor Lorosa'e (UNTL) and Ministry of Agriculture and Fisheries (MAF), Timor-Leste

This review aims to know the mortality rate of Bali cattle calves and its causes and provide some potential interventions to improve beef cattle industry in Timor-Leste. Bali cattle is the predominant ruminant species rearing by Timorese households due to its prolific, well adapted to Timor-Leste environment, and high reproductive rates. However, the production of Bali cattle in Timor-Leste is classified low due to high calf loss, low calving and growth rates. Previous studies on productivity Bali cattle in Timor-Leste by various scientists reported that Bali cattle calf mortality ranged from 5% to 70% in several municipalities in Timor-Leste. These studies also presented the causes of high calf loss due to diseases, low milk production, predators, and unknown causes. It can be concluded that improving calving and daily growth

rates and reducing calf deaths can increase farmer welfare and improve beef cattle industry in Timor-Leste.

Acacio Cardoso Amaral, *Prevalence of Trichuris Ovis in Local Free-Range Goat in Municipality of Liquica*

Universidade Nacional Timor Lorosa'e (UNTL) and Instituto Politécnico de Betano Kay Rala Xanana Gusmão, Timor-Leste

Trichuris spp is one of the gastrointestinal (GI) parasites which colonizes the cecum and colon of animals and humans and causes signs such as bloody colitis and diphtheritic caecitis which may cause ulcerative and necrotic lesions on the mucosa of affected animals. In animals with high worm burden severe anaemia and dehydration and jaundice may lead to the death of the animals (Zainab & Khan 2016).

The prevalence of *Trichuris ovis* among the goat population in Liquica Municipality has not been studied and there is no published study available, therefore the objective of this study is to investigate the prevalence of *Trichuris ovis* in the study areas. To achieve this objective, a total of 192 individual free range goats were selected randomly in 2 villages, namely, Gugleur and Vatuboro. One hundred and ninety two (192) fresh goat fecal samples were collected directly from goats' rectums from the selected villages from June to July 2016. Out of 192 goats examined, 38% (n=192) were positive for *Trichuris ovis* eggs. The highest infection rate was observed at Vatuboro, followed by Gugleur village.

Session 6: Friday 11.00am–12.30pm

Hakiak Animal ho Agronomia

Jacinto Boavida Soares, Claudino Ninas Nabais & Albertino Geronimo, *Utilizasaun Ai-Han Lokal (Batar Ai –Farina No Akar) Ba Produsaun Fahi Rasa Duroc Iha Centro Pesquisa Loes Posto Administrativo Maubara Municiípio Liquiça*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Fahi rasa Duroc konsidera nudar parte ida husi komoditas forneseamento Na'an fo typo medium ou typo kaman ho kuantidade naan 70-80 % karkas. Rassauns sai hanesan fas parte ida ne'ebe inportante atu hetan suksesu iha komoditi fahi tambah 80 % cost sei investe hotu ba fahi habokur (*fatening*). Ojektivu husi "Atu hetan teknologia desevolvimento rassauns ne'ebe apropiadu liu husi recuscos ne'ebe iha comunidade sira nia to'os bele fo impaktu ba moris, produsaun no reproduisaun ba fahi rasa Duroc. Metodologia pesquisa ne'e halao ona iha Centru Pesquisa Loes hahu husi 1 de Marcho de 2016-1 de Augusto de 2016. Dezeino ne'ebe uza ba iha studu ne'e maka Latina Square ho ninia tratamentu hat (4) kompostu husi tratamentu R1 Batar¹30%, Ai-farina²25%, Akar³45%, R2 Batar¹30%, Ai-farina²30%, Akar³40%, R3 Batar¹30%, Ai-farina²35%, Akar³35%, no R4 Batar¹30%, Ai-farina²40%, Akar³30% tratamentu rassauns iha iha diferensaun nivel hat (4) no replikasaun ba dala hat (4). Rejultadu husi studu ne'e, nota katak la iha diferensiane'ebe signifikante entre tratamentu ne'ebe aplika ba produtividade fahi duroc signifika katak tratamentu ho kompozisaun rassauns ne'ebe fornese ba fahi duroc la iha imfluensia entrenivel tratamentu ba krisimentu peizu fahi duroc bajeia ba iha instrumentu analiza data GenStat 18th Edition (32 bit) maibe hare ho matan deit iha influensia maske ituan.

Zito Aquino, Claudino Ninas Nabais & Albertino Geronimo, *Levantamentu Dadus Produsaun No Reprodusaun ba Ruminante Ki'ik iha Munisipiu Lautem no Munisipiu Baucau*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Peskiza ho objetivu, haklean servisu atividade peskiza levantamentu dadus produsaun no reprodusaun ba ruminante ki'ik iha Lautem no Munisipiu Baucau ne'ebe hala'o tiha ona iha loron 22 Marsu, 2016 iha Munisipiu rua refere iha leten ne'ebe ho eskolhidu ona hanesan lokasaun ba atividade peskiza ho uja metodu "Proporsive Sampling" ho selesaun prosesu sikuenjia multi stratifika random (acak) hili Lautem no Munisipiu Baucau hodi eskolha respondente rua nulu hodi halo intrevista ho nune'e para atu hetan dadus primariu no sekundariu husi instituisaun relevante balun. Rezultadu analiza estatistika husi variabel ne'ebe observa fo rezultadu mak hanesan; Idade Animal wainhira nia hetan isin mature/boot $14,6 \pm 5,94$ fulan no (KV = 40,68%), idade animal wainhira animal atu hahu kaben $7,5 \pm 1,95$ fulan no (KV = 2.6%), numeru bibi malae oan durante hahoris $1,4 \pm 0,24$ littersize (KV 17,14%). Bazeia rezultadu ne'ebe maka iha hatudu ho rezumu katak survei tekniku hakiak intensivu, semi intensivu/tradisional ho dadus statistika hatudu seidauk masimu no siknifikadu tamba atividade peskiza ne'e ho desaviu.

Julietta Lidia, Claudino Ninas Nabai & Juliberto dos Santos, *Efeitú Fila rai no Tipu Audubus Organiku ba Kresimentu no Produsaun Ai-Horis Fore Keli (Glycine max L.)*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Fore keli (Glycine max L.) hanesan aihan alimentar ne'ebé iha nutrisaun diak, iha proteina, nabati nomos iha kolestrol nebe menus aihan ne'e mos folin maka'as iha merkado global. Aliende ne'e forekeli mos hanesan aihan alimentar ne'ebé importante tebes depois de batar no fos. Konsumu forekeli ne'ebé fresku no maneira seluk hodi bele hasa'e nutrisaun comunidade. Iha Timor-Leste, fore keli barak liu mak konsumu ho sistema da'an ho batar no agora Timor-Leste mos hakat ona ba era globalizasaun uza forekeli bele halo industria seluk hanesan tempe, tahu no nia kain bele fo'o ba animal. Objectivo husi peskiza ida ne'e atu hatene klean liu tan kona ba "Efeitú fila rai no tipu adubus organiku ba kresimento no produsaun aihoris forekeli, (Glycine max L.)" Peskiza ida ne'e sei halao iha Centro peskiza Darsula Baucau, iha fulan Maio to'o fulan Setembro 2016, Dezenho nebe uza iha peskiza ida ne'e mak dezenho randomiza grupo (RAK) nebe mak sei sai factorial 3 X 3 ho factores rua. Factores premeiru mak Fila rai (F) ho nia nivel kombinasan mak tuir mai ne'e Controlu (la fila rai), Fila rai dala ida, Fila rai dala rua. Factores segundo mak Tipo adubus Organiku hanesan tuir mai ne'e Controllo (La tau adubus organiku). Tipo adubus karau te'en Tipo adubus Bibi te'en. Dezenho nebe uza iha peskiza ida ne'e mak dezenho randomiza grupo Atu hatene impaktu tratamentu hotu ba aihoris nia moris no rezultadu, dadus hirak nebe hetan husi terenu bele analiza ho estatistika analiza ovarian, kontinua ho testu diferensia ba distansia dobru duncanea (lasti's multiple range test (BNT) ho nia estandária $\alpha=5\%$ uza software Excel ba Genstat edisaun 17. Rezultadu peskiza hatudu katak tratamento fila rai dala rua no tau adubus organiku (F2A2) mak fo produsaun aas 0.65 ton/ha, fila rai dala ida no tau adubus organiku bibi ten (F1A2) mak fo produsaun 0.46 ton/ha no produsaun kiik liu mak kontrolo (F2A2) 0.22 ton/ha.

Juliberto dos Santos, Akita Moreira, Pedro Bere, Tinoco Vicente, Marcelino Jeronimo & Claudino Ninas Nabais, *Efeitú Doze Adubu Organiku (Kompos) ba Kresimentu Moris no Produsaun Hare Raimaran Variedade 15 (Variedade 12 Introduz no 3 Lokal)*

Ministério da Agricultura e Pescas, Timor-Leste

Nesiedade fós iha rai laran aumenta ba bei-beik, bazeia ba kresimentu numeru populasaun Timor leste. Atu atende problema ida ne'e, presija hasáe produsaun hare iha rai laran. Area produsaun hare natar ne'ebe la suficiente, maka presija desenvolve mos hare raimaran, presija mos aplika adubu, tantu organiku ou kimiku hodi hasáe ninia produsaun. Kresimentu produsaun hare, presija suporta husi nutrisaun iha rai laran ne'ebe suficiente. Atividade peskiza haláo ona ho titulu Efeito Doze Adubu Organiku (kompos) ba Kresimentu Moris no Produsaun Hare Raimaran (*Oriza sativa*, L) Variedade 15 (Variedade 12 Introdus no 3 Lokal) iha Municipio Lautem, komesa fulan Janeiro to'o Maio 2017. Métopu peskiza Delineamentu Experimental Bloku Kazualizadu (DEBK) ho fátor 2 ne'ebe replika dala 3. Fátor dahuluk mak doze adubu organiku (kompos) ho nivel tratamentu: kontrolu, 2 ton/ha, 3 ton/ha, 4 ton/ha no 6 ton/ha; fátor dahruak mak variedade hare raimaran 15 mak hanesan: V₁, V₂, V₃, V₄, V₅, V₆, V₇, V₈, V₉, V₁₀, V₁₁, V₁₂, V₁₃, V₁₄, V₁₅. Rezultadu peskiza hatudu katak respons hare raimaran variedade 15 iha interaksaun entre doze adubu ho variedade hare raimaran. Rezultadu produsaun ás liu 7,03 ton/ha husi variedade lokal Oatulari Fatumasin, tuir mai 6,35 ton/ha husi variedade RO₄₆ introdus husi IRRI, Filipina. Produsaun ás liu rua ne'e, ho tratamentu doze adubu kompos 6 ton/ha. Depois rezultadu produsaun ki'ik liu mak 0,13 ton/ha husi variedade lokal Oatulari variedade Lahoten ho tratamentu kontrolu. Variedade ida ne'e, ho produsaun ki'ik tamba ninia karakteristiku úniku (arómátiku) hodi nune'e, hetan ataka maka'as husi pesti no moras, hodi nune'e afeta ba produsaun tun.

Agromomia Koto ho Fore

Inácio Savio Pereira, Robert L. Williams, Claudino Ninas Nabais & Albertino Geronimo, *Impaktu Tempu Kuda, Variedade No Hoban Fini ho Insektisida Ba Produsaun Koto Mean iha Parte Kosta Súliha Timor-Leste*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Koto mean kuda iha parte kosta súlbesik tasi ibun ho elevasaun 12 m husi tasi leten toleránsia ba kondisaun rai maran wainhira kuda tuir tempu iha fulan Juñu. Estudu ne'e ho nia objetivu mak atu hatene tempu kuda nebe diak ba variedade koto mean oin tolu nomos hoban ho insektisida nebe serve no diak. Halo komparasaun produsaun entre tempu kuda, variedade no hoban fini ho insektisida nebe serve hodi produs produsaun koto mean ho diak. Dezeñu nebe uza ba peskiza ne'e mak dezeñu Split Plot Design ba fatór 3 mak hanesan tempu kuda (T), variedade (V) no hoban fini ho insektisida (I). Tratamentu tempu kuda iha oin 4: 07 de Juñu (T1), 21 de Juñu (T2), 05 de Jullu (T3), 19 de Jullu (T4). Tratamentu variedade oin 3 mak hanesan: Atsabe (V1), Maubisse (V2) no Quelicai (V3). Nomos tratamentu insektisida oin 3 mak hanesan: La uza insektisida (I0), uza Dursban (IR) no Furadan (IF) kadainsektisida ho doze hoban ba fini mak 5g/L ho tempu kalan ida molok atu kuda. Níveis kombinasau tratamentu hamutuk 36 kompostu husi tempu kuda iha tratamentu 4, variedade iha tratamentu 3 no tratamentu insektisida iha 3 ($4 \times 3 \times 3 = 36$ katreiru esperimentasaun). Kada replikasaun: 36 esperimentasaun replika dala tolu, entaun total 108 katreiru esperimentasaun. Katreiru nia luan: 2 m x 1.2 m ho liña 2 kuda fatin kada katreiru (2 rows). Rezultadu produsaun, bazeia Anova produtividade ho komponente produsaun iha interasaun entre fatór rua no signifikante entre tratamentu no rezultadu produtividade a'as liu iha níveis kombinasau tratamentu T2V1I0 ho produsaun 560 kg/ha nomos rezultadu produtividade menus liu iha níveis kombinasau tratamentu T4V1IF ho produsaun 20 kg/ha.

Armandina Marçal, Claudino Ninas Nabais, Albertino Geronimo & Luis Pereira, *Efeito Husi Distança Kuda No Frequência Hamos Du'ut Ba Produsaun Fore-Mungu (Vigna Radiata L.)*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Distança kuda no frequência hamos du'ut sai hanesan fatór determinante ida ba hadia produsaun ai-horis fore-mungu (*Vigna radiata* L.) iha Timor-Leste. Ai-horis ida ne'e importante tebes tanba nia konteudu proteina 24-26% karbohidrat, mineral no vitamina barak ne'ebe diak ba ema nia saude. Objetivo husi peskiza ne'e atu hare liu konaba efeitu husi distância kuda no frequência hamos du'ut ne'ebe favorabel ba produsaun ai-horis fore-mungu iha centro peskiza Loes Tinan 2017. Dezenhnu ne'ebe uja iha peskiza ida ne'e mak randomized complete block design (RCBD) ho replikasaun 3. Tratamentu mak distância kuda iha nivel 3 mak: 20cm x 20cm (D1), 20cm x 30cm (D2), 20cm x 40cm (D3) no tratamentu ba frequência hamos du'ut mak level 3 mak: La hamos du'ut (H0), hamos du'ut dala ida (H1), hamos du'ut dala 2 (H2). Rezultadu peskiza indika katak laiha interasaun entre kombinasauun tratamentu distância kuda no frequência hamos du'ut ba parametru observasaun, maibe iha influencia pojitivo kada fatór ne'ebe mak indika produsaun as iha tratamentu distância kuda 20cm x 20cm no hamos du'ut dala rua ho nia produsaun 1.7 t/ha no bo'ot liu kompara ho tratamentu distância kuda 20cm x 30cm no la hamos du'ut ho rezultadu produsaun 0.5 t/ha. Estudu ne'e mos hatudu katak wainhira infestasauun du'ut maka'as bele hamenus fore-mungu nia produsaun (t/ha). Tan ne'e kontrola du'ut nia presenza no distancia kuda ne'ebe diak sai fatór determinante ida ba hasae produsaun ai-horis fore-mungu.

Luis Fernandes, Juliberto dos Santos & Claudino Ninas Nabais, *Efeito Doze Audubun Organiku Ba Kresimentu ho Produsaun Varietas Foremunggu (*Vigna Radiata* L) iha Municipio Baucau Centru Pesquisa Darasula*

Foremunggu (*Vigna radiata* L.) husi Mongolia, India, Cina, Indonesia depois tama mai iha Timor. Foremunggu hanesan aihoris leguminosa ne'ebe pronese proteina no Vitamina ba ita ema Agricultor iha Timor Leste, seidak tau inportansia ba aihoris foremunggu, I nune'e mos sedauk halo tratamentu konaba utilizasaun adubus organiku hodi hasa'e produsaun foremunggu. Adubus organiku iha komposisaun hanesan unsur N, P no K, ne'ebe bele pronese ba aihoris foremunggu nia tahan, no mos ba prosesu atu produs musan ho diak. Iha Timor Leste rejultadu produsaun foremunggu kuaje hetan deit 0,2 – 0,5 t/ha. Ho problema ne'ebe iha, maka ami koko doze adubu organiku ho varidade hirak ne'ebe iha hodi deskobre rejultadu produsaun ne'ebe diak. Metodu ne'ebe uza Dezenhnu Randomiza Grupu fatórial $4 \times 3 = 12$ kombinasauun iha replikasaun tolu ba tratamentu hat ho nivel kombinasauun ne'ebe kompletu ho fatór tolu: fatór dahuluk Doze adobus (D) ho nia tratamentu tolu (3) katak: D0 = Lauza adobus, D1 = Doze adobus 2 ton/ha, D2 = Doze adobus 4 ton/ha no D3 = Doze adubus 6 t/ha. Fatór dárúak mak varidade (V) ne'ebe ho tratamentu tolu mak hanesan V1= varidade Local, V2 = varidade Merpati no V3 = varidade Delta. Distansia kuda ba aihoris foremunggu hodi analiza kompetisaun entre aihoris ba nutrisaun rai iha unidade kuda ho nia distansia kuda 40 cm x 40cm. Rejultadu peskiza husi kombinasauun entre 5,4 kg/ha no varidad Delta hetan rejultadu produsaun a's liu hetan 1,12 t/ha I rejultadu tun liu 0.28 t/ha husi kombinasauun lauja Doza adubu no varidade Local.

Inácio Savio Pereira & Robert L. Williams, *Impaktu Tempo Kuda ho Varidade ba Produsaun Koto Mean (*Phalus Vulgaris* L.) iha Area Kusta Sul Timor-Leste*

Session 7: Friday 2.00pm–3.30pm

Horticultura

Armandina Marçal, Denisia Raquel Soares Brito, Claudino Ninas Nabais & Albertino Geronimo, Koleksaun, Karakterizasaun, Teste Sabor Jenotipu Lokal Ai-Horis Sabraka Tangerina (*Citrus Reticulata Spp.*) Tinan 2018

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Tangerina (*Citrus reticulata*) sai hanesan ai-fuan importante tebes iha Timor-Leste, tanba iha konteudu vitamina c ne'ebe as kuaze 44 %. Objetivo husi peskiza ida ne'e atu nafatin konserva no dezenvolve rikeza jenetiku tangerina iha Timor-laran tomak ne'ebe kleur ona ladauk dezenvolve ho diak. Métopu ne'ebe uja iha estudu ne'e mak observasaun liu husi dalan identifikasaun, rekolha ai-fuan no koko sabor ba ai-fuan tangerina. Rezultadu husi estudu ne'e hatudu katak iha ona jenetiku 63 mak konsege rekolha ona husi municipio rua: Aileu no Ermera. Wainhira hare konaba rezultadu koko sabor nian indika maioria ema hili EHP05, EHP01 no ida ne'ebe midar liu nota iha EHP05 kolekta husi Municipio Ermera no tuir fali mak kodiku EHP05, ALNA20 no ALNA17 husi Municipio Ermera ho Aileu. Peskiza ne'e sei iha kontinuasaun tan ne'e importante tebes atu bele hare klean liu konaba nia dezenvolvementu iha kampo.

Apolinario Ximenes, Claudino Ninas Nabais & Albertino Geronimo, Efeito Husi Distansia Kuda ho Doze Adubu Organiko Rai Metan ba Ai-Horis Cauliflower (*Cobi Funan*)

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Aihoris modo kobi funan (*Cauliflower*) hanesan aihoris nebee importante hodi dezenvolve iha Timor-Leste, Cauliflower (kobi funan) hanesan modo ida ne'ebe importate tebes atu dezenvolve, tamba bele uza ba konsumu nomos bele faan ba iha mercado. Aliende aihoris ida ne'e moris sai hanesan aihoris ne'ebe ho numeru as liu ba ema konsumu iha Europa nomos nasaun seluk tamba nia konteudu nutrisaun ne'ebe diak hanesan vitamina C ho proporsaan 73% kompara ho ai-horis seluk (Rukmana 1994). Efeito doze adubus rai metan ho distancia kuda ne'ebe efektivu liu atu utiliza nunee bele hasa'e produsaun ho fator rua refere ida nebee mak diak no husi ida nee ita bele rekomenda ba ita nia comunidade ou publiku. Husi produsaun as mak tratamentu uza adubus ho rai metan 100 kg/hano distancia kuda 50x40 cm (M2D1) fo ninia produsaun 8.93 t/ha no produsaun menus mak tratamentu la fo adubus 0 kg /ha no distancia kuda 50x60 cm (M0D3) ho ninia produsaun 3.17 t/ha. Bele hetan teknika kultivasaun ne'ebe diak ba ai-horis cauliflower no sai hanesan referensia kona ba distancia kuda nomos ba doze adubus organiku ne'ebe fo produsaun diak nunee bele rekomenda ba ita nia agricultor sira nia let nunee sira bele uza sira nia rekursu nebee iha. Metodologia ne'ebe uza mak tempu no fatin halao atividades peskiza, no halo tratamentu tuir lay out ne'ebe iha hanesan sistematika diak ba iha baze; Persija halao kontinuasaun peskiza ho kazu titlu iha leten nee hodi nunee bele hatene klean liu ba fator oin rua neebe hatur ba ne'e.

Apolinario Ximenes, Claudino Ninas Nabais & Albertino Geronimo, Peskiza Adaptasaun Variedades Liis ho Tempu Kudanebee Diferente (Tempu Udan no Bailoron) iha Municipio Bobonaro

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Peskiza adaptasaun ai-horis Liis ida nee, nune'e ita bele hatene ai-horis Liis adapta no fo produsaun diak ka lae ba ita nia klima neebe interval tempu entre durasaun fulan rua-rua (2). Objetivo husi peskiza adaptasaun Variedades Liis ba intervalo tempu kada fulan rua-rua (2), ba tinan ida (1) nee hodi fo produsaun diak no adapta ba tempu udan no bailoron no klima iha Timor Leste. Defini Variedades ne'ebe produtividade as no adapta diak tuir tempu kuda. Atu buka respond no nesidade Agricultor/ povo nia economia uma laran. Fatin implementasaun

atividades peskiza adaptasaun aihoris Liis halao iha suco Lahomea, Aldeia Galusapulu, posto Adminitrasaun Maliana Municipio Bobonaro, tempu implementasaun atividades fahe ba epoka dala neen (6), signifika katak tinan ida nia laran atividades peskiza ida nee sei halao durante kada fulan rua-rua to'o tinan ida no tempu implementasaun atividades peskiza ba epoka primeiro mak iha fulan Julho 2018. Rezultadu produsaun Liis ba epoka primeiro nebee implementa iha tinan 2018-2019 nebee halao iha Municipio Bobonaro hatudu katak variedade Liis introdus Lokananta nebee fo produsaun as ho ninia produsaun 12.5 t/ha no Tuktuk nia rezultadu produsaun menus mak hanesan 7.29 t/ha nee dadus statistika hatudu la iha significan maibe komparasaun ba ninia prdusun kada variedades ida idak iha diferente.

Armandina Marçal Claudino Ninas Nabais, Deolindo daSilva & Albertino Geronimo, Efeito Tipo Adubus Organiko (Manuten no Bibiten) ho Tempu Aplikasaun ba Ai-Horis Cauliflower (Kobifunan)

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Kobi funan (*Brassica Oleraceae* var. *Botrytis* L.) hanesan ai-horis modo ne'ebe potensial tebes dezenvolve iha Timor-leste, tanba iha nia konteudu vitamina C ne'ebe as (73%) no diak ba ema atu konsumu. Estudu ida ne'e realiza iha municipio Ermera ho nia objetivo hodi defini tipo adubus organiko no tempu aplikasaun hodi hasae produtividade ai-horis kobi funan. Peskiza ne'e aplika dejeiñu ambiental randomized complete block design (RCBD) ho nia tratamentu fatór rua, fatór primeiro tipo adubus ho nivel tratamentu 3; manuten (M), bibiten (B) no kontrolu (C). Fatór segundu tempu aplikasaun ho nivel tratamentu 3; aplika semana 2 antes kuda (A2), aplika semana 1 antes kuda (A1) no aplika hanesan iha tempu kuda (A0). Rezultadu estudu ne'e hatudu katak, kuaje parametru observasaun hotu laiha interasaun ne'ebe signifikante husi fatór rua ne'e, maibe iha influencia pojitivo kada fatór ba parametru observasaun sira. Tratamentu tipo adubus manuten fo nia produsaun 2.6 t/ha as liu kompara ho tratamentu rua ne'e (bibiten 1.8 t/ha no kontrolu 1.5 t/ha). Entertantu fatór tempu aplikasaun la fo influencia signifikante ba produsaun. Tan ne'e peskiza kontinuasaun importante tebes atu bele hare klean liu tan influencia ba kada fatór ba ai-horis kobi funan nia produsaun iha futuro.

Session 8: Friday 4.00pm–5.30pm

Agronomia Hare ho Batar

Horacio do Rego, Claudino Ninas Nabais & Albertino Geronimo, Kuda Hare Uja Sistema Legowo ba Varidade Nakroma (*Oriza Sativa* L.)

Ministério da Agricultura e Pescas (MAP), Timor-Leste

Uja sistema legowo hodi hasae produktividade nebe maka diak. Atu atinji rejultadu no produsaun nebe as persija metodu oi-oin hanesan kuda linha no distansia. Kuda linha ho objetivu atu fasil hodi halo manutensaun hanesan tau adubus, hamos du'ut, no rega aimoruk. Liu husi baze ida ne'e maka hodi halo peskiza ho objetivu hodi buka hatene influencia husi kuda hare ho sistema legowo nebe uja distansia kuda no linha kuda ba rejultadu produsaun hare nakroma. Hipotesa nebe maka propoin: (1) iha interaksaun entre distansia kuda no linha kuda barejultadu produsaun ai horis hare varidade nakroma, (2) distansia kuda 25x25cm foprodusaun nebe maka as ba ai horis hare, (3) kuda ho linha rua fo rejultadu produsaun nebe maka as ba ai horis hare. Peskiza ne'e halao iha junta balak, Suco Aiteas, Postu Administrativu Manatuto Vila, Munisipiu Manatuto. Atividade ne'e halao iha fulan abril to'o agusto 2018. Dejenhu eksperimentu peskiza agronomia ne'e uza Dezenhu Randomiza Grupu (two way randomized in blocks) factorial 4x3 iha replikasaun tolu ba tratamentu tolu ho nivel

kombinasaun ne'ebe kompletu ho fator rua: fator dahuluk mak distansia kuda (D) ho nia tratamentu tolu katak: D1= distansia kuda 20x25 cm, D2= distansia kuda 25x25 cm, D3= distansia kuda 30x25 cm. Fator daruak mak kuda linha (L) nebe ho tratamentu hat mak hanesan L0= control, L1= Linha 2, L2= Linha 3 no L3=linha 4 ho tabela kombinasaun nebe kompletu tuir mai ne'e: Rezultadu peskija: (1). Iha interaksaun entre distansia kuda no linha kuda ba hare nia as no total hare musan/saren kada hun, (2). Iha distansia kuda 25x25cm maka fo produsaun as liu kompara ho distansia kuda seluk, (3). Iha linha kuda rua (2) maka fo produsaun as liu kompara ho linha kuda seluk.

Inácio Savio Pereira, Amandio da Costa Ximenes, Tobias Moniz Vicente, Robert L. Williams, Claudino Ninas Nabais & Albertino Geronimo, *Impaktu Doze Hare Kulit Latun (Anár-Biochar) ba Produsaun Hare Natar (Oryza Sativa L.) iha Timor-Leste*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Hare (*Oryza sativa* L) hanesan aihoris nebe importante ba ema nina moris. Atu hasa'e ninia produktividade, matenek nain sira hamosu pakote teknolójia apropriadu, liu-liu aplikasaun adubu orgániku ka inorgániku nudar nutrisaun suplemeentar ba rai laran. Aplikasaun materia orgániku ida maka biochar ka ahi-latun nebe nudar tékniku foun ba agrikultór sira hodi hasa'e produsaun háre. Objektivu uza hare latun ba natar mak atu hadia qualidade rai liu husi estrutúra rai, fiziku rai, kimiku rai no biolójia rai. Em jeralmente, hodi hatene impaktu hare kulit ahi latun (biochar) ba hare natar iha Viqueuqe, Timor-Leste. Peskiza ne'e halao hahu iha fula Marsu no remata iha fulan Agostu. Dezeñu eksperimentál nebe uza Dezeñu Randomiza Grupu Kompletu (DRGK) ba tratamentu hat (4) nomos replika dala tolu (3) ho total kantareiru 12. Dezeñu ne'e uza fatór ida deit mak hanesan fatór adubu hare kulit ahi latun (biochar) ho simbolu (B) kompostu husi nivel tratamentu hat (4) mak, B1= la tau biochar ho doze 0 t/ha, B2= tau adubu tuir sistema PAD (55 kg/ha urea), B3= Tau adubu biochar ho doze 10 t/ha HKAL, B4= tau adubu biochar ho doze 20 t/ha HKAL. Dadus nebe rekoila husi kampu esperimentasaun sei data baze hotu ba excel, depois kopia ba programa Genstat edisaun 18 hodi análize variasaun ba Anova ho indikadór 5%. Rezultadu Anova hatudu katak produsaun ho komponente produsaun iha signifkante entre tratamentu biochar husi munisipiú tolu hanesan Baucau-Laga, Maliana-Miguir no Viqueque Vila. Rezultadu produtividade ton/ha a'as liu iha tratamentu biochar ho doze 20 t/ha ho rezultadu produtividade 3.63 ton/ha. Nune'e rezultadu produtividade ton/ha menus liu iha tratamentu biochar ho doze 0 t/ha ho rezultadu produtividade 3.12 ton/ha. Biochar bele hadia fiziku rai, kímuku rai no biolójia rai inklui mos estrutúra rai.

Julieta Lidia, Claudino Ninas Nabais & Juliberto dos Santos, *Efeito Utilizasaun Doze Ahu No Adubu Kimiku Pospat (SP 36) Ba Kresimentu no Produsaun Batar Variedade Sele (Zea Mays L) iha Centro Pesquisa Darasula, Municipio Baucau*

Ministerio da Agricultura e Pescas (MAP), Timor-Leste

Batar (*Zea mays*, L), nudar ai-han importante nebe iha rekursu kalori ba ema ninia isin no animal. Batar sai hanesan komoditi strategio ida no ninia valor ekonomia ás, tamba nudar rekursu proteina no kabohidrat depois fós. Objektivu husi peskiza ida ne'e mak atu hatene efeito husi aplikasaun doze ahu ne'ebé adekua hodi neutraliza pH rai, no mos atu hatene efeito husi aplikasaun doze adubu Fosfor (SP-36) ne'ebé apropiadu ba kresimentu no produsaun batar variedade Sele. Peskiza ida ne'e halao tiha iha fulan Janeiru to'o Maiu 2017 iha Centro Peskiza Darasula, Munisipio Baucau, Metodologia ne'ebe uza iha pesquisa ne'e hanesan Dezenhu Randomizasaun Kompletu, ho fátor 2, fátor premeiru doze ahu mak hanesan tuir mai : kontrolu 0 ton/ha, (A₀), 2 ton/ha(A₁), 3 ton/ha(A₂) 4 ton/ha(A₃) 5 ton/ha(A₄).Fátor

segundu mak doze adubu Fosfor (SP-36) hanesan tuir mai : kontrolu 0 kg/ha, (P₀) (P₁), 50 kg/ha (P₂, 75 kg/ha (P₃), 100 kg/ha (P₄), 125 kg/ha (P₄), ne'ebe ho repete dala 3 (tolu). Rezultadu analiza hatudu katak produsaun ton/ha bot liu iha implementasaun doze ahu 5ton/ha no doze adubus kimiku 125 kg/ha(A4P4) 2.17 ton/ha no ki'ik liu iha kontrolu (A0P0) 0.09 ton/ maski estatistikamente la hatudu diferensia signifkativu.

Juliberto dos Santos, Akita Moreira, Pedro Bere, Tinoco Vicente, Marcelino Jeronimo & Claudino Ninas Nabais, *Efeito Doze Adubu Kimiku Urea No SP-36 Ba Kresimentu Moris No Produsaun Batat Variedade Noimutin (Zea Mays, L) iha Centro Pesquisa Betano*
Ministério da Agricultura e Pescas, Timor-Leste

Batatar nu'udar rekursu kalori ne'ebe bo'ot, aliende ida ne'e, nu'udar ai-han alternativu depois fós. Ho rasaun ida ne'e batatar sai hanesan komoditi strategis iha Timor Leste, hodi atende nesabilidade populasaun ne'ebe ninia kuantidade aumenta ba bei-beik kada tinan. Bazeia ba nesabilidade ne'ebe bo'ot, maka peskizador sira haláo ona peskiza ho titulu “Efeito doze adubu kimiku Urea no SP-36 ba kresimentu moris no produsaun batatar variedade Noimutin (Zea mays, L) iha Centro Peskiza Betano, Municipio Manufahi”, komesa fulan Janeiro to'o Abril 2017. Métopu peskiza Delineamentu Experimental Bloku Kazualizadu (DEBK) ho fátor 2 ne'ebe replika dala 3. Fátor dahuluk mak doze adubu Urea: 100 kg/ha (N₁), 170 kg/ha (N₂) no 240 kg/ha (N₃); fátor dahruak mak doze adubu SP-36 mak hanesan: kontrolu (P₀), 50 kg/ha (P₁), 100 kg/ha (P₂) no 125 kg/ha (P₃). Rezultadu peskiza produsaun batatar ás iha doze adubu kimiku Urea 175 kg/ha no SP-36 125 kg/ha (6,54 ton/ha), no ki'ik liu 1,44 ton/ha ho tratamentu kombinasau doze adubu kimiku Urea 240 kg/ha no SP-36 0 kg/ha.