

**BASELINE STUDY ON THE IDENTIFICATION OF LOCAL PRODUCTS IN RAE OA, COVALIMA AND  
BAUCAU THAT HAVE POTENTIAL FOR EXPORT AND TO ATTRACT FOREIGN INVESTMENTS IN  
AGRICULTURAL SECTOR**

**EXECUTIVE SUMMARY**



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The government of Timor-Leste is committed to develop a non-oil economy through the diversification of domestic trade in particular from agricultural sector. This can be seen through the total investment in this sector of \$218.4 million in the last eight year (2008-2016).

Agriculture sector has not achieved yet its potentiality. Government supports have provided high assistance to this sector, however agriculture productivity to date remains low which is due to weak agricultural management and practices. In one hand, agriculture sector has the potential to contribute to national GDP. On the other hand, there is a lack of private investment in this sector.

The study was conducted in RAEOA, Covalima and Baucau Municipalities. Respondents constituted of MAP staff (directors, extension workers and others), lead farmers/head of farmer group, head of villages and sub villages, community leaders, teachers, traders, buyers, national and international NGOs, and coordinator of MCIA.

The general objective of the study is to identify and collect information of local agriculture products and livestock in RAEOA, Covalima and Baucau Municipalities that have potential for export and to attract more foreign investments in agriculture sector.

The result of the study shows the existing local agriculture products and livestock in RAEOA, Covalima and Baucau Municipalities composed of maize, paddy rice, sweet potato, cassava, coconuts, candlenuts, mungbean, cattle, goat, vegetables and others. In general there is no significant difference of the existing products and livestock in these areas. Most of the production of these existing products is for family consumption with the rest for selling to local market.

The study revealed that there are 11 local potential agriculture products and livestock identified in RAEOA, Covalima and Baucau Municipalities, and they include cattle, maize, paddy rice, mungbean, pig, goat, cassava, peanuts, sweet potato, chicken and tomato.

The top five local potential agriculture products and livestock in **RAEOA** are **cattle, rice (membramo), cassava, goat and chicken**. The total production of **cattle** in 2017 is 18 835 heads (1816.9 t bovine meat). With the national consumption level for bovine meat of 1.19 kg/capita/year, which means current demand for bovine meat in RAEOA is only 82.01 t/year. The demand projection for bovine meat in the next 5 years (2017-2022) will increase by 98.4 tons or equivalent to a total of 984 head (increase by 1.6 ton/year). The main market is Dili and Indonesia.

Another potential local agriculture product in RAEOA is **rice (membramo)**. The total number of household engaged in paddy rice is around 10 800. Total production in 2017 is 2617.2 t of paddy rice (1570.3 t rice). However, the productivity is very low of 1.25 t/ha. This product is only sold in RAEOA with a very small volume is traded to Dili. Based on consumption level of 95 kg/capita/year, the current supply cannot fulfill the demand needed.

The top five local potential agriculture products and livestock in **Covalima** municipality include **maize, mungbean, cattle, cassava and pig**. More than 50 percent of households in Covalima produce **maize** with the total production of 10 335 t. The main market for maize is Ermera, Maubisse and Bobonaro municipalities and the average price is 0.60 cents/kg. With the consumption level of 90 kg of maize annually, the demand for maize is around 5400 t/year. This means that there is surplus of maize

production in Covalima of around 5000 t/year. If this volume is to be sold with the price of 0.60/kg, it will generate a total value of 3 million dollars.

**Mungbean** is one of the potential products in Covalima. Nearly a half of household in this area grow mungbean to fulfill their family incomes. The total production of mungbean is 413.6 t and most of the product produced is for selling to the market. The main market is Dili and West Timor Indonesia. Most of the household growing mungbean is subsistence farmers. However, there is a commercial demand including for export. Demand for mungbean in Indonesia is around 50 000 t/year and Timor-Leste can only produce around 5 000 t/year. This means that there are market opportunities available in Indonesia and Timor-Leste needs to respond to this market. With the average price of \$750/ton, Covalima will generate a total value of \$310 200/annum in exports revenue (\$3.75 million nationally).

Moreover, *rice, sweet potatoes, maize, peanuts and tomatoes* are the top five local potential products produced in Baucau municipality. The potential cultivated area of paddy rice in **Baucau** is 14 400 ha, and only 56% is planted. The total production of paddy rice in 2015 was 26 350 t (15 810 t rice); with the productivity of 3.3 t/ha. With the per capita consumption of 95 kg/year, which means Baucau will need 10 591 t rice annually. This indicates that the current production of rice can fulfill the demand needed. In addition, the average price for paddy rice is 0.45 cents/kg, while for rice is \$1.10/kg. The main market for rice is Dili with a small quantities sold in Baucau market.

Baucau is known as one of the center for **peanuts** production in Timor Leste; Peanuts are usually grown as a cash crop, and farmers produce this product under rain fed conditions, with little inputs. In general, the product is produced for selling to the local market, providing some source of cash income for rural households. The main market is Dili; and the average price is 0.60 cents/kg. The total production in 2015 was 15.8 t with the productivity of 1.86 t/ha.

Baucau also becomes one of the main suppliers of **tomatoes** for Dili market. The potential areas for producing tomatoes include Buruma, Triloca, Bucoli, Caibada, Fatumaca and some parts of Venilale. The total production of tomatoes in 2015 was 950 t (yield 5.4 t/ha). This yield is higher than national average, which is only accounted for 1.8 t/ha. Most of the production is distributed to the local market; and the main market is Baucau and Dili. In peak season the average price is 0.62 cents/kg and in low season is \$1.15/kg. It is assumed that from the total production of 950 t, only 75 per cent is marketed with the average price of 0.62 cents per kilogram, which means it will generate annual revenue of \$ 441 750 dollar.

This study revealed that around 97% of the products produced in those 3 areas are sold in local market and only 29% and 11.7% are distributed through traders and retailers respectively. This indicates that there is lack of market access; and as a result there is high dependency on local market.

In terms of *value addition*, it is only occurred for a number of products including paddy rice, maize, cassava, and sweet potatoes. The number of producers engage in value added products is very small. The main reason is due to lack of market opportunities and low price. The study revealed that producer normally performed *grading* for their produce (potential products) before selling to the market. The kind of grading applied is very basic including the maturity, size and color of the product.

Prices for local potential products and livestock vary among municipalities. For example, the average price of live cattle in RAEOA is \$625/head, whereas in Covalima is \$525/head. However, the average price for bovine meat is the same both in RAEOA and Covalima of \$6.50/kg. For maize in Baucau, the cost is 0.50/kg cents while in Covalima 0.60 cents/kg. Changes in prices of the products depend on the demand as well as seasonality (low and peak season).

For cattle, it appears to be an attractive development activity in RAEOA and Covalima. Cattles are raised by a large number of households and make up a significant proportion of household income. There are established cattle and beef markets, both for domestic and export in these areas. Approximately, 43% and 56% of households in RAEOA and Covalima raise cattle respectively. Cattles from RAEOA are distributed through Wini, Kefamenanu and Kupang; while cattles from Covalima are distributed through Atambua and also Kupang. In addition, the demand for beef in Indonesia is estimated to be growing at 6 – 8%/year.

The main **constraints** faced by producers and chain players in RAEOA, Covalima and Baucau municipalities include lack of access to market and low price, low production and low quality products, high marketing cost, low skills and poor farm management, and economics of scale.

Despite the constraints, there are **opportunities** for the development of market chain for local potential agriculture product and livestock. These opportunities are high demand for some local agriculture products and livestock in these municipalities; opportunity to increase productivity of agriculture product is feasible; the demand for cattle and mungbean in Indonesia is rising. This is market opportunity for Timor Leste and therefore open-up cattle and mungbean trade to Indonesia is extremely important; the demand for bovine meat in Dili estimated around 800 t/year;

To attract more foreign investments and local private sector to invest in agriculture sector in RAEOA, Covalima and Baucau, it is recommended that government agencies and private sectors need to provide more supports and assistance to producers and chain players. These include re-open export market with Indonesia as soon as possible; promoting value-added activities for local potential agriculture products; private sector investment in markets should be encouraged; there is a need for capacity building for all chain players in these areas to ensure the efficiency and effectiveness of the supply chain; the introduction of high yield varieties for local potential agriculture products and livestock and also a better farming practices for producers in RAEOA, Covalima and Baucau.

**ESTUDU BAZE HODI IDENTIFIKA PRODUTU LOKAL IHA RAEOA, COVALIMA NO BAUCAU NE'EBE IHA  
POTENSIALIDADE BA EXPORTASAUN NO BELE ATRAI LIU TAN INVESTIMENTU HOSI RAI-LIUR IHA  
SEITOR AGRIKULTURA**

**SUMARIU EZEKUTIVU**



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Governu Timor-Leste iha komprimisiu hodi desenvolve ekonomia naun-petroliu liu hosi diversifikasaun komersiu domestiku liu-liu iha seitor agrikultura. Komprimisiu ne'e bele hare liu hosi total investimentu ne'ebe governu aloka ba seitor ne'e ho total \$218.4 miloens durante tinan walu nia laran (2008-2016).

Seitor agrikultura seidak atinji ninia potencialidade ne'ebe mak iha. Governu oferese ona assistensia ne'ebe mak intensivu ba seitor ne'e, maibe produktividade agríkola to'o agora sei menus liu, ne'ebe kausa hosi gestaun no praticas agrikultura ne'ebe mak sei fraku. Iha parte seluk mos ladun iha investimentu privadu ba seitor ne'e iha Timor Leste.

Estudu ne'e hala'o iha RAEOA, município Covalima no Baucau. Respondentes ba estudu ne'e kompostu hosi funsionariu MAP (directores, extensionista no seluk tan), grupu agrikultor sira, chefe Suco no chefe Aldeia, lideransa komunitariu sira, professores, negociantes, kompradores, NGO nasional no internasional, no kordenador MCIA.

Objetivu geral hosi estudu ne'e mak atu identifika no koleta informasaun kona-ba produktu lokal agrikultura no animais sira iha RAEOA, município Covalima no Baucau ne'ebe iha potencialidade ba exportasaun no mos bele atrai liu tan investimentu hosi rai li'ur iha seitor agrikultura.

Resultadu estudu ne'e hatudu katak produktu lokal agrikultura no animais sira ne'ebe mak existe iha RAEOA, município Covalima no Baucau mak batat, hare, fehuk midar, aifarina, nu'u, kami'i, foremungu, karau vaca, bibi, vegetais no seluk tan. Em jeral, laiha diferensia ida signifikativu entre produktu lokal agrikola no animais iha área sira ne'e. Maioria produsaun hosi produktu lokal ne'ebe existe uza ba nesesidade konsumu família nian no karik iha resin ruma mak lori ba fa'an iha merkadu lokal.

Estudu ne'e revela katak iha 11 produsus lokal agrikola no animais potensial ne'ebe identifika iha RAEOA, município Covalima no Baucau. Produto lokal potensial hirak ne'e mak karau vaca, batat, hare, foremungu, fahi, bibi, aifarina, forerai, fehuk midar, manu no tomate.

Produto lokal potensial agrícola no animais lima (top 5) iha RAEOA mak karau vaca, hare (membramo), aifarina, bibi no manu. Total produsaun karau vaca iha 2017 hamutuk 18 835 (1816.9 t na'an). Ho nivel konsumu na'an karau vaca nível nasional 1.19 kg/capita/tinan, signifika katak iha tempu agora dadaun demanda ba na'an karau vaca iha RAEOA atinji deit 82.01 t/tinan. Projesaun ba demanda na'an karau vaca ba tinan 5 mai (2017-2022) sei aumenta ba 98.4 t ka ekivalente ba total 984 karau vaca (aumenta 1.6 t/tinan). Merkadu prinsipal ba produktu ne'e mak Dili no Indonesia.

Produto lokal potensial sira seluk iha RAEOA mak hare (membramo). Total uma kain envolve iha atividade hare hamutuk 10 800. Total produsaun hare iha 2017 mak 2617.2 t hare (1570.3 t fos). Maibe, produktividade hare iha RAEOA menus liu, atinji deit 1.25 t/ha. Produto ne'e fa'an deit iha RAEOA, no ho kuantidade ki'ik fa'an mos iha Dili. Bazeia ba nivel konsumu fos 95 kg/capita/tinan, iha tempu agora dadaun oferta seidak bele atu sustenta demanda ne'ebe mak iha RAEOA.

Produto lokal potensial agrícola no animais lima (top 5) iha município Covalima mak batat, foremungu, karau vaca, aifarina no fahi. Liu hosi 50% uma kain iha Covalima produz batat ho total produsaun 10 355 t. Merkadu prinsipal ba produktu ne'e mak Ermera, Maubisse no Bobonaro, ho presu médio \$0.60/kg. Ho nivel konsumu 90 kg/capita/tinan, signifika katak demanda ba batat atinji 5400 t/tinan. Ne'e hatudu

katak iha exsidenti (surplus) ba produsaun batar iha Covalima hamutuk 5000 t/tinan. Karik kuantidade exsidenti (surplus) ne'e fa'an ho presu \$0.60/kg, sei hetan osan ho valor \$3 miloens dólares.

Foremungu hanesan mos produktu potensial seluk hosi município Covalima. Kuaze metade hosi uma kain iha município ne'e kuda foremungu hodi ajuda rendimentu ba sira nia família. Total produsaun foremungu hamutuk 413.6 t no maioria hosi produktu ne'e fa'an ba merkadu. Merkadu prinsipal mak Dili ho NTT Indonesia. Maioria agrikultores sira kuda foremungu sei subsistente. Maibe, produktu ne'e iha demanda komersial inklui ba exportasaun. Demanda foremungu iha Indonesia atinji 50 000 t/tinan, no Timor-Leste so bele produz deit 5000 t/tinan. Ne'e hatudu katak iha duni oportunitade merkadu iha Indonesia no Timor-Leste presija atu hatan ba merkadu refere. Ho presu mediu \$750/t, Covalima bele hatama osan ho valor \$310 200/tinan hosi exportasaun produktu ne'e (\$3.75 miloens iha nível nacional).

Hare, fehuk midar, batar, forerai no tomate sai hanesan Produkto lokal potensial agrícola no animais lima (top 5) iha município Baucau. Area kultivu potensial ba hare iha Baucau hamutuk 14 400 há, no 56% deit mak uza hodi kuda hare. Total produsaun hare iha 2015 hamutuk 26 350 t (15 810 fos) ho produtividade 3.3 t/há. Ho konsumu per kapita 95 kg/tinan, ne'e signifika katak Baucau sei presija 10 591 t/tinan. Ne'e hatudu katak produsaun fos ne'ebe iha seidak bele hatan ba demanda ne'ebe mak iha. Nune, presu mediu ba hare mak \$0.45 /kg no ba fos \$1.10/kg. Merkadu prinsipal ba fos mak Dili, no kuantidade ki'ik fa'an iha merkadu Baucau.

Baucau mos sai hanesan sentru area ba produsaun forerai iha Timor-Leste. Forerai sai hanesan produktu komersiu kultural no agrikultores sira kuda produktu forerai ne'e durante tempu udan ho produsaun ne'ebe ki'ik. Em jeral, produktu ne'e fa'an ba merkadu lokal ne'ebe fornese rendimentu ba uma-kain iha area rural. Merkadu prinsipal maka Dili, no presu mediu maka \$0.60/kg. Total produsaun iha tinan 2015 maka 15.8 t ho produtividade 1.86 t/ha.

Baucau mos sai hanesan fornecedor prinsipal ba produktu tomate iha merkadu Dili. Area potensial ba produsaun tomate inklui suco Buruma, Triloca, Bucoli, Caibada, Fatumaca no parte balun hosi posto administrative Venilale. Total produsaun tomate iha 2015 maka 950 t (produtividade 5.4 t/há). Produktividade ne'e as liu nível nasional ne'ebe atinji deit 1.8 t/há. Maioria hosi produsaun tomate distribui ba merkadu lokal sira; no merkadu prinsipal ba produktu ne'e mak merkadu Baucau no Dili. Iha tempu tomate, presu mediu mak \$0.62/kg no la'os tempu tomate presu sa'e ba \$1.15/kg. Karik total produsaun tomate 950 t, maka fa'an deit 75% ho presu mediu \$0.62/kg, ne'e sei fo rendimentu ho valor \$441 750 dolares kada tinan iha Baucau.

Estudu ne'e revela katak kuaze 97% hosi produktu lokal potensial ne'ebe mak produs iha área tolu ne'e fa'an deit iha merkadu lokal no 29% distribui liu hosi komersiante sira no 11.7% distribui liu hosi retailista sira. Ne'e hatudu katak produktu hirak ne'e ladun iha asesu ba merkadu no ikus mai resulta ba dependência ne'ebe maka a'as ba merkadu lokal.

Em termus adisaun valor (value addition), so aplika deit ba produktu sira hanesan hare, batar, aifarina no fehuk midar. Numeru produtor ne'ebe envolve iha adisaun valor ki'ik tebes. Razaun prinsipal maka ladun iha oportunitade merkadu no presu ne'ebe mak tun liu. Estudu ne'e mos revela katak produtores sira bain-bain halo klasifikasaun (grading) ba sira nia produktu potensial molok fa'an ba merkadu. Tipu klasifikasaun (grading)

ne'ebe mak sira halo baziku tebes inklui maturidade produktu no mos kor.

Presu ba produktu lokal potensial agrikultura no animais iha variasaun entre município tolu ne'e. Hanesan ejemplu maka presu mediu ba karau vaca iha RAEOA \$625, maibe iha Covalima \$525. Ba presu mediu na'an karau vaca iha RAROA no município Covalima hanesan deit mak \$6.50/kg. Presu mediu ba batar iha Baucau \$0.50/kg no iha Covalima \$0.60/kg. Mudansa ba presu depende ba demanda nune mos ho tempu produsaun.

Ba karau vaca, ne'e sai hanesan atividade atrativu ida iha RAEOA no Covalima. Uma kain barak iha área rua ne'e mak hakiak karau vaca no atividade ne'e kontribui signifikante tebes ba rendimentu uma kain sira nian. Merkadu ba karau vaca no na'an karau vaca estabese diak tebes iha RAEOA no Covalima ba demanda rai laran no mos exportasaun. Kuase 43% no 56% hosi uma kain iha RAEOA no Covalima envolve an iha atividade hakiak karau vaca. Karau vaca hosi RAEOA distribui liu hosi Wini, Kefamenanu no Kupang; no karau vaca hosi Covalima distribui liu hosi Atambua no mos Kupang. Estimasaun kresimentu demanda ba na'an karau vaca iha Indonesia atinji 6-7%/tinan.

Desafius prinsipal ne'ebe produtores no autor adisaun valor sira hasoru iha RAEOA, Covalima no Baucau inklui ladun iha asesu ba merkadu no presu tun liu, produsaun menus no kualidade produktu mos tun, kustu ba merkadoria a'as, habilidade (skill) menus no jestaun ba farma fraku tebes, no eskala farma ne'ebe maioria ki'ik.

Iha parte seluk, iha mos oportunidade ba dezvoltamentu korente de merkadu (market chain) ba produktu lokal potensial sira. Oportunidade sira ne'e inklui demanda ne'ebe mak a'as ba produktu agrícola no animais balun; oportunidade hodi hasa'e produtividade produktu agrícola; demanda ba karau vaca no foremungu iha Indonesia aumenta ba bebeik. Ne'e hanesan oportunidade merkadu ba Timor-Leste, tan ne'e loke fila fali komersiu karau vaca no foremungu ho Indonesia sai fator ida importante tebes; demanda ba na'an karau vaca iha Dili atinji 800 t/tinan.

Atu atrai investimentu hosi rai-liur no seitor privadu lokal sira hodi investe iha area agrikultura iha RAEOA, Covalima no Baucau, rekomenda ba Governu no seitor privadu sira atu tulun no fo assistensia ba produtores no autor adisaun valor sira. Ne'e inklui loke fila fali atividade exportasaun ho Indonesia iha tempu badak; promove atividade adisaun valor ba produktu lokal potensial; enkoraja investimentu seitor privadu iha merkadu; presija kapasita autor adisaun valor sira iha área tolu ne'e atu nune bele garante efesiensia no efikas ba korente de distribuisaun; introdusaun variedade aihores ho produktividade as ba produktu lokal potensial; no mos fornese pratika farma ne'ebe mak diak ba produtores sira iha RAEOA, Covalima no Baucau.