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The Civil Society evaluation report on implementation of Strategic Development Plan (SDP) 2011-2030

In Agriculture Sector

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Executive summary

The 2011-2030 SDP places the agricultural sector as one of the important sub topics in the section on Timor-Leste's economic development. The agricultural sector along with other sub topics such as rural development, petroleum, tourism and private sector investment must be developed so that the 2030 vision of Timor-Leste with a diverse and modern economy can be achieved. SDP has three implementation phases consisting of short, medium and long terms targets.

Therefore, FONGTIL – The Timor-Leste NGO Forum, as an umbrella for Timor-Leste civil society organizations wants to conduct an evaluation to measure how Timor-Leste's achievement of goals during medium term by 2020. Particularly, this evaluation will focus on achieving SDP goals in the agricultural sector.

Findings:

- The Green Revolution model is contrary to the vision of the Ministry of Agriculture for a sustainable agricultural sector, as well as contradicts the goals number two of Sustainable Development Goals (SDG) 2030 on eliminating hunger, supporting food security and improving nutrition and promoting sustainable agriculture.
- The application of chemical fertilizers would damage the topsoil for long period, leaving the soil and water poisonous, and the new seeds would eliminate local seeds and local wisdom that had existed before, and does not motivate farmers to implement it. This situation makes the agricultural development strategy in this SDP just a government priority but not a priority for farmers in rural areas.
- The priority to transform from subsistence agriculture to an agricultural system oriented to a commercial mechanism with small producer farmers for large production will make many traditional farmers lose their production land, create many new landlords and the monopoly on seeds, production and prices, which in turn will make traditional farmers as the consumers rather than to be the producers.
- Since 2008, the Ministry of Agriculture has bought around three thousand tractors. According to Book 2 of 2016 State Budget that in 2015 only 150 tractors were operating. Also the tractors creating overlapping government project among ministries, making farmers' production highly dependent on government tractors, as well as the tractor did not help increase the production because the top soil conditions in Timor-Leste are very thin.
- The application of using hybrid seeds does not help to increase the agricultural production. Actually local seeds have adapted to the local climate, culture and environment. Timor-Leste has information about local food and a diet of sweet potatoes, beans, taro, bananas and others. Using high yielding variety of seeds becomes an opportunity project for international researchers including seed companies and international agencies rather than to achieve food security.
- As Timor-Leste does not yet have a domestic genetic resource protection law, therefore, the application of formal seeds alone will eliminate the locally genetic resources and local wisdom that have existed and operated for many years by farmers.
- The goal by create a scheme for thirteen irrigation projects was achieved, but the goal by build dams and groundwater pilot projects for long-term agricultural development was not achieved.
- The high production target was ultimately not reached and no information has published on a goal of “area of irrigated rice will have increased by 40% from 50,000 ha to 70,000 ha by 2020”. The State Budget Book only informs expectations rather than real achievement figures
- SDP Goals in 2015 by increase the rice production from 37,500 tons to 61,262 tons was ultimately not achieved. In 2019, Timor-Leste still has a deficit of 78.466 tons of rice. In 2017, Timor-Leste average rice production is around 3,000 kilograms per hectare compared to Vietnam's production which exceeds 5,500 kilograms per hectare.

- SDP 2020's target that 50% of fruits and vegetables will be grown locally is not achieved.
- Goal by 2020 that average maize yields will have increased to 2.5t/ha is nearly achieved with 2.2t/ha in 2017.
- Lack of domestic agricultural production makes the price of food, especially local rice, expensive and difficult to access by people whose income is small become principal causes of malnutrition in Timor-Leste. Almost every family spends 70% of their income to buying food.
- The 2020 target by coffee production will double with the rehabilitation of 40,000 hectares of coffee plantations is not achieved
- The target to increase the number of livestock to 20% by 2020 is not achieved
- The targets of the commodity development program to increase the export of cattle with a double capacity to reach 5,000 per year and the import substitution of 200 tons of meat by 2020 also are not achieved
- Many farmer groups and cooperatives with independently carry out broiler raising activities in many places in Timor-Leste.
- The target for ocean based fishing with export oriented is not achieved. Even though there are a number of inland fishing activities, but commercially it is insufficient to be used as an export commodity for Timor-Leste.
- The annual state budget investment is not exceeding 2% of the total state budget.
- In 2017, Parliament passed a Forestry Law, previously, also in 2012; Parliament also passed the Environmental Basic Law. With these two laws, the 2015 target for forest management can be considered achieved.
- Goal to plant one million trees by the community every year was not achieved. As since 2015 a program of 1,000 communities planted trees to implement a sustainable forestry product program has not begun.
- The target of making national policies for bamboo by 2015 wasn't achieved as until 2015 there has no any draft regarding to market policy and bamboo commercialization was produced.
- Many donors have contributed through the implementation of their programs with the Ministry of agriculture to achieve the goals that have been determined by SDP. The private sector is encourages to focus on how to involve in agribusiness.
- The civil society organizations continue to provide recommendations, suggestions through submission and are also involved in working groups formed by the Ministry of Agriculture to design agricultural policies.

Recommendations:

- Immediately revise the SDP strategies and actions in the agricultural sector to be more contextual rather than promoting the interests of the agribusiness industry players.
- The distribution of land plan is needed for producer farmers in order to boost them to produce more because many farmers do not own their own land and their production depends on the land of others.
- Required the adoption of new models that are more sustainable through the promotion of local wisdom and local resources, such as, the use of local seeds, organic fertilizers including changing dietary approaches and promoting food diversity to the people.
- There is no longer need for the application of agricultural mechanization such as tractors but it is necessary to use local wisdom which has long been the experience of Timorese farmers and it is the best solution for production.
- More adequate budgetary allocations in the agriculture sector are needed.
- Reducing food imports, poverty and malnutrition through increasing domestic production.

Introduction

From 19 April to 11 September in 2010, the Prime Minister of Democratic Republic of Timor-Leste, His Excellency Mr. Xanana Gusmao conducted a dissemination of the draft of Country's Strategic Development Plan (SDP) 2011-2030 in all sub-districts in Timor-Leste. Finally, the Plan was approved by the National Parliament in July 2011.

The vision of the SDP 2030 aims to make Timor-Leste as an upper middle income country with strong state institutions, with a competitive and broadly expanding production sector and employment, as well as with significant trade deficit reduction. And finally, This vision aims to provide significant benefits for the people through reducing poverty, strengthening the health system so that it can reduce mortality, every household has a high income, making life expectancy can reach an average of 70 years of age, building the education system through investment in human capital, eradicating 90% of the illiteracy rate for the elderly people, creating jobs in various sectors, employment security and, a fair and efficient justice system.

Therefore, to achieve this vision, this strategic plan wants to builds fundamental infrastructures and human resources including encourage the private sector development to move into strategic industries such as agriculture, tourism, petroleum as stated in the economic section of SDP, and also focus on building social capital through building healthy and educated societies and encouraging human development.

SDP has three implementation phases consisting of short-term targets with duration of implementation from the first year to the fifth year, medium-term targets with duration of implementation from sixth year till tenth year, and the long-term targets with duration from eleventh to twentieth years.

This 2020 will be the tenth year of SDP implementation, and also as a momentum that Timor-Leste has passed through two important phases of the three predetermined phases. Therefore, FONGTIL – The Timor-Leste NGO Forum, as an umbrella for Timor-Leste civil society organizations wants to conduct an evaluation to measure how Timor-Leste's achievement of goals by 2020. Particularly, this evaluation will focus on achieving goals in the agricultural sector.

Purpose

This evaluation has several important objectives as follows:

- To identify the government achievements over the past ten years on SDP goals by 2020 in the agricultural sector.
- As an effort to encourage government accountability for priority programs, especially in the agriculture sector that has been determined in the SDP.
- To identify the challenges faced by the government during the implementation of the agricultural program specified in the SDP.
- Producing recommendations from the perspective of civil society to improve agricultural sector development programs so that Timor-Leste can achieve its SDP 2030 targets.

Evaluation Methodology

Location and evaluation period

This evaluation concentrated in Dili for two months. It starts from February 25 to May, 5, 2020. FONGTIL is the owner of this evaluation project and recruit Juvinal Dias,¹ an independent researcher who has been monitoring the Timor-Leste economic development process. In addition, the evaluator also helped by one assistant, Jerry da Cruz, a Bachelor of Economic Management.

Method

The Desk Review method is used by evaluator at this assessment to analyze the reports relating to the SDP. These reports are from FONGTIL member organizations, the Development Partners and from the government institutions regarding to the SDP goals achievements and constraints faced by the Government. Besides that, it is also used to elaborate recommendations from civil society to improve government programs so that SDP goals can be achieved. (List of reports can be seen in annex 1).

In addition to the Desk Review, the evaluators also use the Key Informant Interview (KII) method as a complementary method for interviewing peoples from civil society, development partners and the government institutions related to the evaluation topic. (List of sources is in annex 2)

Indicators

Indicators measured in this evaluation are:

- The Sustainability of the Green Revolution
- Timor-Leste's agricultural mechanization adopted by the SDP: Tractors, seeds and irrigation
- Food self-sufficiency goals
- Import, poverty and malnutrition
- State budget for agricultural development
- The Private sector and development partner participation in supporting the agricultural sector in Timor-Leste
- The Civil society participation in the agricultural sector

¹ Study agriculture in UNTL, completing several courses related to economics, good governance and petroleum. Currently also serves as President of the Timor-Leste Petroleum Fund Consultative Council

Findings and discussions

Green Revolution according to SDP Goals: is it sustainable?

The 2011-2030 SDP places the agricultural sector as one of the important sub topics in the section on Timor-Leste's economic development. The agricultural sector along with other sub topics such as rural development, petroleum, tourism and private sector investment must be developed so that the 2030 vision of Timor-Leste with a diverse and modern economy can be achieved.

In the agricultural sector, the SDP's vision is to transform subsistence agriculture which has been a traditional practice of Timorese farmers to an agricultural system that will be oriented towards commercial mechanisms, producing a lot with small producer farmers. SDP has a target that Timor-Leste can be self-sufficient in food from domestic production so that it can improve food security as well as to produce other agricultural products that can be sold in the global market to reduce poverty in rural areas.

SDP acknowledges that the strategies and actions are needed to respond to constraints in Timor-Leste agriculture sector such as mountainous land, climate, soil that is less fertile compared to other regions, as well as the socio-cultural practices and subsistence agriculture. The SDP recommends a number of strategies to ensure food security and poverty reduction through the "green revolution" model based on India's experience by advocating the use of high yield varieties of seeds, use of chemical fertilizers and big irrigation system so that farmers can produce sufficient food and reduce the risk of starvation.

This report evaluates that the green revolution model advocated by the SDP is not sustainable in developing Timor-Leste's agriculture. This model is contrary to the vision of the Ministry of Agriculture and Fisheries that a sustainable, competitive and prosperous agricultural sector can alleviate poverty and can support to improve the living standards of the people of this country. In addition, this model also contradicts with the Goals number two of Sustainable Development Goals (SDG) 2030 on eliminating hunger, supporting food security and improving nutrition and promoting sustainable agriculture, which has been adopted in 2015 and implemented by Timor-Leste based on its SDP corridor.

In each annual budget, the Government always allocates funds to buy agricultural production inputs and distribute them to the farmers. A respondent in this evaluation said that the application of chemical fertilizers would damage the topsoil for long period, leaving the soil and water poisonous, and the new seeds would eliminate local seeds and local wisdom that had existed before. From these threats, SDP's vision does not motivate farmers to implement it. This situation makes the agricultural development strategy in this SDP just a government priority but not a priority for farmers in rural areas.

A non-governmental organization in Timor-Leste in its report said that ² "When Timor-Leste's government, in the National Strategic Plan, refers to the green revolution in India as a model; they are measuring success with limited data and ignoring real and serious negative impacts. India (specifically the Punjab region) is often cited as a success of the green revolution because grain harvests increased nearly ten-fold in a short time and high yields continued over many years. But other impacts included diminished genetic diversity, increased vulnerability to pests, land stripped of natural fertility, polluted water and local ecology, and a loss of control by small farmers."

In addition, this evaluation also sees that the priority to transform from subsistence agriculture to an agricultural system oriented to a commercial mechanism with small producer farmers for large production will make many traditional farmers lose their production land, create many new landlords and the monopoly on

² The La'o Hamutuk Bulletin Vol. 13, No. 1: July 2013: [Food Sovereignty and Food Security](#)

seeds, production and prices, which in turn will make the traditional farmers as the consumers rather than the producers.

So, to increase the agricultural production in Timor-Leste, this evaluation recommends for an immediate revision of the agricultural development strategy and actions in SDP by distribution of land to producer farmers. This evaluation found that the SDP's agricultural development strategy was failed in finding that many farmers in Timor-Leste does not have their own agricultural land so their production was dependent on other people's land. The complexity of Timorise culture, social, history and economy are the main causes of how difficult it is for farmers to own an agricultural land.

This evaluation sees that the solution to solving this problem must go through state political mechanisms that encourage agrarian reform for the interests of producers rather than the landlords. In addition, this new revision must be through the adoption of new models that are sustainable, promoting local wisdom and local resources such as the use of local seeds, organic fertilizer, as well as changing the dietary approach that prioritizes food diversity for the people.

Mechanization of Agriculture and its results

Farming with tractors

As previously discovered, the strategy in the agricultural sector is to implement an agricultural mechanization system that is oriented to the use of inputs such as tractors, heavy equipment that replace human labor as workers to do production. The Ministry of Agriculture and Fisheries in its strategic plan said that the purpose of this mechanization is to increase the productivity of agricultural laborers through the use of technology to increase rice production.

Since 2008, the Ministry of Agriculture has bought around three thousand tractors to be distributed to farmers' groups and helped to plow the land for free to farmers. However, this evaluation report found that in 2015, only 150 tractors were operating, while the rest were not reported to exist. This finding is based on information in book 2 of 2016 State Budget.

A social audit report from a non-governmental organization on a tractor distribution project said that some farmers are very directly helped by this approach. Farmers feel the tractor makes their work easier and increases their production.³ But some respondents in this evaluation said that the distribution

of these tractors also had some disadvantages, such as making farmers' production highly dependent on government tractors. The tractor did not help increase production as the top soil conditions in Timor-Leste are very thin, so when the land is plowed, the topsoil will be below and infertile soils will be above again, and globally recognize that about three percent of agricultural mechanization also contributes to greenhouse gas emissions that cause climate change.

This evaluation also heard the respondents' opinion that the government should revise the SDP by eliminating the policy of implementing agricultural mechanization which is oriented to the use of tractors but encouraging local wisdom practices that had always been the experience of Timorese farmers. This will be one of the best ways to increase the sustainable production.

In addition, this evaluation sees that lacks of investment in human resources, synergic plans, and maintenance and operations make tractors purchased by the state abandoned, and out of control. These factors contributed to the failure of Timor-Leste to achieve its SDP goals regarding land management and increased agricultural production. The evaluation also found that there were some distributions of tractors in non-paddy areas, and

*In 2015: 150 tractors operationalized and 350,000 liters of fuel purchased and used for its operation
2016 Budget Book 2*

³ <http://pastimor.com/wp-content/uploads/formidable/6/REZULTADU-DESKOBRIMENTU-AUDITORIA-SOCIAL-FFHF-003.pdf>

the lack of a strong coordination line between ministries made this project failed to meet the goal of increase the production.

The evaluation also found that there had been overlapping government project on tractor during the last ten years. Overlapping in 2008 to 2012 was involved the Ministry of Agriculture and the Ministry of Economic Development, and the case continued in 2018 to the present day between the Ministry of Agriculture and the State Secretary for Cooperative Affairs.

In addition, a respondent acknowledged that large tractor imports from Indonesia were a profitable business because of the low risk. Therefore, making profits were more important than conducting in-depth costs and benefits analysis of the project for farmers. A report from the Chambers of Appeal on the activities of the Ministry of Agriculture during 2011 to 2013 emphasizes concerns on the planning and monitoring capabilities of the ministry on tractors operations, specifically the use of fuels for this heavy equipment.

Formal seeds versus informal seeds

To increase the agricultural production, the SDP wants the uses of seeds with high yield varieties, fertilizers and others. To plant rice, Timor-Leste uses the System of Rice Intensification (SRI) and Integrated Crop Management (ICM) which according to the government these have been successfully implemented from 2007 to 2009.

Unfortunately, information compiled by the Timor-Leste NGO Forum (FONGTIL) from several village heads in Covalima said that although SRI has several advantages such as not requiring a lot of water, cheaper, and can provide high production, but in principle the farmers are not familiar with this application and prefer to farm based on their traditional practices as the new system requires farmers to controls the irrigation, spacing or planting distance, use of fertilizer and eradications of pests and weeds.

"The government must revise this SDP, we cannot just adapt to new things from abroad."

Permatil

Lacks of information, trainings and assistances from agricultural extension workers have prevented farmers from prioritizing the use of these systems. The 2019 FAO and EU reports on food security and nutrition say that the agriculture extension workers did not receive training in how to engage with the poor and youths peoples, as well as the subsistence farmers, which most of them have different goals with those who are work at the Ministry of Agriculture.

Regarding to seeds, the Ministry of Agriculture collaborates with international seed research institutes and development agencies from other countries to research seeds that can adapt to climate and can increase large production in Timor-Leste. These institutions include Seed of Life (SoL) which is sponsored by the Australian Government. Some seeds have been produced such as Nakroma rice, Sele and Noy Mutin Corn, Utamua peanuts, Qiu Kay and Lakateu green beans, Cia and Darasula Sweet Potato, as well as other seeds.

Every year, the Ministry of Agriculture's budget plan always includes a hybrid seed, pesticides, chemical fertilizers distribution programs for many farmers in the hope of increasing agricultural production.

After the SDP was approved by the Parliament, the Government through the Ministry of Agriculture formulates a policy on seeds to regulate seeds in Timor-Leste, which included seeds from the results of the "formal" system derived from laboratory research results and the "informal" seed system which had been a traditional practice of the farmers from year to year.

This evaluation identified that not all entities agreed that Timor-Leste's agriculture would use new seeds from the formal process, which are also commonly known as seeds from abroad and hybrids. According to the perspective of one of the non-governmental organizations⁴ working in Timor-Leste's agriculture sector, this policy of using hybrid seeds does not help to increase the agricultural production. This organization argues that actually local seeds have adapted to the local climate, culture and environment. Timor-Leste has a history of the cultural traditions inherited from the local community; therefore, Timor-Leste has information about local food and a diet of sweet potatoes, beans, taro, bananas and others. For example, La'o Hamutuk's organization in its 2013 Bulletin said that “Until now, farmers continue to use these seeds because they are well adapted to the local climate and farmers know how to use them, including how to prevent plant diseases and save seeds.”

To link the seed policy with SDP, this evaluation identified that the SDP's goal of using high yielding variety of seeds was an opportunity for international researchers including seed companies and international agencies to conduct research and by offering the projects that would benefit them rather than to achieve the food security. The project failed to encourage food diversification or failed to improve agricultural methods and rural infrastructure although these institutions argued that their project would solve the problem of food insecurity in the country.

This evaluation found that the new seed project faced great resistance from farmers and non-governmental organizations that had been encouraging a sustainable agriculture. In addition, this evaluation also found that so far Timor-Leste does not yet have a domestic genetic resource protection law. This legal gap makes the application of formal seeds alone will eliminate locally genetic resources and local wisdom that have existed and operated for many years by farmers. This rejection can be seen as an example of farmer resistance which resulted in the failure of SDP objectives.

Although the report from Seed of Life says that their project successfully launched 19 varieties of seeds from 2011 to 2016, but this evaluation also listens to civil society's opinion that the Seed of Life research project funded by the Australian government has not shown a positive impact. Many seeds have been launched but agricultural production has not increased as promised. Therefore, this evaluation recommends that SDP strategies and actions in the agricultural sector need to be revised again so that they can adapt to the context of Timor-Leste's agricultural life rather than promoting the interests of agribusiness industry players.

Irrigation and its efficiency

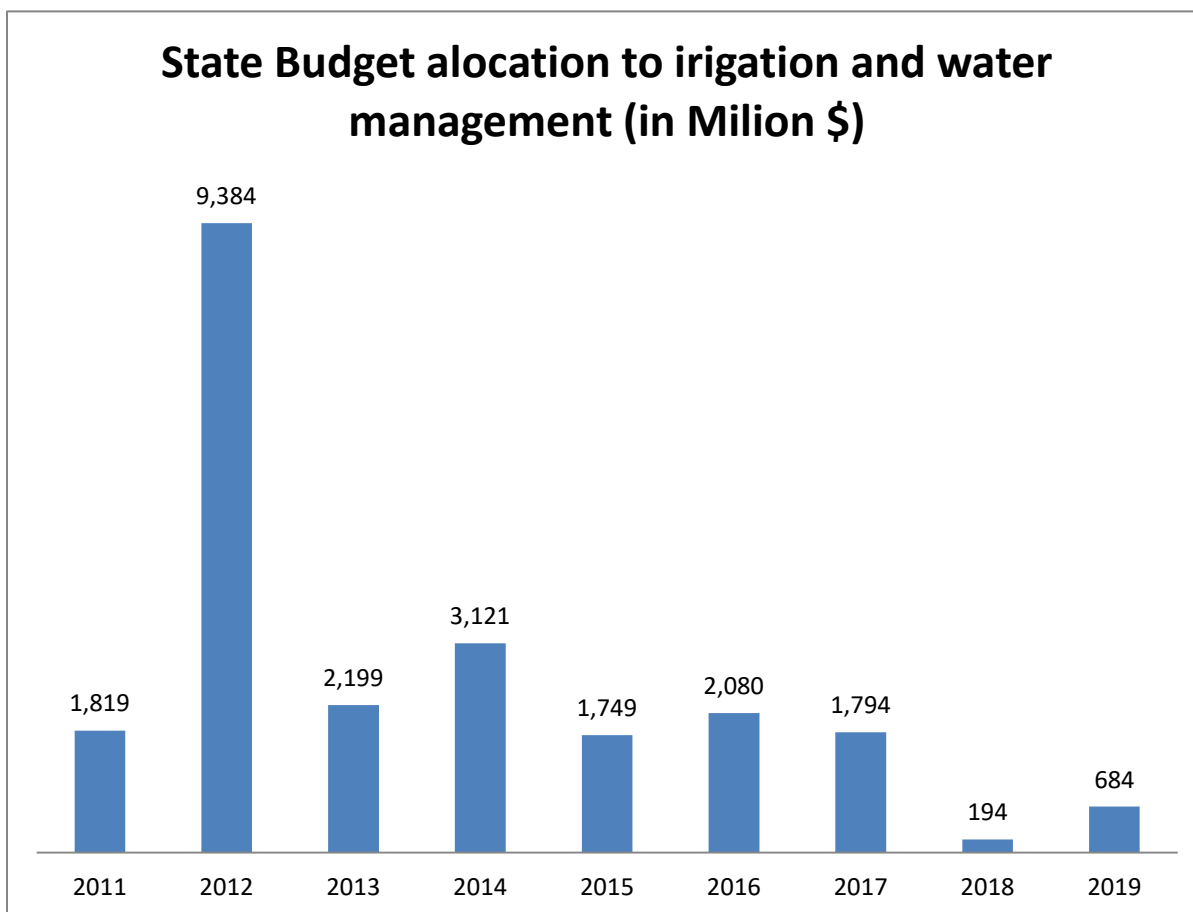
The target of SDP in 2020 to achieve food security is to create 70,000 hectares of additional paddy fields with irrigation. The SDP believes that with the high variety of rice seeds, the use of chemical fertilizers and pesticides and massive irrigation will make Timor-Leste follow in the footsteps of the experience of the green revolution in India in 1965.

To achieve the 2020 SDP goals on irrigation, the government must first achieve the 2015 target by conducted a study on a comprehensive irrigation scheme in Timor-Leste. The SDP goal to create a scheme for thirteen irrigation projects was achieved. And apparently it has been designed since 2011, but the Goal of build dam and groundwater pilot projects for long-term agricultural development was not achieved. The EU evaluation report on the first phase of SDP implementation also confirms the same results.⁵

⁴ PERMATIL

⁵ Strengthening “Monitoring and Evaluation” in Timor-Leste Relatório de Avaliação Implementação do Plano Estratégico de Desenvolvimento 2011-2030: 1ª fase

State Budget allocation to irrigation and water management (in Million \$)



Between 2011 and 2019, the Government allocated more than twenty million dollars to financing the irrigation and water management programs to support the achievement of 2015 SDP goals. This allocation did not include grants from development partners where between 2011 and 2013 reached sixty million dollars according to the 2015 World Bank's development evaluation report. Budget allocation figures for irrigation and water management have increased since 2012, so the evaluator assess that irrigation needs in the first years of SDP implementation will help the Government to achieve its 2020 targets of high production and food security.

Unfortunately, this high production target was ultimately not reached and no information has published about the amount of paddy land that had been drained from irrigation that had been built. The State Budget Books only informs Government expectations rather than the real achievement figures.

The 2015 World Bank report ⁶ on evaluating state expenditure on infrastructure says that this irrigation plan is very ambitious and recommends that there is no need to irrigate rice fields from rivers water sources as it is so expensive compared to using water pumped from water sources that are under rice fields.

In addition, this evaluation also listened to complaints from several respondents said that some of the government's irrigation projects did not succeed in irrigating farmers' rice fields. Irrigation channels that are below the surface of paddy soil, and the rivers that dry during the dry season make these irrigations not function efficiently. Other factors that also contributed are the lack of quality monitoring and supervision from

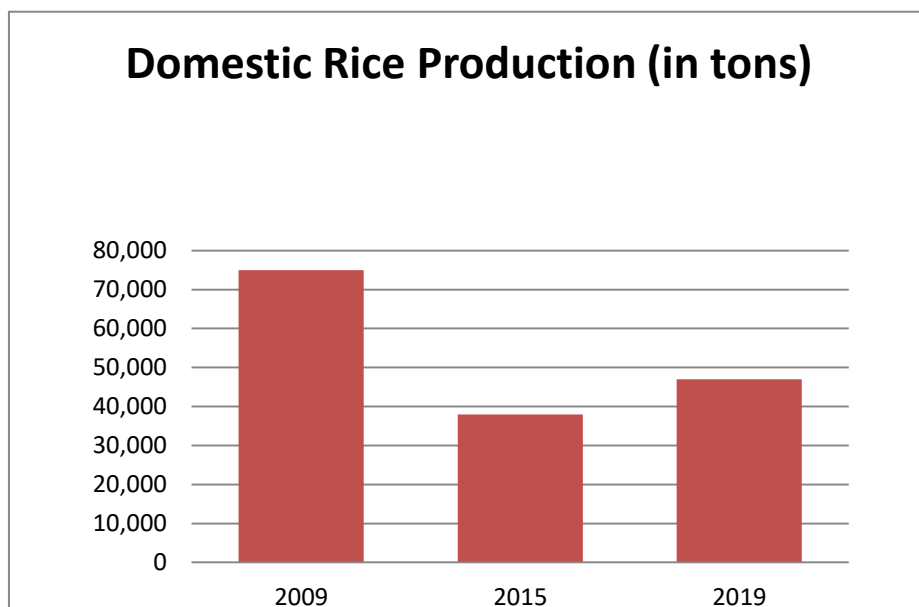
⁶ <http://documents.worldbank.org/curated/en/303931468113953119/pdf/Final-PERI-for-World-Bank-publication-20-05-2015-clean-with-WB-cover-page.pdf>

the Parliament and the weak of the government control over its irrigation project, which in turn affected to the failure of the government's achievement of the determined SDP targets.

Goals 2020	Result
The area of irrigated rice will have increased by 40% from 50,000 ha to 70,000 ha	No information was published about the amount of paddy land that had been drained from irrigation that had been built

The rice production is still far from the target

SDP Goals in 2015 by increase the rice production from 37,500 tons to 61,262 tons was ultimately not achieved. The failure in 2015 had an impact on the 2020 target for food self-sufficiency. This evaluation found



that the goals of the food supply will have exceeded demand in 2020 eventually not achieved.

The 2016 State Budget Book says that in 2015, Timor-Leste only produced 60,295 tons of paddy and 135,651 tons of corn. If this amount of paddy production is converted to rice by 62% based on Indonesian standard calculation, then in 2015, Timor-Leste only produced 38,000 tons of rice.

From the information gathered in this evaluation, rice production (not paddy) in

Timor-Leste in 2019 is around 47,000 tons. Compared to production in the last ten years, total production in 2019 was very small compared to production in 2009, and only increased slightly compared to production in 2015. In the SDP document, based on data from the Ministry of Agriculture which is also the baseline data on the writing of the SDP said that paddy production in 2009 amounted to 120.775 tons or equivalent to 75,000 tons of rice.

This evaluation also tried to calculate the amount of production needed by Timor-Leste to achieve food self-sufficiency in rice. Based on the 2015 census, the total population in Timor-Leste are 1,183,643, and based on informal information compiled by evaluators from the Ministry of Agriculture said that the rice consumption is 160 kilograms / per capita / year. From these two indicators, Timor-Leste must produce 125,466 tons of rice every year. If the amount of rice produced in 2019 is reduced by the total of local consumption needs per year, Timor-Leste still has a deficit of 78.466 tons. So it can be said that rice production has not yet reached the target of consumption demand.

The 2019 FAO and European Union report on food security and nutrition says that in 2017 Timor-Leste rice production is still very low compared to production in other countries in the Southeast Asian region. Timor-

Leste average rice production is around 3,000 kilograms per hectare compared to Vietnam's production which exceeds 5,500 kilograms per hectare.

Goals 2020	Result
The food supply will have exceeded demand	Not yet achieved

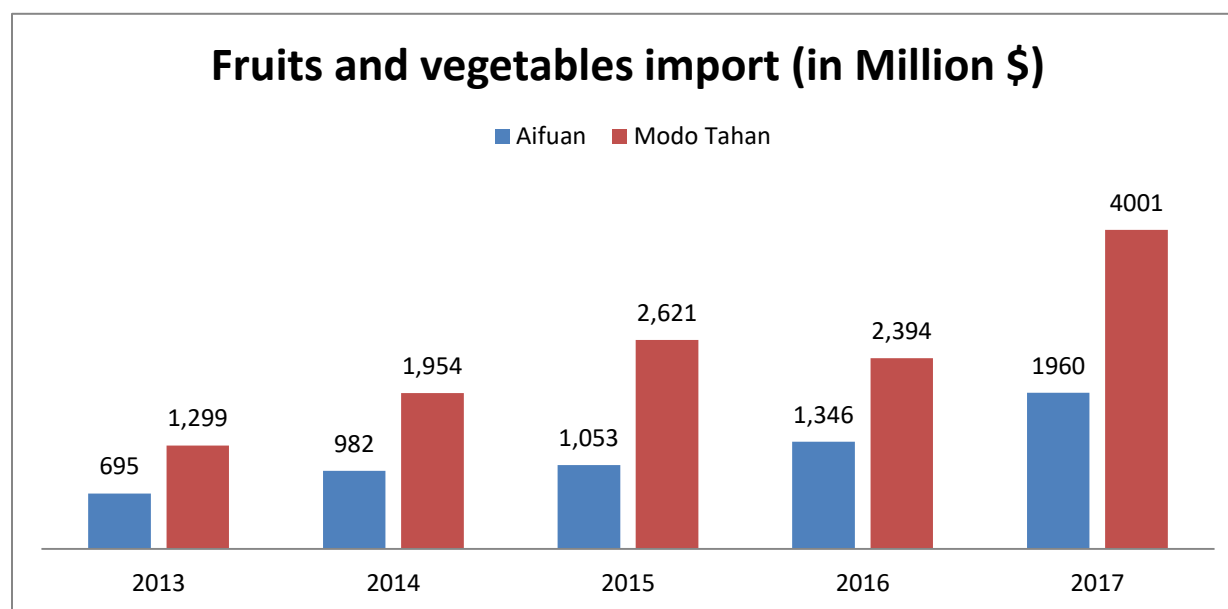
Targets for other food production

Besides rice, other food commodities produced in Timor-Leste are corn, cassava, peanuts, pumpkin, sweet potatoes and others, including vegetables and fruits. SDP itself is not only focused on rice production, but also wants to promote food diversification. The annual budgets of Government allocates funds to buy and distribute seeds, fertilizers and pesticides to farmers to increase the production of various agricultural commodities.

However, the Ministry of agriculture's report on food production is very poorly publicized. The production report is very important to be used to measure the progress of SDP implementation. Therefore, to complete the information needed, the evaluator conducted interviews with several respondents.

The interview results show that foods production (not rice) also did not increase as desired at the SDP. The lack of government attention in prioritizing the budget for the agriculture sector makes agricultural development in Timor-Leste stagnant.

SDP 2020's target that by 50% of fruits and vegetables will be grown domestically is ultimately not achieved because the number of imports of agricultural production such as fruits and vegetables still increase from 2013 to 2017. This goal can only be achieved if the number of imports is reduced and replaced by domestic production.



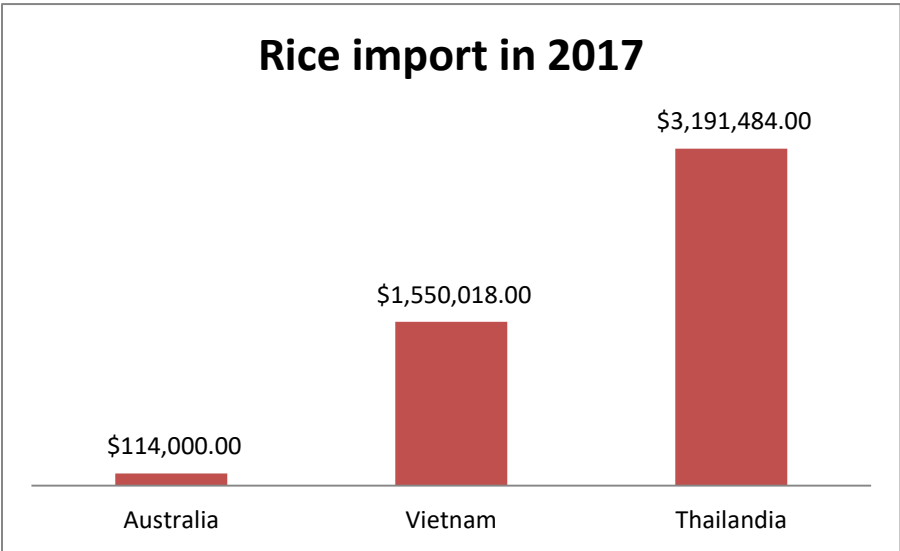
For maize production, SDP has a target that production will increase from 2.5 tons per hectare by 2020. This evaluation sees that this target is almost achieved. The 2019 FAO and European Union report on food security and nutrition said that maize production in Timor-Leste in 2017 reached 2.2 tons. Nevertheless, the FAO and EU reports say that corn production is still far below other countries in Southeast Asia. Around 2,196 kilograms per hectare produced by Timor-Leste or three times smaller than the productivity in Malaysia which reached 6.922 kilograms per hectare.

Goals 2020	Result
Average maize yields will have increased to 2.5t/h	Nearly achieved (2.2 t/ha) in 2017, but still far below other countries in Southeast Asia productivity
At least 50% of fruit and vegetables will be grown locally	Not achieved because the number of imports of agricultural production such as fruits and vegetables still increase from 2013 to 2017

Food imports, poverty and malnutrition.

The lack of domestic agricultural productivity has had a major impact on food and nutrition insecurity in Timor-Leste. Almost every year, the Government of Timor-Leste must import food to fill the deficit in the country. In 2017, Timor-Leste spent more than five million dollars to import rice for domestic consumption.

Lack of domestic agricultural production makes the price of food, especially local rice, expensive and difficult to access by people whose income is small. Most people with small incomes can only buy imported rice because it is cheaper even though its quality is still concerned by the people.



The 2019 FAO and European Union report on food security and nutrition say that almost every family spends 70% of their income to buying food, and the poor population representing 42% of the population faces constraints on how they can buy imported food.

Inadequate food and poverty are the principal causes of malnutrition. The SDP underlines that good nutrition at the beginning of five years is essential for the physical and

mental development of children. The 2016 Demographic Health Survey (DHS) says that 46% of children aged 0-59 months experience chronic malnutrition and stunting. Although this percentage is better than DHS 2010 which says that around 58% of children aged five years face stunting, the 2016 number still makes Timor-Leste a country with high malnutrition rates in the world. To respond to the problem of malnutrition, Timor-Leste needs a strategy to develop diversification and consumption of food produced domestically through the development of the agricultural sector based on the principle of SDP. Unfortunately, most of the SDP Goals in the agricultural sector are not achieved, so a revision of the SDP is needed by directing its actions and strategies in accordance with Timor-Leste's agricultural realities.

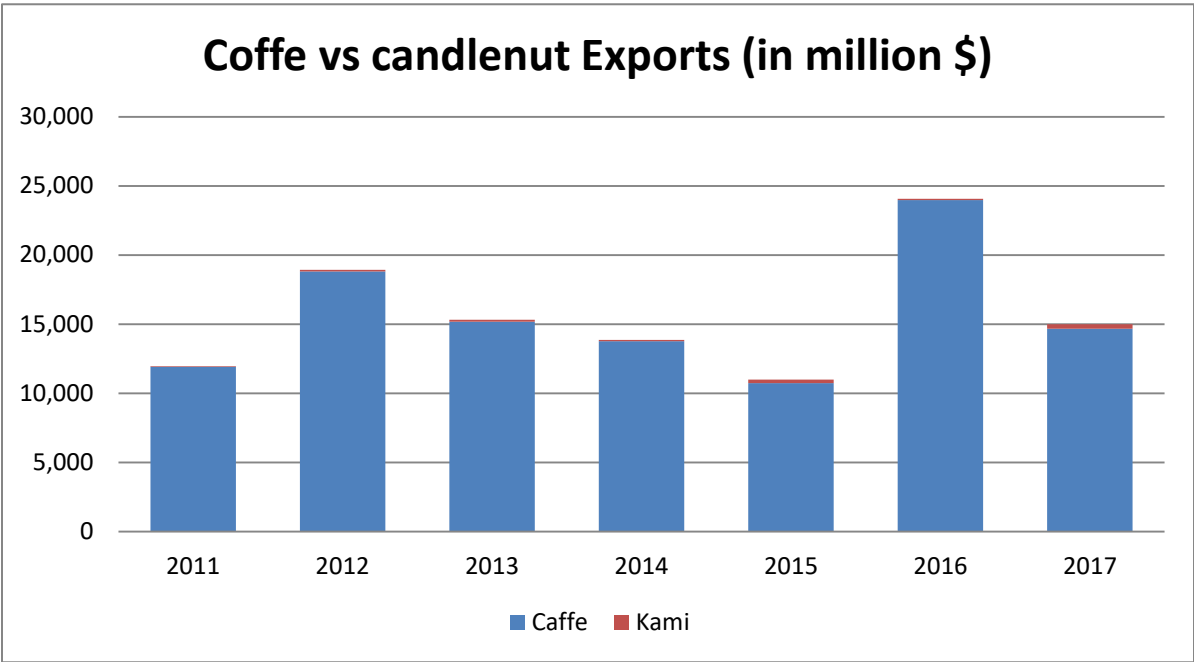
Cash crops sector: More coffee compared to candlenut production

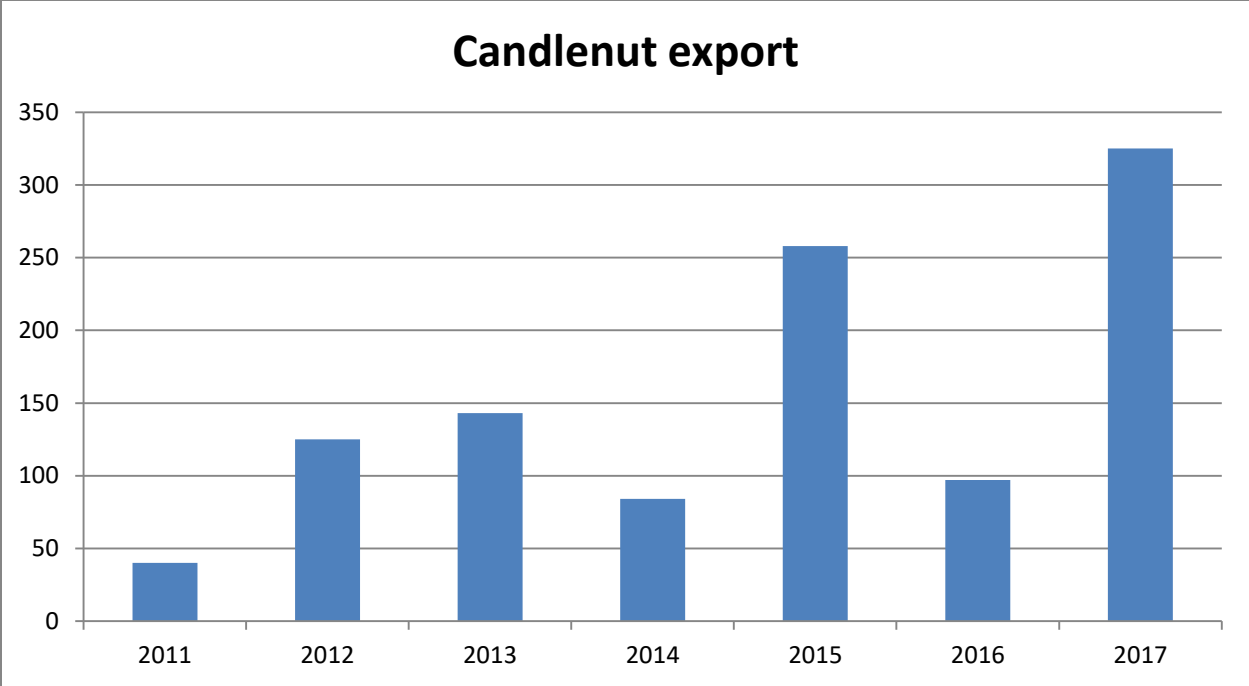
The coffee, coconut and candlenut plantation sectors are the Timor-Leste SDP's priorities. To develop this cash crops sector, the SDP wants the use of high variety coffee seeds, coconuts and candlenuts, the use of chemical fertilizers and pesticides with the expectation that by 2030 this sector could contribute to the goals of food security and create jobs in rural areas.

In 2015, world coffee prices plummeted, which greatly affected domestic income from coffee sales. According to 2020 proposed state budget, it shows that coffee production in 2017 fell due to the long dry season. This situation had an impact on the fall of Timor-Leste's GDP to -3.5% compared to 5.1% in 2016.

Based on trade data, coffee makes up the majority of Timor-Leste's exports compared to other cash crops commodities such as candlenut, coconut and sandalwood. The Timor-Leste 2017 external trade report shows that the value of coffee exports during 2012 to 2017 did not increase rapidly. The 2015 value was reduced compared to the value in 2011 or the value in 2017 was almost the same as the value in 2013.

Compared to coffee, candlenut selling points face high volatility. The highest export value was in 2017 which was around \$ 325 thousand compared to \$ 40 thousand in 2011. But the selling value of candlenut is still small compared to coffee. And for coconut selling value, the 2017 external trade report did not report it.





When the trade data above is linked to the SDP, this evaluation assesses that the application of inputs and policies to achieve the SDP goals does not have an impact on increasing coffee, candlenut and coconut productions in Timor-Leste. These policies are included by the sectoral investment plans on the coffee and forestry sectors from the Ministry Coordinator for Economic Affairs and the Ministry of Agriculture.

The 2020 target by coffee production will double with the rehabilitation of 40,000 hectares of coffee plantations is also not achieved. Book 2 of the 2015 State Budget says that until 2015, the government has just rehabilitated 1,040 hectares of coffee plantation and planned to rehabilitate 5,000 hectares by 2018, but the 2018 budget book says that in 2017, only 500 hectares of coffee plantations was rehabilitated.

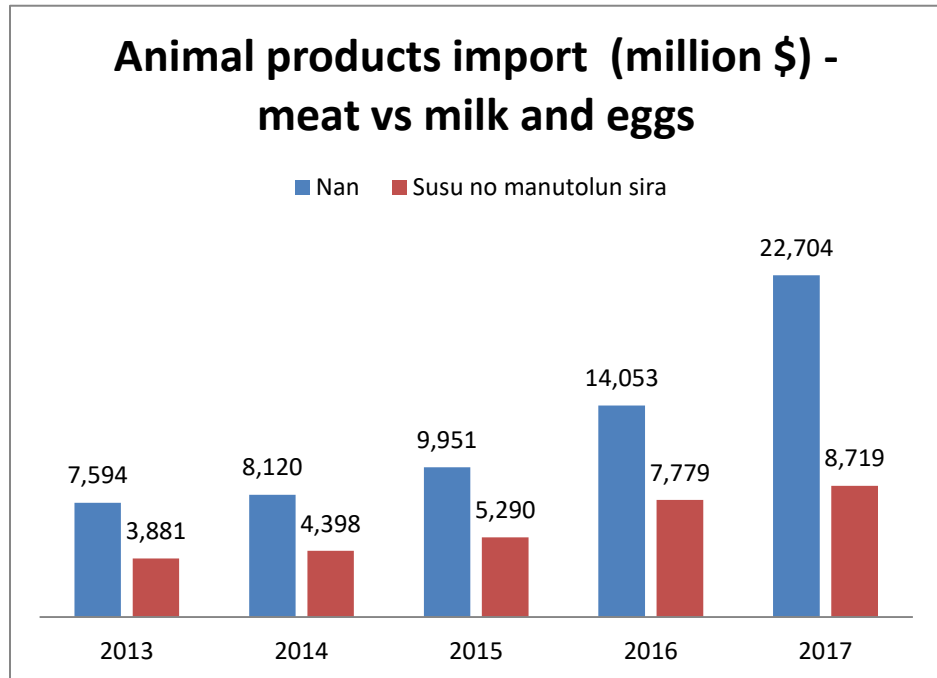
Goals for Coffee	Result
Coffee production will have doubled following the rehabilitation of 40,000 ha of coffee plantations	Not achieved (until 2015, the government has just rehabilitated 1,040 hectares, and, only 500 hectares were rehabilitated in 2017).

Livestock and animal farming

Through the SDP, the Government wants to develop the livestock sector by continuing the free campaign and vaccination and the national extension campaign to promote basic health care for livestock and improve nutrition.

This evaluation sees that the target to increase the number of livestock to 20% by 2020 is not achieved. This evaluation argues that domestic production of livestock is not sufficient to replace the imported product. The 2017 external trade report shows that the value of imports of animal products always increases every year.

Meat imports in 2017 nearly tripled compared to the value of imports in 2013 or almost double compared to the value of imports in 2016.



In addition, the target of the commodity development program to increase the export of cattle with a double capacity to reach 5,000 per year and the import substitution of 200 tons of meat by 2020 is also not achieved. The external trade report in 2017 did not report anything about beef or

meat export. In addition, the long dry season in 2019 caused many cattle and buffaloes were died due to lack of food and water supply.

In 2019, African swine fever disease kills many local pigs. This was the first time this epidemic has occurred in Timor-Leste. Although no information has been released by the government regarding on how this disease occurs, but it is certain that imports of pork products from endemic countries make this disease freely enter Timor-Leste. In addition, there was no government program to vaccinate Classical Swine Fever in pigs from 2017 to 2020 to save the local pigs from Hoq Cholera's disease.

However, there have been major changes since the last three years regarding raising broilers in Timor-Leste. Many farmer groups and cooperatives carry out broiler raising activities in many places in Timor-Leste. This initiative is very independent from the government programs or many of these groups are not dependent on government budget support.

There is no ocean based fishing

In the SDP, the short-term plan in the fisheries sector is to improve coastal and terrestrial fisheries management and focus on fishing within the Timor-Leste Exclusive Economic Zone. And, in the medium term, the action in the fisheries sector will emphasize ocean based fishing with export oriented. The fisheries development area will be centered on the southern coast, particularly in Lore (Lautem Municipality). Unfortunately, this evaluation identified that the goals in the fisheries sector are not achieved.

However, this evaluation also observed that there are a number of inland fishing activities in Aileu, Ermera, Liquisa and Ainaro. Farmer groups such as MOKATIL and others who run this program are sponsored by the Government through Secretary State of Cooperative affairs and the Ministry of Agriculture. However, inland fisheries productions are not yet large and commercially insufficient to be used as an export commodity for Timor-Leste.

Sustainability of forestry and wood products

For this sub-sector, SDP focuses on three things, which consist of forest management plans, community-based industrial forest plantations and bamboo production. This sub-sector only has a target in 2015 and there are no targets in 2020. In the 2015 target, the SDP wanted a Forest Management Plan and Bamboo National Policy and its marketing strategy, and planted one million trees every year throughout the territory of Timor-Leste managed by the community.

In 2017, Parliament passed a Forestry Law emphasizing sustainable forest management. In addition, previously, in 2012, Parliament also passed the Environmental Basic Law as a legal framework for protecting the environment in Timor-Leste. With these two laws, the 2015 target for forest management can be considered achieved.

Goal to plant one million trees by the community every year is not achieved. Book 2 of the 2015 State Budget says that since 2015 a program of 1,000 communities planted trees to implement a sustainable forestry product program has not begun and it planned again for 2018, but the 2018 state budget book did not mention the program at all.

1,000 Communities implemented the sustainable forest product, using forest products in 2018. (Current situation: not yet started).

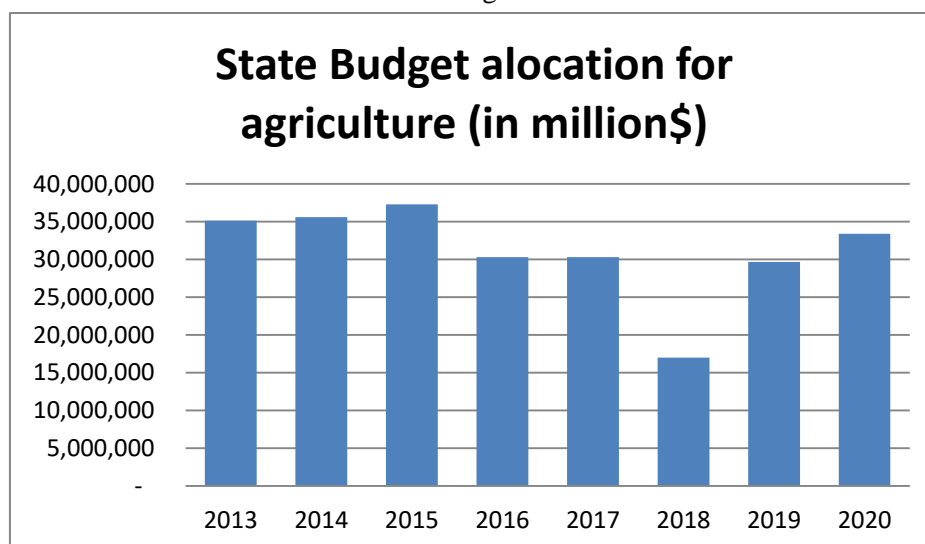
Book 2 State Budget in 2015

In addition, until 2015, the target of making national policies for bamboo wasn't achieved. Book 2 of the 2015 Budget says that until 2015 there has no any draft regarding market policy and bamboo commercialization was produced.

Goals in 2015	Result
A Forestry Management Plan	Achieved by enacted two laws in 2012 and 2017
Community-based nurseries will be planting one million trees nationwide every yea	Not achieved. Not yet started based on 2015 State Budget
A National Bamboo Policy and Marketing Strategy	Not achieved – no any draft since by 2015

State budget allocation for agricultural sector development: Is that enough?

Although the SDP places the agricultural sector as an important pillar for the achievement of Timor-Leste's economic development goals in 2030, the annual state budget investment during the period of implementing the short and medium term SDP is always small, approximately not exceeding 2% of the total state budget. Less than \$ 20 million in 2011 and the highest is in 2015 with an allocation of \$ 37.3 million, and after that the



budget is always below the 2015 allocation.

During the implementation of the SDP in the medium-term phase, which began from 2016 to 2020, the agriculture sector did not get priority from the state budget. To begin this second

phase, the 2016 rectification budget only allocates \$ 30.3 million and falls in 2017 with an allocation of \$ 22 million. In 2018 until 2020, almost the state expenditure faces problems because of the uncertain domestic political situation. Between these periods, only the 2019 budget went well even though the level of execution faced several obstacles. And, the 2020 budget from the Eighth Constitutional Government has been rejected by Parliament. During the writing period of this report, Timor-Leste does not have a budget and was only dependent on a duo-decimo budget mechanism.

In conclusion, this evaluation identifies that the expenditure budget for the agricultural sector over the past decade has not increased but stagnant. The lack of investment and priorities in the agricultural sector ultimately hampered the high production capacity of farmers and the SDP goals could not be achieved as well.

Private sector and donor participation in assisting the agriculture sector based on SDP

Although this SDP document does not explicitly mention the role of donors in agricultural development, but since this SDP has been implemented in 2011, many donors have contributed through the implementation of their programs with the Ministry of agriculture to achieve the goals that have been determined by SDP.

Examples of donor participation in SDP implementation are such as Seed of Life, a research program sponsored by the Australian government conducting research on varieties of seeds that can be applicable to Timor-Leste's agriculture.

TOMAK, another Australian government project that began in 2016 and works closely with the Ministry of agriculture to support the improvement of farmer production. The AVANSA, an USAID program that establishing a working group of Timor-Leste horticulture. This working group contributes to the Ministry of Agriculture's efforts in formulating agricultural policies through its involvement in writing the draft Pesticides Act.

In addition, JICA, the Japanese international cooperation agency also carried out its program to increase domestic rice production through improved irrigation management, creating market access for farmers to increase farmers' household income. The World Bank through its SAPIP (Sustainable Agriculture Productivity Improvement Project) program aims to increase smallholder production in some areas of Timor-Leste.

GIZ with its Partnership for Sustainable Agroforestry Project (PSAF) program aims to reduce the food insecurity and malnutrition in rural areas. New Zealand also runs an assistance program for the Ministry of Agriculture to rehabilitate coffee and cocoa plantations.

For the private sector, SDP focus to include them in the agribusiness sector by playing a role in providing assistance in the distribution of agricultural inputs such as seeds, fertilizers and others. SDP expects the private sector to develop training for farmers on how to increase farmers' incomes through agribusiness.

Although this evaluation does not measure the success of donor and private sector programs, the results of agricultural productivity previously stated justify that there is a need for new changes in the agricultural sector development strategy in Timor-Leste, including strategies from the government, the private sector and donors.

Civil society participation in the agricultural development sector

Although the SDP does not mention the role of civil society in the development of the agricultural sector in achieving the SDP goals that have been determined, the civil society organizations continue to provide recommendations, suggestions through submission and are also involved in working groups formed by the Ministry of Agriculture to design the agricultural policies.

Hasatil, a network of NGOs in the agriculture sector, is involved in the National Council for Food Security and Nutrition in Timor-Leste. In addition, there are several other organizations such as La'o Hamutuk who are involved in monitoring and advocacy on seed policies, Permatil with the school garden and its organic agriculture program. Also a number of civil society organizations are involved in monitoring government

programs in the agricultural sector through the Social Audit Program led by the Timor-Leste NGO Forum (FONGTIL).

However, this evaluation identified several obstacles for civil society to be able to assist agricultural programs that have been determined at the SDP, such as a lack of data and information regarding to productions of agricultural, fisheries and forestry outcomes published by the government.

This evaluation sees that the government data report will be a reference or secondary data for NGOs to conduct better advocacy and monitoring so that it can help the government in achieving SDP goals. In addition, this evaluation also heard that some recommendations from civil society did not received by Parliament and the Government when formulating the Ministry of agriculture annual budget policies and action plans.

ANNEX 1. The list of reports and references

- Relatório de Avaliação Implementação do Plano Estratégico de Desenvolvimento 2011-2030: 1ª fase, Resultados alcançados no período 2011-2015. DELEGAÇÃO DA UNIÃO EUROPEIA EM TIMOR-LESTE
 - STRATEGIC PLAN 2014 – 2020, Ministry of Agriculture and Fisheries
 - TIMOR-LESTE NATIONAL AQUACULTURE DEVELOPMENT STRATEGY 2012–2030, Ministry of Agriculture and Fisheries
 - Report on the Implementation of the Sustainable Development Goals “FROM ASHES TO RECONCILIATION, RECONSTRUCTION AND SUSTAINABLE DEVELOPMENT”, Voluntary National Review of Timor-Leste 2019
 - EXTERNAL TRADE STATISTICS 2017, Direcção Geral de Estatística, Ministry of Finance
 - Livru Orsamentu Jerál Estadu 2011 to 2020
 - La’o Hamutuk nia Bulletin kona-ba política Fini 2013
 - RELATÓRIO DE AUDITORIA n.º 02 /2015, TRIBUNAL DE RECURSO, CÂMARA DE CONTAS
 - Roadmap Timor-Leste nian ba implementasaun SDG iha: http://timor-leste.gov.tl/wp-content/uploads/2017/08/UNDP-Timor-Leste_SDP-Roadmap_doc_v2_English_220717.pdf
 - Planu Estratéjiku Dezenvolvimentu Nasional Timor-Leste iha :http://timor-leste.gov.tl/wp-content/uploads/2012/02/Strategic-Development-Plan_EN.pdf
 - Programa Governu Konstitusional sira iha <http://timor-leste.gov.tl/?cat=39&lang=en>
 - Development Finance Assessment in support of the achievement of the Strategic Development Plan and Sustainable Development Goals in Timor-Leste hosi Governu Timor-Leste iha: <https://www.asia-pacific.undp.org/content/dam/rbap/docs/dg/dev-effectiveness/RBAP-2019-Deveopment-Finance-Assessment-Timor-Leste.pdf>
 - Timor Leste Strategic Development Plan & Sustainable Development Goals (SDGs) hosi UPMA-Gabinete Primeiru Ministru iha https://www.unescap.org/sites/default/files/Session%205.3_Timor-Leste.pdf
 - Lao Hamutuk nia observasaun ba konferénsia SDG nian iha : <http://www.laohamutuk.org/econ/SDG/LHCommentsSDGConference22May2017en.pdf>
 - Objetivu Dezenvolvimentu nian ba Milénio, Timor-Leste iha https://www.undp.org/content/dam/timorleste/docs/library/RelatorioMDG2009_Tetumv.1.pdf
 - ADB Economic Growth in Timor-Leste for 2030 at <https://www.adb.org/sites/default/files/publication/29031/economic-growth-2030-tim.pdf>
 - IMPLEMENTASAUN PROGRAMA HASA'E PRODUSAUN NO PRODUTIVIDADE SUSTENTAVEL” hosi HASATIL iha Ainaro no Bobonaro iha <http://pastimor.com/audit/hametin-agrikultura-sustentabel-timor-leste-hasatil/>
 - POLÍTICA MINISTÉRIO AGRICULTURA NO PESKAS NIAN BA DISTRIBUISAUN TRATORES IHA MUNISIPIU AINARO” hosi FHFF iha Ainaro <http://pastimor.com/audit/fundasaun-feto-hadomi-familia-ffhf-distribution-of-tractor-and-hand-tractor-program/>
 - Distribuisaun Fini iha Manufahi iha <http://pastimor.com/audit/hametin-agrikultura-sustentabel-timor-leste-hasatil-distribution-of-seeds-08-29-2018/>
 - PROGRAMA AUDITORIA SOCIAL BA SERVISU AGRICULTURA IHA MUNISIPIU ERMERA <http://pastimor.com/audit/instituto-matadalan-integradu-imi-auditoria-social-ba-servisu-agrikultura-iha-munisipal-ermera-08-29-2018/>
- FAO-UE, 2019, Timor-Leste Food Security and Nutrition, Policy Effectiveness Analysis,

ANNEX 2. The list of sources

- Diresaun Nasional Alimentaun Ministériu Agrikultura
- Unidade Planeamentu, Monitorizasaun no Avaliasaun (UPMA), Gabinete Primeiru Ministru
- Camara do Comercio e Indústria Timor-Leste (CCI-TL)
- Permatil
- FFHTL
- Hasatil