



Editorial

Dear Readers,

In the midst of challenges to improve research quality, researchers succeeded in formulating several research-based policy recommendations in 2021. Some of the research results that became policy proposals in agriculture included in this Newsletter are “Strategy for Farmers Corporation to Support Food Estate in Central Kalimantan” (Prof. Dr. Nyak Ilham) and “Strategy for Strengthening Local Government and Community Food Reserves” (Dr. Adang Agustian).

Some other interesting information is a description of policy development and research activities, namely “Facing Global Food Insecurity and Its Impact on the Indonesian Agricultural Sector”, “The Role of the Agricultural Sector in Reducing Indonesia’s Hunger Index at the Global Level”, and “Digital Agriculture Technology in Indonesia’s Transforming Smallholder Agriculture Sector”.

Apart from that, the news section also contains other interesting information such as workshops and webinars holding activities in Indonesia’s capacity as the G 20 Indonesia Presidency and news about the transfer of researchers to a new institution, BRIN.

Thank you

The Editor

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Research Findings



STRATEGY FOR FARMERS CORPORATION DEVELOPMENT TO SUPPORT FOOD ESTATE IN CENTRAL KALIMANTAN

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Introduction

The government is currently pushing for the construction of a new food barn in Central Kalimantan Province. In order to integrate a series of agricultural activities into a unified whole and encourage increased commodity competitiveness and farmer welfare, agricultural development is designed to be carried out in one large area (Food Estate-FE). The problems associated with designing FE are (a) how to provide the means of production and sale of the products to be developed, (b) how agricultural business patterns are developed in order to provide a profit, (c) what technology will be used so that farming can be carried out with high productivity and efficiency, and (d) how to build an institutional model to be able to apply efficient modern technology and involve farmers as members.

This study aims to (a) analyze the basic data of socio-economic conditions in the FE development area, (b) design agricultural business development in the FE development area, (c) formulate strategies for applying modern agricultural technology to support the development of FE, (iv) design the development of farmer economic institutions towards farmer corporations, and (v) formulate policies to encourage the development of FE towards the development of agriculture based on corporations and modern technology.

Methodology

The research location was conducted in Pulang Pisau Regency and Kapuas Regency, Central Kalimantan Province, in 2021. Respondents interviewed included elements of the Planning Bureau and the Directorate General of Agricultural Infrastructure of the Ministry of Agriculture, the Coordinator of the Agricultural Extension Center, Agricultural Extension Officers, Farmers Group Management, farmers, and traders, with a total of 311 individuals. Data and information were analyzed with a descriptive approach using farming analysis and a Likert-type scale.

Research Results

Socio-Economic Condition of FE Development Area

The availability of labor within the family to carry out rice farming is very limited compared to the area of land owned by farmers (0.95 ha–3.78 ha),

and as a result, labor wages are expensive. The scarcity of manpower has not been matched by the use of machine tools. The introduction of pre-planting, harvesting, and post-harvest agricultural machinery can save work time. The savings in working time can be used to work on other activities. The condition of the agroecosystems at the six FE locations varies according to macro and micro water systems. These characteristics affect the cropping pattern at those locations.

In the fields where irrigation conditions are more controllable, two-time planting annually is carried out, so the use of pre-harvest machinery (two-wheel tractor) and harvest machine (combine harvester) is a must. Rice seed planted once a year is a local variety, namely Siam, which has high potential productivity. Farmers also plant hybrid rice varieties, namely Sembada and Supadi. Farmers in the Tamban Catur Cluster still use a lot of derivative VUB because it is more suitable for soil conditions and has been experienced for a long time. The production of the Inpari variety introduced through the FE Program was below the expectation. Many farmers no longer use it.



Farmers obtain production inputs from kiosks inside and outside the village using the government's aid program. The input distribution was constrained by the lack of timeliness (fertilizers) and

type (seed). Some farmers borrowed production inputs, particularly urea and NPK fertilizers and seeds, with the pay-after-harvest (*yarmen*) scheme but charged with interest at 25%, 15%, and 33%, respectively. The interest rate is much higher than the KUR loan, which is only 6% per year. Generally, farmers get technology information from fellow farmers. The FE program, carried out in 2020, only touched some farmers close to the location where researchers and extension workers carried out demonstration plots.

The main actors in the marketing of unhulled rice are village traders and RMU entrepreneurs with large traders from outside the region. The dominance of traders in the village makes the bargaining position of farmers weak, and farmers do not receive direct payments. There are indications of excessive grain production. Therefore, farmers' grain stocks are still available when the next harvest season arrives.

Agricultural Business Development Design in FE Development Area

The pattern of agricultural business that developed in the research location is the integration of the *surjan* pattern between rice and other crops in the rice fields. The development of monoculture rice farming from IP (planting index) 100 to IP 200 is strongly influenced by the availability of canals and paddy fields so that controlling soil acidity and application of agricultural machinery is easier. The IP 200 variant is IP 180, which combines local shifting plant varieties that transplant 2–3 times and VUB varieties with one transplant. This variation of crop pattern will result in high Siam rice production and be favored by local farmers and consumers.

The agricultural integration business pattern that has not yet been developed but has market prospects and has the potential to be developed is the regional integration pattern, such as local cattle,

goat, and poultry businesses using the local resources-based feed.

Strategy for Implementing Modern Agricultural Technology to Support FE Development

The government must pay attention to the requirements for agricultural machinery and equipment with a priority to improve macro and micro water systems management and their infrastructure. Moreover, in order to increase the efficiency of rice farming, strategies for applying modern agricultural technology include (a) modifying pre-harvest, harvesting, and post-harvest machinery according to the needs of each location, (b) providing government assistance for agricultural machinery as a stimulus for farmers to encourage farmers to increase the use of agricultural machinery, (c) increasing farmers' access to affordable sources of financing to encourage farmers to provide agricultural machinery independently, and (d) conducting technical guidance for operators and create agricultural machinery services and workshops.

The increase in grain production must be accompanied by the absorption of grain yields for both local and inter-regional needs, even for export. To be able to achieve this, the products must be highly competitive.

Farmer Economic Institutional Development Design towards Farmers Corporation

The high value of the institutional capacity of farmers' agribusiness is directed toward the fulfillment of seeds, maintenance, processing, and marketing. This capability can be increased to develop seed breeder groups to develop seed varieties preferred by farmers and suitable for land conditions. The value of low technical capacity is found in the fulfillment of fertilizers, medicines, and irrigation water management.

The irrigation system is essential but needs a large investment for maintenance. To this point, from technical, financial, and management views, the government's role in providing sufficient water for farming is highly required. In contrast to clusters 2 and 4, the irrigation arrangement is relatively good, and farmers only need to carry out maintenance. Farmers expect the development of a farmer corporation at which farmers, as members of the corporation, will find it easy to obtain inputs, agricultural machinery services, financial access, and sell the produce. In addition, the management also hopes that the distribution of corporate profits can provide equal distribution of the social status of farmers.

Policy Implications

Socio-Economic Condition of FE Development Area

Increasing the IP to IP 200 or IP 180 should begin with improvements in macro and micro water systems management. Next is to change the technology from manual to machine in order to (a) avoid labor shortages, (b) make the planting schedule becomes relatively simultaneous, (c) adjust the planting schedule to the tides, and (d) avoid pests' attack.

It is necessary to improve the quality and supply of seeds to increase rice productivity through (a) cross-selection of local varieties from the existing variants, (b) develop breeding groups, (c) facilitating farmers' access to hybrid rice seeds, and (4) increasing demonstration plots on the use of seeds, fertilizers, and lime in each location.

In order to change the culture of planting and harvesting rice in the old ways, concrete examples are needed that the use of

machine tools is more efficient and the taste of rice remains the same as before. For this reason, it is necessary to carry out demonstration plots from harvest to post-harvest and rice cooking through a taste test.

Agricultural Business Development Design in FE Development Area

In situ integration between lowland rice plants with horticultural crops and plantation crops with the *surjan* pattern needs to be developed. It is necessary to use good-quality seeds for plant rejuvenation to increase the added value for farmers.

The development of monoculture rice farming from IP 100 to IP 200 or IP 180 requires efforts to (a) improve the quality of local rice seeds through selection and crossbreeding, (b) use fertilizers and lime in appropriate doses through the development of site-specific demonstration plots and setting plant spacing, (c) optimize the use of production inputs supported by funding sources from KUR, and (d) empower the farmers in groups to effectively manage water and access to production inputs.

In clusters that have planted rice twice a year, the income increase can be achieved by increasing the added value of processing grain into rice. The addition of a cropping pattern from rice-paddy-fallow to rice-paddy-horticulture crops through the support of water supply facilities with pump wells is suggested. The government needs to encourage the development of non-rice farming in the FE area to increase farmers' income, increase consumption of non-carbohydrate food, and maintain land quality by developing an integrated pattern of livestock and crops with local resources-based feed. For this reason, technical guidance is needed to make local cattle and poultry rations and *telelo* vaccination (ND) to control ND diseases that occur seasonally.

Strategy for Implementing Modern Agricultural Technology to Support FE Development

In order to synchronize planting, improve harvest and post-harvest efficiency, and avoid the high labor costs of rice farming farmers, it is necessary to introduce and increase the use of agricultural machinery. The introduction of good agricultural machinery and good farming practices requires priority policies from the government to reform macro and micro water systems and their infrastructure.

In accordance with the conditions of mud and water in the tidal swamp rice fields, modification of the types of machinery is required so that government aid for machinery is not uniform for all locations in the FE area. Modifying ordinary tractor wheels by adding a trailer wheel is required, and adjustment for the transplanter so that it can be used for VUB seeds and local variety (Siam) seeds.

Design of Farmer's Economic Institutional Development towards Corporations

All farmer organizations in the research location (farmer's groups, Gapoktan, UPJA, P3A, etc.) can be used as basic capital in forming a farmer corporation. The working area of one corporate unit based on a cluster with a rice field area of 2,000 – 5,000 hectares is relatively far away, so internet and laptop facilities are needed to intensify discussions among the corporate management. The status of a farmer corporation legal entity is more mandated in the form of a cooperative because it is easier to form, run and account for, and in accordance with the socio-economic conditions of farmers and in line with the President of the Republic of Indonesia's directions.

The proposed PT organization (limited company) could be transferred to a farmer corporation organization with a cooperative legal entity. Existing shares for farmer capital participation should be used as cooperative business capital. The government's role in forming farmer corporations is more in the form of facilitation in the management of legal entities, training of corporation managers, and human resource support, specifically during the early stage of the corporation establishment.

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STRATEGY FOR STRENGTHENING LOCAL GOVERNMENT AND COMMUNITY FOOD RESERVES

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Introduction



Based on Law no. 18 of 2012 concerning food, it is stated that the provincial government, regency/city government, and/or village government determine the type and amount of certain food reserves according to the consumption needs of

the local community. Government Food Reserves, regency/city governments, and village governments are sourced from the domestic government. The problems faced in managing and developing Regional Government and Community Food Reserves vary relatively between regions, and usually, the problems are quite complex.

This research focuses on local government and community food reserves. In particular, this study aims to (a) analyze Regional Government Food Reserves and Community Food Reserves, (b) analyze the management performance of Regional Government Food Reserves and Community Food Reserves, (c) protect problems in the management and development of Regional Government Food Reserves and Community Food Reserves, and (d) formulate policy recommendations in strengthening or developing Regional Government Food Reserves and Community Food Reserves.

Methodology

This study was conducted in the provinces of West Java and Central Java with some considerations, such as (a) rice-producing centers, (b) locations with Regional Food Reserves, and (c) professional thoughts by taking into account, among the others, the impact of COVID-19 pandemic. Data were collected from various parties, such as farmers, rice traders, local food institutions, and village officials dealing with food reserves. Data and information were organized and interpreted using descriptive analysis.

Research Results and Recommendations

The study results show that CPPD volume (amount) is still below the ideal formula as stipulated in Permentan 11 of 2018. The performance of CPPD and CPM varies among the study locations. The volume of CPPD is strongly influenced by the

capacity of the regional budget, the seriousness of the local government in providing CPPD, and the potential of food (rice) production in the area.

Strategies that can be taken to strengthen CPPD are as follows.

1. The short-term strategy is through (a) the existence of a program in the form of facilitating regional food reserve activities so that the existing assistance is used to buy food reserves, (b) increasing the regional budget for the provision of food reserves, (c) advocacy policies: good political support from regional executives and legislatures to work together to maintain and increase the existence of CPPD, (d) facilitating and developing CPPD storage warehouses, (e) support for farming capital, so that in the future food production in the regions will increase, (f) WRS (*Sistem Resi Gudang*) in supporting CPPD development.
2. The medium and long-term strategy is pursued through (a) infrastructure support, such as irrigation facilities and other infrastructure for the future development of farming production, (b) regulatory support: various derivative regulations to explicitly state the urgency of the importance of providing CPPD, (c) inter-agency synergy (Ministry of Agriculture, Ministry of Home Affairs, Ministry of Village Development, Ministry of Trade, BULOG, financial institutions/banking) to support and strengthen the capacity of local governments in providing and managing food reserves in an integrated manner.

Strategies that can be thoroughly considered to strengthen CPM are as follows.

1. The short-term strategy is through (a) the need to encourage the active role of farmers and agricultural extension workers in supporting the existence of community food storages, (b) the need to support the capital of agricultural business actors to provide farming capital and capital for the development of community food storages, (c) the need to support mutually beneficial partnerships between farmers and various parties for the development of food storage businesses, and (d) the need to overcome the problem of rising prices from farming products through the development of a Warehouse Receipt System (SRG). Storage/shipping of grain is carried out by members of the farmer groups collectively in Gapoktan containers in order to save operational costs. All parties are encouraged to take advantage of the utilization of information technology.
2. The medium and long-term strategy is achieved through (a) increasing cooperation between agencies in realizing CPM development through sustainable LPM development, (b) increasing coordination, integration, and synchronization of various agencies (Ministry of Home Affairs, Ministry of Village Development, Ministry of Trade, financial institutions/banking) in strengthening CPM, (c) implementing a program to increase farming land tenure through efforts to consolidate farming land management, and (d) support from various research institutions in the framework of disseminating technological results to support the increased agricultural production.

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Policy Development

FACING THE GLOBAL FOOD INSECURITY AND ITS IMPACT ON INDONESIA'S AGRICULTURAL SECTOR



Since 2020, risks to food security and nutrition around the world have increased due to several factors, such as the unprecedented COVID-19 pandemic, high-tension politic/conflicts, extreme weather events, and unstable

macroeconomic conditions. World food commodity prices have dropped significantly for the fifth consecutive month since hitting record highs earlier in the year.¹ Nonetheless, prices remain elevated compared to historical levels, and the outlook remains uncertain given supply bottlenecks, declining stocks of food staples, and the still high prices of inputs, such as fertilizers and energy, that affect agricultural output around the world. Recent droughts and other extreme weather events worldwide could impact food production and are likely to drive up prices².

The significant challenges to food security and nutrition have been further exacerbated by the current geopolitical situation and the introduction of tariff and non-tariff measures. This has resulted in higher food, energy, transport, and fertilizer prices,

and their decreased availability has threatened the political and economic stability in many parts of the world. The current food security crisis has eroded progress in reducing poverty and is putting vulnerable communities and households at greater risk of hunger, malnutrition in all its forms, and even the risk of starvation in some countries.

These disruptions will affect the food security condition in Indonesia. Government needs to guarantee the continuation of food supplies, accessibility and affordability of food for nearly 274 million inhabitants from Sabang to Merauke (East to West of the archipelago). Therefore, it is important for the government to prepare the strategic plan to address the impact of global food insecurity. Some recommendations that have been proposed from ICASEPS were as follows.

- a. Ministry of Agriculture has to start introduce the concept of budget for agriculture principles. This means that it is the time for the government to allocate budget for agriculture across ministries who have connection with agricultural sectors and its beyond production and productivity. Budget for agriculture includes agriculture infrastructure development, digitalization, land occupation, and other related matters.
- b. Increase production and achieve self-sufficiency for strategic commodities, such as rice and corn (food crops), shallots and chilies (horticulture), eggs and chicken

¹ The major cereal and vegetable oil prices recording double-digit percentage declines. The FAO Food Price Index averaged 140.9 points in July, down 8.6 percent from June. The index, which tracks monthly changes in the international prices of a basket of commonly traded food commodities, nevertheless, remained 13.1 percent higher than in July 2021.

² In March 2022, the FAO Food Price Index reached a new historical record high, increasing by 12.6 percent from February and 33.6 percent from its level a year earlier, and 15.8 percent higher than the peak in February 2011.

meat/broiler (livestock), and sugar cane and other types of sugar, such as coconut sugar, stevia, and brown sugar. In the short term, the government needs to strengthen domestic food reserves at the national and local levels.

- c. Indonesia needs to secure the importation of wheat, soybean, sugar, and garlic. It is important to explore new trading partners for those commodities. The role of the Indonesian Embassy in some major production areas for those import commodities becomes crucial, particularly in identifying new countries of origin for wheat, soybean, sugar, and garlic. Recently, the Minister of Foreign Affairs facilitated the importation of wheat from Serbia. Similar examples have to be accelerated for other import commodities.

The impact of a price spike for fertilizer will influence the domestic price. Thus, it will create a huge discrepancy between subsidized and non-subsidized fertilizer prices. This condition will trigger the 'moral hazard' in distributing the subsidized fertilizer to targeted groups. Therefore, the government needs to strengthen the distribution, monitoring, and inspection to ensure that the targeted farmers receive the subsidized fertilizer. In many cases, the increasing price of fertilizer might induce the spread of fake fertilizers in the market. Then, this is the role of the government to request the competent authorities to give the appropriate punishment (legal sentences).

THE ROLE OF THE AGRICULTURAL SECTOR IN REDUCING INDONESIA'S HUNGER INDEX AT THE GLOBAL LEVEL



The issue of hidden hunger has recently been under the spotlight of experts in Indonesia. Many parties are interested in discussing this issue, considering that the aspect of hunger reflects chronic food insecurity and

malnutrition and the inability of the government to provide food for the people.

The Global Hunger Index (GHI) is a tool to comprehensively measure and track hunger at global, regional, and national levels. Four indicators determine the GHI score, namely (a) malnutrition (share of the population with insufficient caloric intake), (b) underweight children (share of children under five years of age who have low body weight associated with height reflecting acute malnutrition), (c) short children (share of children under five years of age who are tall in relation to their age reflecting chronic malnutrition);, and (d) child mortality (death rate of children under the age of five which partly reflects inadequate nutrition and an unhealthy environment).

Based on the values of these four indicators, the hunger index is measured on a scale of 0 to 100 points, where a score of 0 is the best score (not hungry), and 100 is the predicted one. Hunger index scores were classified as low (≤ 9.9), medium (10.0–19.9), serious (20.0–34.9), load (35.0–49.9), and very depressed (≥ 50.0).

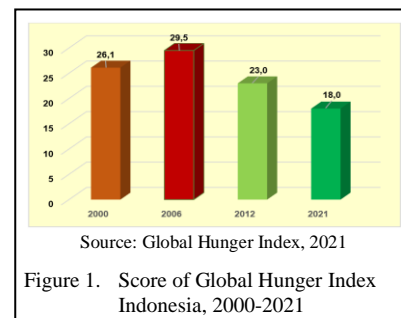
Indonesia's Hunger Index

Based on the 2021 Global Hunger Index report, Indonesia's hunger index score during the 2000–2021 period has consistently

decreased from 26.1 (serious) to 18 (moderate). With this score, Indonesia is in the 73rd position out of 116 countries.

Indonesia's hunger index score of 18.0 is formed from the values of the following four indicators:

- a. **Malnutrition:** The prevalence of malnutrition in Indonesia during the 2018–2020 period was 6.5% (low category); it fell sharply (66.15%) compared to the 2000–2002 period, which amounted to 19.2%.
- b. **The prevalence of wasting** in Indonesia for the 2016–2020 period reached 10.2% (medium category), decreasing by 31.08% compared to the 2002–2006 period, which reached 14.8%.
- c. **The prevalence of stunting** in Indonesia for the 2016–2020 period reached 30.8% (serious category), decreasing by 23.19% compared to the 2004–2008 period, which amounted to 40.1%.
- d. **The mortality rate** for children under five in Indonesia in 2019 reached 2.4% (low category), meaning that for every 1000 live births, two to three babies die. The under-five mortality rate decreased significantly compared to the year 2000, which reached 5.2%.



Based on the four indicators above, reducing the prevalence of stunted and wasted children under five is the key to improving the hunger index score in Indonesia. To accelerate stunting reduction, the government has issued Presidential Regulation no. 72 of 2021 concerning Accelerating the Reduction of Stunting. In the Presidential Decree, the reduction in stunting in 2024 is targeted to reach 14%.

The Ministry of Agriculture's role in reducing the hunger index is through increasing the production capacity of strategic agricultural commodities sustainably. For this reason, as part of efforts to accelerate the desired target of reducing stunting by 14% by 2024, programs to increase production capacity must be the main focus in each technical/commodity institution under the Ministry of Agriculture. It is applied to both intensification and extensification programs.

To accelerate the reduction of stunting, implementing several Ministry of Agriculture programs should focus on food-insecure areas. Based on data from the 2021 Food Security and Vulnerability Atlas (FSVA), 74 regencies/cities are still categorized as vulnerable to food insecurity: 29 regions are categorized as very vulnerable, 17 areas are vulnerable, and 28 areas are somewhat vulnerable.

The Sustainable Food Yard Program (P2L) needs to be expanded in its implementation because it can encourage increased intake for family improvement. The successful implementation of P2L will contribute to reducing hidden hunger, defined as the condition of a person who lacks micronutrients, namely in the form of vitamins and minerals.

The Ministry of Agriculture can also contribute to improving the hunger index score by developing golden and Nutri Zinc rice, especially to overcome stunting. The use of rice as a

medium for improving nutritional intake has a high prospect of success because rice is a staple food for most Indonesian population.

Research Activities

DIGITAL AGRICULTURE TECHNOLOGY IN INDONESIA'S TRANSFORMING SMALLHOLDER AGRICULTURE SECTOR



Beanstalk AgTech, the Indonesian Center for Agriculture Socio Economic and Policy Studies (ICASEPS), and Brawijaya University –with support from the Australian Centre for International Agricultural Research (ACIAR) – partnered on a research effort to help the Indonesian Government to

sharpen its focus on actions which will drive impactful deployment and advancement of Digital Agriculture Technology (AgTech). This effort centered on two key objectives as follows: (a) assess the current and potential impact of Digital Ag-Tech in smallholder farming and value chains in Indonesia, and (b) identify actions that Indonesian government agencies could take over the next 5–10 years to unlock and maximize potential impacts. These objectives developed an end-to-end **"benchmark"** of Indonesia's Digital AgTech ecosystem as well as recommended a prospective policy and investment **"roadmap"** for a whole government approach to Digital AgTech advancement in Indonesia.

Digital AgTech will be discussed as well at the Agriculture Ministerial Meeting at the G20 Indonesia's Presidency in September 2022 in Denpasar, Bali. The G20 Agriculture Ministers recognized that research, innovation, technical progress, and the use of digital technology in agriculture carry the potential to further revolutionize food systems by contributing to improving resilient and sustainable food production. It acknowledges the gaps in technology viability, accessibility, and affordability. Moreover, the G20 Agriculture Ministers emphasized the importance of digital transformation in agriculture alongside other innovations to improve farmers' livelihoods through enhanced productivity and production in a sustainable manner and broaden market access and opportunities.

This study is in-time. Digital AgTech has raised the attention not only in domestic but also by the G20 member countries. Thus, this study used a benchmark across the innovation life cycle to build a more comprehensive view of challenges, gaps, and successes in Indonesia's Digital AgTech ecosystem. The approach to the benchmark assessment was started from (a) identifying the foundations of a thriving Digital AgTech ecosystem, (b) mapping the critical roles to power the Digital AgTech ecosystem, (c) exploring the level of Digital Agtech penetration by farmers and agribusiness, to (d) measuring the impact of Digital AgTech adoption across agricultural value chains. At the same time, this study is also able to explore the challenges such as (a) lagging rural digital literacy, (b) advisors' shallow depth of Digital AgTech knowledge, (c) limited understanding of the impact of Digital AgTech, (d) limited talent pool for Digital AgTech, (e) poor information and data infrastructure, (f) universities largely untapped, (g) concentration of Digital AgTech penetration and support, (h) lack of government coordination, (i) lack of public-private sector engagement, and (j) misfit of start-up and agriculture ecosystems. In the entire research process, this study classified eight different types of Digital AgTech solutions, namely (a) digital finance, (b) farmer communication platforms, (c) digital farmer advisory, (d) farmer equipment and hardware, (e) digital payments, (f) digital trading, (h) agribusiness solutions, and (i) e-government solutions.

This Small Research Activity organized more than 40 interviews and three industry round tables convening 55 industry change-makers from March to August 2022. From these processes, this study summarized five key programs for government action, 12 quick wins, and 13 transformational investments and recommended six actions to take on today. The recommendations for those actions were as follows: (i) develop a whole-of-government development plan for an independent AgTech sector, (b) support the creation of a public-private AgTech association, (c) roll out decentralized, farmer-focused digital literacy training program, (d) upskill advisors in Digital AgTech use, deployment, and impacts, (e) increase talent supply for the Digital AgTech ecosystem, and (f) build a comprehensive publicly-accessible agriculture data warehouse.

ICASEPS Publications

Jurnal Agro Ekonomi Vol. 39 No. 2, October 2021

1. *Mengukur Kesejahteraan Petani Berdasarkan Indeks Kapabilitas Masyarakat: Studi Kasus di Kecamatan Ampek Angkek, Kabupaten Agam* (Measuring Farmers Welfare Based on Community Capability Index: A Case Study in Ampek Angkek Subdistrict, Agam Regency) (Marlina Wirnas, Retno Widodo Dwi Pramono)



2. *Perubahan Efisiensi Teknis Usaha Tani Jagung pada Agroekosistem Lahan Kering* (Changes of Technical Efficiency of Corn Production in Dry Land Agroecosystems) (Rangga Ditya Yofa, Yusman Syaukat, Sumaryanto)
3. *Analisis Multidimensi Keberlanjutan Sistem Usaha Tani Padi di Kabupaten Subang dan Karawang* (Multidimensional Analysis of Paddy Farming Sustainability in Subang and Karawang) (Rizka Amalia Nugrahapsari, Sumedi, Budi Marwoto, I Nyoman Widiarta, dan Muhammad Yunus)
4. *Dampak Standar Keberlanjutan terhadap Pendapatan Usaha Tani Kopi: Kasus Program Cafe Practices di Kabupaten Enrekang* (The Impact of Sustainability Standard on Coffee Farm Income: the Case of the Starbucks CAFE Practices)

Program in Enrekang Regency) (Hendra Sudirman, Rita Nurmawati, Suprehatin)

5. *Daya Saing dan Potensi Pengembangan Ekspor Pati Sagu Indonesia* (Competitiveness and Development Potential of Indonesian Sago Starch Export) (Andi Pangeran Rivai, Musran Munizu, Mahyuddin)

Forum Agro Ekonomi Vol. 39 No. 2, December 2021

1. *Peran Desa Mandiri Benih Mendukung Percepatan Adopsi Teknologi Varietas Unggul Baru Padi* (The Role of Seed Self-Reliant Village Supporting Acceleration of Adoption of New Improved Rice Varieties) (Resty Puspa Perdana, Sunarsih, Adang Agustian, Chairul Muslim, Dewa K. S. Swastika, Achmad Suryana)



2. *Tinjauan Historis Teknologi Varietas Unggul dan Program Intensifikasi dalam Peningkatan Produktivitas Padi Berkelanjutan* (The Historical Review of High Yielding Varieties Technology and Intensification Programs on Sustainable Rice Yield Improvement) (Dewa K. S. Swastika, Adang Agustian., Achmad Suryana, Chairul Muslim, Sunarsih, Resty Puspa Perdana)
3. *Peran dan Tantangan E-Commerce sebagai Media Akselerasi Manajemen Rantai Nilai Produk Pertanian* (The Roles and Challenges of E-Commerce as an Acceleration Medium of the Management Value Chain of Agricultural Products) (Eka Nurjati)
4. *Tinjauan Kritis terhadap Pemborosan Pangan: Besaran, Penyebab, Dampak, dan Strategi Kebijakan* (Critical Review of Food Waste: The Magnitude, Causes, Impacts, and Policy Strategies) (Mewa Ariani, Herlina Tarigan, Achmad Suryana)
5. *Akselerasi Pembangunan Pertanian Wilayah Tertinggal Melalui Penguatan Kapasitas Petani dan Kelompok Tani* (Acceleration of Agricultural Development in Disadvantaged Regions Through Strengthening the Capacity of Farmers and Farmers Groups) (Kurnia Suci Indraningsih, Dewa K. S. Swastika)

ICASEPS News

AWG WORKSHOP ON GAP ANALYSIS ON FLW INDICES



The dynamics of the food system are in constant change, where unfavorable distortions in the patterns of food consumption and production alongside climate change remain

a serious challenge. In this regard, as the presidency of G20, Indonesia considers food loss and waste (FLW) as one of the most important issues to improve by the G20 member countries.

Achieving the SDG of a world of zero hunger will demand more productive, highly efficient, inclusive food systems, requiring a high-standard approach to reducing FLW. To this point, the G20 member countries need to anticipate the importance of narrowing the gap in measuring food loss and waste, enabling the appropriate policy for a sustainable food system.

Attended by a large number of participants from various institutions around the world, ICASEPS organized this workshop through a virtual meeting (Webex application) on 21–22 June 2022. Two presentation topics delivered in this workshop were (a) data collection method and data management on FLW and (b) food waste measurement of FLW with relevant variables and indicators. The invited speakers were those from organizations with experience in developing methodologies for data collection, measurement, and monitoring of FLW, including FAO, UNEP, BAPPENAS, and other parties/countries that have conducted FLW reduction. The results of this workshop were included as firm outputs of the G-20 Indonesia Communiqué proposed by FAO.

JOINT WEBINAR AWG & DWG: ENHANCING DIGITAL AGRICULTURE AND RURAL FINANCE FOR FOOD SECURITY



Digital farming technologies have been developed to address the growing concerns over agricultural sustainability. Currently, digital agricultural technologies are widely used for enhancing productivity.

As support to digital infrastructure, a basic data system for rural areas is required to facilitate agricultural services and technologies and to access farm finance and management. The availability of finance to support rural development is also recognized as the key condition to promote agricultural development and the rural sector.

On this issue, the AWG (represented by ICASEPS) and DWG (Bappenas) under the Indonesian G20 Presidency proudly present the Joint Webinar on Enhancing Digital Agriculture and Rural Finance for Food Security. This side event embarks on the milestone of AWG and DWG collaboration in attaining Sustainable Development Goals (SDGs), especially to 'End hunger, achieve food security and improved nutrition and promote sustainable agriculture' (SDG 2), which constitutes the interdependence of agriculture and development.

The webinar was held on 28–29 June 2022 through a virtual meeting (Webex application). The invited speakers were representatives from G20 member countries, international organizations, digital technology and rural finance experts, and officials from developing and least developed countries and private sectors. With two presentations focusing on (a) digital technology applications to improve agricultural productivity and (b) Agricultural investment and rural finance to support

MSMEs activities, the webinar was attended by interested individuals and organizations across the globe.

THE 2ND AGRICULTURE DEPUTIES MEETING (ADM 2) – G20



The Second Agriculture Deputies Meeting (ADM) has conducted a 2-day meeting from 27–28 July 2022 at Yogyakarta, filled with fruitful discussions to build more sustainable and resilient global agriculture and food

systems. This ADM meeting is a part of the Agriculture Working Group (AWG) that carries the theme "Balancing Production and Trade to Fulfill Food for All".

On this occasion, ICASEPS was assigned as a substance team for the Agriculture Working Group of the Indonesia Presidency.

TRANSFER OF ICASEPS RESEARCHERS TO THE NATIONAL RESEARCH AND INNOVATION AGENCY (BRIN)

The Presidential Regulation Number 78 of 2021 concerning the National Research and Innovation Agency (BRIN) states that all research, development, study and implementation activities are carried out by a new body responsible to the President. This means that the government/institution/agency must turn to the National Research And Innovation Agency (BRIN). Based on the regulations, researchers at ICASEPS, one of the institutions that conduct agricultural research and development, must move and take shelter under BRIN.

There were 37 researchers at ICASEPS, and 20 of them were young or middle-rank researchers who had previously moved as of 1 March 2022. A total of 19 senior researchers were transferred as of 4 July 2022 and 24 August 2022. The transfer was based more on regulatory and administrative orders. Still, their duties and responsibilities as a researcher in the agro-socio-economic field will continue even though they are currently under the BRIN banner.

ICASEPS is pleased to allow researchers to turn to BRIN and is grateful for all the work services that have raised the name ICASEPS under the Ministry of Agriculture. ICASEPS hopes that cooperation in various activities can continue and family relations are appropriately maintained.

INDEPENDENT CAMPUS LEARNING PROGRAM AT ICASEPS



In support of the Independent Learning-Independent Campus Program (MB-KM) launched by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek), ICASEPS has become a partner

institution for increasing student competency through apprenticeship activities. Regarding this activity, cooperation has been carried out between ICASEPS and Jember State University (UNEJ) and Lampung University (UNILA). The Cooperation Agreement was signed in August 2022.

Student internships are planned to last for 3–4 months, from September to December 2022. This internship program is attended by five students from UNEJ and six from Unila. Of the 11 internship students, they were divided into three teams, each team consisting of UNEJ and UNILA. During the apprenticeship, each team was accompanied by appointed supervisors from ICASEPS and Universities.

This internship activity is devoted to learning and practicing conducting studies/analyses of agricultural policies. In addition to being provided with material related to policy analysis activities, students are also given hands-on experience in carrying out study/analysis activities, starting from screening policy issues, preparing proposals, study methods, data management, data processing, and compiling reports on the results of policy studies/analysis, and compiling scientific publications. This internship activity is expected to be able to add knowledge and experience for students in conducting studies/analyses of agricultural policies.

WELCOME NEW STAFF OF ICASEPS



We are delighted to welcome the new members of ICASEPS. They were inaugurated on 18 August 2022 in the new position as policy analysts at the Ministry of Agriculture. They are Ms. Lira Mailena, Ms. Prima Luna, Mr. Joko Mulyono, Ms. Esty Asriyana, Ms. Amalia Ulpah, and Mr. Hari Hermawan.

They previously served as researchers at research institutions under the Ministry of Agriculture and shifted to serve in the field of agricultural policy analysis at ICASEPS. Congratulations!



PSEKP Tanggap COVID-19

<http://pse.litbang.pertanian.go.id/ind/index.php/covid-19>

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