Agro-Socioeconomic Newsletter

Indonesian Center for Agricultural Socio Economic and Policy Studies (ICASEPS)

Editorial

Dear Readers,

Indonesia is entering the economic crisis, a bitter result of the current Covid-19 pandemic. The GDP growth with a negative sign was counted to -5.32% (Q II of 2020; Y on Y) to give Indonesia a strong warning to foster every possible opportunity to improve economic condition. However, the agricultural sector shows its resilience with a positive sign of growth (2,19%; Q II of 2020). Ministry of Agriculture is in a strong spirit to continue this promising trend by safeguarding various appropriate programs and activities amid the spread of the deadly coronavirus disease.

With the same spirit, this Newsletter comes with several important issues. Two research findings, namely boosting horticulture export (Dr. Saktyanu K. Dermoredjo) and issues on poverty alleviation in rural areas (Dr. Herlina Tarigan), along with other news and information, are brought here for your reference.

We warmly welcome our colleagues who have successfully finalized their respective formal higher education: Dr. Adi Setiyanto (doctoral degree from UPLB, the Philippines) and Mr. Rangga Ditya Yova (master degree from IPB University).

Lastly, when you leave your home, don't forget to use a mask, avoid crowds, and always wash your hands at any possible time. That will help our effort to cut off the contagiousness of this coronavirus disease.

Thank you.

The Editor

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HOW TO BOOST HORTICULTURE EXPORT FOR FARMERS' INCOME IMPROVEMENT

Saktyanu K. Dermoredjo, Erwidodo, Delima H. Azahari, Eddy S. Yusuf

Background

Indonesia's horticulture export is both fresh and processed products. The growth of fresh horticulture exports reached 4.07% per year for 62 commodities, while the export of processed horticultural commodities decreased by one percent per year for 32 commodities. Thus, fresh horticulture export is promising. The government's desire to spur the horticultural sub-sector trade balance surplus is impossible without serious efforts to enhance horticulture business investment.

To formulate a strategy for developing the export of the horticultural subsector requires a thorough understanding of the constraints and challenges of production, export requirements, as well as competing countries. Export target increase cannot be achieved instantly, but it should be planned through systematic and measurable policies.

This research aims to formulate export development policies and strategies to improve horticulture farmers' income. In detail, the purposes of this research are: (a) to analyze performances of investments and export of horticulture products; (b) to analyze the main export destination countries, the competing countries, and competition level in export markets; and (c) to analyze the constraints, opportunities, and challenges for export development strategy. The sample provinces of this study were West Java, Central Java, East Java, and West Sumatra and commodities observed were chili, mushroom, mango, mangosteen, guava, turmeric, ginger, and chrysanthemum.

Main Results

Investment and Export Performance of Commodities and Horticultural Products

In terms of the property registration aspect, Indonesia lags behind some countries in the ASEAN region, such as Singapore, Malaysia, Vietnam, Laos, and Thailand. Transparency, simplicity, certainty in completing processes and procedures, as well as time, cost, and quality of land administration are critical factors for driving investment in the agricultural sector. Several factors cause the constraints of managing land permits in Indonesia. First, potential investors do not know the procedures for managing land permits. Second, in Java Island, land for agricultural business is of very high value because land availability is not proportional to the needs. Higher land values have triggered the emergence of land speculators.

In agriculture sector investment, the largest investment was in the plantation sub-sector with an average of Rp13.84 trillion, and the share was around 89% (in 2015) to 97% (in 2012). The most significant investment percentage in the plantation sub-sector is oil palm plantations (oleaginous), especially oil palm. This type of investment contributed 89.3% (in 2015) to 97.1% (in 2013) towards investment in the plantation sub-sector. In addition, the average investment value of FDI (PMA) in the agricultural sector during 2012–2017 was US\$ 1.89 billion, with the highest investment of US\$ 2.33 billion (in 2014) and the lowest investment of US\$ 1.66 billion (in 2013). The share of FDI in the agricultural sector was around 5.3% (in 2017) to 8.2% (in 2014).

In general, FDI invests in the agricultural sector are companies that produce similar commodities in their home countries. For example, they are interested in entering Indonesia with the main goal to fulfill the needs of the commodities for their domestic markets. However, there are also FDI who invest in Indonesia because they see the Indonesian population's potential as consumers of these commodities.

Chili. Indonesia has major fresh chili exports to Singapore and Malaysia, each of 48.40% and 20.78%. The world's main chili importers are the United States (25.94%) and Germany (18.46%). The world's main exporters are the Netherlands (25.30%) and Spain (20.81%). Indonesia exports processed chili to India (46.33%), Nigeria (15.41%) and Vietnam (14.88%). The main chili importers are the United States (17.56%) and Malaysia (7.59%), while the main exporters are India (33.30%) and China (22.69%). Indonesia has the potential to export processed chili directly to the importing countries.



Turmeric. Indonesia export fresh turmeric mainly to India (70.55%). The main turmeric importers are the United States (17.56%) and Malaysia (7.59%). The leading turmeric exporters are

India (33.30%) and Myanmar (4.98%), and Indonesia ranks third at 3.11%. Indonesia has considerable potential to process turmeric before being exported in the fresh form to gain added value.

Chrysanthemum. The main export destination country for the Indonesian chrysanthemum is Japan (98.86%). The main chrysanthemum exporting country is the Netherlands (52.97%), while the world's main importers are Russia (24.61%) and the United Kingdom (18.31%). In the Southeast Asian region, Malaysia is the largest chrysanthemum exporter (7.05%).

Mango, mangosteen, and guava (one HS code). Indonesia's main exports of mangoes, mangosteen, and guava are to China, Hong Kong, and Malaysia. The world's main exporters are Mexico and the Netherlands, while the main importing countries are the United States and the Netherlands. The Netherlands is an exporter and importer of mangoes, mangosteen, and guava.

Main Export Destination Countries, Competing Countries and Competition Levels in Regional and Global Export Markets

Indonesia's role in the chili trade is still at a particular stage. For fresh chili (070960) and ground (090422) are still in the import substitution stage, i.e., very low competitiveness because the production level is not high enough to reach its economies of scale.

Turmeric trading is characterized by a mature category (ISP > 0.8). However, its RCA is relatively low (RCA < 1). This is also experienced by Indonesia's competitor countries, such as France, India, and China. The challenge is that India has increased competitiveness.

Chrysanthemum trade is characterized by a low growth stage (ISP > 0) at an ISP value of 0.08–0.12. These values are far below Colombia and Malaysia, each of 0.67–0.8 and 0.99 or entering a mature stage. Indonesia still has an opportunity to increase trade if its competitiveness increases.

Fresh ginger (not ground; 091011) and ground ginger (091012) were already in the growth stage in 2016, but in 2017 it was down to import substitution stage again. It revealed that



in 2017 Indonesia's imports were more than its exports.

Mango, mangosteen, and guava exports have a growth phase (ISP > 0) such as 080450 (fresh) and 200899 (processed), but the rests were still at the introduction or substitution import stages (ISP < 0). However, the RCA of both types is still relatively low (RCA < 1). Indonesia has the opportunity to increase its competitiveness because all competitors have relatively very low RCA.

Indonesia's mushroom trade from all categories is still at the introduction stage or import substitution (ISP < 0), except for preserved *Agaricus* mushroom species (071151) that reached 0.89 (in 2017). Indonesia has very low competitiveness because the production level is below its economies of scale. Thus, Indonesia has the opportunity to improve competitiveness.

Constraints, Opportunities, and Challenges in the Horticultural Agribusiness System for Export Development Strategies

Influence and dependency between actors vary among regions. In West Java, the most influencing actors are exporters, quarantine offices, and farmers' associations. The conflicting actor is the pesticide companies if the export commodity is directed towards environmentally friendly products.

In the context of development cooperation, there is a gap observable from high and low ambivalent values. For example, West Java has a high ambivalence in the actors such as (pesticide) company, air cargo, sea cargo, and low ambivalence such as the transportation agency, BKPMD (regional investment coordinating board) fertilizer companies. It means that cooperation scenarios can be made without conflict



between BKPMD and fertilizer companies vs. pesticide companies, namely supporting investment in creating environmentally friendly pesticides or BKPMD with the transportation agency

vs. the marine and air cargo companies are for supporting investment through better distribution and logistics.

Opportunities in export development need four policies to proceed together, i.e. (a) continuity and efficiency, (b) environmentally friendly brand image, (c) quality and traceability of goods, and (d) trade cooperation to increase market access. The next opportunity allocates all importsubstitution commodities for domestic consumption. Driving policies are required, such as providing incentives, revitalizing the role of institutions, and expanding supporting facilities.

West Java's scenario indicates an environmentally friendly Brand Image (H2) as the most affected (1.177), and the highest is 0.886 in trade cooperation. It reveals that every 100% increase in an environmentally friendly Brand Image scenario will increase the opportunity for trade cooperation for market access up to 88.6%.

Policy Implications

There is a need for a change in market orientation if a market potential for a particular commodity provides positive expectations. Policymakers should also have policy changes on market orientation patterns to develop agricultural development, particularly horticulture crops, by optimizing regional development to support the export market.

Cooperation between related institutions is needed so that there is an alliance between strong and weak ones through intensive, dynamic programs that will strengthen relations with producers and ultimately increase farmers' incomes.

Contact: Dr. Saktyanu K. Dermoredjo (saktyanuadi@yahoo.com)

POVERTY ALLEVIATION IN AGRICULTURE AND RURAL AREAS

Herlina Tarigan, Pantjar Simatupang, Sri Wahyuni, Mohamad Maulana

Background

Poverty in agriculture and rural areas is still a major problem in handling poverty in Indonesia, given the number of poor people in the village currently around double the number of poor people in the city. Assuming rural communities' economic basis is agriculture, it is certain that the majority of the rural poor live in the agriculture sector. This means that poverty reduction in villages and the agriculture sector will substantially impact the aggregate poverty reduction in Indonesia. Therefore, a poverty reduction strategy needs to be implemented with a multispectrum approach through general and special programs.

The general objective of this research is to develop poverty reduction strategies in agriculture and rural areas. Specifically, the study aims to: (1) describe the status and dynamics of national poverty; (2) analyze the profile and determinants of agricultural and rural poverty; (3) learn the role of the agricultural sector in national poverty reduction; and (4) study the design and implementation of the BEKERJA (Working) Program. This study was mainly based on secondary data from BPS-Statistics Indonesia. Primary data were gathered in four selected provinces, i.e., West Java, Banten, South Kalimantan, and East Java.

Main Results

Status and Dynamics of National Poverty Conditions

The national poverty prevalence rate has dropped to below 10% since March 2018. However, Indonesia's poor population is still relatively high, reaching 25.67 million people or 9.66% of the population in September 2018. The poverty rate in rural areas is much higher (13.10%) than in urban areas (9.66%). About 60% of the poor live in rural areas. Poverty alleviation efforts should be prioritized for rural residents.

Poverty in Indonesia varies by season. The poverty rate tends to be higher in March compared to September of the previous year. Since September 2017, the poverty rate has decreased consistently between semesters and between years, both in rural and urban areas. Slowing down the poverty level shows that reducing poverty is increasingly difficult, called "the last mile problem." Regionally, poverty reduction in rural areas seems to be more complicated than that in urban areas. Furthermore, half of the poor depend on livelihoods in the agricultural sector and live in rural areas.

Profile and Determinant of Poverty in Farmers' Households in Rural Areas

In absolute terms, the number of poor people in rural areas tends to decrease consistently from 17.77 million in March 2014 to 17.54 million in September 2018. Poverty prevalence decreased from 14.17 to 13.10%. Since March 2016, poverty rates in rural areas have consistently reduced between semesters and between years.

The decrease in the level of depth and the severity of poverty occurred so slowly that in 2018 were still higher than those in 2014. The decline in the share of the agricultural sector was compensated by an increase in other sectors' share, mainly services and the share of not working. The labor force absorption structure follows the dominant sequence in the Agriculture, Services, and Industry sectors (A-S-I pattern). The pattern did

not change during March 2014–March 2017. The anomaly of structural change is thought to have caused a slow decline in poverty in rural areas and continued high poverty in the agricultural sector.



One of the human capital

assets that significantly influence the opportunity of the RPTD is the head of household characteristics. RTPDs with a female as the head of household have a significantly higher chance of not being classified as poorer than those headed by men, elderly the head of the household to be in the age range of the highest peak income that tends to be resistant to change and productivity tends to decrease.

Based on expenditure per capita, the valid variables as determinants of poverty in agriculture and farm laborers are

gender and length of family education, number of family members, land ownership, access to credit, and ownership of telephone, computer and internet access. Invalid variable as the determinant of poverty in



agricultural business-based households (RTUP) and farm laborers are access to electricity and depositors in financial institutions.

Role of Agriculture Sector against National Poverty Alleviation

The best variable to explain variations in the number of poor people in Indonesia is the rice price. The number of poor people will expand if medium-quality rice price increases. Apart from rice price, another important variable influencing variations in the number of poor people is the time trend.

The effect of GDP per capita varies by region or by the source of GDP. In rural areas, its effect on poverty reduction is an increase in agricultural GDP per capita, while the industrial, service, and other sectors have an effect but are not real. In urban areas, the variables that influence the decline in the number of poor people are GDP per capita of the agriculture sector and per capita GDP of the service sector, but not real. Thus, the most effective strategy for poverty alleviation is developing the agricultural sector in both urban and rural areas.

Program Design and Implementation

The design of the Technocratic of BEKERJA Program has been arranged in a systematic, integrated, and clear manner. Program goals, objectives, and targets are defined by calculating measurable benefits and impacts. The aid package and mix, based on agriculture, are directed towards optimizing the yard. Ministry of Agriculture's breakthrough program to reduce poverty and empower poor communities to increase income and welfare is conducted through integrated farming activities. The program is expected to be able to release farmers from poverty and become more prosperous life permanently.

The operational plan is segmented where the program executor is determined by seven first echelons of the Ministry of Agriculture, namely (1) Directorate General (DG) of Livestock and Veterinary, (2) Indonesian Agency for Agricultural Research and Development (IAARD), (3) DG of Food Crops, (4) DG of Horticulture, (5) DG of Plantation, (6) Agency for Agricultural Human Resource Development (BPSDMP), and (7) Food Security Agency (BKP).

In general, the program is not well socialized, technical guidance for the program recipients is inadequate with the wrong target, and the substance is very minimalist. The superior poultry distributed as aid packages is not uniform in type or size. It is estimated that the RTMPs (poor rural households) still maintain the poultry, and around 20–30% have laid eggs. However, reduction occurs due to death, sold, and consumed.

Policy Implication

Program implementation pattern must be integrated and not segmented with national responsibility. This can be handled by a particular institution that has been formally authorized or by forming a special team. The budget designed by each person in charge gives suboptimal results. Even the supply side of livestock has the potential to be a business venue for entrepreneurs with less qualified livestock quality.

The development and sustainability of poverty alleviation programs require that aid packages provided in the form of livestock or poultry, vegetables, fruit, and plantations be complemented by the development of regional agribusiness systems. Therefore, in a program, post-distribution assistance is required to assist the RTMP in managing farms and to practice developing economic institutions.

The recommended strategy to reduce poverty in agriculture and rural areas is a Triple Track for the Eradication of Farmers' Households from Poverty. It covers (1) linking poor farm



households to agricultural growth; (2) economic empowerment of poor farm households; and (3) social protection for poor farm households.

Poverty alleviation should be based on National Development policy designs both in the agricultural and non-agricultural sectors. They include continuing to encourage demographicrelated programs such as the Family Planning program, constructing, supporting infrastructure for agricultural businesses such as access to land and land as an agrarian reform object (TORA).

The price stability of rice and foodstuffs is generally determined mainly by the stability of their availability in the market or farm households. Food security is an effective development strategy to reduce poverty.

Contact: Dr. Herlina Tarigan (herlin4@yahoo.com)

Policy Development

BUSINESS LICENCE HANDLING FOR AGRICULTURAL SECTOR AFFECTED BY COVID-19 PANDEMIC

The spread of coronavirus disease has hit almost all human life aspects, including those engaged in the agricultural sector. The decreasing business opportunities, along with a decrease in transaction turnover, are even worse with business closure due to drastically decreased demand for agricultural products. To cope with this disadvantage situation, the Minister of Agriculture has issued the Minister of Agriculture's Regulation No. 19/2020 on business license handling for the agricultural sector affected by the coronavirus disease. This regulation aims to minimize the economic loss risk faced by the business actors and to ensure the legality of business licenses in the agricultural sector. This regulation is effective since its issuance on 11 June 2020, which will also change, remove, and/or stipulate new regulation on 12 Minister of Agriculture's regulations previously issued. Permentan No. 19/2020 regulates business licenses in the agriculture sector that experience the negative impact of Covid-19, covering (1) license for livestock business and (2) license for commercial or operational activities. License for the latter include (a) license on entry and exit of feed raw materials derived from animals and plants, (b) registration of fresh food derived from plants, (c) recommendation on entry and exit of livestock breed, (d) registration of pesticides, (e) registration of fertilizers, (f) recommendation on entry and exit of ruminant and swine, (g) registration of animal medicine, and (h) registration of feed.

In general, licenses in the agriculture sector that will expire during the current pandemic could be extended for three months after the Covid-19 pandemic national disaster has been lifted. With several adjustments in response to the Covid-19 pandemic and in favor of actors engaged in the agriculture sector, agribusiness will continue to improve their performance. Farmers and business actors are encouraged to keep working and show their resilience facing this difficult period.

REGULATION OF FINANCIAL SERVICES AUTHORITY (OJK) ON NATIONAL ECONOMIC STIMULUS AS COUNTERCYCLICAL POLICY OF THE SPREAD OF CORONAVIRUS DISEASE

We all suffered from this coronavirus disease with a negative impact on almost of our aspect of life. Performance decrease in the banking sector and the capacity reduction of loanees to meet their obligation on credit payment are among the risk potential contributing to national economic growth. Aware of this situation, steps to anticipate the worse case have been announced, among the others, with the issuance of national

Research Activities

ICASEPS RESEARCH PROGRESS IN 2020 AMID COVID-19 PANDEMIC



All seven research titles currently conducted by ICASEPS researchers are going well amid the Covid-19 pandemic impact. Some adjustments should be made to its methodology, especially

on field data collection methods and study locations. The Covid-19 pandemic has hindered the researchers from visiting study locations and canceled primary data collection or field meetings. Secondary data collection, literature review, and or virtual meetings were carried out instead. Researchers are working hard to maintain the high standard of research quality they usually attained. As a result, those seven research activities have shown their respective progress through their interim/mid-year report. economic stimulus as countercyclical policy in response to the spread of the Covid-19 pandemic. Regulation of Financial Services Authority (OJK) on this matter has been



formally passed by the Ministry of Law and Human Rights on 16 March 2020 with immediate in effect. The implementation of this policy is bound with circumspection principle to avoid any misuse any misuse and any other types of moral hazard.

This OJK Regulation No. 11/POJK.03/2020 consisted of seven chapters covering (1) general stipulation, (2) asset quality determination, (3) credit or finance restructurization, (4) new allocation and availability of fund, (5) reporting, (6) period of stimulus, and (7) closing statement. Banking institutions to implement such regulation are the conventional general bank or the people's credit bank (BPR), including their respective sharia-based business unit. Meanwhile, the loanee whose business suffered from the Covid-19 pandemic, including MSMEs, are eligible to take advantage of this regulation.

Credit restructurization could be implemented for those categorized as current credit or outstanding current credit, both for credit granted before or after the spread of coronavirus, including MSMEs. However, this stipulation is not applicable for BPRs. In this regulation, a bank is allowed to provide new financial support or another type of credit to a loanee who experiences a negative impact due to the Covid-19 pandemic. The bank that implements this stimulus regulation is obliged to report the credit restructurization on a specific reporting format with regular submission to OJK: the final position of April 2020, June 2020, September 2020, December 2020, and March 2021. This stimulus regulation applies up to March 2021.

The ICASEPS' Monitoring and Evaluation Team, an internal group established to monitor and evaluate the implementation and development of each research title at ICASEPS, has conducted a two-day meeting, 28–29 July 2020, to formally examine each research title. The Team, consisted of several senior researchers, has provided positive suggestions and recommendations to be carried out by researchers during the second part of this year to improve their respective research quality.

With the remaining available time of 2020, researchers should make strong efforts to finalize their studies, meet their respective research objectives, and produce applicable policy recommendations out of their research. For researchers, working from home or from the office, the message would be the same. They usually keep their plan to be achieved. When plan A is not working, plan B will be taken as an alternative. Therefore, it is obvious for researchers that the study policy recommendations would be well written in 5–7 pages of policy briefs or policy notes. Hoping the coronavirus will soon disappear, the research activities could be adjusted to the new circumstances. This dangerous disease has led every aspect of human activities to be adjusted to the new normal life.

ICASEPS Publications

Jurnal Agro Ekonomi Vol. 38 No. 1, May 2020

- Penilaian Keberlanjutan Sistem Usaha Kentang dengan Kriteria Multidimensi: Studi Kasus di Dataran Tinggi Dieng, Wonosobo (Asessment of Potato Farming System Sustainability with Multidimension Criteria: Case Study in Dieng Plateu, Wonosobo) (Rizka Amalia Nugrahapsari, Rima Setiani, Budi Marwoto, Jawal Anwarudinsyah, Sulusi Prabawati)
- 2. Strategy Formulation of Farmers Capacity Building through Technological Innovation in Disadvantaged Regions of Indonesia (Dewa Ketut Sadra Swastika, Kurnia Suci Indraningsih)
- 3. Volatilitas dan Transmisi Harga Cabai Merah Keriting pada Pasar Vertikal di Provinsi Bengkulu (Chili Price Volatilities and Transmisions at Vertical Markets in Bengkulu Province) (Miftahuljanah, Ketut Sukiyono, Putri Suci Asriani)
- 4. *Pemilahan Volatilitas Harga Daging Sapi Menggunakan Metode Ensemble Empirical Mode Decomposition* (Decomposing the Volatility of Beef Price Using the Ensemble Empirical Mode Decomposition Method) (Fitria Hasanah, Hari Wijayanto, I Made Sumertajaya)
- 5. Faktor-Faktor yang Memengaruhi Pilihan Petani atas Pola Tanam di Agroekosistem Lahan Kering (Factors Affecting the Farmers' Choice of Cropping Patterns in Dryland Agroecosystem) (Rangga Ditya Yofa, Yusman Syaukat, Sumaryanto)

Analisis Kebijakan Pertanian Vol. 18 No. 1, June 2020

- 1. Penilaian Kerugian Ekonomi Usaha Tani Padi Sawah dan Status Keberlanjutan Pengelolaan Saluran Irigasi Sekunder Vanderwijck di Yogyakarta (Economic Losses Assessment of Rice Farming and Sustainability Status of Vanderwijck Secondary Irrigation Channel Management in Yogyakarta) (Miftahul Azis, Aceng Hidayat, Ahyar Ismail)
- 2. *Model Reduksi Risiko Kountur Berdasarkan Perilaku Petani Jagung di Pulau Madura* (Kountur Risk Reduction Model Based on Corn Farmer Behavior in Madura Island) (Elys Fauziyah)
- 3. *Pengembangan Rantai Pasok Daging Ayam Secara Terpadu di Jawa Barat dan Jawa Timur* (Development of Integrated Supply Chains of Chicken Meat in West Java and East Java) (Saptana, Nyak Ilham)
- 4. *Strategi Komunikasi dalam Tata Kelola Pengembangan Kelapa Sawit di Indonesia* (Communication Strategy of Oil Palm Development Governance in Indonesia) (Heldi Yunan Ardian, Delima Hasri Azahari)
- 5. Dampak Program Raskin terhadap Konsumsi Gizi Rumah Tangga di Pulau Jawa (Impact of Raskin Program on Household Nutrition Consumption in Java Island) (Eka Rastiyanto Amrullah, Kardiyono, Ismatul Hidayah, Aris Rusyiana)

ICASEPS News

ICASEPS WEBINAR POST COVID-19 PANDEMIC ANTICIPATION



ICASEPS initiated a webinar in response to the impact of Covid-19 pandemic. The webinar entitled "Post Covid-19 Anticipation: Jointly Develop and Improve Food System for Farmer's Welfare" was conducted on 1 July 2020. The food system is picked out as the focus of the thought as this issue has been attracted by many concerns amid the global Covid-19 pandemic. Three key speakers, each with their specific expertise and widely well-known, have been invited to deliver their ideas. They are Mr. Anang N.S. Moeljono of Bappenas, Prof. Pantjar Simatupang of ICASEPS, and Dr. Bayu Krisnamurthi of IPB University. With an introduction from Dr. Sudi Mardianto, Director of ICASEPS, the webinar was officially opened by Dr. Momon Rusmono, Secretary-General of the Ministry of Agriculture, who also delivered a keynote address. Joined by more than 400 attendees, this virtual seminar was successfully implemented with several key points as the main results and considered policy alternatives to improve the food system in Indonesia.

- 1. The Covid-19 pandemic would be with us probably for a long time and would affect almost all human life, including health, economic, social aspects. We need to outsmart this dangerous disease enabling better management to the level of acceptable condition and allow our productive life to continue.
- 2. The impact of Covid-19 on the global economy has occurred, a negative growth of GNP, hampered international trade and supply chain, an increase in poverty and unemployment, disturbance of the food system, and threat of global crisis. The impact has already started to show the crisis signal at the national level, although with different intensities over the regions. The impact on production is controllable on the food system, although the price at the farm level decreases with problems on the supply chain. This has reduced farmer's income, and food patterns should be adjusted to such a situation.
- 3. The new paradigm of food development emphasize the shift of orientation from food security to food sustainability system by (a) providing high quality and safety of food with a demand-driven approach, (b) developing food system at a regional level using comparative and or

competitive advantage, and (c) prioritizing national food platform through upstream and downstream agribusiness activities on the basis of public-private partnership principles.

- 4. Food system restoration during the new normal era would be achieved through (a) salvage and adaptation of newly affected by coronavirus pandemic, (b) recovery and reconstruction of "green regions," (c) early reaction for new outbreak regions, and (d) anticipation on the next disasters (revisit early warning systems).
- 5. Together we work and establish food systems and improve farmer's welfare, which could be approached through (a) empowering the farmers to continue their contribution to agricultural production during the Covid-19 pandemic; (b) facilitating smooth distribution and food supply chain; (c) guarding supply and food price stability; (d) ensuring high farmer's productivity and stability and fairness of farmer's product price; (e) capitalizing "short-term creative adaptation" to become permanent behavior in support sustainable food systems: e-commerce, informal/community supply chain, social solidarity, new meal pattern; and (f) developing food systems together: participative and synergetic among the central/local government, private/stateowned enterprises, and community/farmers.

ICASEPS HOLDS A MASS RAPID TEST



Rapid diagnostic test or rapid test is used for preliminary screening test result for Covid-19. To accelerate the handling of the Covid-19 outbreak within the Secretariat General's

units, the Head of the General and Procurement Bureau of the Ministry of Agriculture as Chair of the Task Force for Handling the Spread of Covid-19 at the Ministry level through its Main Clinic had conducted a Covid-19 rapid test for all employees within the Secretariat General offices, including ICASEPS from the date of 24 June to 24 July 2020.

For two days, 21–22 July 2020, the Ministry of Agriculture's Medical Team led by dr. Yuyun Yuniati conducted the rapid test to examine 130 ICASEPS employees to preliminary indicate whether they were affected by the coronavirus. Non-reactive results, the employees were allowed to continue their activities. ICASEPS maintain a conducive condition at the office and keep alert with the threat of this deadly disease. The management regularly reminds all employees to keep their good health, manage the size of employees working from the office, and provide basic amenities for office sanitary. So far, we practice the government health procedure in response to the Covid-19 pandemic threat, especially by using a mask, washing hands frequently, and keeping physical distance. These are part of our efforts to cut off the spread of the coronavirus at our office.

WELCOME

We would like to warmly welcome our colleagues who have finalized their higher education in their respective universities: (1) Dr. Adi Setiyanto, who was awarded a Ph.D. degree from the University of the Philippines at Los Baños (UPLB), the Philippines. He successfully defended his dissertation in front of his examiners in July 2020; and (2) Mr. Rangga Ditya Yofa, who was successfully defended his thesis in June 2020 to achieve a master's degree from IPB University, Bogor, Indonesia. Their return to ICASEPS should strengthen our research team and continue our highlevel services for agricultural development policies in Indonesia. Their respective research abstracts are prepared for your reference.

Adi Setiyanto. Cost Efficiency and Competitiveness Effects of the Special Program (UPSUS Program) on Rice Production in West Java, Indonesia



This study aimed to analyze the cost efficiency and competitiveness effects of the Special Program (UPSUS Program) on rice production in West Java, Indonesia. The result of the performance analysis of the program showed that the UPSUS Program implementation did not succeed in achieving the cropping intensity and productivity targets in the study sites (Karawang,

Subang, and Indramayu Regencies), West Java Province. This was due to the low adoption level of the program components and the farmer-respondents' perception that, in general, the implementation of the program components was adequate but ineffective. The cost-efficiency of farms after the UPSUS Program was a bit lower at 0.8656 than before (0.8748), but the proportion of farmers in the highest range of efficiency (0.9000–0.9999) increased from 47.22% before to 50.69% after the program. Among the significant determinants, the level of adequacy and effectiveness and adoption of the UPSUS Program components have the largest influence in reducing rice farming's cost inefficiency in West Java.

Rice farming in the study sites was financially and economically profitable before and after implementing the UPSUS Program. However, competitive and comparative advantages after the program had a slight decline than before. Rice farms with a competitive advantage comprised 81.94% after the UPSUS Program and 89.58% before the program. The production share of competitive farms was 87.71% before and 86.56% after the program. Similar pattern was revealed in terms of comparative advantage. There were relatively more farms with comparative advantage and bigger share in the rice output produced competitively before than after the program. Regression analysis showed that the cost efficiency coefficient is -0.9647 for the DRC and -0.9751 for the PCR, implying that the comparative and competitive advantages will improve if cost efficiency increases. The simulation analysis results show that West Java can maintain the sustainability of rice self-sufficiency and has the potential to export rice. Still, the government has to improve the management of the implementation of the UPSUS Program and increase the adoption and adequacy and effectiveness of the program components.

Based on the results of the study, the following policy recommendations to further improve the future implementation of the UPSUS Rice Program in West Java are put forward: (1) maintaining the area of rice planting and focusing on higher productivity; (2) improving the adequacy and effectiveness of the various components of the program; (3) using the farming system application of the groups of farms which have the highest range of cost-efficiency as models for less costefficient farms; (4) improving the provision of other services outside the program components that affect cost efficiency and competitiveness; (5) considering the problems encountered and other factors that contributed difficulties on the implementation of the UPSUS Program seriously; and (6) applying more consultative and participatory approach involving the key stakeholders in all aspects of the program implementation.

Rangga D. Yofa. Comparison and Determinants of Cropping Pattern and Technical Efficiency of Corn Farming in Dryland: Patanas Data 2008 and 2017



One of the goals of agricultural development is to improve the welfare of farmers. One measure of welfare is the level of income of farmers. Efforts to increase farmers' income in the dry land agroecosystem face challenges in the form of limited

land tenure. Also, the level of productivity achieved by farmers is still below its potential level. Farmers face this challenge while maximizing their farm income by managing cropping patterns and increasing the farm's technical efficiency.

The general objective of this study is to analyze farmers' decisions in determining cropping patterns and changes in the technical efficiency of corn farming in dryland agroecosystem. This research is divided into two sections. The first section discusses the factors that influence farmers' decisions in determining cropping patterns. The second section discusses changes in corn farming's technical efficiency in dryland agroecosystem and the factors that influence it. The research results from the two sections are synthesized in the synthesis and policy implications section. The data used is panel data sourced from the Panel Petani Nasional (Patanas), the Indonesian Center for Agricultural Socio Economics and Policy Studies (ICASEPS), Ministry of Agriculture. Panel data is unbalanced in the two years of observation (2008 and 2017). The number of observations in the first section is 305, while in the second section, it is 252.

The first section results show that there are four cropping patterns applied by farmers: corn–fallow–fallow, corn–food crops–fallow, vegetable–corn–vegetable, and corn–corn– fallow. Based on the estimated average marginal effect of the random effect multinomial logit (remlogit) model, it is known that the volatility of water availability and the level of education of household heads have a significant effect on all types of cropping patterns. With an average area of less than half a hectare and the majority of farmers are landowners, the highest level of income is obtained from vegetable-cornvegetable cropping patterns.

In the second section, the estimation results of the Cobb-Douglass production function with the time-varying decay model show that land area, amount of seed, amount of nitrogen fertilizer, plant medicine costs, labor, land type, and planting season have a significant effect on corn production. A positive and significant etha (η) value indicates a significant increase in technical efficiency between 2008 and 2017, which increased from 67.12% in 2008 to 74.12% in 2017. The random-effects Tobit estimation results show that the factors that have a positive and significant effect on improving technical efficiency are the age of the head of the family, the length of formal education of the head of the family, the share of corn farm income to total household income, and the status of land ownership.

The synthesis results of the first and second sections show that corn farming has not been efficient in all types of cropping patterns in 2008. With positive and significant changes in η , corn farming was categorized as efficient in 2017 in all types of cropping patterns. The highest average value of technical efficiency was achieved by farmers who applied the corncorn-fallow cropping pattern (75.94%). In comparison, the lowest was achieved by farmers who applied a vegetable-cornvegetable cropping pattern (65.98%). Efforts to increase farmers' income through increased technical efficiency of corn farming can be made on the corn-corn-fallow and cornfallow-fallow cropping patterns. Simultaneously, efforts on the other two types of cropping can also be made by increasing the technical efficiency of food crops or vegetable commodities. Increased technical efficiency of corn farming in the corncorn-fallow cropping scheme has increased income by 13.91% and in the corn-fallow-fallow cropping pattern by 21.61%.

The policy implications of this research are: (1) to be able to increase income by increasing the use of the growing season in dryland agroecosystem, it is necessary to use water efficiently. It is also advisable for extension workers to provide understanding to farmers regarding commodity selection in accordance with climate conditions; (2) improvement of technical efficiency can be made by increasing the technical skills and managerial capacity of farmers. Increasing corn production can be done by increasing the land area and expanding the adoption of hybrid corn seed technology.



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Correspondence Address: Cimanggu Agricultural Innovation Area, Jalan Tentara Pelajar No. 3B, Bogor 16114, Indonesia, Ph. +62-251-8333964, Fax. +62-251-8314496 E-mail: publikasi psekp@yahoo.co.id, Website: http://pse.litbang.pertanian.go.id