

Edufarmers

Impact Report
2022



# Message from Our Board



Amidst the 2020 pandemic outbreak, agriculture has been proven to be one of the most resilient and positive sectors with the third largest contribution to Indonesia's Gross Domestic Product (GDP) in 2022 of 12.4%. We perceive this output as an opportunity to be more optimistic towards agriculture despite the uncertainty and threat of recession that may occur in 2023.

Even so, despite the optimism in the national agricultural sector, there are also numerous challenges to be addressed. Food security, for instance, is an important topic that needs immediate attention due to the threat of climate change. International conflicts between countries pose challenges in the production and distribution of several main commodities. Also, regeneration crisis for farmers. Aside from these challenges, there is a necessity to transform food production systems to be more sustainable to help increase food security, calorie adequacy, and protein.

By carrying out the transformation that lean towards agricultural program since 2021, the Edu Farmers International Foundation strive to support the Nation's agricultural and farming sectors through continuous education and training to farmers and youths, conduct research to increase agricultural productivity, as well as create a synergistic agricultural ecosystem. This impact report presents the foundation's achievements from the establishment years until recent accomplishment in 2022.

As one of our flagship programs, Bertani Untuk Negeri (Farming for The Nation) program has entered its fifth cycle at the end of 2022 by successfully mentored more than 500 youths and 1200 farmers from across Indonesia and help to support their knowledge, productivity, and livelihood. Thanks to the support of our various partners such as the Ministry of Agriculture, Ministry of Education, Culture, Research and Technology, as well as private parties, local and international philanthropic institutions, we can keep on improving the quality and scope of our programs to reach more youth and farmers, types of commodities, and impacts. In the fourth quarter of 2022, we received funding support from Google.org to increase training and research capacity, develop videos and online learning modules that will be accessible for everyone, and strengthen the agricultural holding national-level ecosystem by а conference on technological innovation in agriculture and food security.

We hope that the Impact Report 2022 may provide new insights, facts, and inspirations to our partners and stakeholders in the effort of bettering the livelihood of farmers and youth in Indonesia as we remain committed to improving the quality and impact of our programs. Lastly, we would like to convey our utmost gratitude to all our partners and hope that we will address challenges in the agricultural sector, together.

### Irvan Kolonas

# Message from Our CEO



The Edu Farmers International (Edufarmers) Foundation have a mission to enhance the livelihoods of farmers, create a practical pool of R&D and knowledge accessible for all, and build agriculture leaders of the future. Therefore, our specifically crafted program is hoped to be sustainable, inclusive, resilient, able to be replicated, and subsequently encourage the improvement of small farmers' welfare across Indonesia.

As our flagship program, the Bertani Untuk Negeri (BUN) offers opportunities to students in the Agriculture major throughout the Nation to be able to serve as well as gain experience out on the field by training smallholder farmers for about 4 months. Through this program, the students are expected to develop their knowledge and skills, while farmers improved in productivity and income.

Year-on-year, the BUN program continues to increase. In 2022, we have executed the fourth and fifth batch participated by 332 students and 641 farmer partners. The number of commodities taught also increased, with maize and horticulture joins the broiler and layer poultries that we have implemented since the previous years. Aside of activities, the quality of the program is also improved with refined training materials and modules.

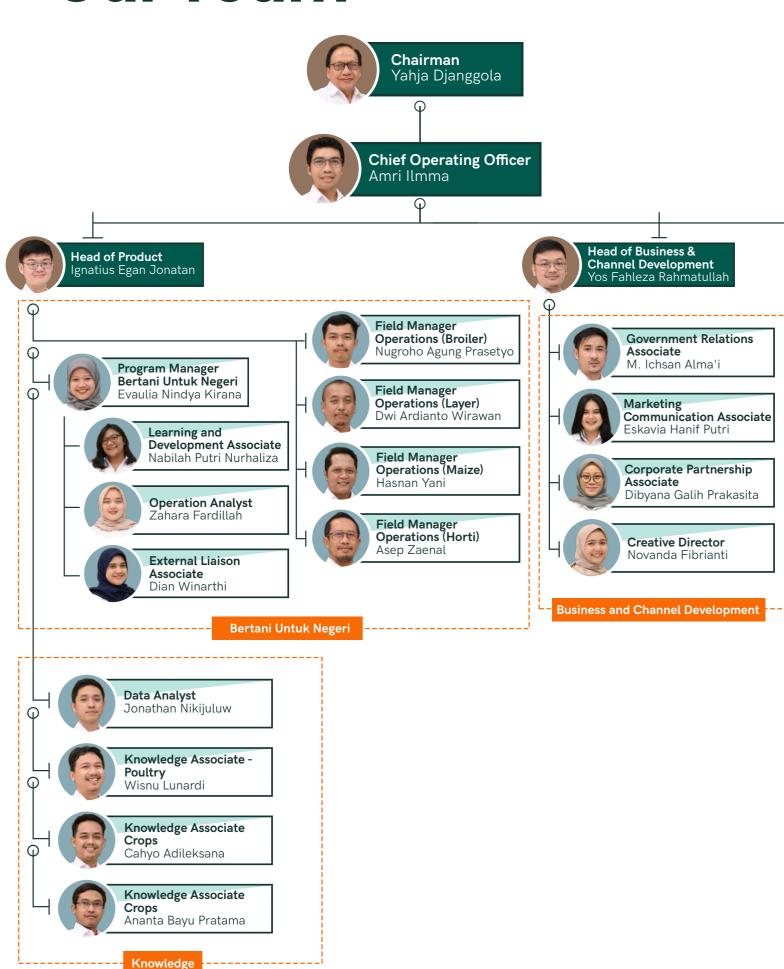
Maintaining of what we have achieved in the previous impact report, Edufarmers will remain committed to improve the livelihood of farmers and youths in promoting capacity development programs, learning module on agriculture and livestock farming, good agricultural practices, and developing data-based platform that transparently showcasing our efforts.

Therefore, allow me to proudly present the Edufarmers Impact Report 2022. Along with this report, we would like to express our sincere gratitude to all partners and stakeholders for their contribution in supporting the programs and initiatives and for us to be able share the strategy and purposes of the development effectively. This report also showcases our commitment to support the community in addressing issues on climate changes, stunting, and food security.

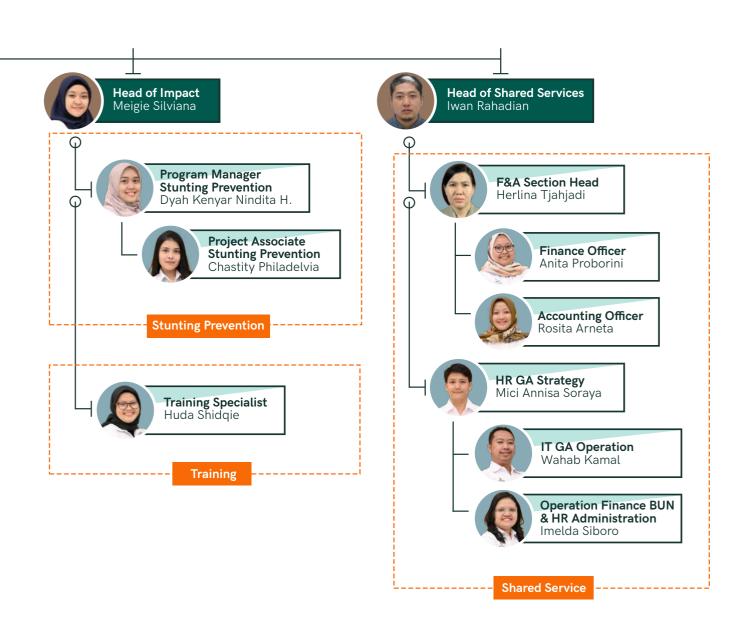
In the end, may we all have the strength and opportunity to take part in the advancement of sustainable agricultural sector in the future.

Yahja Djanggola

# **Our Team**







# Vision Mission

# About **Edufarmers**

Edu Farmers International Foundation is a nonprofit organization established in 2015 to accelerate the development of Indonesian farmers and youths. We are committed to make an impact in the agricultural sector.

The agriculture sector is playing an essential role in improving the national economy. However, people tend to overlook agricultural issues in Indonesia. Indonesian farmers face more formidable challenges, such as difficult access to agricultural resources, technology and market, climate change and natural disaster, pests and plant diseases, to limited knowledge and skills of the farmers.

Enhancing Indonesian agriculture through sustainable education and training

Our **Visions** 

# Our **Missions**

- 1. We enhance the livelihoods of farmers
- 2. We create a practical pool of R&D and knowledge that others can draw from
- 3. We build the agriculture leaders of the future

# Our Core Values



# **Integrity**

The ability to act consistent according to the values of organization, community, and code of ethics (professional/business ethics) even in tough times. [Professionalism]



# Mentorship

The ability to conduct self/other/team development, including capacity building/lifelong learning. [Develop self and others]



# **Persistence**

Result-oriented with the ability to learn, understand and execute the work above the standard determined by the organization, including self-development initiative. [Grit to achieve something].



# **Adaptability**

The ability to adapt in a different situation or culture with various individuals or groups, while still execute effectively. [Innovation & problem solving]



# Collaboration

The ability to create synergy and cooperation inside, outside and between team to achieve the shared purposes. [Teamwork]

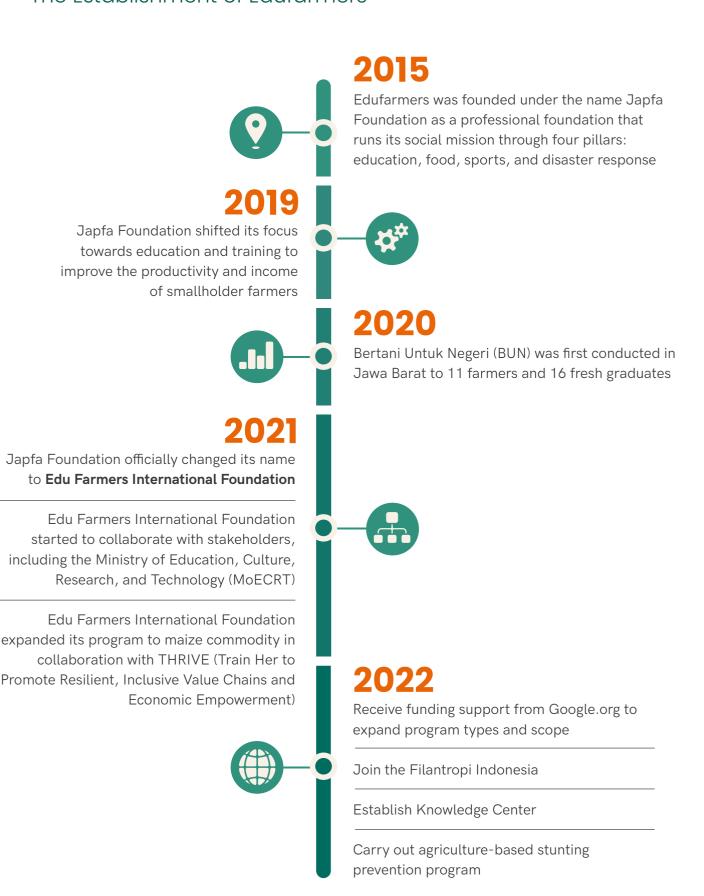


# **Technical Excellent**

The ability to execute specific work with comprehensive technical excellence. [hard & soft skills, conceptual, and people management]

# Milestone

# The Establishment of Edufarmers



# Achievement Impact













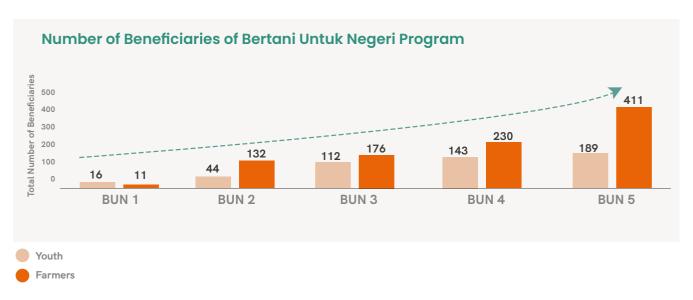








# Track Record of Bertani Untuk Negeri Program





# **Program Background**

According to the 2022 Global Food Security Index, Indonesia is ranked 63th out of 113 countries surveyed, lower than her neighbors; Singapore, Malaysia, China, and Vietnam. This index measures a country's food security based on several indicators: food affordability, availability, quality and safety, and sustainability and adaptation.

One of the most important indicators that Edu Farmers Foundation focuses on is food affordability and availability, which leads to the problem of agricultural productivity. Indonesia's most important crops, rice, had only productivity of USD 8.84 per person-day, lower than other agricultural countries such as Thailand (USD 62.52 per person-day), Vietnam (USD 49.13 per person-day), China (USD 20.86 per person-day), and Philippines (USD 10.53 per person-day)<sup>1</sup>. There are several factors causing this phenomenon: lack of access to extension services, lack of access to agricultural technology, education, and resources, etc.

It is becoming increasingly difficult for the Indonesian agriculture sector to find new talents to be future leaders in the sector. More and more youths turn away from agriculture, as it is perceived as an "old" or "dirty" sector. It is also not uncommon to see youths learning agronomy or animal husbandry turning away from the sector, working in different sectors instead. This leads to an increasing median age of farmers in Indonesia as regeneration of farmers does not happen properly.

In an endeavor to address these issues, we made the decision to introduce the Bertani Untuk Negeri program in September 2020. Under this program, young people or known as Farmers Development Associate (FDA) will receive training to serve as agricultural extension officers for farmers, enabling transfer of knowledge and technology for them to learn, innovate, and adopt better farming practices that will increase their productivity and livelihood.

Since the program launch in 2020, we have conducted five batches of Bertani Untuk Negeri programs encompassing four different commodities in different locations:

Batch	Commodities	Location	Number of youths participated	Number of farmers participated
1	Broiler chicken	West Java	16	11
2	Broiler chicken	Banten, West Java, East Java	44	132
3	Broiler chicken	East Java	112	176
4	Broiler chicken, layer chicken, horticulture	West Java, Central Java, East Java	143	230
5	Broiler chicken, layer chicken, horticulture, maize	Banten, West Java, Central Java, East Java, Central Sulawesi	189	411

Going forward in 2023, we will continue to expand the scope and the scale of Bertani Untuk Negeri program to reach more youths and more farmers in different commodities and locations.

<sup>&</sup>lt;sup>1</sup> P. F. Moya et al., "Costs of rice production," in Competitiveness of Philippine rice in Asia, ed. F. Bordey et al. (Nueva Ecija, Philippines: Philippine Rice Research Institute, 2016)

# Goals of Bertani Untuk Negeri Program

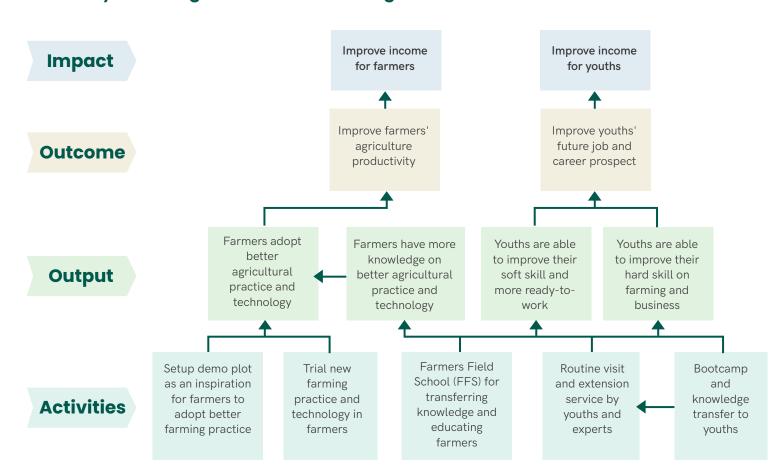
- Smallholder farmers are able to improve their livelihood and farming productivity through adoption of better agricultural practice and technology.
- Youths are able to improve their hard skills and soft skills through working with farmers, improving their readiness-to-work in agriculture sector.
- Youths are able to cultivate passion for agriculture, inspiring them to work in the agriculture sector as entrepreneurs, professionals or leaders in the future.

# **Theory of Change**

Our ultimate impact that we wish to achieve through Bertani Untuk Negeri program is improvement in income. The impact is two-sided: one is for farmers, the other is for youths. We believe that farming productivity matters a lot for farmers to achieve as farm outputs could be increased with same or less input. Relevant and up-to-date dissemination of farming knowledge and technology, as well as adoption of that knowledge and technology tailored to their farm is the key to unlock better farming productivity.

Meanwhile, on youths' side, we believe that better jobs or careers that require more complex and higher capability is the key for youths to achieve their better potential version of themselves while improving their income. As the prerequisite, youths need basic and necessary hard skills and soft skills for professional work: self-regulation, problem solving and critical thinking, communication, empathy, resilience, etc.

# Theory of Change - Bertani Untuk Negeri



# **Program Design**

Every batch of Bertani Untuk Negeri implementation requires youths and smallholder farmers participating in the program to work intensively together for 5 months. There are 2 major program phases that happen during Bertani Untuk Negeri program:

## 1. Bootcamp and training to youths

During the first month of the programs, youths are trained mainly in 3 areas: farming technical skills, business acumen, and soft skills. Training is either done in-person through active and adult learning methods where facilitators encourage youth to learn through activities, discussion, or study case, or through off-site learning (mainly for farming technical skills) by visiting and studying directly in farms, facilitated by industry experts. Bootcamp is meant to prepare youths to be able to perform their role well during Productivity Project later.



### 2. Productivity Project

Starting from the second month onwards, youths are challenged to change farmers' belief and mindset about farming and push farmers to adopt better farming practices and technology. Several activities that will be done by youths associated with Productivity Project are:

- Perform a comprehensive analysis on the technical and business side of farmers' farm management to find out the productivity gap and its root cause.
- Facilitate farmers' learning bi-weekly using demo plot and Farmers Field School methodology where farmers are going to see the result of a good farming practice with their own eyes and be explained about the farming practices applied.
- Work together with farmers to do a trial of the farming practices in a specific area or population to see the traction before adopting the practices farm-wide.
- Do a routine visit (at least once a week) to farmers' farms to build rapport, monitor implementation process, discuss with farmers to ensure the productivity target is achieved.



# **Contribution to SDGs**

The United Nations' 17 Sustainable Development Goals (SDGs) address major global challenges. We understand the importance of tackling these challenges and make sure that our actions are aligned with the SDGs



# SDG No. 2: Zero Hunger

# **Indicators**

- [2.3] By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists, and fishers, including through secure and equal access to land, other productive resources, and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- [2.4] By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters, and that progressively improve land and soil quality

# **Our Intervention**

- We prepare demo plot with optimal farming practices applied to inspire farmers to adopt the practices in demo plot into their farms.
- We conduct Farmer Field Schools for knowledge transfer on better farming practice and technology adoption.
- We conduct trials together with farmers in the small piece of their plot to prove the result of the farming practices.
- We provide routine visit and agriculture extension service for smallholder farmers (through youths and experts) to discuss and tailor the application of practices in their farms.





# SDG No. 4: Quality Education

### **Indicators**

• [4.4] By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship



# SDG No. 8: Decent Work and Economic Growth

## **Indicators**

- [8.5] By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
- [8.6] By 2020, substantially reduce the proportion of youth not in employment, education, or training

# **Our Intervention**

- We train youths (new graduates or students) in both technical skills and soft skills that is crucial for workplace or entrepreneurship.
- We provide opportunities for youths to apply their knowledge and skills to solve real-world problems and drive real changes by working with farmers to improve farmers' adoption of good agricultural practices and increase farmers' productivity.



# **Impact Measurement Methodology**

We use Kirkpatrick's evaluation model as a framework to measure our impact on the reaction, knowledge, behavior change, and impact for both youths and farmers. We collect baseline data before any intervention is made, and then compare it with the endline data collected after intervention is made to check progress that has been made throughout the program using predefined impact metrics.

# 1) Impact on Youth

No.	Ability	Description	Benchmark
1	Program Rating	Level of satisfaction of beneficiaries on BUN program quality	Self assessment by beneficiaries using the Likert scale from 1-7
2	Net Promoter Score (NPS)	Level of satisfaction and loyality of beneficiaries obtained from the level of their eagerness to recommend others to join BUN program	Self assessment by beneficiaries using the Likert scale from 1-10
3	Knowledge	Level of understanding and ability of beneficiaries to implement technical expert knowledge to solve problems	Study cases examination
4	Soft Skills Adoption	Level of individual behaviour and soft skills adoption at work according to the standard expected to be developed during BUN program	Assessment by mentor to beneficiaries using the Likert scale from 1-7 for every behavioral aspect

# 2) Impact on Farmers

No.	Ability	Description	Benchmark
1	Program Rating	Level of satisfaction of beneficiaries on BUN program quality	Self assessment by beneficiaries using the Likert scale from 1-7
2	Net Promoter Score (NPS)	Level of satisfaction and loyality of beneficiaries obtained from the level of their eagerness to recommend others to join BUN program	Self assessment by beneficiaries using the Likert scale from 1-10
3	Knowledge	Level of understanding of beneficiaries on good farming techniques and business management according to the standard	Multiple choice examination

4	SOP Adoption	Level of Adoption of good farming techniques and business management according to the standard in beneficiaries' farming business	Assessment by field mentor of the beneficiaries
5	Improvement Rate	Percentage of farmers' productivity increase after the BUN program	Calculation of farming business productivity before and after the BUN program
6	Productivity- Broiler Chicken	Increase in productivity for successful broiler farmer after the BUN program	Comparison of Productivity Index (PI) in broiler business before and at the end of the BUN Program
7	Productivity - Layer Chicken	Increase in productivity for successful layer farmer after the BUN program	Comparison of composite index from Hen Day (HD) and Feed Conversion Ratio (FCR) in layer business before and at the end of the BUN Program



# Bertani Untuk Negeri 4 Program

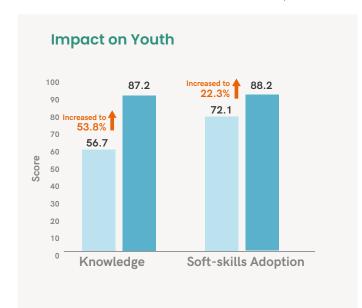
**Period**: February 2022 - August 2022

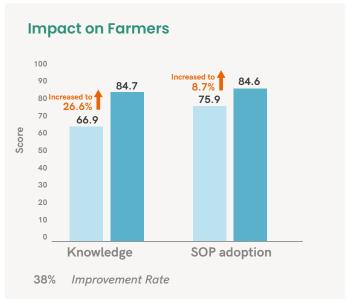
Commodities: Broiler chicken, layer chicken, horticulture

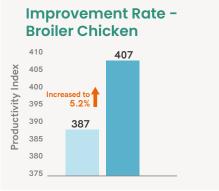
**Location**: West Java, Central Java, East Java

Partners: Internship and Independent Study Program (MSIB), MoECST, PT Ciomas Adisatwa,

Rabo Foundation, PT Japfa Comfeed Indonesia Tbk

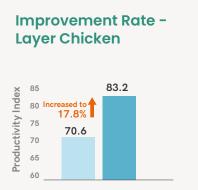






### **Broiler Chicken Productivity:**

The increase in productivity experienced by successful broiler chicken farmers in the post BUN program and calculated based on the comparison of the Productivity Index (PI) in broiler chicken farming before and after the BUN program



# Layer Chicken Productivity:

The increase in productivity experienced by successful layer chicken farmers in the post BUN program and calculated based on the composite index from Hen Day (HD) and Feed Conversion Ratio (FCR) in layer chicken farming between the beginning and end of the BUN program





Program Rating Youth 91.5 (out of 100) 230
Total Farmers

Program Rating Farmer

89.6
(out of 100)

\*Impact on productivity for horticulture commodities has yet to be measured during the presentation period of Impact Report 2022

### What's New in Bertani Untuk Negeri Batch 4:

- There are two additional commodities in Bertani Untuk Negeri Batch 4: layer and horticulture.
- BUN Program for layer was carried out in Blitar and Tulungagung Provinces, East Java in collaboration with Rabo Foundation and PT Japfa Comfeed Indonesia Tbk to mentor smallholder layer farmers.
- BUN Program for horticulture was carried out in Cianjur Province, West Java to mentor smallholder vegetable farmers.











# Bertani Untuk Negeri 5 Program

Period : August 2022 - December 2022

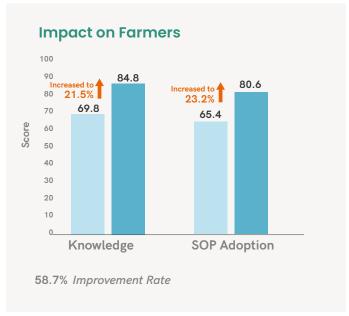
**Commodities**: Broiler chicken, layer chicken, horticulture, maize

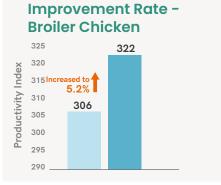
Location : Banten, West Java, Central Java, East Java, Central Sulawesi

Partner : Internship and Independent Study Program (MSIB), MoECST, PT Pitik Digital Indonesia

PT Japfa Comfeed Indonesia Tbk

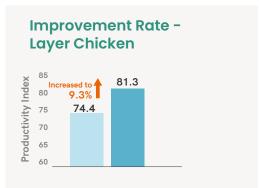






## Broiler Chicken Productivity:

The increase in productivity experienced by successful broiler chicken farmers in the post BUN program and calculated based on the comparison of the Productivity Index (PI) in broiler chicken farming before and after the BUN program



### Layer Chicken Productivity:

The increase in productivity experienced by successful layer chicken farmers in the post BUN program and calculated based on the composite index from Hen Day (HD) and Feed Conversion Ratio (FCR) in layer chicken farming between the beginning and end of the BUN program





Program Rating Youth 86.2 (out of 100)



Program Rating Farmers
95.7
(out of 100)

\*Impact on productivity for maize and horticulture commodities has yet to be measured during the presentation period of Impact Report 2022

### What's New in Bertani Untuk Negeri Batch 5:

- Bertani Untuk Negeri Batch 5 program added maize commodities carried out in Sigi and Donggala Provinces, Central Sulawesi.
- Adjustment to program scale and total beneficiaries for all commodities was carried out during BUN program Batch 5.
- BUN broiler commodities establish partnership for the first time with PT Pitik Digital Indonesia in addition to PT Ciomas Adisatwa.
- Edu Farmers International Foundation remains committed to enhance the quality and methodology of training and mentoring provided, both for the youths and farmers to create a massive and sustainable impact.



# **Impact Stories**

# **BUN Batch 4 Testimonials - Farmers Development Associate**



### **Broiler Chicken**



I can develop my individual knowledge, skills, and character thanks to Edufarmers' Bertani Untuk Negeri Program. Effective learning system through bootcamp and farm experience helps me in solving problems to achieve the desired Target Index Performance during the productivity project at partner farms. Through Farmers Field School, farmers can carry out the improvement initiatives as intended.

Zhafira Fauziyyah L. (Universitas Brawijaya)



## **Layer Chicken**



As a fresh graduate, it is truly a valuable opportunity to take part in the BUN Batch 4 Layer program. This program allows me to experience field work, theory explanation with direct practices, and obtain knowledge from seniors and farmers. This program also helps me to get to know myself better, expand my network, and get acquinted with the others.

Lufi Diah Pratiwi (IPB University)



### **Horticulture**



I would like to say a massive thank you to Edufarmers for creating the BUN Batch 4 Horticulture program. This program gives me a remarkable opportunity as an agribusiness student to develop my self potential, improve my experience in cultivation, and obtain various insights that I did not get during my college year. I also met a lot of new friends and families. The BUN Batch 4 Horticulture program gives me vast knowledge on farming, from field sanitation to post-harvest management. I am grateful to be able to meet kind and awesome people during the activities.

Siti Kholifah (Universitas Brawijaya)

# **BUN Batch 5 Testimonials - Farmers Development Associate**



### **Broiler Chicken**



My name is Arnia Nofitri from Universitas Andalas, would like to thank Edufarmers International Foundation for organizing the Bertani Untuk Negeri program. This program allows me to directly experience onsite field work and acknowledge the twist and turn of the farmers at the field. As a participant of BUN Batch 5 broiler, I gain a lot of lessons and experience from preparing and providing the material to sharing it to the farmers. For that, I am proud to be in this program.

Arnia Nofitri (Universitas Andalas)



### **Layer Chicken**



I am honored and delighted to be able to participate as one of the FDA in Bertani Untuk Negeri Batch 5. During this program, I gain a lot of insight and experience from great farmers and seniors who are experts in poultry farming. There are so many things that I've been able to do now. Most importantly, I can expand my network with so many great people, get a new family, and improve my quality to be much better. I got a lot of great things here and I certainly won't be able to get them anywhere else.

Mellyana Ari Maharani (Universitas Brawijaya)



### Horticulture



I'm proud to be part of Bertani Untuk Negeri Batch 5 Horticulture program because it is a valuable experience especially for us students. This program allows me to improve my potential, gain insights and new experience that bring me together with great personnel who fortunately become my new family. Being in a new environment and new community also give me the opportunity to flourish. Thank you, BUN Batch 5.

Ishak (Universitas Muslim Indonesia)



### Maize



Bertani Untuk Negeri Program allows me to improve myself and explore a lot of new things. I gain both hard skills and soft skills which I didn't get at college. I do enjoy every moment in this program from interacting with farmers, conducting field work, and many other things. I felt that after this program, I became more responsible and mature than before.

Yosima Veronika (Universitas Bengkulu)

# **Farmers Testimonials**





It's been very helpful. The FDA facilitate and support us with the maize cultivation process. This activity gives me knowledge on how to conduct good fertilization practices and pest control. I also know how to create a proper spacing now. The theory and material presented by the FDA is very helpful and complimentary to the experience that we got.

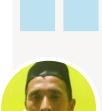
Aminudin (Maize farmer)





This program gives us a place to share our thoughts and insights on broiler. And for that, I would like to say thank you. What's more, some of the initiatives also helped us to improve our performance back at farm. Kudos for Bertani Untuk Negeri!

Kadim (Broiler chicken farmer)



The support and mentoring I get from the FDA students is a pleasant one. With their help, I know how to implement a proper maize cultivation practice and be aware of maize diseases such as downy mildew, stem rot, and tobacco cutworm pest. We also understand how to choose suitable pest control measures for maize pests and diseases, how to practice appropriate fertilization according to the 5T standard and create bokashi. The FDA gives us the support we need and easy to cooperate.

Herianto (Maize farmer)





BUN Batch 5 Program really helps us farmers because the students directly involve with us at farm to see the actual condition and exchange information on agriculture. This program also helps us farmers to find ideas and solution when facing issues onsite.

Dede (Horticulture farmer)





I'm feeling grateful to be part of the Bertani Untuk Negeri program. The FDA really helps us a lot from providing the estimated IP, offering solutions to the issues at the cage, improving SOPs and proper maintenance management, enhancing livestock knowledge from field schools, and discussing cage problems with mentors, PPL and MM. I can also upgrade the cage thanks to this program. With the increasing knowledge of farmers to productivity, it will eventually increase our income.

Kamsur (Broiler chicken farmer)





This program really helped me and add to my insight regarding the importance of maintaining hygiene in within the cage area. The fast response from FDA to help us find the right solution when a priblem occurs gave me a peace of mind. Thank you, BUN program. I hope that this program will be much more successful to promote farms in Indonesia.

Imam Makrus (Layer chicken farmer)



# **Background and Program Description**

Referring to Presidential Regulation (Perpres) No. 72 of 2021, the national strategy to accelerate the reduction of stunting is carried out to materialize a healthy, intelligent, and productive human resources, as well as achieving sustainable development goals. This strategy aims to reduce the prevalence of stunting, one of which is to ensure the fulfillment of nutritional intake and improve parenting. Based on SSGI 2022 data, around 21.6% (4.7 million children under five) in Indonesia experience malnutrition and are categorized as stunting. In other words, 1 in 5 toddlers in Indonesia experience malnutrition in the long term.

Therefore, the Edu Farmers International Foundation was called upon to develop a stunting management program based on nutrition and agriculture. Since September 2022, we have run a stunting management program called Santosa untuk Anak Nusantara (SAN). The program has been implemented in 3 locations namely Malang Regency, Maros Regency, and Cirebon City. As of the end of 2022, the SAN has succeeded in reducing the stunting prevalence rate of beneficiaries by 17.9% and the prevalence rate of underweight by 23.2%.

The SAN program is implemented by providing subsidized eggs with Rp1,000 per egg for beneficiaries to be able to consume one egg per day for 6 months (one day one egg). The activities we carry out in this program include collecting and validating stunted toddler data, conducting dissemination to local stakeholders, providing eggs from farmers, sending eggs to the locations, monitoring the development of children's weight (BB) and height (TB), monitoring the children's egg consumption, conducting workshops on nutrition and health, and evaluating the process and impact at the end of the program.

# **Objectives**

The Santosa untuk Anak Nusantara program is carried out with the objectives below:

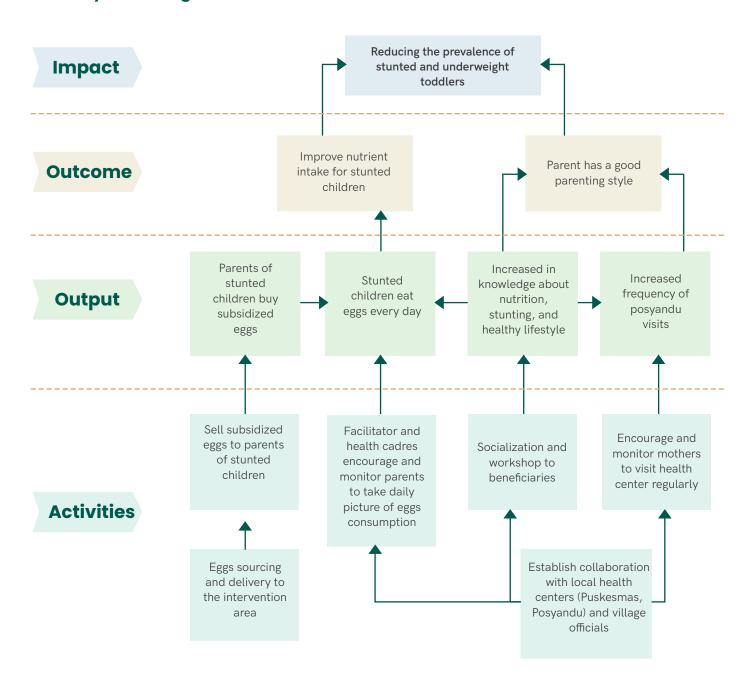
- 1. Reducing the prevalence of stunted and underweight children in the program locations.
- 2. Improving animal protein and micronutrient intake on toddlers.
- 3. Increasing parents' knowledge and awareness of good parenting, and the importance of animal protein for toddlers' growth and development.



# **Theory of Change**

The Santosa untuk Anak Nusantara program aims to reduce the prevalence of stunting and underweight through a one egg consumption per day (one day one egg) campaign. We offer eggs at subsidized prices to beneficiaries to increase their access to animal protein sources at affordable prices, especially for families with stunted children under 2 years old. In addition, this program also provides education on the importance of balanced nutritional intake and good parenting for the growth and development of toddlers as well as how to cook eggs that are healthy and hygienic so that it is expected to increase public health understanding and practice. We also carry out periodic monitoring of children's weight (BB) and height (TB) growth with the Integrated Healthcare Center cadres.

# Theory of Change - Santosa untuk Anak Nusantara













# **Impact to SDGs**

The United Nation's 17 Sustainable Development Goals (SDGs) address major global challenges. We understand the importance of tackling these challenges and make sure that our actions are align with the SDGs.



# SDG No. 2: Zero Hunger

### **Indicators**

• [2.2] By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons.

## **Our Intervention**

- We strive to fulfill the nutritional needs for toddlers and providing proteins at an affordable price.
- We provide access to nutritious food for toddlers.



# SDG No. 3: Good Health and Well Being

### **Indicators**

• [3.2] By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

# **Our Intervention**

- We strive to fulfill the needs of animal protein which is essential to create immune system in toddlers.
- We conduct monthly monitoring to supervise toddlers' growth.



# SDG No. 4: Quality Education

## **Indicators**

 [4.2.1] Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, by sex.

## **Our Intervention**

- We provide knowledge on child development according to the age of toddlers.
- We provide knowledge to the parents' beneficiaries on the importance of animal proteins for toddlers.
- We give creative menu recipes in preparing eggbased dishes so that children don't get bored easily.

# **Impact Stories Beneficiaries**

# Testimoni Program SAN Periode 1



# **Malang Regency**

The egg subsidy program is truly helpful for us because at first, my son didn't want to eat rice and egg. Now, my son loves it! Thanks to this program. Also, after participating this program for a while, my son's weight and height are better. He's been more active day by day.

Mrs. Hanifah and Irsyad Pasha (17 months)



### **Maros Regency**

Alhamdulillah, my daughter gains more weight and height after participating this program. It happens slowly but I can see the difference now. She's used to eat eggs now. Whether it's for lunch or dinner, she wants it with egg.

Mrs. Nurhikmah and Nur Aisyah (24 months)



# **Cirebon City**

I was glad to be in this program. I hesitate to join, at first. I don't have any money. Luckily, the cadre explain it to me the benefit of the program. I made up my mind and join this program, bismillah, I can afford it. Alhamdulillah, I can afford the program for these three months. The cadre even assist me to pay. Now, my son keeps asking when he'll have the egg if he haven't had it yet. My only challenge in participating this program is only financial issue. I sometimes keep the eggs save in the laundry so that my older children won't eat it.

Mrs. Silviana and Reiki Savian (55 months)



# **Initiatives Background**

To achieve the Foundation's long-term vision and mission, the role of research development and knowledge is crucial to establish the basic expertise of Edufarmers in increasing the productivity of farmers they foster and to disseminate Edufarmers expertise to the public so that the impact provided can reach more people.

The activities conducted by Edufarmers related to this initiative are as follow:

- Research and Development
  - Conduct experiements on research field for farming practices, production inputs, and technology that can increase agricultural productivity.
- · Knowledge Management
  - Collect knowledge and information from all programs and activities carried out by Edufarmers and prepare a set of practical knowledge to be used to increase agricultural productivity.
- Knowledge Dissemination
  - Prepare documents, media, and video summary of practical knowledge that has been prepared by Edufarmers to be disseminated to the public.

# Research and Knowledge Development in 2022



Research on farm management implementation for broiler farmer

Partner : PT Pitik Digital Indonesia (Pitik)

Together with Pitik, Edufarmers has conducted research to understand the farm management app to find out what broiler farmers need and to encourage the farmers in using the app.

Farm management app is the first step in digitalization and precision farming. Results that we found onsite are as follows:

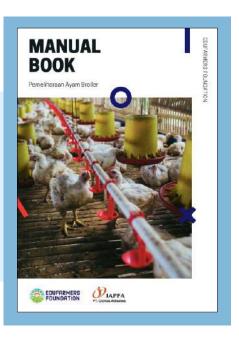
- Farm management is very helpful for farmers to be able to know their farm's current condition, without even needing to be there.
- Sustainable education is essential to improve the adoption of technology and digitalization of farmers.





#### Preparation of broiler farming module

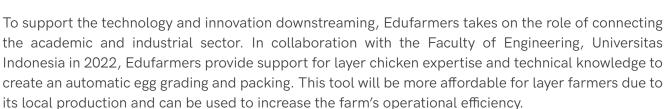
In 2022, Edufarmers has developed a manual book on broiler farming technique to support good production results. This module has been used internally for Bertani Untuk Negeri Program and will be published for the public.



### 2 Layer Chicken

#### Development of automatic egg grading and packing machine, MELARIS

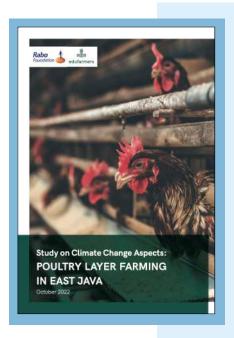
**Partner**: Faculty of Engineering, Universitas Indonesia



#### Research on climate change impact to layer farms

Partner : Rabo Foundation





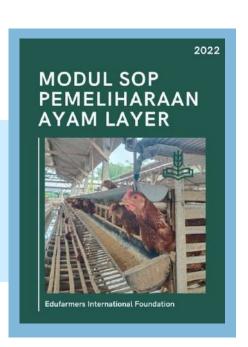
Given the increasingly high rate of climate change and global warming, Edufarmers together with Rabo Foundation conducted joint research to examine how layer farms are affected by and have an impact on global warming.

Several findings of this research are as follows:

- Farmers are aware of the global warming impact on their farms, but not aware of their farm's contribution to the climate change.
- Farmers' adaptation to climate change is still lacking even though they realize it may reduce egg production rates.
- The main contributing factor for layer farms to climate change comes from the use of inefficient feed and improper manure management.

#### Preparation of layer farming module

In 2022, Edufarmers has developed a manual book on layer farming technique to support good production results. This module has been used internally for Bertani Untuk Negeri Program and will be published for the public.



#### 3 Maize

Edufarmers' research on the increase of hybrid maize productivity has been conducted since June 2022. As of today, Edufarmers has two research fields located in Donggala, Central Sulawesi and Mojokerto, East Java. Below are the lists of ongoing research conducted by Edufarmers:

No.	Research Title	Location	Time	Result
1	Response of maize growth and result to the combination of mycorrhiza and NPK fertilizer in Sigi Regency.	Bobo Village, West Dolo District, Sigi Regency, Central Sulawesi	14 June 2022 - 14 October 2022	Application of mycorrhiza (AMF) potentially increase the growth and result of maize. It takes 2-3 growing seasons to validate the consistency of AMF's performance in supporting the growth and production of maize.
2	Drone spraying effectiveness testing on maize plantations to control weed growth.	Kemantren Village, Gedeg District, Mojokerto Regency, East Java	3 November 2022 - present	Manual spraying is much more effective to control weed compared to drone spraying.
3	Effect of various fertilizers and ZPT addition to plants and maize crops in Donggala Regency.	BPP Simou, Labuan District, Donggala Regency, Central Sulawesi	January – April 2023 (ongoing)	N/A

4	Effect of rice husk as	BPP Simou,	January – April	N/A
	mulch to weed population	Labuan District,	2023 (ongoing)	
	on maize fields in	Donggala		
	Donggala Regency	Regency,		
		Central		
		Sulawesi		

### 4 Chili

Edufarmers' research on the increase of chili productivity has been conducted since June 2022. Currently, Edufarmers has a chili research field in Cianjur, West Java. Below are the lists of ongoing research conducted by Edufarmers:

No.	Research Title	Location	Time	Result
1	Response of red chili (capsicum annum l) growth and result (capsicum annum l) to the implementation of Trichoderma.	CDK IV Farm, Pacet District, Cianjur Regency, West Java	14 June 2022 - 14 September 2022	The right dose of trichoderma may increase crop growth up to 10%. The optimal implementation of Trichoderma to produce red chili with maximum weight (78,75 gram) should be about 10,77kg/ha.
2	Effect of fertigation and fertilizing dose levels to chili growth and crops in Cianjur	CDK IV Farm, Pacet District, Cianjur Regency, West Java	December 2022 - April 2023 (ongoing)	N/A
3	Effect of fertilizing levels to chili growth and crops.	CDK IV Farm, Pacet District, Cianjur Regency, West Java	December 2022 - April 2023 (ongoing)	N/A
4	Magnewish and Biosilac fertilizers mix utilization test to red chili growth and crops.	CDK IV Farm, Pacet District, Cianjur Regency, West Java	December 2022 - April 2023 (ongoing)	N/A
5	Response of red chili growth and result using monitored greenhouse system.	SMKN 1 Pacet, Cianjur Regency, West Java	January - May 2023 (ongoing)	N/A

# 5 Paddy

Edufarmers' research on the increase of rice productivity has just started in October 2022 in Ngawi, East Java. Below are the lists of ongoing research conducted by Edufarmers:

No.	Research Title	Location	Time	Result
1	Comparation of Ciherang inbred variant and Intani 602 & Sembara 188 hybrid variant to rice growth and crops in Ngawi regency.	Beran Village, Ngawi District, Ngawi Regency, Central Java	19 Oktober 2022 – present	Hybrid variant provides a better morphological performance compared to the inbred. Also, resilience of hybrid plants against grass stunt disease and bacterial leaf blight is better.

<sup>\*)</sup> All research results can be retrieved through www.edufarmers.com/modules or <u>click here</u>



# Training of Trainers (TOT) Ibu Hebat Project THRIVE

Period : January 2022 - April 2022

Program Partner : Grow Asia, PRISMA,

Corteva Agriscience







### **About the Program**

As the continuation of the 2021 THRIVE (Training Her to Promote Resilient, Inclusive Value Chains and Economic Empowerment) project, Edufarmers was appointed once again as a partner to create a video-on-demand (VOD) on financial management, farming business marketing and organize a Training of Trainers for the marketing team from Corteva to prepare them to give training to participants. Corteva's marketing team is expected to actively provide training to participants to amplify the impact of the THRIVE program. After the program, the team should monitor and evaluate based on the initial condition of the participants before the training, as well as assess their knowledge and behaviour.

# **Impact**

30 TOT training participants

The average satisfaction level of participants

(scale 1-5)

The knowledge level on financial literacy

**\$17.91**<sup>%</sup>

increased from 52.56% to 70.47%



# **Bridge to the Future**

Period: May 2022

Program Partner : PLAN International Indonesia

**Foundation** 





# **About the Program**

Edufarmers join forces with Plan International Indonesia Foundation to organize career planning and development to provide more impact to youths participated in the Bertani Untuk Negeri program by developing their soft skills. Some of the topics brought in this training including self-potential management, communication skills, gender equality and labor rights, job application preparation and interview tests.

# **Impact**

143 youth participants



# Agriculture Development in Mokndoma, Papua

Period : April 2022 - present (Ongoing program)
Program partner : Yayasan Pendidikan Harapan Papua (YPHP)
Location : Mokndoma Village, Puncak Jaya Regency,

**Central Papua** 



### **About the Program**

Pendidikan Harapan Papua Foundation requests assistance from Edufarmers to become consultants for agricultural and livestock development in Mokndoma Village, Puncak Jaya Regency, Central Papua. Isolated in the mountains of Papua, Mokndoma Village is still very much cultural, and customs based and access to the location is only via light aircrafts.

With limited access to logistics for farming and livestock businesses from outside the area, Edufarmers designed farming and poultry farming based on local ingredients to push food ingredients diversification and protein sufficiency, especially for children in the village. Through this program, there were 33 households and more than 200 people participating in the agricultural development program with 13 types of vegetables in total.

# **Impact**

200 beneficiaries from Mokndoma Village



# Agriculture Development in di Kei Besar, Maluku

Period : September 2022 - present

Program partner : Dokter Peduli Foundation (DoctorSHARE)
Location : Kei Besar Island, Southeast Maluku, Maluku



# **About the Program**

The Dokter Peduli Foundation (DoctorSHARE) request assistance to Edufarmers to fulfill the needs of protein for the people of Kei Besar Island to prevent stunting. This time, the location is a bit remote even though it can be reached by both land and sea.

Kei Besar possesses an abundant of marine resources with lots of fish as a good source for protein. However, non-coastal community has difficulties in accessing the resources due to logistic access and lack of economic resources. Hence, Edufarmers trains non-coastal communities to be able to farm productively by utilizing existing local materials to support their livelihood and be able to buy meat and ultimately avoid stunting.

### **Impact**

50 farmers in Kei Besar participate in training and mentoring





#### **Fairatmos**

Period : June 2022 - June 2023 (Ongoing program)
Program partner : Fairatmos and Dinas Kehutanan Jawa Barat

Location : West Java Provincial Forestry Service



# **About the Program**

Together with Fairatmos and the West Java Provincial Forestry Service, Edufarmers organize an agroforestry tree planting program above a 75-hectares forest area within the West Java Provincial Forestry Service. This program is an agroforestry program implemented by the community to increase carbon sequestration in the area. In addition to carbon sequestration, the program is expected to improve livelihoods of the beneficiaries through additional income from carbon credits and yield production, as well as improving the quality of their ecosystems.







Symbolical Agroforestry tree planting presentation with Fairatmos together with the Deputy Governor of West Java, Mr. H. Uu Ruzhanul Ulum, S.E. and Head of West Java Provincial Forestry Service, Mr. Dodit Ardian Pancapang, ST, M.Sc

#### **Indonesia Power**

Period : 1 September 2022 Program partner : PT Indonesia Power

Location : Lontar Village, Tangerang Regency, Banten



### **About the Program**

PT Indonesia Power join forces with Edufarmers to organize butternut squash cultivation training to more than 20 members of farmers' groups in Lontar Village, Tangerang Regency, Banten. This training serves as PT Indonesia Power's efforts to improve farming skills of their farmers' groups and to improve the quality of butternut squash that they produced. The training was conducted for one day by an expert from Edufarmers with several topics discussed from the introduction to butternut squash to cultivation techniques (land preparation/planting medium, sowing, planting, nurturing, and harvesting).

### **Impact**

20 members of farmers association of PT Indonesia Power participated in the training.

Increase in knowledge of farmer partners from 54.57% to

71.43%



# Google.org

Period: 22 November 2022-31 January 2025

(ongoing program)

Program partner : Google.org

Location : Jakarta, Indonesia



# **About the Program**

Google.org provides support to the Edu Farmers International Foundation through four main pillars, namely:

- Amplify the impact resulted from the Bertani Untuk Negeri (BUN) program by reaching more beneficiaries; 1,400 youths and 5,600 farmers who participated in trainings during the 2023-2024 period and organize the Training of Trainers (ToT) to 16 Non-Governmental Organizations (NGOs) and selected local governments. Through hybrid (online and offline combination) ToT training that empowers local institutions using educational videos, EduFarmers hope that the impact resulted will be more sustainable and reachable to many more farmers who don't get the opportunity to participate directly in the Bertani Untuk Negeri program from Edufarmers.
- Conduct more research and development efforts in the agriculture to optimize farmers productivity and income through superior cultivation management implementation trials, effectiveness test of various agricultural inputs such as fertilizers, seeds, and other agricultural production inputs, as well as making demo plots. Edufarmers also use the latest technologies such as drones, digital farming platforms and Internet of Things (IoT) tools to support the development of more efficient and sustainable agriculture. Edufarmers' focus is on three priority commodities, namely rice, maize, and chili. With this strategy, Edufarmers hopes to provide a formula that can increase agricultural productivity, maintain environmental sustainability, and improve the welfare of farmers in various regions in Indonesia.



- Develop an online training consists of agricultural videos and modules easily accessible by anyone, anytime and anywhere and free of charge. The training themes cover agriculture and animal husbandry management, agribusiness, and various soft skills needed by those who wants to become a farmer, rancher, or entrepreneur in agriculture. We will cooperate various groups from millennial farmers, activists, and the agricultural community to ensure that our training meets the needs of the agrarian community in Indonesia and ensures that the training content can be widely disseminated. Through this initiative, we hope to help increase the knowledge and skills of more than 200,000 youth, farmers, and people in the agricultural sector while support the development of productive and sustainable agriculture in Indonesia.
- Organize the Annual Agrinnovation Conference in 2023-2024. The Agrinnovation Conference is a national-level conference that aims to increase public awareness and highlights the importance of the agricultural sector in safeguarding the national food security system, displaying the latest innovations and developments in agricultural technology, to establishing collaboration between stakeholders in the agricultural sector. This conference will be attended by various groups, from the government, companies and state-owned enterprises related to the agricultural sector, investors, and venture capital companies (VC), agricultural start-ups, universities, farmers, and the public who wish to contribute to the development of Indonesia's agricultural sector.





# **Our Partners**

in 2022

# **University**



Universitas **Pattimura** 



Universitas Tadulako



Universitas Indonesia



Universitas Padjajaran



Universitas Gadjah Mada



Universitas Diponegoro

#### Government









Pemerintah Daerah Provinsi Jawa Barat



Kementerian Pertanian

# Non-Governmental Organization and **International Organization**





Rabo Foundation













#### **Private Sector**













# Our Next Goals

Constant research development to increase agricultural products

To improve the quality of programs and assistance to farmers, Edufarmers will try and experiment with more innovative and new farming and livestock farming practices to increase agricultural productivity at a lower cost. Experiments will focus on testing production tools and inputs, maintenance, utilizing machines and technology for rice, maize, and chili commodities to further increase productivity.

More research collaboration and cooperation with university, research institute, and private party

Edufarmers is open to collaboration with various parties from universities, research institute, foundation, and companies to support research and experiments carried out to be more astute and innovative. In 2023, Edufarmers will launch a research collaboration program with universities in the form of research internship programs and research grants.

Amplify the impact by increasing collaboration with partners and the government

In the process, Edufarmers aims to provide the widest possible impact and to innovate in their own programs and joint program with partners and the government.

Improve the quality of counseling to farmers during the Bertani Untuk Negeri program

Apart from educational materials and mentoring, Edufarmers is also committed to continuously developing quality methods and ways of assisting farmers so that they have an open mind and encourage the adoption of new cultivation practices and technologies as efficient as possible.

#### Broaden the scale and scope of the Bertani Untuk Negeri program

In 2023, Edufarmers will increase the number of beneficiaries (youth and farmers) in each batch and increase the scope of commodities for coffee and cocoa. The development is done while also maintaining, even lowering the cost per beneficiary of the Bertani Untuk Negeri program.

# Establish cooperation with fundraising platform, private sector, and the government to prevent stunting through the Santosa untuk Anak Nusantara program

Establish cooperation with fundraising platforms, the private sector, and the government to get full support to align with the national goals and strategies to increase the number of beneficiaries.

# Develop digital platform to monitor the impact in preventing stunting through the Santosa untuk Anak Nusantara program

The development of digital impact monitoring is expected to be able to support changes in people's behavior to a better direction, for instance, developing new habits to consume animal protein (eggs) every day, monitoring the development of children's weight and height every month.

# Assist to expand the ecosystem in the agricultural sector by holding the Agritech Conference

In the following years, Edufarmers strives to become an open foundation and provide opportunities for all key players in the agricultural sector to join forces in building connections (connect), provide inspiration and motivation (inspire) to youths and people from different backgrounds interested in working on the agricultural sector (empower) in the Agritech Conference with a greater impact and number of participants.

# Develop an online platform for accessible agricultural learning system with support from Google.org

To reach more beneficiaries, Edu Farmers International is supported by Google.org to develop an online platform for agricultural learning that is accessible to the community and is free of charge.

# Financial Information

For 12 months period ending on December 31, 2022 (in IDR)

Income and Donation	2022	2021
DONATION	9.145.400.000	7.536.000.000
LONG TERM INVESTMENT	2.799.760.000	-
OTHER DONATION	3.882.692.822	305.713.160
OTHER INCOME	14.854.089	441.512
TOTAL DONATION AND OTHER INCOME	15.842.706.911	7.842.154.672
TOTAL OTHER INCOME AND OTHER DONATION	15.842.706.911	7.842.154.672
PROGRAM		
EDUCATION QUALITY IMPROVEMENT	349.599.574	120. 586.487
BERTANI UNTUK NEGERI	4.225.883.572	1.415.758.393
THRIVE-GROWASIA	100.558.818	217.947.571
AGRICULTURE DEVELOPMENT RESEARCH	723.870.847	-
STUNTING	219.355.755	-
ADMINISTRATIVE EXPENSES		
PERSONNEL	5.927.185.721	3.490.346.325
OFFICE ADMIN	151.575.015	67.757.251
BANK CHARGES	2.641.500	2.126.000
DEPRECIATION	128.414.639	83.164.467
OPERATION SUPPORT	337.217.100	859.573.760
MAINTENANCE AND REPAIR	526.685.915	587.016.947
TAXES	761.202.032	448.743.790
TOTAL EXPENSES	13.454.190.488	7.293.020.991
TOTAL EXPENSES AND LOSS	13.454.190.488	7.293.020.991
INCREASE/DECREASE NET ASSETS	2.388.516.423	549.133.681
NET ASSETS AT THE BEGINNING OF YEAR	2.796.921.285	2.247.787.604
NET ASSETS AT CURRENT MONTH	5.185.437.708	2.796.921.285



You can reach us at admin@edufarmers.org to discuss further our potential collaborations!

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