

# Engaging with Academia and Research Institutions (ARIs) to support Family Farmers and Food System Transformation During and Post COVID-19 Pandemic in Asia



*With technical assistance from the FAO Regional Office for Asia and the Pacific*

# Smoked Salted Egg Small Industry With Permaculture Concept In Slorok Village, Doko District, Blitar Regency, Indonesia

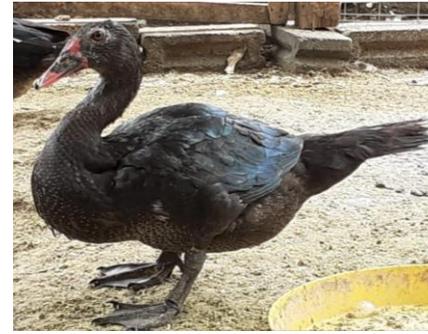
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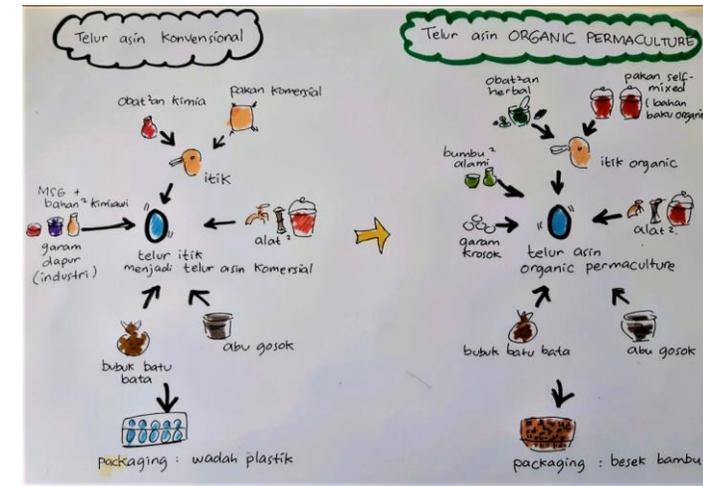


# Introduction



- Agriculture as a main sector in Indonesia
- The main problem with the agribusiness system during the Covid-19 pandemic
  1. the hindered distribution process
  2. the decline in people's purchasing power due to the crisis.
- Duck farming potential in Indonesia
- The duck farming in Slorok Village, Doko, Blitar is very potential. As many as 58,880 tons of duck eggs were recorded in 2020 (Blitar Regency BPS, 2020).
- This condition makes Doko District a potential producer of processed duck egg products.
- The activity was the empowerment of rural communities from food sufficiency and economic stimulation through the concept of Permaculture

- The great potential of Slorok Village that can be developed and become a source of community income is the development of laying duck farming through the concept of Permaculture, which supports self-sufficiency.
- The basic principles of Permaculture are:
  1. All elements in a system interact with each other,
  2. Multifunction: each element fulfills many functions, and several elements perform each function,
  3. Uses energy practically and efficiently with renewable energy,
  4. Utilizing natural resources,
  5. Intensive systems in small areas,
  6. Utilizing and shaping natural processes and cycles,
  7. Supporting and using edge effects (creating highly productive small scale), and
  8. Non-monocultural diversity (Holzer, 2001).



- About the program:

- An effort is needed to increase product durability during the distribution process and provide affordable processed food at affordable prices.
- The program is intended to add value to salted eggs that are already familiar to the community.
- The method of processing duck eggs into smoked salted eggs to increase shelf life solves logistical problems constrained by social distancing. The applied permaculture aspects provide opportunities for optimal use of local natural resources and human resources.



# Program Description

## Location

- This Community Service activity carried out by Community and Livestock Studies Research Group was from April to August 2021 in Slorok Village, Doko District, Blitar.
- **Duration:** The program started on April 2021 and is still running today



## Stakeholders involved:

1. Institute for Research and Community Service, Brawijaya University
2. Community and Livestock Studies Research Group, Brawijaya University
3. Community Service Program Team of Brawijaya University chaired by Siti Azizah with four members: Irfan H. Djunaidi, and Achadiah Rachmawati (Faculty of Animal Science), Ema Yunita Titisari (Faculty of Architectural Engineering), and Mas Ayu Ambayoen (Faculty of Agriculture).
4. Village government (village head)
5. Blitar District Livestock and Fishery Service
6. Duck farmers and Slorok Village community members

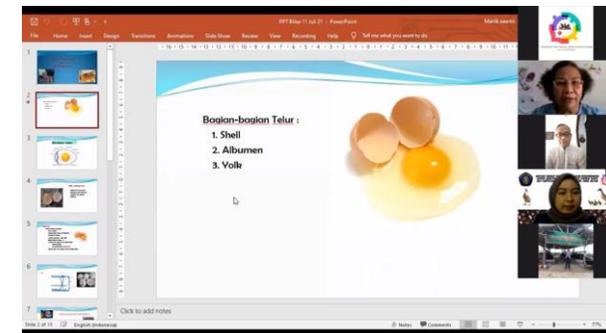


# Program Implementation



- **In the first stage**, a preliminary survey was conducted face-to-face and online since the team conducted an extension on duck feeding in 2020. At this stage, many qualitative and quantitative data were collected to get to know community leaders, community components involved, and village potentials and problems. The data also includes the management of the Mojosari duck business carried out by farmers who are expected to adopt organic feed to increase the value of the eggs produced in the future.
- The Permaculture concept was chosen to develop the area's potential in Slorok Village because all the materials used in producing are available without bringing in from outside the area.
- Based on the problem and the potential of the village data, a group of Smoked Salted Egg Small and Medium Industries (UKM) was formed.
- The salted egg business management group consists of several elements of the community, namely laying duck breeders, woman group members, youth, and village officials.

- **The second stage** is coordinating the necessary extension materials with the village head, head of livestock group, core breeders, and community groups called the academic community that organizes non-formal farmer education.
- Based on the coordination results, it was agreed that there are three materials from the extension: organic duck feed, understanding of organic salted egg centers, various ways of making salted eggs, analysis of salted egg business, and digital marketing. The extension's target is to build awareness of community component representatives about the importance of adding value to their livestock business products.
- After the group was formed, training was carried out in two ways: offline or face-to-face training using the Covid 19 health protocol and online training via Zoom. This training recording can be accessed via the CLSRG youtube channel



<https://www.youtube.com/watch?v=VVWDGXQ1yFw>

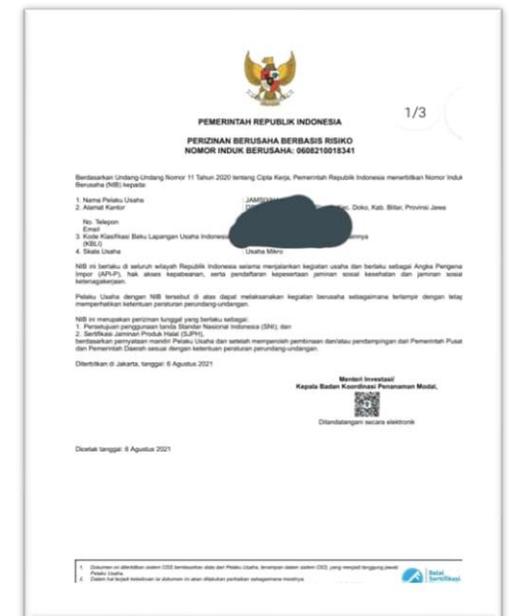
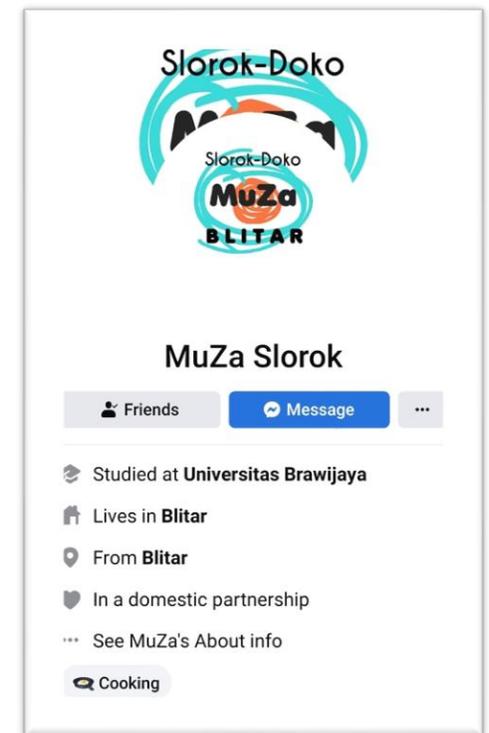
- **The third stage** is filled with sending students to dig deeper into the technical aspects of the village as a supporter of this program.
- The data collected are community elements classified into innovator categories, zoning of village areas according to potential, locations of main points for processing, and marketing salted eggs.
- Information on community members included in the "helpless" category was also explored, such as youth dropping out of school, women, and the unemployed. It is hoped that this effort can benefit all levels of society, and there will be no more women who become women workforce abroad at this time.



- **The fourth stage** is the assistance of tools and technology needed to develop a salted egg center.
- In the concept of Permaculture, tools and technology must be obtained from the local area as much as possible, energy-efficient, and free of waste. All equipment and technology are selected carefully.
- The packaging also involves local bamboo artisans so that it is easy to recycle, reuse, and reduce. The use of bamboo basket containers aims to avoid generating waste.
- Another reason for choosing this bamboo container is because it is unique and revives bamboo crafts in Slorok Village, which undegradable plastic containers have replaced.



- This online marketing account is also made to promote and reach as many consumers as possible. This online promotion is expected to help sales during the Covid 19 pandemic.
- As a form of obeying the law, registration of NIB (Business Permit Number) is also carried out. Business Identification Number (NIB) is the identity of business actors in the context of business activities according to their business fields.
- NIB is important to provide guarantees for halal products to consumers. Manufacturers also get approval for the use of the Indonesian National Standard (SNI) for their products.



- **The fifth stage** is salted egg training, which involves all elements of society included in the list of innovators. This training involves elements of women, youth, and informal community institutions.
- At the coordination before the program, it was agreed that the organic salted egg program would be carried out in stages according to the capabilities of natural resources and human resources, but given an increase in value by smoking the salted eggs produced.
- Making salted eggs is done by curing salted eggs for 7-10 days with rubbing ash and salt. Smoking is done using a salted egg smoking machine using coconut shells as fuel. This process is carried out for 8 to 12 hours. Salted egg smoking has several advantages: smoke components are antiseptic and antibacterial substances



- **The sixth stage** is the evaluation and monitoring process, which is continuously carried out to discover four changes from the KASA aspect (knowledge, attitude, skill, and aspiration).
- Conclusions drawn from the program are that the application of the permaculture program cannot be done quickly but takes time according to community conditions.
- The most important thing is the community's acceptance of social, economic, and environmental changes resulting from the program being delivered.
- So far, the team can sell five hundred smoked salted eggs per week. This micro-industry has been proven to increase farmers' and team members' income.



# Lesson learned

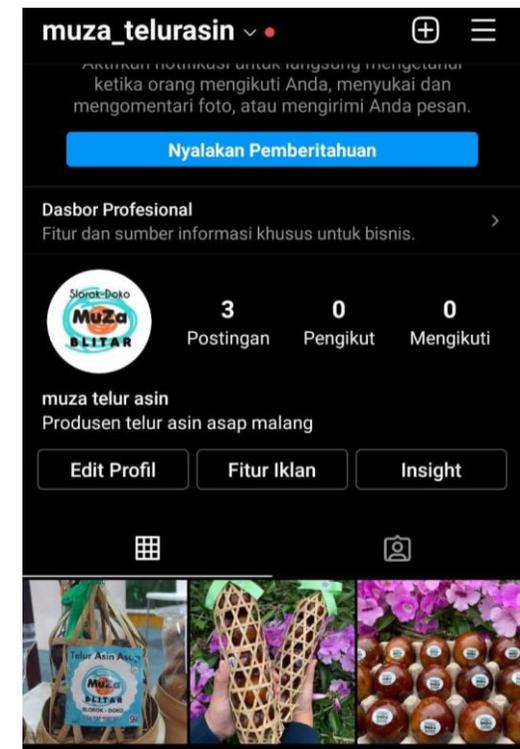
**Challenges, main problems have not been fully resolved in this program:**

- 1. High transportation cost.** High shipping costs between cities and islands hinder the expansion of marketing even though demand is relatively high.
- 2. Quality Control.** Maintaining quality and standards is difficult because of the low level of awareness of the production team. The production team prioritizes quantity over quality. Currently, product quality improvement is being carried out to attract consumers again due to an error in the previous production process which led to several complaints
- 3. Packaging.** Delivery between cities and islands is also experiencing problems due to poor handling of transportation services.
- 4. The internal social conflict.** The emergence of internal disputes between the village head and community members who feel not involved in the smoked, salted egg micro business program.
- 5. Financial problem.** Additional capital is needed to ensure the availability of products

## Successes

The smoked salted egg business has provided the following benefits:

1. Provide job opportunities for women and people with disabilities
2. Absorb the production of duck eggs, which are sold at fluctuating prices
3. Provide an entrepreneurial mindset
4. Attract the attention of the government and banks (Bank Indonesia)
5. Provide knowledge and skills to farmers and the community







Thankyou

- <https://www.youtube.com/watch?v=q4xDs-uf41g>
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