

## The life of the institutional forest-farming community to reserve the forest properly with the agroforestry concept (Studi in the Balesari Village – Malang Regency)

Sonny Leksono<sup>1,\*</sup>, Mohammad Rosyidi<sup>1</sup>, and Rita Alfin<sup>2</sup>

<sup>1</sup>Wisnuwardhana University Malang, Indonesia

<sup>2</sup>STIE Gempol Pasuruan, Indonesia

\*Corresponding author: [leksono.sonny@gmail.com](mailto:leksono.sonny@gmail.com)

### KEYWORDS

Institutional  
Abuse of Power  
Agroforestry  
Welfare

**ABSTRACT** A classic environmental phenomenon afflicts communities around mountainous forests in Indonesia. Needs institutional management to achieve a prosperous life based on environmental conservation took place in the people as inhabitants hold a potential risk, bearer subject of 'deforestation and degradation or, in contrast, acts as a conservation agent of 'reforestation and revitalization' in the capacity of forestry landfill. This non-positivistic qualitative study revealed the unique actions of "institutional and agroforestry" actors. The approach takes a paradigm that places forest communities as the research subjects. These main subjects feel and then deal directly with all forestry problems regarding deforestation and land degradation. Those forest people who live and depend on forests need attention and social justice. The research process includes tracking history, organization, and interaction between or among the groups of forest farmers in their institutions. The authentic findings of this study are: It needs a real activity, norms and ethics for the business process. So it can foster a synergy of positive externality values in maintaining the traditional forest conservation rules. Furthermore, developing them suits the concept of agroforestry as productive farming in a sustainable environment and adaptive to the character of the forest's natural behaviour.

© The Author(s) 2023

### 1. INTRODUCTION

In 2021, the Directorate of Inventory and Monitoring of Forest Resources, Director General of Forestry Planning and Environmental Management, Ministry of Environment and Forestry noted that net deforestation in Indonesia in 2019-2020 was 115.5 thousand hectares/ha (inside and outside forest areas) (Harmadji et al., 2022). Inside the forest area is 67.0 thousand ha (58.0%), and outside the forest area for Other Use Areas (APL) is 48.5 thousand ha (42.0%). Deforestation in Indonesia has become a major contributor to climate change in the world, and the impact of deforestation has created a serious risk for all forms of life, from the socioeconomic life of the local forest community to the national and international levels.

From various studies on forest institutions, what stands out so much are reports of bad experiences resulting from deviations from institutional governance; there is a misuse of institutional meaning and anomaly in the application of institutional cooperation to stakeholders & institutions holding forest authority as well as the death of marwah & institutional functions, especially those experienced by Forest Farmers Groups (KTH) and or Forest Village Community Institutions (LMDH). LMDH Wonosari as the indigenous people of Gunung Kawi in the Wonosari Forest Area of Malang Regency, whose formation was facilitated by the local Village Head and initiated by the Regency KPH

Forestry Perum in a formal juridical manner applying the principles of a transparent partnership program through a cooperation agreement (PKS) to run the Community Forest Management Program (PHBM) and complying with coordinating cooperation agreements in the management and preservation of forest sustainability in order to reduce deforestation and forest land degradation. However, in practice, there have been forest logging activities by Perum Kehutanan without the coordination & knowledge of LMDH and the Regional/Regency Government of Malang. Manager of Public Housing Forestry KPH Malang Hengki Herwanto said, "Forestry is only an operator. The regulation is in the central government" (Harmadji et al., 2022). Whereas the principle of implementing joint management is far from successful, in reality, "PKS for this partnership program is still in the process stage". Meanwhile, the land was bald, and a flood washed away logs and pieces of forest wood. The reality that shows the ongoing legitimacy of deforestation and land degradation and emits such a strong aroma is that there is a moral hazard of institutions and not good institutions of governance and abuse of power.

Humans, as environmental managers, bear endogenous power towards forest sustainability. Like a double-edged knife, on the one hand, their actions can play a strong role in forest conservation or reforestation and land upgrading. However, on the other hand, their strength of action can also be a trigger for deforestation and land degrada-

dation. In ecology, there are actions, attitudes, views and behaviours at the poles of ecocentrism or vice versa; at other poles, there are behaviours that are more influenced by anthropocentrism (Soemarwoto, 2004).

Anthropocentrism is a view that addresses that nature was created for the benefit of humans. Its perspective is exploitative, so nature is treated as a resource that can be consumed as much as possible. In the case of the natural resource objects, mean are the forests. Anthropocentrism results in resource depletion and damage to the functioning of the forest ecosystem with all its biogeophysical derivatives (e.g., soil, water, flora and fauna, as well as the humans living around it). It also means that it is the event of deforestation and land degradation. Meanwhile, ecocentrism is an insight that places value on maintaining environmental sustainability and quality.

## 2. LITERATURE REVIEW

From many perspectives, the understanding of the term institutional is an entity that functions as a knitting network of activities and behaviour patterns that consciously comply with ethics and norms. It follows unwritten rules and written rules that take place in a particular environment or community, as well as the substance of meaning narrated by several experts, including; North (1990); Koentjaraningrat (1998). Institutional manifestations that are intangible can be exemplified, for example, "policy", "economic mechanism", "rules of the game", "ethics of collective behaviour", "social norms", and "unwritten agreement of collective behaviour". The basic idea of developing an institutional approach is to respond to various market/transaction failures that the conventional economy has so far used. The institutional economics approach, both the old institutional economics school, pioneered by Thorstein Bunde Veblen and the new institutional economics school developed by Ronald H. Coase and Douglass C. North - reject the assumptions developed by Classical/Neo-classical economics as well as Keynesian/Neo-Keynesian economics which have so far been wrong and have caused market failures. It is just that the difference between the two is that the new institutional school of knowledge introduces the existence of formal institutions [business entities, organizations, companies & governance], but are still the same, namely, put forward main attention to the characteristics of actions, patterns and manners of behaviour, proper manners, the correct manner of business, the goodness and appropriateness of ethics and norms of business conduct. The institutional meaning focuses more on mechanisms of kinds or styles or activities in a social group or business or non-business organization, pointing to the breath of movement in the life of formal and non-formal organizations. Institutions more precisely refer to their work functions and not the structure of their work, meaning that they place more emphasis on the application of the habit of carrying out unwritten rules (ethics & norms) as well as the operationalization of written legal rules.

When the Institution is formalized as a legal entity organization with a formal way of working, the form of the entity becomes formally structured, such as an association, corporation, company, government structure or, for example, a cooperative, among other things, a kind of foundation/foundation. So if what is meant by institutions that

are developed in a community, for example, for a forest farming community, is the Institution is a series of collective behaviour or ethics & norms and rules that become behaviour (habits) that fill the dynamics of life within the local forest community. It is not and is not biased towards the structure of its existence or is not reduced to the formalization of the existence of its container (organization). So that the appearance of the Institution is something of ethics, norms, customs of behaviour, and this situation is always non-formal/unwritten, then the Institution grows and is grown from the roots of aspiration processes, endogenous power processes and internal processes or local wisdom processes that live sustainably in an integrated manner. Continuously, Institutions are intended to live, grow and develop well; and are seen as a function of social capital; an institution is intended as a container for social learning while working (learning by doing). Institutions require a means of working together and cooperating (working together and cooperating) in a continuous/sustainable manner that is harmonious, balanced and synergistic. In business and business activities (including in Forest Community Areas), institutions as social capital can substitute or complement limited financial resources and replace or complement limited technological resources.

In institutional economic theory, there is a theory of collective action introduced by (Olson, 2009) to unravel the problem of the existence of interest groups to take advantage of free and irresponsibly in an institutional environment known as free riders. The problem-solving indicated by this theory is cooperative solutions in managing a common resource or in the form of joint action on public goods/services. In the context of institutional phenomena in forest farmer groups, common resources are the life of forest area residents and their vegetation, water sources/springs, cool air, panoramic beauty, land carrying capacity, and environmental safety. Normatively what Olson means by joint action includes 3 (three) characteristic points, namely;

- a. The scale or degree of measure of common action (size).
- b. Uniformity, similarity or homogeneity of joint action, (homogeneity)
- c. Commitment to group goals (purpose of the group)

There is already much evidence showing that the theory of collective action has strong stability and is effective when applied in the field, especially for solving problems that intersect with the utilization of common property resources, such as forest natural resources, water sources/springs, rivers, roads, parks, trees, and various kinds of public facilities / public facilities. However, apart from this theory, in the experience of other institutional events, there is also an efficient resolution of resource problems through local institutional arrangements and conventional customary traditions. Referring to Olson's theory, the stronger institutionalized collective action is based on the three characters mentioned above. The greater the existence of an interest group, the more difficult it will be for institutions/organizations to knit or unify the interests of each other or among all members of society/groups. Institutional integrity will melt when there is no prominence of interest groups in it. Thus, an institution will work when it is built on a small group scale. With

the same intention, suppose, for example, a Forest Farmers Group (KTH) consists of many people. Then, to make its performance effective, it needs to be divided into several groups, which can be simplified according to several specifications, including equality/uniformity for; farming commodities produced, gender, post-harvest management & marketing.

In line with the characteristics of diversity, the more diverse the diversity of the interests of member contained in a group/organization, the more difficult it is for the Institution to be able to build collective interests or common interests, which are relatively difficult to materialize because each member will put forward his interests unless the individual interests of different members are creative. Also, innovation accelerates the achievement of collective interests. Thus, building homogeneity of interests will result in the ease of functioning of an institutional group, apart from the heterogeneity of interests that work as boosters for collective interests.

Furthermore, group goals are a guideline and driving instrument for each member to continue to work together and work together collectively within the Institution because achieving goals is part of the manifestation of motives and motivation to realize the hopes and desires as they aspire and group goals. Become the basic reason someone is willing to join in collective action in institutions. So the group's purpose must be measurable, clear and have certainty of benefits. Olson also put forward a postulation that the success of an institution with the specificity of collective action or joint action when and if the Institution can obtain profits whose value exceeds the entire production cost of the Institution (the entire production cost).

### 3. METHOD

#### 3.1 Research Methods

The research method uses a qualitative approach, a type of research whose findings are not obtained through statistical procedures or other calculation forms (Corbin, 2003). As a naturalistic inquiry or natural research, the research subjects are "institutional and agroforestry" actors, namely members & groups of farming communities who draw a source of livelihood in forest areas as risk bearers, contributors to 'deforestation/degradation' and or even vice versa as agents. Reforestation strengthens the carrying capacity of forestry land.

#### 3.2 Research Procedure

The data collected is open, open-ended, flexible and accommodating to changes, improvements, and improvements based on the facts as they are. The collection of data and information becomes flexible, free to explore problems both in extenso and intensity.

#### 3.3 Timeframe, Object and Location

Conducted from May to June 2022, the locus of this research is the environmental area around the Pine Industrial forest, Natural/Protected forest and mixed forest located on the slopes of Mount Kawi, the administrative area of Balesari Village, Ngajum District, Malang Regency, East Java. Research Object, Understanding Agroforestry Institutions for the Development of Agrosilvopastura [agricultural

crop-livestock – trees/forest business system] in Balesari Village Forest Area.

#### 3.4 Research Focus

Institutions as the breath of activities, norms and ethics of forest farming communities, in fostering positive external value synergies in agrosilvopastura businesses to maintain the traditional rules of forest preservation and develop them according to the concept of agroforestry, as productive farming in a sustainable living environment and adaptive to the natural behaviour characteristics of forests.

#### 3.5 Subjects / Informants

The subject, as well as the key informant of the main unit of analysis who can express the meaning of information from an emic perspective, is based on awareness of daily life, truly experiencing and experiencing the dynamics & romance of local agroforestry problems; namely, the actors and co-actors who have a central role in the problem object (historically, organization & interaction)

#### 3.6 Information and Data

Primary data and information sources were obtained through interviews, intersubjective communication, and observation. The results of observations in the field explored the interpretation and substance of its meaning through the confirmation of the directly involved actors (first-hand). Secondary data and information whose phenomena are obtained indirectly are also skinned by interpretation and substance of meaning through the confirmation of the actors who are directly involved (first-hand).

#### 3.7 Data Analysis Unit

The units of data and information in question are all statements put forward by the research subject, all observations whose meaning and meaning have been confirmed according to the research subject directly (without third-party intermediaries).

#### 3.8 Data Collection Unit

Researchers, as human instruments, collect data by placing themselves as part of or associated with research subjects who collect data through observation (observation); continuing with intersubjective interviews as a procedure to obtain information and data directly from first-hand sources, besides that interviews are one of the procedures to obtain clarification of the substantive meaning of data obtained from observations (Leksono, 2013).

#### 3.9 Data Analysis

By relying on inductive logic, which is determined by the depth of excavation, the breadth of data & information disclosure, along with the process of interpreting data & information in such a way, it will fulfil two interrelated situations, namely, based on an emic perspective, or the point of view of the subject of "agroforestry" with all the complexities of local behaviour that accompanies it; sourced from empirical reality, whether that reality is sensuous or non-sensuous (logic, ethical, or transcendent) reality.

### 3.10 Data Validity and Triangulation

The trustworthiness of data and information consists of four criteria, namely the degree of trust (credibility), transferability (transferability), dependability (dependability), and certainty (confirmability), pursued through an inductive-intersubjective process, in the subject of actors who represent economic meanings as well as social meanings and cultural meanings as well as legal meanings.

## 4. RESULT & DISCUSSION

### 4.1 Results

The efforts and example of a key figure can legitimize the development of productive, sustainable and adaptive institutional and agroforestry governance in Balesari Village. One of the role models, named Mr Sukin when questioned: According to Mr Sukin, How are the attitudes and behaviour of the people there towards sustainability, Sir?

And the answer;

It comes back to command. This society carries out orders. Now, under this command, where will they be taken? The people follow along, usually that. Yes, if the command is wrong, if we were taught to cutting down forests, then we will follow it, OK?... we will follow. If we conserve the forest, we improve the economy so that it runs well, that will also be involved, and the average farmer will.

Next question;

Some have asked the forest farmer group or KTH if there have been any that have been formed and have a name? or if the organization is still not formed or what? Keep moving?

Further answer;

Yesterday's organization, LMDH, has been considered disbanded, but its personnel are still there. If we worked on them, it would be very, very similar.....

Further questions by the researcher;

Wait a minute, Mr Sukin; LMDH is under the auspices of *Perhutani*. Does this mean under the auspices of forestry?

The answer came as further information;

As for LMDH, yes. It used to be under the auspices of *Perhutani*, so the government could not intervene in LMDH because of that factor. However, if KTH is under the auspices of forestry, then certain parties will also be able to participate.

The covid19 pandemic; has resulted in farm income declining considerably and having such a strong influence on the pressure on the environmental sustainability of the land; However, this troublesome economic condition has not made the forest land community act as a forest encroacher (not cutting down and selling forest wood), not expanding to open farming land in the middle of the forest. However, their choice is to sell the cows and goats they owned until the last ownership. To provide for daily

survival and diversification of garden plants, originally cultivated for elephant grass/kolonjono, replaced them with empon empon plants; ginger, turmeric, and galangal.

Are there any farms which come from local-community?

There used to be a lot, but due to being hit by CORONA yesterday, many were sold due to economic factors that were stagnant yesterday.

Approximately what percentage of people's breeders? Also, are the cows beef cattle, dairy cows, or milk cows?

Mostly beef cattle naturally eat natural foods.

Are they sold as beef cattle?

Not only beef cattle but also breeding cows but eating naturally instead of eating...(forgot to mention), the dung is also not sprayed with formalin, it is natural, the point is not.....the community is almost 100% natural.

Historically, farming has taken place accompanied by cattle and goat farming; the integration of the two farming & livestock businesses is known as agrosilvopastura, but in management, it is still traditionally taking place, yet to reach a professional cultivation pattern.

For example, can it develop if a pilot is developed there or encouraged to start using dairy cows?

The first environmentally friendly one is like goats. Both for cows and fattening cows, if it is called a dairy cow, there are many chemical substances that should not be used.

Whereas livestock business that is suitable for cultivation because it is easier, cheaper and can produce results every day is raising goats, and not raising cows as stated;

....." Goats are environmentally friendly, and 80% of the people agree, every day, there are results; milk, meat, and grass are utilized; ... the obstacle is that there is no coaching, no one directing and selling at the same time; ... I once attempted a breakthrough where there was a milk reservoir, but there were no supervisors and funders....."

The etawa Goats, whose milks are worthy, also suits Sir?

Any goats, naturally or chemically, are not at risk to the environment...

From the perspective of nature and environmental sustainability, farmer groups in this region are aware of 'ecocentrism' growing endogenously. However, they are still relatively vulnerable to declining socioeconomic conditions. Forest community groups in this area are financially limited in business capital but have quite a good potential for social capital. Social capital that can be invested as an institution is driven in a more real and directed way to become an economic resource and a resource for environmental preservation in forest areas as a green economy.

In Balesari Village, the cliffs naturally grow a lot of bamboo tree vegetation. Stems of various types of bamboo species petung bamboo (*Dendrocalamus asper*), apus

bamboo (*Gigantochloa apus*), Bali bamboo (*Gigantochloa ridleyi* Holtum), black/wulung bamboo (*Gigantochloa atroviolacea*). Described by the key informant Pak Sukin in his capacity as guardian of environmental sustainability in forest areas, who always tries to prevent destructive behaviour, he states:

It is actually for sale.... even though it has been tightened. Some need special handling because the average farmer, taking bamboo shoots is stealing in forest locations, so supervision needs to be a bit extra tight...

According to him;

If bamboo shoots are taken, the bamboo trees are automatically unhealthy. Again, it is the same if you compare it to a chicken; if the egg is fried, it will not give birth anymore.

Added explanation; ... is the logic, ma'am...

it is like an egg; the chicken lays five eggs and then boils four automatically; only one remains, and then growth is disrupted.

In the long term, this uncontrolled extraction will contribute significantly to surface erosion and the erosion of fertile soils. A more conservative approach is mitigation & institutionalized regulation in the form of a ban on taking young bamboo shoots, to then be managed with an "allowable cut" approach, where the felling of bamboo sticks is regulated while maintaining the presence of bamboo clumps that can prevent erosion until maturity. Subsequent cuts can maintain the sustainability of the local land.

.....from an economic perspective, it also has an impact because it has to produce. The bits are widely used for incense sticks and skewers because the bamboo shoots that are taken are also automatically damaged economically. Naturally, suppose there are no shoots automatically when the trees die. In that case, there will be landslides; the water will wash away quickly. It cannot be held back anymore. It cannot hold back erosion so that the impact will be big, isn't it... from the environment and the economy....

Ideally, the said bamboo can be developed for its added value as an art product with specific local content values (such as; flutes, baskets, and wicker). This forest area is rich in potential for business development based on agroforestry, including; forest plants of cemburit medicine, whose population is abundant. Clear lumbu plants whose fronds can be used as fodder (as intercrops between coffee trees under the shade of pine forests, planted with ginger and turmeric, and others). The vegetation of various varieties of bamboo clumps apart from the livestock farming business, which is backed by an abundance of grass as a source of fodder for livestock and is rich, and there are still quite a lot of water sources. In addition, it is also quite prominent, the community cultivates fodder grass, and the community grazes livestock plant grass that grows on the cliffs to be sold outside the village.

## 4.2 Discussion

### 4.2.1 Agroforestry (Wanatani)

The development of livestock/animal cultivation to become a substitute (substitute) and or complementary (complementary) income for farming has been the basis and tradition of daily livelihood. Based on natural and geographical potential, the dairy cattle business has a high potential as this investor (from outside the village) has developed. Why don't farmers reach out to this livestock business? Their answer is due to limited "business capital". What they still have is social capital, but it still needs to be stronger. Also, according to the key informant, "Raising cattle will result in the externality of waste that pollutes the environment. The development of beef/dairy cattle in practice will naturally reduce farmers' dependency on expansion (extensification) and intensification of fertile land for farming development. However, there is a big risk to water sources and rivers due to the pollution of cow manure, unlike the goat farming business.

The objective reality shows that the livelihood and business of being a farmer or raising livestock is a natural work as an environmental influence that has shaped it since its birth. Farming, farming and animal husbandry takes place based on "trial & errors" experience without scientific education or formal teaching, professional knowledge, courses and measurable skill development. The choice of running a traditional business, sober, must survive in an environment of modern rules and business. As a production business, market distribution and transactions for forest farmers are now in a global era with digital technology instruments. The business process is so competitive and dynamic that the presence of modern institutions is an important choice that needs to be put on the agenda in the future as a basis for farming communities in areas around forests which have the power and empowerment to do farming or livestock that are feasible and sustainable—leaving obsolete institutions behind, taking valuable lessons from past weaknesses and mistakes, Forest Village Community Institutions (LMDH) which were (previously) under the auspices of *Perhutani* to change their behaviour in the future to become productive, sustainable and adaptive to new technologies. Doing business in the increasingly professional and modern agroforestry domain is a breakthrough so urgent as a foundation for building various increases in the carrying capacity of forest area land on the one hand and reducing the potential for "deforestation & land degradation".

### 4.2.2 Gender equality and child protection

As for Balesari Village, *Perhutani* opens wide opportunities for LMDH Awanatani to play an active role in forest management, both in implementing management and in preparing forest management plans whose guidelines cover aspects of:

- a. Institutional strengthening and development,
- b. Participatory planning of village lap forest plots,
- c. Criteria and indicators for the sustainability of forest resources, and
- d. Monitoring and evaluation.

There is a lack of success and failure in implementing Community Forest Management (PHBM) in the field,

so the source of the cause is that it is up to humans as subjects or actors. According to Government Regulation 72 of 2010, in forest management, *Perhutani* is mandated to involve forest village communities (MDH), and Community Forest Management (PHBM) needs to be realized more effectively. Appoint management of cooperation between the Gendogo Forest Management Unit (RPH) - Kepanjen Forest Management Unit (BKPH) - Forest Management Unit (KPH) / Perum *Perhutani* Malang in its initiation to build cooperation with LMDH Agroforestry in Gendogo Balesari Village, Ngajum District, Malang Regency through the formation program 'institutional child'. *Perhutani* implements a practical program beyond its competence by directing it to the formation of forest village community cooperatives. In Balesari Village, which is called "Kuda Mas Cooperative", a cooperative that is currently living reluctantly and unwillingly, LMDH has experienced disorientation in its function from its more important main mission, namely joint forest management, which should be able to touch the process of improving the quality of human resources in an organized manner. The phenomenon is similar to some of the problems of Forest Village Community Institutions (LMDH) problems in other areas. Until recently, this cooperative had no activities even though it already had a management structure and members were local indigenous people whose daily livelihood was based on farming. Institutional investment cooperation is not accompanied by the competence and capability of cooperative management and is without a continuous process of technical assistance. Perum *Perhutani*'s RPH Gendogo is limited to employing several residents as pine resin tappers (tappers) employed incidentally at certain times, which is still far from the ideal basic idea, apart from simply giving space for intercropped plantations (coffee, lumbu clear) under the pine plantation forest which is the authority or regulation.

#### 4.2.3 Framework

Based on the information and viewpoints of the Forest Farming Community Group (KTH) as subject actors who experience the bitterness and sweetness of life, the frame-

work for Institutional Arrangement of Agroforestry in KTH Balesari Village can be derived. The framework as a policy recommendation can be applied operationally to build institutional performance and agroforestry practices in a system of plant-cattle-tree integration (agrosilvopastura), namely land use through a cropping pattern of forestry plants with agricultural/plantation crops and accompanied by a livestock business pattern (sheep/goats) outside the protected forest by developing in a measurable manner realizing the principles of agrosilvopastura governance; which can be utilized by policy-making agencies in research areas and extrapolated to forest areas in Indonesia as well as enjoyed by the (farming) community around the forest area. Institutions are the breath of activities, norms and ethics of the daily life of forest farming communities in order to foster positive externality value synergies in maintaining the traditional rules of forest conservation and developing them according to the concept of agroforestry through productive farming in a sustainable and adaptive environment in line with the natural behaviour characteristics of forests, shown as follows figure 1;

#### 5. CONCLUSION

The actualization of institutional-based agroforestry in Balesari Village was carried out according to the following efforts and actions;

- a. Collective awareness in making, compiling and owning; norms and law enforcement, rules, and codes of ethics, in everyday behaviour and actions to produce the desired incentives for the behaviour that is developed.
- b. Identification and description of the main problems faced by existing institutions; affirmation and responsibility as well as anticipation in building participatory mechanisms to determine options for how to address institutional sustainability issues.
- c. Resilience and developing institutional benefits against the challenges of the times, always open to

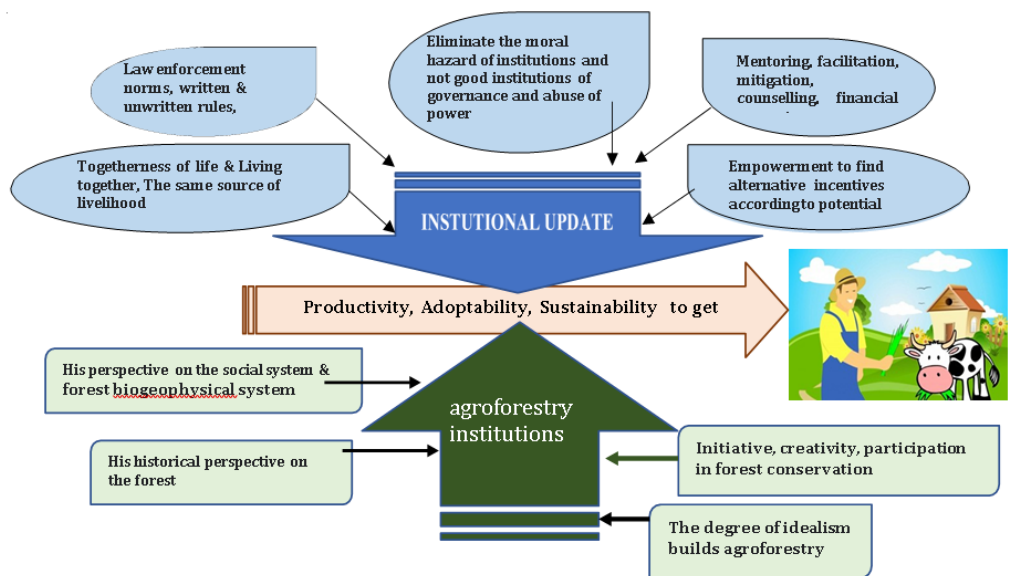


Figure 1. Sustainable forest farmer group welfare framework

receiving new agribusiness cultivation knowledge to answer the problem of how farmers and or forest farmer groups manage resource capacity to find new alternative agroforestry mandates.

- d. Empowerment in livelihood efforts and the discovery of incentives that can encourage the institutional life of agroforestry to be better and longer, which strengthens the motives and motivations for the behaviour of members/groups of forest farming communities to be more friendly to the sustainability of the forest environment.

The effort to mobilize, maintain and develop the carrying capacity of this environment also requires measurable capital and mentoring programs; through an institutional incubation process armed with social capital according to local wisdom and support as needed from structured external resources, especially from formal government institutions in good governance practices. Faced with the current and future challenges of agroecology & agroforestry problems, they still need many helping hands to develop technical skills improvement processes and adequate financial capital support. It also needs to be approached institutionally or institutionally according to the traditional rules of forest conservation along with norms of adaptive action to become the basis of socially just forest community welfare.

## References

- Coase, R.H., (1993). Coase on Posner on Coase. *Journal of Institutional and Theoretical Economics*, 149, pp. 96- 98.
- Corbin, J. (2003). *Dasar-dasar Penelitian Kualitatif*. Pustaka Pelajar.
- Denzin, N. K. (2010). Moments, Mixed Methods, and Paradigm Dialogues. *Qualitative Inquiry*, 16(6), 419-427. <https://doi.org/10.1177/1077800410364608>
- Furobotn, E.G. and Richter, R. (1998). *Institutions and Economics Theory, the Contribution of the New Institutional Economics*. The University of Michigan Press.
- Harmadji, D. E., Hastutik, S., Leksono, S., & Mamduh, A. (2022). Impact Of Deforestation On Forestry And Forest Village Community Institution ( LMDH ). *Indonesian Journal of Multidisciplinary Science*, 1(9), 1005-1019. <https://ijoms.internationaljournalallabs.com/index.php/ijoms/article/view/167/253>.
- Koentjaraningrat. (1998). *Manusia Dan Kebudayaan di Indonesia* . Djambatan.
- Leksono, S. (2013). *Penelitian Kualitatif Ilmu Ekonomi dari Metodologi ke Metode*. Rajawali Pers.
- North, D. C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.
- North, D. C., (1993). "Institutions and Credibility Commitment". *Journal of Institutional and Theoretical Economics*. 149:11-23.
- Olson, M. (2009). *The logic of Collective Action* (Vol. 124). Harvard University Press.
- Soemarwoto, O. (2004). *Ekologi Lingkungan Hidup dan Pembangunan*. Djambatan.
- Williamson, O. E. (2000). "The New Institutional Economics: Taking Stock, Looking Ahead". *Journal of Economics Literature* 38(3):595-613