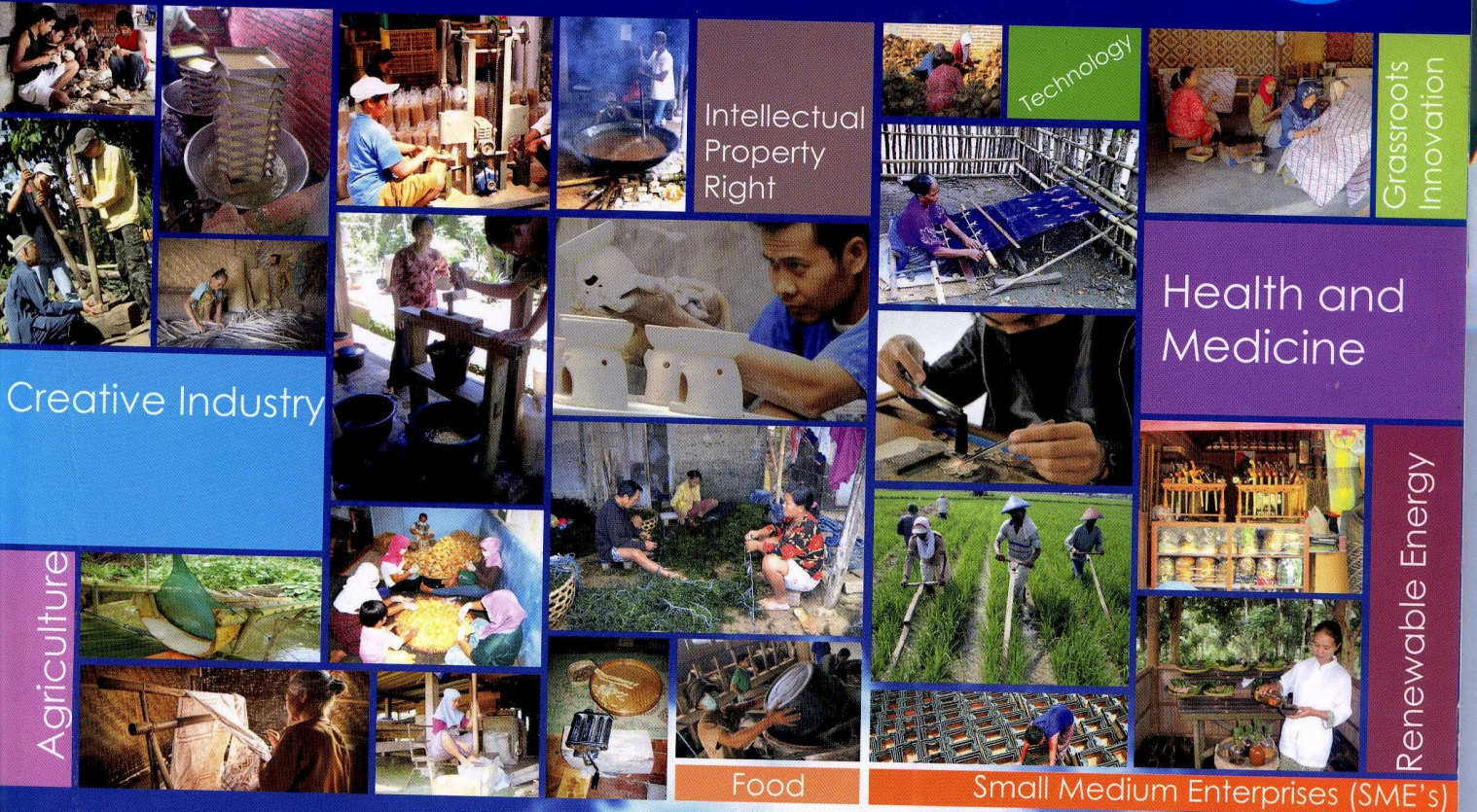
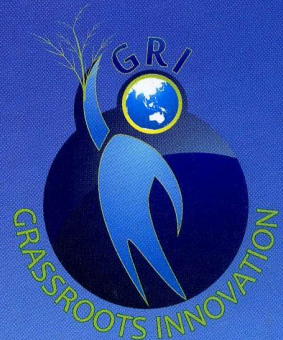


Proceeding



INTERNATIONAL SEMINAR ON ENHANCING GRASSROOTS INNOVATION COMPETITIVENESS FOR POVERTY ALLEVIATION EGICPA 2012



Inna Garuda Hotel
Yogyakarta, Indonesia
16-18th October 2012

Organized by : Supported by :



Center for Appropriate
Technology Development
Technical Implementation
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Society for Research and Initiatives for
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(SRISTI), India



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PROCEEDING



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Editors

Prof. Dr. Liyan Zhang (TUFU-China)
Dr. Akmadi Abbas, M.Eng.Sc. (LIPI-Indonesia)
Dr. Suharwadi (LIPI-Indonesia)
Dr. Rohani Hashim (Waitro-Malaysia)
Dr. Vipin Kumar (SRISTI-India)
Dr. Wati Herma Wati (LIPI-Indonesia)
Dr. Rislina F. Sitompul, M.Sc. (LIPI-Indonesia)

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Ahmad Sofyan

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Center for Appropriate
Technology Development
Jl. K.S. tubun No.5 Subang
41213 West Java, Indonesia
Tel : +62 260 411478,+62 260 412878
Facs : +62 260 411239
e-mail : b2pttg@mail.lipi.go.id
website : www.b2pttg.lipi.go.id

Technical Implementation
Unit for Development of
Chemical Engineering Processes
Jl.Jogja-Wonosari Km 31,5
Gading, Playen, Gunungkidul,Yogyakarta
Indonesia, 55861, Po.Box : 174 WNO
Tel : +62 274 392570
Facs : +62 274 391168
e-mail : bpptk@mail.lipi.go.id
website : www.bpptk.lipi.go.id



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PREFACE

Chairman of Organizing Committee

Indonesian Institutes of Sciences (LIPI) as a national research institute has been concerned with Grass Roots Innovation (GRI) through exploration, research and development, empowering community and Small Medium Enterprise (SME's). Concerning the role that GRI can contribute in poverty alleviation, in October 2012, LIPIs is going to conduct an International Seminar themed "Enhancement of Grassroots Innovation Competitiveness for Poverty Alleviation" (EGICPA). This seminar was organized by Centre for Appropriate Technology Development and Technical Implementation Unit for Development of Chemical Engineering Processes – LIPI, Indonesia at Inna Garuda Hotel, Yogyakarta on 16 – 18 October, 2012. The International Seminar on EGICPA program consist of Seminar Call for Paper, Focus Group Discussion (FGD), Exhibition of Grassroots Innovation product and Fieldtrip to grassroots innovation practitioners in Yogyakarta.

Learning from the previous workshops, the seminar on October 2012 focus on improving and strengthening the competitiveness, covering scouting, development and commercialization of GRI which will attract organizations (GO, NGO and private sector) in supporting GRI. This event is an integrated discussion forum which brought together academics, professionals, policy makers, scientist, researchers, business practitioners and those who are interested in sharing their relevant experiences in Grassroots innovation from various country in the world such as Indonesia (host), Malaysia, Italia, Kenya, Germany, China, India and Australia. The papers and results from International Seminar on EGICPA were published in the proceeding.

In the other hand, we would like to express our deep gratitude to Society for Research and Initiatives for Sustainable Technology and Institution (SRISTI), Tianjin University of Finance Economics China (TUFE), World Association of Industrial and Technological Research Organization (WAITRO), PT Perkebunan Nusantara III (PTPN III) and other institution for the supports. We would also like to express our heartiest to thank to all speakers and participants for the active participation in this seminar and to all the paper reviewers, member of steering committee, member of the organizing committee and Indonesian Institute of Sciences staff for their support to the success of this workshop.

We cordially wish all participants the ebullient scientific discussion and enjoyable meeting at the seminar and a pleasant stay in beautiful Yogyakarta, Indonesia. We do hope that all foreign participants will have good impression on Indonesia hospitality.

Yogyakarta, Februari 2013
Organizing Committee Chairman,

Satriyo Krido Wahono, ST



OPENING SPEECH

The Chairman of the Indonesian Institute of Sciences

On the occasion of
**INTERNATIONAL SEMINAR ON
ENHANCING GRASSROOTS INNOVATION COMPETITIVENESS FOR POVERTY
ALLEVIATION (EGICPA 2012)**

Honourable Sri Sultan Hamengku Buwono X, Governor of Yogyakarta Province,

Representative of the Honourable Minister of Science and Technology of the The Republic of Indonesia,

Dr. HS. Dillon, the President Special Envoy for Poverty Alleviation,

Distinguished speakers (Prof. Liyang Zang, Dr. Kumar, Dr. Sulaiman, Prof. Benyamin Lakitan),

Distinguished Guests, Participants, Ladies and Gentlemen

Assalamualaikum Wa Rahmatullahi Wa Barakatuh

Good morning and warm welcome to Yogyakarta, Indonesia, especially to our guests from overseas and participant from other cities of Indonesia.

Praise to God Almighty, Tuhan Yang Maha Kuasa, for making us to be here being a part of the International Seminar on Enhancing Grassroots Innovation Competitiveness for Poverty Alleviation. I am truly delighted to support this seminar as I am sure that through this important event we will produce results that bring benefit to our society.

Allow me to take this first opportunity to congratulate all the Yogyakarta residence for

the new and permanent status as the Yogyakarta special state territory. Congratulation to Honourable Sri Sultan Hamengku Buwono X for being inaugurated as Governor of Yogyakarta and to Honourable Sri Paku Alam VIII for being inaugurated as the Vice Governor of Yogyakarta.

Ladies and Gentlemen.

I would like to take this opportunity to inform you all regarding to a publication by World Bank and IMF. The World Bank and IMF's in latest update on Progress Toward the 2015 Targets reveals that two-thirds of developing countries are on track or close to meet the Millennium Development Goals (MDGs). The rapid economic growth – to some extent – has contributed to an accelerated decline in absolute poverty. The number of people living on less than US \$1.25 a day is projected to be 883 million in 2015, compared with 1.4 billion in 2005 and 1.8 billion in 1990.

The progress, however, is achieved with a cost of increased inequality and leaving the poor unable to benefit from development and becoming increasingly isolated. Not only isolated geographically, but also marginalized socially and economically. It is merely a challenge for us how to face and solve it.

Ladies and gentlemen,



Considered as a global challenge, strategies have been established to improve the poor people accessibility to many opportunities. One of which is Grassroots Innovation (GRI) which is recognized as one of invaluable pro-poor innovation concept worldwide. As a promising solution to poverty problem which was experienced by a large share of the world population, GRI is undeniably meant to serve those who do not have proper access to modern educational systems, science and technology inputs and other socio-economics support from the formal system. GRI, which emphasizes on local talents whose creativity leads to develop solutions for the poor, has been under utilized or neglected. Grassroots innovation clearly has been recognized as the role of locally embedded innovation/technology in improving the lives of the people.

Enhancement of GRI is an important tool for us in empowering the community economy and reducing poverty as well as empowering grassroots community who have difficulties in scaling up the diffusion of locally embedded technology. Grass roots innovation is needed to be implemented and encouraged, to be used by wider scales and scopes. It requires assistance from the government or NGOs to identify, uphold and disseminate the knowledge and innovation resulted from the grassroots to wider public who can potentially benefit from such innovations in order to be able to reduce poverty. Based on several programs and case studies, it is believed that commercialization or bringing GRI close to market, will help in scaling up GRI to reduce poverty.

Ladies and Gentlemen,

The President of the Republic of the Indonesia at the Commomeration of the HAKTEKNAS 2012 stated the important of science and technology development pro-poor concepts. So that, LIPI proposes a modified model by entering grass innovation into triple helix, ABG models (Academicians, Bussiness and Government). The concepts is tetrahelix model ABG-S. In this proposed model, interaction between A and B supported by G need to consider innovation by Local Society (S), that is GRI.

LIPI, as a National Research Institute, has put lot of intention on GRI through exploration, research and development, and empowering community and Small Medium Enterprise (SME's). 15 years ago, LIPI launched a program related to GRI Enhancement, which called IPTEKDA (Society Science and Technology based Program). IPTEKDA Program, created in 1998, has helped more than 6.000 SME's by improving innovation culture in their community. Many of SME's were rosen based on GRI. Besides improving innovation, the program is also increasing economical growth of the community located around the SMEs. The program has showed that it supports poverty alleviation in society.

In order to motivate society for being concerned with innovation, LIPI has also conducted scientific innovation competition for young researchers, for students (LKIR) and for teachers (LKIG). Some innovations from those activities has had a promise for science novelties, commercialization, and community empowerment.



Proceeding of International Seminar
Enhancing Grassroots Innovation Competitiveness for Poverty Alleviation (EGICPA)
Yogyakarta, Indonesia, 16-18th October 2012

With the spirit to promote pro-poor innovation/GRI in scientific community, the Indonesian Institute of Sciences (LIPI), has been promoting the role of GRI in empowering community by organizing an Asian Regional Workshop in 2007 in Bandung supported by the Asia Pacific Center for Transfer of Technology (APCTT). Besides that LIPI has also conducted several National Seminars and Workshops related to GRI. As a continuation and being concerned with the role that GRI can contribute in poverty alleviation, LIPI is conducting this International Seminar on "Enhancement of Grassroots Innovation Competitiveness for Poverty Alleviation". This international seminar would be focussed on improving and strengthening the competitiveness of GRI, covering scouting, development and commercialization of GRI. It hopes that in future, this effort will attract organizations (GO, NGO and private sector) to support development of GRI in country.

Ladies and gentlemen,

During this seminar, an important Focus Group Discussion would also be conducted. I hope that the discussion could assist in formulating strategies on how to strengthen GRI competitiveness for poverty alleviation as targeted by this International Seminar.

To close my remarks, with good spirit and blessing from Allah SWT, I officially open this International Seminar and may God always be with us throughout the Seminar.

Wassalamualaikum Wr. Wb

Prof. Dr. Lukman Hakim
The Chairman of LIPI



WELCOMING SPEECH
Governor of Yogyakarta Special Region

Welcoming Speech From Governor of Yogyakarta Special Region

(Speech announcing the Governor of Yogyakarta Special Region
International Seminar "Enhancing Grassroots Innovation Competitiveness for
Poverty Alleviation / EGICPA 2012)

The Honorable Chairman of Indonesian Institute of Sciences (LIPI)
The Distinguished Keynote Speakers
Distinguished International Seminar "Enhancing Grassroots Innovation
Competitiveness for Poverty Alleviation" and Attendees are happy
Assalamualaikum Warahmatullahi Wabarakatuh

Peaceful for all,

All praises to God we dedicate the presence of God Almighty's blessing of grace, and His grace, we can be present in this place to attend the International Seminar "Enhancing Grassroots Innovation Competitiveness for Poverty Alleviation/EGICPA 2012". Ladies and Gentlemen, Seminar today has a strategic significance as the first step to invite all who come here thinking to build a shared commitment to do our best to improve the economy and alleviate poverty to grow and develop the innovation community (grassroots innovation) As with a foothold.

According to Prof. Dr. Agus Suryono a UB professor, debate theories about the problems of poverty, unemployment, and social injustice in society has long underway among social scientists west and east since the 13th century Thomas Robert Malthus era to the 21st century era of Muhammad Yunus from India grassroots empowerment (grass root). In essence, they argue causes less successful development programs especially encouraged after World War II in most of the developing countries and the underdeveloped. On the other hand, they also see the remarkable success that occur in the development programs the State of Japan, some European countries and America.

Surprisingly, the theory and the relatively similar program development efforts apparently did not succeed in third world countries (including Indonesia). Finally, the question arises about the causes of these differences. Among others, one answer is because it is culturally a third world country is not able to adjust to the life style, thinking style, and the style of public welfare in advanced industrial countries. Third World countries are poor (with most of the population livelihood as farmers) because it does not have a large industrial company that is able to absorb a greater labor. They do not have a large industrial companies, because they do not have the capital (capital) is great. Why not have a big capital, because they are poor. Why they are poor, because they are not educated.

Why they are not educated, because they do not have the money (capital) to school. Why school is important, because the school is a commodity of ideas and land interests of the major industrial and capital owners (the people of Indonesia are able to continue studying about 6-7%). The theory is then called by Mahbub Ul Haq (1976) as a theory of poverty curtain ring chain (the cycle of poverties curtain theory).



Ladies and Gentlemen, I would argue that innovation communities at the grassroots level (Grassroots Innovation) generally have less access to technology promotion services, information, money, market, intellectual property rights (IPR), the transfer of technology and others.

Innovation communities at the grassroots level are great sources of ideas are needed in solving problems in the community are usually attached to various forms of indigenous (local wisdom) that are full of meaning and value. One of the things required in the innovation community at the grassroots level is how to build synergy between the parties, ranging from policy makers, R & D institutions, private sector, universities, and NGOs to jointly assess, document and strengthening of innovation at the grassroots level grass. It also includes efforts to strengthen the Group Micro and Medium Enterprises (SMEs) in order to build economic independence that leads to the welfare of society.

Therefore, through this seminar it was time for the scientists (social) conduct in-depth study based on real experience (empirical) and history, in order to explain the phenomenon of poverty and underdevelopment are complex indeed. This is especially relevant and urgent in the current era of development, particularly to support efforts to improve the quality of human resources that a central issue in our present stage of development. Besides, it is also useful to bring other alternative theories (another development theory) is more satisfying than the answers and explanations of modernization theory and dependency theory as we polemikkan. This is the dark side of the polemics and the black box (black box) that need our immediate unloading together to be lit as a solution to overcome poverty and underdevelopment (especially in people of Indonesia).

I also hope that this conference is a continuation of the seminar has ever done before in London on the theme Capitalize People to Build Self-Reliance Innovation Nation.

Ladies and Gentlemen,

Finally, I congratulate the seminar, may we all be given clarity of heart and mind to always improve the welfare of the people.

So I can tell, the audience's attention I say thank you.

Wabillahit Taufiq wal Hidayah

Wassalamu'alaikum Warakhmatullahi Wabarrakatuh.

GOVERNOR of YOGYAKARTA SPECIAL REGION
HAMENGKUBUWONO X



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INVITED SPEAKER



INVITED SPEAKER





The Model of Enhancing Farmer's Household Food Security Integrated Poverty Alleviation in Two Areas Typology in Serang District Banten Province

Titik Sumarti

Department of Communication and Community Development –
Faculty of Human Ecology, Bogor Agricultural University
titik_sumarti@yahoo.com

ABSTRACT

The problem of food security is closely linked to poverty, so that efforts to overcome need to be integrated with poverty alleviation. There are still many weaknesses encountered in the implementation of food security programs, because social capital and local institutions as well as the needs of poor households has not been considered in the implementation of the program. The results showed that: (1) An integrated food security program with poverty for the region level could be considered a success proved by the existence of agricultural and fisheries production surplus, while for the household level still found a severe deficit household condition (food insecurity), (3) Factors affecting successful or failed programs are: (a) weaknesses in implementation of the program are still found, (b) utilization of region is not optimal, (c) inter-sectored coordination, capacity of the village government organizations and extension competence are still weak, (d) there is still a lot of poor people and less knowledge of local food diversification and balanced nutrition; The regression analysis result shows the more local food organizations or institutions that followed will reduce the chances of severe deficit households, (5) The strategy for enhancing food security and poverty alleviation in synergy can be sorted based on the level of region (area), and the level of family (and individual). Regional Food Security Strategy includes: development of local food reserves to meet the needs of local markets; development of community rice barns to maintain price stability, diversification of quality local food, development of distribution system and pricing information. Family (and Individual) Food Security Improvement Strategy includes: diversification of local food through the use of their yards; posyandu institutional strengthening to improve the quality of food and balanced nutrition, increasing the community purchasing power through the creation of labor-intensive employment opportunities; Poverty Alleviation for Enhancing Household Food Security efforts.

INTRODUCTION

The Indonesian nation is currently faced with a very severe food security problem. The food security problems faced, are not only limited to *systems of production* (availability), but also *distribution and consumption systems* (Council of Food Security, 2006). Hardinsyah (2001) revealed that three out of 10 Indonesian children under five suffer from malnutrition (KEP), three out of ten pregnant women

have chronic energy deficiency (KEK), six out of 10 families experience food insecurity by failing to meet two-thirds of their food needs and the majority of people do not consume meat, fruit and vegetables in sufficient quantities each day.

In essence, the problem of food security is very closely related to the problem of poverty. The percentage of people living under the poverty line in Indonesia in March 2006 was 17.75% (39.05 million). The majority of these



(63.41%) are people who live in rural areas and depend upon the agricultural sector.¹ Based on the above facts, it could be considered that the principal problem of the food security and poverty problem is, in essence, a problem of rural community development. So the direction of food security development should be focused on efforts to empower rural communities and help them prosper, especially landless farmers' families. If the problem of rural poverty is solved, the problem of food security will also be solved and vice-versa.

Therefore the proposed research focuses on the problem of how to implement programs to battle poor household food security and what factors influence the success or failure of these programs. The purpose of this study is to formulate a model program and strategy to enhance the security of

households affected by poverty alleviation.

METHODOLOGY

The study design is that of a Cross Sectional Study. Serang District was chosen because it is a food insecure region with a lowland ecology (results of consultations with the Regional Food Security Agency and related agencies in Banten). Two subdistricts have been selected from the Serang District, these are Pontang (food secure) and Ciruas (food insecure). The sample consists of officials, community leaders, and households. Elected officials and entrepreneurs were selected in elected districts and subdistricts, while community leaders and households were selected in districts.

Table 1. Number of Samples Matrix

Level	Officials/ Community leaders	Households
Serang District	18	
a. Ciruas Subdistrict	12	
- Pamong		53
- Kadikaran		52
b. Pontang Subdistrict	13	
- Kencana Harapan		55
- Kubangpuji		54
Total	43	214

This study integrates quantitative and qualitative methods. At a micro level structured interviews were conducted in selected households and quantitative data analysis was done descriptively through cross tabulation. Food security was calculated on the basis of quantitative energy adequacy levels. A household was categorized as food secure if the average daily energy adequacy level was equal to or exceeded 70% sufficiency and food insecure if its energy consumption per day was less than 70% sufficient.

Because the dependent variable is in the form of dichotomous data, which is 'food secure' and 'food insecure', it is binomial distribution rather than normal distribution. To analyze the effect of several variable influences, logistic regression models were used. Analysis of community capital strengthening models and coastal community livelihood strategies in an effort to overcome the problem of food insecurity and hunger from qualitative data was translated into quantitative data and conducted by multivariate



analysis using the SEM (Structural Equation Model) technique.

RESULTS AND DISCUSSION

Model of Synergy Food Security Enhancement and Poverty Reduction

The model of food security enhancement is built from the factors that affect food security itself. In this study, the level of food security is measured only from the level of energy sufficiency. While the factors suspected of affecting the food security of households consists of these household characteristics:

(X1) The age of the head of the household; (X2) The level of education of the head of the household; (X3) The number of people living in the household; (X4) Expenditure per capita; (X5) Social capital (community support); (X6) Government support; (X7) Government trust; (X8) Local food security institutions (number of institution participating); (X9) The level

of participation; (X10) The number of social benefits; (X11) Perception towards the implementation of the program.

The model equation with R^2 at the value of 0.358 is obtained using logistic regression analysis. This means that the chances of households influenced by all of the factors in the model to be food insecure is 35.8%. In other words, 64.2% are influenced by other factors which are not described in the model.

Factors that are not described in the model include internal and external household factors. The internal factors that have not been analyzed are the value of assets (which would certainly affect the ability of households to provide food for its members) and maternal knowledge about food nutrition. External factors suspected of affecting a household's level of food security are the accessibility of the region and the price of food.

With such difficulties, three equations are obtained:

1) For the category of severe deficit households:

$$\ln\left(\frac{p}{1-p}\right) = 22,367 + 0,075X_1 + 0,051X_2 + 0,205X_3 + 0,000X_4 - 14,768X_5 + 0,312X_6 + 0,006X_7 - 0,456X_8 + 0,813X_9 + 0,075X_{10} + 0,201X_{11}$$

In this first model, the variables that significantly influence the chances of domestic households becoming severely deficit are: The age of the head of the household (X1), the number of people living in the household (X3), the number of institutions participating in the program (X8) and the level of participation within the organization (X9). The chances of a household having a severe deficit in food security increases with the age of the head of the household. This is also the case with the number of members within the household, therefore the larger the household size, the more the chance is

of a severe deficit in food security. This is understandable because with more members, the amount of food consumed by each member will be reduced.

With more food organizations following the program, the chances of a household becoming severely deficit decrease. By food organizations contributing as food security institutional members it would be easier for households to obtain assistance.



2) For the category of medium deficit households:

$$\ln\left(\frac{p}{1-p}\right) = 30,319 + 0,010X_1 + 0,259X_2 - 0,035X_3 + 0,000X_4 - 14,897X_5 - 0,395X_6 \\ + 0,004X_7 - 0,547X_8 + 0,878X_9 - 0,037X_{10} - 0,752X_{11}$$

Opportunities for households to fall into the category of a medium deficit are influenced by eleven existing

variables. However, in this model no single variable has a significant influence.

3) For the category of light deficit households:

$$\ln\left(\frac{p}{1-p}\right) = 22,905 + 0,077X_1 + 0,449X_2 + 0,171X_3 + 0,000X_4 - 15,398X_5 + 0,526X_6 \\ + 0,029X_7 - 0,545X_8 + 1,712X_9 - 0,456X_{10} - 1,061X_{11}$$

In this third model, the factors which significantly affect the chances of a household being light deficit are: The age of the head of the household (X1), the level of participation (X9), and the perception towards the implementation of the program (X11). Both the first and second factors have a positive regression coefficient. This means that the greater the age of the head of the household and the greater the participation of organizations, the greater the chances of a household becoming food deficit are. Conversely, with more positivity towards the implementation of the program the chances of a household becoming classed as food deficit are lower.

Analysis of Structural Equation Model (SEM)

The LISREL-8W statistical software program was used in this study in analyzing the SEM to test construct validity, this is often done in

data analysis in the social sciences. Construct validity is associated on convergent validity and discriminant validity. These validities can be measured by performing the correlation between the variables that are theoretically closely related (construct validity and convergent) or unrelated (discriminant validity). Based on the results in Figure 1, note that the value of Chi-square, GFI (Goodness of Fit Index), and RMSE (Root Mean Square Error) in a row is 174.06 (0.01), 0.87 and 0093, it is known that the models development can be said to fit with the collected data.

Based on table 2, the results show that the Perception of Program Implementation is directly influenced by Socio-Economic Characteristics, Social Capital and Institutional. Food security is directly influenced only by perceptions of the program implementation, whereas, food security is not directly affected by social capital.



Table 2. Decomposition of Effects in Model Analysis of Factors that Influence Food Security

NO	VARIABLE	TOTAL EFFECT	DIRECT EFFECT	INDIRECT EFFECT
Perceptions of program implementation				
1	Socio-Economic Characteristics	-0.390*	-0.390*	0.000
2	Social Capital	0.318*	0.318*	0.000
3	Institutional	0.396*	0.396*	0.000
Food Security				
1	Socio-Economic Characteristics	-0.100	0.000	-0.100
2	Social Capital	0.810*	0.000	0.810*
3	Institutional	0.101	0.000	0.101
4	Perceptions of program implementation	0.260*	0.260*	0.000

The Strategy for Synergy Food Security Enhancement and Poverty Alleviation

The strategy for food security enhancement and poverty alleviation in synergy can be arranged based on SWOT analysis (See Table 3).

The strategy for improving food security and poverty alleviation in synergy can be classified based on the level of effort made; these are at a regional level and at a family / individual level.

CONCLUSIONS

1. Integrated food security programs with poverty in Serang District at a household level still met the severe deficit household conditions (food insecurity).
2. Regression analysis results show that the more local food organizations or institutions follow the program, the chance of households being severely deficit decreases.
3. SEM analysis results showed that the perception of the program

implementation is directly influenced by social and economic characteristics, social capital and institutional factors. Meanwhile, food security is directly influenced only by perceptions of the program implementation. Food security is not directly influenced by social capital.

4. The strategy for improving food security and poverty alleviation in synergy can be classified based on the level of effort made; these are at a regional level and at a family / individual level and are as follows:

1) Strategy for Regional Level Food Security (Local):

- a. Development of local food reserves to meet the needs of local markets;
- b. Community barn developments to maintain price stability;
- c. Diversification of quality local food;
- d. Dam-building and strengthening of irrigation institutions for watering;
- e. Increasing PPL competence in diversifying and improving the quality of food and



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awareness of balanced nutrition; f. Improved post-harvest management to increase food quality.; g. Development of distribution systems and pricing information.

2) Strategy for Family (and Individual) Food Security Enhancement:

a. The diversification of local food through the use of their yards; b. Strengthening the posyandu institutions to increase the quality of food and awareness of balanced nutrition; c. Socialization of food consumption and balanced nutrition through neighborhood health centers (posyandu); d. Increased purchasing power through the creation of labor-intensive employment opportunities; e. Poverty Alleviation Efforts for Enhancing Household Food Security

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Fig 1. . SEM Analysis Factors influencing Food Security

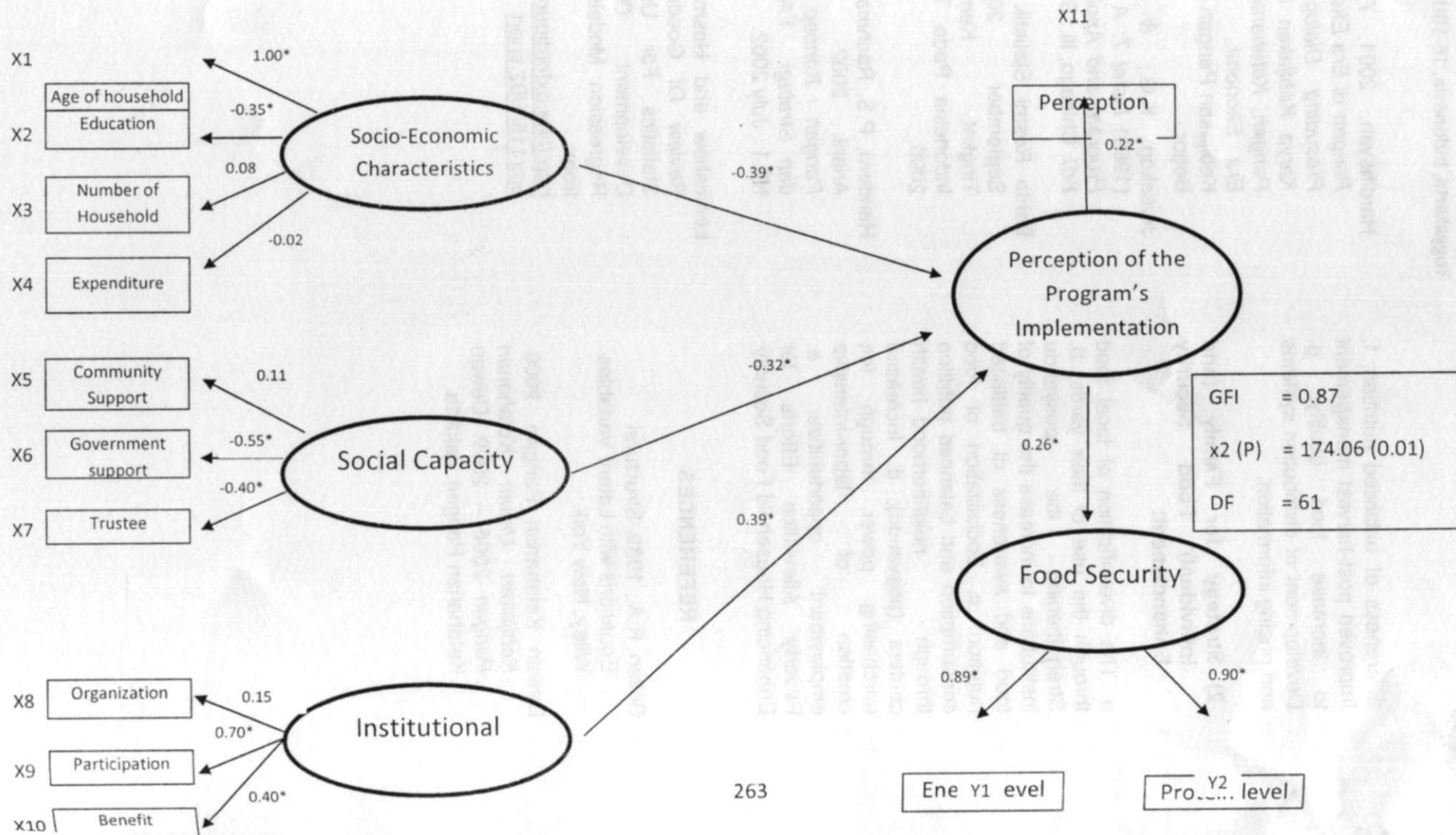




Table 3. SWOT Matrix for Preparation of Alternative Strategies for Synergy Food Security Enhancement and Poverty Alleviation Synergies.

	Strengths: 1. Partisanship of government policy. 2. The total area of agricultural land. 3. Available community barns. 4. Production of some food commodities above demand (surplus). 5. Great quantities of local food production and many untapped yards. 6. An increase in neighborhood health center services. 7. The introduction of food diversification.	Weaknesses: 1. The availability of irrigation and water is still poor. 2. Cropping patterns vary. 3. PPL has not been working optimally. 4. Post-harvest handling is weak (fast decay of products). 5. A lot of arable land is not owned by farmers. 6. Prices at harvest decrease. 7. Knowledge of the community about food and nutrition is still low. 8. There are still many poor people.
Opportunities: a. Local markets are available. b. APBD/APBN is sufficient to create a dam. c. There is still a lot of untapped idle land. d. Improved food quality. e. The transport network is adequate. f. Local food production is quite diverse. g. Meeting the nutritional norm.	Power – Opportunities Strategy: 1. Development of local food reserves to meet the needs of local markets. 2. Diversification of local food through the use of their yards. 3. Strengthening the posyandu institutions to increase the quality of food and awareness of balanced nutrition.	Weaknesses – Opportunities Strategy: 1. Dam-building and strengthening of irrigation institutions for watering. 2. Increasing PPL competence in diversifying and improving the quality of local food and balanced nutrition. 3. Increasing the purchasing power through the creation of labor-intensive employment opportunities.
Challenges: 1. Dry season. 2. Absorption of the products in order for them to not leave the region. 3. Many brokers outside the region who buy produce before it is harvested. 4. The existence of goods supplied from outside the region. 5. Prices are not stable and vary between regions 6. Quality of food from outside the region is better. 7. Amount of instant food available. 8. Misleading food advertisements.	Strengths - Challenges Strategy: 1. Community barn developments to maintain price stability. 2. Diversification of quality local food. 3. Socialization of food consumption and nutrition balanced through neighborhood health centers (Posyandu).	Weaknesses – Challenges Strategy: 1. Improved post-harvest management to increase food quality. 2. Development of distribution systems and pricing information. 3. Poverty Alleviation Efforts for Enhancing Household Food Security.

