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**Indonesian Food Policy Insights and Challenges of
Integrating Food Security and Food Sovereignty**

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ASKRINDO	<i>Asuransi Kredit Indonesia</i> (Indonesian Credit Insurance)
BPD Jateng	<i>Bank Pembangunan Daerah Jawa Tengah</i> (Central Java Regional Development Bank)
BULOG	Indonesian Bureau of Logistic
EIP	Ecologically Integrated Paradigm
FAO	Food and Agriculture Organization of the United Nations
ICCO	Interchurch Organization for Development Cooperation
JAMKRIDA	<i>Penjamin Kredit Daerah</i> (Regional Credit Guarantee)
LSIP	Life Science Integrated Paradigm
MDGs	Millennium Development Goals
NGO	Non Government Organization
PMHPR	Production and Marketing of High Premium Rice
PPP	Public-Private Partnership
RPJMN	Indonesian National Medium Term Development Plan 2014-2019

Abstract

This research paper provides an understanding about current debate related to food discourse, especially referring to the debate that contradicts the concept of food security and food sovereignty as the only solution above every food problems underneath. Rather than separating the two concepts even further, this research aims to seek the middle way on questioned whether two concepts can be integrated in the sense of theoretical and empirical sphere.

The motivation behind this research was a missing clarification about linkage between the two main concepts in food discourse. Often, the discussion of one concept makes the other concept looks wrong, failed or irrational. This research examines the new perspective on how to look each concept separately from the intervention of other factors, then mapped out the concept and see it through for a chance of complimentary space for each other. To support the research, first step needed was to build a solid analytical framework by taking food paradigm theory in relation with the two concepts, then applying the theoretical concept into a particular place of Indonesia where the government has just adopted food sovereignty concept into a policy document and claimed to emphasize it in order to achieve food security.

Relevance to Development studies

Hunger issue is one of the most urgent development problems to be solved in the world at this time. However, the discussion around this issue has come to a separation ways between food security and food sovereignty ways of solution. The critique comes from the opposition supporter has made the problems far from solution, it almost seems like the focus has changed from dealing with the hunger problem into the critique on the politics about how the concept has been used by certain actors. Having said that the two concepts are neither a total failure nor an absolute success to solve hunger problem, thus there is a potential space to integrate the two concepts. This research paper aims to have contribution in development studies by filling the gap in provide more insight about the linkage between food security and food sovereignty which shaping the idea of solving the hunger problems without rivalling the two concepts but integrate it.

Keywords: Food Security, Food Sovereignty, Integrating Food Security and Food Sovereignty, Indonesia.

Chapter 1 Introduction

1.1 Linkage between Food Security and Food Sovereignty Discourse

Meeting the global challenge on food issue, the discussion about it has never really come to an end even after the last food crisis in 2007-2008. In fact, the cause and the result of food crisis have become more tangled, therefore needs to be traced and fixed. Even though at first the crisis considered as the outcome of financial crisis that violated the food price at the time, but in the end food crisis has never meet an end even after the financial crisis solved (McMichael 2013: 110). It means that solving food problem is not just based on the fixed financial crisis per se but it is way broader than that. For instance, the most recent report from FAO (2015) shows about 795 million peoples are still in hunger around the world even after many attempts had accomplished, such as the programs from Millennium Development Goals (MDGs) to solve it. Therefore the discussion is still actively performed to find the right solution to overcome food problems.

The longstanding debate of food discourse has arrived in the intersection of two considerable views. The dominant view propelled largely by states, global governance institutions (i.e. World Bank, IMF, and FAO) and mostly agribusiness firms, sees insufficient agricultural production as the primary problem and proposes market-based solutions to increase productivity of a narrow range of crops. On the other hand, a growing chorus of food activists and scholars see the structure and organization of the global food system itself as the problem, and call for a democratic redistribution of power and control as the solution. While the former group sees the food price crisis as a chance to further entrench capitalist relations of production and increase profits, for the later group, the crisis identified ‘as an opportunity to refocus agriculture around question of social and ecological sustainability’ (McMichael and Schneider 2011: 120).

As the former view become more dominant than the later view, however, it does not automatically leads to the end of food problems. While there has been increasing number in food production everywhere on the earth after the World War II as the outcome from the mainstream development agenda speech by Truman (as cited in McKeon 2015: 71), the hunger issue has failed to follow the success story of high production (Lang and Heasman 2015: 17). One of the critiques for this market rule and logic concept or known as *food security* concept pointed to simply regenerate Malthusian theory of population (Tomlinson 2013: 83, additional emphasize on italic). Even though the concept has been developing by not only considering production aspect but later it also added new consideration on access, nutrients and stability of food, however those additional points are still considered as the weak points compare to the main focus point on food production (Clapp 2014). Therefore, the critique for

this concept mostly pointed the strong focus only at production and neglected the other important points.

The neglected points such as food producer's and environmental rights have pushed the emerged of an 'alternative' logic in food system known as *food sovereignty* concept (Akram-Lodhi 2015: 565, additional emphasize on italic). The concept mainly engaged with the grassroots activist and scholars close to the small scale holder farmers who often violated by the dominant view on the former concept. As if it brings the answer for every critique to food security concept, this concept put focus on the agrarian and food producer's right (Clapp 2014). By using different approach to solve the food problems, this concept offer the bottom-up approach rather than focusing the solution on market based approach (McKeon 2015).

Using the different approach to solve the food problems has made the gap between food security and food sovereignty become wider. The two concepts most of the time considered as a separate concept and being contradict from one another. On the other hand, Jennifer Clapp (2014) argued that instead of contesting the two concepts, it will be more useful to build a discussion about the integration between the two concepts and focus to solve the real problem. Now the question is whether the two concepts really incompatible to one another or there is a possibility for the two concepts to be engaged.

The research about to food security and food sovereignty relation has not much been found, but at least there are two main scholars argued about this, namely Jennifer Clapp (2014) and Lucy Jarosz (2014). Furthermore, empirical research identified the relation between the two concepts has mostly done in global south especially in Latin America (see for example Chappell 2009; Schiavoni 2015; Iles and Montenegro 2015; Bacon 2015). However, the other side of global south part has merely never been done before. For example, in the case of Indonesia as the country located on the other side of global south that has just acknowledged the food sovereignty concept after the long period of only food security acknowledgement to guide the national food system on the policy document. By following the former scholars who discussed about the integration issue between food security and food sovereignty, this research will specifies the context on Indonesia.

Further, this research paper aims to critically examine the framing of food security term, food sovereignty term and the linkage between the two concepts in Indonesian context by using the recent program of the rice development in Central Java as the particular case. This research further problematize whether Indonesian government attempts on paper to use the two concepts and make the linkage between the two can be considerably applicable to tackle the social and environmental impact of food system or simply just romanticized term to cover same old market based approach from the dominant view. In general, this research aims to contribute the new insight in the food system debate to solve hunger problem by integrating food security and food sovereignty.

1.2 Research Question

Hunger issue pointed to be a big challenge especially for the global south area or the—so-called—developing countries (UNCTAD 2012). While part of the global south takes rice as their staple food, rice consumption demand has been increasing, at least, since 1960 (IRRI n.d.). This fact becomes the main framing issue for food problem discussion, especially in Asia where 70% of rice is consumed (Ibid). Among the Asian countries, Indonesia highlighted as the biggest consumer country, followed by China and India (Mohanty 2013). Indeed, in Indonesia, rice is more than just a staple food. It is embedded in people's life started from the production all the way to consumption level. However, there is consequence for that in a good way or in a bad way, such as; it is highly dependable to one crop. The good way can mean that Indonesia is a perfect place to cultivate rice therefore the country has a high possibility to feed the people by its own. On the bad way, high dependency interpreted as high vulnerability if something goes wrong on the rice system from production to consumption level.

In this situation, Indonesian government tried to come with the solution by using two concepts of food security and food sovereignty that have been acknowledged in the policy and other national documents (for example Food Act 2012; RPJMN 2014a; RPJMN 2014b; Nawa Cita 2014). On the other hand, the practice started to be implemented in order to maintain the stability in the national food system. One of the most recent implementation can be found on Central Java province where most of national rice production comes from (Ministry of Agriculture 2015). Central Java has just launched the new approach to develop it by the end of 2015. Even though it is considered as the new innovative program compares to the mainstream program in terms of rice production by using the public private partnership (PPP) approach. In general, the program aims to strengthen the national rice granary and increase farmer's welfare and the environmental sustainability (PPP Lab ca.2015), however by having these big goals it is predicted not an easy task.

Although the program was not designed to integrate the two concepts, however there are at least two reasons why this program considered valid to be selected as the research object. First reason argued is pointing to the fact that this program has just started after Indonesian government acknowledged food sovereignty on the policy document (Food Act 2012) and further Indonesian government claimed to emphasize food sovereignty to achieve food security (RPJMN 2014a). Second reason is because the program itself takes two big goals as its purpose which related to two concepts main focus. For instance, as the program put the national granary as one of focus, it is indirectly link to the concept of food security big framework, while the consideration of farmer's welfare and the environmental sustainability indirectly connect with the main focus of food sovereignty concept. Therefore, the program correlated with two concepts could be interpreted as the most potential program on integrating food security and food sovereignty in Indonesia at this time. But, potential

does not necessary pointing to the fact that this program will be successfully integrate the two concepts, rather it pointing to the big question mark on how the real practice capability to address the two concepts. By choosing this case hopefully will capture the broader discourse on food system notably on the food security, food sovereignty and the integration of the two concepts in Indonesian context through these research questions below:

- How does the Indonesian Government frame food security, food sovereignty and the relationship between the two concepts?

This question will be answered through the following sub questions:

- a. How do the definitions compare to the global food discourse (FAO definition of food security and Nyeleni Declaration 2007 definition of food sovereignty)?
 - b. What food paradigms are reflected in the Indonesian Government food policy?
- In its framing and implementation, is the rice development program in Central Java likely to integrate food security and food sovereignty? If it is not, why not?

This question will be answered through the following sub questions:

- a. What are the proposed mechanisms for PMHPR in Central Java? Does it reflect integration?
- b. What are the factors determine the chance or the failure of this program to integrate food security and food sovereignty in Indonesia?

1.3 Scope and Limitations

This research paper provides the development of theoretical and empirical exploration of the relationship between food security and food sovereignty. It can be understand as the effort to bring the new perspective in the middle of current debate of food system especially in the competing debate over food security and food sovereignty. The particular scope for the analysis is taking Indonesia as the case in the program of rice development in Central Java. The case selection based on the consideration of closest attempt on paper as the most potential case to integrate two concepts. This research paper examines derive factors that contribute to achieve or obstruct integration concept in the selected case.

As for the limitations, the research will not provide an impact assessment of the program. The first reason is because it is still consider too early to do the assessment for this program, since it has just implemented by the end of 2015. The second reason lies on the awareness of researcher's resource limitation in terms of time and money to finish the research. Therefore, another limitation is related to the data collection. This research will depend upon secondary data collection for further analysis. However, the research still aims to shed a light on how this program comprehensively implemented based on the reflection

from the available source in secondary data to the developed set of theoretical framework that has built from a broad discourse around food system.

1.4 Overview of Chapters

The following chapter two elaborates two things. First is the analytical framework on the ground theory of food paradigm and its relation with food security and food sovereignty. Second part provides information about the methods used in this research. Chapter three explains more about discourse findings on food security and food sovereignty captured in Indonesian food policy and the insight from Central Java case. Chapter three partly provides answers for first research question about the comparison of each concept's definitions insights between Indonesian food policy framing and international acknowledged framework for each term and the second research question about mechanism proposed on the selected Central Java case. Then chapter four mainly covers further analysis about Indonesian food policy challenges on integrating the two concepts by provide a reflection from the data available to the theoretical framework. It provides the rest answer for research questions through a critical analysis for discourse on the food paradigm reflected from Indonesian food policy and compatibility mechanism proposed on Central Java case with the effort to integrate food security and food sovereignty. In the end, last chapter conclude all the findings and the reflection analysis from analytical framework.

Chapter 2 Analytical Framework and Methodology

2.1 Paradigms in Food System Discourse: Positioning Food Security and Food Sovereignty

This research intended to use the food paradigm theory by Lang and Heasman (2015) as the main theory to analyze the set of frameworks built by the food policies and understand the food system dynamic as the outcome. To be able to understand the framing system is important because it set people's mind and able to show the contested power among the actors in food system (McKeon 2015: 70). In the same line, this is what Lang and Heasman (2015: 18-19) called as the food paradigm theory to show that the way current food policy framing food issue will affected the future food system. If we see it by the history, the 'paradigm' word was first used by the philosopher named Kuhn for the famous paradigm shift theory which referring to the thoughts of scientific perspective never set on one absolute view, rather it keep changing by the new perspective with new consideration that never been thought before (as cited in Lang and Heasman 2015: 24). It means every perspective contains certain vision according to how people set the problem in the first place, thus the vision can refer to a different thing.

As the paradigm theory being used in the different field of study, the main idea of the theory remains the same but implement in different issue. Food paradigm theory is one of it. For the food paradigm theory, Lang and Heasman (2015) maintain the relevance with core theory by seeing the shifting of food system discourse in terms of different views and focus that reflected from the food policy. Meaning how food policy frame food issue defines the substance contains in the policy direction. In general, this theory emphasizes on how the people with power organize and makes those who have less power to act like what they envisioned in terms of food system by using food policy as their main justification. The shifting started from one dominant paradigm into the other two new paradigms which emerged mainly to answer the failure of the previous paradigm (Ibid). Further, this research will seek the overlap between paradigms with the concept of food security and food sovereignty as discuss on the following subsection.

Productionist Paradigm towards Food Security

First paradigm or what McKeon (2015), Lang and Heasman (2015) called as the dominant paradigm is productionist paradigm that has been used most of the time in different places on the earth to solve the global food problems. This paradigm assumes that more food production can feed more mouth in many places of the world. As the consequences, this paradigm embedded with the intensification of only certain kind of crop with mass production while leaving the 'ineffective' traditional agriculture and using the principle of market

based approach to solve the food problem and maintaining the food system for both food producer and food consumer. However, although the food availability is indeed important for maintaining the food system, this paradigm takes it into the extreme views which oversimplify the other considerations such as health, accessibility and environmental impact (Ibid).

For some of the explanation above, the productionist paradigm share the similar vision about food system with the concept called food security. Both views seem to put focus more on food availability and maintaining the food system through market based solution. Moreover, McKeon (2015: 73) pointed that 'if productivism is the path...then food security is the destination'. Even though the two share some of the core view about food system, the concept of food security sees as more developing and flexible concept rather than the productionist paradigm. For example, the definition of food security has changed for a few times during the critique and failure in practice (Jarosz 2011). In the present, definition of food security pointed at the one that was declared in World Food Summit1996, saying:

'Food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.' (as cited in FAO 2008)

There are at least four main dimensions appear from the definition which covers physical availability of food, economic and physical access to food, food utilization, and stability of the other three dimensions over time (Ibid). Even though the four dimensions seems as a perfect guideline to overcome hunger, however, it did not emphasize details on 'where food should be produced, how, by whom, under what conditions, for whose benefit and under whose control' (McKeon 2015: 76). In the end, as it overlay the details considerations, the concept of food security is still embedded with the same critique as the productionist paradigm for put the focus on food availability regardless of the other details influence.

The critique for food security, and the productionist paradigm for share same vision, peaked after the global food crisis collapsed and the accumulation effect from the intensive production over the previous decade started to show the implication in terms of social and ecology (McMichael and Schneider 2011). First, it was not able to solve the hunger problem then it hides a bigger negative impact in the end regarding the social and ecological impact. The global food crisis shows a failure of the food productivist paradigm and food security concept for leading the way to gain accumulation profit oriented in the era of market based system (McKeon 2015). In return, the critique shaped into a different approach to solve food system problem, for instance the new food paradigm on Ecologically Integrated Paradigm as it will be discussed above.

Food Sovereignty era in Ecologically Integrated Paradigm

The critique has forced the paradigm to be shifted in the food system. This situation is what Lang and Heasman (2015) called as 'food wars'. The new emerged paradigm aimed to answer the previous paradigm's failure through a different set of framework according to how the paradigm frames the food problems. Food paradigm splits into two forms, the Life Science Integrated paradigm (LSIP) and Ecologically Integrated Paradigm (EIP) (Ibid: 31). LSIP sees the answer for health and environmental impact problems in food system through a scientific knowledge while still maintaining the food production in the same time (Ibid). In my interpretation, with seeing the food production as one of the goals, LSIP still has a nuance from the previous paradigm. The only difference is the way to achieve end goals which involves high technology tools and deeper consideration about individual health alongside with the effort to make a minimum impact on environmental through technology. Therefore, due to research focus, EIP is more related to the discourse especially on food sovereignty discourse.

Coming with the new ideology in the food system, EIP offer to trace the root problem by 'getting the factors to work in a common direction in order to heal both human and environmental problem' (Ibid: 35). This new emerged paradigm match with the existence of resistance movement who has tried to break the system through initiated the new concept in food system which later called as food sovereignty. In fact, the critique toward productionist paradigm and food security in the same time was notably pushed by the resistance movement among the marginalized people of the system. Claimed to act on behalf of all farmers around the world, *La Via Campesina* initiated the counter argument not only to fight their right in the food chain but also to preserve their environment by introduce the new concept called food sovereignty (McKeon 2015: 77). Therefore, EIP often associated with food sovereignty concept which has the similar main focus on ecology and social problem in regards to answer the critique of previous paradigm and concept.

By definition, food sovereignty means that all people has right not only to 'healthy and culturally appropriate food produced through ecologically sound and sustainable methods', but also to 'define their own food and agriculture system' (Nyeleni Declaration 2007a). There are six pillars of food sovereignty; 'focuses food for people, values food providers, localize food system, puts control locally, building knowledge and skills, and working with nature' (Ibid). The different sense can be seen on a bigger picture of food sovereignty pillars compare to the production oriented in the previous explained paradigms. In the same line with EIP, food sovereignty consist more consideration of the details to make sure that every people especially the marginalized people have equal rights along the food system and so does the unspeakable environment.

Even though food sovereignty concept has been developing and gaining more support from different social group, it does not automatically bring the

concept to be publicly acceptable and easy implemented. Firstly, in order to take food sovereignty concept, also EIP in the same time, to reality is not an easy task because it needs a massive change to get out of current mainstream system. Additionally, the concept has bounded with the multiple meaning of sovereignty itself which mostly shaped as ‘socially constructed’ concept (Iles and Montenegro 2015: 484). The scope of food sovereignty is crucial since it will define the next implementation. If the sovereignty pointed to the limited scope, then it will be hard to fulfill food for all especially for those who are not food producers. On the other hand, if the sovereign terms interpreted the scope too broad then it has bigger possibility to repeat the previous concept and paradigm mistake by neglecting equality issue for marginalized people and the nature right. However this flaw should not be pointed as contra argument for food sovereignty. Instead, it should be a strong argument to propose that each concept has its flaws and strength. Therefore integration might be needed for the two concepts.

2.2 Overcome the Concept Competition between Food Security and Food Sovereignty

The debate around the best way to solve hunger issue has become more dynamic. An ‘alternative’ comes after an ‘alternative’ to solve the hunger issue. After the dominant view succeed to increase production and use the market based approach while sacrificed many important considerations behind, the counter argument emerged with different prioritize which focusing on the food producer’s and nature right to solve the hunger issue (see for example Jarosz 2011; 2014, Clapp 2014, Akhram-Lodhi 2015, McKeon 2015). Most of the time, the debate contradict one way of thinking to another as if it contains nothing similar.

The assumption that put the two concepts on the opposite side begun from the emerged of food sovereignty as the contra argument from the food security concept. However some scholars were argued about the useless debate to compete the two concept, in return they suggested to moving the debate forward to integrate both concepts to solve the food problem (for example Jarosz 2014; Clapp 2014). The reason is because each concept sometimes being used or interpreted in an extreme way. Say, food security, often only played as the justification of certain people interest therefore it associated with the worse affiliation, while food sovereignty believers *sometimes* closes their mind to see the bigger picture of the problems (Ibid, added emphasize on italic). On the other side, after clarify each concept clear from other extreme influence then the two concepts possible to be a complimentary for each other. For example, Jenifer Clapp (2014) argued there are at least three reasons why people needs to moving forward from rivaling the two concepts to start building the solid cooperation between food security and food sovereignty:

- First, Clapp argued that the critique to production oriented goal for food security somehow has disregarded the fact that the concept also paying attention to the access to food, nutrition and stability. Although the other considerations are not seeing as important as the production of food, however at very least food security has changed from one single focus on production into taking the other three considerations into account (Ibid: 208-209).
- Second, Clapp questioned the critique about ‘neoliberal market and trade’ hidden agenda in food security implementation often misleading the real issue which is about inequality among producers especially the small scale farmer (Ibid: 209). Further Clapp (2014) clarified neoliberal market and trade means that food security concept can be used as the justification by the agencies such as World Bank to do liberalization agriculture and threaten the vulnerable group like small scale farmers. However blaming the global trade often neglected the main issue on inequality and the fact that some small scale farmers indeed depends on it (Ibid). Therefore, Clapp (2014) refused to make a link between food security definition and neoliberal free trade agenda instead it would be better to fight inequalities farmers in global trade.
- Finally, the third reason is about the critique toward food security that has focused on the individual level for its assessment and suspected to spread neoliberal agenda to the smallest level. On contrary, Clapp (2014) argued individual level of analysis can avoid marginalization even in the smallest level such as household level and in return, it can eliminate the concern for inequality distribution of food. Therefore, it should not be pointed as critique as it has real function on developing food system, rather the implementation of this method that needs to be analyzed to avoid misuse by certain interest.

In sum, Clapp (2014) highlighted the imperfection of each concept but can be a complementary for the other. However, regardless of all three reasons above, she acknowledged that the integration between both concepts is not an easy task because the concepts have been twisted and interpreted differently in different places. Even though Clapp (2014) argued about the importance of integrating the two concepts, however she did not classified what should be the indicator of the integrated concept of food security and food sovereignty. In return, Clapp (2014: 210) generally pointed at least two important aspects in integrating food security and food sovereignty concept which covers ‘agrarian and food right of peasant producers’ and ‘ensure equitable access to food for all, including non-producers or about nutrition’ as the condition that should be accommodated in order to integrate the two concepts. In order to understand how exactly framework of the integration between the two concepts can be implemented in real practice I have identified and elaborated the example case with specification as it further discuss below.

Case of Integration Food Security and Food Sovereignty

Particularly, there is an indicated example case of integration food security and food sovereignty. For instance, Jarosz (2014: 175) pointed Belo Horizonte case in Brazil as the model of integrated value between food security and food sovereignty. This case probably refers to Chappell's (2009) earlier research on political ecology from food security and tracing its effect on the connection between farmers with sustaining the biodiversity in Belo Horizonte, Brazil by using ant as the indicator. Chappell's research shows that sustainability has come through an 'economic security, provide basic human right to safe, adequate and nutritious food... leads to enhanced biodiversity' (Ibid: 208). Belo Horizonte was awarded as 'the world's most comprehensive policy that tackles hunger immediately and secures a healthy food supply for the future' (World Future Council 2009: 3). It was considered as one of the leading place in food security policy through food sovereignty approach (Ibid).

Briefly, there were two main keys influence the successful Belo Horizonte case, notably institutional support and the affected farmer's livelihood in terms of their freedom to choose and in return the farmer's practice affected nature (Chappell 2009). For institutional support, it was a drastic change ultimately on food institutional after food riots marked by the emerged of new institutional support by not only official government but also included civil society, farmer's community and the private sectors (World Future Council 2009). This is basic key to create a change in food system through a different approach with effort to accommodate the interests of many actors involved in the system. In the end, together they set new system with common goal that fit with each of their interest and in return should be committed by all.

This case shows how 'food for all' as the main concern of food security can be achieved alongside with the ecological and social high consideration among the food producers as the main concern of food sovereignty. It reflects what Clapp (2014) argued about the integration between food security and food sovereignty.

2.3 Research Methods

According to the aims of this research on the framing issue regarding food security and food sovereignty concept in Indonesian context by particularly pointed to the recent program in Central Java, the methodology applied two methods namely content analysis and critical discourse analysis. It was done through secondary data available on the official policy document related to food issue for content analysis, and the information gained mainly from the consortium program's official websites including the interview result related to the mechanism of PMHPR in Central Java for critical discourse analysis.

In details, the research started from the first phase to answer the framing issue by using content analysis, following Adler and Clark (2003: 394-395),

‘...to compare the content of such communication with some standard, or to describe trends in communication, among other things.’ Communication in this research is referring to the communication from the government on behalf of the state, to the society in terms of national food system. To conduct the content analysis method, I have selected the unit of analysis for this research on ‘food security’ and ‘food sovereignty’ terms, as for the unit of observation for this research consists of policy documents, government official statement and other related sources. To be more specific, I have identified the unit of observation for this research in this following list:

- Indonesian Food Act Number 18 Year 2012 (Food Act 2012);
- Indonesian National Medium Term Development Plan 2014-2019 (RPJMN 2014a; RPJMN 2014b);
- Nine Priority Agenda as the vision of current President of Indonesia (Nawa Cita 2014);

Ultimately this research used content analysis in qualitative nature. Thus, it was not aiming to count the frequency of unit analysis appearance in every unit of observation. Instead, it aims to gain an understanding about the existence of unit of analysis in every unit of observation. It was done through a mapping process to trace the clarity of each unit of analysis in every unit of observation according to particular indicators which are; FAO (2008) indicators for food security terms and Nyeleni Declaration (2007b) pillars for food sovereignty terms. In the end, the result of the clarity tracing was, again, compared to the theoretical framework of food paradigms by Lang and Heasman (2015).

While there is disadvantage point in using content analysis, for instance, ‘does not encourage a sensitivity to context that, say, literary criticism often does’ (Adler and Clark 2003: 394), therefore critical discourse analysis used to cover this issue. As the critical discourse analysis strength point to show ‘the relationship between discourse and power’ (van Dijk 1996: 84), this would be a complementary to content analysis. For this method, the main data used was secondary data about the information related to the case of PMHPR in Central Java that mostly collected from the internet source such as the official websites of the actors involved in the program.

Chapter 3 Indonesian Food Policy Insights: Policy Frameworks and Mechanism Proposed

In regards to answer the research questions, this chapter provides insights about Indonesian food policy. First, to answer the framing issue by Indonesian Government, it seeks insight based on the selected main policy that shapes the national food system. Then, to answer the mechanism proposed in the selected program of rice development in Central Java, it provides the collected data about the practice of the case. Before further discussion, I would like to clarify the meaning of 'Indonesian food policy' that I used along this research. The term refers to Lang and Heasman (2015: 18) definition of food policy on:

'those policies...that shape the outcome of the food supply chain, food culture and who eats what, when and how, and with what consequences...to unravel the strands of competing interest, decision-making and policy objectives and strategies'.

In order to understand the framing direction on food security and food sovereignty, it is important to see at Indonesian food politics dynamic, where the term food sovereignty has just adopted on the recent policy document and claimed to be emphasize more on the present government. The terms food security and food sovereignty can be found in Indonesian food policy at this time. Where those terms adapted from is another question to be answer, but for this paper I would like to seek the compatibility or the contested meaning between each term with the definition concept that has been acknowledged internationally. For food security, I have selected the latest definition declared in the World Food Summit 1996 as it used by FAO ever since. While for the food sovereignty term, I have selected the very first public definition declared in Nyeleni Declaration 2007.

To take the discussion into more specific case is this research effort to draw a relation between theoretical discussions into an empirical state by shed a light in a place where it has never been explored before. Central Java case selected to be analyze whether it can represent the theoretical debate among the food scholars about integrating food security and food sovereignty or not. Having questioned about the case relation with the possibility to integrate the two concepts is requiring for an insight about the mechanism of the program. The second part of this chapter provides what the program proposed before the discussion continues to analyze the correlation with the integrated food security and food sovereignty in the next chapter.

3.1 Defining Each Concept Framework Insights

With the recent government in charge and the recent Food Act (2012), Indonesia now acknowledged at least three principle concepts to manage the national food system.

First and the oldest is food security concept. It has been existed as the mainstream goal from time to time since Indonesia gained independency in 1945. No wonder if this concept has not only became a mainstream concept in policy context but also in Indonesian people's daily life. I am speaking about the majority number, while there are the minority number as the exception. However, as the government takes this concept into an extreme interpretation that caused a production oriented for only a certain crop of food, in general, people started to seen food as the commodity and always put value on it with some number. As the consequence, the dynamic along the food chain is seems to be controlled by the economic principle and the market based approach.

This effect reflected on the food system in general. For example, the food system is no longer dependant on the farm rather using many technologies to produce more food, to feed more people (Lang and Heasman 2015: 19). For Indonesia, this phase was started during the era of green revolution. Even though the era brought a disaster impact into environment especially, it was indeed secure the availability of food—rice specifically—for every Indonesian people at the time for only a brief moment (Mears 1984; Pingali et al 1997: 38). Probably for this reason noted on history, the concept has constantly been used until this moment even after almost 40 years. In return, the two additional concepts to manage the national food system pointed as the improvement way to reoccur the success of self sufficient moment while mitigate the negative impact.

The second concept acknowledged in the Indonesian food act (2012) is food self-sufficiency concept. Related with the previous concept, now the self sufficient represent as the separate concept from food security and define as:

‘the ability of the state and nation in producing various Food domestically that can guarantee the fulfilment of sufficient Food demand that reach individual levels using potential natural, human, social, economic resources and local wisdom with dignity’. (Food Act 2012, s.1).

However, this research perceived it as an embedded concept rather than an independent one. Therefore the following discussion will not mention this concept independently as the Food Act 2012 explained. Rather the concept relate with the concept of food security or the food sovereignty. For the food security discussion, this concept can be considerably related with its general goal. The only difference is the additional specific main actor held responsible to fulfil it, which refers to state. While for the food sovereignty discussion, it relate with the way of fulfilling the state responsibility on the consideration of social and ecological situation as it further discuss below.

The third and the latest acknowledged concept in the food policy is food sovereignty. This concept was never mentioned in the previous Indonesian Food Act. Therefore, as the new emerged concept it has to deal with the oldest concept that has appeared long before food sovereignty emerged, notably food security. Further, the present Indonesian government envisioned the position

of the new emerged concept as the way to support the national food system achieves the dominant one (RPJMN 2014a). The intersection between the two is indeed the main focus for this research in Indonesian case. But beforehand, the first mission was directed to unpack the interpretation of food security and food sovereignty concepts in the Indonesian food policy.

Food Security Similar Definition

As the longest concept that has been existed in Indonesian food policy, food security concept can be considered as the dominant one. It is define as:

‘...the fulfillment of Food for the state up to the individuals, that is reflected by Food availability that is sufficient, both in quantity and quality, safe, diverse, nutritious, prevalent and affordable as well as not conflicting with religion, belief and culture, to live healthy, active and productive in a sustainable manner.’(Food Act 2012, s.1)

This definition is not an exact duplicate from what FAO acknowledged. However, in general there are similarity points between the definitions of food security acknowledged by FAO with the definition in Indonesian food policy. First, the scale of analysis is set on the individual level. In the same line, FAO (2008) mentioned *all people* as the subject on the scale of food security analysis. This point made the consideration of equity for every human being is ensured, regardless gender, race, generation or other differentiation (Clapp 2014). On contrary, some people perceived it as another way to spread the ‘neoliberal hidden agenda’ in food security by directing every people to be a part on the market based solution and has a high possibility to impact bigger picture to force the intensify food production with industrial agriculture and marginalize the poor (for example see Jarosz 2011). While it may be true, nonetheless the consideration of level analysis lies in individual level should be understand as an effort to eliminate marginalization even among the household level.

Furthermore, the second similarity can be found on the indicator of food security that pointed to the condition when food quantity and quality meets with the needs of all Indonesian people. By quality mainly directed to the food production availability, while quantity means the characteristic of food include the safety, nutrition and certain preferences related to the religion, belief and culture. Both considerations share the similar point with FAO definition of food security on food availability and food utility. Quality in Indonesian food policy framing is referring to FAO dimension on food utility while quantity referring to the food production available.

The consideration of food availability interlink with the third point similar between the two definitions that is related to access issue for both physical and economical. Physical access expressed on the statement that pointed food availability should be equally distributed in every area of Indonesia. On the other hand, the economic access can be seen on the consideration that food availability should be affordable to all people. Again, these indicators of food

security based on Indonesian food policy have many similarities compare to the indicators of food security based on FAO definition.

The fourth similarity is about the sustainability acknowledgement on the definition to maintain food production. In the same line with FAO indicator that pointed the stability of the other indicators, Indonesian food policy also pointed the sustainability production manner to cover the other considerations explained above. Stability and sustainability are not the same exact word but it contains the similar meaning on maintaining the system from time to time, thus it makes both definitions share the similar meaning.

Food Security Compatibility: Beyond Definition

Even though in general the two definitions proved to share at least four similar considerations on food security concept, however this research will not stop tracing the extensive similarity beyond the definition. Therefore, further this research deepening the analysis by comparing the understanding between the four indicator of food security and the whole Indonesian food policy in general to take some of the insight regarding to the food security consideration (see Annex A). In brief, the comparison result shows the similarity as much as the definitions of the two institutions. From the FAO's four dimensions of food security, Indonesian food policy contain most likely similarities in all points.

For instance, as FAO (2008) framework mention food availability as the first dimension, while in the same time overall policy put the availability issue as the main point. Even though food security concept has been developed since its first emerged by not only considering food availability, however it is unavoidable to see the strong consideration on food availability as the core message of the concept (Clapp 2014). The same situation also happened for Indonesian food policy. As the definition started to show other consideration aside from only production issue such as access, quality and sustainability, but in the same time it leads the other consideration to support the increasing food production at last as it will further discuss on the following discussion below.

The second dimension on food security covers the access issue for both economic and physical access (FAO 2008). The direction is highlighting issue about poor farmers who often have a hard time to get their food. The irony here reflected by the fact that farmer as the one who produce food but they cannot afford the food for themselves. Dealing with access issue, as if choose to take the shortcut ways rather than find the problem underlie, Indonesian food policy envision the way out by empowering farmers so they will be able to compete the other actors, namely agribusiness, in food chain. It proves by the vision on subsidize the facilities and tools to increase their production and make it more 'effective', for instance (Nawa Cita 2014). By pushing farmers to be a part of the system means pushing them to increase their food production in the end, and this is what strengthen the assumption of other dimensions are

only the additional to support food availability as the core dimension of this concept.

There are another ways to help farmers overcome economic and physical access challenge by including farmers in the market based system. For example, Indonesian food policy claims to support them through a regulation of import and export stabilization so it makes no harm to the farmers (Food Act 2012, s.4; RPJMN 2014b: 389; Nawa Cita 2014) and through re-emerge Indonesian Bureau of Logistic (BULOG) as the independent institution with the main function to manage the stability of food, mainly rice as staple food (Nawa Cita 2014). However, if we see through historical context about this issue, BULOG was banished because it got many critique from public. As the independent institution that only have obligation to report to the president, it accused to have a power abuse practice related to the food issue that famously known as the BULOG gate scandal (for example see The Jakarta Post 2000).

The independent institution has overall control over the food—especially the staple food—cycle from production to consumption level to stabilize food price and national needs (BULOG n.d.). Even though the authority of BULOG has been decreasing since the first time it emerged with the powerful authority (Ibid), for this time it is still not clear on how the institution will re emerge and with what consequence might occur. The idea of having one single institution to control the whole food cycle is potentially undermine the other important consideration such as farmer rights and the environmental matter. Whereas, the ideal vision would be integrate every institution involved in the food system to work together in order to build and maintain the national food system in balance because food issue is linked with many considerations.

Moving along to the third dimension of food security that, again, generally supported by Indonesian food policy. Dealing with the utilization of food as the ultimate needs for every human being, this issue is covering nutrition and healthy consideration. Alongside with the nutrition issue, FAO third dimension proposed a suggestion to have a food diversification for consumption. Indeed, Indonesian food policy is supported this idea (Food Act 2012, s.6), even though diversification food is not very common in practice. In the same time, contradictory from diversification, Indonesian food policy make a justification to prioritize certain food crop due to Indonesian people high demand (Food Act 2012, s.4; Nawa Cita 2014; RPJMN 2014a). Additionally, the health issue indicated in the safety assurance to the additive food material such as genetic engineered food product and food irradiation (Food Act 2012, s. 7). This effort is mainly directed to eliminate public anxiety about the unnatural additional material in food production as Indonesian government has been trying to strengthen food availability through scientific way. Despite the critique about genetic engineered food product, Indonesian food policy is still acknowledge

the use of it to support, again, food availability as the general idea dominate food policy.

The last dimension of food security is about ‘stability of the other three dimensions’ which influence by at least three considerations such as ‘weather condition, political instability and economic factors’ (FAO 2008). The weather is a natural unavoidable important point to stabilize whole food cycle, in that matters, Indonesian food policy pointed a consideration to build the advance research and development to understand the mitigation act of the climatic change (Food Act 2012, s.11; RPJMN 2014a: 217). Notably, the focus of food mitigation act is mainly to secure the stability of physical availability of food and maintaining the distribution (Food Act 2012, s.11 explanation part). Again, this point correlated to the general idea that pointing to the domination of food availability consideration.

As for effort to avoid the political instability is being address through the discussion to re emerge the independent institution that have power to control the whole food cycle from production to consumption level (Nawa Cita 2014). With assumption of independent institution is apolitical institution it has led the policy to put full control for the institution. There are at least two contra assumptions against it. First, the independent term is not necessary means that the institution has no obligation to take command or to report their activity. On contrary, the fact shows that the institution placed in the position under president of Indonesia (BULOG n.d.). Thus, it will be too naïve if we interpret the independent term literally as a condition of free from external control. Second, the facts that food issue located in the trajectory of many aspects and interest is contradict the independency literal term. Having full control over an important matter can open a possibility to be more vulnerable than it already is. In the end, these doubt needs to be taken into account.

Dealing with the mitigation of economic factors that might be obstacle to maintain the food access sustainability; Indonesian food policy pointed the counter-productive policy for small scale food producers as the solution (RPJMN 2014b: 66). In the same line, the protection is directed in terms of export-import regulation for the small scale food producers (Food Act 2012, s.4; RPJMN 2014b: 389; Nawa Cita 2014). This written effort to promote and protect the small scale food producers, however, is not accommodate the class diversification among the group. By saying the small scale farmer in general, the classification is not clear whether the policy pointed to those who involve in the production system with limited amount of food because they only have limited access to resource and market or includes the other details condition such as who own the mode of production, who decide the production system and where will they sell the production in what condition is not consider to have certain treat.

Overall, the concept of food security acknowledged by FAO consider a lot more than just a production focus as the concept first emerged. But in the same time, it contains lack of detail explanation about how each dimension need to be address (for example Jarosz 2014, McKeon 2015). This gap makes the opportunity for certain interest to use it as a justification and in the end often violate the concept's ultimate goals. Therefore, even though we can see a lot of similarities between the FAO framework of food security and insights contains in Indonesian food policy, it is not necessarily mean Indonesian food policy in the right track. Instead, the similarity contains contradiction further flaws expansion even though the bigger picture is to achieve the same goal. While the details about achieving the end goals are not well explained by food security concept, the next concept provides a different point of view as it will be elaborated more on the following discussion.

Newly Emerged: Food Sovereignty Concept

Following the food discourse in Indonesian context, the interesting part has started when the concept of food sovereignty emerged and acknowledged in the food policy documents. As the newly emerged concept that taking part in the national food system, food sovereignty define as:

‘...the right of the state and nation that independently establish Food policy that guarantee the right on Food for the people and grant the right for the society to establish Food system that is appropriate with the local potential resources.’(Food Act 2012, s.1)

The definition refers sovereign on food sovereignty to the state rationale, but then the state needs to take the participation from all people into account and preserve it. By putting the state as the center of point in the concept, it already shows a different sense with food sovereignty definition by Nyeleni Declaration. Even though it does acknowledge the rights of each people to choose their own food system which is the core argument on the definition of food sovereignty according to Nyeleni Declaration, but in the end it comes down to the limitation of the state sovereign to share the freedom to choose food system for every Indonesian. Therefore the freedom for every people in Indonesian food policy does not mean the same with the freedom stated in Nyeleni Declaration.

Whereas the concept has just emerged, the practice of food sovereignty probably has always been related with, especially, Indonesian local people who live in rural area. For example, previous research done by Oekan and Gerald (1986) in West Java rural area named Jatigede shows that lack of nutrition alongside the mainstream diet of rice was eliminated by the existence of home garden local production. Further they argued that the more remote the place, the more sufficient nutrient fulfilled compare to those who live near market (Ibid). The reason was because those who lived near market tend to sell it to the market instead of consume it for themselves then buy the other production to eat and ended up failed to fulfill sufficient nutritional needs (Ibid: 314). This

case shows individual freedom to fulfill their needs was merely destroyed by the market based system which the government has been spread and believed to manage the national food system. However, as the policy has changed and the recent government claimed to emphasize food sovereignty into the national food system consideration, thus it is necessary to gain more understand about Indonesian food policy insights related to food sovereignty as it provides on the next discussion.

Contested Food Sovereignty Meaning on Indonesian Food Policy

Recognition of food sovereignty as a concept in Nyeleni Declaration (2007b) proposed not only the definition with some main points contains, but also pointed at the rejection points as the opposite side of the concept's main argument. This is what makes food sovereignty concept clearer than previous concept in terms of the clarity about the concept details. To dig more insight on Indonesian food policy related with the clarity of this concept, thus I have compared the main pillars and the rejections of food sovereignty according to Nyeleni Declaration alongside with the insight from Indonesian food policy (see Annex B). Overall, the result shows there are two dimensional sides of the Indonesian food policy. One side support the food sovereignty pillars, while the other side is contrasting the main pillars by supporting its rejected points.

For instance, the first pillars which focusing food for people is supported by Indonesian food policy through the acknowledgement of food right for all therefore the state must be responsible to fulfil it as a priority before using food production for other purposes (Constitutional Law 1945, s.10a; Food Act 2012, s. 4). On contrary, while the first pillar of food sovereignty is restrict to see food production as commodity or even more just as the material of big global companies to produce food to be sell again, Indonesian food policy stated that agricultural sector is one of the state economic sector strategic strength therefore the policy envision to double up national economy through this sector (RPJMN 2014b: 818), for example through opening an opportunity to export food production (Food Act 2012, s.3). However, since the policy also restrict exporting food production before fulfilling the national needs, then the policy also pointed to increase food productivity for 5-10% through subsidized seeds, fertilizers and guidance (Nawa Cita 2014). It could be a good thing or a bad thing in the same time. Good thing to empower farmers, but bad thing for turning farmers to be a part of the system and makes them leaving their way of practicing agriculture replaced by the intensify food production oriented.

The second pillar of food sovereignty highlighted the food producers' rights. In the same line, Indonesian food policy is emphasizing the needs to promote and protect food producers especially the small scale food producers (Food Act 2012, s.4; RPJMN 2014b: 66). This ideas are addressed through a consideration to build the agriculture insurance, monitoring the exchange rate index for farmers and taking action to prevent marginalization among farmers

in terms of gender and generational issue (RPJMN 2014b: 363; Nawa Cita 2014). Above those compatible points between food sovereignty pillar with Indonesian food policy, there is also a contradiction point in it. Contrasting the food producer's right, Indonesian food policy envisioned to give a big part to the private, especially in terms of maintaining the staple food production such as rice (RPJMN 2014a: 212). This regulation has a big possibility to violate its own aims to protect the small scale food producers. As big agribusiness taking part to develop, say, rice production, then it could mean the small scale rice producer across Indonesia will have to face the big companies as a competitor in the market. With more advance tools to intensify food production, the companies are in advantage position for a system that rely more on the market based approach.

The third pillar of food sovereignty about localizing food system shares some complementary view with Indonesian food policy. Even though there are no a direct policy to make a producer and consumer closer, Indonesian food policy open a possibility for 'people to chose their own food system that fit with the local resource' (Food Act 2012, s.1). Additionally, it demands for the transparency food chain especially for rice as the staple food (Nawa Cita 2014). Somehow, it can be interpreted as the way to make the link between producer and consumer clear. However, again, the contested exist in the middle of the compatible points. The freedom to decide their food system that fit with the local resource cannot be interpreted in literal meaning, because the policy also mentioned that the selected food system needs to be in the same line as the national plan for food system (Food Act 2012, s.3). Moreover, as the national infestation direction is pointed to the 'outward investment', meaning that the national companies have to spread out their business to other country in any ways of expansion for doubling up the national economy (RPJMN 2014b: 387), it can be another entry point of promoting expansion of big corporate to take control in food production, in return widen the gap between producer and consumer. Another interpretation might be difficult to control food export before the national demands fulfilled as Indonesian company expand to other countries.

The fourth pillar covers idea on keep the natural resources and mode of production accessible for the food producers expressed through the president new vision. By mentioning the direction about agrarian reform, seed bank and sovereign organic fertilizer, it claims as a small step to make an accessible mode of production for food producers (Nawa Cita 2014). On the other hand, the rejected idea of this pillar which privatization laws and intellectual property somehow violated by Indonesian plant variety protection law (2009, s.1) with positioned the small scale food producer in disadvantage. The policy stated the first come first served principle on the intellectual property for plant variety. In this regard, small scale food producers who often lack of information about it might be losing the intellectual right to those who are more aware on how the system works, such as the agribusiness company for instance.

The fifth pillar express concerns on knowledge and skill that useful for maintaining the sustainable practice in localize food system and the harvesting system. While Indonesian food policy supporting this idea through planning process consideration about local potential (Food Act 2012, s.3) and develop harvesting season prediction (Ibid, s.10), it is also support the rejected points of this pillar by opening the opportunity for genetic engineering to develop (Ibid, s.7) and the superior technology use to increase food productivity (Ibid, s.11). Therefore, the contradiction about being natural and ‘unnatural’ in the food process contesting inside the policy direction just as the fifth pillar of food sovereignty contesting with its rejection point.

Finally the last pillar is put focus towards environmental consideration and avoids the practices that could damage the environment. Again, on one hand Indonesian food policy generally taking into account the consideration about environment in the planning process (Food Act 2012, s.3) and further support the development of the forecast information to mitigate climate change (Ibid, s.10). On contrary, Indonesian food policy also support in the intensification practice of certain crops as priority or known as monoculture practice (Ibid, s.4; Nawa Cita 2014) and the use of superior technology that can possibly impact the environment (Food Act 2012, s.7).

As it has argued before, Indonesian food policy insights show contested support to food sovereignty core spirit according to Nyeleni Declaration framework. Indeed the policy has acknowledged food sovereignty concept, but in facing the stronger system existed it has failed to share the same intention with the main points in concept. However, it is not true to say that there is no prove show the effort to pursue food sovereignty sprit on the policy. In fact, there are some important changes acknowledge on the policy following food sovereignty concept emerged. But still, those changes are destructed with the policy support to the opposite crucial view. This is what makes the existence of food sovereignty on the policy insight cannot be related with argument consist on Nyeleni Declaration. It would be make more sense to say this moment as the early stage of food sovereignty development in Indonesian context.

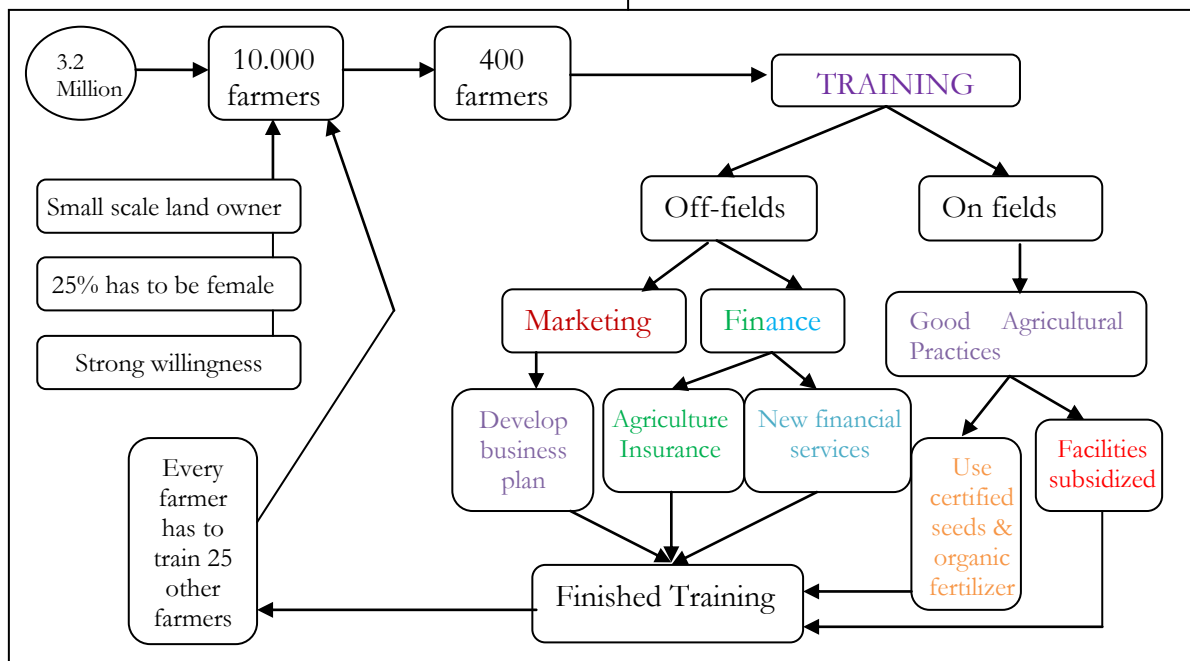
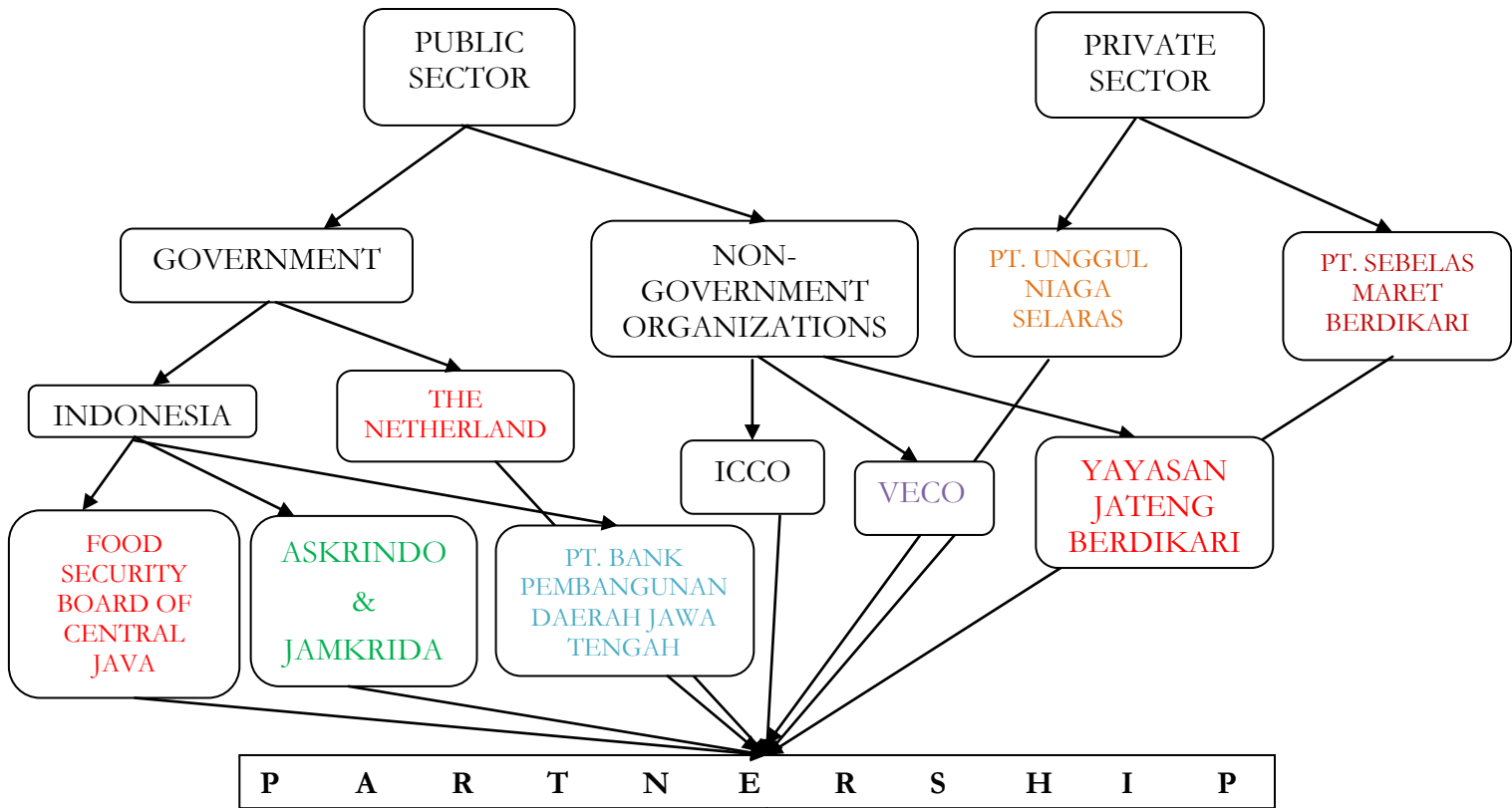
3.2 Central Java Mechanism Proposed Insights

In exploring Indonesian food policy insights, it would be fair to not only examine the insights from the written policy point of view, but also the country engagement with the real practice. After the acknowledgement of new concept to manage the national food system, there was one of the new initiatives found on rice development program in Central Java. The newest element claimed on the program is referring to the construction of the player involvement behind. By involving different layers of stakeholders on this program, it uses PPP that considered as the new initiative in terms of maintaining national food system. Additionally, although this program were never mentioned any intention to use food sovereignty concept to achieve food security, just as the main food

policy direction claimed, but this program were intended to put consideration about farmer's welfare and minimizing environmental impact from agricultural practices (PPP Lab ca. 2015). With this being said, the two main focuses are notably share the same focus with food sovereignty core concept. While in the broader picture, the program also aims to strengthen the national capability to produce enough food production for national demand (Ibid), which share similar aims with food security big goal. Thus, the program selected with those fair reasons above to be further analyzed whether it can be a potential model of development for integrating food security and food sovereignty or it has no chance at all.

The examination task of this case started from unveiling the mechanism proposed in the program. Basically, when the program mentioned to practicing PPP approach, it means that the actors involve in the program will be, at least, more than two. The consequences, in one side, the program is possible to have a solid system and big number of support to accommodate what it needed. However, in the same time there is a possibility overlap interest among the main actors inside the program. Between the two possibilities, there is only one way to see the truth trough understanding the mechanism implemented on the program and see the involvement of each actor throughout the program. To illustrate the mechanism of the program in brief, I have created a simple mind mapping of the program just to show the actors involvement and the relation between the program aims to focus on farmers and environment with the real mechanism implemented (see figure 3.1).

As we can see on the mechanism map, there are different actors involved in the program. Mainly the Dutch NGO, ICCO in Cooperation SEA as the main initiator of the program claimed to start the program because of Central Java potential resource has not been used in the right way for the food—rice particular—production therefore there has been lacked benefit for the small scale producers (Asmoro, P.B 2016). ICCO believes that the region has so many potential in terms of natural resource and the human resource (Ibid). Coming with the idea of PPP approach, ICCO was inspired by the successful story of VECO project in Boyolali, a small village in Central Java where the small scale farmers were trained to have a developed agriculture practices both on field, with the internal control of all the farmers' activities and off the field, with opening the new marketing system to Belgium where the NGO comes from (Ibid).



GOALS (RVO n.d.):

1. INCREASING RICE PRODUCTION 20% PER YEAR
2. INCREASING INCOME FOR BOTH MALE AND FEMALE FARMERS 42% PER YEAR
3. THE INCOME OF FEMALE LABOURERS IN THRESHING WILL RISE 30%

Figure 3.1 Mechanism Map of PMHPR

Not only engaged with the successful trainers, ICCO also engaged with ‘the Dutch Ministry of Affair through tender for the Facility for Sustainable Entrepreneurship and Food Security’ (ICCO n.d.). Through this opportunity, the program has secured almost 50% project fund or equal as € 946,300 from the Dutch government contribution (RVO n.d.). The rest of actors involved in the program were coming through the partnership of Indonesian government, namely the Food Security Board of Central Java on behalf of the official local government to take parts in this program by supporting the training assistance together with local NGO called Yayasan Jateng Berdikari (BKP Jateng 2015). The necessity of training assistance is mainly because the local people must feel more comfortable with the same language people and the local institutions must have known the daily life of local people better than the expert from other countries. Furthermore, the state owned enterprises namely PT. Bank Pembangunan Daerah Jawa Tengah (BPD Jateng), ASKRINDO and JAMKRIDA were positioned to support the program through financial aspect. The other two private sectors joined to support the marketing process for PT. Sebelas Maret Berdikari and the quality inputs in agricultural practices for PT. Unggul Niaga Selaras. Although it may be a lot more actors involve in practice, but in general, there are at least nine main actors involve on the program committed to join partnership with the following details¹:

- It started from selected 10.000 farmers among 3,2 million farmers in Central Java as the participant of this program. The selection was made by a certain requirement covering a consideration on a small scale owner with 2500 people among them should be woman and show interest to participate in the program. Even from the number of farmers selected, the selection keep going on to shrink down the number into only 400 farmers who will receive direct training on the program. While the rest will be trained by those 400 selected farmers after they finished their training.
- The trainings are divided into two different sections, that are the on field training and the off field training. The trainings claimed to be the way of making the small scale farmers has a better life quality through their profession excellence. Each representation of the community with requirement qualified should be trained before the planting season start. The training on field covers activities such as educating the farmers with good agricultural practice according to the successful trainer, VECO. Further, on field training is mainly supported by PT. Unggul Niaga Selaras for providing the certified seeds and organic fertilizer, and some new tools accommodate by the money donors. While for the off field training activities which

¹ The elaboration from figure 3.1 is according to interview (Asmoro, P.B 2016) and other related secondary sources.

includes the marketing and financial matters, there are more players involved. Mainly VECO take charge for train the farmers about marketing matters as they has made their previous project succeed to sell food production in national market and Belgium market. Then financing matters is supported by Indonesian state owned companies such as ASKRINDO and JAMKRIDA in providing the agricultural insurance, and another support from BPD Jateng for establishing new financial system in peculiar farmer client so they can create a better financial planning in the future.

Overall, the mechanism proposed in this program relies a lot from support from both private and public institutions to give something and change the farmer's life through a set of trainings. The same coloured words on figure 3.1 shows each institution's participation in the program briefly, as for the black coloured institution basically participates through money donor or other unspecific contribution. In the end, even though at first this program claimed to address farmer's welfare and environmental sustainability, however the written goals (RVO n.d) are only directed to the increasing of production, consequently farmer's income and specifically paying attention to the female farmers. Thus this program interpreted farmer's welfare will come after the increasing production increase their income. As for the issue of environmental sustainability is not clearly mentioned on the program goals.

Chapter 4 Indonesian Food Policy Challenges on the Integration of Food Security and Food Sovereignty

This chapter continues further analysis from the previous chapter about the Indonesian food policy insights on the official documents and the practices of Central Java case. There are three sub sections cover different challenges to integrate food security and food sovereignty concept in Indonesian context. First analysis is the challenge regarding to food paradigm in Indonesia as it is reflected from Indonesian food policy. This analysis mainly draws a correlation between the written policy documents content and the food paradigm theory by Lang and Heasman (2015) to see the interlinked in between. The second challenge pointed at the linkage between food security and food sovereignty concept integration reflected from the case of Central Java. For this analysis, the result highlighted the compatibility of mechanism proposed in Central Java case with the integration of the food security and food sovereignty. In return, the analysis revealed three main discourse results about the case.

4.1 Indonesian Food Policy Reflection on Food Paradigm

The most explicit reflection of the food system in Indonesia is comes from the way government framing food issue on the official policy document. The paradigm word itself can never be found on the document explicitly, but it can be identify by using the theoretical framework to unveil the main intention of the policy document direction related to the food system. In this research, I use Lang and Heasman (2015) theory to differentiate three paradigms on food system through 12 points indicator as the differentiator (see Annex C). I have compared three different food paradigms and Indonesian food policy insights, to see which paradigm more compatible with the policies (see Annex D). To show a different compatibility, I have made three different claims reflected from Indonesian food policy insights to food paradigm's indicators, notably claims differentiate by the following statement; (1) strongly indicated, (2) weakly indicated, and (3) not indicated. Each state refers to the compatibility level with the insights from Indonesian food policy among the other. Thus, in the end, one food paradigm with more 'strongly indicated' state than the other two reflected as Indonesian food policy paradigm.

The Dominant Remains Dominant: Productionist Paradigm

The comparison result shows a dominant alignment only on one paradigm as the overall 'strongly indicated' points of Indonesian food policy share the high compatibility with the productionist paradigm. From 12 indicators of

food paradigm available, all 12 indicators explicitly shows a strongly indicated to productionist paradigm. For instance, the driving force of the food policy mainly directed to increase the food production and aiming to double up the economic income through the intensification (RPJMN 2014b: 818). It means that food is seen as the commodity especially as the president vision; Nawa Cita (2014) clearly stated food as one of strategic sector to increase the national economic. On top of that, the basic consideration of Food Act (2012) to rule the national food system lies on the large number of Indonesian people that need to be feed, therefore food productionist paradigm share the most explicit similarity with the aim of intensification food.

In return, it shares compatibility through the policy focus to develop the effectiveness of food production through industrial way such as subsidize on chemical fertilizer (Nawa Cita 2014), rather than the alternative practices. Most of the policy pointed to maintain priority of food system on rice production above the other crop (Food Act 2012, s.4; Nawa Cita 2014). Consequently, it has been shaping Indonesian people dietary pattern for many years just as the green revolution era started in Indonesia put orientation on rice intensification. One could argue that Indonesia has the perfect natural resource to plant rice, thus the policy cause no harm to the county in the future. However, it has proven wrong after the green revolution leaves huge negative impacts notably on environment in general and the social life for poor people (Hansen 1972).

Although the lesson should be learn, but the present policy framework is still highly contains the sense of green revolution as it put the food system on market based approach with two general assumptions. First assumption is if food production highly available for all then the middle and low class market can afford it. Second, in order to make food availability for all, the focus needs to be limited on only certain kind of crop so it can be intensify in a broader scale. As Indonesia attached to rice as the staple food, thus rice is the prioritize crop for the policy framework. The way Indonesian food policy insights shows a priority toward rice and directing effort toward increasing food production in many ways, then it share the same views with the core productionist paradigm indicators (Lang and Heasman 2015).

From another point of indicator, the notion of productionist paradigm on market relation shared similarity with Indonesian food policy insight for taking not only the national market but also the global market as the orientation (see Food Act 2012, s. 3; RPJMN 2014b: 818). As consequence, the system put consumer on the centre of control. To some point it makes the agribusiness sector on advantage by the mainstream business approach with profit oriented, for instance, through the agribusiness 'effective' practices on massive scale of food production. The word 'effective' mostly interpreted as the way of the mechanism to pursue as much profit as possible without taking into account the importance of other consideration such as the environment impact or could be the social problem for instance. By pushing the other 'less important'

consideration than food availability focus, it marked another strong indicated point between Indonesian food policy insights with productionist paradigm.

Moreover, as Indonesian food policy open the opportunity for agribusiness sector to develop and embrace the market based system (RPJMN 2014a: 212) and with the mainstream agribusiness practices that prioritized profit through mass production, the agribusiness sector can provide food with cheaper price ready to compete with other food producers who are not using the ‘effective’ mechanism as the agribusiness used. It could be harmful, especially for the small scale food producers who still use traditional practices instead of using highly mechanic modern tools. Harmful comes as the system put consumer choice as the driving force and it influence by many factors mainly including branding and cheap price while quality and externality often neglected behind. One could argue this situation as the market failure, but in my opinion, it would rather be considered as a neoliberal practice with extensive capitalism trough a market based system. On top of that, Indonesian food policy insights support the system by reflected productionist paradigm remains as dominant view.

Hardly Emerged LSIP and a Long Way to go EIP

As the dominant view of productionist paradigm reflected as the strong paradigm from Indonesian food policy insights, the other two paradigms struggling to emerged because it has less similarity support than the dominant. For instance, even though LSIP contain similar thought with productionist paradigm in terms of using market based approach and entrenching capitalist branch in a massive privatization (see Lang and Heasman 2015), in fact LSIP has the least compatibilities with Indonesian food policy (see Annex D). The reason lies on the requirement advance technology to operate LSIP which rarely can be seen on Indonesian food policy insights as main focus. Now that LSIP share almost nothing similar with Indonesian food policy, the hopeful paradigm emerged to replace the dominant is pointed at EIP.

Having said that Indonesian food policy insights are still highly correlated with productionist paradigm even after the green revolution era passed for about more than 40 years and the country has just acknowledged the concept of food sovereignty on policy as alternative, there are some ‘weakly indicated’ points compatible with the other paradigm’s indicator, namely the EIP (see Annex D). The ‘weakly’ word refer to a contested support on policy insight towards environmental and social consideration which are two main important point addressed on EIP as it aims to get the system back to the way it was in order to heal both human and environmental problem in food system. In this sense, just as productionist paradigm share the similarity with food security, EIP and food sovereignty share the similar views on food system.

Hollow Use of Food Sovereignty Term

Namely the environmental and food producer's rights consideration are two strengths of food sovereignty that needs to be taken into account if the concept really acknowledged. As the two important values in food sovereignty concept, the farming practice should be considering and working together with the way of nature cycle while on the other hand maintaining the equality for the food producers (see Chapter 2). Then it could leads to the sustainability stage through a balance system that will work for a long term with stabilize state. The sustainability system reflected most on the identical practices for food sovereignty such as agroecology through accommodating the farmer's skill and knowledge and maintaining the ecological cycle along the farming practices (for example see Wittman 2010). In addition, agroecology address biodiversity, soil management and less capital issue on the practice to avoid the environmental and social problem (La Via Campesina 2014). Briefly said, it can manage the crucial problems of food system that usually appears during the productionist system implementation.

On contrary, even though Indonesian food policy has just acknowledged food sovereignty concept, it has failed to show similar practices. Instead of emphasize the expected food sovereignty practices on the policy that would be in the same line as EIP, such as agroecology, agroforestry, or simply empower home garden practices, the general idea of Indonesian food policy insights are remain at the intensification of certain kind of 'important' crop, namely rice, in a mass production oriented (Food Act 2012, s.4; Nawa Cita 2014). Moreover, the policy shows support will be given through the seeds, fertilizer and other tools subsidize to make farming practice more efficient for farmers produce high number of food (Nawa Cita 2014). Therefore, even though the policy is not restrict certain kind of practice that must be used by every farmers, but once the policy positioning support system through incentives for production oriented practices, then it shaped farmer's decision in the end. In this sense, the farmer's sovereign to choose their own food system, as the core concept of food sovereignty on Nyeleni Declaration (2007a) and it has acknowledged on Indonesian food policy (Food Act 2012, s.1), is envision hard to be reflected in Indonesian context.

In the same line, as food sovereignty concept share similarity with EIP, some crucial point indicated acknowledgement of EIP on Indonesian food policy insight obstructed with the general idea of the policy itself. For instance, the policy acknowledged food rights for every Indonesia citizen (Constitutional Law 1945, s.10a). Thus, it is the state obligation to fulfil the rights. In this sense, not only citizen should not be seen as consumer but the food also should not be seen as the commodity. Instead, both should be considered as citizen and rights under the state obligation to manage it on the sustain way. However, the state seems to neglect this consideration as it put market based approach for the national food system, open the opportunity for private sector

to take a big part in it, and in general push the production oriented not equal with the other considerations as it has explained before.

Briefly summarized, despite the language of food sovereignty has been used in Indonesian food policy, EIP correlated with food sovereignty are not accommodated well in Indonesian food policy insights because it shows more support to productionist paradigm through rice monoculture intensification and production oriented which are the opposite of EIP ways. Therefore, it would be fair to say that it is only the language acknowledgement on paper with a hollow use of term as meaning inside the language needs to be more developed closely with the core concept and paradigm.

4.2 Food Security and Food Sovereignty Integration Challenges: Central Java Case

While the paradigm reflected on Indonesian food policy insights align with productivist paradigm correlated with food security concept and only have a weakly indicated view on EIP or food sovereignty concept, this subsection add more challenge contains in Indonesian food system insights to integrate the concept of food security and food sovereignty. My aim was to seek the hidden meaning about what the discourse has not told but implicitly aimed and what was not on the policy but should be there consequently. This question turn to be important after food sovereignty concept emerged in policy document and it claimed in the medium term of national planning development (RPJMN 2014a) to be emphasized as the way to achieve food security by the present government. In the same line, it provides the answer for the second research question about the compatibility of Central Java case with integration between food security and food sovereignty concept.

One way to approaching the question is through mapping out the main consideration of each concept accommodated in the process Central Java case implementation. Generally, the scholars who actively argued about integration food security and food sovereignty have never mentioned a certain indicator to be able to integrate the two concepts. However, Clapp (2014) highlighted each concept strength can be the complementary to answer the other's neglected point (see Chapter 2). In return, I have mapped out some main consideration contains in the program and matched it with each concept views to see how far it has been accommodated in this program. The result shows unbalance points accommodated from the two concept main focus. It shows a dominated one concept among the other.

For instance, food sovereignty core concept only can be indentified in, at least, two efforts on empowering farmers through trainings and cutting the middle man existence on food system (see figure 3.1). On the other hand, food security has a lot more space to address its focus such as the increasing food production mainly through maximizing high input on fertilizer and intensify monoculture practices. Therefore, if integration of the two concepts means

balance and accommodate the two main consideration points into account to eliminate each other flaws, then this case cannot be considered as successful case because it failed to address equal implementation of the two concepts consideration in practice.

Additionally, coming from another approach to analyze the integration of the two concepts, Jarosz (2014) pointed the model case for integration two concepts can be found on Belo Horizonte case. Moreover, Chappell (2009) work shows some main considerations of Belo Horizonte case to successfully maintain the food system balance between food security and food sovereignty through institutional support to secure farmer's freedom and in return farmer's practice in maintaining ecological cycle (see Chapter 2). From this point of view, Central Java case shows similarity through a new approach on PPP effort with connecting private sector and public sector interest into one committed consortium for the program. It certainly consider as the new approach while the general idea of food policy has never mentioned any of this importance on the food system. However, this program has excluded farmer's community from the consortium to building new system together. Therefore, this program tends to use a top-down approach rather than bottom up approach.

In fact, the program rather positioned farmer community as object of this program whereas consideration about farmer's livelihood should be taken into account as it pointed as another successful key. Notably because farmer is the actor who has interlinked with other actors and their practices contribute big effect to the environment on the food system, therefore they hold important role as their existence affected food system the most. Further analysis reflected three main discourse results about how the program affects farmer's livelihood as it will be elaborate more below.

Discourse 1: Missing Autonomy for Farmers

From overall mechanism proposed on Central Java case (see Chapter 3 subsection 2), we can only see small role of farmers in the program. Basically, the small scale food producers positioned as the passive recipient of all the standard system that has been made by the consortium. Although in general, the idea of the program aim to empower farmers, especially the younger and female farmers, however the empowerment use certain standard made by the consortium consist of public and private sectors rather than support the daily farmer's practice strength. This could be pointed as one of reckless practice in the program. For instance, while food sovereignty put farmer's right at top priority including their autonomy to have full control in and off field practices, this program directing farmers to fulfill particular standardized mechanism for all famers.

Even though the program started from a consideration about 3.2 million farmers existence located in Central Java with the lack of welfare, it has failed to see it as a potential source of sustainability tools. Big number of farmer's

existence could possibly be a strong point to widen the system back to the way it was. Instead, the program tends to push farmers involved with the general idea of Indonesian food policy insights which mainly advancing market based approach. Therefore, no wonder if the program create the system that makes farmer change their daily practices so it can fit with market demand rather than protect farmer from the system.

Furthermore, the selection of 10000 farmers involved with this program mainly depends on certain requirement based on consortium decision. Even though the requirement referring to the small scale farmer especially woman with high motivated willingness to learn throughout the program, this practice still opening a possibility to violate the equality among farmers. For instance, it could possibly create inequality between those who receives advantages on subsidize and certain treatments on empowerment effort with those who are not receive any advantages. Not to mention that among 10000, it is only 400 farmers who receive a direct training, again, chosen by the consortium. In the end, the idea of this program shapes a passive farmer on the empowerment effort to strengthen farmer position on food system.

Nevertheless, to expect that farmer's authority, as what food sovereignty mainly talked about, on the real implementation could be hard as Indonesian food policy in the first place has claimed to preserve them but in the same time set the system that could highly possible to marginalized and exclude farmers. In return to acknowledge food sovereignty concept into policy document should have mean some changes on the system. Ultimately, taking into account the farmer's right such as authority to have full control of not only the mode of production, but also daily agricultural practices and the following process after production. Instead, the practice has failed to accommodate it with the way of mechanism proposed passive farmers along the program.

Discourse 2: Limited Ecological Consideration

While farmer's freedom is one problem, another problem pointed at the environmental problems. Basically, farmers' practice affected the ecological cycle sustainability. The two entangled as agricultural practice rely more to the natural resource which has its own unique cycle of ecological work. Maintain the stability of food system is equal with maintain the natural resource as the main farming mode of production. The problem occurs when natural resource is harmed and destructed, for instance as it resulted on climate change. In the same time, ironically agriculture work has contributed high number on climate change (US EPA n.d.). But the question is what kind of agricultural practice? As the climate change issue has just pointed a few years back while agricultural practice in general has been existed for a century. The most logical answer for that would be the practice with different focus as the mainstream agricultural practice.

Suppose the environment is important for food system in general and agriculture system in particular, then it should be important to take the system back to the way nature work. The mainstream modern agricultural practice with technological tools and industrialization emerged as a justification to be able to ensure food for all, while the alternative practice often criticize on its capability to produce enough food for all. However, doubts about the system working with nature provide enough food for all is not a valid argument after several studies shows that the 'alternative' practice can provide enough food for all (as cited from Chappell 2009: 26). One famous alternative practice is food sovereignty concept that altered the mainstream concept in the present.

To be able to work with nature is one of main pillar in food sovereignty concept (see Chapter 2 on food sovereignty section). It is basically useful not only for the present generation but also for the long term practices or what people say as 'sustainability' practices. Overall Indonesian food policy put the limited consideration for ecological matter alongside food system such as the general regulation on considering carrying capacity alongside the food system (Food Act 2012, s.3) and put information system for all as the climate change mitigation act (Food Act 2012, s.10). Both regulations are not strict in terms of have no serious consequences if it violate. Indonesian food policy is actually violating the ecological consideration by implying more incentive regulation on the monoculture intensification of certain kinds of crop such as rice (Food Act 2012, s.4; NawaCita 2014) and allowing the use of technology such as genetic engineered product and food irradiation usage without any restriction on the environmental destruction possibility of using those technology tools (Food Act 2012, s. 7). Therefore, again, it shows the hollow use of food sovereignty acknowledgement on the policy document.

In the same case, even though the program in central java claimed to put ecological consideration as one of general aims, but in the end it has nothing related to the ecological consideration on the written goals. Aside from the fact that this program emphasize intensification of rice monoculture practice that could leads the possibility of environmental destruction, moreover it show nothing to offer particular to deal with it on the mechanism, except the use of organic fertilizer which provided and supported by PT UNS (see figure 3.1). There are at least two critiques for this minimum environmental friendly effort. First is the organic term used here on the fertilizer is not necessary pointing at the least effect on environment, because the meaning could be pushed by the different actors with different interests (Woo 2015: 9). Second is regarding the supporting player notably private sector that, high probability, only committed to support farmers with providing organic fertilizer as long as the program last. If the program stops, then high possibility the private sector will stop their support and gain the advantage by farmer buying their product because they have been used to use the product. Related to the previous discourse result on passive farmer, this could be added farmer's vulnerability because they tend to

follow the created system therefore there is no other option unless following the exact same practices even after the program stop.

Discourse 3: in the end, Increasing Food Production is the Ultimate Way

The two flaws that has just discussed above are most likely to align with food sovereignty concept that has just emerged in Indonesian food policy. Initially, food sovereignty could have eliminated the critique toward dominant concept of food security as it proposed on integration concept of the two (Clapp 2014). Nearly not even one challenges on the previous discussion highlighted point from food security consideration. Probably not an extreme result as this research has found that Indonesian food policy insight shares numerous similarities with food security in particular and generally productionist paradigm reflected from overall policy insights. As the prominent point on productionist paradigm is pointed at food production oriented regardless restricted details all the way through the process, it contrast with food sovereignty concept which focusing on those details rather than the general output. Thus, it would be hard for newly emerged food sovereignty to be developed and further implemented closely with its main idea if overall framework of Indonesian food policy is still on productionist paradigm.

For instance, Central Java case as the selected case that claimed to use a different approach regarding the previous failure on food system shows a lot of emphasize on production consideration. From the title of the program to the written end goals, it all pointed to increasing rice production. By rice refers to monoculture practice and production oriented refers to the intensification farming practice, this program ultimately align with productionist paradigm and food security. The way mechanism proposed on Central Java case implying target to increase food production will automatically boast farmers' income and welfare means production oriented remains as the general idea in this program. As for other considerations such as attention to female farmer and preserve ecological system are only attached to the big idea of production oriented.

In general, this could mean that the integration between food security and food sovereignty does not come to the stage of balance two concepts into one food system. As for the present situation, Indonesian food system shows that general critique of green revolution is not answered and tackled, rather it keep repeated over time. However, it does not mean that there is no single effort to fix the problem. One example is proved by the 'weakly indicated' EIP. It is not impossible for paradigm to be shifted and change overall food system. In order to achieve it, probably there are still a lot of things need to do not only by the state, but also every actors involved in food system.

The shifted paradigm is essential to change food system. The main reason is because food sovereignty can never be share the same circumstance with productionist paradigm due to completely different approach and point of

view as it has discussed on previous subsection. On contrary, food sovereignty more relate to EIP as both share similar view on taking back food system into the way it was, while eliminate the social and ecological problems occurred from the present mainstream practice. Therefore, only if the policy insights started to shift the paradigm into EIP replacing the dominant paradigm, then it would be possible for food sovereignty develops and implement closely to its main concern. In this regards, the state with power and responsibility towards food system should have step up the practice become more applicable and tackling the root cause not only the surface problem. One of the chances to support food sovereignty without harm food security steady system is through acknowledge not only the concept but also its main concern such as food producers' rights and nature rights.

Chapter 5 Conclusion

This research was intended to analyze integrated concept of food security and food sovereignty by taking case in Central Java, Indonesia as the specific object research. It was mainly motivated by the current debate in food system regarding to competing discourse between food security and food sovereignty while lack of clarification about the two relation. The question whether two main concepts in food discourse can be complementary for one another is particularly connected with Indonesia where the policy has just acknowledged food sovereignty concept as the alternative way to maintain the long existed food security concept. By raising two main research questions, this research has examined Indonesian food policy insights and challenges based on official documents and the practice insights on Central Java case. The first question asked about the framing concept shaped by Indonesian government compare to international framework on food security and food sovereignty, then reflects it to food paradigm theory. Second question asked about the insights from selected case in Central Java and then see the correlation between the mechanism on the program with actual effort to integrate food security and food sovereignty.

This research has attempted to answer those questions by, first, built and developed analytical framework through food paradigm lens and then use it to analyze the framework of Indonesian content. The findings and discussion of this research are summarized below.

Indonesian Food Policy Insights

Overall, the Indonesian food policy put the two concepts together in one line without any hierarchical one more superior than the other. However the relationship between the two concepts is not clearly set in Indonesian food policy. The linkage has just expressed on the recent government vision that claimed to stress food security in order to achieve food security (RPJMN 2014a). Further, the two concepts have some compatibility with Indonesian food policy as it shown in the comparative discussion on chapter 3 between the international indicators for each concept and the vision of Indonesian food policy. The exception comparative appears on the compatible points of food sovereignty pillars come together with the compatible points of the rejected points.

As expected, food security concept on the country framing engaged with the FAO framework. By the strong historical support adopted the concept on an extreme ways notably through green revolution, the concept remains as the

attached concept on the policy. However, it is a different story for the newly emerged concept, food sovereignty. In the first place, food sovereignty concept framed on Indonesian food policy has a lot of contested meaning compare to Nyeleni Declaration framework of it. The contested word refers to a different view from the heart of the concept's original idea. The missing correlation in between the two concepts affected the extensive food system implementation.

For instance, this study brought insights from Central Java case through its mechanism proposed on rice development program. Numerous actors from private to public sector and international to local take parts in the consortium committed to run the program for 5 years. The consortium built a new system to empowering farmers through on and off field trainings. With a new PPP approach among the other mainstream program approach, this program in general claimed to take farmers' welfare and environmental sustainability into consideration. The two aims show correlation with the newly emerged concept in Indonesian food policy, food sovereignty concept. Therefore, even though the program has never built to address food sovereignty but it has relation to the concept. Additionally, in the bigger picture it still put food security concept as one of the goals through fulfill the national demand. However, the fact that the written goals mainly pointed at increasing food production consideration and assume it will bring welfare and sustain to farmers' livelihood might be hard to address food sovereignty concern, even more integrate food security and food sovereignty.

Indonesian Food Policy Challenges to Integrate Food Security and Food Sovereignty

Overall, food paradigm for future food and farming practice reflected from Indonesian food policy insights is remains a dominant one, productionist paradigm with compatibility with the concept of food security. It shows by numerous supports in policy focus pointed at the issue about increasing food production, especially for rice as Indonesian people staple food. Intensification of monoculture practice correlated with how neoliberal rule the system through a market based approach as the main driving force, or what Lang and Heasman (2015) called as the productionist paradigm.

On the other side, the state of weakly indicated on EIP shows that food sovereignty concept framed by Indonesian government is not engaged with its core concerns. As EIP and food sovereignty share similarity in terms of seeing food system focus to human and ecological rights, both are struggling to be existed in Indonesian context. Food sovereignty terms remains as a language rather than a real solution for the implementation, because it cannot develop in the system that generally take productionist paradigm as the framework. For instance, as the productionist general idea, Indonesian food policy pushed a monoculture and intensification as suggested practice rather than emphasize the practice that mostly used by food sovereignty concept such as agroecology,

agroforestry or home garden. Therefore, food sovereignty the newly emerged concept is not compatible with the policy's dominant productionist paradigm. In return, it is one of the big challenges to integrate food security and food sovereignty in Indonesian context.

In addition, the selected case illustrates more details challenges on practice to integrate food security and food sovereignty. To balance the two concepts, it should be able to accommodate both concepts strength and eliminate each other flaws. Instead, the mechanism proposed analysis reveals the untold three main discourse results. First is the missing link between increasing farmer's welfare with farmer's authority which should be important in food sovereignty discourse. Second is the limited consideration about environmental on the program which, again, is the important point on food sovereignty concept. And finally the last main discourse result is, in the end, the program leads to increase food production as the ultimate way out of solution. Thus, the Central Java case draws how inequality role between the two concepts, with dominance position on food security concept while food sovereignty have limitation in its crucial points.

References List

- Abdoellah, Oekan S and G.G Marten (1986), 'The Complementary Roles of Homegardens, Upland Fields, and Rice Fields for Meeting Nutritional Needs in West Java' in Marten, Gerald G (eds) *Traditional Agriculture in Southeast Asia: A Human Ecology Perspective*, pp 293-325. Boulder, Colorado: Westview Press.
- Adler, E. S. and R. Clark (2003) *How It's Done: an invitation to social research (2nd Edition)*. USA: Belmont, CA.
- Akram-Lodhi, A.H. (2015) 'Accelerating Towards Food Sovereignty', *Third World Quarterly* 36(3): 563-583.
- Asmoro, P.B (2016) 'Interview: Priyo Budi Asmoro on high premium rice in Central Java, Indonesia', interview on the detail about PMHPR from the project manager by MarleenBrouwer, PPP LAB. Accessed 15 June 2016 <<http://www.ppplab.org/interview-priyo-budi-asmoro-on-high-premium-rice-in-central-java-indonesia/>>
- Bacon, C.M (2015) 'Food Sovereignty, Food Security and Fair Trade: The Case of an Influential Nicaraguan Smallholder Cooperative', *Third World Quarterly* 36(3): 469-488.
- Chappell, M. J (2009) 'From Food Security to Farm to Formicidae: Belo Horizonte, Brazil's *Secretaria Municipal De Abstecimento* and Biodiversity in the Fragmented Atlantic Rainforest', PhD Dissertation. Michigan: The University of Michigan.
- Clapp, Jennifer (2014) 'Food Security and Food Sovereignty: Getting Past the Binary', *Dialogues in Human Geography* 4(2): 206-211.
- Constitutional Law 1945 (Indonesia) s.10a, Accessed 20 July 2016 <www.kpi.go.id/download/regulasi/UUD%201945.pdf>.
- Food Act 2012 (Indonesia), s.1-s.16. Accessed 31 January 2016 <http://bkp.pertanian.go.id/tinymcpuk/gambar/file/UU_Nomor_18_Tahun_2012.pdf>.
- Food and Agriculture Organization of the United Nations (FAO)(2008) 'An Introduction to the Basic Concepts of Food Security'. Accessed 11 May 2016 <<http://www.fao.org/docrep/013/al936e/al936e00.pdf>>.
- Food and Agriculture Organization (FAO) (2015) 'Headline: 60 million still hungry as South East Asia reaches MDG and World Food Summit Targets'. Accessed 28 January 2016 <<http://coin.fao.org/cms/world/indonesia/en/Headlines/SOFI.html>>.
- Food Security Council Central Java (BKP Jateng) (2015) 'Penandatanganan Kerjasama Program Peningkatan Produksi dan Pemasaran Beras Unggul di Jawa Tengah'. Accessed 1 May 2016 <http://bkp.jatengprov.go.id/berita_utama/view/penandatanganan_kerjasama_progam_peningkatan_produksi_dan_pemasaran_beras_unggul_di_jawa_tengah-5/>.
- General Election Commission (Nawa Cita) (2014), 'Jalan Perubahan Untuk Indonesia Yang Berdaulat, Mandiri dan Berkepribadian: Visi, Misi dan Program Aksi Jokowi Jusuf Kalla 2014', accessed on 10 July 2016 <kpu.go.id/koleksigambar/VISI_MISI_Jokowi-JK.pdf>.

- Hansen, Gary E. (1972) 'Indonesia's Green Revolution: The Abandonment of a Non-Market Strategy toward Change', *Asian Survey* 12(11): 923-946.
- ICCO (n.d.) 'ICCO is granted subsidy for rice production in Indonesia', Accessed 30 April 2016 <<http://www.icco-cooperation.org/int/news/news/icco-is-granted-subsidy-for-rice-production-in-indonesia/>>.
- Iles, Alastair and Montenegro de Wit, Maywa (2015) 'Sovereignty at What Scale? An Inquiry into Multiple Dimensions of Food Sovereignty', *Globalizations*, 12(4): 481-497.
- Indonesia Bureau of Logistic (BULOG) (n.d.) 'Sekilas Perum BULOG: Sejarah Perum BULOG'. Accessed 17 March 2016 <<http://www.bulog.co.id/sejarah.php>>.
- International Rice Research Institute (IRRI) (n.d.) 'Poverty is where rice is grown'. Accessed 7 May 2016 <<http://irri.org/global-effort/poverty-is-where-rice-is-grown>>.
- Jarosz, Lucy (2011) 'Defining World Hunger', *Food, Culture & Society*, 14(1): 117-139.
- Jarosz, Lucy (2014) 'Comparing Food Security and Food Sovereignty Discourses', *Dialogues in Human Geography* 4(2): 168-181.
- Lang, T. & Heasman, M. (2015) The food wars thesis. In Lang, T. & Heasman, M. *Food wars: The global battle for mouths, minds and markets (2nd ed)* (pp. 16-50). London: Earthscan.
- La Via Campesina (2014) 'The Role of Agroecology in the fight for Food Sovereignty' Accessed 10 August 2016 <<https://viacampesina.org/en/index.php/news-from-the-regions-mainmenu-29/1697-the-role-of-agroecology-in-the-fight-for-food-sovereignty>>.
- McKeon, N. (2015) What's in a paradigm? Food security, food sovereignty, and evidence-based decision making. In McKeon, N. *Food Security Governance: Empowering Communities, Regulating Corporations* (pp. 69-88). New York, NY: Routledge.
- McMichael, P and M. Schneider (2011) 'Food Security Politics and the Millennium Development Goals'. *Third World Quarterly* 32(1): 119-139.
- McMichael, P (2013) *Food Regimes and Agrarian Questions*. Canada: Fernwood Publishing.
- Mears, Leon A (1984) 'Rice and Food Self-Sufficiency in Indonesia'. *Bulletin of Indonesian Economic Studies* 20(2): 122-138.
- Ministry of Agriculture (2015) 'Kinerja Satu Tahun Kementerian Pertanian Oktober 2014 - Oktober 2015'. Accessed 12 May 2016 <<http://www.pertanian.go.id/assets/upload/doc/kinerja%20kementan%202015.pdf>>.
- Ministry of National Development Planning (RPJMN) (2014a), 'Rencana Pembangunan Jangka Menengah Nasional 2015-2019 Buku I Agenda Pembangunan Nasional'. Indonesia: Ministry of National Development Planning.
- Ministry of National Development Planning (RPJMN) (2014b), 'Rencana Pembangunan Jangka Menengah Nasional 2015-2019 Buku II Agenda Pembangunan Bidang'. Indonesia: Ministry of National Development Planning.
- Mohanty, Samarendu (2013) 'Trends in Global Rice Consumption' *Rice Today* 12(1): 44-45.

- Nyeleni Declaration (2007a) 'Declaration of Nyělëni, Sëlinguë, Mali'. Accessed 22 May 2016 <<http://nyeleni.org/spip.php?article290>>.
- Nyeleni Declaration (2007b) 'Synthesis Report'. Accessed 20 June 2016 <www.nyeleni.org/IMG/pdf/31Mar2007NyeleniSythesisReport-en.pdf>.
- Pingali, P.L, M. Hossain and R.V Gerpacio (1997) *Asian Rice Bowls: The Returning Crisis?* Wallingford, UK: CAB International.
- PPP Lab (ca. 2015) 'Profile 'Production and Marketing of High Premium Rice in Central Java, Indonesia'. Accessed 12 May 2016 <<http://www.ppplab.org/profile-production-and-marketing-of-high-premium-rice-in-central-java-indonesia/>>.
- Rijksdienst Voor Ondernemend Nederland (RVO) (n.d.), 'Production and Marketing of High Premium Rice in Central Java', Accessed 27 April 2016 <<http://www.rvo.nl/subsidies-regelingen/projecten/production-and-marketing-high-premium-rice-central-java>>.
- Schiavoni, Christina M. (2015) 'Competing Sovereignties, Contested Processes: Insights from the Venezuelan Food Sovereignty Experiment', *Globalizations*, 12(4): 466-480.
- The Jakarta Post (2000) "House to Probe President over Bulog-gate Scandal". Accessed 10 October 2016 <<http://www.thejakartapost.com/news/2000/08/30/house-probe-president-over-buloggate-scandal.html>>.
- Tomlinson, I. (2013) 'Doubling food production to feed the 9 Billion: A critical perspective on a key discourse of food security in the UK', *Journal of Rural Studies*, 29: 81-90.
- United Nations Conference on Trade and Development (UNCTAD) (2012), 'Poverty and Food Crisis', Accessed 11 May 2016 <<http://dgff.unctad.org/chapter4/4.2.html>>.
- United State Environmental Protection Agency (US EPA) (n.d.) 'Sources of Greenhouse Gas Emissions', Accessed 12 August 2016 <<https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>>.
- Van Dijk, D. 1996 Discourse, power and access. In Carmen Rosa Caldas-Coulthard and Malcolm Coulthard (Eds.), *Texts and Practices. Readings in Critical Discourse Analysis*. (pp. 84-104). London: Routledge.
- Woo, Wei-li (2015) 'There is No Alternative... Is There? Organic Food Provisioning in Jamaica', MA Thesis. The Hague: Institute of Social Studies.
- Wittman, H (2010) "Reconnecting Agriculture and the Environment: Food Sovereignty and the Agrarian Basis of Ecological Citizenship" in H. Wittman, A.A. Desmarais, N. Wiebe (eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp.91-105). Oxford: Pambazuka.
- World Future Council (2009) *Celebrating the Belo Horizonte Food Security Program* Hamburg, Germany: World Future Council.

Annex A: Comparative Data on Food Security between FAO Indicators and Indonesian Food Policy

Dimensions (Source: FAO 2008: 1)	Indicators of Food Security (Source: FAO 2008: 1)	Indonesian Food Policy Envision
Physical availability of food	Food availability addresses the “supply side” of food security and is determined by the level of: <ol style="list-style-type: none"> 1. food production, 2. stock levels and 3. net trade. 	<ol style="list-style-type: none"> 1. Policy direction related food is directed to strengthen and increase food production, especially rice production (RPJMN 2014a: 212). 2. Maintain the national food reserve includes government food reserve, regional government food reserve and community food reserve (Food Act 2012, s.4) 3. Paying attention to stabilize food import and export with mainly focus on meets the needs all Indonesian people (Food Act 2012 s.4; RPJMN 2014b: 389). 4. Self-sufficiency ratio on certain food (e.g rice) targeted achieve on 2017 (NawaCita 2014). 5. Establish policies about provision of facilities and infrastructure subsidies to support increasing food production in 2016 (Ibid).
Economic and physical access to food	An adequate supply of food at the national or international level does not in itself guarantee household level food security. Concerns about insufficient food access have resulted in a greater policy focus on: <ol style="list-style-type: none"> 1. incomes, 2. expenditure, 3. markets and prices 	<ol style="list-style-type: none"> 1. Policy direction related food is to increase farmers’ welfare (RPJMN 2014a: 212, 218). 2. Poverty alleviation for farmers by supporting the villages to achieve seeds sovereign until 2019 (NawaCita 2014). 3. Protect small scale food producer from counter-productive policy (RPJMN 2014a: 66). 4. Again, consideration to stabilize food import and export to stabilize markets and price (Food Act 2012, s.4; RPJMN 2014b: 389; NawaCita 2014). 5. While the physical access supported by increasing the food distribution, accessibility and stability market and price (Food Act 2012, s.5; RPJMN 2014a: 216). 6. Set the target for every local gov-

		<p>ernment in Indonesia to make sure their area can provide an accessible and affordable staple food by 2016 (NawaCita 2014).</p> <p>7. Revitalize the role of Indonesian Bureau of Logistic (BULOG) as an independent institution to stabilize the staple food price (Ibid).</p> <p>8. Provide an adequate irrigation and water availability, road, bridge and port accessible for every food producer central region (Ibid).</p>
Food Utilization	<p>Utilization is commonly understood as the way the body makes the most of various nutrients in the food as the result of:</p> <ol style="list-style-type: none"> 1. good care and feeding practices; 2. food preparation; 3. diversity of the diet; 4. intra-household distribution of food; 5. good biological utilization of food consumed. 	<ol style="list-style-type: none"> 1. Policy direction related food to be able to ensure food safety and quality include increasing nutrition (RPJMN 2014a: 212). 2. Initiate diversity food consumption among Indonesian people to support local wisdom potential but maintain the consideration for nutrition and healthy (Food Act 2012, s.6) 3. Engage with food development opportunity such as genetic modification and food irradiation (Food Act 2012, s.7)
Stability of the other three dimensions over time	<p>Adequate access to food on a periodic basis based on:</p> <ol style="list-style-type: none"> 1. weather conditions, 2. political instability, 3. economic factors (unemployment, rising food prices). 	<ol style="list-style-type: none"> 1. Policy direction related food is to make the stability of food price (RPJMN 2014a: 212) 2. The strategy to ensure the stability is to have mitigation act of food security such as natural disaster, climate change and other (RPJMN 2014a: 217). 3. Establish research and development for food especially to make a policy recommendation about food availability, storage, processing and distribution as mitigation act in the future (Food Act 2012, s.11). 4. To avoid political instability, Indonesian government constitute food institution as an independent institution under president of In-

		donesia (Food Act 2012,s.12) 5.Support the small scale food producers with policies that makes them have a productive climate to compete in food system (RPJMN 2014b: 66)
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Annex B: Comparative Data on Food Sovereignty between Nyeleni Declaration Pillars and Indonesian Food Policy

MAIN PILLARS (Nyeleni Declaration 2007b)	REJECTED POINTS (Nyeleni Dec- laration 2007b)	INDONESIAN FOOD POLICY	
		Compatible Points	Contested Points
Focuses on food for people, putting the right to food at the center of food, agriculture, livestock, and fisheries policies	The proposition that food is just another commodity or component for international agribusiness.	<ol style="list-style-type: none"> 1. Right to food is guaranteed by the constitution as a part of human rights (Constitutional Law 1945, s.10a) 2. The definition of food sovereignty supported the right to food for all people (Food Act 2012, s.1) 3. The principle of the regulations is sovereign mean the state can define their own food system with paying attention to the people rights of food (Food Act 2012, s.2). 4. Priorities food consumption before use food material for other purpose (Food Act 2012, s. 4). 5. Mandate to es- 	<ol style="list-style-type: none"> 1. Increasing food production so the state can export food to another countries (Food Act 2012, s. 3) 2. Agriculture is seeing as one of the most important thing of strategic sectors of the domestic economy, therefore the main target is to increase its added value and agricultural competitiveness in the future (RPJMN 2014b: 818). 3. Increasing food productivity for 5-10% every year through providing assistance in the adequate form of seeds, fertilizer and counseling (Nawa Cita 2014).

		<p>establish a policy that protects the use of domestic agriculture production to fulfill domestic needs of food (NawaCita 2014).</p> <p>6. Build food sovereignty with basic principle of agribusiness populist (NawaCita 2014)</p>	
Values food providers and respect their rights	Those policies, actions, and programs that undervalue them, threaten their livelihoods, and eliminate them.	<ol style="list-style-type: none"> 1. Government must protect and empower food producers (Food Act 2012, s. 4) 2. Government obligation to protect the small scale food producer with avoiding the counter-productive policy for them (RPJMN 2014b: 66) 3. Started to build the agriculture insurance for farmers from the state to secure the work (Ibid: 363). 4. Increasing exchange rate index for farmers in every province of Indonesia started 2015 (NawaCita 2014). 	<ol style="list-style-type: none"> 1. Open opportunity for private agribusiness in staple food (rice) to develop and become competitor to the small scale farmers (RPJMN 2014a: 212). 2. Open opportunity for genetic engineer food product may harm the small scale food producers (Food Act 2012, s.7)

		5. Taking into account gender and generation issues on farmers by involving woman as the main role on food sovereignty and support farmers regeneration process (Ibid).	
Localizes food systems, bring food provider and consumers closer together;	Governance structures, agreements and practices that dependent on the promote unsustainable and inequitable international trade and give power to remote and unaccountable corporations	<ol style="list-style-type: none"> 1. The consideration reflected from the definition of food sovereignty which makes a possibility for people to be able to choose their own food system that fit with the local resources (Food Act 2012, s.1). 2. Build the transparent and clear food chain especially for the staple food (e.g rice) started in 2016 (NawaCita 2014). 	<ol style="list-style-type: none"> 1. The food system need to be fit with the national planning of food system (Food Act 2012, s.3) 2. Invest the future development with 'outward investment' especially in food sector to double up the national economy (RPJMN 2014b: 387).
Puts control locally over territory, land, grazing, water, seeds, livestock, and fish populations	The privatization of natural resources through laws, commercial contracts, and intellectual property regimes.	<ol style="list-style-type: none"> 1. Agrarian reform with land redistribution for the small scale farmer and landless farmer every year (NawaCita 2014). 2. Develop seed bank owned by farmers in order to achieve seed sovereign (Na- 	<ol style="list-style-type: none"> 1. Intellectual property regimes for farmers can be found in the laws for plant varieties protection (Plant Variety Protection law 2009, s.1), however the interpretation of this laws makes farmers in disadvantage position

		<p>waCita 2014).</p> <p>3. Develop organic fertilizer to achieve fertilizer sovereign (Ibid).</p>	<p>because the protected one are those who follow the basic rule of plantation that usually followed by the commercial and big agribusiness companies.</p>
<p>Builds knowledge and skills that conserve, develop, and manage localized food production and harvesting systems;</p>	<p>Technologies that undermine, threaten or contaminate these, e.g. genetic engineering.</p>	<p>1. In the planning process of food system, it should be paying attention to the local potential (Food Act 2012, s.3).</p> <p>2. Develop an integrated information system that contain data including harvesting season prediction (Food Act 2012, s. 10).</p>	<p>1. Open to genetic modification or what they called as 'genetically engineered food product' and food irradiation (Food Act, s. 7).</p> <p>2. Support 'superior technology' to achieve bigger goals on 'increasing food production, productivity, availability and diversity of food and nutrition, efficiency, competitiveness and food business' (Food Act 2012, s.11).</p>
<p>Work with nature in diverse, agro-ecological production and harvesting methods that maximize ecosystem functions and improve</p>	<p>Energy-intensive industrialized methods that damage the environment and contribute to global warming.</p>	<p>1. The planning food system should be consider natural resource carrying capacity (Food Act 2012, s.3)</p> <p>2. Builds an information system that includes climate forecast as one of the information to support</p>	<p>1. Intensification of certain kinds of crop (e.g. rice) reflected as monoculture practice (Food Act 2012, s.4; NawaCita 2014).</p> <p>2. Use of technology to increase food production such as the genetic engineered product</p>

resilience and adaptation, especially in the face of climate change;		food producer avoid and adapt from climate change (Food Act 2012, s.10).	and food irradiation usage (Food Act 2012, s. 7)
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Annex C: Indicators of Three Different Food Paradigms (Source: Lang and Heasman 2015: 38-40)

Paradigms Indicators	Productivist Paradigm	Life Science Integrated Paradigm	Ecologically Integrated Paradigm
Drivers	<ul style="list-style-type: none"> - Commitment to raise output; - Immediate gains sought thought intensification 	<ul style="list-style-type: none"> - Capital-intensive use of life science (agrofood); - Commodity production; - Tight managerial control; - Mass scale 	<ul style="list-style-type: none"> - Integrative; - Health at heart of food system; - Environmental, energy & waste impact reduction; - Resource conservation; - Diversity on and off the fields; - Eco-system resilience
Key food sector	<ul style="list-style-type: none"> - Commodity markets; - High-input agricultural - Mass processing for mass markets 	<ul style="list-style-type: none"> - Commodity Traders, food retailers, processors and food service vie for domination of supply chains; - rise of logistic 	<ul style="list-style-type: none"> - Whole-chain system approach (from land to consumer); - Subnational and regionalised food economies
Industry approach	<ul style="list-style-type: none"> - Homogeneous products; - Pursuit of quantity and productivity (throughput); - Quality defined mostly in cosmetic terms 	<ul style="list-style-type: none"> - Hi-tech; - Industrial-scale application of biotechnology primarily in agriculture but increasingly in manufacturing (enzymes not just GM); - Sophisticated use of mass media to shape 	<ul style="list-style-type: none"> - Traditional; - Shorter food supply chain; - Authenticity; - Minimal processing; - Select use of biotechnology (fermentation, not GM)
Scientific focus	Chemistry + pharmaceuticals (antibiotics) + traditional plant	<ul style="list-style-type: none"> - Engineering at molecular level to link genetics, biology, engineering, 	<ul style="list-style-type: none"> - Interdisciplinary; - Ecological Integration; - Social and eco-

	breeding	nutrition; - Control from laboratory to field and factory; - Science presented as neutral but tailored by industry-led/oriented funding; - Big data; - Farm management technologies such as drones	system resilience
Policy framework	- Largely set by agriculture ministries; - Resilience on subsidies	- Big science expertise but nervousness about consumer reactions; - Blurred Regulatory and policy responsibilities between state and companies	- Partnership of ministries; - Collaborative institutional structures; - Promotes advantages of decentralization and team-work
Consumer focus	- Cheapness; - Appearance of food; - Homogeneous products; - Convenience for women; - Assumes safety of foods	- Consumer sovereignty rhetoric; - Language of choice; - Personalized appeal	- Citizen not consumers; - Improved links between the land and consumption; - Greater transparency
Market focus	- Global and national markets; - Emergence of consumer choice; - Shift to branding	- Global ambitions; - Large companies dominate	- Regional and local focus—'bio-regionalism'; - Nervous about export-led agriculture; - Favors smaller companies but increasingly adopted

			by larger ones
Environmental assumptions	<ul style="list-style-type: none"> - Cheap energy for inputs and transport; - Limitless resources natural resources; - Monoculture; - Externalization of waste/pollution 	<ul style="list-style-type: none"> - Intensive use of biological inputs; - Claims to deliver environmental and health benefits 	<ul style="list-style-type: none"> - Resources are finite; - Need to move away from the extensive monoculture and reliance on fossil fuels; - Need to integrate environmental, nature and conservation policy with industrial and social policy
Political support	<ul style="list-style-type: none"> - Historically strong but declining; - Grounded in landed interest; - Battles over subsidies 	<ul style="list-style-type: none"> - Dominant position in R&D; - Divisions among rich and poor countries about how to interpret life sciences paradigm 	<ul style="list-style-type: none"> - Weak but growing; - Strengthening in some countries; - Some merging of social and land-based movements
Role of knowledge	<ul style="list-style-type: none"> - Agroeconomist as important scientist; - The State as gatekeeper 	<ul style="list-style-type: none"> - Top-down; - Expert-led; - Hi-tech skills; - Laboratory science base 	<ul style="list-style-type: none"> - Knowledge-intensive rather than input-intensive; - Skills needed across whole supply chain; - Knowledge as empowerment
Health approach	Health gains assumed to follow from sufficiency of supply and lower prices	<ul style="list-style-type: none"> - Centers on maintaining mass food output, but recognizes new health problem from overconsumption; - Think health can be technical fixed preferably by an individualized basis; 	<ul style="list-style-type: none"> - Ecological public health approach; - Promotes diet diversity

		- Seeks to improve beneficial traits of crops for human health	
Ownership	Technocratic and landed elite	Highly capitalized	<ul style="list-style-type: none"> - Varied with some community rhetoric; - Mix of 'old' landed interest and new businesses

**Annex D: Interpretation of Indonesian Food Policy
Insights to Three Different Food Paradigm
According to Its Indicator by Lang and Heasman**

	Productivist Paradigm	Life Science Integrated Paradigm	Ecologically Integrated Paradigm
Drivers	<p>STRONGLY INDICATED by:</p> <ol style="list-style-type: none"> 1. The policy direction to raise the food production output is reflected as the food security discourse emphasizes production availability a lot. 2. The vision about increasing production will make the condition where state can import the food and ‘double up economic income’. 	<p>NOT INDICATED because:</p> <p>Life science is not seen as the main way to achieve the state goals in terms of national food system.</p>	<p>WEAKLY INDICATED by:</p> <p>The consideration about environmental in Indonesian food policy is very minimum.</p>
Key Food Sector	<p>STRONGLY INDICATED by:</p> <ol style="list-style-type: none"> 1. Food is surely seen as the commodity. Further, NawaCita (2014) envisioned food as one of the strong aspect to strengthen the national economic. 2. The state is supporting the intensification through seed, fertilizer and many other facilities subsidized. 3. Indonesian food policy basic con- 	<p>NOT INDICATED because:</p> <p>The dominance of national food system is still occupied by the state power.</p>	<p>WEAKLY INDICATED by:</p> <p>There is no specification to control the gap between producer and consumer, however in the recent policy there is a written effort to make the process from production to consumer become more transparent.</p>

	<p>sideration is referring to the big number population of Indonesian; therefore it sees intensification as the ultimate way out.</p>		
Industry Approach	<p>STRONGLY INDICATED by:</p> <ol style="list-style-type: none"> 1. Indonesian food policy is mainly securing the staple food production instead of promoting the alternative diet pattern consumption. 2. The consideration about food quality is always put side by side with the quantity and production. 3. In the other words, there is no specific consideration about food quality separated from the quantity and production discourse. 	<p>NOT INDICATED because:</p> <p>Even though it opens the opportunity for the further development through technological way, the national food system is still far from high-technology influence.</p>	<p>WEAKLY INDICATED by:</p> <p>The traditional practice may still be used in different places across the country; however the food supply chain is not following the traditional rule. Instead, the policy is making a big opportunity for many actors to be involved in the supply, for example by applying terms and condition for food labeling and advertising.</p>
Scientific Focus	<p>STRONGLY INDICATED by:</p> <p>The supportive direction on Indonesian food policy to the traditional breeding in order to strengthen the national food system is practicing through mostly the chemical fertilizers input subsidize.</p>	<p>WEAKLY INDICATED by:</p> <p>Open opportunity for genetic engineered practice to be implemented, but not necessary in the high level or even the main way to achieve stability.</p>	<p>WEAKLY INDICATED by:</p> <p>The consideration about environment while promoting and developing the scientific way is actually can be found in Indonesian food policy, however it is in a very limited point, not detail nor strict.</p>
Policy Framework	STRONGLY	NOT INDICATED	WEAKLY

	<p>INDICATED by:</p> <ol style="list-style-type: none"> 1. The president holds almost an absolute power in terms of deciding the national food system because there are certain institutions (such as BULOG) made by the president and it only has the responsible to the president in practice. 2. Large number of subsidize to support the food producers is reflected from Indonesian food policy. 	<p>because:</p> <p>The state is become the main player to fulfill the obligation of peoples' need to food, while the companies is practicing their business as usual in food system.</p>	<p>INDICATED by:</p> <p>Indonesian food policy draws the role of local government role as the promotion of decentralization era. However, Indonesian food policy set the boundaries of every local government to act and make every practice in the local level 'fit' with the national planning.</p>
Consumer Focus	<p>STONGLY INDICATED by:</p> <ol style="list-style-type: none"> 1. Homogeneity certain kind of diet pattern such as rice as the staple food for most of Indonesian people as Indonesian food policy put focus on the certain food like rice. 2. Indonesian food policy direction to increase food availability is the result of poverty consideration among people; therefore there is necessity to be producing more 	<p>NOT INDICATED because:</p> <p>There is no specific regulation in Indonesian food policy about restriction to consumer's choice of certain food production and personalized appeal.</p>	<p>WEAKLY INDICATED by:</p> <p>Somehow Indonesian food policy is not seeing the citizen of Indonesia as consumer, rather emphasized the state obligation to fulfill the basic right of every human being, in this case, every citizen of Indonesia.</p>

	<p>food to be able to reach low market with cheap price.</p> <p>3. Food safety in Indonesian food policy is assumes by avoiding 'wrong' unnatural food material addition.</p>		
Market Focus	<p>STONGLY INDICATED by:</p> <ol style="list-style-type: none"> 1. Seeing global and national market as the potential opportunity of expansion in the future. 2. Costumer choice is important. Thus, Indonesian food policy regulation is used the market based approach mainly as the basic guidelines. It is shows on regulation such as open opportunity for private sector to expand, branding regulation and the advertising regulation. 	<p>WEAKLY INDICATED by:</p> <p>Indeed, Indonesian food policy set the goals to be able to produce food that can have a high value in international market. Some force and support to the food producers to produce food that can compete in international level, especially in the era of ASEAN Free Trade Agenda. However Indonesian food policy highlighted the priority to fulfill its people needs before use it for other purpose such as importing food in international trade.</p>	<p>WEAKLY INDICATED by:</p> <p>In the same condition with Life Science Integrated paradigm, the contested regulation can be found in Indonesian food policy related to the reflection of Ecologically Integrated Paradigm. It has regulated to balancing import and export in order to protect the small scale food producer. However it is also opening the gate for the private agribusiness to expand.</p>
Environmental Assumption	<p>STONGLY INDICATED by:</p> <ol style="list-style-type: none"> 1. There is no consideration based on limited natural resource in specific. Indonesian food policy mostly used the as- 	<p>NOT INDICATED because:</p> <p>Even though Indonesian food policy opening the opportunity for using chemical or other additional food material, however there are no</p>	<p>WEAKLY INDICATED by:</p> <p>Beside the full support of increasing the staple food production, there is a written effort about shifting the diet pattern and moving from mono-</p>

	<p>sumption of Indonesia as the rich natural resource and biodiversity country that need to be managed well so it can give the advantages for its people.</p> <p>2. Monoculture practices are indirectly supported by Indonesian food policy. It is shows in the regulation that prioritized the staple food such as rice to be increased.</p> <p>3. There is no specific regulation about waste management in the food production cycle. In another word, it has been externalized.</p>	<p>incentives to use high input of it nor claims healthy benefit from it.</p>	<p>culture through diversification food agenda. However, the discourse is not detail nor strictly supported in the other regulation.</p>
Political Support	<p>STRONGLY INDICATED by: Proven to have a strong historical background for this paradigm reflected in the era of green revolution along the president Suharto's era. And now it starting to decline and moves to other paradigm.</p>	<p>NOT INDICATED because: Indonesian food policy is not seeing R&D as the dominant position in the national food system, rather it seen as the supported way to stabilize the future system.</p>	<p>WEAKLY INDICATED by: Even though it is still contested, there are some compatible points into this paradigm.</p>
Role of	STRONGLY	NOT INDICATED	WEAKLY

Knowledge	INDICATED by: The state is placed as the gatekeeper in almost every consideration related to the food system, notably planning, food availability, distribution, consumption, safety, labeling, institution and the research and development purposes are controlled by the state.	because: Indonesian food policy is not necessary put the detail about role of knowledge with some specific expert led or using only hi-tech skills in the laboratory science base.	INDICATED by: Started to have the regulation that appreciate knowledge inputs from the food producers, especially in the current government period. It is shows by the support of some programs such as the initiative of seed banks for the producers.
Health Approach	STONGLY INDICATED by: Generally consider health maintains by restrict the food material additional as well as to boost nutritional needs contain in food product.	NOT INDICATED because: There is no single evidence of individual level approach for health assumption, rather it more like a general assumption to boost nutrition and avoid wrong food material.	WEAKLY INDICATED by: There is written effort to promote diversification food consumption on Indonesian food policy. However, the general idea of Indonesian food policy is still focusing on certain kind of food.
Ownership	STONGLY INDICATED by: The constitutional law mandates that every natural resource that belongs to Indonesia needs to be managed and gives Indonesian people advantage as much as possible. However, there is no specific idea about ownership on Indonesian food policy. With the newly program of land reform in one of the policy	NOT INDICATED because: Again, there is no specific consideration about ownership. However, the privatization law was canceled during the protest from Indonesian people. Ever since, the ownership of natural resource for the private sector is restricted and far from high capitalized.	WEAKLY INDICATED by: Started to have a written effort to the program such as land reform for the small scale food producers.

	can be the evidence of the problem land distribution among the food producers, or on the other word technocratic and land elites ownership domination.		
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