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# Responding to food security and land questions: Policy principles and policy choices in Kalimantan, Indonesia

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## Abstract

Since 2008, as policy makers in developing countries juggle competing aims, a conflicted policy field has emerged around questions of food security. This paper develops a framework for considering the normative questions underlying policy choices and mapping the implications of different choices for food poverty and inequality. Applying this to the case of Indonesian Kalimantan, the paper focuses on three of the most salient approaches with substantial implications for land use. These include an extensification scheme to open new rice estates; an intensification program that seeks to modernize agricultural practices by increasing production in existing areas; and third, policies that support the rapid enclosure of upland areas and their subsequent transformation into large -scale, mono-crop oil palm concessions. The paper draws the three policy approaches into a dialogue with the concepts of 'food security' 'food sovereignty' and 'the right to food' alongside ecological principles. It reveals a disjunction between food security related policy and experienced forms of food poverty, raises questions regarding the internal consistency of policy, and recommends searching for new approaches that fit with particular contexts and that can be scaled up.



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# Introduction

Since 2008 we have seen the emergence of a conflicted policy field around questions of food security where policy makers juggle competing policy problems that involve reconciling conflicting aims. These include supporting a high growth agribusiness sector, increasing staple food production to address important concerns over food insecurity, and addressing entitlement failures of poor populations, while also reducing greenhouse gas emissions. This occurs as competing, contradictory framings of the food problem shape the way problems are defined and policy directions emerge, in the process raising significant policy choices.

Much of the literature has focused on how predictions of increasing food demand has led to speculative investments in food crops by corporations who seek to buy or lease land (Wolford et al. 2013). Analysts have given less attention to how the same dynamics have generated policy decisions in countries dependent on importing key staples such as rice, generating shifts in policies in ways beyond the 'land grabbing' scenarios. In these countries policy makers watched the commodity price volatility and the fluctuating food availability in international markets since 2007 with concern. Given the potential to increase domestic production, in several countries this has led to a questioning of the wisdom of depending upon the availability of thinly traded staple commodities in the international market (Agrawal 2014). This fear is heightenned by climate change, with '75% of the available studies suggest yield declines of up to 50% from the 2030s in key staple crops, with significant effects on food access, utilization, and price stability (Oxfam 2014). The fear is that the poor will be left with insufficient access to food either through their own production or via the market, and that the state may lack the capacity to protect them, raising threats to stability, economic growth and social development. Thus, domestic political concerns shaped by national anxieties regarding possible local shortages of staple commodities support the popularity of policy narratives focused on food self-sufficiency that may have profound implications for land and agrarian structures in particular places.

Since 2008, new developmental agendas have emerged that seek to address the food security problem by pursuing large-scale agricultural development schemes (Cotula et al. 2009). This also builds upon long standing productivist (supply orientated) views that favour capital intensive farming utilizing biochemical inputs to maximize food production. Based on the perception that corporate agriculture has the comparative advantage of easier access to capital and technology, a popular narrative holds that 'large-scale initiatives [are] the key to success', focusing on corporate centred business models, public-private partnerships and large scale land acquisitions (World Economic Forum 2013). This view suggests that corporate investment can provide for greater efficiency in production through large scale production on 'mega-farms'. Provided that land can be made available for more efficient producers, this approach aims to promote national self-sufficiency in strategic crops and reduce dependence on imports.

In response to these same dilemmas, other programs seek to build on the historical experience of the green revolution (Bebbington 2011). This can involve a range of interventions, including providing assistance to peasant agriculture *in situ*, extending the use of new technologies into marginal landscapes where the promise of green revolution technologies has yet to be realised, or even adopting elements of agro ecological approaches (Altieri at al 2012). However, given the reduction in support for direct state intervention in this era of market driven solutions, the large scale funding of the green revolution period remains rather improbable: there may be considerable reluctance to shift away from corporate-led solutions (Patel 2013).

At the same time, demand for agro-industrial and food commodities has driven policy initiatives that support investment in areas with 'abundant availability' of uncultivated or 'marginal' land, with low population densities, (Deininger et al. 2011). While analysts have generated a range of positive scenarios with respect to large scale development, these scenarios also have implications for land

concentration, food security, rising inequality and rural conflict in surrounding populations (Brüntrup 2011). A related fear is that this may lead to rapid increases in carbon emissions from forests, given the large share of carbon emissions derived from agricultural expansion into forests in tropical regions (Nestad et al. 2013).

While clearly political economic forces shape the organization and operation of knowledge regimes behind policy choices, at the same time policy still requires the provision of reasons legitimising why a problem or project is an appropriate subject of public action (Anderson 1979). Indeed there are several alternative logics of policy justification in each policy field, with each 'claiming to be authoritative for a specific aspect of a problem and justified by its own premises and logic of analysis, each containing imperatives for definite public action' (Anderson 1979: 714). Some policy approaches will seek to improve the efficiency of food production and product markets. But efficiency can have multiple meanings depending on what goals or values we consider important (Pinstrup Anderson et al, 2011). In this way, food policies involve normative choices, and choices will vary according to what is considered most important. In accordance with the interests and values of the powerful groups who dominate the debate, some goals may not even be considered. So how we define food insecurity, and who are considered the food insecure, or what we consider as the causes or solutions can all vary. Further the impact of any policy will differ according to the social, political, institutional, cultural, and economic context where it will be implemented. This remains the case even if the choice between rival policy logics remains implicit.

Anderson (1979) argues a policy can be assessed in terms of whether it is 'reasonable' according to three classic political principles (see Table 1). The first principle requires that the state justifies its actions, articulating through legal reasons justifying a particular choice. The second principle concerns the question of distributional justice. The third classic political principal involves considering whether the logic of action is an efficient use of resources.

Sen's work on capabilities suggests that we take these consideration beyond a procedural-utilitarian framing (criteria 1 & 3) to consider the possible impact of policy on capabilities (Ribot 2015). In other words, development policy needs to be sensitive to consequences: it can be evaluated in terms of the degree to which it promotes an expansion of a person's or a group's capability to promote or achieve 'valuable functionings'. These include being healthy, well-nourished and safe or having a sustainable livelihood as well as recognition - having one's views heard or achieving self-respect. Sen suggests that disadvantaged people can suffer from both poor processes, experiencing procedural injustices that deprive them of freedoms of choice and which subject them to interference or exploitation by others, as well as distributional injustices that emerge from deprivation of substantive opportunities due to actual incapability to achieve the things they value (Sen 1999). Sen's framework suggests that questions of income, agricultural production and food security would best be 'integrated into a broader and fuller picture of success and deprivation' (Sen 1999: 20). This can take into account questions of procedural and distributional justice along with recognition (Walker 2012). Thus public policy in this area involves normative choices that respond to questions of the moral acceptability of outcomes – whether a proposed policy will produce unacceptable results with respect to food poverty or relative deprivation (Ribot 2014). From this perspective, policy should pay heed to the degree to which particular capabilities and functionings are expanded as well as broader questions regarding the impact of policy choices on equity and sustainability (Alkire 2008). Consequently, policy considerations in this area need to explicitly consider the impact of particular policy choices on the capabilities of the food poor.

In this policy domain we need to also take into account other rival frameworks, each suggesting criteria for evaluating or making a policy choice. While it is not possible here to do justice to the flourishing literature in this area, clearly the concepts of 'food security' and 'food sovereignty' and 'the right to food' are highly relevant. To be sure these can function as 'free-floating signifiers filled

with various kinds of content' (Edelman 2014: 959). While 'food sovereignty' is often seen in opposition to food security, in some formulations there is overlap between the two concepts. However, despite overlapping definitions and a lack of consensus over their substantive content, these remain 'powerful mobilizing frames' that suggest distinct legal norms and practices positions that, if taken seriously, would correspond to different policy choices (Edelman 2014).

Table 1: Applying classic policy principles to food policy.

| Legal-rational justification | Justice | Efficiency |
|---|---|---|
| **Will the food security problem be properly resolved according to established principles?** | What are its impacts on the entitlements, capabilities and livelihood sustainability of the poorest groups? | Does it make an effective contribution to the production of food staples? Does it provide a cost-efficient means to achieve food self-sufficiency and total national production? |

The most useful definitions of food security draw on the entitlements framework of Sen. For instance the FAO emphasises the 'four pillars' (availability, access, utilization, and stability). In line with Sen's work, this framework stresses the link between food security and the capacity of individuals and households within local, regional or national contexts to access food (FAO 2008). Thus food security describes a condition, adequate food intake, and articulates its attributes, providing a technical or descriptive frame for analysing particular contexts (Clapp 2014: 207). Analysts can use this frame to consider questions related to the dynamics that limit access to food, create inadequate diet and poor nutrition, as well as the requirements for the state provision of social security through safety nets.

In contrast, food sovereignty is 'an explicitly normative concept' that seeks to encourage political mobilization around producer rights (Clapp 2014: 207). This agenda is broadly concerned with smallholders' access and control over productive resources, a smallholder-dominated, environmentally friendly, sustainable agriculture. In some formulations, food sovereignty advocates have argued for reorientating food systems around local production, and protecting the domestic market from the dumping of agricultural surpluses and low-priced imports, arguing for understanding food as a right rather than just a tradable commodity (Wittman 2011; Clapp 2014).

An alternative approach entails applying a legalistic frame – a normative concern with rights – as a means to address food poverty questions. This involves using binding international principles regarding the right to adequate food (RtAF), as a legal basis for requiring that policy addresses cases of neglect, discrimination, social economic and ecological marginalization (Beuchelt and Virchow 2012).

Finally, another set of principles pertain to the environmental implications of a particular policy. Does it support a development trajectory that protects natural resources and reduces greenhouse gas emissions, avoiding energy-intensive industrial methods that potentially damage the environment? What prospects does it offer for developing 'low emission rural development' (Nepstad et al. 2013) or supporting the development of a green economy?

Considering food policy in dialogue with these different concepts exposes key question: how might we best address food poverty? What are the potential consequences of different policy choices? An emphasis on one at the expense of another of these principles (see Table 2) might lead to a different approach to addressing food poverty questions. At the same time holding a policy against these competing principles can also expose the implicit assumptions underlying justifications used to support particular choices, including how they might address the structural inequalities underlying food poverty. Consequently, a dialogue between policy choices and these principles can thereby move

the discussion beyond the problem closure generated by many formal discussions of food security. Thus, rather than seeing these as competing frameworks and continuing the debate over which is the more sound approach, this paper will use these concepts as a prism through which to interrogate policy choices.

Table 2: Principles and criteria for evaluating policy choices

| Policy principle | Criteria for evaluation |
|---|---|
| **Self-sufficiency** | Contribution to food self-sufficiency and total national production |
| **Food security** | Enhances access to food amongst the food insecure |
| **Food sovereignty** | Degree of smallholder access and control over productive resources; Support for local production; Impact on community right to food; Appropriateness to local circumstances |
| **Right to adequate food (RtAF)** | Supports the state in meeting its obligations with respect to RtAF: address problems of neglect, discrimination, social economic and ecological marginalization |
| **Environment** | Protects natural resources, including vital ecological services; reduces greenhouse gas emissions and avoid energy-intensive industrial methods |

The conflicted nature of food policy choices is sharply expressed in the case of Indonesia, a middle income country that still harbours many 'food security hotspots'— areas where food insecurity tends to be concentrated (ESCAP 2009). Like some other significant food importers, Indonesian policy makers continue to see the food problem as a potential threat to stable and continuous economic and social development. The food question sits near the top of national policy agendas, and successive governments have invested considerable political capital in addressing the issue. In the case of Indonesia, the different concepts discussed above tend to be conflated. Indonesia's framework food law (No 18/2012) aims 'to realize food sovereignty, food security, food self-sufficiency', thereby incorporating all three concepts within the one article. In a similar fashion to La Via Campesina's earliest formulation (Agrawal 2014), food sovereignty is seen in terms of increasing domestic food production to attain national food self-sufficiency and to reduce the reliance on imports. Thus, food sovereignty is seen in terms of national sovereignty (*kedaulatan*) – the right of the state and nation to establish an independent food policy (Vel, McCarthy and Zen, forthcoming). This resonates with the concerns of food policy scholars who worry that focusing on a national level framework for food sovereignty sets asides problems of access to food, land rights and environment.

Over recent years Indonesia's policy response has been multifaceted. After the last president, Yudhoyono, made food security the fifth of 11 national priorities for his second term, planners set ambitious targets for self-sufficiency, aiming to convert a one million ton deficit into a 10 million ton rice surplus by 2014 (P2BN 2011; PPKP 2013). This led to a flurry of new policy blueprints that resonate with the different policy principles discussed above. This paper focuses on three of the most salient approaches with substantial impacts in Kalimantan.

First, the state has pursued extensification policies that aim to systematically expand the agricultural domain. To pursue this, policy makers set out to open new rice estates principally to replace the 100,000 hectares of rice lands said to be converted into other uses in Java each year (Radar Pekalongan 2014). Under the most recent iteration, state planners aim to open a 500,000 hectare food estate in Kalimantan (Kompas 6/4/15). Second, as in previous decades, policy makers support

intensification programs that seek to modernize agricultural practices by increasing production in existing areas (De Konick, Rigg and Vandergeest 2011). This principally involves applying higher levels of inputs to achieve a higher quantity of outputs, extending 'the long green revolution' (Patel 2013). This entails 'optimizing' existing areas of rice production and extending them into selected marginal lowlands environments and thereby addressing the yield gap between highly productive areas in Java and more marginal areas of rice production in Kalimantan. Third, with a boom in investment in oil palm production, state policy has supported the rapid transformation of areas of 'forested land' that are legally available for conversion, often encompassing agroforest areas subject to swidden uses and under customary or vernacular forms of land tenure, into large -scale, mono-crop concessions. While this transition is often justified by suggesting that oil palm offers employment and incomes to poor rural people (Hanapi, 2013), it has significant implications for staple food production and food poverty in these areas (Potter 2011).

## *Research approach*

The paper is based on fieldwork undertaken in the national capital, the provinces of West and East Kalimantan and across three districts during 2013-14. Field visits were made to the lowland food estates in Bulungan (East Kalimantan province) and Ketapang and Pontianak (West Kalimantan province) as well as to two upland oil palm/swidden areas in upland Bulungan. The research analyses the three different scenarios (mentioned above). The research used qualitative research approaches to understand the underlying policy settings, the factors shaping implementation and policy outcomes, and finally their relation to the policy principles already discussed. To begin, the researchers carried out semi-structured and open-ended interviews with key national, provincial and district officials, company officials, and NGOs and university researchers. Then repeated visits were made to the four sites in Kalimantan to interview representatives of affected groups and provided them with the opportunity to identify key problems and to articulate their concerns. This purposive sampling approach allowed for contextualized understanding of causality and of the processes shaping interventions. Emergent insights were triangulated with an analysis of key texts, including laws, newspaper articles, and agency reports.

Two considerations shape the approach taken here. First, Indonesia's policy field is bifurcated between a smallholder sector focused on staple commodity production and an export oriented agro-industrial sector (Young 2011). While each of these is typically analysed in isolation, in many parts of the archipelago (especially in Kalimantan), they rub up against one another in the same or in neighbouring landscapes. Rather than viewing the policies affecting adjacent landscapes in isolation, the approach here is to understand parallel lowland/upland transitions alongside national agendas, keeping in view the factors generating food poverty in each type of landscape. Second, we often witness a disjunction between how the national policy discourse discusses food security and the actual problems of those experiencing food poverty. While Indonesia's economy has grown by over 6 % since 2010, 36 % of children under the age of five suffer from stunted growth, levels seen in much poorer countries (World Bank 2013). While national data provides insights into the geography of insecurity, it provides few insights into the casual mechanisms at play.

This paper analyses food poverty in terms of the way various entitlements and entitlement failures interact to create a cycle of vulnerability. An entitlement failure occurs when individuals or households fail to gain ownership, control of or access to sufficient food commodities from their assets and resources, or from the rights or the opportunities at their disposal, including those derived from their labour and from existing social networks and social protection systems (Sen 1990). Evidence for such entitlement failures emerges from national data and Indonesia's food security atlas (WFP, 2010). Nutrition data for these areas confirm these problems with reports of significant stinting and stunting.

For instance, stunting (*balita pendek*) or height for age is taken as a key measure of chronic malnutrition, and one recent district survey estimated that up to 52% of children in Bulungan district were stunted.[1] In all sites visited, field interviews confirmed the problem, revealing that significant numbers of households face temporary food insecurity during an annual hunger season (*paceklik*). As food poverty reflects an inability to access adequate nutritious food throughout the year or during particular seasons rather than a shortage of food stocks *per se,* it is necessary to understand the underlying processes and mechanisms, and consequently the research sought to understand food entitlement failures *in situ*. Through field interviews with farmers, village headmen and local government officials we relate to this food entitlements framework in order to draw out the processes generating food security in these pockets of rural Kalimantan.

Hence this paper will proceed in the following way. First, after briefly discussing food insecurity in the rice producing lowlands, we consider the extensification policies that involve extending the area of intensive rice production through the Kalimantan food estates. Second, we discuss intensification programs, principally supporting technological innovation in 'marginal' rice producing Kalimantan lowlands. Third, we consider the nature of rural vulnerabilities and food insecurity in the Kalimantan uplands alongside policies that support the enclosure of large areas to expand commercial oil palm cultivation, transforming swidden, agroforest and forested areas in upland Bulungan (East Kalimantan province). Finally, we draw conclusions regarding the justifiability of the policy choices with respect to the relevant policy principles.

# 1 Food Security and State Programs in the Kalimantan lowlands

## *Lowland Entitlement failures*

Before we turn our attention to the extensification program in the lowlands, we need to briefly consider the question of food entitlements in the Kalimantan lowlands where wet rice agriculture presents specific challenges. The peat swamp dominated lowlands of Kalimantan revealed a characteristic pattern of food insecurity for many households. In the absence of effective irrigation in many places, rice agriculture is rain fed and vulnerable to production failures due to floods, drought and unreliable rainfall. Most farmers cannot afford fertiliser. Unless there are off farm work opportunities in neighbouring areas, villager in remote locations faced scarce labour opportunities in agriculture. With insufficient rice production and few cash earning opportunities, they were left depending on a cash economy to access food, Where possible villagers made use of networks outside the village to find cash income earning opportunities, for instance in neighbouring oil palm estates. While the degree of food insecurity clearly varies across villages, it can be significant. As one villager noted in a Pontianak district village visited during this project, approximately half of farmers still experience a 'hunger season' of varying severity each year

## *Private sector led food estate initiatives*

As noted in the introduction, state policy privileged productivist large scale approaches. Initially this involved facilitating private sector driven approaches, attracting corporate investors by providing incentives to invest in staple food production. In some respects this would resemble patterns elsewhere that involved 'large-scale acquisition of land or land-related rights and resources by corporate entities' (White et.al. 2012: 619). Here the key incentive would be land: the investors would be offered a long term lease (HGU) without actually having to purchase the land (PPKP 2013). The objective was the

[1] This figure from the district health development index (Indeks Pembangunan Kesehatan Masyarakat) was provided by the district health office in Bulungan, 1/4/2014.

development of food estates, defined as ‘an expanse of *sawah* with modern irrigation, industrial management, housing, road and farming infrastructure that forms a well arranged system’ (Kayan master plan). Investors for their part would invest their capital in the intensive application of machinery, fertilisers, technology, and irrigation to ‘unused’ or ‘uncultivated’ land. They would develop infrastructure, providing development knowledge, technologies and management, moving rapidly to help the nation meet its ambitious food production targets while also providing direct and indirect benefits to regional economies.

The East Kalimantan food estate proposal emerged in 2011 when the provincial governor developed a proposal for a private sector driven food estate. The governor set up a fast track process to identify 100,000 ha of land ‘clear and clean’ of existing land claims, particularly in ‘degraded’ forestry land, and began to court investors. However, there were serious obstacles for developing a private sector driven food estate in booming East Kalimantan. As district governments had already allocated virtually all available mineral lands to oil palm and mining permits, and primary forest areas were subject to a moratorium on new concessions, there was a problem of identifying available land. To resolve the land question, State planners decided to use areas zoned for transmigration, aiming to turn them into centres of food production. (Kompas, 12/9/2011).The plan offered an additional advantage: planners could now offer investors the opportunity of accessing cheap labour (the east Kalimantan master plan). Planners eventually focused on a food estate in the district of Bulungan in East Kalimantan, a marginal area of peat swamp lands in the Kayan delta along the coast with a 30,000 hectare area and a pool of cheap transmigrant labour already settled there. With the problems of land and labour seemingly solved, the question of development capital remained. With no proven record of private sector investment in staple crop production in the marginal lowlands, for the most part the private sector avoided investing.

Although initially four corporate investors processed development permits to invest in the Bulungan estate, as of late 2014 only one actually planted rice. According to company personnel, despite the capital intensive, technologically advanced investment, the company only achieved productivity of around 2.5-3 ton per hectare, well below the average productivity achieved by rice farmers in Java. The key problems remained intrusion of salt water from the coast, the high cost and difficulty of accessing inputs due to the poor infrastructure, and pest infestations. In a fashion reminiscent of transmigrant programs in the past, the neighbouring transmigrants settled around the estate struggled to grow food. In this tidal zone, with acid sulphate, peat soils, drainage needed to be engineered carefully to avoid salt water intrusion, signs of which were visible in some areas of the transmigration site. In other areas, overly effective drainage had exposed the soil to the air, oxidising the iron pyrites without providing the means to effectively drain the emergent sulphuric acid. In one transmigration settlement (SP7) visited during the course of this study, a focus group discussion revealed that farmers were achieving harvests of one ton per hectare, with many achieving even lower yields. Given that the estate failed to provide the work opportunities originally planned, villagers had limited wage-earning opportunities. Several farmers interviewed noted that they suffered from food insecurity during a hunger season of up to two months each harvest season while they waited until the second harvest. To avoid this, almost half of the settlers had returned to Java.

## *Extensification via state led food estates*

In view of this experience, planners faced a practical problem: how to pursue the intensification agenda given that private agribusiness companies were reluctant to invest in staple crop production? If the state wished to step in and directly provide the services required, it faced the fiscal restraints on state expenditure and the challenges of coordination between departments and decentralized levels of government. However, the central government had other policy tools at its disposal that might assist in

the rapid achievement of self-sufficiency targets: it could utilise the state owned enterprises (SOEs or BUMNs). If the SOEs provided the investment capital, they could pioneer a high technology, capital intensive model of rice farming, enabling planners to move quickly.

The plan focused on the district of Ketapang, in West Kalimantan, where the district head had set aside 100,000 hectares for the estate. Given that oil palm licenses stretched over one million hectares, and other significant forest lands were locked up under the moratorium, the estate would focus on marginal, tidal zone alongside the coast in area of considered 'sleeping', unproductive rice paddy land developed decades earlier.

National newspapers promoted this as the first large scale wet rice development, using the latest science and technology under a fully mechanized system, that would replace traditional farming with modern techniques. Under a 'non capitalist and pro-farmer' model, the farmers were to grant the SOE a 20 year lease, retaining ownership while the SOE obtained long term management rights. As the state enterprise concerned (PT SHS) would supply the capital to cover the investments and the costs of production, it would keep 60% of net rice production, while participating landowners would obtain 40% of rice yields (Humas Setda Ketapang 9/2/1013).

First, as in East Kalimantan this estate faced a diverse set of 'technical' issues. In the face of salt water intrusion, acid sulphate soils, and extensive dry periods, the imported high yielding rice variety did not thrive. Further, the heavy machinery used to prepare the land exposed the acid sulphate peat to the air, leading to oxidation and high acidity. A pest infestation ensured. Meanwhile, 'technical problems' affected the irrigation system. Second, while the estate had seemingly solved the questions of land and capital, this left the problem of labour unresolved. After the mechanized planting machines, tractors and harvesters sank in the swampy land, the labour required to replace them was not readily available. As the estate offered wages forty percent below the market rate found in neighbouring oil palm plantations, the estate had trouble attracting workers, and there was also the problem of labour supervision to ensure cultivation was carried out with the care required. Initially the food estate achieved poor yields. Despite ambitious targets of 5 ton per hectare, initially PT SHS only achieved yields of around 1.5 ton per hectare from 100 hectares. In spite of the expense and effort applied, the food estate was yet to improve on the yields achieved by local farmers. The following year another SOE took over, scaling down the estate to a modest 100 hectare demonstration plot.

Other research points to the centrality of the business model – and how it is implemented – in respect to outcomes for farmers (Cotula et al. 2009). In this case, there are some doubts regarding the appropriateness of the business model applied here given the management and labor problems experienced in this large operation. The problems resonated with a policy narrative regarding the 'inverse relationship' between size and productivity: due to the lower supervision costs and higher flexibility of family farms, small farmers are held to be more efficient in terms of total productivity, developing greater cropping intensity and higher yield per hectare per harvest than large operations. Further, in contrast to this large scale estate, smallholder farms may offer advantages in terms of poverty reduction due to their ability to absorb local labour. One study estimated that small family owned rice farms on Java can absorb between 11 and 24 persons per hectare (Abey et al. 1981). Provided that productivity can be increased alongside off-farm opportunities, according to this argument, rice can make a greater contribution to the local economy in places like West Kalimantan than large scale production models (Wibowo n.d.). Interestingly enough, state policy makers were also experimenting with such an approach in another area of West Kalimantan.

## *Intensification in the Kalimantan lowlands*

In the past, Indonesia, India and China achieved high rates of productivity growth to meet domestic demand without shifting to large-scale farming systems (see Quizon 2013), albeit with considerable

state engagement. Building on these experiences, policy makers have sought to intensify rice production, initially focusing on one million hectares across Indonesia. This principally involved providing technology, knowledge and training, introducing high yielding varieties tailored to fit particular contexts, strengthening capacities to access fertilizer and increasing land productivity by focusing on marginal areas with a 'yield gap'. Programs have sought to increase the frequency of planting, helping farmers become more resilient to flood and drought, and improving irrigation systems. In some respects, this intensification agenda represents a continuation of 'the long green revolution' when farmers were induced to plant new varieties with considerable state and donor support.

In West Kalimantan, planners calculated that of 89,598 hectares of wet rice land, only a third is harvested twice a year, with the vast majority (64%) harvested just once, and with large areas lying uncultivated (Widowo n.d.). The problems affecting productivity are similar to those found in the other coastal peat areas (discussed above). In the lowlands adjacent to the provincial capital, Pontianak, the Institute for Agricultural Technology (BPLP) initiated a program to improve 6,000 hectares of the coastal rice lands – particularly underproductive sawah (paddy) areas that extend on the coastal plain stretching away from the city. Here, rice agriculture depends on rainfall, and as farmers plant local varieties that take 5-9 months, they only achieve yields of 1-3 ton/ha from one harvest each year. Farmers have avoided planting high yielding varieties because of a history of failure with such varieties. The BPTP aimed to increase the planting frequency of hybrid, high yielding varieties adapted to local conditions that mature more quickly and that reduce the susceptibility of harvests to drought and flood. The main method involved demonstration plots where extension works and researchers provide adopting farmers with seedlings and assist them to trial new cultivars and techniques. Accessing limited amounts of provincial and national funding, the project sought to revitalise farmer groups, extend the paddy in target villages, built roads, bridges and water control facilities and provide hand tractors.

After two years the results of the project remained modest. Floods and droughts over 2013-14, exacerbated by the damage to watershed forests upstream, meant that farmers achieved poor yields. Nonetheless, the researchers found that farmers could increase production by around half a ton per hectare in this way (Widowo n.d.).. Even though this project was assisting to deal with production failures, addressing only one element in entitlement failures, the gains were significant for food insecure households. Development in the uplands presents a sharp contrast.

# 2 Food security and oil palm extensification in the East Kalimantan Highlands

## *Upland entitlement failures*

In the two upland East Kalimantan sites, the Dayak population living upstream pursue dry land swidden rice production (*ladang*) that, as well as constituting a cultural requirement, provides the key food staple (Mertz et al. 1999). In Bulungan district, East Kalimantan province, studies suggest that swidden farmers can typically achieve yields of 1.1 ton/ha. Even so rain-fed swidden rice production constitutes a form of agriculture with highly variable yields. Given the vagaries of climate and ecology, while swidden systems provide higher returns on labour given the extensive areas cultivated, like wetland rice, it may not always provide a reliable means of obtaining food for household consumption. Yet, in the past Bulungan's indigenous Dayak people developed a versatile subsistence system that utilized a variety of widely available traditional food crops, including cassava and sago, alongside swidden dry rice cultivate. Historically, according to Sellato (2001: 58), there were no reports of serious food deprivation as a result of crop failure in this area. Farmers diversified to hedge against

risk and to meet their cash needs, for instance by extracting timber and forest products.

### *Oil palm extensification policies: enclosure in the highlands*

Over the last decades, as in other areas of Kalimantan, there has been a shift away from swidden agriculture (Mertz et al. 2009; Cramb et al. 2009). The Dayak of Bulungan have moved rapidly towards the cash economy, especially during the period of timber extraction after regional autonomy. With oil palm expansion villagers witnessed the rapid alienation of land – a net transfer of assets to the plantations and the reduction in swidden lands. Ten years ago, Bulungan district government redrew its spatial plan, making 400,000 hectares available for non-forestry uses, and providing 20 companies with development licenses over 300,000 hectares and 32 mining licenses. Given the depletion of forests and the potential enclosure of such a large area of swidden and agroforestry lands into oil palm plantations, farmers are becoming less able to depend upon a subsidy from nature: reduced access to productive land, to forest products and to famine foods from surrounding forests undermine the safety-net function provided by surrounding forests.

Community leaders oversee the transfer of the land under policies that provide for compensation, employment, and out grower opportunities. But villages have only a weak legal claim over the land, given the lack of certificates and formal legal recognition of indigenous rights where the law only provides weak protections against displacement. Given unequal power and knowledge during negotiation processes, the weakness of land tenure governance processes, and the key role of elites in unaccountable processes, in many cases landowners receive limited compensation (Fachrizal 2014; Zen et al. 2010). Following such transactions, in some cases interviewed villagers were less able to obtain food through their own production, speeding up the shift of villagers from self-provisioning producers into net buyers who increasingly depend on food markets.

Research suggests that diversification of agricultural incomes that combine different sources of incomes (farming, non-farm and off-farm) may provide a pathway out of poverty (Krishna 2006: 284). Indeed, as Dove (1993) has shown, in the past Dayak farmers in West Kalimantan achieved a balance between food and cash crops. In West Kalimantan, farmers could tap rubber to buy rice to meet cash needs and during times of scarcity, while depending on rice to secure their subsistence needs. In a similar way, in the Bulungan context this meant diversifying their livelihood portfolio by pursuing swidden, oil palm labour and other activities to meet both cash and food security requirements. Here labour opportunities on oil palm plantations can complement swidden production, and this can be critical given that seasonal rainfall variation is high, and when a harvest fails, farmers need other entitlements. Some households seemed to have found a more balanced integration of these different livelihood elements, combing swidden and oil palm labour. However, oil palm plantations absorb limited amounts of labour. The officially recognized ratio is one worker per 3 ha of oil palm plantation (Pardamean, 2011). According to one estimate, a ten thousand hectare plantation and processing mill employs only 1000 workers (Li 2011?). Indeed, in the study villages, focus group discussions revealed that between 25-50% of women were working as casual workers (BHL) and very few men. Thus while oil palm represented the principal means of accessing the cash economy, this will work well only for some, with large numbers of the population left aside. Further, the opportunities for plantation labour very much depend upon the terms of inclusion (McCarthy 2010): in many cases workers are causal, and they or do they obtain a wage sufficient to meet the needs of their families from labour alone. There are variations in the way processes and factors come together in particular places (Julia and White 2011; McCarthy et al. 2014). In the most positive scenarios, farmers may continue to find diversified livelihoods, maintaining viable swidden systems to meet their primary food needs while some household member's access labour opportunities in oil palm plantation. However, this balance is not an explicit objective of policy, and in many cases there are insufficient labour opportunities even

while opportunities for swidden production are being reduced.

The entitlement framework points to the role of transfer entitlements – such as those offered by state provided safety nets – as complementing labour, trade and production. In fact, although the state does provide subsidized food under the RASKIN programs, these only provide limited assistance to some sections of vulnerable populations (World Bank, 2012). The key challenge remains developing the fiscal and administrative capacity for the state to implement social safety net programs in remote rural Kalimantan. In the meantime, the state has yet to develop effective, integrated, pro-poor programs to increase rice production and develop cash cropping systems in the Dayak uplands. Oil palm is not a crop that smallholders readily take up on productive terms (McCarthy, 2010). Existing programs are not able to support effectively the need for improved cash cropping systems. This means that Dayak villagers face the transition into the oil palm economy without the means of developing new high value cash crop production systems – such as smallholder oil palm – or regenerating subsistence production. Indeed interviews with policy makers reveal that swidden is seen as an unsustainable, unreliable and more or less outdated land use that (in this view) needs to be replaced.

While the severity of these interacting entitlement failures (Table 3) will vary from household to household, they produce a characteristic pattern of vulnerability and food insecurity. In the first area visited in Bulungan Village leaders calculated that around 10% face a hunger season each year. In the second two villages, located further upstream, village leaders estimated half of villagers experience a hunger period each year. In one of these villages, the situation was much more severe with the majority of families facing food shortages in 2014 due to complete harvest failure. Most families were cutting back on protein and rice and taking recourse to famine foods.

## 3 Linking Cases to Policy Principles

We now return to our initial discussion, using the competing policy principles set out above, and applying them to this case to consider the implications of different choices in view of existing food poverty and inequality (see Table 3 below).

Table 3: Alternative policy choices assessed against competing policy principles of food self-sufficiency, security, sovereignty and environmental sustainability

| | **Ability to support national production targets (self-sufficiency)** | **Impact on entitlements (food security)** | **Impact on access and control over productive resources (sovereignty)** | **Environmental impact (sustainability)** |
|---|---|---|---|---|
| Extensification: private sector and SOE food estates | Similar yields/ha as smallholders production | Largely irrelevant to neighbouring food poverty | Screened to ensure clean and clear of overlapping claims | Neutral: Unable to free up forest land to date |
| Intensification Pontianak smallholder scheme | Optimalization – slow increase in production; Marginal contribution to national production targets | Engagement with production failures | Existing rights recognized, loss of short term access to land under lease to the estate | Relatively neutral; integration of elements of Agro-ecology approaches |

| | | | | |
|---|---|---|---|---|
| Extensification: oil palm driven transformation | Decrease swidden production | May extend labour opportunities; negative impacts on production based entitlements | Negative impact on land tenure likely to generate conflicts over the longer term | Large GHG emissions |

In the case of Indonesia, the *idee fixe* of policy remains that of pursing the national self-sufficiency agenda. By conceptualising food security in productivist terms, the focus on achieving gross national targets leads to a preoccupation with productivity increases in the face of increasing demand, volatile prices, unreliable international markets, with solutions necessarily found on the supply side. The focus on self-sufficiency targets appears to lead policy away from a primary focus on addressing the entitlement failures experienced at the local level (discussed above). This lack of concern with causality (the complex interacting drivers of food poverty) seemingly leads to a gap between policy discourse and experienced forms of food security studied in this paper. However, policy narratives should not be taken on face value. For instance, while publicly ascribing to a national policy that pursues self-sufficiency and eschews imports, policy makers have long allowed for the necessity of food imports while seeking to protect domestic markets from notoriously volatile international prices for key staples (Falcon 2013). Similarly, as the Pontianak scheme shows, state planners also seek to address production failures in the rice lands, enhancing the community right to food, while searching for ecologically and socially appropriate ways of increasing production. Unfortunately, we see no such programs addressing the production failures of swidden agriculturalists in the uplands.

The policy that favours corporate oil palm investments in upland areas runs against all four policy principles. With respect to the distributional justice criteria, as we noted in the introduction, Sen's capacity approach suggests that policy needs to address both the process and the opportunity aspects of development (Sen 1999:17). In accord with the principles of enhancing smallholder access and control over productive resources, agricultural growth can be promoted in ways that provide the poor with the opportunity to utilize their own assets to address food poverty. However, plantation development policies involve the large scale transfer of land to plantation control. While some procedures to ensure free, prior and informed consent and to provide a reasonable level compensation exist, inconsistent land governance processes regulate these land transfers. Despite some recent improvements, such principles may be honoured more in the breach than the observance (Paino 2014; Zen et al 2010). Diversification remains a core aspiration of rural livelihoods as livelihood diversification can provide local people with the means of addressing entitlement failures. In these cases the advent of oil palm offers the prospect of replacing a dependence on swidden rice and extended use of forested landscapes subject to seasonal variation with a dependence on insecure or poorly paid wage labour in the estates (Li 2009). However, given the low demand for labour on large scale plantations (Li 2011), plantation employment on its own terms will not solve the food poverty question. An alternative policy might provide upland households with a means of income diversification or of supporting supporting the development of smallholder capabilities (McCarthy 2010; McCarthy et al 2012). In this way oil palm related policy could move towards satisfying the distributional justice criteria. While the fast expansion of the independent smallholder oil palm sector seems to indicate improved outcomes for landowners, for the most part poorer villagers are confined to land transfers for cash and labouring on the new oil palm plots.

With respect to the efficiency criteria implicit in the self-sufficiency principle, we question whether one or the other of these mega-farm approaches (case 1 and 2) – either those led by corporations or state owned enterprises – can contribute meaningfully to meeting national production

targets. First, given their proven track record, investing in lucrative agro-industrial export crops (such as oil palm) remains so much more attractive compared to investing in staple production for domestic consumption. Second, given the lack of available land, food estates are developed in marginal areas, raising significant questions of ecological sustainability and economic viability. Third, these policies also allows for a displacement of the problems experienced in rice basket of highly productive Java (where production has fallen) into less suited marginal lowlands of Kalimantan. There is a serious ecological question here: how realistic or sustainable is it to pursue intensive production in the marginal peat landscapes of Kalimantan?

In theory, if state owned enterprises (SOEs) organized smallholders, in ways reminiscent of a food sovereignty agenda, the second initiative could help smallholders to capture economies of scale and to increase the productivity of land and labour. To be sure the business model applied in the Ketapang case does not alienate land. However, to date it is yet to ameliorate directly the food poverty experienced by surrounding communities, and it is yet to enhance locally managed production. Given their internal problems of the SOEs, they are not yet able to handle complexity and adapt to the local social and ecological context, and the food estates limps ahead without meeting the ambitious hopes invested in them. However, by including smallholders as producers, in theory policy could be modified to find a form appropriate to local circumstances.

Recent policy discussions have attempted to rethink how agricultural systems might be developed by applying ecological concepts and principles to the design and management of agro-ecosystems (Altieri 1995). The Ponitanak scheme (case 3 above) resonates with this agroecological turn, and is readily justified in terms of distributional justice. In contrast to the large scale estate approach, this policy agenda sustains rather than narrows access to land and seeks to raise smallholder productivity. On this note, other research has concluded that, in the absence of effective state provided safety nets, ‘subsistence farming can be a feasible and more economical means of protecting the food security of many vulnerable, poor people’ (de Janvry et al. 2012). As far as it assists the development of the capabilities of farmers, it supports what we may call an internally-driven food security strategy, bringing it more in accord with food sovereignty and food security criteria.

However, two questions emerge concerning the capacity of the Pontianak approach to meet efficiency criteria. First, after long years of policy neglect, progress remains slow. The reality is that market orientated policy has undermined the practices and beliefs that sustained the state capacities that supported the green revolution productivist agenda in the first place (Patel 2013). Second, as critics of food sovereignty approach note, increasing production in marginal environments in this fashion may only make a limited contribution to meeting increasing demand or for that matter attaining national production targets and thereby decreasing prices for non-agricultural consumers (Beuchelt and Virchow 2012).

Thus, we find the three key policies examined here (food estates, assisting smallholders and oil palm expansion) are mutually inconsistent. Applying the right to food principle in a consistent fashion would suggest that policies to help assist lowland rice farmers be extended to indigenous, swidden agriculturalists, whose needs for income diversification need to be addressed.

# 4 Conclusion

As we discussed in the introduction, in making choices policy makers necessarily need to weight up the question of what might constitute a good reason for pursuing a particular course of action. Policy cannot escape its normative implications (Anderson 1979). A large body of work has established a range of principles – some normative, some more analytical – supporting food security, food sovereignty and the right to food as well as environmental questions. If policy analysis makes explicit the competing criteria for evaluating policy choices, they can reveal the normative questions of policy

choice and principle are likely to play out and influence observable outcomes. Analysing the discursive justifications in this way can open up questions regarding the internal consistency of policy, its consistency with accepted, shared values set out in public debate, the assumptions underlying particular justifications, as well as the implications of policy. In short, these principles provide a matrix for considering particular policy interventions.

While it is tempting to understand food security in purely economic terms, food policy questions need to be evaluated in relation to a wide range of other critical issues including water, climate, the environment and how particular policies are likely to work when inserted into specific contexts. This can also reveal a wider perspective, exposing the multiple trades off involved in food policy. For instance, we need to consider the appropriateness of any policy in terms of its impact on national food production, its impact on the broader picture of success and deprivation, as well its capacity to address the entitlement failures experienced by rural people at the local level. This perspective suggests there is no silver bullet for solving food policy dilemmas. As with other contentious areas of policy, we can justify one initiative against one particular principle or policy logic even when it may fare poorly against other policy principles.

Second, this approach also opens up questions regarding the internal consistency of policy as well as its compliance with the accepted, shared values set out in public debate and in law. If a first initiative contradicts the intent of a second approach, the outcomes may cancel each other out, undermining the stated intention of food policy. Policy can pursue smallholder centered approaches that involve increasing the productive possibilities of local smallholders *in situ* by providing technology, increasing the availability of knowledge along with the ability to make use of it. Such initiatives may directly enhance the internal capabilities of smallholder households to pursue food security on their own terms in accordance with the capabilities approach. However, other policies that favour the enclosure of areas for large scale mega-farms can work against these very aims. This contradicts a well-known justice principle: where ‘existing inequalities are unjust’, ‘failing a reasonable justification for differential treatment, cases should be treated alike’ (Anderson 1979:? 719).

Third, the question of efficiency and scale remain critical. While the state acts as sovereign and sets out to pursue a national food sovereignty agenda, this does not absolve it from addressing the rights to food of those experiencing food poverty. In other words, conceptualising food security in productivist terms – with respect to gross national targets – may lead to neglect of the questions of entitlement failures experienced at the local level. This is particularly the case when food poverty is conceptualized in quantitative terms – in the absence of analyses that understand causality. Indeed, growth in food and agricultural production can occur in overall terms, even while the process worsens outcomes for smallholders unable to intensify their crop production or to effectively diversify livelihooods, a fate experienced by some low asset-holding groups of smallholders in many oil palm districts across Indonesia (McCarthy, 2010). This is because agricultural growth needs to include the poor in order to address food poverty, and to do so it is best for the poor to utilize their own assets (FAO/WFP/IFAD 2012). On a related note, as its critics suggest, agro-ecology inspired approaches that improve production under marginal conditions may not meet the increasing demands for the whole population for quantities of food at low food prices. Taking these issues into account suggests that other ways for achieving stipulated ends may need to be found.

Finally, we need to remember that too often large scale schemes fail. In a fashion reminiscent of Scott’s (1998) depiction of how large scale high modernist schemes crash with vast waste, Indonesia’s own one massive rice project that aimed to convert one million hectares of low land Central Kalimantan into rice paddy ended in environmental and social ruin (McCarthy 2013) . Large scale initiatives to produce food staples using high input industrial agriculture in Kalimantan’s marginal landscapes tend to disappoint. This suggests that other policies are needed: the pursuit of national targets might be better pursued through improving production in the rice growing hinterlands and

thinking through cooperative trade policies to pursue price stability in thinly traded commodities. In view of this, policy makers might best eschew the search for large-scale solutions, searching rather for 'incremental successes that accumulate over longer term horizons' (Spielman, 2014: 44). To be sure sound policy requires combining measures 'rather than perfecting a single policy instrument and over-extending reliance on single, short term interventions' (Von Braun et al. 1992: 33). The search may then be for localized solutions that provide pathways out of food poverty which can be scaled up (Naylor, 2014). Such approaches accord with the shift towards sustainable intensification agendas at the international level.

## References


Alkire, S (2008) Using the Capability Approach: Prospective and Evaluative Analyses. Oxford Poverty & Human Development Initiative. http://www.ophi.org.uk/wp-content/uploads/Alkire-Using-Prospective-Eval-07.pdf

Anderson, C (1979) The Place of Principles in Policy Analysis The American Political Science Review, 73(3) 711-723

Beddington, J (2010) Food security: contributions from science to a new and greener revolution Phil. Trans. R. Soc. B 365, 61–71

Brüntrup, M (2011) Detrimental Land Grabbing or Growth Poles? Determinants and Potential Development Effects of Foreign Direct Land Investments. Technikfolgenabschätzung – Theorie und Praxis 20. Jg., Heft 2, 28-37

Beuchelt and Virchow 2012 Food Sovereignty or the human right to adequate food: which concept serves better an international development policy for global hunger and poverty reduction. Agri Human Values 29:259-273

Cotula, L., Vermeulen, S., Leonard, R. and Keeley, J., 2009, land grab or development opportunity? Agricultural investment and international land deals in Africa, IIED/FAO/IFAD, London/Rome.

Cramb, RA CJP Colfer, W Dressler, P Laungaramsri, Swidden transformations and rural livelihoods in Southeast Asia Hum Ecol (2009) 37:323–346

De Konick, Rigg and Vandergeest (2011) Chapter 2 in Revisiting Rural Places: Pathways to Poverty and Prosperity in Southeast Asia Ed De Koninck, Rodolphe, Stéphane Bernard and Jean-François Bissonette, eds. Borneo Transformed: Agricultural Expansion on the Southeast Asian Frontier. Singapore: NUS Press, 2011.

Deininger, K., D. Byerlee, J. Lindsay, A. Norton, H. Selod and M. Stickler (2011) *Rising Global Interest in Farmland: Can it Yield Sustainable and Equitable Benefits?* Washington, DC: World Bank.

Dove M.R. (1993) Smallholder rubber and swidden agriculture in Borneo: a sustainable adaption to the ecology and economy of the tropical rainforest. Economic Botany 47, 136-47.

Edelman, M (2014) Food sovereignty: Forgotten genealogies and future regulatory challenges. Journal of Peasant Studies 41( 6) 959-978

Ellis, F (1999) Rural livelihood diversity in developing countries: evidence and policy implications Natural Resources Perspectives, ODI, Number 40, April 1999

ESCAP (2009), UN Economic and Social Commission for Asia and the Pacific Sustainable Agriculture and Food Security in Asia and the Pacific, April 2009, available at: http://www.refworld.org/docid/49f589db2.html [accessed 25 November 2014]

Fachrizal, A (2014) Konflik warga dan perkebunan sawit. Golden Agri Resources di Kapuas Hulu, Ada Perbaikan tetapi Masih Abaikan Prinsip RSPO

Hanapi, M. F. (2013). 3.7 juta penduduk Indonesia hidup dari sawit. Antaranews, 29 March 2013

Humas Setda Ketapang, ‘Ketapang Food Estate Terbesar di Indonesia’, 9/2/1013
Julia and B White (2012) Gendered experiences of dispossession: oil palm expansion in a Dayak Hibun community in West Kalimantan Journal of Peasant Studies, v. 39 no. 3-4, pp. 995.
Jakarta Post 2009 Palm oil as an economic pillar of Indonesia 02/12/2009
Kompas, 2011 Food Estate di Kaltim September 12, 2011
Li, T.M. (2011) 'Centering labor in the land grab debate', Journal of Peasant Studies, 38: 2, 281— 298
McCarthy, JF.(2010) 'Processes of inclusion and adverse incorporation: oil palm and agrarian change in Sumatra, Indonesia', Journal of Peasant Studies, 37: 4, 821 — 850
McCarthy, JF., P. Gillespie and Z. Zen (2012) “Swimming Upstream: Local Indonesian Production Networks in “Globalized” Palm Oil Production.” World Development 40(3), March 2012.
McCarthy, JF. (2013) Tenure and Transformation in Central Kalimantan After the “Million Hectare” Project p 183-214 in Land for the People. The State and Agrarian Conflict in Indonesia Edited by Anton Lucas and Carol Warren Ohio University Press, Athens
Mertz, O, AE Christensen, P Højskov & T Birch-Thomsen (1999). Subsistence or cash: strategies for change in shifting cultivation Geografisk Tidsskrift, Danish Journal of Geography 1: 133-142, 1999
Mertz, O C, Padoch, J Fox, RA Cramb, SJ Leisz Swidden change in Southeast Asia: understanding causes and consequences Hum Ecol (2009) 37:259–264
Oxfam (2014). Risk of reversal in progress on world hunger as climate change threatens food security. OXFAM media briefing 31 March, 2014
Paino, C (2014) Konflik Lahan dan SDA Tinggi, UU Agraria Dikebiri
Potter, L (2011) Swidden, Oil Palm, and Food Security in West Kalimantan. Kasarinlan: Philippine Journal of Third World Studies 26 (1–2): 252-263
P2BN (2011) Peningkatan Produksi Beras Nasional, ‘Menuju surplus beras 10 juta ton pada tahun 2014,’ Kementerian Pertanian Direktorat Jenderal Tanaman Pangan 14/12/2011
PPKP (2013). Program peningkatan ketahanan pangan
Quizon, A (2013) “Land Governance in Asia: Understanding the debates on land tenure rights and land reforms in the Asian context”. Framing the Debate Series, no. 3. ILC, Rome.
Scott, JC (1998) Seing like a state: How certain schemes to improve the human condition have failed. Yale University Press.
Sellato, B (2001). Forest, Resources, and People in Bulungan: Elements for a History of Settlement, Trade, and Social Dynamics in Borneo, 1880-2000. CIFOR, Bogor.
Sen, A (1999) Development as freedom. Oxford University Press, New Delhi, 1999
Von Braun, J (1992) Improving food security of the poor: Concept, policy, and programs. International food policy research institute, Washington
White, B, S, Borras, R, Hall, R, I, Scoones, and W Wolford (2012) The new enclosures: critical perspectives on corporate land deals. The Journal of Peasant Studies 39(3–4), 619–647
Wibowo, SS (n.d) Analisis model I-O untuk identifikasi komoditas andalan mendukung penyuluhan pertanian di Kabupaten Pontianak. Penyuluh pertanian muda pada BPTP Kalimantan Barat, Pontianak
Wolford, W, S, Borras, R Hall, I Scoones and B White eds. (2013) *Governing Global Land Deals: The Role of the State in the Rush for Land.* In *Development and Change* 44 (2).
World Bank (2014) “Towards Indonesian Land Reforms: Challenges and Opportunities A Review of the Land Sector (Forest and Non-forest) in Indonesia”
World Bank. 2007. World Development Report 2008: agriculture and development.World Bank.
World Economic Forum (2013) Achieving the New Vision for Agriculture: New Models for Action A report by the World Economic Forum’s New Vision for Agriculture initiative. Prepared in collaboration with McKinsey & Company

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