III. RESEARCH METHODOLOGY

3.1. The Conceptual Framework

Distortions in the context of production of agricultural commodities can be defined as those interventions which lead to price alterations that farmers face affecting their incomes and welfare and hence reductions in rubber production. These interventions alter economic incentives to the producers. The effects of divergence as a result of interventions can be measured at the market levels. Profitability of production systems (defined as the difference between revenues and costs) is a key issue affected by changes in commodity, domestic factor and input markets. Distortions in the input/output markets can result into a net taxation of the production system hence lowering of farmer’s profit. This could lead to changes in cropping patterns and resource allocation among the alternative crop enterprises (shifting towards a more desirable enterprise). Institutional market failure could also result into a situation in which markets do not function efficiently because of inadequate development or lack of appropriate regulations. Therefore, identifying institutional forms of market failure and their effect is also important in evaluating agricultural commodity markets. Changes in profitability as a result of policy intervention can be measured within the production systems.

Distortions come from an understanding of how they affect profits. Distortions create incentives or disincentives for production systems and the long-term environment for the development and sustainability of agricultural production, hence directly having the impacts on rubber production initiatives. The aim of this
study is to analyze production profitability and efficiency of rubber under smallholder monoculture and smallholder agroforestry systems, distortions and the patterns of incentives for rubber agroforestry system under the current policies.

Figure 2. Conceptual Framework for Analyzing Policy Impacts
3.2. Hypothesis

The objectives set above are sought against the background of these hypotheses which states that;

1. Production of rubber is more efficient and profitable under smallholder rubber agroforestry system than smallholder rubber monoculture system.

2. Policy distortions affect production efficiency under smallholder rubber agroforestry system than smallholder monoculture system.

3.3. Selection Criteria for Area of Study

3.3.1. Selection Procedures

The first task was to select the survey province. According to the preliminary investigation, it was found out that Jambi is among the rubber producing provinces in Indonesia. According to Table 3 based on the results of the capacity and production of crumb rubber factories based on Provinces, Jambi was among the provinces with large capacity. Therefore this was the reason for selecting Jambi province as a survey location, whilst no other crucial considerations were taken in favor of this choice over the four provinces.

The next task included selecting a district with two rubber producing villages in the province as the representative of rubber cultivation under smallholder monoculture and smallholder agroforestry systems respectively. The selection procedure involved two criteria:

The extent of rubber cultivation by smallholders, was traced from the district level and further down to the village level; and
2. The ‘probability’ of finding monoculture and agroforestry systems in adjacent places.

   Based on criteria 1, Muara Bungo district was selected as the possible candidate. After consultation with institutions (e.g. ICRAF Jambi province office) based in Muara Bungo and local officials the decision was made based on the expectations of a better chance of finding two neighboring village’s one representing rubber monoculture system and another representing rubber agroforestry system typically under smallholdings.

   The representative smallholdings were based on homogeneity in terms of input and output factors which would allow profitability and efficiency analysis. All the participating smallholdings in Senamat village satisfied the criterion (i.e. smallholdings consisted of trees with the same age composition and the same inputs).

   The situation was quite different in the case of traditional smallholders under rubber agroforestry in Muara Kuamang village whose smallholdings consisted of unselected rubber trees with a wide range of age composition. It was necessary to minimize possible confounding effects of age differential and for this reason; only smallholdings with rubber trees replanted in 1990’s were selected. Everything here was predetermined based on the availability of time and budget for conducting this study.

3.3.2. Survey Locations

   It was desirable to cover a wide area and include as many smallholders as possible in order to allow the generalization of the findings of the study. However due to limited time, the coverage of the present study was strictly on two villages
only i.e. Senamat and Muara Kuamang villages. Since it was a data update, smallholders were randomly selected from each of the above mentioned villages.

One of the selected villages represented smallholder rubber monoculture system (i.e. Senamat village) while another village represented smallholder rubber agroforestry system (i.e. Muara Kuamang) to ease comparison of the two systems in terms of production efficiency and profitability.

3.4. Sources of Data

2006 secondary data for field update was obtained from ICRAF and direct observation from the field.

3.5. Secondary Data Update

2006 data was provided by ICRAF and updated to 2007 data from the field. This update included; price data, input and output data to enable the researcher come out with an updated farm budget analysis.

The approach and technique required set of essential data on agricultural activities i.e. the market prices of any agricultural inputs as well as their outputs and comparable social prices related to the system. The data update was done using Rapid Rural Appraisal (RRA) technique in which collecting particular data from various sources ensured reliability of the data collected in connection with the existing secondary data that was applied.

All collected and observed data was focused on information needed for the assessment (i.e. 30 years farm budget) for example land clearing. Data collected from farmers was then verified with other sources like the auction market and input
suppliers. Key questions concerning particular issues like land clearing techniques, food crop cultivation and rubber production still remained the same like the previous studies.

3.6. The Policy Analysis Matrix (PAM)

The PAM is essentially a double – accounting technique that summarizes budgetary information for farm and post farm activities. The PAM model developed by Monke & Pearson (1989) is used because it allows varying levels of disaggregation and makes the analysis of policy induced transfers straightforward. The model also makes it possible to identify the net effect of complex contradictory policies in order to sort the individual effects of these policies. On the other hand, the PAM framework permits sensitivity analysis in which an inventory of uncertainties may be examined for their likely impact on the underlying efficiency.

The PAM model is relevant in three areas of economic analysis:

1. The impact of policies on the comparative advantage of commodity systems;
2. The impact of policies on economic efficiency and comparative advantage; and
3. The impact of policy distortions on agricultural systems.

3.6.1. The Farm Budget Analysis Approach

Farm budget analysis is a commonly used economic tool for assessing performance of agriculture practices. This thesis employs the same technique that was applied in other profitability assessments (e.g. ASB Indonesia project (Tomich et al, 1998; Budidarsono et al, 1998, 2000), which is Policy Analysis Matrix (PAM).
The PAM is a matrix of information about agricultural and natural resource policies and market imperfections that is created by comparing multi-year land use system budget calculated at private and social prices (Monke and Pearson, 1995).

Private prices are the prices that farm households are facing (local or domestic market price of input and output). Therefore, profitability or NPV valued at private prices, so called private profitability, is an indicator for production incentive (Tomich et al., 1998). Social prices are the economic prices that remove the impact of policy distortion (taxes, subsidy and other local levies) and market imperfections. Usually it is derived from export or import parity prices of particular inputs or outputs.

Profitability measured at social prices, so called social profitability, is an indicator of potential profitability. The divergence between private and social profitability shows how policies and market imperfections affect the financial incentives faced by smallholder farmers.

As long as profitability calculation is concerned, the appropriate measure of profitability for long term investment is net present value (NPV), i.e., the present worth of benefit (revenues) less the present worth of the cost of tradable inputs and domestic factors of productions (Gittinger, 1992). Mathematically it is defined as:

\[ NPV = \sum_{t=0}^{T} \frac{B_t - C_t}{(1 + i)^t} \]

where \( B_t \) is benefit at year \( t \), \( C_t \) cost at year \( t \), \( t \) is time denoting year and \( i \) is discount rate. An investment (the practice of smallholder rubber agroforestry and
smallholder rubber monoculture for over 30 years since establishment) is appraised as profitable if NPV is greater than 0.

Tomich et al (1998) argues that in areas where land is scarce, the NPV calculation over the 30 year period can be interpreted as the ‘returns to land’ for the selected land use activity unit under study. Although land abundance and labor scarcity historically prevailed in many areas of Jambi, making it an attractive focus of government sponsored transmigration programs; this relationship seems to be shifting in Jambi. Much of this abundant land has been subsequently granted to industrial plantations or has been settled by spontaneous migrants as it’s been taking place in Muara Bungo since the past two decades. Muara Bungo area has been an attractive destination for many spontaneous migrants, especially for rubber farming.

The study also presents a measure of ‘return to labor’ that is the wage rate that sets the NPV equal to zero. Adjusting the wage rate until NPV goes to zero can be used as a proxy for ‘returns to labor’ since this calculation converts the surplus to a wage rate. Returns to labor that exceed the average daily wage rate, indicate that individuals with their own land will prefer this activity to off-farm activities and it also justifies hiring non-family labor. Returns to labor valued at private prices can thus be viewed as the primary indicator of profitability for smallholder’s production incentives.

3.6.1.1. Estimation of Private Costs and Revenues

The existing and field up dated data helped the author to compute and obtain estimations of costs and revenues of rubber agroforestry production at an observed market price. The average cost of hired labor was used to represent the private cost of
labor. Mutual aid and family labor was valued at the prevailing market wage for hired labor. The average costs used for the variable inputs in budgets was based on the prices reported by the farmers.

However, in cases where farmers own car/bicycle and use them for transportation of crops and/or inputs, transport charges by similar modes of transport in a particular area were used. However, investment costs and depreciation on these assets were not calculated.

3.6.1.2. Estimation of Social Costs and Revenues

The social costs of inputs will be decomposed into their tradable and non-tradable components. Small farm tools, land and labor were treated as totally non-tradable. Land and labor, which are domestic factors of production, and social prices, are estimated based on domestic opportunity cost and market wage rate, respectively.

The Social Price of the Crop

The valuation of social price of the crop is primarily done by taking the export parity price of the crop, which is its f.o.b. price, minus the marketing and processing costs of moving the unit of crop to the border for export. The average rates for foreign exchange bureaus were used (to calculate the crop value in domestic currency) as a more accurate measure of the socially efficient value of the local currencies than the official exchange rate of Indonesian Rupiah.

Social Price of Tradable Inputs

Valuation of social price of fertilizers and chemicals was be done by taking the import parity prices of the inputs used at the farm, which are the c.i.f. prices plus marketing costs of moving the goods to the farm. Small farm tools were treated as
totally non-tradable and their social prices assumed to be equal to the observed prices. They reflect value to society as a whole rather than to private individuals and are the values used in economic analysis when the objective is to maximize national income. These are sometimes called shadow prices, efficiency values or opportunity costs.

### Social Price of Labor

The social price of labor is output foregone in other parts of the economic activity as a result of employment in the activity in question. In a competitive and undistorted labor market, the social price would equal the wage rate. However, if the government does not have any legislation on agricultural wage rates, the market wage rate for daily agricultural labor in the district was assumed to reflect the social value of labor.

### Social Value of Land

In order to determine the social value of land, the opportunity cost of land for smallholder rubber agroforestry system and smallholder rubber monoculture system was be estimated to be zero since most of the smallholders acquire land through inheritance.

### 3.6.1.3. Pricing the Costs and Returns

Profitability analysis needs a detailed farm budget calculation and it is necessary to clarify the proper prices for calculating the costs and returns and the macroeconomic assumptions used in this assessment. The study’s farm budget calculations were based on macroeconomic conditions that prevailed in Indonesia in the year 2007.
Farm budget calculation based on the 2007 macroeconomic parameters (i.e. year of data update) in order to get more understanding on the impact of monetary crisis on rubber. The macroeconomic parameters used in the study are tabulated in Table 7.

**Table 7. Macroeconomic Parameters Used in 2007 Data Update**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange rate (Rp/USD)</td>
<td>9 164</td>
</tr>
<tr>
<td>Wage rate in Jambi (Rp/person/day)*</td>
<td>20 796</td>
</tr>
<tr>
<td>Real interest rate</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>10.0%</td>
</tr>
<tr>
<td>Social</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

*Calculated wage rate for 2007

It is important to note that, real interest rates (that is interest rate net of inflation) are the discount factors used to value future cash flows in current term. A private discount rate of 10.0% and a social rate of 5.0% were chosen as the initials values to facilitate comparison with PAM results of the two systems (i.e. smallholder rubber monoculture and smallholder rubber agroforestry). It is argued that a private discount rate of 10.0% is lower bound for the actual cost of capital for smallholders due to imperfections in Indonesian capital markets.

In determining the prices, the study used annual average prices (ten years average) of all tradable farm inputs and farm commodities that are cast in the respective constant prices (2007 constant price). The study uses local market prices as the basis of calculation of farm budget valued at private prices. Whereas for the comparable farm budget at social prices, the study applies export and import parity...
prices at farm gate as the basis of calculation. In this respect, farm budget calculations ranged from 1997 to June 2007. See the details in Appendix 5 to 8.

Another component that also needs to be thought of in farm budget calculation is the value of rubber in the 30th year. The analysis did not include this value in the farm budget calculation. It considers that whatever the value of rubber in both systems 30th year, will be topping up the returns.

3.6.2. The PAM Table Approach of Assessment

The valuation of revenues, costs and profits by their private and social prices allows PAM to determine the extent of divergences caused by interventions or market failure in both input and output markets. In this context, the private prices are simply the open market prices faced by all agents. For consistency, the values presented in Table 8, have to be calculated using per land unit basis. The first row of the table defines revenues, costs (both tradable and non-tradable inputs) and profit in private prices. The second row defines revenues, costs and profits in social prices. The third row records the differences between the elements of the first two rows. If there are no differences between private and social prices (no market distortions), thus the elements of the first two rows would be identical and the reverse is also true.

Profits, shown in the right hand column, are found by subtraction of cost, given in two middle columns, from revenue, indicated in the left-hand column. This column constitutes profitability identities. There are two profitability calculations i.e.: private profitability and social profitability.
<table>
<thead>
<tr>
<th></th>
<th>Revenues</th>
<th>Cost Tradable Input</th>
<th>Cost Domestic Factor</th>
<th>Profits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private prices</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D(^1)</td>
</tr>
<tr>
<td>Social prices</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H(^2)</td>
</tr>
<tr>
<td>Effect of divergences and Efficiency policy</td>
<td>I(^3)</td>
<td>J(^4)</td>
<td>K(^5)</td>
<td>L(^6)</td>
</tr>
</tbody>
</table>


The symbols (capital letters) are defined as follows:

- Revenues in private prices (market prevailing prices).
- Costs of tradable inputs (such as fertilisers, chemicals, etc.) in private prices.
- Costs of domestic factors (such as labour, capital, etc.) in private prices.
- Revenues in social prices (economic, efficiency prices) or shadow prices.
- Costs of tradable inputs (such as fertilisers, seeds etc.) in social prices.
- Costs of domestic factors such as (labour, capital, etc.) in social prices.
- Private profit, D, equal A minus B minus C
- Social profits, H, equal E minus F minus G
- Output transfer, I, equal A minus E
- Input transfer, J, equal B minus F
- Factor transfer, K, equal C minus G
- Net transfer, L, equal D minus H, they also equal I minus J minus K
3.6.2.1. Private profitability

Calculation is provided in the first row. The term of private refers to observe revenues and cost reflecting market prices received or paid by farmers, merchant, or processors in the agricultural system. Private profitability calculations show the competitiveness of agricultural systems at given current technologies, output values, import cost and policy transfer. Private profits are the difference between revenues (A) and cost of input (tradable input B, and domestic factors C); all measured in actual market price: \( D = A - B - C \).

3.6.2.2. Social profitability

Social profits measure efficiency although outweighed by the DRC for comparison of different activities. The results can be taken directly from the second row of the PAM matrix; social profits equal social revenues less social costs. When social profits are negative, a system cannot survive without assistance from the government. Such systems waste scarce resources by producing at social costs that exceed the cost of importing.

Calculations, as indicated in the second row in Table 8, are the accounting matrix utilized social prices. These valuations measure comparative advantages or efficiency in the agricultural commodity system. Social profits \( H \), are efficiency measures, because output \( E \) (revenue) and input \( (E + F) \) are valued in prices that reflect scarcity or social opportunity cost. Social valuation of output \( (E) \) and input \( (F) \) that internationally tradable, are given by world price: c.i.f. Prices of imported goods and services or f.o.b. export prices for exportable goods. Social valuation for domestic factor \( (G) \) is found by estimation of net income forgone because the factor
is not employed at its best alternative use or its opportunity cost (Monke and Person, 1996).

In practice the valuation begins with a distinction between mobile (capital, labor and services that can move from agriculture to other sector of economy) and fixed factors (mostly land). For mobile factors, aggregate supply and demand forces determine prices. For fixed or immobile factors of production, such as land, are determined within particular sector of the economy. The value of agricultural land, for example, is usually determined only by land’s worth in growing alternative crops.

The second identity of the accounting matrix is effect of divergences, indicated in the third row. Although this row mainly concerns the difference between private and social valuation of revenues, costs and profits, and is measured vertically. This row constitutes the main point of the PAM approach. Any divergence between observed private prices and the estimated social prices must be explained by the effect of policy or by the existence of market failure. Output transfer \((I = A - E)\) and input transfer \((J = B - F)\), arise from two kinds of policy that cause divergence between observed market prices and world product prices. Policies are commodity-specific policies which include a wide range of taxes and subsidies and trade policies, and exchanged rate policy. Factor transfer \((K = C - G)\) shows how policies on factors of production and the factor market imperfection had been taking place that create a divergence between private cost \((C)\) and social cost \((G)\).

Last but not least, the net transfer \((L)\) caused by policy and market failure is the sum of the separate effect from product and factor market \((L = I - J - K)\). Positive
entries in two cost categories J and K represent negative transfer because they reduce private profit, whereas negative entries in J and K represent positive transfer.

Finally, Comparative Advantage refers to economic efficiency of different kinds of production within the domestic economy, which are compared in terms of earning or saving a unit of foreign exchange. The cost of producing rubber under agroforestry system, are compared with the costs of the same product but under a different system (i.e. monoculture system) domestically. The opportunity cost of foreign exchange is a good measure of the next best alternative since it indicates what the systems would have to give up in terms of domestic currency to obtain an additional unit of foreign exchange (Tsakok 1990)

3.6.2.3. Important Policy Parameters from the PAM

The primary objective of constructing a PAM is to derive few important policy parameters for analysis. The most commonly used parameters are Nominal Protection Coefficient on Tradable Output (NPCO), Nominal Protection Coefficient on Tradable Inputs (NPCI), Effective Protection Coefficient (EPC), Private Cost Ratio (PCR) and Domestic Resource Cost (DRC). These parameters are closely related and are implicit in the PAM and hence can be calculated directly from the matrix. Since these are ratios, they can be used as a basis for comparison between different production activities.

Nominal Protection Coefficient on Tradable Outputs (NPCO)

NPCO is the ratio between private and social revenue of the output (i.e. the ratio of domestic market price of the product to its parity price at the farm-gate). In Table 8, NPCO = A/E. If NPCO >1, this indicates that the private price of output is
greater than its parity price and hence producers are positively protected for the product. If NPCO < 1, it indicates that producers are implicitly taxed on the product. If NPCO = 1, it indicates a neutral situation.

2. Nominal Protection Coefficient on Tradable Inputs (NPCI)

NPCI is the ratio of private to social cost of tradable inputs (i.e. the ratio of the private to the social values of all the tradable inputs). In Table 8, NPCI = B/F. Therefore, if NPCI > 1, it indicates that producers are taxed when they buy tradable inputs. If NPCI < 1, it indicates that they are subsidized and if NPCI = 1 it represents a neutral situation.

3. Effective Protection Coefficient (EPC)

EPC measures the total effects of intervention in both input and output markets. It is defined as the ratio of value-added measured at private prices to that at social prices. From Table 8, EPC = (A-B) / (E-F). If EPC > 1, it implies that the overall impact of the existing policy results in a net positive incentive to produce the commodity. EPC < 1 represents a net disincentive. EPC = 1 implies either no intervention or the net impact of various distortions in both the input and product markets results in a neutral effect on value added.

4. Private Cost Ratio (PCR)

The PCR is the ratio of domestic resource costs to value added in private prices. In Table 8, PCR = C / (A-B). The ratio is an indication of how much a system can afford to pay domestic resources, including a normal return to capital, and still remain competitive. Any PCR less than one are an indicator of positive incentives for a given system.
5. **Domestic Resource Cost (DRC), Merits and Limitations**

The most prominent indicator used by the PAM to measure efficiency and social profitability is the Domestic Resource Cost ratio (DRC). In simple definition the DRC measures the ratio of the cost of domestic resources used by the commodity system to the value created by the commodity system, both measured at social prices (Kydd et al, 1997). The activity that is an efficient user of scarce resources or has the comparative advantage have the DRC between zero and one while values above one and those negative indicate that an activity is wasting scarce resources that could be used efficiently elsewhere. Break-even activity is indicated by the DRC of one. Specifically, systems efficiency can be measured by a DRC ratio:

\[
DRC = \frac{\text{Value of domestic factors at economic prices per unit of output}}{\text{Value added at economic prices per unit of output}}
\]

Therefore if the cost is less than the benefit (DRC<1,) the production of that product is socially desirable. If the cost is equal to the benefit (DRC = 1), it is just worthwhile to produce the commodity. It also implies that with regard to the commodity in question, the allocation of productive resources has reached an optimal point in the sense that, with the given economic regime, further reallocation of domestic resources would reduce welfare.

However, despite of what the DRC approach can do in terms of measuring efficiency, it has several merits and limitations.

The DRC approach uses social profitability to measure efficiency from the dynamic point of view. That is, more resources should be allocated to producing goods with a below-unity DRC ratio (i.e., positive social profitability); and fewer
resources should be allocated to those above-unity DRC ratio (i.e., negative social profitability). Such direct policy implications are the main appeal of the DRC approach. However, two limitations of its application need to be cautioned.

It should be stressed that short-term dynamic efficiency indicated by a low DRC ratio is not necessarily consistent with comparative advantage in the long run. For example, a low DRC ratio may merely reflect transitory efficiency derived from temporary absence of forthcoming competition. Therefore, applying DRC ratios dogmatically yet neglecting the dynamic nature of efficiency could result in misleading policy recommendations. One way to avoid this problem is to conduct sensitivity analysis to examine social profitability under different scenarios and let decision-makers themselves decide which scenario is most applicable.

Another problem of the DRC approach is methodological. Recall that when calculating DRC ratios, the costs of production need to be valued under shadow prices. However, the problem is that the actual cost structure is not influenced by shadow (input) prices but by actual prices. One way to avoid such biases is to compute social profitability based on an econometrically estimated production function rather than simply applying shadow prices to the actually observed cost structure.

3.6.3. Data needed for Analysis

The determination of profit received by farmers is a straightforward and important initial result of the analysis. It shows which farmers are currently competitive and how their profit might change if price policies were to change. Therefore, farm budget components of the principal agriculture systems, such as farm
output or revenues and input cost, are the main necessary data and information. All of these are measured in actual market price. Regarding the second row of the matrix that measures efficiency in the agricultural commodity system, the valuation is given in world price. Therefore f.o.b. prices data of exportable items and c.i.f. Prices of importable items in farm budget are necessary and were collected.

3.6.4. Sensitivity Analysis

Since PAM is a static model and cannot capture the potential effects in prices and productivity, therefore a sensitivity analysis was conducted. The primary issue of the sensitivity analysis is estimated as 10% increase and 20% decrease in producer prices. This is based on author’s observations who perceived that smallholder agroforestry system’s lower yields are realized, particularly in the establishment phase, whereas with continuous production, yields increase as the system balances. This has a negative impact on prices of the final produce, and hence viability of rubber agroforestry. However, it can be argued that even if the price of rubber is likely to fall in the future, rubber agroforestry smallholders will still be in the range of their counterparts. Also, a fluctuating interest rate can have a significant impact on the system’s efficiency. Therefore social interest rate of loan to farmers was specified at 10% but currently it is 5.0% while the private interest rate was changed from the actual interest rate of 10% to an estimated rate of 15%. It is a subsidized credit aimed at promoting smallholder rubber farmers to get involved in development without any harmful financial burden for credit repayment. Devaluation in the value of the rupiah will result in better performance of agroforestry social production than social production of her counterpart.
3.6.5. Strength and Weakness of PAM

In summary, the PAM is a simple conceptual framework for organizing information at the microeconomic level to show the effects of policy on financial profitability and comparative advantage of agricultural systems. It treats government policies explicitly, and can be used to link macroeconomic policies with microeconomic phenomena.

The simplicity of PAM invites both praise and criticism. On one hand, it is easily understood by non-economists, particularly senior policy makers who have neither the time nor inclination to digest complicated numeric results.

On the other hand, its simplicity is for others confining. A major (and valid) criticism is that it is static policy formulations do not allow for any supply response i.e. the way producers change output in response to changes in incentives.

Other shortcomings of the PAM are; it is not useful for analyzing products that are not traded internationally since, by definition there is no world price.

In addition, it should applied to countries that make up large share of world trade, since the world price would not be exogenous (and therefore not an efficiency price). However, for the majority of the country product combinations, these conditions are not relevant.