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Effects of Covid-19 and Other Shocks on Papua New Guinea's Food Economy

A Multi-Market Simulation Analysis

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ABSTRACT

Understanding how the Papua New Guinea (PNG) agricultural economy and associated household consumption is affected by climate, market and other shocks requires attention to linkages and substitution effects across various products and the markets in which they are traded. In this study, we use a multi-market simulation model of the PNG food economy that explicitly includes production, consumption, external trade and prices of key agricultural commodities to quantify the likely impacts of a set of potential shocks on household welfare and food security in PNG.

In this study, we use a multi-market simulation model of the PNG food economy that explicitly includes production, consumption, external trade and prices of key agricultural commodities to quantify the likely impacts of a set of potential shocks on household welfare and food security in PNG. We have built the model to be flexible in order to explore different potential scenarios and then identify where and how households are most affected by an unexpected shock. The model is designed using region and country-level data sources that inform the structure of the PNG food economy, allowing for a data-driven evaluation of potential impacts on agricultural production, food prices, and food consumption. Thus, as PNG confronts different unexpected challenges within its agricultural economy, the model presented in this paper can be adapted to evaluate the potential impact and necessary response by geographic region of an unexpected economic shock on the food economy of the country.

We present ten simulations modeling the effects of various shocks on PNG's economy. The first group of scenarios consider the effects of shocks to production of specific agricultural commodities including: 1) a decrease on maize and sorghum output due to Fall Armyworm; 2) reduction in pig production due to a potential outbreak of African Swine Fever; 3) decline in sweet potato production similar to the 2015/16 El Niño Southern Oscillation (ENSO) climate shock; and 4) a decline in poultry production due to COVID-19 restrictions on domestic mobility and trade. A synopsis of this report, which focuses on the COVID-19 related shocks on the PNG economy is also available online (Diao et al., 2020).[1]

The second group of simulations focus on COVID-19-related changes in international prices, increased marketing costs in international and domestic trade, and reductions in urban incomes. We simulate a 1) 30 percent increase in the price of imported rice, 2) a 30 percent decrease in world prices for major PNG agricultural exports, 3) higher trade transaction costs due to restrictions on the movement of people (traders) and goods given social distancing measures of COVID-19, and 4) potential economic recession causing urban household income to fall by 10 percent. Finally, the last simulation considers the combined effect of all COVID-19 related shocks combining the above scenarios into a single simulation.

A key result of the analysis is that urban households, especially the urban poor, are particularly vulnerable to shocks related to the Covid-19 pandemic. Lower economic activity in urban areas (assumed to reduce urban non-agricultural incomes by 10 percent), increases in marketing costs due to domestic trade disruptions, and 30 percent higher imported rice prices combine to lower urban incomes by almost 15 percent for both poor and non-poor urban households. Urban poor households, however, suffer the largest drop in calorie consumption – 19.8 percent, compared to a 15.8 percent decline for urban non-poor households. Rural households are much less affected by the Covid-19 related shocks modeled in these simulations. Rural household incomes, affected mainly by reduced urban demand and market disruptions, fall by only about four percent. Nonetheless, calorie consumption for the rural poor and non-poor falls by 5.5 and 4.2 percent, respectively.

[1] Find report synopsis at this website address: https://www.ifpri.org/publication/effects-covid-19-papua-new-guineas-food-economy-multi-market-simulation-analysis

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KEY MESSAGES

- The data-driven model presented in this paper can be quickly adapted to evaluate the potential impact and policy response options of different unexpected events (COVID-19, El Niño, African Swine Fever, etc.) on the food economy of Papua New Guinea.

- The COVID-19 pandemic has affected household incomes via mobility restrictions, urban job losses, reduced market interaction, and dramatic changes in world food prices. **Model simulations suggest that urban households, especially the urban poor, are particularly vulnerable to shocks related to the Covid-19 pandemic.**

- Assuming that PNG rice prices will eventually adjust to reflect the global price increase, model simulations suggest that **a 30 percent domestic rice price increase will impact urban populations the most,** due to reliance on rice as major staple, with total urban calorie consumption falling by 5-7%

- COVID-19 restrictions on transportation has hampered poultry distribution and sales of breeding stock. **A simulated 60 percent decline in poultry production does not substantially affect total calorie consumption** – at most about 1.2 percent for non-poor household in the highlands, however lack of poultry may have larger effects on nutritional outcomes (in particular protein consumption).

- Between February and July 2020, the international cocoa price fell by almost 23 percent, influenced by falling global demand for luxury goods, such as processed chocolate. **A simulated 30 percent fall in prices of PNG's major agricultural exports minimally affects *average* household calorie consumption, falling on average by 0.12 percent for all households nationwide**.

- Restrictions on domestic movement increased marketing costs across the country during the initial stages of the COVID-19 pandemic. **A simulated 30 percent increase in domestic trade margins results in household incomes falling between 1-4 percent** with the greatest losses among urban households, similar to consumption losses of 2-3 percent

- Urban economic activities and urban production was significantly affected during the early stages of the COVID-19 pandemic. **A simulated 10 percent decrease in the productivity of local urban manufacturing suggests that the incomes of the urban poor and non-poor households will fall by 10.4 and 10.6 percent.** Calorie consumption of urban households also falls by 8.5 percent for urban poor households and by 7.4 percent for urban non-poor households due to income losses.

- **Model simulations suggest that the combined effect of the COVID-19 pandemic** (including an increase in the international rice price, increased marketing costs, declines in poultry production, and declines in urban productivity) **may decrease urban household incomes by 13 – 16 % depending on geographic location. Under this simulation, calorie intake decreases by over 20 percent in poor urban households across the country**.

I. INTRODUCTION

PNG's unique and highly varied biophysical landscape has shaped agricultural production patterns, outcomes and livelihoods for centuries. Starchy staples such as sweet potato, yam, and sago have long been major sources of calories, while cash crops such as cocoa, coffee and copra are an important part of household livelihood strategies. Imported food commodities, including rice and vegetable oil, are also critical for household food security, especially in urban areas. This complex food system in many ways mitigates welfare risk for PNG producers and consumers, with a growing share of households linking to diversified sources of income. However, for a large share of the rural population who remain in remote areas with limited access to diversified food systems, a climate shock can present significant risk to food security resulting in a need for quick policy action and an informed investment and food-aid implementation plan.

Understanding how the PNG agricultural economy and household consumption is affected by climate, market and other unexpected shocks (such as pest infestations, El Nino, or COVID-19 policy measures) therefore requires attention to linkages and substitution effects across various products and the markets in which they are traded. In particular, assessing the effects of the COVID-19 pandemic on food security in PNG requires an analysis that considers numerous pathways and commodities.

The rest of this report is structured as follows. Section 2 discusses the methodology and data, including a description of the simulation model and the classification of agricultural products used for the analysis. Section 3 presents an analysis of the implications of various production shocks on agricultural output, market prices and household incomes and consumption. Shocks include losses related to pests and disease (reducing output of maize, sorghum and pigs), COVID-19 related transportation disruptions (affecting poultry production) and weather-related shocks (such as the 2015/16 El Niño event that substantially reduced sweet potato production in the highlands).

In Section 4, we analyze the impacts of Covid-19-related changes in international prices (high rice import prices and lower agricultural export prices), increased marketing costs (in international and domestic trade) and reductions in urban incomes. The final simulation combines the effects of all the Covid-19 related shocks (including the effects through the poultry sector). Section 5 summarizes the findings, discusses policy implications and suggests priorities for further analysis.

2. METHODOLOGY, DATA AND MODEL SIMULATIONS

Model description

To account for linkages between commodities in a consistent supply and demand framework, we utilize an economy-wide, multi-market (EMM) model. (See Appendix I for details of the equations of the model). Similar in structure to the EMM model in Diao and Nin Pratt (2007)[2], the 28-sector PNG model captures the detailed structure of 26 agricultural sectors and two broad nonagricultural sectors: 1) tradable non-agriculture -- dominated by manufacturing and 2) non-tradable non-agriculture -- dominated by services. Both agricultural and nonagricultural production and consumption are further disaggregated into four subnational regions – Southern, Highlands, Momase, and Islands in order to capture the geographic heterogeneity of sectors and households.

The EMM model is based on neoclassical microeconomic theory. In the model, an aggregate producer represents a specific region's production of a specific sector. There are a total of 112 (28x4) such aggregate producers. Consistent with many other multimarket models' setup, the supply function, instead of production function, is used to capture each representative producer's response to market prices. Specifically, the supply functions are derived from producer profit-maximization and based on the producer prices of all commodities (including the prices for two aggregate nonagricultural commodities). Risk factors and market imperfections are not taken into account and therefore do not affect producers' profit-maximization decision.

In the crop subsectors, the supply functions have two components: (i) yield functions that are used to capture supply response to the own prices given farm area allocated to this crop and (ii) land allocation functions that are functions of all prices and hence are responsive to changing profitability across different crops given total available land for cultivation. For livestock subsectors, a single supply function is used. The own-price elasticities employed in the yield functions for crops and livestock subsectors are the combination of results drawn from other studies and authors' guesstimates, while the cross-price elasticities in the area functions and in livestock supply functions are calibrated according to the share of each commodity in regional total production.

The demand functions are disaggregated by region and by rural/urban and poor/non-poor households within regions. For Southern and Momase Regions, urban poor and non-poor households are further disaggregated by metro vs. other urban. That is, there are totally 20

[2] Other examples include models for Senegal (Braverman and Hammer, 1986), Mozambique (Dorosh et al., 1995) and Viet Nam (Minot and Goletti, 1998). See also the multi-market model primer by Croppendtedt et al. (2007).

household groups and demand functions on individual agricultural and nonagricultural goods are separately defined for each of these 20 household groups. Furthermore, the demand function is defined at per capita level for each of these 20 household groups. A representative consumer's demand for each consumption good is derived from maximizing a Stone-Geary utility function. Data used to calibrate the demand function are from the 2009/10 Household Income and Expenditure Survey (HIES, NSO, 2009). Both income and price elasticities for any specific commodity vary across household groups due to different consumption patterns and income levels. Such differences not only imply that the aggregate effect of consumers' market responses is often nonlinear and much more complicated than that in the case where demand is defined at the national level, but also indicates the possible differential effects of shocks on poor and nonpoor households. These are the focus of the model simulations discussed later.

Per capita income at the regional/household level is determined by the regional level production revenue split across household groups according to their shares in total production in the base data. Since intermediate inputs and their prices are not explicitly modeled, producer prices are adjusted to represent value added, and hence, the aggregation of agricultural production at the value-added prices is close to agricultural GDP (henceforth, AgGDP). For the two nonagricultural sectors, the sector level GDP is used to represent production output with unit price. Thus, national GDP (as well as regional level GDP) comprises AgGDP and nonagricultural GDP, both of which are endogenous in the model.

For internationally traded commodities, there is perfect substitution between domestically and internationally produced commodities. Thus, the price of these goods in the domestic market is equal to the international border (import or export) price in foreign currency terms multiplied by the exchange rate[3] adjusted for tariffs and taxes, as well as transportation and other marketing costs. Specifically, there are three importable agricultural commodities – rice, wheat and other livestock products, and seven exportable agricultural commodities – coconuts, oil palm, coffee, cocoa, tea, fish, and other export crops as a group. The tradeable nonagricultural product is also an importable commodity (see Appendix II).[4]

[3] In the model simulations in this paper, the nominal exchange rate (PNG kina / US dollar) is held fixed. Note that PNG's nominal exchange rate has been very stable in recent years and domestic price inflation has been low. Thus, there has been little movement in the real exchange rate, which appreciated by an average of about 2 percent per year between 2010 and 2019. IMF (2020) estimates that the PNG kina was over-valued by around 11 to 18 percent in 2020.

[4] Appendix 3 provides the elasticities used for each crop by household group and region.

Considering geographic characteristics, we model the remaining 18 agricultural products and the non-tradable nonagricultural product as non-tradable, i.e. they are traded only within each region. For these commodities, prices are determined endogenously by supply and demand at the regional level, with a fixed price wedge between producer and consumer prices to capture market transaction costs.

Data

Our estimates of total production and total household consumption for the model base year (2018) are derived from Food and Agriculture Organization (FAO) data. To disaggregate these figures by region and by household group, however, we utilize patterns of production and consumption reported in the 2009/10 PNG HIES.

Specifically, we include 25 agricultural commodities or commodity groups with production data and crop area data from FAOSTAT (including fish, there are 26 "agricultural" commodity groups).[5] Not all crops are produced by all regions. For example, using information on crop production in different geoclimatic conditions, we assume rice is only produced in Momase region. Crop yields are then calculated using production and cultivated area data. Production data for fish is not available in FAOSTAT for PNG, and we therefore use the data from a different source of FAO, i.e., the Fisheries and Aquaculture Department of FAO. Export and import trade data in value (in $US dollar) and quantity (in metric ton) are also from FAOSTAT.

Because consumption data for PNG is not available in FAOSTAT, we estimate total consumption for 2018 using the share of consumption in total supply (availability) from the Philippines, a country with broadly similar food products, multiplied by the FAOSTAT's estimate of total availability in PNG.[6] Total food availability for each commodity is calculated as production plus imports less exports.

For each commodity, we calculate consumption by individual household group using the share of that household group in consumption from HIES 2009/10 data. The HIES reports four sources of food and non-food consumption: purchased food/nonfood, home-produced food, in kind gifts received, and (for certain food items) beginning and ending household stocks. For most food items, both expenditure and quantity data are available for purchased foods, while only quantity

[5] We recognize that crop area data are difficult to calculate and verify given the local units used to measure land area in PNG and the heavy reliance on root and tuber crops (without specified harvest time) which often remain unseen in the ground until harvested for consumption.

[6] Besides consumption, other uses include feed, processed products, waste and "other" uses.

data is available for the consumption from home-produced, in-kind, and stocks food items. Thus, expenditure and quantity data for purchased foods are used to first calculate a unit value or price for each individual food item at household level. This unit value is assumed to be the same for the same item consumed from the other three sources. Data for nonfood items is available only for expenditures, (not for quantities).

We group the 244 individual food items included in the food diaries of the HIES 2009/10 into 24 food groups according to FAO definitions of commodity groups.[7] In addition, we classify cocoa and "other export crops" as separate food / agricultural items because of their importance in income earnings and exports of PNG. Thus, in total, the model has 26 agricultural commodities or commodity groups. For a commodity without exports or imports, we assume that regional production is equal to regional consumption, i.e. we assume that the market for the commodity clears within each region.

In the model, the demand function is specified in per capita terms. Thus, we first use HIES data to calculate population shares for the four regions and for the poor and non-poor in rural, urban and metro areas within each region. Using these population shares and the national rural and urban population data in the World Bank's World Development Indicator (WDI) data, we estimate the population distribution across the 20 household groups (4 regions x poor/non-poor x rural/urban/metro in Southern and Momase regions) in 2018.[8] We define poor households as those in the bottom 40 percent (bottom two quintiles) of the per adult equivalent expenditure distribution.[9]

Estimates of Calorie Consumption

The model also includes estimates of calories consumed per person per day based on calorie conversion factors for individual food items drawn from the FAO data for PNG.[10] With per capita gross national income (GNI) at more than $2,000 USD at the current price, PNG is classified by the World Bank as a low-middle-income country. Only a small percentage of the population have high incomes, however; most PNG households can be categorized as poor or low-income. In 2009/10, the richest top 10 percent of the population accounted for almost one-third of total national income and

[7] For example, we put all dairy items such as cheese, milk, yogurt etc. into one food group ("dairy").

[8] We also use WDI data on shares of GDP for agriculture, industry, and service sectors to define production of aggregate nonagricultural sectors.

[9] This definition of poverty approximates the official poverty rate calculated from the 2009/10 data (39.9 percent), (World Development Indicators, World Bank).

[10] For food items for which conversion ratios are unavailable, we utilize the FAO conversion ratios for Indonesia.

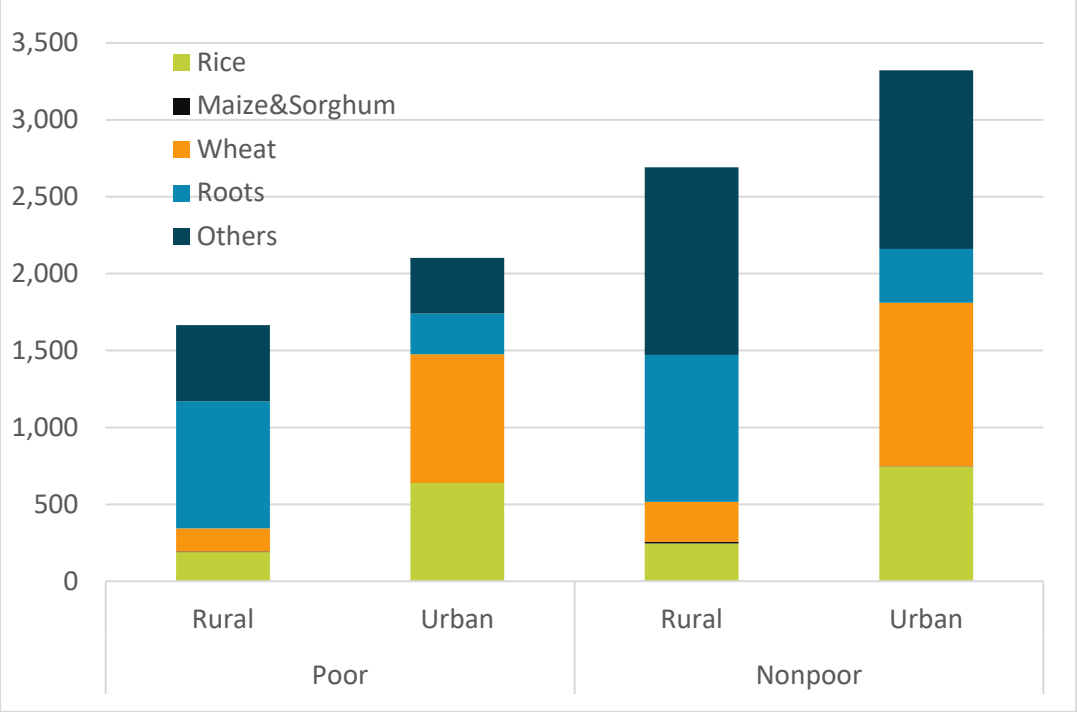
the top 20 percent accounted for almost 50 percent. On the other hand, the poorest 10 and 20 percent of the population accounted for only 1.9 and 5.1 percent of national income, respectively (World Bank, 2020).[11]

There has been no nationally representative household survey in PNG conducted since 2009/10, and hence, there is no recent poverty or income distribution assessment nationwide. However, the recent survey conducted by IFPRI for 4 areas of PNG comprising 3 mainland regions and the Autonomous Region of Bougainville (ARoB) show that food security is still a serious challenge to many poor and low-income households due to overwhelming dependence on subsistence agriculture and limited income diversification opportunities limiting households to low income, non-farm enterprise activities (Schmidt et al., 2020a). Agriculture is the main source of income for rural poor and low-income households. While PNG enjoyed a relatively rapid growth in export agriculture in the recent years (Schmidt and Fang, 2020), total growth in agricultural output was just 2.5 percent per year between 2009-2017, only slightly higher than the population growth rate of 2.1 percent in the same period. With stagnant growth in agriculture, we expect that the majority of rural households, and especially poor and low-income households, will be unlikely to have their livelihood improved significantly since 2009/10 when the HIES was conducted, suggesting food security continues to challenge many PNG households.

Figure 1 presents the calorie consumption per person per day for rural and urban poor and non-poor households calculated using the data from the 2009/10 HIES, taking into consideration the modest growth in agriculture per capita between 2009 and 2018. As shown in Figure 1, the calorie consumption level is much lower among rural and urban poor households than non-poor households. For the rural poor, the average calorie consumption level is about 1,500 Kcal per person per day, just about 50 percent of the level for an average non-poor urban household.

[11] These figures are based 2009/10 HIES data that were collected when per capita PNG's Gross National Income (GNI) was approximately $1,500.

Figure 1: Estimated total calories per person per day from different sources of foods in PNG (2018)



Source: Authors' calculation from the data.

Figure 1 also disaggregates calorie consumption into five components – rice, maize/sorghum[12], wheat, roots,[13] and other foods. Rural households' calories come disproportionally more from consumption of root and tuber crops than urban households; for the rural poor, about 50 percent of calories come from products of root and tuber crops. In contrast, urban households consume more than twice as much rice as rural households. Rice accounts for about 30 percent of calorie intake for the average urban household, indicating a potential food security challenge to urban poor from any rice related shock either on import prices or import volume.

Design of simulations

We present ten simulations modeling the effects of various shocks on PNG's economy. The first group of scenarios consider the effects of shocks to production of specific agricultural commodities due to (a) pests and diseases, (b) weather and (c) COVID-19 related transportation disruptions. Simulation 1 models the effects of a potential 50 percent negative productivity shock for maize and

[12] We include maize/sorghum as one of five food consumption components in Figure 1, even though maize/sorghum is not an important food item for most PNG households (accounting for only 0.2 and 0.3 percent of calorie intake for rural poor and non-poor, and even less for urban households), because it is the focus of the simulation of the effects of the Fall Armyworm infestation.

[13] We include cooking banana in the root crop group.

sorghum due to the Fall Army Worm epidemic that is currently being closely monitored by the PNG Food Security Cluster under the Department of Agriculture and Livestock. Simulation 2 models a 50 percent reduction in productivity in pig production due to a potential outbreak of African Swine Fever, a recent threat that has been identified in specific areas of the highlands of PNG. Simulation 3 models a 25 percent decline in sweet potato production in the highlands due to drought and frost, similar to the most recent El Niño Southern Oscillation (ENSO) event in 2015/16. Finally, in Simulation 4, we assume a 60 percent decline in poultry production due to restrictions in transportation and movement that hamper distribution and sales of breeding stock.

The second group of scenarios are designed to estimate the impacts of Covid-19-related changes in (a) international prices, (b) increased marketing costs in international and domestic trade, and (c) reductions in urban incomes. Specifically, in Simulation 5 we model a 30 percent rise in the price of imported rice, a grain consumed in all four regions by each group of households, including poor households. In Simulation 6, we model the impacts of COVID-19 on world prices for major PNG agricultural exports, lowering their prices by 30 percent. Although these commodities are mainly exported, falling export prices have the potential to negatively affect their production, household income and food consumption. Simulations 7 and 8 focus on increases in trade transaction costs. These scenarios are designed to assess the potential impact from restrictions on movement of people (traders) and goods due to COVID-19 that will lead to higher trade margins at given producer or international prices.

Specifically, in Simulation 7 we assume a 30 percent increase in trade margins for PNG's both export and import agricultural and nonagricultural products, while in Simulation 8 a 30 percent increase is assumed for trade margins for commodities that are traded within each region. In Simulation 9, we assume that economic recession causes urban household income to fall by 10 percent.

The final simulation, Simulation 10, combines the effects of all the Covid-19 related shocks (including the effects through the poultry sector), i.e., it combines scenarios 4 to 9. In Section III below, we first discuss the simulation results of production related shocks, followed by Section IV in which we focus on the simulation results of the impacts of Covid-19-related shocks individually, and the combined effects of all the Covid-19 related shocks.

3. DISCUSSION OF SIMULATION RESULTS OF PRODUCTION RELATED SHOCKS

Table 1 summarizes selected key indicators for the four production shock simulations covering: (a) pests and disease for maize/sorghum (simulation 1) and pigs (simulation 2), (b) weather for sweet potato in the highlands (simulation 3), and (c) COVID-19 related transportation disruptions affecting poultry production (scenario 4). The first panel of Table 1 presents the simulated changes in production for the crops and livestock products most affected by the shocks. Note that the percentage changes in production are slightly less than the magnitude of the production shocks due to the effects of higher prices on producer incentives.[14]

Table 1. Summary of simulation results from production related shocks

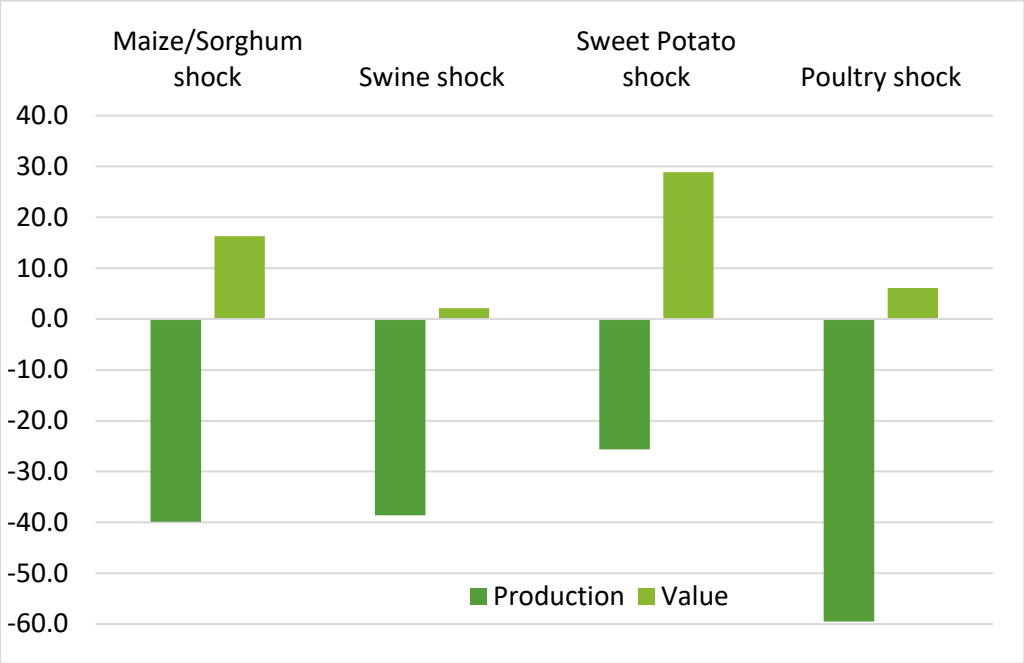
	Base	Maize/ Sorghum	Swine	Sweet Potato	Poultry
	Sim 1	Sim 1	Sim 2	Sim 3	Sim 4
	(2018)	(percent change)			
Production (metric ton)					
Maize/sorghum	18,478	-39.8			
Sweet Potato	705,116			-25.6	
Poultry	12,006				-59.5
Swine	78,357		-38.6		
Total Agriculture (million Kina)	47,149	-0.2	-1.1	-2.3	-0.8
Price (2018 Kina/kg)					
Maize/sorghum	6.6	93.3			
Sweet Potato	4.0			87.1	
Poultry	44.9				162.0
Swine	14.6		66.3		
Household Incomes*					
Rural Poor	4,504	-0.23	-1.12	-2.90	-0.77
Rural Nonpoor	11,829	-0.22	-1.06	-2.65	-0.76
Urban Poor	9,617	-0.06	-0.29	-0.49	-0.24
Urban Nonpoor	25,532	-0.05	-0.26	-0.29	-0.22
Total	9,937	-0.18	-0.86	-2.10	-0.63
Consumption**					
Rural Poor	1,666	-0.22	-0.74	-5.50	-0.44
Rural Nonpoor	2,693	-0.32	-2.28	-3.71	-0.63
Urban Poor	2,104	-0.07	-0.25	-0.53	-0.41
Urban Nonpoor	3,323	-0.08	-0.43	-0.20	-0.57
Total	2,310	-0.25	-1.53	-3.63	-0.56

* Per capita incomes in 2018 Kina/person/year. ** Kilocalories / person / day.
Note: Sweet potato is grown in the Highlands, as well as in other regions. In these simulations, however, we model a negative weather-related production shock for the Highlands only.
Source: PNG Economywide multimarket model simulation results.

[14] We model the production shocks by adjusting the shift parameters in the yield and areas functions (for crop production) and supply functions for livestock production. Price changes resulting from these negative shocks to supply lead to an increase in prices which induces an increase in production that only partially offsets the large decline in production due to the direct effects of the shock. Thus, for example, the 50 percent combined area and productivity shock to maize results in a 39 percent decrease in maize production.

The magnitudes of the changes in supply, demand and prices are affected by the choices of the elasticities in the supply and demand functions. In the model, we assume a supply elasticity (ratio of the percentage change in quantity supplied to the percentage change in price) of 0.4 for all four of the agricultural commodities in Table 1, while income and price elasticities of demand differ across commodities, households and regions. In general, income and price elasticity of livestock product demands such as demand for pork and poultry are higher than the corresponding demand elasticity for maize/sorghum, which are larger than those for sweet potato. Higher elasticities are associated with smaller increases in prices for any given magnitude of a production shock and given levels of incomes, because more elastic elasticities imply greater responsiveness of supply and demand by producers and consumers (Figure 2).

Figure 2. Percent changes in quantity and value of production due to related production shocks



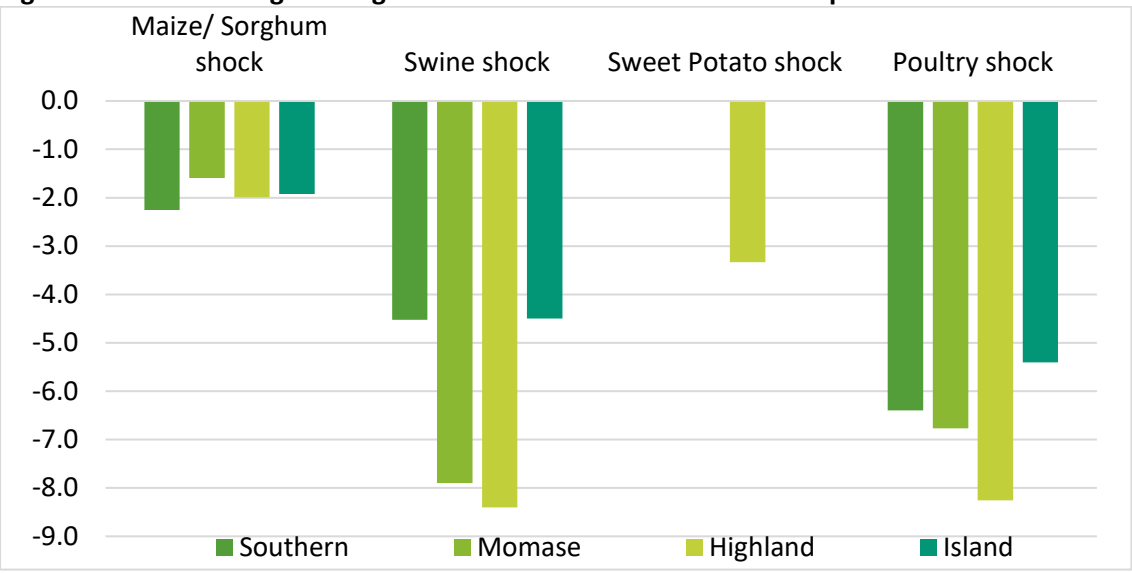
Note: Results for the sweet potato shock are for the Highlands only.
Source: PNG Economywide multimarket model simulation results.

A decrease in production due to a shock such as African Swine Fever would cause an imbalance between livestock demand and available livestock supply, which would in turn drive prices up. However, in both cases of livestock (swine and poultry shock, respectively) the demand for the two livestock products is more elastic, thus only a relatively small increase in price is needed to reduce demand. Households choose to consume a different food good rather than pay higher prices of swine and poultry. Thus, the percentage change in value of production is close to the percentage change in quantity of production. On the other hand, with a similar decline of 40 percent in maize/sorghum production, a relatively large increase in maize/sorghum prices is needed to reduce demand for maize/sorghum. The large percentage price increase offsets the fall in

production, so the value of maize/sorghum production actually rises by 16 percent. The value of sweet potato increases the most, because demand for sweet potato is least elastic (i.e. households are less able or willing to substitute sweet potato for a different consumption item). While sweet potato production falls by 26 percent at the national level, the *value* of sweet potato production rises by 29 percent. (Figure 2).

The third panel of Table 1 reports the impact of production shocks on household incomes. While in the model households are disaggregated to four regions and 20 groups, in the table we aggregate them into four groups at the national level, i.e., poor and non-poor rural and urban households, to simplify the discussion. Although the value for the shocked commodities increases with after-shock prices, we define household incomes according to the real prices. That is, the endogenous changes in household incomes reflect the changes in actual production not their nominal prices. We observe in Table 1 that incomes fall across all the four household groups at the national level. It is understandable for the declines in rural households' income, as they are producers of shocked agricultural production. The negative effect on urban household incomes reflects the demand side effect on non-tradable nonagricultural goods for which price is determined endogenously. When consumers have to pay more for reduced consumption of shocked commodities with lowered income, they reduce consumption of almost all other goods including nonagricultural commodities. This leads to lower the price for non-tradable nonagricultural goods, leading to a negative response in production of non-tradable nonagricultural good. Figure 3 further shows the income effects across regions under these four production shocks. Since the production shock on sweet potato is imposed only in the Highlands region, there is no income effect in the other three regions in Figure 3.

Figure 3. Percent changes in regional household incomes due to the production shocks



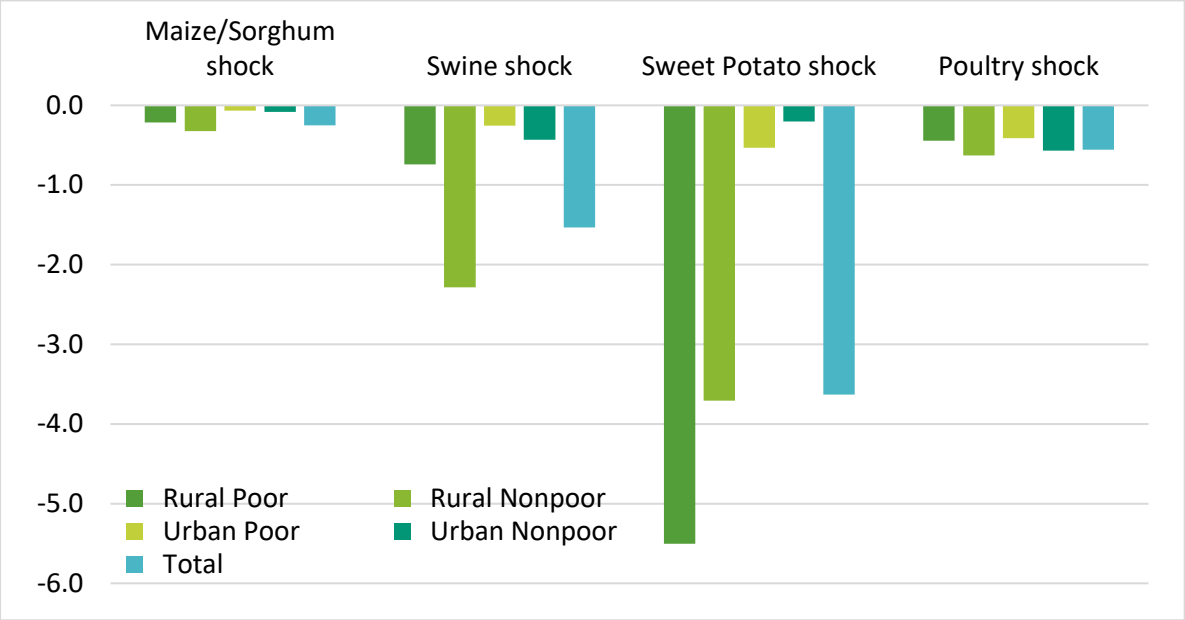
Source: PNG Economywide multimarket model simulation results.

The last panel of Table 1 reports the impact of production shocks on consumption measured by Kilocalories / person / day. Lowered calorie intake reported in the table is not only the result of lowered consumption of shocked commodities. Consumers simultaneously reduce food consumption of almost all commodities because they face higher prices of some commodities and because their incomes decline. The magnitude of the declines in calorie intake is not only determined by the scale of negative production shock, but also by the importance of the shocked commodities in consumers' total calories consumption (Figure 4).

For example, rural households' consumption of calories from sweet potatoes falls sharply when production of sweet potatoes in the highlands declines. On the other hand, when pig production is negatively shocked, pork consumption falls significantly across all households, however the rural and urban non-poor households are affected most because pork consumption accounts for a higher share of calories for these households than for the poor.

Although the percentage shock on maize/sorghum is similar to the percentage shocks on other commodities, maize and sorghum account for only a small portion of total food consumed. Thus, the impact of this shock on calorie consumption is small (Figure 4). Note that, in general, the effects of these shocks on calorie consumption are larger for rural households (who consume relatively more of these products) than for urban households.

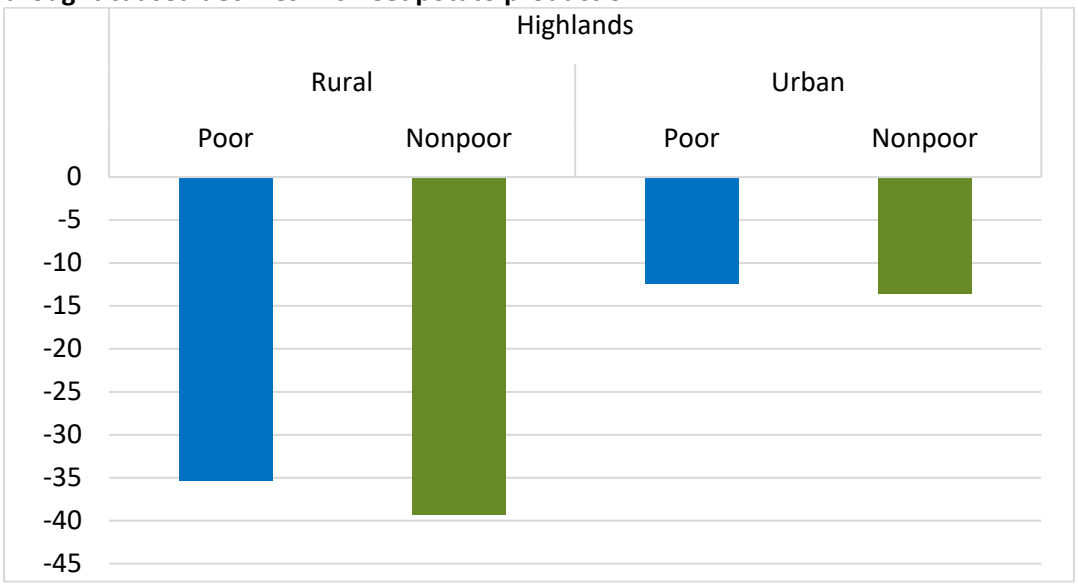
Figure 4. Percent changes in calories per person per day due to selected production shock



Source: PNG Economywide multimarket model simulation results.

Given that the shock on sweet potato is on production only in the Highlands, Figure 5 reports the effect on Highland households' consumption under this scenario. As expected, the figure shows much larger negative effects on food security in the Highlands than at the national level (in Figure 4), and the negative effect is much larger among rural households than among urban households.

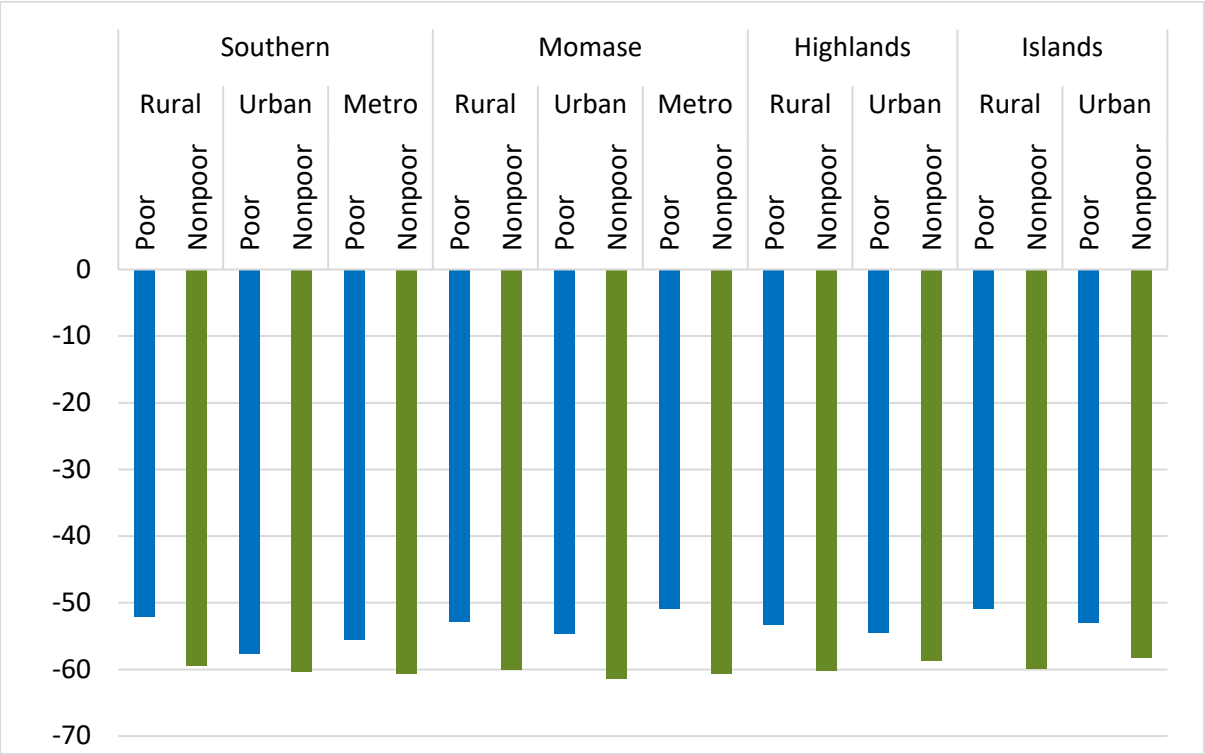
Figure 5. Percent changes in per capita total calorie intake among Highland households due to drought caused declines in sweet potato production



Source: PNG Economywide multimarket model simulation results.

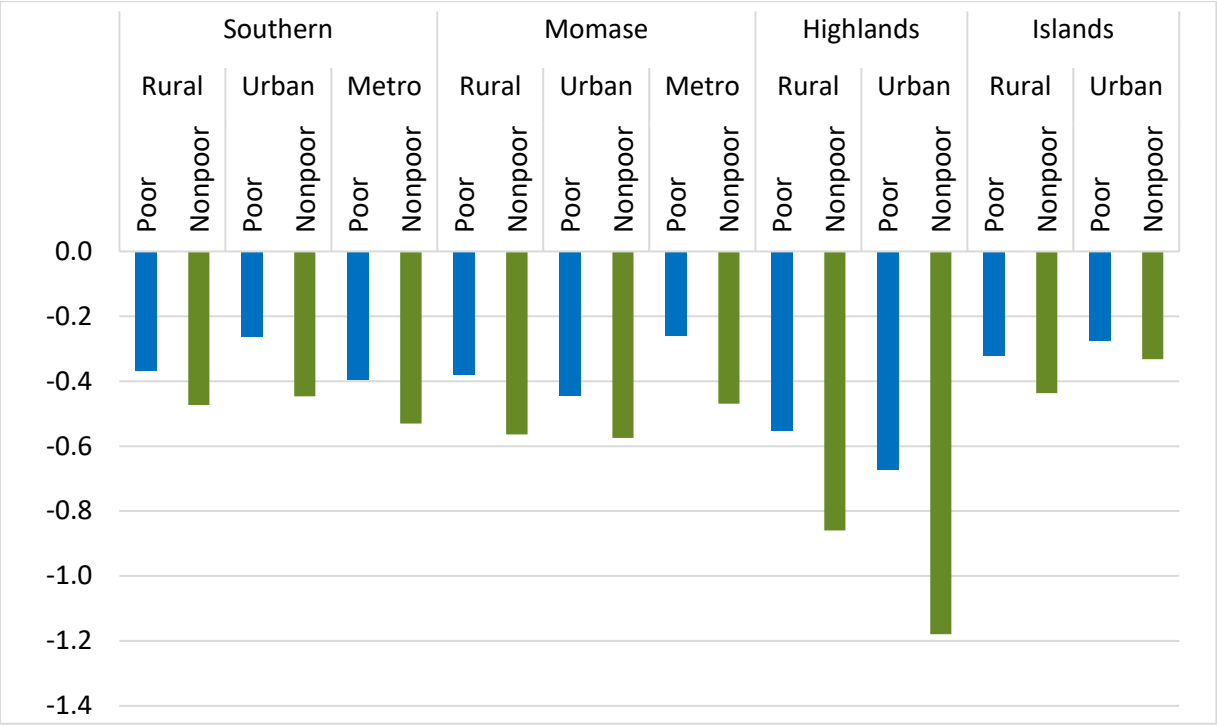
Finally, it is important to emphasize that the impacts of the shock in general vary across each of the model's 20 household groups. For example, in the poultry shock scenario, the declines in poultry consumption among non-poor households are larger than among poor households (Figure 6). This is due to several reasons: 1) lost income from poultry production and 2) a sharp increase in poultry prices. Both of these reasons lead consumers to cut food consumption across all food items given restricted resources (income) and higher prices. The total effect of reduced consumption of poultry and the indirect impacts of declines in consumption of other food items, is a decline in total per capita calorie intake falls across all household groups. While the declines are generally higher among non-poor households than poor households, for poor rural and urban households in Highlands, the declines are significantly greater than in other regions (Figure 7).

Figure 6. Percent changes in poultry consumption due to the declines in poultry production caused by COVID-19 outbreak in PNG



Source: PNG Economywide multimarket model simulation results.

Figure 7. Percent changes in per capita total calorie intake due to the declines in poultry production caused by COVID-19 outbreak in PNG



Source: PNG Economywide multimarket model simulation results.

4. DISCUSSION OF SIMULATION RESULTS OF COVID-19 RELATED SHOCKS ON PNG AGRICULTURE

The second group of scenarios models the impacts of Covid-19-related shocks on PNG's agricultural sector, including shocks to international prices of imports and exports (Simulations 5 and 6), increased marketing costs in international and domestic trade (Simulations 7 and 8), and reductions in urban incomes (Simulation 9). Simulation 10 show the combined effects of these Covid-19 related shocks, along with the effects of the shock to poultry production (Simulation 4).

Table 2. Summary of simulation results of COVID-19 related shocks

		Rice price shock	Export prices shock	Intl Mktg shock	Dom Mktg shock	Urban income shock	Total COVID shocks
	Base	Sim 5	Sim 6	Sim 7	Sim 8	Sim 9	Sim 10
	-2018			(percent change)			
Production (metric ton)							
Rice	847	5.4	0.4	1.0	0.4	0.0	7.4
Sweet Potato	705,116	0.0	0.4	0.1	0.4	0.1	2.0
Poultry	12,006	-0.2	-0.1	1.3	-3.2	-1.5	-61.0
Swine	78,357	-0.1	-0.1	0.9	-1.9	-1.2	-2.9
Total Agriculture (million Kina)	45,986	-0.1	-0.7	-0.7	-1.0	-0.3	-3.6
Price (2018 Kina/kg)							
Rice	10.8	30.0	0.0	3.9	0.0	0.0	35.1
Sweet Potato	4.0	-0.6	-0.8	-0.7	-6.6	-0.6	-9.8
Poultry	44.9	-0.5	-0.3	-1.7	-7.6	-2.6	130.1
Swine	14.6	-0.4	-0.5	-1.3	-8.1	0.1	-10.3
Household Incomes*							
Rural Poor	4,504	-0.09	-0.63	-0.67	-1.19	-0.90	-4.20
Rural Nonpoor	11,829	-0.09	-0.68	-0.69	-1.19	-0.98	-4.34
Urban Poor	9,617	-0.30	-0.18	-0.07	-3.89	-10.40	-14.55
Urban Nonpoor	25,532	-0.29	-0.18	-0.06	-3.94	-10.60	-14.75
Total	9,937	-0.14	-0.54	-0.52	-1.90	-3.45	-7.01
Consumption**							
Rural Poor	1,666	-2.97	-0.11	0.10	-1.77	-0.44	-5.45
Rural Nonpoor	2,693	-2.08	-0.14	0.55	-1.67	-0.41	-4.23
Urban Poor	2,104	-7.44	-0.06	-2.09	-3.30	-8.49	-19.83
Urban Nonpoor	3,323	-5.20	-0.05	-1.08	-2.87	-7.37	-15.79
Total	2,310	-2.98	-0.12	0.09	-1.92	-1.66	-6.75

Note: * Per capita incomes in 2018 Kina/person/year. ** Kilocalories / person / day.
Source: PNG Economywide multimarket model simulation results.

Simulation 5 models a 30 percent rise in price for imported rice related to export restrictions by major international rice exporting countries.[15] Since more than 95 percent of rice consumed in PNG is imported, the domestic rice price also rises by 30 percent.[16] Higher rice prices provide increased incentives for domestic rice production which increases by 5.4 percent, but from a very low base.[17] More importantly, higher prices lead to reduced consumption of rice and, because consumers have less income available for consumption of other goods, consumption of other food falls as well. Thus, total consumption of calories falls by 2.1 – 3.0 percent for rural households; 5.2 – 7.4 percent for urban households; and 3.0 percent for PNG as a whole.[18]

As discussed in section 2, there are two important model assumptions to emphasize in order to understand this simulation. First, we assume rice is only produced in Momase region (following current production and consumption data). Second, for agricultural commodities that are not exported or imported, we assume that their domestic trade occurs within their respective region. Under this assumption, sweet potato is a non-tradable commodity that is produced and consumed in each region without inter-regional trade. Considering diverse agroclimatic conditions and consumption patterns across regions, the Highlands region is the largest sweet potato producing and consuming region accounting for 70 percent of national production and consumption (regional production is defined by consumption calculations using the updated 2009/10 HIES data). Conversely, while sweet potato is also produced and consumed in Momase region, it accounts for only 10 percent of the national total. Other than sweet potato, staple food consumption in Momase region is comprised predominantly of sago, yam and cooking banana (Schmidt et al., 2020). Given that the model considers differences in agricultural production and consumption across regions, simulation results suggests that when the rice price increases in the international market, there is a consumption effect on households in all regions except Momase region, where rice is produced locally. Thus, it is expected that a higher rice price leads to a supply (production) response only in Momase region. Farmers increase rice production and rice-producing area in Momase, leading to modest declines in production and cultivated areas of other non-tradable crops in the region. However, in all other regions where there is no rice production, an increase in the price of

[15] Concerns over the potential effects of the COVID-19 pandemic led to trade restrictions by major rice exporters, contributing to a 25 to 30 percent increase in rice export prices between December 2019 and May 2020 in Thailand and Vietnam, respectively.

[16] See Schmidt et al., 2020b for a detailed description of PNG's international rice trade.

[17] Because expansion of rice area cultivated would require substantial investment in land preparation, we assume a low own-price elasticity of supply of only 0.2, about half of the elasticity for other crops.

[18] Schmidt et al. (2020b) simulate a 25 percent increase in the world price of rice and report a 14 percent decrease in the consumption of rice across PNG with little change in domestic rice production.

rice forces consumers to lower rice consumption. With a price elasticity much less than one, one percent increase in rice price leads to much less than one percent decline in rice consumption. Thus, consumers have to pay more for their reduced rice consumption. At a household's given level of income, a household that buys rice at higher prices (after adjusting rice consumption) has a lower food budget for buying other foods, translating into a modest decline in consumption of other food crops as well as their production when they are non-tradable. Thus, for this simulation, consumption and production of sweet potato falls modestly due to a higher price for rice throughout PNG.

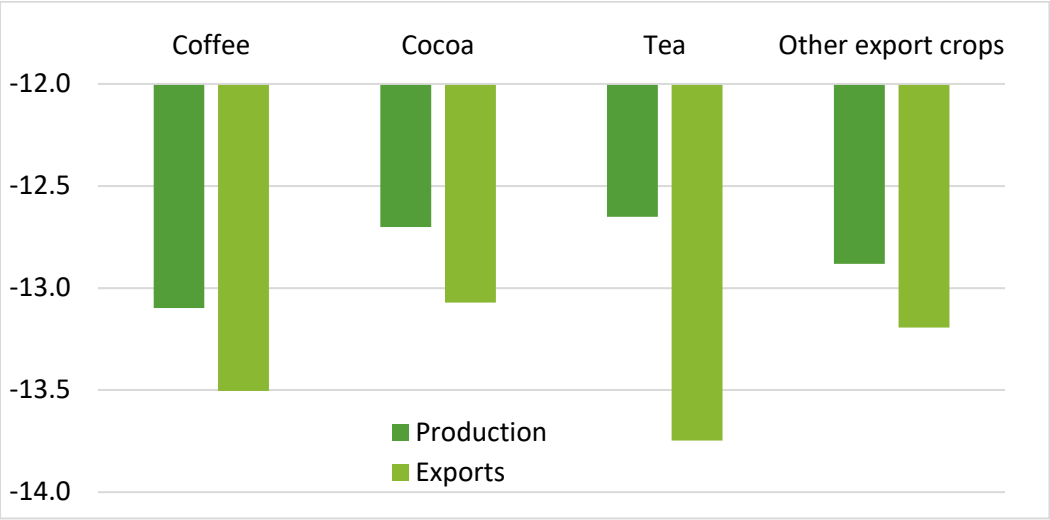
Simulation 6 models a 30 percent fall in the international price of PNG's major export commodities. For example, the international cocoa price fell by 22.6 percent between February and July 2020, from $2.72/kg (9.12 PGK/kg) to $2.10/kg (7.18 PGK/kg) due to Covid-19 related falling global demand for luxury goods, such as processed chocolate.[19] Since the PGK kina / US dollar exchange rate was relatively stable between February and July, 2020 (appreciating by approximately 2 percent from 3.35 to 3.42 PGK kina / US dollar), the percentage change in the PNG kina price of cocoa is approximately equal to the percentage change in US dollar prices.

Not only has loss of household income contributed to decreases in demand for chocolate, but popular locations of purchase and consumption (airports, hotels and restaurants) have experienced a significant decline in business due to social distancing measures implemented across the globe. This fall in demand may also lead to downward pressure on prices of coffee and tea, and other export crops.

Since almost all of PNG's production of these commodities is sold on world markets, falling export prices translate into similar magnitudes of declines in the value of domestic production. As shown in Figure 8, production and exports for coffee, cocoa and tea decline by 12 to 14 percent. Average household incomes in PNG decline by only 0.5 percent, which reflects the low share of export crop revenues in household incomes, overall. Effects on calorie consumption are likewise minimal, and fall by -0.11 to -0.14 percent for rural households, and an average of only -0.12 percent for all households nationwide.

[19] The international cocoa price has recently recovered somewhat to $2.46 in September 2020, a decline of only 9.5 percent relative to February 2020 (calculated from World Bank, 2020). See also Financial Times (2020). https://www.ft.com/content/37aa0ac8-e879-4dc2-b751-3eb862b12276

Figure 8: Percent changes in exports and production of four major export crops due to a 30% decline in export prices (compared to the base), (Simulation 6)



Source: PNG Economywide multimarket model simulation results

Simulations 7 and 8 focus on increases in trade transaction costs. These scenarios are designed to assess the potential impact from restrictions on movement of people (traders) and goods due to COVID-19 that lead to higher trade margins at given producer or international prices. For example, in PNG from end-March to June 2020, urban and roadside food markets were required to close, travel restrictions were imposed on major transportation corridors, and important domestic air travel that moves highland produce to lowland markets was halted and later suppressed to slow virus spread (UNDP, 2020; FAO, 2020). Current policy, as of October, has resulted in different urban and roadside markets being mandated to close depending on newly identified COVID-19 cases. Internationally, similar social distancing measures have been implemented, especially during the first wave of infection from March through May, 2020. For example, India's rice exports were significantly delayed due to logistics challenges given that most workers were following stay-at-home orders.[20]

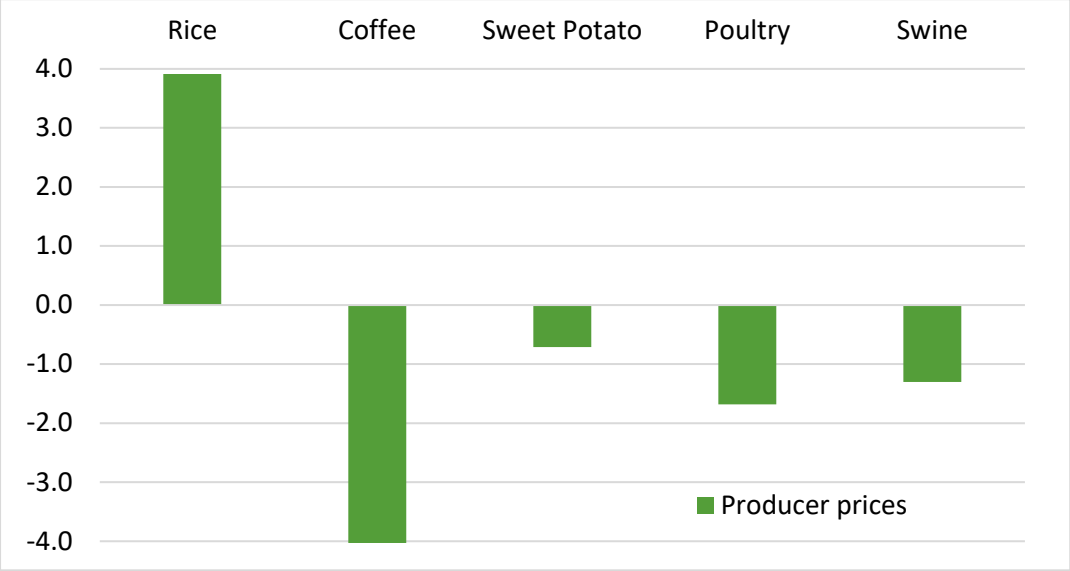
Specifically, in scenario 7 we assume a 30 percent increase in trade margins for PNG's exports and imports of both agricultural and nonagricultural products. Thus, for exported goods such as coffee, the increase in margins between the port and producers lowers the producer price relative to the international border price. For imported goods, such as rice, the increase in margins between the consumers raises the consumer price relative to the border price. Assuming no change in

[20] See USDA Foreign Agriculture Service Weekly Rice Price Update, April 7, 2020. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Rice%20Price%20-%20Weekly_Bangkok_Thailand_04-07-2020

margins between producer and consumer prices, the producer price rises by the same amount. As a result, the producer prices for coffee falls by 4.0 percent and the producer price of rice rises by 3.8 percent (Figure 9). Producer and consumer prices of the three non-tradable commodities (sweet potato, poultry and swine) fall slightly as the higher margins lead to reduced incomes for producers of export crops and reduced purchasing power for consumers of imported goods.

Given these changes in price incentives, production of coffee falls by 13.1 percent and production of rice increases by 1.0 percent, while production of non-tradable products remains essentially unchanged. The total impact on households' welfare is negative, however, as average household incomes fall by 0.7 percent in rural areas and 0.1 percent in urban areas. Calorie consumption of urban households (who, on average, consume more rice than do rural households) falls by 3.3 and 2.9 percent for poor and non-poor households, respectively. National average calorie consumption falls by only 1.9 percent, however.

Figure 9. Percent changes in prices for selected commodities due to a 30 percent increase in trade margins for export and import goods (Simulation 7)

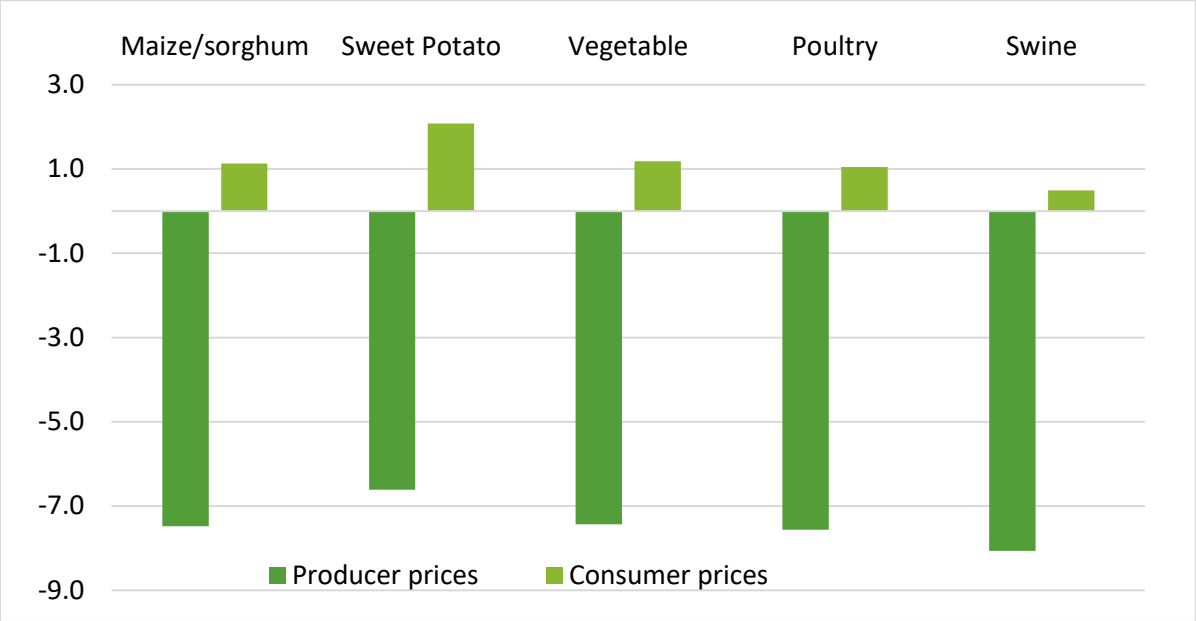


Source: PNG Economywide multimarket model simulation results.

In simulation 8, we consider the implications of 30 percent higher domestic trade margins resulting from Covid-19 related policies and restrictions. Given that the majority of domestic agri-food trade flows from rural to urban areas, this simulation highlights the possible impact on rural producer prices due to transportation and food marketing bottlenecks. Because consumer demand decreases (due to increased prices from higher trade margins, for example greater transportation costs to move food goods to urban areas due to road and market closures), consumer prices rise by slightly less than the amount of the kina marketing cost increase and producer prices fall slightly, leading to a small decline in production. At the same time, producer prices for the three selected

non-tradable agricultural products fall by 6.6 to 8.1 percent (Table 2 and Figure 10). The overall effect on households' welfare is negative. Both household incomes and consumption fall with rising domestic trade margins.

Figure 10. Percent changes in producer and consumer prices for selected five non-tradable commodities (compared with the base prices), (Simulation 8)

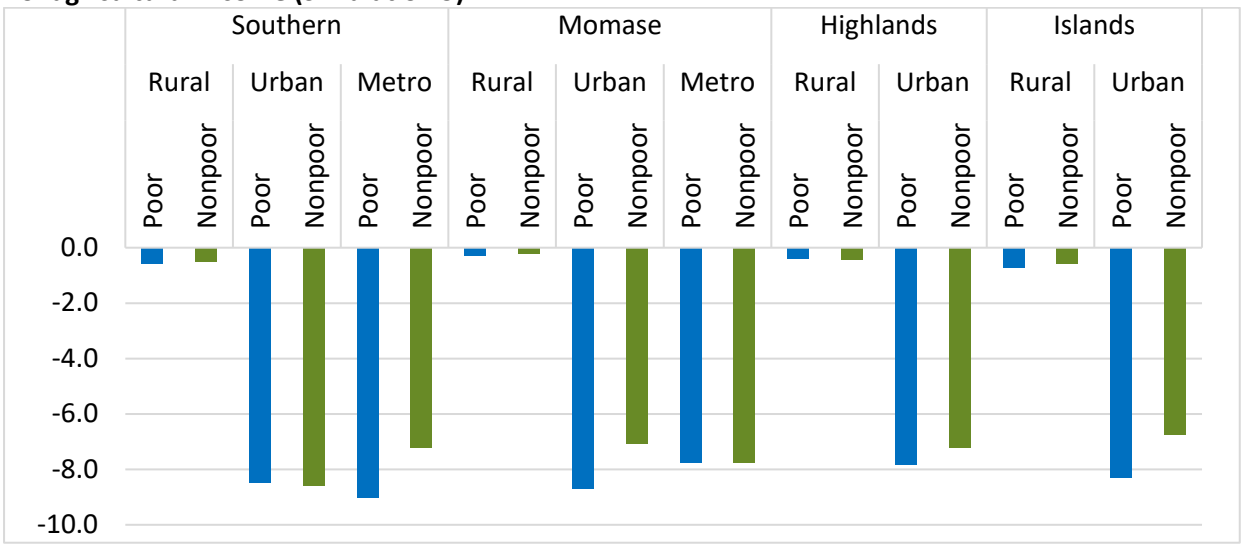


Source: PNG Economywide multimarket model simulation results.

Simulation 9 focuses on the urban economy. COVID-19 outbreak and associated restrictive measures have significantly affected urban economic activities and an economic recession caused by the pandemic could significantly affect urban household incomes. To simulate this effect on urban production and incomes, we exogenously impose a 10 percent decrease in the productivity of tradable non-agriculture dominated by local manufacturing (for which the price is exogenous) and a 13 percent fall in productivity of non-tradable non-agriculture dominated by services (for which the price is endogenous). Given these shocks nonagricultural production declines by about 10 percent.

Incomes of urban poor and non-poor households fall by 10.4 and 10.6 percent, respectively, while incomes of rural households decline by only 0.9 to 1.0 percent. Calorie consumption of urban households also falls by 8.5 percent for urban poor households and by 7.4 percent for urban non-poor households. There are relatively small differences across regions, though in Southern Urban and Momase Metro, unlike other regions, the percentage decline in calorie consumption is nearly the same for poor as for non-poor households (Figure 11).

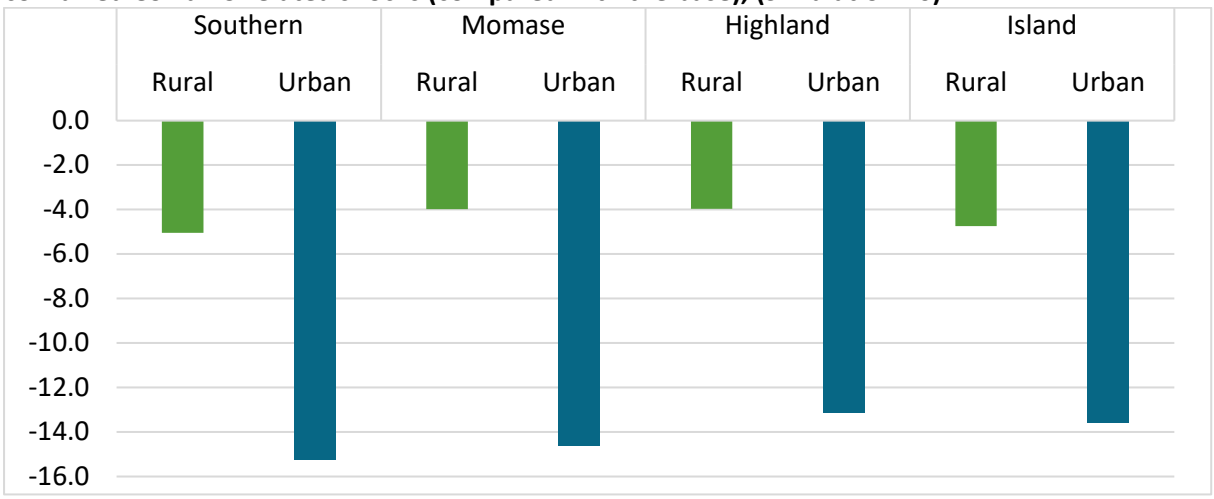
Figure 11: Percent changes in total calories per person per day due to a 10% decline in nonagricultural income (Simulation 9)



Source: PNG Economywide multimarket model simulation results

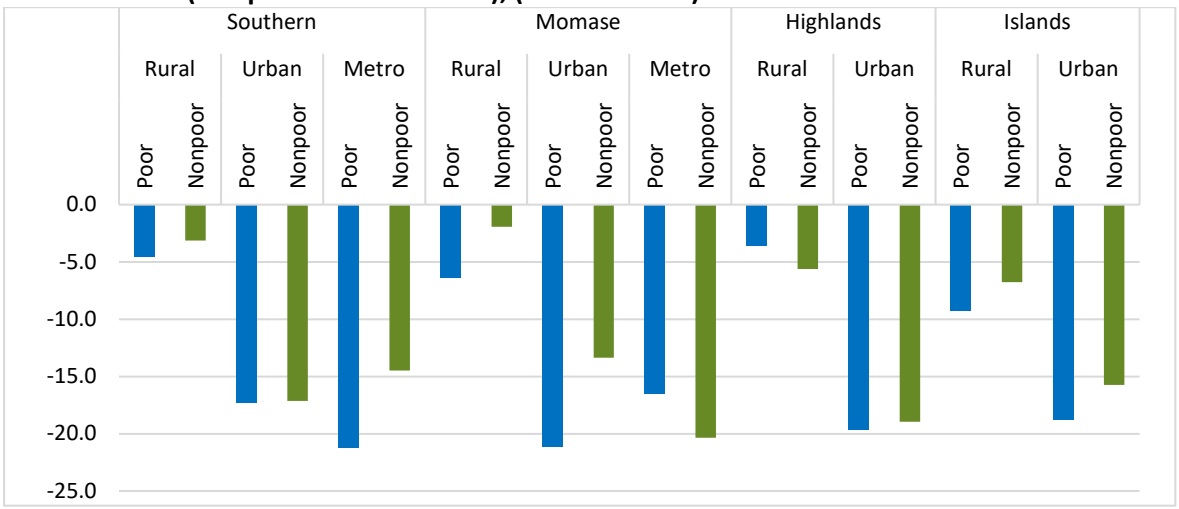
The final simulation, Simulation 10, combines the effects of all the Covid-19 related shocks, including: 30 percent rise in the price of imported rice; 60 percent decline in domestic poultry production; 30 percent decrease in the price of major PNG agricultural exports; 30 percent increase in domestic trade margins of domestically and internationally traded goods; and a 10 percent decrease in non-agricultural income. As shown in Table 2 and Figure 12, household incomes fall steeply, particularly in urban areas where the decline ranges between 12 and 15 percent in various regions. Food consumption declines even more sharply, due to both higher prices and lower incomes. Calorie consumption of urban poor households falls almost 20 percent nationwide, and 21 percent for poor Southern metro households (Figure 13). Households for which members have suffered a permanent loss of jobs are likely to have an even larger drop in income and calorie consumption.

Figure 12. Percentage changes in rural and urban household incomes across region due to combined Covid-19 related shocks (compared with the base), (Simulation 10)



Notes: The Covid-related shocks include (1) a 60 percent fall in poultry production; (2) a 30 percent rise in the international rice price; (3) a 30 percent decline in international prices for PNG export agricultural commodities; (4) a 30 percent rise in trade margins for international trade; (5) a 30 percent rise in trade margins for domestic regional trade; and (6) a 10 percent fall in nonagricultural output.
Source: PNG Economywide multimarket model simulation results

Figure 13. Percentage changes in total calorie intake per person per day due to combined Covid-19 related shocks (compared with the base), (Simulation 10)



Notes: See Figure 12 notes for a list of the shocks modeled in this simulation.
Source: PNG Economywide multimarket model simulation results

5. SUMMARY AND CONCLUSIONS

Despite high transport costs and limited trade for some products, agricultural markets play a crucial role in national and household food security in PNG. Imported products such as rice, vegetable oil and tinned fish are a major source of calories in the PNG diet, especially in urban areas. Exported products, including coffee, cocoa and tea, are important sources of foreign exchange, as well as incomes in rural areas of export-crop growing regions. Moreover, many products that are not traded internationally in large volumes, particularly sweet potatoes, cassava, yams and other starchy staples, as well as domestically produced meat (pig and poultry), dairy, and eggs, are traded within regions of PNG and account for large shares of calorie and (in the case of animal products) protein consumption for most households.

In this report, we utilize a simulation model calibrated to detailed data on production, trade and household consumption to assess the impacts of various shocks on PNG's agricultural economy and on food security at the national and household levels. Given the uncertainty in data and behavioral parameters of the model, the results must be treated with caution. Nonetheless, the broad magnitudes of the simulation results, since they are determined largely by the structure of the PNG food economy reflected in the model, point to key policy issues and areas for further investigation.

A key result of the analysis is that urban households, especially the urban poor, are particularly vulnerable to shocks related to the Covid-19 pandemic. Lower economic activity in urban areas (assumed to reduce urban non-agricultural incomes by 10 percent), increases in marketing costs due to domestic trade disruptions, and 30 percent higher imported rice prices combine to lower urban incomes by almost 15 percent for both poor and non-poor urban households. Urban poor households, however, suffer the largest drop in calorie consumption – 19.8 percent, compared to a 15.8 percent decline for urban non-poor households. Rural households are much less affected by the Covid-19 related shocks modeled in these simulations. Rural household incomes, affected mainly by reduced urban demand and market disruptions, fall by only about four percent. Nonetheless, calorie consumption for the rural poor and non-poor falls by 5.5 and 4.2 percent, respectively. About half of these declines are due to the effect of higher rice prices on average rice consumption. Given that higher rice prices reduce purchasing power for other commodities, households are required to reduce consumption of other food products as well.

Disruptions to domestic production and potentially higher prices of livestock products may also have negative effects on consumption of animal-sourced protein foods. However, given the small size of these sectors, the overall effect on incomes is small – decreasing at most by 1 percent, given the wide array of products consumed. Nonetheless, livestock producers can suffer major losses of

wealth and income when their animals, which are major assets for many rural households, become sick or die.

Shocks to major crops have a larger effect on incomes and food consumption. Thus, a simulated 25 percent reduction in sweet potato production in the highlands, as occurred in 2015/16 El Niño event, leads to an 87 percent increase in the sweet potato price in the highlands. There are little effects elsewhere, however, since sweet potatoes, like other roots and tubers are mainly consumed within the region in which they are produced. PNG household diet primarily consists of roots and tubers, however there is a variety of roots and tubers available for consumption. Thus, a negative shock to one product (e.g. sweet potato) is partially offset by increased consumption of other food products (e.g. taro, sago, cassava). Thus, even with the simulated sharp fall in sweet potato production, total calorie consumption falls by only 5.5 and 3.7 percent for the Highlands rural poor and non-poor, respectively. Note that these results describe average consumption in the highlands. For rural farmers who grow mostly sweet potatoes, the percentage declines in incomes and calorie consumption would be substantially larger.

The analysis and results presented here should be considered preliminary and approximate. More data collection and analysis are needed to better understand the market inter-connections between regions and across agricultural products. Information is needed about the structure, conduct and performance of markets, in terms of the actors involved in trade, the degree of competition, basic marketing costs, efficiency of price transmission across and within regions and quality issues for individual commodities. Improved household and production data are also crucial to improve the accuracy of agricultural sector analysis and better inform policy.

Thus, despite the uncertainties of the data and simplifying assumptions of the model, this analysis strongly suggests that the urban poor are particularly vulnerable to food insecurity due to the impact of Covid-19 on PNG's agriculture and trade. Large safety nets may be too costly and difficult to implement to be a viable option. Well-targeted programs for particularly vulnerable households, pregnant and lactating women and young children should be considered. These programs should be accompanied with robust design and evaluation methods to better understand what type of service delivery is most effective and efficient in remote rural locations. In doing so, a more expansive safety net program can be developed that builds on results from pilot projects and creates a more sustainable and formal system of safety net service delivery. For example, a recently initiated school gardens program in Morobe province could be further studied to understand if linking social safety net assistance to school programs provides the needed infrastructure (and security) for effective logistic and administrative support, as well as program implementation capacity. This would also

allow program implementers to identify which additional resources and activities may be necessary to ensure greater efficiency and effectiveness when using schools as a mechanism for safety net organization, and food aid and service delivery.

Investments in market infrastructure (e.g., roads, ports, and food market infrastructure) could lower marketing costs and benefit both producers and consumers. Precautionary social-distancing policies in March through June included road and market closures with the goal of stopping the spread of COVID-19 across the country. Supply chains of key food staples were disrupted and local food prices fluctuated accordingly. During early stages of the pandemic, food prices increased significantly in Port Moresby, while rural farmers were facing mounting stockpiles and potential spoilage (Oxford Business Group, 2020). The Government of PNG approved a stimulus package which included 600 million PGK directed towards agricultural development and food security support programs. Within that stimulus package 41.5 million PGK was allocated toward a food freight subsidy to pay for ¾ the cost of shipping fresh produce from Lae to Port Moresby. According to recent food price data from the Fresh Produce Development Agency, prices of staple foods decreased after the subsidy was introduced. This subsidy was further extended through December 2020.

Although limited data on food prices in Port Moresby and other urban areas suggest that the freight subsidy did have its intended effect of decreasing urban food prices, this intervention is a short-term and costly fix. PNG should consider opportunities for improving transportation infrastructure between secondary cities and rural production hubs in order to facilitate moving goods to market.

The diversity of PNG's agriculture in itself contributes resilience to the food system, however lowering the costs of trade and thereby increasing the efficiency of markets may also add to food security by minimizing the effects of local production shortfalls and reducing the frequency and severity of shocks to household incomes and food consumption.

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Appendix 1: Equations of the PNG Economywide Multimarket (EMM) Model

The economywide multimarket (EMM) model is based on neoclassical microeconomic theory. The aggregate producer represents a specific zone's production of a specific sector. Consistent with most multi-market model setup, the supply function, instead of production function, is used to capture each representative producer's response to market. In the crop subsectors, the supply functions have two components: (1) yield functions that are used to capture supply response to the own prices given farm area allocated to this crop; and (ii) land allocation functions that are functions of all prices and hence are responsive to changing profitability across different crops given the total available land.

Supply Functions

Yield Function (for crops)

$$Y_{R,i} = \mathrm{YA}_{\mathrm{R,i}} P_{R,i}^{\alpha_{R,i}}, \tag{1}$$

where$Y_{R,i}$ is the yield for crop *i* in region *R*, and $P_{R,i}$ is the producer price for *i* and can be different across regions. $YA_{R,i}$ is the productivity shift parameter

Area Function (for crops)

$$A_{R,i} = \mathrm{AA}_{\mathrm{R,i}} \prod_j P_{R,j}^{\beta_{R,j}}, and \sum_j^J \beta_{R,j} = 0, \tag{2}$$

where$A_{R,i}$is the area for crop *i* in region *R*, and P_1, P_2, … P_J, are the producer prices for all commodities; $\mathrm{AA}_{R,i}$ is the shift parameter.

Total Supply of Crops

$$S_{R,i} = Y_{R,i} \cdot A_{R,i}. \tag{3}$$

Supply Function for Noncrop Sectors (livestock and nonagriculture)

$$S_{R,i}^{LV} = \mathrm{SA}_{\mathrm{R,i}}^{\mathrm{LV}} \prod_j P_{R,j}^{\beta_{R,j}^{LV}}. \tag{4}$$

It is infeasible to estimate the elasticities for the supply functions due to the limit in data. Thus, a similar elasticity is employed for the supply function of a similar commodity across regions, and 0.2 is chosen as the own price elasticity in the supply functions for those commodities. The negative cross-price elasticities in the supply function are then derived from the own-price elasticity multiplied by the value share of each commodity (at the regional level). The homogeneity of degree zero condition is imposed on the supply function such that there is

no supply response if all prices change proportionally. The constraint on crop area function is also imposed to avoid a simultaneous expansion of all crop areas.

While there is similar elasticity in supply functions for a same crop across regions, due to the combinations of crops vary across regions, the aggregate supply response to the price change in a similar crop can be different across regions.

Demand Functions

The demand function is disaggregated to regional level by per capita for poor and non-poor in rural or urban. A representative consumer's demand for each consumption good is derived from maximizing a Stone-Geary utility function and the subsistent level of consumption is calibrated to the first quintile households' consumption (rural and urban separately). The actual function used in the model is dependent on all prices and income per capita.

Per Capita Demand Function

$$Dpc_{R,H,i} = \prod_j PC_{R,j}^{\varepsilon_{R,H,i,j}} GDPpc_{R,H}^{\varepsilon^I_{R,H,i}}, \quad (5)$$

where $Dpc_{R,H,i}$ is per capita demand for commodity *i* in region *R* for household *H*, and $PC_{R,j}$ is the consumer price for *j* in region *R*. *j* = 1,2,…,26 (including two aggregate nonagricultural goods.) $GDPpc_{R,H}$ is per capita income for region *R* and household *H*. $\varepsilon_{R,H,i,j}$is price elasticity between demand for commodity *i* and price for commodity *j*, and $\varepsilon^I_{R,H,i}$is income elasticity.

The income elasticity is evaluated at the sample means of rural and urban households, and the price elasticities are then derived from the linear expenditure of demand solved from maximizing the Stone-Geary utility function such that the budget constraint is stratified for each demand function. That is$\sum_j^J \varepsilon_{R,H,i,j} + \varepsilon^I_{R,H,i} = 0$, and $\sum_j^J sh_{R,H,j} \cdot \varepsilon^I_{R,H,j} = 1$, where $sh_{R,H,i}$is the expenditure share of commodity *i*.

Both income and price elasticities for any specific commodity vary across regions and households due to different consumption patterns and income levels. For a poor rural household of a region with lower level per capita income and large budget share of a specific staple crop, both income and own price elasticities in the demand function for this commodity are relatively lower than those in the demand function for a non-poor urban households in the same region with higher level of per capita income and smaller budget share of the same commodity.

Exports, Imports, Producer and Consumer Prices

As the name of the model suggests, a multiple market structure is specified. There is perfect substitution between domestically and internationally produced commodities. However, transportation and other market costs distinguish trade in the domestic market from imports and exports. For example, while imported sweet potato is assumed to be perfectly substitutable with domestically produced sweet potato in households' demand functions, sweet potato may still not be profitable to import if its domestic price is lower than the import parity price less any transactions costs. A similar situation applies to exported commodities. Even though certain horticultural products are exportable, if domestic production is not competitive in international markets, either due to low productivity or high transactions costs, then exports will not be profitable.

The model does not capture bilateral trade flows across sub-national regions, while considering PNG geographic characteristics, many agricultural commodities are assumed to be traded only within regions. Only for imported and exported commodities, a national market is assumed. For these commodities, while producers and consumers in different regions operate in the same national markets, prices can vary across regions due to differences in transportation and market costs. For this reason, different regional market margins are defined as the difference between import or export parity prices that are the same for all regions as follows:

$$PC_i = ((1 + Wm_i) \cdot PWM_i, \quad (6)$$

where Wm_i is the trade margin between border prices, PWM_i, and PC_i is the national consumer price for commodity *i*.

The relationship between regional-level and national market prices for consumers is as follows:

$$PC_{R,i} = \left(1 + Dm_{R,i}\right) \cdot PC_i \ , \quad (7)$$

where $Dm_{R,i}$is the regional market margin on good *i* and $PC_{R,i}$ in the regional market price for *i*.

Similarly, there is following relationship between domestic producer prices and export parity prices:

$$P_i = (1 - We_i) \cdot PWE_i, \quad (8)$$

where P_i is producer prices and PWE_i is export border prices. Consumer and producer prices are not necessary the same for the export good *i*, such that:

$$PC_{R,i} = \left(1 + Dm_{R,i}\right) \cdot P_i, \quad (9)$$

where *Dm* is the margin between consumer and producer prices.

Balance of Demand and Supply at the Regional and National Levels

For the commodities traded within regions, the supply and demand are equalized within the region to define the endogenous prices:

$$S_{R,i} = \sum_H Dpc_{R,H,i} \cdot PoP_{R,H}. \quad (10)$$

For the commodities traded international, the following equation solves for the value of *M* or *E*.

$$\sum_R S_{R,i} + M_i - E_i = \sum_{R,H} Dpc_{R,H,i} \cdot PoP_{R,H}. \quad (11)$$

GDP and Per Capita Income Function

Income in the model is endogenous and determined by production revenues. Given that the model does not explicitly include input, producer prices are adjusted to represent value add, and hence, the aggregation of agricultural production at the value add prices equals AgGDP. For the two nonagricultural sectors, the sector level GDP is used to represent production output with unit price. Thus, national GDP (as well as regional level GDP) comprises AgGDP and nonagricultural GDP, which both are endogenous in the model:

$$GDP_R = \sum_j P_{R,j} \cdot S_{R,j} \ . \quad (12)$$

Income per capita for different households across regions is:

$$GDPpc_{R,H} = \frac{Sh_H^{INC} \times GDP_R}{PoP_{R,H,t}} \quad (13)$$

Where $Sh_H^{INC}$is the income share of regional GDP for household group *H* in the region, given that production is defined at the regional level (aggregated), while consumption is defined at household per capita level for poor and non-poor rural and urban households.

Caveats of the Model

Compared with a standard general equilibrium model (e.g., CGE models), there are following caveats of the model: (1) the model does not explicitly model intermediate inputs and labor and capital in the production process. (2) the model does not include government income and expenditure, as well as policy instruments; (3) saving and investment are not captured in the model; and (4) labor movement across sectors and the impact on household income is missing due to no explicitly modeled input (other than land). Obviously, any model cannot capture everything, and the modeling exercises should be combined with other types of analysis in order to further understand the constraints and opportunities facing PNG agriculture.

Appendix II: Sectors in the PNG Economywide Multimarket (EMM) Model

Total: 28 sectors

Agricultural Sectors (26):

Tradable agriculture (10):

Importables (3): Rice, Wheat, Other livestock products

Exportables (7): Coconuts, Oil palm, Coffee, Cocoa, Tea, Fish, Other export crops

Non-tradable agriculture (18):

Maize/Sorghum, Sweet Potato, Cassava, Cocoyam, Yams, Other Roots, Pulses, Groundnuts, Bananas, Vegetables, Fruit, Other Food Crops, Beef, Poultry, Pork, Mutton, Other Livestock Products, Fish

Non-agricultural Sectors (2):

Non-agricultural tradables

Non-agricultural non-tradables

Source: PNG Economy Wide Multi-Market Model.

Appendix III: Elasticities used in PNG EMM model

Table 1. Elasticity in crop yield and livestock and nonagricultural production functions

Rice	0.10
Wheat	0.10
Maz_Sor	0.20
SwPotato	0.20
Cassava	0.20
Cocoyam	0.20
Yams	0.20
Oroots	0.20
Pulses	0.20
Grndnuts	0.20
Coconuts	0.20
Oilpalm	0.20
Bananas	0.20
Coffee	0.20
Cocoa	0.20
Vegetable	0.20
Fruit	0.20
Tea	0.20
Oexcrp	0.20
Ofdcrp	0.20
Beef	0.40
Poultry	0.50
Pork	0.40
Mutton	0.40
OlivPrd	0.40
Fish	0.20
Non ag trade	0.40
Non ag non-trade	0.60

Table 2. Elasticity in crop area functions

		Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp
Southern	Wheat		0.1000	-0.0002	-0.0024	-0.0026	-0.0015	-0.0047	-0.0049	0.0000	0.0000	-0.0082	-0.0085	-0.0258	-0.0001	-0.0038	-0.0083	-0.0076	-0.0012	-0.0072	-0.0027
Southern	Maz_Sor		0.0000	0.2000	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	SwPotato		0.0000	-0.0003	0.2000	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Cassava		0.0000	-0.0003	-0.0048	0.2000	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Cocoyam		0.0000	-0.0003	-0.0048	-0.0053	0.2000	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Yams		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	0.2000	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Oroots		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	0.2000	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Pulses		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.2000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Grndnuts		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	0.2000	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Coconuts		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	0.2000	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Oilpalm		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	0.2000	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Bananas		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	0.2000	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Coffee		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	0.2000	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Cocoa		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	0.2000	-0.0166	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Vegetable		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	0.2000	-0.0152	-0.0024	-0.0143	-0.0053
Southern	Fruit		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	0.2000	-0.0024	-0.0143	-0.0053
Southern	Tea		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	0.2000	-0.0143	-0.0053
Southern	Oexcrp		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	0.2000	-0.0053
Southern	Ofdcrp		0.0000	-0.0003	-0.0048	-0.0053	-0.0031	-0.0094	-0.0097	0.0000	-0.0001	-0.0164	-0.0169	-0.0516	-0.0002	-0.0076	-0.0166	-0.0152	-0.0024	-0.0143	0.2000
Momase	Rice	0.1000	0.0000	-0.0002	-0.0022	-0.0011	-0.0037	-0.0083	-0.0102	0.0000	-0.0001	-0.0058	-0.0148	-0.0175	-0.0002	-0.0027	-0.0074	-0.0088	-0.0006	-0.0051	-0.0020
Momase	Wheat	-0.0001	0.1000	-0.0002	-0.0022	-0.0011	-0.0037	-0.0083	-0.0102	0.0000	-0.0001	-0.0058	-0.0148	-0.0175	-0.0002	-0.0027	-0.0074	-0.0088	-0.0006	-0.0051	-0.0020
Momase	Maz_Sor	-0.0001	0.0000	0.2000	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	SwPotato	-0.0001	0.0000	-0.0004	0.2000	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Cassava	-0.0001	0.0000	-0.0004	-0.0043	0.2000	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Cocoyam	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	0.2000	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Yams	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	0.2000	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Oroots	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	0.2000	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Pulses	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	0.2000	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Grndnuts	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	0.2000	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Coconuts	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	0.2000	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Oilpalm	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	0.2000	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Bananas	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	0.2000	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Coffee	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	0.2000	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Cocoa	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	0.2000	-0.0147	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Vegetable	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	0.2000	-0.0176	-0.0011	-0.0101	-0.0040
Momase	Fruit	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	0.2000	-0.0011	-0.0101	-0.0040
Momase	Tea	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	0.2000	-0.0101	-0.0040
Momase	Oexcrp	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	0.2000	-0.0040
Momase	Ofdcrp	-0.0001	0.0000	-0.0004	-0.0043	-0.0021	-0.0073	-0.0165	-0.0203	-0.0001	-0.0001	-0.0116	-0.0296	-0.0351	-0.0005	-0.0054	-0.0147	-0.0176	-0.0011	-0.0101	0.2000
Highland	Wheat		0.1000	-0.0004	-0.0127	-0.0013	-0.0020	-0.0007	-0.0014	-0.0001	-0.0001	-0.0004	-0.0256	-0.0085	-0.0024	-0.0002	-0.0176	-0.0187	-0.0005	-0.0003	-0.0011
Highland	Maz_Sor		0.0000	0.2000	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	SwPotato		0.0000	-0.0009	0.2000	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Cassava		0.0000	-0.0009	-0.0255	0.2000	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Cocoyam		0.0000	-0.0009	-0.0255	-0.0026	0.2000	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Yams		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	0.2000	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Oroots		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	0.2000	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Pulses		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	0.2000	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Grndnuts		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	0.2000	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Coconuts		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	0.2000	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Oilpalm		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	0.2000	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Bananas		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	0.2000	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Coffee		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	0.2000	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Cocoa		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	0.2000	-0.0352	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Vegetable		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	0.2000	-0.0374	-0.0010	-0.0007	-0.0021
Highland	Fruit		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	0.2000	-0.0010	-0.0007	-0.0021
Highland	Tea		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	0.2000	-0.0007	-0.0021
Highland	Oexcrp		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	0.2000	-0.0021
Highland	Ofdcrp		0.0000	-0.0009	-0.0255	-0.0026	-0.0039	-0.0014	-0.0028	-0.0003	-0.0001	-0.0008	-0.0512	-0.0171	-0.0047	-0.0004	-0.0352	-0.0374	-0.0010	-0.0007	0.2000
Island	Wheat		0.1000	-0.0001	-0.0057	-0.0046	-0.0039	-0.0029	-0.0032	-0.0001	0.0000	-0.0082	-0.0081	-0.0129	-0.0002	-0.0038	-0.0052	-0.0188	-0.0006	-0.0071	-0.0022
Island	Maz_Sor		0.0000	0.2000	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	SwPotato		0.0000	-0.0002	0.2000	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Cassava		0.0000	-0.0002	-0.0115	0.2000	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Cocoyam		0.0000	-0.0002	-0.0115	-0.0091	0.2000	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Yams		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	0.2000	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Oroots		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	0.2000	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Pulses		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	0.2000	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Grndnuts		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	0.2000	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Coconuts		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	0.2000	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Oilpalm		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	0.2000	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Bananas		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	0.2000	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Coffee		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	0.2000	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Cocoa		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	0.2000	-0.0105	-0.0376	-0.0011	-0.0142	-0.0045
Island	Vegetable		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	0.2000	-0.0376	-0.0011	-0.0142	-0.0045
Island	Fruit		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	0.2000	-0.0011	-0.0142	-0.0045
Island	Tea		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	0.2000	-0.0142	-0.0045
Island	Oexcrp		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	0.2000	-0.0045
Island	Ofdcrp		0.0000	-0.0002	-0.0115	-0.0091	-0.0077	-0.0057	-0.0064	-0.0001	-0.0001	-0.0163	-0.0162	-0.0257	-0.0004	-0.0075	-0.0105	-0.0376	-0.0011	-0.0142	0.2000

Table 3. Income elasticity in the household demand functions

		Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish	Nagtrade	Nagntrade
Southern	RurPoor	1.09	1.08	0.95	0.66	0.66	0.66	0.66	0.66	0.82	0.82	0.95	0.95	0.82	1.01	0.82	1.01	1.01	1.01	0.59	1.01	1.11	1.11	1.11	1.11	1.11	1.11	1.74	1.15
Southern	RurNpoor	1.03	1.02	0.90	0.63	0.63	0.63	0.63	0.63	0.77	0.77	0.90	0.90	0.77	0.95	0.77	0.95	0.95	0.95	0.56	0.95	1.05	1.05	1.05	1.05	1.05	1.05	1.17	1.15
Southern	UrbPoor	1.19	1.19	0.84	0.23	0.23	0.23	0.23	0.23	0.47	0.47	0.47	0.69	0.47	0.93	0.69	0.93	0.93	0.93	0.57	0.93	1.19	1.19	1.19	1.19	1.19	1.19	1.26	1.10
Southern	UrbNpoor	1.01	1.01	0.71	0.19	0.19	0.19	0.19	0.19	0.40	0.40	0.40	0.59	0.40	0.79	0.59	0.79	0.79	0.79	0.49	0.79	1.01	1.01	1.01	1.01	1.01	1.01	0.99	1.10
Southern	MtrPoor	0.95	0.95	0.69	0.16	0.16	0.16	0.16	0.16	0.32	0.32	0.32	0.42	0.16	0.53	0.53	0.64	0.64	0.53	0.52	0.53	1.01	1.07	1.07	1.01	1.01	1.07	1.41	1.08
Southern	MtrNpoor	0.90	0.90	0.65	0.15	0.15	0.15	0.15	0.15	0.30	0.30	0.30	0.40	0.15	0.50	0.50	0.60	0.60	0.50	0.49	0.50	0.95	1.01	1.01	0.95	0.95	1.01	1.20	1.08
Momase	RurPoor	1.15	1.15	1.01	0.70	0.70	0.70	0.70	0.70	0.87	0.87	1.01	1.01	0.87	1.07	0.87	1.07	1.07	1.07	0.63	1.07	1.18	1.18	1.18	1.18	1.18	1.18	1.43	1.15
Momase	RurNpoor	1.07	1.06	0.93	0.65	0.65	0.65	0.65	0.65	0.80	0.80	0.93	0.93	0.80	0.98	0.80	0.98	0.98	0.98	0.58	0.98	1.09	1.09	1.09	1.09	1.09	1.09	1.47	1.15
Momase	UrbPoor	1.03	1.03	0.73	0.20	0.20	0.20	0.20	0.20	0.40	0.40	0.40	0.60	0.40	0.81	0.60	0.81	0.81	0.81	0.50	0.81	1.03	1.03	1.03	1.03	1.03	1.03	1.07	1.10
Momase	UrbNpoor	1.02	1.02	0.72	0.20	0.20	0.20	0.20	0.20	0.40	0.40	0.40	0.59	0.40	0.80	0.59	0.80	0.80	0.80	0.49	0.80	1.02	1.02	1.02	1.02	1.02	1.02	1.09	1.10
Momase	MtrPoor	0.91	0.91	0.65	0.15	0.15	0.15	0.15	0.15	0.30	0.30	0.30	0.40	0.15	0.51	0.51	0.61	0.61	0.51	0.50	0.51	0.96	1.02	1.02	0.96	0.96	1.02	2.79	1.08
Momase	MtrNpoor	0.89	0.89	0.64	0.15	0.15	0.15	0.15	0.15	0.30	0.30	0.30	0.40	0.15	0.49	0.49	0.59	0.59	0.49	0.49	0.49	0.94	1.00	1.00	0.94	0.94	1.00	1.13	1.08
Highland	RurPoor	1.04	1.03	0.91	0.63	0.63	0.63	0.63	0.63	0.78	0.78	0.91	0.91	0.78	0.96	0.78	0.96	0.96	0.96	0.56	0.96	1.06	1.06	1.06	1.06	1.06	1.06	1.88	1.15
Highland	RurNpoor	1.00	0.99	0.87	0.61	0.61	0.61	0.61	0.61	0.75	0.75	0.87	0.87	0.75	0.92	0.75	0.92	0.92	0.92	0.54	0.92	1.02	1.02	1.02	1.02	1.02	1.02	1.00	1.15
Highland	UrbPoor	1.02	1.02	0.72	0.20	0.20	0.20	0.20	0.20	0.40	0.40	0.40	0.59	0.40	0.80	0.59	0.80	0.80	0.80	0.49	0.80	1.02	1.02	1.02	1.02	1.02	1.02	1.01	1.10
Highland	UrbNpoor	0.93	0.93	0.66	0.18	0.18	0.18	0.18	0.18	0.36	0.36	0.36	0.54	0.36	0.73	0.54	0.73	0.73	0.73	0.45	0.73	0.93	0.93	0.93	0.93	0.93	0.93	1.02	1.10
Island	RurPoor	1.04	1.03	0.91	0.63	0.63	0.63	0.63	0.63	0.78	0.78	0.91	0.91	0.78	0.96	0.78	0.96	0.96	0.96	0.56	0.96	1.06	1.06	1.06	1.06	1.06	1.06	1.68	1.15
Island	RurNpoor	1.00	1.00	0.88	0.61	0.61	0.61	0.61	0.61	0.75	0.75	0.88	0.88	0.75	0.93	0.75	0.93	0.93	0.93	0.54	0.93	1.02	1.02	1.02	1.02	1.02	1.02	1.01	1.15
Island	UrbPoor	1.03	1.03	0.73	0.20	0.20	0.20	0.20	0.20	0.40	0.40	0.40	0.60	0.40	0.81	0.60	0.81	0.81	0.81	0.50	0.81	1.03	1.03	1.03	1.03	1.03	1.03	1.09	1.10
Island	UrbNpoor	0.93	0.93	0.66	0.18	0.18	0.18	0.18	0.18	0.36	0.36	0.36	0.54	0.36	0.73	0.54	0.73	0.73	0.73	0.45	0.73	0.93	0.93	0.93	0.93	0.93	0.93	1.13	1.10

Table 4. Price elasticity in the household demand functions (A)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Southern	RurPoor	Rice	-0.8010	-0.0310	-0.0004	-0.0183	-0.0139	-0.0109	-0.0270	-0.0247	0.0000	0.0000	-0.0515	-0.0024	-0.0301	0.0000	0.0000	-0.0258	-0.0195	-0.0001	-0.0002	-0.0058	0.0000	-0.0002	-0.0012	0.0000	-0.0011	-0.0272
Southern	RurPoor	Wheat	-0.0446	-0.7817	-0.0004	-0.0182	-0.0138	-0.0109	-0.0268	-0.0245	0.0000	0.0000	-0.0511	-0.0023	-0.0299	0.0000	0.0000	-0.0257	-0.0194	-0.0001	-0.0002	-0.0057	0.0000	-0.0001	-0.0012	0.0000	-0.0011	-0.0270
Southern	RurPoor	Maz_Sor	-0.0393	-0.0271	-0.6609	-0.0160	-0.0121	-0.0096	-0.0235	-0.0216	0.0000	0.0000	-0.0450	-0.0021	-0.0263	0.0000	0.0000	-0.0226	-0.0171	-0.0001	-0.0002	-0.0051	0.0000	-0.0001	-0.0011	0.0000	-0.0009	-0.0238
Southern	RurPoor	wPotato	-0.0273	-0.0188	-0.0002	-0.4701	-0.0084	-0.0066	-0.0164	-0.0150	0.0000	0.0000	-0.0313	-0.0014	-0.0183	0.0000	0.0000	-0.0157	-0.0119	-0.0001	-0.0001	-0.0035	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0165
Southern	RurPoor	Cassava	-0.0273	-0.0188	-0.0002	-0.0111	-0.4674	-0.0066	-0.0164	-0.0150	0.0000	0.0000	-0.0313	-0.0014	-0.0183	0.0000	0.0000	-0.0157	-0.0119	-0.0001	-0.0001	-0.0035	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0165
Southern	RurPoor	Cocoyam	-0.0273	-0.0188	-0.0002	-0.0111	-0.0084	-0.4656	-0.0164	-0.0150	0.0000	0.0000	-0.0313	-0.0014	-0.0183	0.0000	0.0000	-0.0157	-0.0119	-0.0001	-0.0001	-0.0035	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0165
Southern	RurPoor	Yams	-0.0273	-0.0188	-0.0002	-0.0111	-0.0084	-0.0066	-0.4753	-0.0150	0.0000	0.0000	-0.0313	-0.0014	-0.0183	0.0000	0.0000	-0.0157	-0.0119	-0.0001	-0.0001	-0.0035	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0165
Southern	RurPoor	Oroots	-0.0273	-0.0188	-0.0002	-0.0111	-0.0084	-0.0066	-0.0164	-0.4740	0.0000	0.0000	-0.0313	-0.0014	-0.0183	0.0000	0.0000	-0.0157	-0.0119	-0.0001	-0.0001	-0.0035	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0165
Southern	RurPoor	Pulses	-0.0337	-0.0232	-0.0003	-0.0137	-0.0104	-0.0082	-0.0202	-0.0185	-0.5665	0.0000	-0.0386	-0.0018	-0.0226	0.0000	0.0000	-0.0194	-0.0146	-0.0001	-0.0002	-0.0043	0.0000	-0.0001	-0.0009	0.0000	-0.0008	-0.0204
Southern	RurPoor	Grndnuts	-0.0337	-0.0232	-0.0003	-0.0137	-0.0104	-0.0082	-0.0202	-0.0185	0.0000	-0.5665	-0.0386	-0.0018	-0.0226	0.0000	0.0000	-0.0194	-0.0146	-0.0001	-0.0002	-0.0043	0.0000	-0.0001	-0.0009	0.0000	-0.0008	-0.0204
Southern	RurPoor	Coconuts	-0.0393	-0.0271	-0.0003	-0.0160	-0.0121	-0.0096	-0.0235	-0.0216	0.0000	0.0000	-0.7056	-0.0021	-0.0263	0.0000	0.0000	-0.0226	-0.0171	-0.0001	-0.0002	-0.0051	0.0000	-0.0001	-0.0011	0.0000	-0.0009	-0.0238
Southern	RurPoor	Oilpalm	-0.0393	-0.0271	-0.0003	-0.0160	-0.0121	-0.0096	-0.0235	-0.0216	0.0000	0.0000	-0.0450	-0.6626	-0.0263	0.0000	0.0000	-0.0226	-0.0171	-0.0001	-0.0002	-0.0051	0.0000	-0.0001	-0.0011	0.0000	-0.0009	-0.0238
Southern	RurPoor	Bananas	-0.0337	-0.0232	-0.0003	-0.0137	-0.0104	-0.0082	-0.0202	-0.0185	0.0000	0.0000	-0.0386	-0.0018	-0.5891	0.0000	0.0000	-0.0194	-0.0146	-0.0001	-0.0002	-0.0043	0.0000	-0.0001	-0.0009	0.0000	-0.0008	-0.0204
Southern	RurPoor	Coffee	-0.0415	-0.0286	-0.0004	-0.0169	-0.0128	-0.0101	-0.0249	-0.0228	0.0000	0.0000	-0.0475	-0.0022	-0.0278	-0.6973	0.0000	-0.0238	-0.0180	-0.0001	-0.0002	-0.0053	0.0000	-0.0001	-0.0011	0.0000	-0.0010	-0.0251
Southern	RurPoor	Cocoa	-0.0337	-0.0232	-0.0003	-0.0137	-0.0104	-0.0082	-0.0202	-0.0185	0.0000	0.0000	-0.0386	-0.0018	-0.0226	0.0000	-0.5665	-0.0194	-0.0146	-0.0001	-0.0002	-0.0043	0.0000	-0.0001	-0.0009	0.0000	-0.0008	-0.0204
Southern	RurPoor	Vegetable	-0.0415	-0.0286	-0.0004	-0.0169	-0.0128	-0.0101	-0.0249	-0.0228	0.0000	0.0000	-0.0475	-0.0022	-0.0278	0.0000	0.0000	-0.7213	-0.0180	-0.0001	-0.0002	-0.0053	0.0000	-0.0001	-0.0011	0.0000	-0.0010	-0.0251
Southern	RurPoor	Fruit	-0.0415	-0.0286	-0.0004	-0.0169	-0.0128	-0.0101	-0.0249	-0.0228	0.0000	0.0000	-0.0475	-0.0022	-0.0278	0.0000	0.0000	-0.0238	-0.7155	-0.0001	-0.0002	-0.0053	0.0000	-0.0001	-0.0011	0.0000	-0.0010	-0.0251
Southern	RurPoor	Tea	-0.0415	-0.0286	-0.0004	-0.0169	-0.0128	-0.0101	-0.0249	-0.0228	0.0000	0.0000	-0.0475	-0.0022	-0.0278	0.0000	0.0000	-0.0238	-0.0180	-0.6975	-0.0002	-0.0053	0.0000	-0.0001	-0.0011	0.0000	-0.0010	-0.0251
Southern	RurPoor	Oexcrp	-0.0244	-0.0168	-0.0002	-0.0099	-0.0075	-0.0059	-0.0146	-0.0134	0.0000	0.0000	-0.0279	-0.0013	-0.0163	0.0000	0.0000	-0.0140	-0.0106	-0.0001	-0.4100	-0.0031	0.0000	-0.0001	-0.0007	0.0000	-0.0006	-0.0148
Southern	RurPoor	Ofdcrp	-0.0415	-0.0286	-0.0004	-0.0169	-0.0128	-0.0101	-0.0249	-0.0228	0.0000	0.0000	-0.0475	-0.0022	-0.0278	0.0000	0.0000	-0.0238	-0.0180	-0.0001	-0.0002	-0.7028	0.0000	-0.0001	-0.0011	0.0000	-0.0010	-0.0251
Southern	RurPoor	Beef	-0.0458	-0.0316	-0.0004	-0.0187	-0.0141	-0.0111	-0.0275	-0.0252	0.0000	0.0000	-0.0525	-0.0024	-0.0307	0.0000	0.0000	-0.0263	-0.0199	-0.0001	-0.0002	-0.0059	-0.7707	-0.0002	-0.0012	0.0000	-0.0011	-0.0277
Southern	RurPoor	Poultry	-0.0458	-0.0316	-0.0004	-0.0187	-0.0141	-0.0111	-0.0275	-0.0252	0.0000	0.0000	-0.0525	-0.0024	-0.0307	0.0000	0.0000	-0.0263	-0.0199	-0.0001	-0.0002	-0.0059	0.0000	-0.7708	-0.0012	0.0000	-0.0011	-0.0277
Southern	RurPoor	Pork	-0.0458	-0.0316	-0.0004	-0.0187	-0.0141	-0.0111	-0.0275	-0.0252	0.0000	0.0000	-0.0525	-0.0024	-0.0307	0.0000	0.0000	-0.0263	-0.0199	-0.0001	-0.0002	-0.0059	0.0000	-0.0002	-0.7719	0.0000	-0.0011	-0.0277
Southern	RurPoor	Mutton	-0.0458	-0.0316	-0.0004	-0.0187	-0.0141	-0.0111	-0.0275	-0.0252	0.0000	0.0000	-0.0525	-0.0024	-0.0307	0.0000	0.0000	-0.0263	-0.0199	-0.0001	-0.0002	-0.0059	0.0000	-0.0002	-0.0012	-0.7707	-0.0011	-0.0277
Southern	RurPoor	OlivPrd	-0.0458	-0.0316	-0.0004	-0.0187	-0.0141	-0.0111	-0.0275	-0.0252	0.0000	0.0000	-0.0525	-0.0024	-0.0307	0.0000	0.0000	-0.0263	-0.0199	-0.0001	-0.0002	-0.0059	0.0000	-0.0002	-0.0012	0.0000	-0.7718	-0.0277
Southern	RurPoor	Fish	-0.0458	-0.0316	-0.0004	-0.0187	-0.0141	-0.0111	-0.0275	-0.0252	0.0000	0.0000	-0.0525	-0.0024	-0.0307	0.0000	0.0000	-0.0263	-0.0199	-0.0001	-0.0002	-0.0059	0.0000	-0.0002	-0.0012	0.0000	-0.0011	-0.7984
Southern	RurPoor	Magtrade	-0.0630	-0.0435	-0.0006	-0.0257	-0.0194	-0.0153	-0.0378	-0.0346	-0.0001	0.0000	-0.0722	-0.0033	-0.0423	0.0000	0.0000	-0.0362	-0.0274	-0.0001	-0.0003	-0.0081	0.0000	-0.0002	-0.0017	0.0000	-0.0015	-0.0382
Southern	RurPoor	Agntrade	-0.0473	-0.0327	-0.0004	-0.0193	-0.0146	-0.0115	-0.0284	-0.0260	0.0000	0.0000	-0.0542	-0.0025	-0.0317	0.0000	0.0000	-0.0272	-0.0206	-0.0001	-0.0002	-0.0061	0.0000	-0.0002	-0.0013	0.0000	-0.0011	-0.0287
Southern	RurNpoor	Rice	-0.9349	-0.0126	-0.0002	-0.0020	-0.0018	-0.0015	-0.0039	-0.0039	0.0000	0.0000	-0.0157	-0.0027	-0.0277	0.0000	0.0000	-0.0100	-0.0112	0.0000	-0.0001	-0.0037	-0.0001	-0.0006	-0.0028	0.0000	-0.0037	-0.0119
Southern	RurNpoor	Wheat	-0.0058	-0.9353	-0.0002	-0.0020	-0.0018	-0.0014	-0.0039	-0.0039	0.0000	0.0000	-0.0155	-0.0027	-0.0275	0.0000	0.0000	-0.0099	-0.0111	0.0000	-0.0001	-0.0036	-0.0001	-0.0006	-0.0028	0.0000	-0.0037	-0.0118
Southern	RurNpoor	Maz_Sor	-0.0051	-0.0110	-0.8120	-0.0018	-0.0016	-0.0013	-0.0034	-0.0034	0.0000	0.0000	-0.0137	-0.0024	-0.0242	0.0000	0.0000	-0.0087	-0.0098	0.0000	-0.0001	-0.0032	-0.0001	-0.0005	-0.0025	0.0000	-0.0033	-0.0104
Southern	RurNpoor	wPotato	-0.0035	-0.0076	-0.0001	-0.5653	-0.0011	-0.0009	-0.0024	-0.0024	0.0000	0.0000	-0.0095	-0.0016	-0.0168	0.0000	0.0000	-0.0061	-0.0068	0.0000	-0.0001	-0.0022	-0.0001	-0.0003	-0.0017	0.0000	-0.0023	-0.0072
Southern	RurNpoor	Cassava	-0.0035	-0.0076	-0.0001	-0.0012	-0.5652	-0.0009	-0.0024	-0.0024	0.0000	0.0000	-0.0095	-0.0016	-0.0168	0.0000	0.0000	-0.0061	-0.0068	0.0000	-0.0001	-0.0022	-0.0001	-0.0003	-0.0017	0.0000	-0.0023	-0.0072
Southern	RurNpoor	Cocoyam	-0.0035	-0.0076	-0.0001	-0.0012	-0.0011	-0.5650	-0.0024	-0.0024	0.0000	0.0000	-0.0095	-0.0016	-0.0168	0.0000	0.0000	-0.0061	-0.0068	0.0000	-0.0001	-0.0022	-0.0001	-0.0003	-0.0017	0.0000	-0.0023	-0.0072
Southern	RurNpoor	Yams	-0.0035	-0.0076	-0.0001	-0.0012	-0.0011	-0.0009	-0.5665	-0.0024	0.0000	0.0000	-0.0095	-0.0016	-0.0168	0.0000	0.0000	-0.0061	-0.0068	0.0000	-0.0001	-0.0022	-0.0001	-0.0003	-0.0017	0.0000	-0.0023	-0.0072
Southern	RurNpoor	Oroots	-0.0035	-0.0076	-0.0001	-0.0012	-0.0011	-0.0009	-0.0024	-0.5665	0.0000	0.0000	-0.0095	-0.0016	-0.0168	0.0000	0.0000	-0.0061	-0.0068	0.0000	-0.0001	-0.0022	-0.0001	-0.0003	-0.0017	0.0000	-0.0023	-0.0072
Southern	RurNpoor	Pulses	-0.0044	-0.0094	-0.0001	-0.0015	-0.0013	-0.0011	-0.0030	-0.0029	-0.6963	0.0000	-0.0117	-0.0020	-0.0208	0.0000	0.0000	-0.0075	-0.0084	0.0000	-0.0001	-0.0027	-0.0001	-0.0004	-0.0021	0.0000	-0.0028	-0.0089
Southern	RurNpoor	Grndnuts	-0.0044	-0.0094	-0.0001	-0.0015	-0.0013	-0.0011	-0.0030	-0.0029	0.0000	-0.6963	-0.0117	-0.0020	-0.0208	0.0000	0.0000	-0.0075	-0.0084	0.0000	-0.0001	-0.0027	-0.0001	-0.0004	-0.0021	0.0000	-0.0028	-0.0089
Southern	RurNpoor	Coconuts	-0.0051	-0.0110	-0.0002	-0.0018	-0.0016	-0.0013	-0.0034	-0.0034	0.0000	0.0000	-0.8255	-0.0024	-0.0242	0.0000	0.0000	-0.0087	-0.0098	0.0000	-0.0001	-0.0032	-0.0001	-0.0005	-0.0025	0.0000	-0.0033	-0.0104
Southern	RurNpoor	Oilpalm	-0.0051	-0.0110	-0.0002	-0.0018	-0.0016	-0.0013	-0.0034	-0.0034	0.0000	0.0000	-0.0137	-0.8142	-0.0242	0.0000	0.0000	-0.0087	-0.0098	0.0000	-0.0001	-0.0032	-0.0001	-0.0005	-0.0025	0.0000	-0.0033	-0.0104
Southern	RurNpoor	Bananas	-0.0044	-0.0094	-0.0001	-0.0015	-0.0013	-0.0011	-0.0030	-0.0029	0.0000	0.0000	-0.0117	-0.0020	-0.7170	0.0000	0.0000	-0.0075	-0.0084	0.0000	-0.0001	-0.0027	-0.0001	-0.0004	-0.0021	0.0000	-0.0028	-0.0089
Southern	RurNpoor	Coffee	-0.0054	-0.0116	-0.0002	-0.0019	-0.0017	-0.0013	-0.0036	-0.0036	0.0000	0.0000	-0.0144	-0.0025	-0.0255	-0.8570	0.0000	-0.0092	-0.0103	0.0000	-0.0001	-0.0034	-0.0001	-0.0005	-0.0026	0.0000	-0.0034	-0.0109
Southern	RurNpoor	Cocoa	-0.0044	-0.0094	-0.0001	-0.0015	-0.0013	-0.0011	-0.0030	-0.0029	0.0000	0.0000	-0.0117	-0.0020	-0.0208	0.0000	-0.6962	-0.0075	-0.0084	0.0000	-0.0001	-0.0027	-0.0001	-0.0004	-0.0021	0.0000	-0.0028	-0.0089
Southern	RurNpoor	Vegetable	-0.0054	-0.0116	-0.0002	-0.0019	-0.0017	-0.0013	-0.0036	-0.0036	0.0000	0.0000	-0.0144	-0.0025	-0.0255	0.0000	0.0000	-0.8664	-0.0103	0.0000	-0.0001	-0.0034	-0.0001	-0.0005	-0.0026	0.0000	-0.0034	-0.0109
Southern	RurNpoor	Fruit	-0.0054	-0.0116	-0.0002	-0.0019	-0.0017	-0.0013	-0.0036	-0.0036	0.0000	0.0000	-0.0144	-0.0025	-0.0255	0.0000	0.0000	-0.0092	-0.8674	0.0000	-0.0001	-0.0034	-0.0001	-0.0005	-0.0026	0.0000	-0.0034	-0.0109
Southern	RurNpoor	Tea	-0.0054	-0.0116	-0.0002	-0.0019	-0.0017	-0.0013	-0.0036	-0.0036	0.0000	0.0000	-0.0144	-0.0025	-0.0255	0.0000	0.0000	-0.0092	-0.0103	-0.8572	-0.0001	-0.0034	-0.0001	-0.0005	-0.0026	0.0000	-0.0034	-0.0109
Southern	RurNpoor	Oexcrp	-0.0031	-0.0068	-0.0001	-0.0011	-0.0010	-0.0008	-0.0021	-0.0021	0.0000	0.0000	-0.0085	-0.0015	-0.0150	0.0000	0.0000	-0.0054	-0.0060	0.0000	-0.5037	-0.0020	-0.0001	-0.0003	-0.0015	0.0000	-0.0020	-0.0064
Southern	RurNpoor	Ofdcrp	-0.0054	-0.0116	-0.0002	-0.0019	-0.0017	-0.0013	-0.0036	-0.0036	0.0000	0.0000	-0.0144	-0.0025	-0.0255	0.0000	0.0000	-0.0092	-0.0103	0.0000	-0.0001	-0.8605	-0.0001	-0.0005	-0.0026	0.0000	-0.0034	-0.0109
Southern	RurNpoor	Beef	-0.0059	-0.0128	-0.0002	-0.0021	-0.0018	-0.0015	-0.0040	-0.0040	0.0000	0.0000	-0.0160	-0.0028	-0.0282	0.0000	0.0000	-0.0102	-0.0114	0.0000	-0.0001	-0.0037	-0.9473	-0.0006	-0.0029	0.0000	-0.0038	-0.0121
Southern	RurNpoor	Poultry	-0.0059	-0.0128	-0.0002	-0.0021	-0.0018	-0.0015	-0.0040	-0.0040	0.0000	0.0000	-0.0160	-0.0028	-0.0282	0.0000	0.0000	-0.0102	-0.0114	0.0000	-0.0001	-0.0037	-0.0001	-0.9477	-0.0029	0.0000	-0.0038	-0.0121
Southern	RurNpoor	Pork	-0.0059	-0.0128	-0.0002	-0.0021	-0.0018	-0.0015	-0.0040	-0.0040	0.0000	0.0000	-0.0160	-0.0028	-0.0282	0.0000	0.0000	-0.0102	-0.0114	0.0000	-0.0001	-0.0037	-0.0001	-0.0006	-0.9501	0.0000	-0.0038	-0.0121
Southern	RurNpoor	Mutton	-0.0059	-0.0128	-0.0002	-0.0021	-0.0018	-0.0015	-0.0040	-0.0040	0.0000	0.0000	-0.0160	-0.0028	-0.0282	0.0000	0.0000	-0.0102	-0.0114	0.0000	-0.0001	-0.0037	-0.0001	-0.0006	-0.0029	-0.9472	-0.0038	-0.0121
Southern	RurNpoor	OlivPrd	-0.0059	-0.0128	-0.0002	-0.0021	-0.0018	-0.0015	-0.0040	-0.0040	0.0000	0.0000	-0.0160	-0.0028	-0.0282	0.0000	0.0000	-0.0102	-0.0114	0.0000	-0.0001	-0.0037	-0.0001	-0.0006	-0.0029	0.0000	-0.9510	-0.0121
Southern	RurNpoor	Fish	-0.0059	-0.0128	-0.0002	-0.0021	-0.0018	-0.0015	-0.0040	-0.0040	0.0000	0.0000	-0.0160	-0.0028	-0.0282	0.0000	0.0000	-0.0102	-0.0114	0.0000	-0.0001	-0.0037	-0.0001	-0.0006	-0.0029	0.0000	-0.0038	-0.9593
Southern	RurNpoor	Magtrade	-0.0086	-0.0187	-0.0003	-0.0030	-0.0027	-0.0022	-0.0059	-0.0058	0.0000	-0.0001	-0.0233	-0.0040	-0.0412	0.0000	0.0000	-0.0148	-0.0166	-0.0001	-0.0002	-0.0054	-0.0002	-0.0008	-0.0042	0.0000	-0.0055	-0.0176
Southern	RurNpoor	Agntrade	-0.0065	-0.0141	-0.0002	-0.0023	-0.0020	-0.0016	-0.0044	-0.0044	0.0000	0.0000	-0.0175	-0.0030	-0.0309	0.0000	0.0000	-0.0111	-0.0125	-0.0001	-0.0001	-0.0041	-0.0001	-0.0006	-0.0032	0.0000	-0.0042	-0.0132

Table 4. Price elasticity in the household demand functions (B)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	egetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Southern	UrbPoor	Rice	-0.9807	-0.0720	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	0.0000	-0.0019	-0.0007	0.0000	-0.0013	-0.0189
Southern	UrbPoor	Wheat	-0.0756	-0.9771	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	0.0000	-0.0019	-0.0007	0.0000	-0.0013	-0.0189
Southern	UrbPoor	Maz_Sor	-0.0532	-0.0507	-0.6371	-0.0036	-0.0015	-0.0015	-0.0058	-0.0142	0.0000	0.0000	-0.0091	-0.0053	-0.0240	0.0000	0.0000	-0.0104	-0.0060	-0.0001	-0.0002	-0.0013	0.0000	-0.0013	-0.0005	0.0000	-0.0009	-0.0133
Southern	UrbPoor	wPotato	-0.0145	-0.0138	0.0000	-0.1748	-0.0004	-0.0004	-0.0016	-0.0039	0.0000	0.0000	-0.0025	-0.0014	-0.0065	0.0000	0.0000	-0.0028	-0.0016	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0003	-0.0036
Southern	UrbPoor	Cassava	-0.0145	-0.0138	0.0000	-0.0010	-0.1742	-0.0004	-0.0016	-0.0039	0.0000	0.0000	-0.0025	-0.0014	-0.0065	0.0000	0.0000	-0.0028	-0.0016	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0003	-0.0036
Southern	UrbPoor	Cocoyam	-0.0145	-0.0138	0.0000	-0.0010	-0.0004	-0.1742	-0.0016	-0.0039	0.0000	0.0000	-0.0025	-0.0014	-0.0065	0.0000	0.0000	-0.0028	-0.0016	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0003	-0.0036
Southern	UrbPoor	Yams	-0.0145	-0.0138	0.0000	-0.0010	-0.0004	-0.0004	-0.1754	-0.0039	0.0000	0.0000	-0.0025	-0.0014	-0.0065	0.0000	0.0000	-0.0028	-0.0016	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0003	-0.0036
Southern	UrbPoor	Oroots	-0.0145	-0.0138	0.0000	-0.0010	-0.0004	-0.0004	-0.0016	-0.1777	0.0000	0.0000	-0.0025	-0.0014	-0.0065	0.0000	0.0000	-0.0028	-0.0016	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0003	-0.0036
Southern	UrbPoor	Pulses	-0.0296	-0.0282	-0.0001	-0.0020	-0.0008	-0.0008	-0.0032	-0.0079	-0.3539	0.0000	-0.0050	-0.0029	-0.0133	0.0000	0.0000	-0.0058	-0.0033	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0003	0.0000	-0.0005	-0.0074
Southern	UrbPoor	Grndnuts	-0.0296	-0.0282	-0.0001	-0.0020	-0.0008	-0.0008	-0.0032	-0.0079	0.0000	-0.3539	-0.0050	-0.0029	-0.0133	0.0000	0.0000	-0.0058	-0.0033	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0003	0.0000	-0.0005	-0.0074
Southern	UrbPoor	Coconuts	-0.0296	-0.0282	-0.0001	-0.0020	-0.0008	-0.0008	-0.0032	-0.0079	0.0000	0.0000	-0.3589	-0.0029	-0.0133	0.0000	0.0000	-0.0058	-0.0033	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0003	0.0000	-0.0005	-0.0074
Southern	UrbPoor	Oilpalm	-0.0439	-0.0418	-0.0001	-0.0029	-0.0012	-0.0012	-0.0048	-0.0117	0.0000	0.0000	-0.0075	-0.5300	-0.0198	0.0000	0.0000	-0.0086	-0.0049	-0.0001	-0.0002	-0.0010	0.0000	-0.0011	-0.0004	0.0000	-0.0008	-0.0110
Southern	UrbPoor	Bananas	-0.0296	-0.0282	-0.0001	-0.0020	-0.0008	-0.0008	-0.0032	-0.0079	0.0000	0.0000	-0.0050	-0.0029	-0.3672	0.0000	0.0000	-0.0058	-0.0033	0.0000	-0.0001	-0.0007	0.0000	-0.0007	-0.0003	0.0000	-0.0005	-0.0074
Southern	UrbPoor	Coffee	-0.0592	-0.0563	-0.0001	-0.0040	-0.0017	-0.0017	-0.0064	-0.0158	0.0000	0.0000	-0.0101	-0.0058	-0.0266	-0.7078	0.0000	-0.0116	-0.0066	-0.0001	-0.0002	-0.0014	0.0000	-0.0015	-0.0006	0.0000	-0.0010	-0.0148
Southern	UrbPoor	Cocoa	-0.0439	-0.0418	-0.0001	-0.0029	-0.0012	-0.0012	-0.0048	-0.0117	0.0000	0.0000	-0.0075	-0.0043	-0.0198	0.0000	-0.5257	-0.0086	-0.0049	-0.0001	-0.0002	-0.0010	0.0000	-0.0011	-0.0004	0.0000	-0.0008	-0.0110
Southern	UrbPoor	egetable	-0.0592	-0.0563	-0.0001	-0.0040	-0.0017	-0.0017	-0.0064	-0.0158	0.0000	0.0000	-0.0101	-0.0058	-0.0266	0.0000	0.0000	-0.7193	-0.0066	-0.0001	-0.0002	-0.0014	0.0000	-0.0015	-0.0006	0.0000	-0.0010	-0.0148
Southern	UrbPoor	Fruit	-0.0592	-0.0563	-0.0001	-0.0040	-0.0017	-0.0017	-0.0064	-0.0158	0.0000	0.0000	-0.0101	-0.0058	-0.0266	0.0000	0.0000	-0.0116	-0.7144	-0.0001	-0.0002	-0.0014	0.0000	-0.0015	-0.0006	0.0000	-0.0010	-0.0148
Southern	UrbPoor	Tea	-0.0592	-0.0563	-0.0001	-0.0040	-0.0017	-0.0017	-0.0064	-0.0158	0.0000	0.0000	-0.0101	-0.0058	-0.0266	0.0000	0.0000	-0.0116	-0.0066	-0.7079	-0.0002	-0.0014	0.0000	-0.0015	-0.0006	0.0000	-0.0010	-0.0148
Southern	UrbPoor	Oexcrp	-0.0364	-0.0346	-0.0001	-0.0024	-0.0010	-0.0010	-0.0039	-0.0097	0.0000	0.0000	-0.0062	-0.0036	-0.0164	0.0000	0.0000	-0.0071	-0.0041	-0.0001	-0.4354	-0.0009	0.0000	-0.0009	-0.0004	0.0000	-0.0006	-0.0091
Southern	UrbPoor	Ofdcrp	-0.0592	-0.0563	-0.0001	-0.0040	-0.0017	-0.0017	-0.0064	-0.0158	0.0000	0.0000	-0.0101	-0.0058	-0.0266	0.0000	0.0000	-0.0116	-0.0066	-0.0001	-0.0002	-0.7092	0.0000	-0.0015	-0.0006	0.0000	-0.0010	-0.0148
Southern	UrbPoor	Beef	-0.0756	-0.0720	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	-0.9051	-0.0019	-0.0007	0.0000	-0.0013	-0.0189
Southern	UrbPoor	Poultry	-0.0756	-0.0720	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	0.0000	-0.9069	-0.0007	0.0000	-0.0013	-0.0189
Southern	UrbPoor	Pork	-0.0756	-0.0720	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	0.0000	-0.0019	-0.9058	0.0000	-0.0013	-0.0189
Southern	UrbPoor	Mutton	-0.0756	-0.0720	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	0.0000	-0.0019	-0.0007	-0.9051	-0.0013	-0.0189
Southern	UrbPoor	OlivPrd	-0.0756	-0.0720	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	0.0000	-0.0019	-0.0007	0.0000	-0.9064	-0.0189
Southern	UrbPoor	Fish	-0.0756	-0.0720	-0.0001	-0.0051	-0.0021	-0.0021	-0.0082	-0.0202	0.0000	0.0000	-0.0129	-0.0075	-0.0340	0.0000	0.0000	-0.0148	-0.0085	-0.0001	-0.0003	-0.0018	0.0000	-0.0019	-0.0007	0.0000	-0.0013	-0.9240
Southern	UrbPoor	Nagtrade	-0.0862	-0.0821	-0.0001	-0.0058	-0.0024	-0.0024	-0.0094	-0.0230	0.0000	0.0000	-0.0147	-0.0085	-0.0388	0.0000	0.0000	-0.0169	-0.0097	-0.0001	-0.0004	-0.0020	0.0000	-0.0021	-0.0008	0.0000	-0.0015	-0.0216
Southern	UrbPoor	agntrade	-0.0697	-0.0664	-0.0001	-0.0047	-0.0020	-0.0020	-0.0076	-0.0186	0.0000	0.0000	-0.0119	-0.0069	-0.0314	0.0000	0.0000	-0.0136	-0.0078	-0.0001	-0.0003	-0.0016	0.0000	-0.0017	-0.0007	0.0000	-0.0012	-0.0174
Southern	UrbNpoor	Rice	-0.9925	-0.0251	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.0002	-0.0012	-0.0003	0.0000	-0.0010	-0.0044
Southern	UrbNpoor	Wheat	-0.0153	-1.0023	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.0002	-0.0012	-0.0003	0.0000	-0.0010	-0.0044
Southern	UrbNpoor	Maz_Sor	-0.0108	-0.0177	-0.6878	-0.0002	-0.0001	-0.0001	-0.0004	-0.0011	0.0000	0.0000	-0.0018	-0.0023	-0.0052	0.0000	0.0000	-0.0015	-0.0017	0.0000	-0.0001	-0.0006	-0.0002	-0.0009	-0.0002	0.0000	-0.0007	-0.0031
Southern	UrbNpoor	wPotato	-0.0029	-0.0048	0.0000	-0.1877	0.0000	0.0000	-0.0001	-0.0003	0.0000	0.0000	-0.0005	-0.0006	-0.0014	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0001	0.0000	-0.0002	-0.0009
Southern	UrbNpoor	Cassava	-0.0029	-0.0048	0.0000	0.0000	-0.1877	0.0000	-0.0001	-0.0003	0.0000	0.0000	-0.0005	-0.0006	-0.0014	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0001	0.0000	-0.0002	-0.0009
Southern	UrbNpoor	Cocoyam	-0.0029	-0.0048	0.0000	0.0000	0.0000	-0.1877	-0.0001	-0.0003	0.0000	0.0000	-0.0005	-0.0006	-0.0014	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0001	0.0000	-0.0002	-0.0009
Southern	UrbNpoor	Yams	-0.0029	-0.0048	0.0000	0.0000	0.0000	0.0000	-0.1878	-0.0003	0.0000	0.0000	-0.0005	-0.0006	-0.0014	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0001	0.0000	-0.0002	-0.0009
Southern	UrbNpoor	Oroots	-0.0029	-0.0048	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.1880	0.0000	0.0000	-0.0005	-0.0006	-0.0014	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0001	0.0000	-0.0002	-0.0009
Southern	UrbNpoor	Pulses	-0.0060	-0.0098	0.0000	-0.0001	0.0000	0.0000	-0.0002	-0.0006	-0.3821	0.0000	-0.0010	-0.0013	-0.0029	0.0000	0.0000	-0.0008	-0.0009	0.0000	0.0000	-0.0003	-0.0001	-0.0005	-0.0001	0.0000	-0.0004	-0.0017
Southern	UrbNpoor	Grndnuts	-0.0060	-0.0098	0.0000	-0.0001	0.0000	0.0000	-0.0002	-0.0006	0.0000	-0.3821	-0.0010	-0.0013	-0.0029	0.0000	0.0000	-0.0008	-0.0009	0.0000	0.0000	-0.0003	-0.0001	-0.0005	-0.0001	0.0000	-0.0004	-0.0017
Southern	UrbNpoor	Coconuts	-0.0060	-0.0098	0.0000	-0.0001	0.0000	0.0000	-0.0002	-0.0006	0.0000	0.0000	-0.3831	-0.0013	-0.0029	0.0000	0.0000	-0.0008	-0.0009	0.0000	0.0000	-0.0003	-0.0001	-0.0005	-0.0001	0.0000	-0.0004	-0.0017
Southern	UrbNpoor	Oilpalm	-0.0089	-0.0146	0.0000	-0.0001	0.0000	-0.0001	-0.0003	-0.0009	0.0000	0.0000	-0.0015	-0.5695	-0.0043	0.0000	0.0000	-0.0012	-0.0014	0.0000	-0.0001	-0.0005	-0.0001	-0.0007	-0.0002	0.0000	-0.0006	-0.0026
Southern	UrbNpoor	Bananas	-0.0060	-0.0098	0.0000	-0.0001	0.0000	0.0000	-0.0002	-0.0006	0.0000	0.0000	-0.0010	-0.0013	-0.3850	0.0000	0.0000	-0.0008	-0.0009	0.0000	0.0000	-0.0003	-0.0001	-0.0005	-0.0001	0.0000	-0.0004	-0.0017
Southern	UrbNpoor	Coffee	-0.0120	-0.0197	0.0000	-0.0002	-0.0001	-0.0001	-0.0004	-0.0012	0.0000	0.0000	-0.0020	-0.0026	-0.0058	-0.7642	0.0000	-0.0016	-0.0019	0.0000	-0.0001	-0.0007	-0.0002	-0.0010	-0.0002	0.0000	-0.0008	-0.0035
Southern	UrbNpoor	Cocoa	-0.0089	-0.0146	0.0000	-0.0001	0.0000	-0.0001	-0.0003	-0.0009	0.0000	0.0000	-0.0015	-0.0019	-0.0043	0.0000	-0.5676	-0.0012	-0.0014	0.0000	-0.0001	-0.0005	-0.0001	-0.0007	-0.0002	0.0000	-0.0006	-0.0026
Southern	UrbNpoor	egetable	-0.0120	-0.0197	0.0000	-0.0002	-0.0001	-0.0001	-0.0004	-0.0012	0.0000	0.0000	-0.0020	-0.0026	-0.0058	0.0000	0.0000	-0.7658	-0.0019	0.0000	-0.0001	-0.0007	-0.0002	-0.0010	-0.0002	0.0000	-0.0008	-0.0035
Southern	UrbNpoor	Fruit	-0.0120	-0.0197	0.0000	-0.0002	-0.0001	-0.0001	-0.0004	-0.0012	0.0000	0.0000	-0.0020	-0.0026	-0.0058	0.0000	0.0000	-0.0016	-0.7660	0.0000	-0.0001	-0.0007	-0.0002	-0.0010	-0.0002	0.0000	-0.0008	-0.0035
Southern	UrbNpoor	Tea	-0.0120	-0.0197	0.0000	-0.0002	-0.0001	-0.0001	-0.0004	-0.0012	0.0000	0.0000	-0.0020	-0.0026	-0.0058	0.0000	0.0000	-0.0016	-0.0019	-0.7642	-0.0001	-0.0007	-0.0002	-0.0010	-0.0002	0.0000	-0.0008	-0.0035
Southern	UrbNpoor	Oexcrp	-0.0074	-0.0121	0.0000	-0.0001	0.0000	-0.0001	-0.0003	-0.0007	0.0000	0.0000	-0.0013	-0.0016	-0.0036	0.0000	0.0000	-0.0010	-0.0011	0.0000	-0.4700	-0.0004	-0.0001	-0.0006	-0.0001	0.0000	-0.0005	-0.0021
Southern	UrbNpoor	Ofdcrp	-0.0120	-0.0197	0.0000	-0.0002	-0.0001	-0.0001	-0.0004	-0.0012	0.0000	0.0000	-0.0020	-0.0026	-0.0058	0.0000	0.0000	-0.0016	-0.0019	0.0000	-0.0001	-0.7649	-0.0002	-0.0010	-0.0002	0.0000	-0.0008	-0.0035
Southern	UrbNpoor	Beef	-0.0153	-0.0251	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.9774	-0.0012	-0.0003	0.0000	-0.0010	-0.0044
Southern	UrbNpoor	Poultry	-0.0153	-0.0251	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.0002	-0.9784	-0.0003	0.0000	-0.0010	-0.0044
Southern	UrbNpoor	Pork	-0.0153	-0.0251	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.0002	-0.0012	-0.9774	0.0000	-0.0010	-0.0044
Southern	UrbNpoor	Mutton	-0.0153	-0.0251	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.0002	-0.0012	-0.0003	-0.9772	-0.0010	-0.0044
Southern	UrbNpoor	OlivPrd	-0.0153	-0.0251	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.0002	-0.0012	-0.0003	0.0000	-0.9782	-0.0044
Southern	UrbNpoor	Fish	-0.0153	-0.0251	0.0000	-0.0002	-0.0001	-0.0001	-0.0005	-0.0015	0.0000	0.0000	-0.0026	-0.0033	-0.0074	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0009	-0.0002	-0.0012	-0.0003	0.0000	-0.0010	-0.9816
Southern	UrbNpoor	Nagtrade	-0.0206	-0.0338	0.0000	-0.0003	-0.0001	-0.0001	-0.0007	-0.0021	0.0000	0.0000	-0.0035	-0.0045	-0.0099	0.0000	0.0000	-0.0028	-0.0032	-0.0001	-0.0001	-0.0012	-0.0003	-0.0017	-0.0004	0.0000	-0.0013	-0.0060
Southern	UrbNpoor	agntrade	-0.0167	-0.0273	0.0000	-0.0003	-0.0001	-0.0001	-0.0006	-0.0017	0.0000	0.0000	-0.0028	-0.0036	-0.0080	0.0000	0.0000	-0.0022	-0.0026	0.0000	-0.0001	-0.0010	-0.0003	-0.0013	-0.0003	0.0000	-0.0011	-0.0048

Table 4. Price elasticity in the household demand functions (C)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Southern	MtrPoor	Rice	-0.8447	-0.0735	0.0000	-0.0010	-0.0003	-0.0002	-0.0006	-0.0014	0.0000	0.0000	-0.0034	-0.0092	-0.0051	0.0000	0.0000	-0.0026	-0.0018	-0.0001	-0.0003	-0.0014	-0.0002	-0.0018	-0.0001	0.0000	-0.0008	-0.0059
Southern	MtrPoor	Wheat	-0.0827	-0.8356	0.0000	-0.0010	-0.0003	-0.0002	-0.0006	-0.0014	0.0000	0.0000	-0.0034	-0.0092	-0.0051	0.0000	0.0000	-0.0026	-0.0018	-0.0001	-0.0003	-0.0014	-0.0002	-0.0018	-0.0001	0.0000	-0.0008	-0.0059
Southern	MtrPoor	Maz_Sor	-0.0595	-0.0529	-0.5487	-0.0007	-0.0002	-0.0002	-0.0004	-0.0010	0.0000	0.0000	-0.0025	-0.0067	-0.0037	0.0000	0.0000	-0.0018	-0.0013	-0.0001	-0.0002	-0.0010	-0.0002	-0.0013	-0.0001	0.0000	-0.0006	-0.0043
Southern	MtrPoor	wPotato	-0.0138	-0.0123	0.0000	-0.1272	-0.0001	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0006	-0.0015	-0.0008	0.0000	0.0000	-0.0004	-0.0003	0.0000	-0.0001	-0.0002	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0010
Southern	MtrPoor	Cassava	-0.0138	-0.0123	0.0000	-0.0002	-0.1271	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0006	-0.0015	-0.0008	0.0000	0.0000	-0.0004	-0.0003	0.0000	-0.0001	-0.0002	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0010
Southern	MtrPoor	Cocoyam	-0.0138	-0.0123	0.0000	-0.0002	-0.0001	-0.1271	-0.0001	-0.0002	0.0000	0.0000	-0.0006	-0.0015	-0.0008	0.0000	0.0000	-0.0004	-0.0003	0.0000	-0.0001	-0.0002	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0010
Southern	MtrPoor	Yams	-0.0138	-0.0123	0.0000	-0.0002	-0.0001	0.0000	-0.1271	-0.0002	0.0000	0.0000	-0.0006	-0.0015	-0.0008	0.0000	0.0000	-0.0004	-0.0003	0.0000	-0.0001	-0.0002	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0010
Southern	MtrPoor	Oroots	-0.0138	-0.0123	0.0000	-0.0002	-0.0001	0.0000	-0.0001	-0.1272	0.0000	0.0000	-0.0006	-0.0015	-0.0008	0.0000	0.0000	-0.0004	-0.0003	0.0000	-0.0001	-0.0002	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0010
Southern	MtrPoor	Pulses	-0.0276	-0.0245	0.0000	-0.0003	-0.0001	-0.0001	-0.0002	-0.0005	-0.2540	0.0000	-0.0011	-0.0031	-0.0017	0.0000	0.0000	-0.0009	-0.0006	0.0000	-0.0001	-0.0005	-0.0001	-0.0006	0.0000	0.0000	-0.0003	-0.0020
Southern	MtrPoor	Grndnuts	-0.0276	-0.0245	0.0000	-0.0003	-0.0001	-0.0001	-0.0002	-0.0005	0.0000	-0.2540	-0.0011	-0.0031	-0.0017	0.0000	0.0000	-0.0009	-0.0006	0.0000	-0.0001	-0.0005	-0.0001	-0.0006	0.0000	0.0000	-0.0003	-0.0020
Southern	MtrPoor	Coconuts	-0.0276	-0.0245	0.0000	-0.0003	-0.0001	-0.0001	-0.0002	-0.0005	0.0000	0.0000	-0.2552	-0.0031	-0.0017	0.0000	0.0000	-0.0009	-0.0006	0.0000	-0.0001	-0.0005	-0.0001	-0.0006	0.0000	0.0000	-0.0003	-0.0020
Southern	MtrPoor	Oilpalm	-0.0367	-0.0327	0.0000	-0.0004	-0.0001	-0.0001	-0.0003	-0.0006	0.0000	0.0000	-0.0015	-0.3428	-0.0023	0.0000	0.0000	-0.0011	-0.0008	-0.0001	-0.0001	-0.0006	-0.0001	-0.0008	0.0000	0.0000	-0.0003	-0.0026
Southern	MtrPoor	Bananas	-0.0138	-0.0123	0.0000	-0.0002	-0.0001	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0006	-0.0015	-0.1279	0.0000	0.0000	-0.0004	-0.0003	0.0000	-0.0001	-0.0002	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0010
Southern	MtrPoor	Coffee	-0.0459	-0.0408	0.0000	-0.0005	-0.0002	-0.0001	-0.0003	-0.0008	0.0000	0.0000	-0.0019	-0.0051	-0.0028	-0.4234	0.0000	-0.0014	-0.0010	-0.0001	-0.0002	-0.0008	-0.0001	-0.0010	-0.0001	0.0000	-0.0004	-0.0033
Southern	MtrPoor	Cocoa	-0.0459	-0.0408	0.0000	-0.0005	-0.0002	-0.0001	-0.0003	-0.0008	0.0000	0.0000	-0.0019	-0.0051	-0.0028	0.0000	-0.4234	-0.0014	-0.0010	-0.0001	-0.0002	-0.0008	-0.0001	-0.0010	-0.0001	0.0000	-0.0004	-0.0033
Southern	MtrPoor	Vegetable	-0.0551	-0.0490	0.0000	-0.0007	-0.0002	-0.0002	-0.0004	-0.0009	0.0000	0.0000	-0.0023	-0.0062	-0.0034	0.0000	0.0000	-0.5098	-0.0012	-0.0001	-0.0002	-0.0009	-0.0001	-0.0012	-0.0001	0.0000	-0.0005	-0.0039
Southern	MtrPoor	Fruit	-0.0551	-0.0490	0.0000	-0.0007	-0.0002	-0.0002	-0.0004	-0.0009	0.0000	0.0000	-0.0023	-0.0062	-0.0034	0.0000	0.0000	-0.0017	-0.5092	-0.0001	-0.0002	-0.0009	-0.0001	-0.0012	-0.0001	0.0000	-0.0005	-0.0039
Southern	MtrPoor	Tea	-0.0459	-0.0408	0.0000	-0.0005	-0.0002	-0.0001	-0.0003	-0.0008	0.0000	0.0000	-0.0019	-0.0051	-0.0028	0.0000	0.0000	-0.0014	-0.0010	-0.4234	-0.0002	-0.0008	-0.0001	-0.0010	-0.0001	0.0000	-0.0004	-0.0033
Southern	MtrPoor	Oexcrp	-0.0452	-0.0402	0.0000	-0.0005	-0.0002	-0.0001	-0.0003	-0.0008	0.0000	0.0000	-0.0019	-0.0051	-0.0028	0.0000	0.0000	-0.0014	-0.0010	-0.0001	-0.4168	-0.0008	-0.0001	-0.0010	-0.0001	0.0000	-0.0004	-0.0032
Southern	MtrPoor	Ofdcrp	-0.0459	-0.0408	0.0000	-0.0005	-0.0002	-0.0001	-0.0003	-0.0008	0.0000	0.0000	-0.0019	-0.0051	-0.0028	0.0000	0.0000	-0.0014	-0.0010	-0.0001	-0.0002	-0.4241	-0.0001	-0.0010	-0.0001	0.0000	-0.0004	-0.0033
Southern	MtrPoor	Beef	-0.0872	-0.0776	0.0000	-0.0010	-0.0003	-0.0003	-0.0006	-0.0015	0.0000	0.0000	-0.0036	-0.0098	-0.0054	0.0000	0.0000	-0.0027	-0.0019	-0.0001	-0.0003	-0.0015	-0.8046	-0.0019	-0.0001	0.0000	-0.0008	-0.0062
Southern	MtrPoor	Poultry	-0.0928	-0.0825	-0.0001	-0.0011	-0.0003	-0.0003	-0.0006	-0.0016	0.0000	0.0000	-0.0038	-0.0104	-0.0057	0.0000	0.0000	-0.0029	-0.0020	-0.0001	-0.0003	-0.0015	-0.0002	-0.8572	-0.0001	0.0000	-0.0009	-0.0066
Southern	MtrPoor	Pork	-0.0928	-0.0825	-0.0001	-0.0011	-0.0003	-0.0003	-0.0006	-0.0016	0.0000	0.0000	-0.0038	-0.0104	-0.0057	0.0000	0.0000	-0.0029	-0.0020	-0.0001	-0.0003	-0.0015	-0.0002	-0.0020	-0.8553	0.0000	-0.0009	-0.0066
Southern	MtrPoor	Mutton	-0.0872	-0.0776	0.0000	-0.0010	-0.0003	-0.0003	-0.0006	-0.0015	0.0000	0.0000	-0.0036	-0.0098	-0.0054	0.0000	0.0000	-0.0027	-0.0019	-0.0001	-0.0003	-0.0015	-0.0002	-0.0019	-0.0001	-0.8044	-0.0008	-0.0062
Southern	MtrPoor	OlivPrd	-0.0872	-0.0776	0.0000	-0.0010	-0.0003	-0.0003	-0.0006	-0.0015	0.0000	0.0000	-0.0036	-0.0098	-0.0054	0.0000	0.0000	-0.0027	-0.0019	-0.0001	-0.0003	-0.0015	-0.0002	-0.0019	-0.0001	0.0000	-0.8052	-0.0062
Southern	MtrPoor	Fish	-0.0928	-0.0825	-0.0001	-0.0011	-0.0003	-0.0003	-0.0006	-0.0016	0.0000	0.0000	-0.0038	-0.0104	-0.0057	0.0000	0.0000	-0.0029	-0.0020	-0.0001	-0.0003	-0.0015	-0.0002	-0.0020	-0.0001	0.0000	-0.0009	-0.8618
Southern	MtrPoor	Nagtrade	-0.1178	-0.1047	-0.0001	-0.0014	-0.0004	-0.0003	-0.0008	-0.0020	0.0000	0.0000	-0.0049	-0.0132	-0.0072	0.0000	0.0000	-0.0037	-0.0025	-0.0002	-0.0004	-0.0020	-0.0003	-0.0025	-0.0001	0.0000	-0.0011	-0.0084
Southern	MtrPoor	Agntrade	-0.0935	-0.0832	-0.0001	-0.0011	-0.0003	-0.0003	-0.0006	-0.0016	0.0000	0.0000	-0.0039	-0.0105	-0.0057	0.0000	0.0000	-0.0029	-0.0020	-0.0001	-0.0004	-0.0016	-0.0002	-0.0020	-0.0001	0.0000	-0.0009	-0.0067
Southern	MtrNpoor	Rice	-0.8881	-0.0205	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0004	0.0000	0.0000	-0.0026	-0.0051	-0.0032	0.0000	0.0000	-0.0033	-0.0009	0.0000	-0.0001	-0.0007	-0.0007	-0.0014	-0.0001	0.0000	-0.0006	-0.0025
Southern	MtrNpoor	Wheat	-0.0122	-0.8965	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0004	0.0000	0.0000	-0.0026	-0.0051	-0.0032	0.0000	0.0000	-0.0033	-0.0009	0.0000	-0.0001	-0.0007	-0.0007	-0.0014	-0.0001	0.0000	-0.0006	-0.0025
Southern	MtrNpoor	Maz_Sor	-0.0088	-0.0148	-0.6307	-0.0003	-0.0001	0.0000	-0.0001	-0.0003	0.0000	0.0000	-0.0019	-0.0037	-0.0023	0.0000	0.0000	-0.0024	-0.0006	0.0000	-0.0001	-0.0005	-0.0005	-0.0010	-0.0001	0.0000	-0.0004	-0.0018
Southern	MtrNpoor	wPotato	-0.0020	-0.0034	0.0000	-0.1461	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0004	-0.0009	-0.0005	0.0000	0.0000	-0.0006	-0.0001	0.0000	0.0000	-0.0001	-0.0001	-0.0002	0.0000	0.0000	-0.0001	-0.0004
Southern	MtrNpoor	Cassava	-0.0020	-0.0034	0.0000	-0.0001	-0.1460	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0004	-0.0009	-0.0005	0.0000	0.0000	-0.0006	-0.0001	0.0000	0.0000	-0.0001	-0.0001	-0.0002	0.0000	0.0000	-0.0001	-0.0004
Southern	MtrNpoor	Cocoyam	-0.0020	-0.0034	0.0000	-0.0001	0.0000	-0.1460	0.0000	-0.0001	0.0000	0.0000	-0.0004	-0.0009	-0.0005	0.0000	0.0000	-0.0006	-0.0001	0.0000	0.0000	-0.0001	-0.0001	-0.0002	0.0000	0.0000	-0.0001	-0.0004
Southern	MtrNpoor	Yams	-0.0020	-0.0034	0.0000	-0.0001	0.0000	0.0000	-0.1460	-0.0001	0.0000	0.0000	-0.0004	-0.0009	-0.0005	0.0000	0.0000	-0.0006	-0.0001	0.0000	0.0000	-0.0001	-0.0001	-0.0002	0.0000	0.0000	-0.0001	-0.0004
Southern	MtrNpoor	Oroots	-0.0020	-0.0034	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.1461	0.0000	0.0000	-0.0004	-0.0009	-0.0005	0.0000	0.0000	-0.0006	-0.0001	0.0000	0.0000	-0.0001	-0.0001	-0.0002	0.0000	0.0000	-0.0001	-0.0004
Southern	MtrNpoor	Pulses	-0.0041	-0.0068	0.0000	-0.0002	0.0000	0.0000	0.0000	-0.0001	-0.2920	0.0000	-0.0009	-0.0017	-0.0011	0.0000	0.0000	-0.0011	-0.0003	0.0000	0.0000	-0.0002	-0.0002	-0.0005	0.0000	0.0000	-0.0002	-0.0008
Southern	MtrNpoor	Grndnuts	-0.0041	-0.0068	0.0000	-0.0002	0.0000	0.0000	0.0000	-0.0001	0.0000	-0.2920	-0.0009	-0.0017	-0.0011	0.0000	0.0000	-0.0011	-0.0003	0.0000	0.0000	-0.0002	-0.0002	-0.0005	0.0000	0.0000	-0.0002	-0.0008
Southern	MtrNpoor	Coconuts	-0.0041	-0.0068	0.0000	-0.0002	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.2929	-0.0017	-0.0011	0.0000	0.0000	-0.0011	-0.0003	0.0000	0.0000	-0.0002	-0.0002	-0.0005	0.0000	0.0000	-0.0002	-0.0008
Southern	MtrNpoor	Oilpalm	-0.0054	-0.0091	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0012	-0.3916	-0.0014	0.0000	0.0000	-0.0015	-0.0004	0.0000	0.0000	-0.0003	-0.0003	-0.0006	-0.0001	0.0000	-0.0002	-0.0011
Southern	MtrNpoor	Bananas	-0.0020	-0.0034	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0004	-0.0009	-0.1465	0.0000	0.0000	-0.0006	-0.0001	0.0000	0.0000	-0.0001	-0.0001	-0.0002	0.0000	0.0000	-0.0001	-0.0004
Southern	MtrNpoor	Coffee	-0.0068	-0.0114	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0015	-0.0029	-0.0018	-0.4866	0.0000	-0.0019	-0.0005	0.0000	-0.0001	-0.0004	-0.0004	-0.0008	-0.0001	0.0000	-0.0003	-0.0014
Southern	MtrNpoor	Cocoa	-0.0068	-0.0114	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0015	-0.0029	-0.0018	0.0000	-0.4866	-0.0019	-0.0005	0.0000	-0.0001	-0.0004	-0.0004	-0.0008	-0.0001	0.0000	-0.0003	-0.0014
Southern	MtrNpoor	Vegetable	-0.0081	-0.0137	-0.0001	-0.0003	0.0000	0.0000	-0.0001	-0.0003	0.0000	0.0000	-0.0017	-0.0034	-0.0022	0.0000	0.0000	-0.5862	-0.0006	0.0000	-0.0001	-0.0005	-0.0005	-0.0009	-0.0001	0.0000	-0.0004	-0.0017
Southern	MtrNpoor	Fruit	-0.0081	-0.0137	-0.0001	-0.0003	0.0000	0.0000	-0.0001	-0.0003	0.0000	0.0000	-0.0017	-0.0034	-0.0022	0.0000	0.0000	-0.0022	-0.5846	0.0000	-0.0001	-0.0005	-0.0005	-0.0009	-0.0001	0.0000	-0.0004	-0.0017
Southern	MtrNpoor	Tea	-0.0068	-0.0114	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0015	-0.0029	-0.0018	0.0000	0.0000	-0.0019	-0.0005	-0.4867	-0.0001	-0.0004	-0.0004	-0.0008	-0.0001	0.0000	-0.0003	-0.0014
Southern	MtrNpoor	Oexcrp	-0.0066	-0.0112	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0014	-0.0028	-0.0018	0.0000	0.0000	-0.0018	-0.0005	0.0000	-0.4789	-0.0004	-0.0004	-0.0008	-0.0001	0.0000	-0.0003	-0.0014
Southern	MtrNpoor	Ofdcrp	-0.0068	-0.0114	0.0000	-0.0003	0.0000	0.0000	-0.0001	-0.0002	0.0000	0.0000	-0.0015	-0.0029	-0.0018	0.0000	0.0000	-0.0019	-0.0005	0.0000	-0.0001	-0.4870	-0.0004	-0.0008	-0.0001	0.0000	-0.0003	-0.0014
Southern	MtrNpoor	Beef	-0.0128	-0.0217	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0004	0.0000	0.0000	-0.0028	-0.0054	-0.0034	0.0000	0.0000	-0.0035	-0.0009	0.0000	-0.0001	-0.0007	-0.9254	-0.0015	-0.0001	0.0000	-0.0006	-0.0026
Southern	MtrNpoor	Poultry	-0.0136	-0.0230	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0005	0.0000	0.0000	-0.0029	-0.0058	-0.0036	0.0000	0.0000	-0.0038	-0.0010	0.0000	-0.0001	-0.0008	-0.0008	-0.9846	-0.0002	0.0000	-0.0006	-0.0028
Southern	MtrNpoor	Pork	-0.0136	-0.0230	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0005	0.0000	0.0000	-0.0029	-0.0058	-0.0036	0.0000	0.0000	-0.0038	-0.0010	0.0000	-0.0001	-0.0008	-0.0008	-0.0016	-0.9832	0.0000	-0.0006	-0.0028
Southern	MtrNpoor	Mutton	-0.0128	-0.0217	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0004	0.0000	0.0000	-0.0028	-0.0054	-0.0034	0.0000	0.0000	-0.0035	-0.0009	0.0000	-0.0001	-0.0007	-0.0007	-0.0015	-0.0001	-0.9246	-0.0006	-0.0026
Southern	MtrNpoor	OlivPrd	-0.0128	-0.0217	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0004	0.0000	0.0000	-0.0028	-0.0054	-0.0034	0.0000	0.0000	-0.0035	-0.0009	0.0000	-0.0001	-0.0007	-0.0007	-0.0015	-0.0001	0.0000	-0.9252	-0.0026
Southern	MtrNpoor	Fish	-0.0136	-0.0230	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0005	0.0000	0.0000	-0.0029	-0.0058	-0.0036	0.0000	0.0000	-0.0038	-0.0010	0.0000	-0.0001	-0.0008	-0.0008	-0.0016	-0.0002	0.0000	-0.0006	-0.9858
Southern	MtrNpoor	Nagtrade	-0.0184	-0.0310	-0.0001	-0.0007	-0.0001	0.0000	-0.0002	-0.0006	0.0000	0.0000	-0.0039	-0.0078	-0.0049	0.0000	0.0000	-0.0051	-0.0014	-0.0001	-0.0002	-0.0010	-0.0011	-0.0021	-0.0002	0.0000	-0.0008	-0.0038
Southern	MtrNpoor	Agntrade	-0.0146	-0.0246	-0.0001	-0.0005	-0.0001	0.0000	-0.0001	-0.0005	0.0000	0.0000	-0.0031	-0.0062	-0.0039	0.0000	0.0000	-0.0040	-0.0011	-0.0001	-0.0001	-0.0008	-0.0008	-0.0017	-0.0002	0.0000	-0.0007	-0.0030

Table 4. Price elasticity in the household demand functions (D)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Momase	RurPoor	Rice	-0.8396	-0.0400	-0.0007	-0.0182	-0.0069	-0.0147	-0.0239	-0.0543	-0.0002	-0.0001	-0.0373	-0.0028	-0.0405	0.0000	0.0000	-0.0235	-0.0261	0.0000	-0.0001	-0.0048	0.0000	-0.0007	-0.0016	0.0000	-0.0015	-0.0170
Momase	RurPoor	Wheat	-0.0766	-0.7970	-0.0007	-0.0180	-0.0069	-0.0146	-0.0237	-0.0539	-0.0002	-0.0001	-0.0371	-0.0028	-0.0402	0.0000	0.0000	-0.0233	-0.0260	0.0000	-0.0001	-0.0047	0.0000	-0.0007	-0.0016	0.0000	-0.0015	-0.0169
Momase	RurPoor	Maz_Sor	-0.0674	-0.0349	-0.6669	-0.0159	-0.0061	-0.0128	-0.0209	-0.0474	-0.0002	-0.0001	-0.0326	-0.0024	-0.0354	0.0000	0.0000	-0.0205	-0.0228	0.0000	-0.0001	-0.0042	0.0000	-0.0006	-0.0014	0.0000	-0.0013	-0.0149
Momase	RurPoor	wPotato	-0.0468	-0.0243	-0.0004	-0.4740	-0.0042	-0.0089	-0.0145	-0.0330	-0.0001	-0.0001	-0.0227	-0.0017	-0.0246	0.0000	0.0000	-0.0143	-0.0159	0.0000	-0.0001	-0.0029	0.0000	-0.0004	-0.0010	0.0000	-0.0009	-0.0103
Momase	RurPoor	Cassava	-0.0468	-0.0243	-0.0004	-0.0110	-0.4671	-0.0089	-0.0145	-0.0330	-0.0001	-0.0001	-0.0227	-0.0017	-0.0246	0.0000	0.0000	-0.0143	-0.0159	0.0000	-0.0001	-0.0029	0.0000	-0.0004	-0.0010	0.0000	-0.0009	-0.0103
Momase	RurPoor	Cocoyam	-0.0468	-0.0243	-0.0004	-0.0110	-0.0042	-0.4718	-0.0145	-0.0330	-0.0001	-0.0001	-0.0227	-0.0017	-0.0246	0.0000	0.0000	-0.0143	-0.0159	0.0000	-0.0001	-0.0029	0.0000	-0.0004	-0.0010	0.0000	-0.0009	-0.0103
Momase	RurPoor	Yams	-0.0468	-0.0243	-0.0004	-0.0110	-0.0042	-0.0089	-0.4774	-0.0330	-0.0001	-0.0001	-0.0227	-0.0017	-0.0246	0.0000	0.0000	-0.0143	-0.0159	0.0000	-0.0001	-0.0029	0.0000	-0.0004	-0.0010	0.0000	-0.0009	-0.0103
Momase	RurPoor	Oroots	-0.0468	-0.0243	-0.0004	-0.0110	-0.0042	-0.0089	-0.0145	-0.4959	-0.0001	-0.0001	-0.0227	-0.0017	-0.0246	0.0000	0.0000	-0.0143	-0.0159	0.0000	-0.0001	-0.0029	0.0000	-0.0004	-0.0010	0.0000	-0.0009	-0.0103
Momase	RurPoor	Pulses	-0.0578	-0.0300	-0.0005	-0.0136	-0.0052	-0.0110	-0.0179	-0.0407	-0.5716	-0.0001	-0.0280	-0.0021	-0.0304	0.0000	0.0000	-0.0176	-0.0196	0.0000	-0.0001	-0.0036	0.0000	-0.0005	-0.0012	0.0000	-0.0011	-0.0128
Momase	RurPoor	Grndnuts	-0.0578	-0.0300	-0.0005	-0.0136	-0.0052	-0.0110	-0.0179	-0.0407	-0.0002	-0.5715	-0.0280	-0.0021	-0.0304	0.0000	0.0000	-0.0176	-0.0196	0.0000	-0.0001	-0.0036	0.0000	-0.0005	-0.0012	0.0000	-0.0011	-0.0128
Momase	RurPoor	Coconuts	-0.0674	-0.0349	-0.0006	-0.0159	-0.0061	-0.0128	-0.0209	-0.0474	-0.0002	-0.0001	-0.6989	-0.0024	-0.0354	0.0000	0.0000	-0.0205	-0.0228	0.0000	-0.0001	-0.0042	0.0000	-0.0006	-0.0014	0.0000	-0.0013	-0.0149
Momase	RurPoor	Oilpalm	-0.0674	-0.0349	-0.0006	-0.0159	-0.0061	-0.0128	-0.0209	-0.0474	-0.0002	-0.0001	-0.0326	-0.6687	-0.0354	0.0000	0.0000	-0.0205	-0.0228	0.0000	-0.0001	-0.0042	0.0000	-0.0006	-0.0014	0.0000	-0.0013	-0.0149
Momase	RurPoor	Bananas	-0.0578	-0.0300	-0.0005	-0.0136	-0.0052	-0.0110	-0.0179	-0.0407	-0.0002	-0.0001	-0.0280	-0.0021	-0.6018	0.0000	0.0000	-0.0176	-0.0196	0.0000	-0.0001	-0.0036	0.0000	-0.0005	-0.0012	0.0000	-0.0011	-0.0128
Momase	RurPoor	Coffee	-0.0711	-0.0369	-0.0007	-0.0167	-0.0064	-0.0135	-0.0221	-0.0501	-0.0002	-0.0001	-0.0344	-0.0026	-0.0374	-0.7033	0.0000	-0.0217	-0.0241	0.0000	-0.0001	-0.0044	0.0000	-0.0007	-0.0015	0.0000	-0.0014	-0.0157
Momase	RurPoor	Cocoa	-0.0578	-0.0300	-0.0005	-0.0136	-0.0052	-0.0110	-0.0179	-0.0407	-0.0002	-0.0001	-0.0280	-0.0021	-0.0304	0.0000	-0.5714	-0.0176	-0.0196	0.0000	-0.0001	-0.0036	0.0000	-0.0005	-0.0012	0.0000	-0.0011	-0.0128
Momase	RurPoor	Vegetable	-0.0712	-0.0369	-0.0007	-0.0168	-0.0064	-0.0135	-0.0221	-0.0501	-0.0002	-0.0001	-0.0344	-0.0026	-0.0374	0.0000	0.0000	-0.7251	-0.0241	0.0000	-0.0001	-0.0044	0.0000	-0.0007	-0.0015	0.0000	-0.0014	-0.0157
Momase	RurPoor	Fruit	-0.0712	-0.0369	-0.0007	-0.0168	-0.0064	-0.0135	-0.0221	-0.0501	-0.0002	-0.0001	-0.0344	-0.0026	-0.0374	0.0000	0.0000	-0.0217	-0.7275	0.0000	-0.0001	-0.0044	0.0000	-0.0007	-0.0015	0.0000	-0.0014	-0.0157
Momase	RurPoor	Tea	-0.0712	-0.0369	-0.0007	-0.0168	-0.0064	-0.0135	-0.0221	-0.0501	-0.0002	-0.0001	-0.0344	-0.0026	-0.0374	0.0000	0.0000	-0.0217	-0.0241	-0.7035	-0.0001	-0.0044	0.0000	-0.0007	-0.0015	0.0000	-0.0014	-0.0157
Momase	RurPoor	Oexcrp	-0.0418	-0.0217	-0.0004	-0.0098	-0.0038	-0.0079	-0.0130	-0.0294	-0.0001	-0.0001	-0.0202	-0.0015	-0.0220	0.0000	0.0000	-0.0127	-0.0142	0.0000	-0.4134	-0.0026	0.0000	-0.0004	-0.0009	0.0000	-0.0008	-0.0092
Momase	RurPoor	Ofdcrp	-0.0712	-0.0369	-0.0007	-0.0168	-0.0064	-0.0135	-0.0221	-0.0501	-0.0002	-0.0001	-0.0344	-0.0026	-0.0374	0.0000	0.0000	-0.0217	-0.0241	0.0000	-0.0001	-0.7078	0.0000	-0.0007	-0.0015	0.0000	-0.0014	-0.0157
Momase	RurPoor	Beef	-0.0786	-0.0408	-0.0007	-0.0185	-0.0071	-0.0149	-0.0244	-0.0553	-0.0002	-0.0002	-0.0380	-0.0028	-0.0413	0.0000	0.0000	-0.0240	-0.0266	0.0000	-0.0001	-0.0049	-0.7773	-0.0007	-0.0017	0.0000	-0.0015	-0.0174
Momase	RurPoor	Poultry	-0.0786	-0.0408	-0.0007	-0.0185	-0.0071	-0.0149	-0.0244	-0.0553	-0.0002	-0.0002	-0.0380	-0.0028	-0.0413	0.0000	0.0000	-0.0240	-0.0266	0.0000	-0.0001	-0.0049	0.0000	-0.7780	-0.0017	0.0000	-0.0015	-0.0174
Momase	RurPoor	Pork	-0.0786	-0.0408	-0.0007	-0.0185	-0.0071	-0.0149	-0.0244	-0.0553	-0.0002	-0.0002	-0.0380	-0.0028	-0.0413	0.0000	0.0000	-0.0240	-0.0266	0.0000	-0.0001	-0.0049	0.0000	-0.0007	-0.7790	0.0000	-0.0015	-0.0174
Momase	RurPoor	Mutton	-0.0786	-0.0408	-0.0007	-0.0185	-0.0071	-0.0149	-0.0244	-0.0553	-0.0002	-0.0002	-0.0380	-0.0028	-0.0413	0.0000	0.0000	-0.0240	-0.0266	0.0000	-0.0001	-0.0049	0.0000	-0.0007	-0.0017	-0.7773	-0.0015	-0.0174
Momase	RurPoor	OlivPrd	-0.0786	-0.0408	-0.0007	-0.0185	-0.0071	-0.0149	-0.0244	-0.0553	-0.0002	-0.0002	-0.0380	-0.0028	-0.0413	0.0000	0.0000	-0.0240	-0.0266	0.0000	-0.0001	-0.0049	0.0000	-0.0007	-0.0017	0.0000	-0.7789	-0.0174
Momase	RurPoor	Fish	-0.0786	-0.0408	-0.0007	-0.0185	-0.0071	-0.0149	-0.0244	-0.0553	-0.0002	-0.0002	-0.0380	-0.0028	-0.0413	0.0000	0.0000	-0.0240	-0.0266	0.0000	-0.0001	-0.0049	0.0000	-0.0007	-0.0017	0.0000	-0.0015	-0.7947
Momase	RurPoor	Magtrade	-0.1023	-0.0530	-0.0009	-0.0241	-0.0092	-0.0194	-0.0317	-0.0720	-0.0003	-0.0002	-0.0495	-0.0037	-0.0537	0.0000	-0.0001	-0.0312	-0.0347	0.0000	-0.0001	-0.0063	0.0000	-0.0009	-0.0022	0.0000	-0.0020	-0.0226
Momase	RurPoor	Agntrade	-0.0768	-0.0398	-0.0007	-0.0181	-0.0069	-0.0146	-0.0238	-0.0541	-0.0002	-0.0001	-0.0372	-0.0028	-0.0403	0.0000	0.0000	-0.0234	-0.0260	0.0000	-0.0001	-0.0047	0.0000	-0.0007	-0.0016	0.0000	-0.0015	-0.0170
Momase	RurNpoor	Rice	-0.9376	-0.0073	-0.0003	-0.0008	-0.0007	-0.0031	-0.0138	-0.0121	0.0000	-0.0001	-0.0103	-0.0089	-0.0250	0.0000	0.0000	-0.0141	-0.0175	0.0000	-0.0001	-0.0040	-0.0001	-0.0017	-0.0065	0.0000	-0.0006	-0.0170
Momase	RurNpoor	Wheat	-0.0059	-0.9325	-0.0003	-0.0008	-0.0007	-0.0031	-0.0138	-0.0120	0.0000	-0.0001	-0.0102	-0.0089	-0.0248	0.0000	0.0000	-0.0140	-0.0174	0.0000	-0.0001	-0.0040	-0.0001	-0.0017	-0.0065	0.0000	-0.0006	-0.0169
Momase	RurNpoor	Maz_Sor	-0.0052	-0.0063	-0.8143	-0.0007	-0.0006	-0.0027	-0.0121	-0.0106	0.0000	-0.0001	-0.0090	-0.0078	-0.0218	0.0000	0.0000	-0.0123	-0.0153	0.0000	-0.0001	-0.0035	-0.0001	-0.0015	-0.0057	0.0000	-0.0006	-0.0148
Momase	RurNpoor	SwPotato	-0.0036	-0.0044	-0.0002	-0.5661	-0.0004	-0.0019	-0.0084	-0.0074	0.0000	-0.0001	-0.0063	-0.0054	-0.0152	0.0000	0.0000	-0.0086	-0.0106	0.0000	-0.0001	-0.0025	0.0000	-0.0010	-0.0039	0.0000	-0.0004	-0.0103
Momase	RurNpoor	Cassava	-0.0036	-0.0044	-0.0002	-0.0005	-0.5660	-0.0019	-0.0084	-0.0074	0.0000	-0.0001	-0.0063	-0.0054	-0.0152	0.0000	0.0000	-0.0086	-0.0106	0.0000	-0.0001	-0.0025	0.0000	-0.0010	-0.0039	0.0000	-0.0004	-0.0103
Momase	RurNpoor	Cocoyam	-0.0036	-0.0044	-0.0002	-0.0005	-0.0004	-0.5675	-0.0084	-0.0074	0.0000	-0.0001	-0.0063	-0.0054	-0.0152	0.0000	0.0000	-0.0086	-0.0106	0.0000	-0.0001	-0.0025	0.0000	-0.0010	-0.0039	0.0000	-0.0004	-0.0103
Momase	RurNpoor	Yams	-0.0036	-0.0044	-0.0002	-0.0005	-0.0004	-0.0019	-0.5740	-0.0074	0.0000	-0.0001	-0.0063	-0.0054	-0.0152	0.0000	0.0000	-0.0086	-0.0106	0.0000	-0.0001	-0.0025	0.0000	-0.0010	-0.0039	0.0000	-0.0004	-0.0103
Momase	RurNpoor	Oroots	-0.0036	-0.0044	-0.0002	-0.0005	-0.0004	-0.0019	-0.0084	-0.5730	0.0000	-0.0001	-0.0063	-0.0054	-0.0152	0.0000	0.0000	-0.0086	-0.0106	0.0000	-0.0001	-0.0025	0.0000	-0.0010	-0.0039	0.0000	-0.0004	-0.0103
Momase	RurNpoor	Pulses	-0.0045	-0.0054	-0.0002	-0.0006	-0.0005	-0.0024	-0.0104	-0.0091	-0.6982	-0.0001	-0.0077	-0.0067	-0.0187	0.0000	0.0000	-0.0106	-0.0131	0.0000	-0.0001	-0.0030	0.0000	-0.0013	-0.0049	0.0000	-0.0005	-0.0127
Momase	RurNpoor	Grndnuts	-0.0045	-0.0054	-0.0002	-0.0006	-0.0005	-0.0024	-0.0104	-0.0091	0.0000	-0.6982	-0.0077	-0.0067	-0.0187	0.0000	0.0000	-0.0106	-0.0131	0.0000	-0.0001	-0.0030	0.0000	-0.0013	-0.0049	0.0000	-0.0005	-0.0127
Momase	RurNpoor	Coconuts	-0.0052	-0.0063	-0.0003	-0.0007	-0.0006	-0.0027	-0.0121	-0.0106	0.0000	-0.0001	-0.8231	-0.0078	-0.0218	0.0000	0.0000	-0.0123	-0.0153	0.0000	-0.0001	-0.0035	-0.0001	-0.0015	-0.0057	0.0000	-0.0006	-0.0148
Momase	RurNpoor	Oilpalm	-0.0052	-0.0063	-0.0003	-0.0007	-0.0006	-0.0027	-0.0121	-0.0106	0.0000	-0.0001	-0.0090	-0.8219	-0.0218	0.0000	0.0000	-0.0123	-0.0153	0.0000	-0.0001	-0.0035	-0.0001	-0.0015	-0.0057	0.0000	-0.0006	-0.0148
Momase	RurNpoor	Bananas	-0.0045	-0.0054	-0.0002	-0.0006	-0.0005	-0.0024	-0.0104	-0.0091	0.0000	-0.0001	-0.0077	-0.0067	-0.7168	0.0000	0.0000	-0.0106	-0.0131	0.0000	-0.0001	-0.0030	0.0000	-0.0013	-0.0049	0.0000	-0.0005	-0.0127
Momase	RurNpoor	Coffee	-0.0055	-0.0067	-0.0003	-0.0007	-0.0006	-0.0029	-0.0128	-0.0112	0.0000	-0.0001	-0.0095	-0.0082	-0.0230	-0.8593	0.0000	-0.0130	-0.0162	0.0000	-0.0001	-0.0037	-0.0001	-0.0016	-0.0060	0.0000	-0.0006	-0.0157
Momase	RurNpoor	Cocoa	-0.0045	-0.0054	-0.0002	-0.0006	-0.0005	-0.0024	-0.0104	-0.0091	0.0000	-0.0001	-0.0077	-0.0067	-0.0187	0.0000	-0.6981	-0.0106	-0.0131	0.0000	-0.0001	-0.0030	0.0000	-0.0013	-0.0049	0.0000	-0.0005	-0.0127
Momase	RurNpoor	Vegetable	-0.0055	-0.0067	-0.0003	-0.0007	-0.0006	-0.0029	-0.0128	-0.0112	0.0000	-0.0001	-0.0095	-0.0082	-0.0230	0.0000	0.0000	-0.8725	-0.0162	0.0000	-0.0001	-0.0037	-0.0001	-0.0016	-0.0060	0.0000	-0.0006	-0.0157
Momase	RurNpoor	Fruit	-0.0055	-0.0067	-0.0003	-0.0007	-0.0006	-0.0029	-0.0128	-0.0112	0.0000	-0.0001	-0.0095	-0.0082	-0.0230	0.0000	0.0000	-0.0130	-0.8756	0.0000	-0.0001	-0.0037	-0.0001	-0.0016	-0.0060	0.0000	-0.0006	-0.0157
Momase	RurNpoor	Tea	-0.0055	-0.0067	-0.0003	-0.0007	-0.0006	-0.0029	-0.0128	-0.0112	0.0000	-0.0001	-0.0095	-0.0082	-0.0230	0.0000	0.0000	-0.0130	-0.0162	-0.8595	-0.0001	-0.0037	-0.0001	-0.0016	-0.0060	0.0000	-0.0006	-0.0157
Momase	RurNpoor	Oexcrp	-0.0032	-0.0039	-0.0002	-0.0004	-0.0004	-0.0017	-0.0075	-0.0066	0.0000	0.0000	-0.0056	-0.0048	-0.0135	0.0000	0.0000	-0.0076	-0.0095	0.0000	-0.5051	-0.0022	0.0000	-0.0009	-0.0035	0.0000	-0.0004	-0.0092
Momase	RurNpoor	Ofdcrp	-0.0055	-0.0067	-0.0003	-0.0007	-0.0006	-0.0029	-0.0128	-0.0112	0.0000	-0.0001	-0.0095	-0.0082	-0.0230	0.0000	0.0000	-0.0130	-0.0162	0.0000	-0.0001	-0.8632	-0.0001	-0.0016	-0.0060	0.0000	-0.0006	-0.0157
Momase	RurNpoor	Beef	-0.0061	-0.0074	-0.0003	-0.0008	-0.0007	-0.0032	-0.0141	-0.0124	0.0000	-0.0001	-0.0105	-0.0091	-0.0254	0.0000	0.0000	-0.0144	-0.0179	0.0000	-0.0001	-0.0041	-0.9498	-0.0018	-0.0066	0.0000	-0.0007	-0.0173
Momase	RurNpoor	Poultry	-0.0061	-0.0074	-0.0003	-0.0008	-0.0007	-0.0032	-0.0141	-0.0124	0.0000	-0.0001	-0.0105	-0.0091	-0.0254	0.0000	0.0000	-0.0144	-0.0179	0.0000	-0.0001	-0.0041	-0.0001	-0.9515	-0.0066	0.0000	-0.0007	-0.0173
Momase	RurNpoor	Pork	-0.0061	-0.0074	-0.0003	-0.0008	-0.0007	-0.0032	-0.0141	-0.0124	0.0000	-0.0001	-0.0105	-0.0091	-0.0254	0.0000	0.0000	-0.0144	-0.0179	0.0000	-0.0001	-0.0041	-0.0001	-0.0018	-0.9564	0.0000	-0.0007	-0.0173
Momase	RurNpoor	Mutton	-0.0061	-0.0074	-0.0003	-0.0008	-0.0007	-0.0032	-0.0141	-0.0124	0.0000	-0.0001	-0.0105	-0.0091	-0.0254	0.0000	0.0000	-0.0144	-0.0179	0.0000	-0.0001	-0.0041	-0.0001	-0.0018	-0.0066	-0.9497	-0.0007	-0.0173
Momase	RurNpoor	OlivPrd	-0.0061	-0.0074	-0.0003	-0.0008	-0.0007	-0.0032	-0.0141	-0.0124	0.0000	-0.0001	-0.0105	-0.0091	-0.0254	0.0000	0.0000	-0.0144	-0.0179	0.0000	-0.0001	-0.0041	-0.0001	-0.0018	-0.0066	0.0000	-0.9504	-0.0173
Momase	RurNpoor	Fish	-0.0061	-0.0074	-0.0003	-0.0008	-0.0007	-0.0032	-0.0141	-0.0124	0.0000	-0.0001	-0.0105	-0.0091	-0.0254	0.0000	0.0000	-0.0144	-0.0179	0.0000	-0.0001	-0.0041	-0.0001	-0.0018	-0.0066	0.0000	-0.0007	-0.9671
Momase	RurNpoor	Magtrade	-0.0086	-0.0104	-0.0004	-0.0011	-0.0010	-0.0045	-0.0199	-0.0174	-0.0001	-0.0001	-0.0148	-0.0128	-0.0359	0.0000	0.0000	-0.0202	-0.0252	-0.0001	-0.0001	-0.0058	-0.0001	-0.0025	-0.0093	0.0000	-0.0009	-0.0244
Momase	RurNpoor	Agntrade	-0.0065	-0.0078	-0.0003	-0.0008	-0.0007	-0.0034	-0.0149	-0.0131	0.0000	-0.0001	-0.0111	-0.0096	-0.0269	0.0000	0.0000	-0.0152	-0.0189	0.0000	-0.0001	-0.0044	-0.0001	-0.0019	-0.0070	0.0000	-0.0007	-0.0183

Table 4. Price elasticity in the household demand functions (E)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Momase	UrbPoor	Rice	-0.9137	-0.0626	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.0001	-0.0023	-0.0005	0.0000	-0.0007	-0.0054
Momase	UrbPoor	Wheat	-0.0921	-0.8842	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.0001	-0.0023	-0.0005	0.0000	-0.0007	-0.0054
Momase	UrbPoor	Maz_Sor	-0.0648	-0.0440	-0.5783	-0.0018	-0.0004	-0.0010	-0.0010	-0.0045	0.0000	0.0000	-0.0053	-0.0055	-0.0051	0.0000	0.0000	-0.0041	-0.0034	-0.0001	-0.0002	-0.0011	-0.0001	-0.0016	-0.0003	0.0000	-0.0005	-0.0038
Momase	UrbPoor	wPotato	-0.0177	-0.0120	0.0000	-0.1583	-0.0001	-0.0003	-0.0003	-0.0012	0.0000	0.0000	-0.0015	-0.0015	-0.0014	0.0000	0.0000	-0.0011	-0.0009	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0001	-0.0010
Momase	UrbPoor	Cassava	-0.0177	-0.0120	0.0000	-0.0005	-0.1579	-0.0003	-0.0003	-0.0012	0.0000	0.0000	-0.0015	-0.0015	-0.0014	0.0000	0.0000	-0.0011	-0.0009	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0001	-0.0010
Momase	UrbPoor	Cocoyam	-0.0177	-0.0120	0.0000	-0.0005	-0.0001	-0.1581	-0.0003	-0.0012	0.0000	0.0000	-0.0015	-0.0015	-0.0014	0.0000	0.0000	-0.0011	-0.0009	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0001	-0.0010
Momase	UrbPoor	Yams	-0.0177	-0.0120	0.0000	-0.0005	-0.0001	-0.0003	-0.1581	-0.0012	0.0000	0.0000	-0.0015	-0.0015	-0.0014	0.0000	0.0000	-0.0011	-0.0009	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0001	-0.0010
Momase	UrbPoor	Oroots	-0.0177	-0.0120	0.0000	-0.0005	-0.0001	-0.0003	-0.0003	-0.1590	0.0000	0.0000	-0.0015	-0.0015	-0.0014	0.0000	0.0000	-0.0011	-0.0009	0.0000	-0.0001	-0.0003	0.0000	-0.0004	-0.0001	0.0000	-0.0001	-0.0010
Momase	UrbPoor	Pulses	-0.0360	-0.0245	0.0000	-0.0010	-0.0002	-0.0006	-0.0006	-0.0025	-0.3213	0.0000	-0.0030	-0.0031	-0.0028	0.0000	0.0000	-0.0023	-0.0019	-0.0001	-0.0001	-0.0006	-0.0001	-0.0009	-0.0002	0.0000	-0.0003	-0.0021
Momase	UrbPoor	Grndnuts	-0.0360	-0.0245	0.0000	-0.0010	-0.0002	-0.0006	-0.0006	-0.0025	0.0000	-0.3213	-0.0030	-0.0031	-0.0028	0.0000	0.0000	-0.0023	-0.0019	-0.0001	-0.0001	-0.0006	-0.0001	-0.0009	-0.0002	0.0000	-0.0003	-0.0021
Momase	UrbPoor	Coconuts	-0.0360	-0.0245	0.0000	-0.0010	-0.0002	-0.0006	-0.0006	-0.0025	0.0000	0.0000	-0.3242	-0.0031	-0.0028	0.0000	0.0000	-0.0023	-0.0019	-0.0001	-0.0001	-0.0006	-0.0001	-0.0009	-0.0002	0.0000	-0.0003	-0.0021
Momase	UrbPoor	Oilpalm	-0.0535	-0.0363	-0.0001	-0.0015	-0.0003	-0.0009	-0.0008	-0.0037	0.0000	0.0000	-0.0044	-0.4818	-0.0042	0.0000	0.0000	-0.0034	-0.0028	-0.0001	-0.0002	-0.0009	-0.0001	-0.0013	-0.0003	0.0000	-0.0004	-0.0031
Momase	UrbPoor	Bananas	-0.0360	-0.0245	0.0000	-0.0010	-0.0002	-0.0006	-0.0006	-0.0025	0.0000	0.0000	-0.0030	-0.0031	-0.3241	0.0000	0.0000	-0.0023	-0.0019	-0.0001	-0.0001	-0.0006	-0.0001	-0.0009	-0.0002	0.0000	-0.0003	-0.0021
Momase	UrbPoor	Coffee	-0.0720	-0.0489	-0.0001	-0.0020	-0.0005	-0.0012	-0.0011	-0.0050	0.0000	0.0000	-0.0059	-0.0061	-0.0056	-0.6425	0.0000	-0.0046	-0.0038	-0.0001	-0.0003	-0.0012	-0.0001	-0.0018	-0.0004	0.0000	-0.0006	-0.0042
Momase	UrbPoor	Cocoa	-0.0535	-0.0363	-0.0001	-0.0015	-0.0003	-0.0009	-0.0008	-0.0037	0.0000	0.0000	-0.0044	-0.0045	-0.0042	0.0000	-0.4773	-0.0034	-0.0028	-0.0001	-0.0002	-0.0009	-0.0001	-0.0013	-0.0003	0.0000	-0.0004	-0.0031
Momase	UrbPoor	Vegetable	-0.0720	-0.0489	-0.0001	-0.0020	-0.0005	-0.0012	-0.0011	-0.0050	0.0000	0.0000	-0.0059	-0.0061	-0.0056	0.0000	0.0000	-0.6471	-0.0038	-0.0001	-0.0003	-0.0012	-0.0001	-0.0018	-0.0004	0.0000	-0.0006	-0.0042
Momase	UrbPoor	Fruit	-0.0720	-0.0489	-0.0001	-0.0020	-0.0005	-0.0012	-0.0011	-0.0050	0.0000	0.0000	-0.0059	-0.0061	-0.0056	0.0000	0.0000	-0.0046	-0.6464	-0.0001	-0.0003	-0.0012	-0.0001	-0.0018	-0.0004	0.0000	-0.0006	-0.0042
Momase	UrbPoor	Tea	-0.0720	-0.0489	-0.0001	-0.0020	-0.0005	-0.0012	-0.0011	-0.0050	0.0000	0.0000	-0.0059	-0.0061	-0.0056	0.0000	0.0000	-0.0046	-0.0038	-0.6426	-0.0003	-0.0012	-0.0001	-0.0018	-0.0004	0.0000	-0.0006	-0.0042
Momase	UrbPoor	Oexcrp	-0.0443	-0.0301	0.0000	-0.0013	-0.0003	-0.0007	-0.0007	-0.0031	0.0000	0.0000	-0.0036	-0.0038	-0.0035	0.0000	0.0000	-0.0028	-0.0024	-0.0001	-0.3953	-0.0007	-0.0001	-0.0011	-0.0002	0.0000	-0.0003	-0.0026
Momase	UrbPoor	Ofdcrp	-0.0720	-0.0489	-0.0001	-0.0020	-0.0005	-0.0012	-0.0011	-0.0050	0.0000	0.0000	-0.0059	-0.0061	-0.0056	0.0000	0.0000	-0.0046	-0.0038	-0.0001	-0.0003	-0.6437	-0.0001	-0.0018	-0.0004	0.0000	-0.0006	-0.0042
Momase	UrbPoor	Beef	-0.0921	-0.0626	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.8218	-0.0023	-0.0005	0.0000	-0.0007	-0.0054
Momase	UrbPoor	Poultry	-0.0921	-0.0626	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.0001	-0.8239	-0.0005	0.0000	-0.0007	-0.0054
Momase	UrbPoor	Pork	-0.0921	-0.0626	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.0001	-0.0023	-0.8221	0.0000	-0.0007	-0.0054
Momase	UrbPoor	Mutton	-0.0921	-0.0626	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.0001	-0.0023	-0.0005	-0.8216	-0.0007	-0.0054
Momase	UrbPoor	OlivPrd	-0.0921	-0.0626	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.0001	-0.0023	-0.0005	0.0000	-0.8224	-0.0054
Momase	UrbPoor	Fish	-0.0921	-0.0626	-0.0001	-0.0026	-0.0006	-0.0015	-0.0014	-0.0064	0.0000	0.0000	-0.0076	-0.0078	-0.0072	0.0000	0.0000	-0.0058	-0.0049	-0.0001	-0.0003	-0.0015	-0.0001	-0.0023	-0.0005	0.0000	-0.0007	-0.8270
Momase	UrbPoor	Vagtrade	-0.1212	-0.0824	-0.0001	-0.0034	-0.0008	-0.0020	-0.0019	-0.0084	0.0000	0.0000	-0.0100	-0.0103	-0.0095	0.0000	0.0000	-0.0077	-0.0064	-0.0002	-0.0005	-0.0020	-0.0002	-0.0030	-0.0006	0.0000	-0.0009	-0.0071
Momase	UrbPoor	Agntrade	-0.0980	-0.0666	-0.0001	-0.0028	-0.0006	-0.0016	-0.0015	-0.0068	0.0000	0.0000	-0.0081	-0.0083	-0.0077	0.0000	0.0000	-0.0062	-0.0052	-0.0002	-0.0004	-0.0016	-0.0001	-0.0024	-0.0005	0.0000	-0.0008	-0.0057
Momase	UrbNpoor	Rice	-1.0070	-0.0117	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.0005	-0.0020	-0.0002	0.0000	-0.0008	-0.0047
Momase	UrbNpoor	Wheat	-0.0162	-1.0025	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.0005	-0.0020	-0.0002	0.0000	-0.0008	-0.0047
Momase	UrbNpoor	Maz_Sor	-0.0114	-0.0082	-0.6973	-0.0001	0.0000	-0.0003	-0.0001	-0.0026	0.0000	0.0000	-0.0016	-0.0081	-0.0037	0.0000	0.0000	-0.0018	-0.0022	0.0000	-0.0001	-0.0009	-0.0004	-0.0014	-0.0002	0.0000	-0.0005	-0.0033
Momase	UrbNpoor	wPotato	-0.0031	-0.0022	0.0000	-0.1903	0.0000	-0.0001	0.0000	-0.0007	0.0000	0.0000	-0.0004	-0.0022	-0.0010	0.0000	0.0000	-0.0005	-0.0006	0.0000	0.0000	-0.0002	-0.0001	-0.0004	0.0000	0.0000	-0.0001	-0.0009
Momase	UrbNpoor	Cassava	-0.0031	-0.0022	0.0000	0.0000	-0.1903	-0.0001	0.0000	-0.0007	0.0000	0.0000	-0.0004	-0.0022	-0.0010	0.0000	0.0000	-0.0005	-0.0006	0.0000	0.0000	-0.0002	-0.0001	-0.0004	0.0000	0.0000	-0.0001	-0.0009
Momase	UrbNpoor	Cocoyam	-0.0031	-0.0022	0.0000	0.0000	0.0000	-0.1904	0.0000	-0.0007	0.0000	0.0000	-0.0004	-0.0022	-0.0010	0.0000	0.0000	-0.0005	-0.0006	0.0000	0.0000	-0.0002	-0.0001	-0.0004	0.0000	0.0000	-0.0001	-0.0009
Momase	UrbNpoor	Yams	-0.0031	-0.0022	0.0000	0.0000	0.0000	-0.0001	-0.1903	-0.0007	0.0000	0.0000	-0.0004	-0.0022	-0.0010	0.0000	0.0000	-0.0005	-0.0006	0.0000	0.0000	-0.0002	-0.0001	-0.0004	0.0000	0.0000	-0.0001	-0.0009
Momase	UrbNpoor	Oroots	-0.0031	-0.0022	0.0000	0.0000	0.0000	-0.0001	0.0000	-0.1910	0.0000	0.0000	-0.0004	-0.0022	-0.0010	0.0000	0.0000	-0.0005	-0.0006	0.0000	0.0000	-0.0002	-0.0001	-0.0004	0.0000	0.0000	-0.0001	-0.0009
Momase	UrbNpoor	Pulses	-0.0063	-0.0046	0.0000	0.0000	0.0000	-0.0002	0.0000	-0.0015	-0.3874	0.0000	-0.0009	-0.0045	-0.0021	0.0000	0.0000	-0.0010	-0.0012	0.0000	0.0000	-0.0005	-0.0002	-0.0008	-0.0001	0.0000	-0.0003	-0.0018
Momase	UrbNpoor	Grndnuts	-0.0063	-0.0046	0.0000	0.0000	0.0000	-0.0002	0.0000	-0.0015	0.0000	-0.3874	-0.0009	-0.0045	-0.0021	0.0000	0.0000	-0.0010	-0.0012	0.0000	0.0000	-0.0005	-0.0002	-0.0008	-0.0001	0.0000	-0.0003	-0.0018
Momase	UrbNpoor	Coconuts	-0.0063	-0.0046	0.0000	0.0000	0.0000	-0.0002	0.0000	-0.0015	0.0000	0.0000	-0.3883	-0.0045	-0.0021	0.0000	0.0000	-0.0010	-0.0012	0.0000	0.0000	-0.0005	-0.0002	-0.0008	-0.0001	0.0000	-0.0003	-0.0018
Momase	UrbNpoor	Oilpalm	-0.0094	-0.0068	0.0000	-0.0001	0.0000	-0.0003	-0.0001	-0.0022	0.0000	0.0000	-0.0013	-0.5822	-0.0031	0.0000	0.0000	-0.0015	-0.0019	0.0000	-0.0001	-0.0007	-0.0003	-0.0012	-0.0001	0.0000	-0.0004	-0.0027
Momase	UrbNpoor	Bananas	-0.0063	-0.0046	0.0000	0.0000	0.0000	-0.0002	0.0000	-0.0015	0.0000	0.0000	-0.0009	-0.0045	-0.3895	0.0000	0.0000	-0.0010	-0.0012	0.0000	0.0000	-0.0005	-0.0002	-0.0008	-0.0001	0.0000	-0.0003	-0.0018
Momase	UrbNpoor	Coffee	-0.0127	-0.0092	0.0000	-0.0001	0.0000	-0.0004	-0.0001	-0.0029	0.0000	0.0000	-0.0018	-0.0090	-0.0041	-0.7748	0.0000	-0.0020	-0.0025	0.0000	-0.0001	-0.0010	-0.0004	-0.0016	-0.0002	0.0000	-0.0006	-0.0037
Momase	UrbNpoor	Cocoa	-0.0094	-0.0068	0.0000	-0.0001	0.0000	-0.0003	-0.0001	-0.0022	0.0000	0.0000	-0.0013	-0.0067	-0.0031	0.0000	-0.5755	-0.0015	-0.0019	0.0000	-0.0001	-0.0007	-0.0003	-0.0012	-0.0001	0.0000	-0.0004	-0.0027
Momase	UrbNpoor	Vegetable	-0.0127	-0.0092	0.0000	-0.0001	0.0000	-0.0004	-0.0001	-0.0029	0.0000	0.0000	-0.0018	-0.0090	-0.0041	0.0000	0.0000	-0.7768	-0.0025	0.0000	-0.0001	-0.0010	-0.0004	-0.0016	-0.0002	0.0000	-0.0006	-0.0037
Momase	UrbNpoor	Fruit	-0.0127	-0.0092	0.0000	-0.0001	0.0000	-0.0004	-0.0001	-0.0029	0.0000	0.0000	-0.0018	-0.0090	-0.0041	0.0000	0.0000	-0.0020	-0.7773	0.0000	-0.0001	-0.0010	-0.0004	-0.0016	-0.0002	0.0000	-0.0006	-0.0037
Momase	UrbNpoor	Tea	-0.0127	-0.0092	0.0000	-0.0001	0.0000	-0.0004	-0.0001	-0.0029	0.0000	0.0000	-0.0018	-0.0090	-0.0041	0.0000	0.0000	-0.0020	-0.0025	-0.7748	-0.0001	-0.0010	-0.0004	-0.0016	-0.0002	0.0000	-0.0006	-0.0037
Momase	UrbNpoor	Oexcrp	-0.0078	-0.0056	0.0000	0.0000	0.0000	-0.0002	-0.0001	-0.0018	0.0000	0.0000	-0.0011	-0.0055	-0.0025	0.0000	0.0000	-0.0012	-0.0015	0.0000	-0.4766	-0.0006	-0.0002	-0.0010	-0.0001	0.0000	-0.0004	-0.0023
Momase	UrbNpoor	Ofdcrp	-0.0127	-0.0092	0.0000	-0.0001	0.0000	-0.0004	-0.0001	-0.0029	0.0000	0.0000	-0.0018	-0.0090	-0.0041	0.0000	0.0000	-0.0020	-0.0025	0.0000	-0.0001	-0.7757	-0.0004	-0.0016	-0.0002	0.0000	-0.0006	-0.0037
Momase	UrbNpoor	Beef	-0.0162	-0.0117	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.9913	-0.0020	-0.0002	0.0000	-0.0008	-0.0047
Momase	UrbNpoor	Poultry	-0.0162	-0.0117	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.0005	-0.9927	-0.0002	0.0000	-0.0008	-0.0047
Momase	UrbNpoor	Pork	-0.0162	-0.0117	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.0005	-0.0020	-0.9910	0.0000	-0.0008	-0.0047
Momase	UrbNpoor	Mutton	-0.0162	-0.0117	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.0005	-0.0020	-0.0002	-0.9908	-0.0008	-0.0047
Momase	UrbNpoor	OlivPrd	-0.0162	-0.0117	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.0005	-0.0020	-0.0002	0.0000	-0.9915	-0.0047
Momase	UrbNpoor	Fish	-0.0162	-0.0117	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0037	0.0000	0.0000	-0.0023	-0.0115	-0.0053	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0001	-0.0012	-0.0005	-0.0020	-0.0002	0.0000	-0.0008	-0.9955
Momase	UrbNpoor	Vagtrade	-0.0216	-0.0156	0.0000	-0.0001	0.0000	-0.0006	-0.0002	-0.0049	0.0000	0.0000	-0.0030	-0.0153	-0.0070	0.0000	0.0000	-0.0034	-0.0042	-0.0001	-0.0002	-0.0016	-0.0007	-0.0026	-0.0003	0.0000	-0.0010	-0.0063
Momase	UrbNpoor	Agntrade	-0.0174	-0.0126	0.0000	-0.0001	0.0000	-0.0005	-0.0001	-0.0040	0.0000	0.0000	-0.0024	-0.0123	-0.0057	0.0000	0.0000	-0.0027	-0.0034	-0.0001	-0.0001	-0.0013	-0.0005	-0.0021	-0.0003	0.0000	-0.0008	-0.0051

Table 4. Price elasticity in the household demand functions (F)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Momase	MtrPoor	Rice	-0.7268	-0.1349	-0.0001	-0.0050	-0.0007	-0.0019	-0.0013	-0.0044	0.0000	0.0000	-0.0090	-0.0109	-0.0031	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0002	-0.0013	-0.0001	-0.0010	0.0000	0.0000	-0.0006	-0.0018
Momase	MtrPoor	Wheat	-0.0663	-0.7954	-0.0001	-0.0050	-0.0007	-0.0019	-0.0013	-0.0044	0.0000	0.0000	-0.0090	-0.0109	-0.0031	0.0000	0.0000	-0.0025	-0.0032	-0.0001	-0.0002	-0.0013	-0.0001	-0.0010	0.0000	0.0000	-0.0006	-0.0018
Momase	MtrPoor	Maz_Sor	-0.0478	-0.0971	-0.4756	-0.0036	-0.0005	-0.0013	-0.0010	-0.0032	0.0000	0.0000	-0.0065	-0.0079	-0.0023	0.0000	0.0000	-0.0018	-0.0023	-0.0001	-0.0001	-0.0009	-0.0001	-0.0007	0.0000	0.0000	-0.0004	-0.0013
Momase	MtrPoor	SwPotato	-0.0111	-0.0225	0.0000	-0.1109	-0.0001	-0.0003	-0.0002	-0.0007	0.0000	0.0000	-0.0015	-0.0018	-0.0005	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0003
Momase	MtrPoor	Cassava	-0.0111	-0.0225	0.0000	-0.0008	-0.1102	-0.0003	-0.0002	-0.0007	0.0000	0.0000	-0.0015	-0.0018	-0.0005	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0003
Momase	MtrPoor	Cocoyam	-0.0111	-0.0225	0.0000	-0.0008	-0.0001	-0.1104	-0.0002	-0.0007	0.0000	0.0000	-0.0015	-0.0018	-0.0005	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0003
Momase	MtrPoor	Yams	-0.0111	-0.0225	0.0000	-0.0008	-0.0001	-0.0003	-0.1103	-0.0007	0.0000	0.0000	-0.0015	-0.0018	-0.0005	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0003
Momase	MtrPoor	Oroots	-0.0111	-0.0225	0.0000	-0.0008	-0.0001	-0.0003	-0.0002	-0.1108	0.0000	0.0000	-0.0015	-0.0018	-0.0005	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0003
Momase	MtrPoor	Pulses	-0.0221	-0.0450	0.0000	-0.0017	-0.0002	-0.0006	-0.0004	-0.0015	-0.2202	0.0000	-0.0030	-0.0036	-0.0010	0.0000	0.0000	-0.0008	-0.0011	0.0000	-0.0001	-0.0004	0.0000	-0.0003	0.0000	0.0000	-0.0002	-0.0006
Momase	MtrPoor	Grndnuts	-0.0221	-0.0450	0.0000	-0.0017	-0.0002	-0.0006	-0.0004	-0.0015	0.0000	-0.2202	-0.0030	-0.0036	-0.0010	0.0000	0.0000	-0.0008	-0.0011	0.0000	-0.0001	-0.0004	0.0000	-0.0003	0.0000	0.0000	-0.0002	-0.0006
Momase	MtrPoor	Coconuts	-0.0221	-0.0450	0.0000	-0.0017	-0.0002	-0.0006	-0.0004	-0.0015	0.0000	0.0000	-0.2231	-0.0036	-0.0010	0.0000	0.0000	-0.0008	-0.0011	0.0000	-0.0001	-0.0004	0.0000	-0.0003	0.0000	0.0000	-0.0002	-0.0006
Momase	MtrPoor	Oilpalm	-0.0295	-0.0600	0.0000	-0.0022	-0.0003	-0.0008	-0.0006	-0.0020	0.0000	0.0000	-0.0040	-0.2984	-0.0014	0.0000	0.0000	-0.0011	-0.0014	0.0000	-0.0001	-0.0006	0.0000	-0.0004	0.0000	0.0000	-0.0002	-0.0008
Momase	MtrPoor	Bananas	-0.0111	-0.0225	0.0000	-0.0008	-0.0001	-0.0003	-0.0002	-0.0007	0.0000	0.0000	-0.0015	-0.0018	-0.1106	0.0000	0.0000	-0.0004	-0.0005	0.0000	0.0000	-0.0002	0.0000	-0.0002	0.0000	0.0000	-0.0001	-0.0003
Momase	MtrPoor	Coffee	-0.0369	-0.0750	0.0000	-0.0028	-0.0004	-0.0010	-0.0007	-0.0025	0.0000	0.0000	-0.0050	-0.0061	-0.0017	-0.3669	0.0000	-0.0014	-0.0018	0.0000	-0.0001	-0.0007	-0.0001	-0.0005	0.0000	0.0000	-0.0003	-0.0010
Momase	MtrPoor	Cocoa	-0.0369	-0.0750	0.0000	-0.0028	-0.0004	-0.0010	-0.0007	-0.0025	0.0000	0.0000	-0.0050	-0.0061	-0.0017	0.0000	-0.3669	-0.0014	-0.0018	0.0000	-0.0001	-0.0007	-0.0001	-0.0005	0.0000	0.0000	-0.0003	-0.0010
Momase	MtrPoor	Vegetable	-0.0442	-0.0899	-0.0001	-0.0033	-0.0005	-0.0012	-0.0009	-0.0030	0.0000	0.0000	-0.0060	-0.0073	-0.0021	0.0000	0.0000	-0.4420	-0.0021	-0.0001	-0.0001	-0.0009	-0.0001	-0.0006	0.0000	0.0000	-0.0004	-0.0012
Momase	MtrPoor	Fruit	-0.0442	-0.0899	-0.0001	-0.0033	-0.0005	-0.0012	-0.0009	-0.0030	0.0000	0.0000	-0.0060	-0.0073	-0.0021	0.0000	0.0000	-0.0017	-0.4424	-0.0001	-0.0001	-0.0009	-0.0001	-0.0006	0.0000	0.0000	-0.0004	-0.0012
Momase	MtrPoor	Tea	-0.0369	-0.0750	0.0000	-0.0028	-0.0004	-0.0010	-0.0007	-0.0025	0.0000	0.0000	-0.0050	-0.0061	-0.0017	0.0000	0.0000	-0.0014	-0.0018	-0.3670	-0.0001	-0.0007	-0.0001	-0.0005	0.0000	0.0000	-0.0003	-0.0010
Momase	MtrPoor	Oexcrp	-0.0363	-0.0738	0.0000	-0.0027	-0.0004	-0.0010	-0.0007	-0.0024	0.0000	0.0000	-0.0049	-0.0060	-0.0017	0.0000	0.0000	-0.0014	-0.0017	0.0000	-0.3612	-0.0007	-0.0001	-0.0005	0.0000	0.0000	-0.0003	-0.0010
Momase	MtrPoor	Ofdcrp	-0.0369	-0.0750	0.0000	-0.0028	-0.0004	-0.0010	-0.0007	-0.0025	0.0000	0.0000	-0.0050	-0.0061	-0.0017	0.0000	0.0000	-0.0014	-0.0018	0.0000	-0.0001	-0.3676	-0.0001	-0.0005	0.0000	0.0000	-0.0003	-0.0010
Momase	MtrPoor	Beef	-0.0700	-0.1424	-0.0001	-0.0053	-0.0007	-0.0020	-0.0014	-0.0047	0.0000	0.0000	-0.0095	-0.0115	-0.0033	0.0000	0.0000	-0.0027	-0.0033	-0.0001	-0.0002	-0.0014	-0.6973	-0.0010	0.0000	0.0000	-0.0006	-0.0019
Momase	MtrPoor	Poultry	-0.0745	-0.1514	-0.0001	-0.0056	-0.0008	-0.0021	-0.0015	-0.0050	0.0000	0.0000	-0.0101	-0.0123	-0.0035	0.0000	0.0000	-0.0029	-0.0035	-0.0001	-0.0002	-0.0015	-0.0001	-0.7423	0.0000	0.0000	-0.0006	-0.0020
Momase	MtrPoor	Pork	-0.0745	-0.1514	-0.0001	-0.0056	-0.0008	-0.0021	-0.0015	-0.0050	0.0000	0.0000	-0.0101	-0.0123	-0.0035	0.0000	0.0000	-0.0029	-0.0035	-0.0001	-0.0002	-0.0015	-0.0001	-0.0011	-0.7412	0.0000	-0.0006	-0.0020
Momase	MtrPoor	Mutton	-0.0700	-0.1424	-0.0001	-0.0053	-0.0007	-0.0020	-0.0014	-0.0047	0.0000	0.0000	-0.0095	-0.0115	-0.0033	0.0000	0.0000	-0.0027	-0.0033	-0.0001	-0.0002	-0.0014	-0.0001	-0.0010	0.0000	-0.6971	-0.0006	-0.0019
Momase	MtrPoor	OlivPrd	-0.0700	-0.1424	-0.0001	-0.0053	-0.0007	-0.0020	-0.0014	-0.0047	0.0000	0.0000	-0.0095	-0.0115	-0.0033	0.0000	0.0000	-0.0027	-0.0033	-0.0001	-0.0002	-0.0014	-0.0001	-0.0010	0.0000	0.0000	-0.6977	-0.0019
Momase	MtrPoor	Fish	-0.0745	-0.1514	-0.0001	-0.0056	-0.0008	-0.0021	-0.0015	-0.0050	0.0000	0.0000	-0.0101	-0.0123	-0.0035	0.0000	0.0000	-0.0029	-0.0035	-0.0001	-0.0002	-0.0015	-0.0001	-0.0011	0.0000	0.0000	-0.0006	-0.7432
Momase	MtrPoor	Magtrade	-0.0993	-0.2019	-0.0001	-0.0075	-0.0011	-0.0028	-0.0020	-0.0066	-0.0001	-0.0001	-0.0134	-0.0164	-0.0047	0.0000	0.0000	-0.0038	-0.0047	-0.0001	-0.0003	-0.0020	-0.0002	-0.0015	0.0000	0.0000	-0.0008	-0.0027
Momase	MtrPoor	Agntrade	-0.0788	-0.1603	-0.0001	-0.0060	-0.0008	-0.0022	-0.0016	-0.0053	-0.0001	0.0000	-0.0107	-0.0130	-0.0037	0.0000	0.0000	-0.0030	-0.0037	-0.0001	-0.0002	-0.0016	-0.0001	-0.0012	0.0000	0.0000	-0.0007	-0.0021
Momase	MtrNpoor	Rice	-0.8921	-0.0146	0.0000	-0.0001	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0008	-0.0030	-0.0019	0.0000	0.0000	-0.0024	-0.0017	0.0000	-0.0001	-0.0006	-0.0009	-0.0010	-0.0003	0.0000	-0.0004	-0.0011
Momase	MtrNpoor	Wheat	-0.0263	-0.8803	0.0000	-0.0001	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0008	-0.0030	-0.0019	0.0000	0.0000	-0.0024	-0.0017	0.0000	-0.0001	-0.0006	-0.0009	-0.0010	-0.0003	0.0000	-0.0004	-0.0011
Momase	MtrNpoor	Maz_Sor	-0.0190	-0.0105	-0.6233	-0.0001	0.0000	-0.0001	0.0000	-0.0001	0.0000	0.0000	-0.0006	-0.0022	-0.0014	0.0000	0.0000	-0.0017	-0.0013	0.0000	0.0000	-0.0005	-0.0007	-0.0007	-0.0002	0.0000	-0.0003	-0.0008
Momase	MtrNpoor	SwPotato	-0.0044	-0.0024	0.0000	-0.1443	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0005	-0.0003	0.0000	0.0000	-0.0004	-0.0003	0.0000	0.0000	-0.0001	-0.0002	-0.0002	0.0000	0.0000	-0.0001	-0.0002
Momase	MtrNpoor	Cassava	-0.0044	-0.0024	0.0000	0.0000	-0.1443	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0005	-0.0003	0.0000	0.0000	-0.0004	-0.0003	0.0000	0.0000	-0.0001	-0.0002	-0.0002	0.0000	0.0000	-0.0001	-0.0002
Momase	MtrNpoor	Cocoyam	-0.0044	-0.0024	0.0000	0.0000	0.0000	-0.1443	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0005	-0.0003	0.0000	0.0000	-0.0004	-0.0003	0.0000	0.0000	-0.0001	-0.0002	-0.0002	0.0000	0.0000	-0.0001	-0.0002
Momase	MtrNpoor	Yams	-0.0044	-0.0024	0.0000	0.0000	0.0000	0.0000	-0.1443	0.0000	0.0000	0.0000	-0.0001	-0.0005	-0.0003	0.0000	0.0000	-0.0004	-0.0003	0.0000	0.0000	-0.0001	-0.0002	-0.0002	0.0000	0.0000	-0.0001	-0.0002
Momase	MtrNpoor	Oroots	-0.0044	-0.0024	0.0000	0.0000	0.0000	0.0000	0.0000	-0.1443	0.0000	0.0000	-0.0001	-0.0005	-0.0003	0.0000	0.0000	-0.0004	-0.0003	0.0000	0.0000	-0.0001	-0.0002	-0.0002	0.0000	0.0000	-0.0001	-0.0002
Momase	MtrNpoor	Pulses	-0.0088	-0.0049	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.2886	0.0000	-0.0003	-0.0010	-0.0006	0.0000	0.0000	-0.0008	-0.0006	0.0000	0.0000	-0.0002	-0.0003	-0.0003	-0.0001	0.0000	-0.0001	-0.0004
Momase	MtrNpoor	Grndnuts	-0.0088	-0.0049	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000	-0.2886	-0.0003	-0.0010	-0.0006	0.0000	0.0000	-0.0008	-0.0006	0.0000	0.0000	-0.0002	-0.0003	-0.0003	-0.0001	0.0000	-0.0001	-0.0004
Momase	MtrNpoor	Coconuts	-0.0088	-0.0049	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.2889	-0.0010	-0.0006	0.0000	0.0000	-0.0008	-0.0006	0.0000	0.0000	-0.0002	-0.0003	-0.0003	-0.0001	0.0000	-0.0001	-0.0004
Momase	MtrNpoor	Oilpalm	-0.0117	-0.0065	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0004	-0.3861	-0.0009	0.0000	0.0000	-0.0011	-0.0008	0.0000	0.0000	-0.0003	-0.0004	-0.0004	-0.0001	0.0000	-0.0002	-0.0005
Momase	MtrNpoor	Bananas	-0.0044	-0.0024	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.0001	-0.0005	-0.1446	0.0000	0.0000	-0.0004	-0.0003	0.0000	0.0000	-0.0001	-0.0002	-0.0002	0.0000	0.0000	-0.0001	-0.0002
Momase	MtrNpoor	Coffee	-0.0146	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0005	-0.0017	-0.0011	-0.4810	0.0000	-0.0013	-0.0010	0.0000	0.0000	-0.0003	-0.0005	-0.0005	-0.0002	0.0000	-0.0002	-0.0006
Momase	MtrNpoor	Cocoa	-0.0146	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0005	-0.0017	-0.0011	0.0000	-0.4810	-0.0013	-0.0010	0.0000	0.0000	-0.0003	-0.0005	-0.0005	-0.0002	0.0000	-0.0002	-0.0006
Momase	MtrNpoor	Vegetable	-0.0176	-0.0097	0.0000	-0.0001	0.0000	-0.0001	0.0000	-0.0001	0.0000	0.0000	-0.0006	-0.0020	-0.0013	0.0000	0.0000	-0.5787	-0.0012	0.0000	0.0000	-0.0004	-0.0006	-0.0006	-0.0002	0.0000	-0.0003	-0.0008
Momase	MtrNpoor	Fruit	-0.0176	-0.0097	0.0000	-0.0001	0.0000	-0.0001	0.0000	-0.0001	0.0000	0.0000	-0.0006	-0.0020	-0.0013	0.0000	0.0000	-0.0016	-0.5783	0.0000	0.0000	-0.0004	-0.0006	-0.0006	-0.0002	0.0000	-0.0003	-0.0008
Momase	MtrNpoor	Tea	-0.0146	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0005	-0.0017	-0.0011	0.0000	0.0000	-0.0013	-0.0010	-0.4810	0.0000	-0.0003	-0.0005	-0.0005	-0.0002	0.0000	-0.0002	-0.0006
Momase	MtrNpoor	Oexcrp	-0.0144	-0.0080	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0005	-0.0016	-0.0011	0.0000	0.0000	-0.0013	-0.0010	0.0000	-0.4733	-0.0003	-0.0005	-0.0005	-0.0002	0.0000	-0.0002	-0.0006
Momase	MtrNpoor	Ofdcrp	-0.0146	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0005	-0.0017	-0.0011	0.0000	0.0000	-0.0013	-0.0010	0.0000	0.0000	-0.4813	-0.0005	-0.0005	-0.0002	0.0000	-0.0002	-0.0006
Momase	MtrNpoor	Beef	-0.0278	-0.0154	0.0000	-0.0001	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0009	-0.0032	-0.0020	0.0000	0.0000	-0.0025	-0.0018	0.0000	-0.0001	-0.0007	-0.9148	-0.0010	-0.0003	0.0000	-0.0004	-0.0012
Momase	MtrNpoor	Poultry	-0.0296	-0.0164	0.0000	-0.0002	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0009	-0.0034	-0.0022	0.0000	0.0000	-0.0027	-0.0020	0.0000	-0.0001	-0.0007	-0.0011	-0.9726	-0.0003	0.0000	-0.0005	-0.0013
Momase	MtrNpoor	Pork	-0.0296	-0.0164	0.0000	-0.0002	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0009	-0.0034	-0.0022	0.0000	0.0000	-0.0027	-0.0020	0.0000	-0.0001	-0.0007	-0.0011	-0.0011	-0.9719	0.0000	-0.0005	-0.0013
Momase	MtrNpoor	Mutton	-0.0278	-0.0154	0.0000	-0.0001	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0009	-0.0032	-0.0020	0.0000	0.0000	-0.0025	-0.0018	0.0000	-0.0001	-0.0007	-0.0010	-0.0010	-0.0003	-0.9138	-0.0004	-0.0012
Momase	MtrNpoor	OlivPrd	-0.0278	-0.0154	0.0000	-0.0001	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0009	-0.0032	-0.0020	0.0000	0.0000	-0.0025	-0.0018	0.0000	-0.0001	-0.0007	-0.0010	-0.0010	-0.0003	0.0000	-0.9142	-0.0012
Momase	MtrNpoor	Fish	-0.0296	-0.0164	0.0000	-0.0002	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0009	-0.0034	-0.0022	0.0000	0.0000	-0.0027	-0.0020	0.0000	-0.0001	-0.0007	-0.0011	-0.0011	-0.0003	0.0000	-0.0005	-0.9728
Momase	MtrNpoor	Magtrade	-0.0402	-0.0223	0.0000	-0.0002	-0.0001	-0.0001	0.0000	-0.0003	-0.0001	0.0000	-0.0013	-0.0046	-0.0029	0.0000	0.0000	-0.0037	-0.0027	0.0000	-0.0001	-0.0010	-0.0014	-0.0015	-0.0005	0.0000	-0.0006	-0.0017
Momase	MtrNpoor	Agntrade	-0.0319	-0.0177	0.0000	-0.0002	-0.0001	-0.0001	0.0000	-0.0002	0.0000	0.0000	-0.0010	-0.0037	-0.0023	0.0000	0.0000	-0.0029	-0.0021	0.0000	-0.0001	-0.0008	-0.0011	-0.0012	-0.0004	0.0000	-0.0005	-0.0014

Table 4. Price elasticity in the household demand functions (G)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Highland	RurPoor	Rice	-0.7855	-0.0278	-0.0006	-0.0460	-0.0082	-0.0131	-0.0076	-0.0132	-0.0003	-0.0001	-0.0008	-0.0391	-0.0121	0.0000	0.0000	-0.0422	-0.0359	-0.0001	-0.0001	-0.0019	-0.0002	-0.0012	-0.0020	0.0000	-0.0004	-0.0022
Highland	RurPoor	Wheat	-0.0276	-0.7801	-0.0006	-0.0457	-0.0081	-0.0130	-0.0075	-0.0131	-0.0003	-0.0001	-0.0008	-0.0388	-0.0120	0.0000	0.0000	-0.0419	-0.0357	-0.0001	-0.0001	-0.0019	-0.0002	-0.0012	-0.0020	0.0000	-0.0004	-0.0022
Highland	RurPoor	Maz_Sor	-0.0243	-0.0243	-0.6626	-0.0402	-0.0071	-0.0114	-0.0066	-0.0115	-0.0002	-0.0001	-0.0007	-0.0342	-0.0105	0.0000	0.0000	-0.0368	-0.0314	0.0000	-0.0001	-0.0017	-0.0001	-0.0010	-0.0018	0.0000	-0.0003	-0.0019
Highland	RurPoor	SwPotato	-0.0169	-0.0169	-0.0004	-0.4879	-0.0050	-0.0080	-0.0046	-0.0080	-0.0002	-0.0001	-0.0005	-0.0237	-0.0073	0.0000	0.0000	-0.0256	-0.0218	0.0000	-0.0001	-0.0012	-0.0001	-0.0007	-0.0012	0.0000	-0.0002	-0.0013
Highland	RurPoor	Cassava	-0.0169	-0.0169	-0.0004	-0.0279	-0.4650	-0.0080	-0.0046	-0.0080	-0.0002	-0.0001	-0.0005	-0.0237	-0.0073	0.0000	0.0000	-0.0256	-0.0218	0.0000	-0.0001	-0.0012	-0.0001	-0.0007	-0.0012	0.0000	-0.0002	-0.0013
Highland	RurPoor	Cocoyam	-0.0169	-0.0169	-0.0004	-0.0279	-0.0050	-0.4680	-0.0046	-0.0080	-0.0002	-0.0001	-0.0005	-0.0237	-0.0073	0.0000	0.0000	-0.0256	-0.0218	0.0000	-0.0001	-0.0012	-0.0001	-0.0007	-0.0012	0.0000	-0.0002	-0.0013
Highland	RurPoor	Yams	-0.0169	-0.0169	-0.0004	-0.0279	-0.0050	-0.0080	-0.4646	-0.0080	-0.0002	-0.0001	-0.0005	-0.0237	-0.0073	0.0000	0.0000	-0.0256	-0.0218	0.0000	-0.0001	-0.0012	-0.0001	-0.0007	-0.0012	0.0000	-0.0002	-0.0013
Highland	RurPoor	Oroots	-0.0169	-0.0169	-0.0004	-0.0279	-0.0050	-0.0080	-0.0046	-0.4680	-0.0002	-0.0001	-0.0005	-0.0237	-0.0073	0.0000	0.0000	-0.0256	-0.0218	0.0000	-0.0001	-0.0012	-0.0001	-0.0007	-0.0012	0.0000	-0.0002	-0.0013
Highland	RurPoor	Pulses	-0.0208	-0.0208	-0.0004	-0.0345	-0.0061	-0.0098	-0.0057	-0.0099	-0.5680	-0.0001	-0.0006	-0.0293	-0.0090	0.0000	0.0000	-0.0316	-0.0269	0.0000	-0.0001	-0.0014	-0.0001	-0.0009	-0.0015	0.0000	-0.0003	-0.0017
Highland	RurPoor	Grndnuts	-0.0208	-0.0208	-0.0004	-0.0345	-0.0061	-0.0098	-0.0057	-0.0099	-0.0002	-0.5679	-0.0006	-0.0293	-0.0090	0.0000	0.0000	-0.0316	-0.0269	0.0000	-0.0001	-0.0014	-0.0001	-0.0009	-0.0015	0.0000	-0.0003	-0.0017
Highland	RurPoor	Coconuts	-0.0243	-0.0243	-0.0005	-0.0402	-0.0071	-0.0114	-0.0066	-0.0115	-0.0002	-0.0001	-0.6627	-0.0342	-0.0105	0.0000	0.0000	-0.0368	-0.0314	0.0000	-0.0001	-0.0017	-0.0001	-0.0010	-0.0018	0.0000	-0.0003	-0.0019
Highland	RurPoor	Oilpalm	-0.0243	-0.0243	-0.0005	-0.0402	-0.0071	-0.0114	-0.0066	-0.0115	-0.0002	-0.0001	-0.0007	-0.6962	-0.0105	0.0000	0.0000	-0.0368	-0.0314	0.0000	-0.0001	-0.0017	-0.0001	-0.0010	-0.0018	0.0000	-0.0003	-0.0019
Highland	RurPoor	Bananas	-0.0208	-0.0208	-0.0004	-0.0345	-0.0061	-0.0098	-0.0057	-0.0099	-0.0002	-0.0001	-0.0006	-0.0293	-0.5768	0.0000	0.0000	-0.0316	-0.0269	0.0000	-0.0001	-0.0014	-0.0001	-0.0009	-0.0015	0.0000	-0.0003	-0.0017
Highland	RurPoor	Coffee	-0.0256	-0.0256	-0.0005	-0.0424	-0.0075	-0.0121	-0.0070	-0.0122	-0.0003	-0.0001	-0.0007	-0.0360	-0.0111	-0.6989	0.0000	-0.0389	-0.0331	0.0000	-0.0001	-0.0018	-0.0002	-0.0011	-0.0019	0.0000	-0.0003	-0.0020
Highland	RurPoor	Cocoa	-0.0208	-0.0208	-0.0004	-0.0345	-0.0061	-0.0098	-0.0057	-0.0099	-0.0002	-0.0001	-0.0006	-0.0293	-0.0090	0.0000	-0.5678	-0.0316	-0.0269	0.0000	-0.0001	-0.0014	-0.0001	-0.0009	-0.0015	0.0000	-0.0003	-0.0017
Highland	RurPoor	Vegetable	-0.0256	-0.0256	-0.0005	-0.0424	-0.0075	-0.0121	-0.0070	-0.0122	-0.0003	-0.0001	-0.0007	-0.0361	-0.0111	0.0000	0.0000	-0.7379	-0.0331	0.0000	-0.0001	-0.0018	-0.0002	-0.0011	-0.0019	0.0000	-0.0003	-0.0020
Highland	RurPoor	Fruit	-0.0256	-0.0256	-0.0005	-0.0424	-0.0075	-0.0121	-0.0070	-0.0122	-0.0003	-0.0001	-0.0007	-0.0361	-0.0111	0.0000	0.0000	-0.0389	-0.7321	0.0000	-0.0001	-0.0018	-0.0002	-0.0011	-0.0019	0.0000	-0.0003	-0.0020
Highland	RurPoor	Tea	-0.0256	-0.0256	-0.0005	-0.0424	-0.0075	-0.0121	-0.0070	-0.0122	-0.0003	-0.0001	-0.0007	-0.0361	-0.0111	0.0000	0.0000	-0.0389	-0.0331	-0.6991	-0.0001	-0.0018	-0.0002	-0.0011	-0.0019	0.0000	-0.0003	-0.0020
Highland	RurPoor	Oexcrp	-0.0151	-0.0151	-0.0003	-0.0249	-0.0044	-0.0071	-0.0041	-0.0072	-0.0001	-0.0001	-0.0004	-0.0212	-0.0065	0.0000	0.0000	-0.0229	-0.0195	0.0000	-0.4108	-0.0010	-0.0001	-0.0006	-0.0011	0.0000	-0.0002	-0.0012
Highland	RurPoor	Ofdcrp	-0.0256	-0.0256	-0.0005	-0.0424	-0.0075	-0.0121	-0.0070	-0.0122	-0.0003	-0.0001	-0.0007	-0.0361	-0.0111	0.0000	0.0000	-0.0389	-0.0331	0.0000	-0.0001	-0.7008	-0.0002	-0.0011	-0.0019	0.0000	-0.0003	-0.0020
Highland	RurPoor	Beef	-0.0283	-0.0283	-0.0006	-0.0469	-0.0083	-0.0134	-0.0077	-0.0134	-0.0003	-0.0001	-0.0008	-0.0398	-0.0123	0.0000	0.0000	-0.0430	-0.0366	-0.0001	-0.0001	-0.0020	-0.7726	-0.0012	-0.0021	0.0000	-0.0004	-0.0023
Highland	RurPoor	Poultry	-0.0283	-0.0283	-0.0006	-0.0469	-0.0083	-0.0134	-0.0077	-0.0134	-0.0003	-0.0001	-0.0008	-0.0398	-0.0123	0.0000	0.0000	-0.0430	-0.0366	-0.0001	-0.0001	-0.0020	-0.0002	-0.7736	-0.0021	0.0000	-0.0004	-0.0023
Highland	RurPoor	Pork	-0.0283	-0.0283	-0.0006	-0.0469	-0.0083	-0.0134	-0.0077	-0.0134	-0.0003	-0.0001	-0.0008	-0.0398	-0.0123	0.0000	0.0000	-0.0430	-0.0366	-0.0001	-0.0001	-0.0020	-0.0002	-0.0012	-0.7745	0.0000	-0.0004	-0.0023
Highland	RurPoor	Mutton	-0.0283	-0.0283	-0.0006	-0.0469	-0.0083	-0.0134	-0.0077	-0.0134	-0.0003	-0.0001	-0.0008	-0.0398	-0.0123	0.0000	0.0000	-0.0430	-0.0366	-0.0001	-0.0001	-0.0020	-0.0002	-0.0012	-0.0021	-0.7724	-0.0004	-0.0023
Highland	RurPoor	OlivPrd	-0.0283	-0.0283	-0.0006	-0.0469	-0.0083	-0.0134	-0.0077	-0.0134	-0.0003	-0.0001	-0.0008	-0.0398	-0.0123	0.0000	0.0000	-0.0430	-0.0366	-0.0001	-0.0001	-0.0020	-0.0002	-0.0012	-0.0021	0.0000	-0.7728	-0.0023
Highland	RurPoor	Fish	-0.0283	-0.0283	-0.0006	-0.0469	-0.0083	-0.0134	-0.0077	-0.0134	-0.0003	-0.0001	-0.0008	-0.0398	-0.0123	0.0000	0.0000	-0.0430	-0.0366	-0.0001	-0.0001	-0.0020	-0.0002	-0.0012	-0.0021	0.0000	-0.0004	-0.7747
Highland	RurPoor	Nagtrade	-0.0409	-0.0409	-0.0009	-0.0677	-0.0120	-0.0193	-0.0112	-0.0194	-0.0004	-0.0001	-0.0011	-0.0575	-0.0178	0.0000	0.0000	-0.0621	-0.0529	-0.0001	-0.0002	-0.0028	-0.0002	-0.0017	-0.0030	0.0000	-0.0005	-0.0033
Highland	RurPoor	Vagntrade	-0.0307	-0.0307	-0.0006	-0.0509	-0.0090	-0.0145	-0.0084	-0.0146	-0.0003	-0.0001	-0.0008	-0.0432	-0.0133	0.0000	0.0000	-0.0466	-0.0397	-0.0001	-0.0001	-0.0021	-0.0002	-0.0013	-0.0023	0.0000	-0.0004	-0.0025
Highland	RurNpoor	Rice	-0.9339	-0.0118	-0.0005	-0.0089	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0018	-0.0086	-0.0066	-0.0001	-0.0002	-0.0184	-0.0210	0.0000	-0.0001	-0.0012	-0.0003	-0.0016	-0.0043	0.0000	-0.0004	-0.0015
Highland	RurNpoor	Wheat	-0.0160	-0.9233	-0.0005	-0.0089	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0018	-0.0086	-0.0066	-0.0001	-0.0002	-0.0183	-0.0209	0.0000	-0.0001	-0.0012	-0.0003	-0.0016	-0.0043	0.0000	-0.0004	-0.0015
Highland	RurNpoor	Maz_Sor	-0.0141	-0.0103	-0.8023	-0.0078	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.0016	-0.0075	-0.0058	0.0000	-0.0001	-0.0161	-0.0184	0.0000	-0.0001	-0.0010	-0.0002	-0.0014	-0.0037	0.0000	-0.0003	-0.0013
Highland	RurNpoor	SwPotato	-0.0098	-0.0072	-0.0003	-0.5626	-0.0003	-0.0005	-0.0001	-0.0001	-0.0001	0.0000	-0.0011	-0.0052	-0.0040	0.0000	-0.0001	-0.0112	-0.0128	0.0000	0.0000	-0.0007	-0.0002	-0.0010	-0.0026	0.0000	-0.0002	-0.0009
Highland	RurNpoor	Cassava	-0.0098	-0.0072	-0.0003	-0.0054	-0.5575	-0.0005	-0.0001	-0.0001	-0.0001	0.0000	-0.0011	-0.0052	-0.0040	0.0000	-0.0001	-0.0112	-0.0128	0.0000	0.0000	-0.0007	-0.0002	-0.0010	-0.0026	0.0000	-0.0002	-0.0009
Highland	RurNpoor	Cocoyam	-0.0098	-0.0072	-0.0003	-0.0054	-0.0003	-0.5577	-0.0001	-0.0001	-0.0001	0.0000	-0.0011	-0.0052	-0.0040	0.0000	-0.0001	-0.0112	-0.0128	0.0000	0.0000	-0.0007	-0.0002	-0.0010	-0.0026	0.0000	-0.0002	-0.0009
Highland	RurNpoor	Yams	-0.0098	-0.0072	-0.0003	-0.0054	-0.0003	-0.0005	-0.5573	-0.0001	-0.0001	0.0000	-0.0011	-0.0052	-0.0040	0.0000	-0.0001	-0.0112	-0.0128	0.0000	0.0000	-0.0007	-0.0002	-0.0010	-0.0026	0.0000	-0.0002	-0.0009
Highland	RurNpoor	Oroots	-0.0098	-0.0072	-0.0003	-0.0054	-0.0003	-0.0005	-0.0001	-0.5573	-0.0001	0.0000	-0.0011	-0.0052	-0.0040	0.0000	-0.0001	-0.0112	-0.0128	0.0000	0.0000	-0.0007	-0.0002	-0.0010	-0.0026	0.0000	-0.0002	-0.0009
Highland	RurNpoor	Pulses	-0.0121	-0.0089	-0.0003	-0.0067	-0.0003	-0.0006	-0.0001	-0.0001	-0.6878	-0.0001	-0.0014	-0.0065	-0.0049	0.0000	-0.0001	-0.0138	-0.0158	0.0000	0.0000	-0.0009	-0.0002	-0.0012	-0.0032	0.0000	-0.0003	-0.0011
Highland	RurNpoor	Grndnuts	-0.0121	-0.0089	-0.0003	-0.0067	-0.0003	-0.0006	-0.0001	-0.0001	-0.0001	-0.6878	-0.0014	-0.0065	-0.0049	0.0000	-0.0001	-0.0138	-0.0158	0.0000	0.0000	-0.0009	-0.0002	-0.0012	-0.0032	0.0000	-0.0003	-0.0011
Highland	RurNpoor	Coconuts	-0.0141	-0.0103	-0.0004	-0.0078	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.8035	-0.0075	-0.0058	0.0000	-0.0001	-0.0161	-0.0184	0.0000	-0.0001	-0.0010	-0.0002	-0.0014	-0.0037	0.0000	-0.0003	-0.0013
Highland	RurNpoor	Oilpalm	-0.0141	-0.0103	-0.0004	-0.0078	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.0016	-0.8095	-0.0058	0.0000	-0.0001	-0.0161	-0.0184	0.0000	-0.0001	-0.0010	-0.0002	-0.0014	-0.0037	0.0000	-0.0003	-0.0013
Highland	RurNpoor	Bananas	-0.0121	-0.0089	-0.0003	-0.0067	-0.0003	-0.0006	-0.0001	-0.0001	-0.0001	-0.0001	-0.0014	-0.0065	-0.6927	0.0000	-0.0001	-0.0138	-0.0158	0.0000	0.0000	-0.0009	-0.0002	-0.0012	-0.0032	0.0000	-0.0003	-0.0011
Highland	RurNpoor	Coffee	-0.0148	-0.0109	-0.0004	-0.0083	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.0017	-0.0079	-0.0061	-0.8465	-0.0001	-0.0170	-0.0194	0.0000	-0.0001	-0.0011	-0.0002	-0.0015	-0.0040	0.0000	-0.0004	-0.0014
Highland	RurNpoor	Cocoa	-0.0121	-0.0089	-0.0003	-0.0067	-0.0003	-0.0006	-0.0001	-0.0001	-0.0001	-0.0001	-0.0014	-0.0065	-0.0049	0.0000	-0.6879	-0.0138	-0.0158	0.0000	0.0000	-0.0009	-0.0002	-0.0012	-0.0032	0.0000	-0.0003	-0.0011
Highland	RurNpoor	Vegetable	-0.0148	-0.0109	-0.0004	-0.0083	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.0017	-0.0079	-0.0061	-0.0001	-0.0001	-0.8636	-0.0194	0.0000	-0.0001	-0.0011	-0.0002	-0.0015	-0.0040	0.0000	-0.0004	-0.0014
Highland	RurNpoor	Fruit	-0.0148	-0.0109	-0.0004	-0.0083	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.0017	-0.0079	-0.0061	-0.0001	-0.0001	-0.0170	-0.8661	0.0000	-0.0001	-0.0011	-0.0002	-0.0015	-0.0040	0.0000	-0.0004	-0.0014
Highland	RurNpoor	Tea	-0.0148	-0.0109	-0.0004	-0.0083	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.0017	-0.0079	-0.0061	-0.0001	-0.0001	-0.0170	-0.0194	-0.8467	-0.0001	-0.0011	-0.0002	-0.0015	-0.0040	0.0000	-0.0004	-0.0014
Highland	RurNpoor	Oexcrp	-0.0087	-0.0064	-0.0003	-0.0049	-0.0002	-0.0004	-0.0001	-0.0001	-0.0001	0.0000	-0.0010	-0.0047	-0.0036	0.0000	-0.0001	-0.0100	-0.0114	0.0000	-0.4976	-0.0006	-0.0001	-0.0009	-0.0023	0.0000	-0.0002	-0.0008
Highland	RurNpoor	Ofdcrp	-0.0148	-0.0109	-0.0004	-0.0083	-0.0004	-0.0007	-0.0001	-0.0002	-0.0001	-0.0001	-0.0017	-0.0079	-0.0061	-0.0001	-0.0001	-0.0170	-0.0194	0.0000	-0.0001	-0.8478	-0.0002	-0.0015	-0.0040	0.0000	-0.0004	-0.0014
Highland	RurNpoor	Beef	-0.0164	-0.0120	-0.0005	-0.0091	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0019	-0.0088	-0.0067	-0.0001	-0.0002	-0.0187	-0.0215	0.0000	-0.0001	-0.0012	-0.9359	-0.0016	-0.0044	0.0000	-0.0004	-0.0015
Highland	RurNpoor	Poultry	-0.0164	-0.0120	-0.0005	-0.0091	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0019	-0.0088	-0.0067	-0.0001	-0.0002	-0.0187	-0.0215	0.0000	-0.0001	-0.0012	-0.0003	-0.9372	-0.0044	0.0000	-0.0004	-0.0015
Highland	RurNpoor	Pork	-0.0164	-0.0120	-0.0005	-0.0091	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0019	-0.0088	-0.0067	-0.0001	-0.0002	-0.0187	-0.0215	0.0000	-0.0001	-0.0012	-0.0003	-0.0016	-0.9400	0.0000	-0.0004	-0.0015
Highland	RurNpoor	Mutton	-0.0164	-0.0120	-0.0005	-0.0091	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0019	-0.0088	-0.0067	-0.0001	-0.0002	-0.0187	-0.0215	0.0000	-0.0001	-0.0012	-0.0003	-0.0016	-0.0044	-0.9356	-0.0004	-0.0015
Highland	RurNpoor	OlivPrd	-0.0164	-0.0120	-0.0005	-0.0091	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0019	-0.0088	-0.0067	-0.0001	-0.0002	-0.0187	-0.0215	0.0000	-0.0001	-0.0012	-0.0003	-0.0016	-0.0044	0.0000	-0.9360	-0.0015
Highland	RurNpoor	Fish	-0.0164	-0.0120	-0.0005	-0.0091	-0.0005	-0.0008	-0.0001	-0.0002	-0.0001	-0.0001	-0.0019	-0.0088	-0.0067	-0.0001	-0.0002	-0.0187	-0.0215	0.0000	-0.0001	-0.0012	-0.0003	-0.0016	-0.0044	0.0000	-0.0004	-0.9371
Highland	RurNpoor	Nagtrade	-0.0247	-0.0181	-0.0007	-0.0137	-0.0007	-0.0012	-0.0002	-0.0003	-0.0002	-0.0001	-0.0028	-0.0132	-0.0101	-0.0001	-0.0002	-0.0282	-0.0323	0.0000	-0.0001	-0.0018	-0.0004	-0.0024	-0.0066	0.0000	-0.0006	-0.0023
Highland	RurNpoor	Vagntrade	-0.0185	-0.0136	-0.0005	-0.0103	-0.0005	-0.0009	-0.0002	-0.0002	-0.0001	-0.0001	-0.0021	-0.0099	-0.0076	-0.0001	-0.0002	-0.0212	-0.0242	0.0000	-0.0001	-0.0013	-0.0003	-0.0018	-0.0049	0.0000	-0.0004	-0.0017

Table 4. Price elasticity in the household demand functions (H)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	egetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Highland	UrbPoor	Rice	-0.8821	-0.0887	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.0007	-0.0028	-0.0003	0.0000	-0.0006	-0.0033
Highland	UrbPoor	Wheat	-0.0795	-0.8913	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.0007	-0.0028	-0.0003	0.0000	-0.0006	-0.0033
Highland	UrbPoor	Maz_Sor	-0.0559	-0.0624	-0.5650	-0.0044	-0.0002	-0.0006	0.0000	-0.0019	0.0000	0.0000	-0.0012	-0.0064	-0.0047	0.0000	0.0000	-0.0052	-0.0058	0.0000	-0.0001	-0.0006	-0.0005	-0.0019	-0.0002	0.0000	-0.0004	-0.0023
Highland	UrbPoor	SwPotato	-0.0153	-0.0170	0.0000	-0.1553	-0.0001	-0.0002	0.0000	-0.0005	0.0000	0.0000	-0.0003	-0.0017	-0.0013	0.0000	0.0000	-0.0014	-0.0016	0.0000	0.0000	-0.0002	-0.0001	-0.0005	0.0000	0.0000	-0.0001	-0.0006
Highland	UrbPoor	Cassava	-0.0153	-0.0170	0.0000	-0.0012	-0.1542	-0.0002	0.0000	-0.0005	0.0000	0.0000	-0.0003	-0.0017	-0.0013	0.0000	0.0000	-0.0014	-0.0016	0.0000	0.0000	-0.0002	-0.0001	-0.0005	0.0000	0.0000	-0.0001	-0.0006
Highland	UrbPoor	Cocoyam	-0.0153	-0.0170	0.0000	-0.0012	-0.0001	-0.1543	0.0000	-0.0005	0.0000	0.0000	-0.0003	-0.0017	-0.0013	0.0000	0.0000	-0.0014	-0.0016	0.0000	0.0000	-0.0002	-0.0001	-0.0005	0.0000	0.0000	-0.0001	-0.0006
Highland	UrbPoor	Yams	-0.0153	-0.0170	0.0000	-0.0012	-0.0001	-0.0002	-0.1541	-0.0005	0.0000	0.0000	-0.0003	-0.0017	-0.0013	0.0000	0.0000	-0.0014	-0.0016	0.0000	0.0000	-0.0002	-0.0001	-0.0005	0.0000	0.0000	-0.0001	-0.0006
Highland	UrbPoor	Oroots	-0.0153	-0.0170	0.0000	-0.0012	-0.0001	-0.0002	0.0000	-0.1547	0.0000	0.0000	-0.0003	-0.0017	-0.0013	0.0000	0.0000	-0.0014	-0.0016	0.0000	0.0000	-0.0002	-0.0001	-0.0005	0.0000	0.0000	-0.0001	-0.0006
Highland	UrbPoor	Pulses	-0.0311	-0.0347	-0.0001	-0.0025	-0.0001	-0.0003	0.0000	-0.0011	-0.3138	0.0000	-0.0006	-0.0035	-0.0026	0.0000	0.0000	-0.0029	-0.0032	0.0000	0.0000	-0.0004	-0.0003	-0.0011	-0.0001	0.0000	-0.0002	-0.0013
Highland	UrbPoor	Grndnuts	-0.0311	-0.0347	-0.0001	-0.0025	-0.0001	-0.0003	0.0000	-0.0011	0.0000	-0.3138	-0.0006	-0.0035	-0.0026	0.0000	0.0000	-0.0029	-0.0032	0.0000	0.0000	-0.0004	-0.0003	-0.0011	-0.0001	0.0000	-0.0002	-0.0013
Highland	UrbPoor	Coconuts	-0.0311	-0.0347	-0.0001	-0.0025	-0.0001	-0.0003	0.0000	-0.0011	0.0000	0.0000	-0.3145	-0.0035	-0.0026	0.0000	0.0000	-0.0029	-0.0032	0.0000	0.0000	-0.0004	-0.0003	-0.0011	-0.0001	0.0000	-0.0002	-0.0013
Highland	UrbPoor	Oilpalm	-0.0462	-0.0515	-0.0001	-0.0037	-0.0002	-0.0005	0.0000	-0.0016	0.0000	0.0000	-0.0010	-0.4715	-0.0039	0.0000	0.0000	-0.0043	-0.0048	0.0000	0.0000	-0.0005	-0.0004	-0.0016	-0.0001	0.0000	-0.0003	-0.0019
Highland	UrbPoor	Bananas	-0.0311	-0.0347	-0.0001	-0.0025	-0.0001	-0.0003	0.0000	-0.0011	0.0000	0.0000	-0.0006	-0.0035	-0.3164	0.0000	0.0000	-0.0029	-0.0032	0.0000	0.0000	-0.0004	-0.0003	-0.0011	-0.0001	0.0000	-0.0002	-0.0013
Highland	UrbPoor	Coffee	-0.0622	-0.0694	-0.0001	-0.0049	-0.0003	-0.0007	0.0000	-0.0021	0.0000	0.0000	-0.0013	-0.0071	-0.0052	-0.6276	0.0000	-0.0057	-0.0065	0.0000	-0.0001	-0.0007	-0.0005	-0.0022	-0.0002	0.0000	-0.0005	-0.0025
Highland	UrbPoor	Cocoa	-0.0462	-0.0515	-0.0001	-0.0037	-0.0002	-0.0005	0.0000	-0.0016	0.0000	0.0000	-0.0010	-0.0053	-0.0039	0.0000	-0.4662	-0.0043	-0.0048	0.0000	0.0000	-0.0005	-0.0004	-0.0016	-0.0001	0.0000	-0.0003	-0.0019
Highland	UrbPoor	Vegetable	-0.0622	-0.0694	-0.0001	-0.0049	-0.0003	-0.0007	0.0000	-0.0021	0.0000	0.0000	-0.0013	-0.0071	-0.0052	0.0000	0.0000	-0.6334	-0.0065	0.0000	-0.0001	-0.0007	-0.0005	-0.0022	-0.0002	0.0000	-0.0005	-0.0025
Highland	UrbPoor	Fruit	-0.0622	-0.0694	-0.0001	-0.0049	-0.0003	-0.0007	0.0000	-0.0021	0.0000	0.0000	-0.0013	-0.0071	-0.0052	0.0000	0.0000	-0.0057	-0.6341	0.0000	-0.0001	-0.0007	-0.0005	-0.0022	-0.0002	0.0000	-0.0005	-0.0025
Highland	UrbPoor	Tea	-0.0622	-0.0694	-0.0001	-0.0049	-0.0003	-0.0007	0.0000	-0.0021	0.0000	0.0000	-0.0013	-0.0071	-0.0052	0.0000	0.0000	-0.0057	-0.0065	-0.6277	-0.0001	-0.0007	-0.0005	-0.0022	-0.0002	0.0000	-0.0005	-0.0025
Highland	UrbPoor	Oexcrp	-0.0382	-0.0427	-0.0001	-0.0030	-0.0002	-0.0004	0.0000	-0.0013	0.0000	0.0000	-0.0008	-0.0044	-0.0032	0.0000	0.0000	-0.0035	-0.0040	0.0000	-0.3861	-0.0004	-0.0003	-0.0013	-0.0001	0.0000	-0.0003	-0.0016
Highland	UrbPoor	Ofdcrp	-0.0622	-0.0694	-0.0001	-0.0049	-0.0003	-0.0007	0.0000	-0.0021	0.0000	0.0000	-0.0013	-0.0071	-0.0052	0.0000	0.0000	-0.0057	-0.0065	0.0000	-0.0001	-0.6284	-0.0005	-0.0022	-0.0002	0.0000	-0.0005	-0.0025
Highland	UrbPoor	Beef	-0.0795	-0.0887	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.8033	-0.0028	-0.0003	0.0000	-0.0006	-0.0033
Highland	UrbPoor	Poultry	-0.0795	-0.0887	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.0007	-0.8053	-0.0003	0.0000	-0.0006	-0.0033
Highland	UrbPoor	Pork	-0.0795	-0.0887	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.0007	-0.0028	-0.8028	0.0000	-0.0006	-0.0033
Highland	UrbPoor	Mutton	-0.0795	-0.0887	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.0007	-0.0028	-0.0003	-0.8026	-0.0006	-0.0033
Highland	UrbPoor	OlivPrd	-0.0795	-0.0887	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.0007	-0.0028	-0.0003	0.0000	-0.8032	-0.0033
Highland	UrbPoor	Fish	-0.0795	-0.0887	-0.0002	-0.0063	-0.0003	-0.0009	0.0000	-0.0027	0.0000	0.0000	-0.0016	-0.0091	-0.0067	0.0000	0.0000	-0.0073	-0.0083	0.0000	-0.0001	-0.0009	-0.0007	-0.0028	-0.0003	0.0000	-0.0006	-0.8058
Highland	UrbPoor	Nagtrade	-0.1057	-0.1179	-0.0002	-0.0084	-0.0005	-0.0011	-0.0001	-0.0037	0.0000	0.0000	-0.0022	-0.0121	-0.0089	0.0000	0.0000	-0.0097	-0.0110	0.0000	-0.0001	-0.0012	-0.0009	-0.0037	-0.0003	0.0000	-0.0008	-0.0043
Highland	UrbPoor	Nagntrade	-0.0855	-0.0954	-0.0002	-0.0068	-0.0004	-0.0009	0.0000	-0.0030	0.0000	0.0000	-0.0018	-0.0098	-0.0072	0.0000	0.0000	-0.0079	-0.0089	0.0000	-0.0001	-0.0010	-0.0007	-0.0030	-0.0003	0.0000	-0.0006	-0.0035
Highland	UrbNpoor	Rice	-0.9222	-0.0207	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.0002	-0.0029	-0.0006	0.0000	-0.0004	-0.0014
Highland	UrbNpoor	Wheat	-0.0223	-0.9205	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.0002	-0.0029	-0.0006	0.0000	-0.0004	-0.0014
Highland	UrbNpoor	Maz_Sor	-0.0157	-0.0146	-0.6333	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0004	-0.0024	-0.0027	0.0000	0.0000	-0.0020	-0.0014	0.0000	0.0000	-0.0003	-0.0001	-0.0020	-0.0004	0.0000	-0.0003	-0.0010
Highland	UrbNpoor	SwPotato	-0.0043	-0.0040	0.0000	-0.1728	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0001	-0.0006	-0.0007	0.0000	0.0000	-0.0005	-0.0004	0.0000	0.0000	-0.0001	0.0000	-0.0006	-0.0001	0.0000	-0.0001	-0.0003
Highland	UrbNpoor	Cassava	-0.0043	-0.0040	0.0000	0.0000	-0.1728	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0001	-0.0006	-0.0007	0.0000	0.0000	-0.0005	-0.0004	0.0000	0.0000	-0.0001	0.0000	-0.0006	-0.0001	0.0000	-0.0001	-0.0003
Highland	UrbNpoor	Cocoyam	-0.0043	-0.0040	0.0000	0.0000	0.0000	-0.1728	0.0000	-0.0001	0.0000	0.0000	-0.0001	-0.0006	-0.0007	0.0000	0.0000	-0.0005	-0.0004	0.0000	0.0000	-0.0001	0.0000	-0.0006	-0.0001	0.0000	-0.0001	-0.0003
Highland	UrbNpoor	Yams	-0.0043	-0.0040	0.0000	0.0000	0.0000	0.0000	-0.1728	-0.0001	0.0000	0.0000	-0.0001	-0.0006	-0.0007	0.0000	0.0000	-0.0005	-0.0004	0.0000	0.0000	-0.0001	0.0000	-0.0006	-0.0001	0.0000	-0.0001	-0.0003
Highland	UrbNpoor	Oroots	-0.0043	-0.0040	0.0000	0.0000	0.0000	0.0000	0.0000	-0.1729	0.0000	0.0000	-0.0001	-0.0006	-0.0007	0.0000	0.0000	-0.0005	-0.0004	0.0000	0.0000	-0.0001	0.0000	-0.0006	-0.0001	0.0000	-0.0001	-0.0003
Highland	UrbNpoor	Pulses	-0.0087	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	-0.3519	0.0000	-0.0002	-0.0013	-0.0015	0.0000	0.0000	-0.0011	-0.0008	0.0000	0.0000	-0.0002	-0.0001	-0.0011	-0.0002	0.0000	-0.0002	-0.0005
Highland	UrbNpoor	Grndnuts	-0.0087	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	-0.3519	-0.0002	-0.0013	-0.0015	0.0000	0.0000	-0.0011	-0.0008	0.0000	0.0000	-0.0002	-0.0001	-0.0011	-0.0002	0.0000	-0.0002	-0.0005
Highland	UrbNpoor	Coconuts	-0.0087	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.3521	-0.0013	-0.0015	0.0000	0.0000	-0.0011	-0.0008	0.0000	0.0000	-0.0002	-0.0001	-0.0011	-0.0002	0.0000	-0.0002	-0.0005
Highland	UrbNpoor	Oilpalm	-0.0130	-0.0120	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0004	-0.5246	-0.0022	0.0000	0.0000	-0.0017	-0.0012	0.0000	0.0000	-0.0003	-0.0001	-0.0017	-0.0003	0.0000	-0.0002	-0.0008
Highland	UrbNpoor	Bananas	-0.0087	-0.0081	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0002	-0.0013	-0.3533	0.0000	0.0000	-0.0011	-0.0008	0.0000	0.0000	-0.0002	-0.0001	-0.0011	-0.0002	0.0000	-0.0002	-0.0005
Highland	UrbNpoor	Coffee	-0.0175	-0.0162	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0005	-0.0026	-0.0030	-0.7037	0.0000	-0.0022	-0.0016	0.0000	0.0000	-0.0004	-0.0001	-0.0023	-0.0004	0.0000	-0.0003	-0.0011
Highland	UrbNpoor	Cocoa	-0.0130	-0.0120	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0004	-0.0019	-0.0022	0.0000	-0.5227	-0.0017	-0.0012	0.0000	0.0000	-0.0003	-0.0001	-0.0017	-0.0003	0.0000	-0.0002	-0.0008
Highland	UrbNpoor	Vegetable	-0.0175	-0.0162	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0005	-0.0026	-0.0030	0.0000	0.0000	-0.7059	-0.0016	0.0000	0.0000	-0.0004	-0.0001	-0.0023	-0.0004	0.0000	-0.0003	-0.0011
Highland	UrbNpoor	Fruit	-0.0175	-0.0162	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0005	-0.0026	-0.0030	0.0000	0.0000	-0.0022	-0.7053	0.0000	0.0000	-0.0004	-0.0001	-0.0023	-0.0004	0.0000	-0.0003	-0.0011
Highland	UrbNpoor	Tea	-0.0175	-0.0162	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0005	-0.0026	-0.0030	0.0000	0.0000	-0.0022	-0.0016	-0.7037	0.0000	-0.0004	-0.0001	-0.0023	-0.0004	0.0000	-0.0003	-0.0011
Highland	UrbNpoor	Oexcrp	-0.0107	-0.0099	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0001	0.0000	0.0000	-0.0003	-0.0016	-0.0018	0.0000	0.0000	-0.0014	-0.0010	0.0000	-0.4328	-0.0002	-0.0001	-0.0014	-0.0003	0.0000	-0.0002	-0.0007
Highland	UrbNpoor	Ofdcrp	-0.0175	-0.0162	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0002	0.0000	0.0000	-0.0005	-0.0026	-0.0030	0.0000	0.0000	-0.0022	-0.0016	0.0000	0.0000	-0.7041	-0.0001	-0.0023	-0.0004	0.0000	-0.0003	-0.0011
Highland	UrbNpoor	Beef	-0.0223	-0.0207	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.9000	-0.0029	-0.0006	0.0000	-0.0004	-0.0014
Highland	UrbNpoor	Poultry	-0.0223	-0.0207	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.0002	-0.9028	-0.0006	0.0000	-0.0004	-0.0014
Highland	UrbNpoor	Pork	-0.0223	-0.0207	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.0002	-0.0029	-0.9004	0.0000	-0.0004	-0.0014
Highland	UrbNpoor	Mutton	-0.0223	-0.0207	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.0002	-0.0029	-0.0006	-0.8999	-0.0004	-0.0014
Highland	UrbNpoor	OlivPrd	-0.0223	-0.0207	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.0002	-0.0029	-0.0006	0.0000	-0.9002	-0.0014
Highland	UrbNpoor	Fish	-0.0223	-0.0207	0.0000	-0.0001	0.0000	0.0000	0.0000	-0.0003	0.0000	0.0000	-0.0006	-0.0034	-0.0038	0.0000	0.0000	-0.0029	-0.0020	0.0000	0.0000	-0.0005	-0.0002	-0.0029	-0.0006	0.0000	-0.0004	-0.9012
Highland	UrbNpoor	Nagtrade	-0.0326	-0.0302	0.0000	-0.0002	0.0000	-0.0001	0.0000	-0.0004	0.0000	0.0000	-0.0009	-0.0049	-0.0056	0.0000	0.0000	-0.0042	-0.0029	0.0000	-0.0001	-0.0007	-0.0002	-0.0042	-0.0008	0.0000	-0.0006	-0.0020
Highland	UrbNpoor	Nagntrade	-0.0264	-0.0244	0.0000	-0.0002	0.0000	-0.0001	0.0000	-0.0003	0.0000	0.0000	-0.0007	-0.0040	-0.0045	0.0000	0.0000	-0.0034	-0.0024	0.0000	-0.0001	-0.0005	-0.0002	-0.0034	-0.0007	0.0000	-0.0005	-0.0016

Table 4. Price elasticity in the household demand functions (I)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	Vegetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Island	RurPoor	Rice	-0.8144	-0.0514	-0.0001	-0.0120	-0.0102	-0.0131	-0.0050	-0.0058	-0.0001	-0.0001	-0.0275	-0.0100	-0.0352	0.0000	0.0000	-0.0123	-0.0269	0.0000	-0.0001	-0.0031	-0.0004	-0.0002	-0.0002	0.0000	-0.0010	-0.0113
Island	RurPoor	Wheat	-0.1017	-0.7582	-0.0001	-0.0119	-0.0101	-0.0131	-0.0049	-0.0058	-0.0001	-0.0001	-0.0273	-0.0099	-0.0350	0.0000	0.0000	-0.0122	-0.0267	0.0000	-0.0001	-0.0031	-0.0004	-0.0002	-0.0002	0.0000	-0.0010	-0.0112
Island	RurPoor	Maz_Sor	-0.0895	-0.0449	-0.6222	-0.0105	-0.0089	-0.0115	-0.0043	-0.0051	-0.0001	-0.0001	-0.0240	-0.0087	-0.0308	0.0000	0.0000	-0.0107	-0.0235	0.0000	-0.0001	-0.0027	-0.0004	-0.0001	-0.0001	0.0000	-0.0009	-0.0099
Island	RurPoor	SwPotato	-0.0622	-0.0312	0.0000	-0.4395	-0.0062	-0.0080	-0.0030	-0.0035	-0.0001	0.0000	-0.0167	-0.0061	-0.0214	0.0000	0.0000	-0.0075	-0.0163	0.0000	0.0000	-0.0019	-0.0003	-0.0001	-0.0001	0.0000	-0.0006	-0.0069
Island	RurPoor	Cassava	-0.0622	-0.0312	0.0000	-0.0073	-0.4384	-0.0080	-0.0030	-0.0035	-0.0001	0.0000	-0.0167	-0.0061	-0.0214	0.0000	0.0000	-0.0075	-0.0163	0.0000	0.0000	-0.0019	-0.0003	-0.0001	-0.0001	0.0000	-0.0006	-0.0069
Island	RurPoor	Cocoyam	-0.0622	-0.0312	0.0000	-0.0073	-0.0062	-0.4402	-0.0030	-0.0035	-0.0001	0.0000	-0.0167	-0.0061	-0.0214	0.0000	0.0000	-0.0075	-0.0163	0.0000	0.0000	-0.0019	-0.0003	-0.0001	-0.0001	0.0000	-0.0006	-0.0069
Island	RurPoor	Yams	-0.0622	-0.0312	0.0000	-0.0073	-0.0062	-0.0080	-0.4353	-0.0035	-0.0001	0.0000	-0.0167	-0.0061	-0.0214	0.0000	0.0000	-0.0075	-0.0163	0.0000	0.0000	-0.0019	-0.0003	-0.0001	-0.0001	0.0000	-0.0006	-0.0069
Island	RurPoor	Oroots	-0.0622	-0.0312	0.0000	-0.0073	-0.0062	-0.0080	-0.0030	-0.4358	-0.0001	0.0000	-0.0167	-0.0061	-0.0214	0.0000	0.0000	-0.0075	-0.0163	0.0000	0.0000	-0.0019	-0.0003	-0.0001	-0.0001	0.0000	-0.0006	-0.0069
Island	RurPoor	Pulses	-0.0767	-0.0385	0.0000	-0.0090	-0.0076	-0.0099	-0.0037	-0.0044	-0.5336	0.0000	-0.0206	-0.0075	-0.0264	0.0000	0.0000	-0.0092	-0.0202	0.0000	-0.0001	-0.0023	-0.0003	0.0001	-0.0001	0.0000	-0.0008	-0.0085
Island	RurPoor	Grndnuts	-0.0767	-0.0385	0.0000	-0.0090	-0.0076	-0.0099	-0.0037	-0.0044	-0.0001	-0.5336	-0.0206	-0.0075	-0.0264	0.0000	0.0000	-0.0092	-0.0202	0.0000	-0.0001	-0.0023	-0.0003	-0.0001	-0.0001	0.0000	-0.0008	-0.0085
Island	RurPoor	Coconuts	-0.0895	-0.0449	-0.0001	-0.0105	-0.0089	-0.0115	-0.0043	-0.0051	-0.0001	-0.0001	-0.6461	-0.0087	-0.0308	0.0000	0.0000	-0.0107	-0.0235	0.0000	-0.0001	-0.0027	-0.0004	-0.0001	-0.0001	0.0000	-0.0009	-0.0099
Island	RurPoor	Oilpalm	-0.0895	-0.0449	-0.0001	-0.0105	-0.0089	-0.0115	-0.0043	-0.0051	-0.0001	-0.0001	-0.0240	-0.6309	-0.0308	0.0000	0.0000	-0.0107	-0.0235	0.0000	-0.0001	-0.0027	-0.0004	0.0001	-0.0001	0.0000	-0.0009	-0.0099
Island	RurPoor	Bananas	-0.0767	-0.0385	0.0000	-0.0090	-0.0076	-0.0099	-0.0037	-0.0044	-0.0001	0.0000	-0.0206	-0.0075	-0.5599	0.0000	0.0000	-0.0092	-0.0202	0.0000	-0.0001	-0.0023	-0.0003	-0.0001	-0.0001	0.0000	-0.0008	-0.0085
Island	RurPoor	Coffee	-0.0945	-0.0474	-0.0001	-0.0110	-0.0094	-0.0121	-0.0046	-0.0054	-0.0001	-0.0001	-0.0253	-0.0092	-0.0325	-0.6567	0.0000	-0.0113	-0.0248	0.0000	-0.0001	-0.0028	-0.0004	-0.0001	-0.0001	0.0000	-0.0009	-0.0104
Island	RurPoor	Cocoa	-0.0767	-0.0385	0.0000	-0.0090	-0.0076	-0.0099	-0.0037	-0.0044	-0.0001	0.0000	-0.0206	-0.0075	-0.0264	0.0000	-0.5335	-0.0092	-0.0202	0.0000	-0.0001	-0.0023	-0.0003	-0.0001	-0.0001	0.0000	-0.0008	-0.0085
Island	RurPoor	Vegetable	-0.0945	-0.0474	-0.0001	-0.0110	-0.0094	-0.0121	-0.0046	-0.0054	-0.0001	-0.0001	-0.0253	-0.0092	-0.0325	0.0000	0.0000	-0.6682	-0.0248	0.0000	-0.0001	-0.0029	-0.0004	-0.0001	-0.0001	0.0000	-0.0009	-0.0104
Island	RurPoor	Fruit	-0.0945	-0.0474	-0.0001	-0.0110	-0.0094	-0.0121	-0.0046	-0.0054	-0.0001	-0.0001	-0.0253	-0.0092	-0.0325	0.0000	0.0000	-0.0113	-0.6817	0.0000	-0.0001	-0.0029	-0.0004	-0.0001	-0.0001	0.0000	-0.0009	-0.0104
Island	RurPoor	Tea	-0.0945	-0.0474	-0.0001	-0.0110	-0.0094	-0.0121	-0.0046	-0.0054	-0.0001	-0.0001	-0.0253	-0.0092	-0.0325	0.0000	0.0000	-0.0113	-0.0248	-0.6569	-0.0001	-0.0029	-0.0004	-0.0001	-0.0001	0.0000	-0.0009	-0.0104
Island	RurPoor	Oexcrp	-0.0555	-0.0279	0.0000	-0.0065	-0.0055	-0.0071	-0.0027	-0.0032	-0.0001	0.0000	-0.0149	-0.0054	-0.0191	0.0000	0.0000	-0.0067	-0.0146	0.0000	-0.3860	-0.0017	-0.0002	-0.0001	-0.0001	0.0000	-0.0006	-0.0061
Island	RurPoor	Ofdcrp	-0.0945	-0.0474	-0.0001	-0.0110	-0.0094	-0.0121	-0.0046	-0.0054	-0.0001	-0.0001	-0.0253	-0.0092	-0.0325	0.0000	0.0000	-0.0113	-0.0248	0.0000	-0.0001	-0.6597	-0.0004	-0.0001	-0.0001	0.0000	-0.0009	-0.0104
Island	RurPoor	Beef	-0.1044	-0.0524	-0.0001	-0.0122	-0.0104	-0.0134	-0.0051	-0.0059	-0.0001	-0.0001	-0.0280	-0.0102	-0.0359	0.0000	0.0000	-0.0125	-0.0274	0.0000	-0.0001	-0.0031	-0.7262	-0.0002	-0.0002	0.0000	-0.0010	-0.0115
Island	RurPoor	Poultry	-0.1044	-0.0524	-0.0001	-0.0122	-0.0104	-0.0134	-0.0051	-0.0059	-0.0001	-0.0001	-0.0280	-0.0102	-0.0359	0.0000	0.0000	-0.0125	-0.0274	0.0000	-0.0001	-0.0031	-0.0004	-0.7260	-0.0002	0.0000	-0.0010	-0.0115
Island	RurPoor	Pork	-0.1044	-0.0524	-0.0001	-0.0122	-0.0104	-0.0134	-0.0051	-0.0059	-0.0001	-0.0001	-0.0280	-0.0102	-0.0359	0.0000	0.0000	-0.0125	-0.0274	0.0000	-0.0001	-0.0031	-0.0004	-0.0002	-0.7260	0.0000	-0.0010	-0.0115
Island	RurPoor	Mutton	-0.1044	-0.0524	-0.0001	-0.0122	-0.0104	-0.0134	-0.0051	-0.0059	-0.0001	-0.0001	-0.0280	-0.0102	-0.0359	0.0000	0.0000	-0.0125	-0.0274	0.0000	-0.0001	-0.0031	-0.0004	-0.0002	-0.0002	-0.7258	-0.0010	-0.0115
Island	RurPoor	OlivPrd	-0.1044	-0.0524	-0.0001	-0.0122	-0.0104	-0.0134	-0.0051	-0.0059	-0.0001	-0.0001	-0.0280	-0.0102	-0.0359	0.0000	0.0000	-0.0125	-0.0274	0.0000	-0.0001	-0.0031	-0.0004	-0.0002	-0.0002	0.0000	-0.7268	-0.0115
Island	RurPoor	Fish	-0.1044	-0.0524	-0.0001	-0.0122	-0.0104	-0.0134	-0.0051	-0.0059	-0.0001	-0.0001	-0.0280	-0.0102	-0.0359	0.0000	0.0000	-0.0125	-0.0274	0.0000	-0.0001	-0.0031	-0.0004	-0.0002	-0.0002	0.0000	-0.0010	-0.7373
Island	RurPoor	Nagtrade	-0.1508	-0.0756	-0.0001	-0.0176	-0.0150	-0.0194	-0.0073	-0.0086	-0.0002	-0.0001	-0.0404	-0.0147	-0.0519	0.0000	0.0000	-0.0181	-0.0396	0.0000	-0.0001	-0.0045	-0.0006	-0.0002	-0.0002	0.0000	-0.0015	-0.0167
Island	RurPoor	Nagntrade	-0.1132	-0.0568	-0.0001	-0.0132	-0.0112	-0.0145	-0.0055	-0.0064	-0.0001	-0.0001	-0.0304	-0.0111	-0.0390	0.0000	0.0000	-0.0136	-0.0298	0.0000	-0.0001	-0.0034	-0.0005	-0.0002	-0.0002	0.0000	-0.0011	-0.0125
Island	RurNpoor	Rice	-0.9391	-0.0115	-0.0001	-0.0043	-0.0026	-0.0031	-0.0021	-0.0022	0.0000	0.0000	-0.0094	-0.0036	-0.0056	0.0000	0.0000	-0.0044	-0.0187	0.0000	-0.0001	-0.0021	-0.0001	-0.0008	-0.0014	0.0000	-0.0008	-0.0145
Island	RurNpoor	Wheat	-0.0247	-0.9194	-0.0001	-0.0043	-0.0025	-0.0031	-0.0021	-0.0022	0.0000	0.0000	-0.0093	-0.0036	-0.0056	0.0000	0.0000	-0.0043	-0.0185	0.0000	-0.0001	-0.0021	-0.0001	-0.0008	-0.0014	0.0000	-0.0008	-0.0144
Island	RurNpoor	Maz_Sor	-0.0217	-0.0100	-0.7989	-0.0038	-0.0022	-0.0027	-0.0019	-0.0019	0.0000	0.0000	-0.0082	-0.0031	-0.0049	0.0000	0.0000	-0.0038	-0.0163	0.0000	-0.0001	-0.0018	-0.0001	-0.0007	-0.0012	0.0000	-0.0007	-0.0127
Island	RurNpoor	SwPotato	-0.0151	-0.0070	0.0000	-0.5577	-0.0016	-0.0019	-0.0013	-0.0013	0.0000	0.0000	-0.0057	-0.0022	-0.0034	0.0000	0.0000	-0.0026	-0.0113	0.0000	0.0000	-0.0013	-0.0001	-0.0005	-0.0009	0.0000	-0.0005	-0.0088
Island	RurNpoor	Cassava	-0.0151	-0.0070	0.0000	-0.0026	-0.5566	-0.0019	-0.0013	-0.0013	0.0000	0.0000	-0.0057	-0.0022	-0.0034	0.0000	0.0000	-0.0026	-0.0113	0.0000	0.0000	-0.0013	-0.0001	-0.0005	-0.0009	0.0000	-0.0005	-0.0088
Island	RurNpoor	Cocoyam	-0.0151	-0.0070	0.0000	-0.0026	-0.0016	-0.5569	-0.0013	-0.0013	0.0000	0.0000	-0.0057	-0.0022	-0.0034	0.0000	0.0000	-0.0026	-0.0113	0.0000	0.0000	-0.0013	-0.0001	-0.0005	-0.0009	0.0000	-0.0005	-0.0088
Island	RurNpoor	Yams	-0.0151	-0.0070	0.0000	-0.0026	-0.0016	-0.0019	-0.5563	-0.0013	0.0000	0.0000	-0.0057	-0.0022	-0.0034	0.0000	0.0000	-0.0026	-0.0113	0.0000	0.0000	-0.0013	-0.0001	-0.0005	-0.0009	0.0000	-0.0005	-0.0088
Island	RurNpoor	Oroots	-0.0151	-0.0070	0.0000	-0.0026	-0.0016	-0.0019	-0.0013	-0.5564	0.0000	0.0000	-0.0057	-0.0022	-0.0034	0.0000	0.0000	-0.0026	-0.0113	0.0000	0.0000	-0.0013	-0.0001	-0.0005	-0.0009	0.0000	-0.0005	-0.0088
Island	RurNpoor	Pulses	-0.0186	-0.0086	-0.0001	-0.0032	-0.0019	-0.0023	-0.0016	-0.0016	-0.6851	0.0000	-0.0070	-0.0027	-0.0042	0.0000	0.0000	-0.0033	-0.0140	0.0000	0.0000	-0.0016	-0.0001	-0.0006	-0.0011	0.0000	-0.0006	-0.0108
Island	RurNpoor	Grndnuts	-0.0186	-0.0086	-0.0001	-0.0032	-0.0019	-0.0023	-0.0016	-0.0016	0.0000	-0.6851	-0.0070	-0.0027	-0.0042	0.0000	0.0000	-0.0033	-0.0140	0.0000	0.0000	-0.0016	-0.0001	-0.0006	-0.0011	0.0000	-0.0006	-0.0108
Island	RurNpoor	Coconuts	-0.0217	-0.0100	-0.0001	-0.0038	-0.0022	-0.0027	-0.0019	-0.0019	0.0000	0.0000	-0.8071	-0.0031	-0.0049	0.0000	0.0000	-0.0038	-0.0163	0.0000	-0.0001	-0.0018	-0.0001	-0.0007	-0.0012	0.0000	-0.0007	-0.0127
Island	RurNpoor	Oilpalm	-0.0217	-0.0100	-0.0001	-0.0038	-0.0022	-0.0027	-0.0019	-0.0019	0.0000	0.0000	-0.0082	-0.8020	-0.0049	0.0000	0.0000	-0.0038	-0.0163	0.0000	-0.0001	-0.0018	-0.0001	-0.0007	-0.0012	0.0000	-0.0007	-0.0127
Island	RurNpoor	Bananas	-0.0186	-0.0086	-0.0001	-0.0032	-0.0019	-0.0023	-0.0016	-0.0016	0.0000	0.0000	-0.0070	-0.0027	-0.6893	0.0000	0.0000	-0.0033	-0.0140	0.0000	0.0000	-0.0016	-0.0001	-0.0006	-0.0011	0.0000	-0.0006	-0.0108
Island	RurNpoor	Coffee	-0.0229	-0.0106	-0.0001	-0.0040	-0.0024	-0.0029	-0.0020	-0.0020	0.0000	0.0000	-0.0087	-0.0033	-0.0052	-0.8432	0.0000	-0.0040	-0.0172	0.0000	-0.0001	-0.0019	-0.0001	-0.0007	-0.0013	0.0000	-0.0008	-0.0134
Island	RurNpoor	Cocoa	-0.0186	-0.0086	-0.0001	-0.0032	-0.0019	-0.0023	-0.0016	-0.0016	0.0000	0.0000	-0.0070	-0.0027	-0.0042	0.0000	-0.6851	-0.0033	-0.0140	0.0000	0.0000	-0.0016	-0.0001	-0.0006	-0.0011	0.0000	-0.0006	-0.0108
Island	RurNpoor	Vegetable	-0.0230	-0.0106	-0.0001	-0.0040	-0.0024	-0.0029	-0.0020	-0.0020	0.0000	0.0000	-0.0087	-0.0033	-0.0052	0.0000	0.0000	-0.8474	-0.0172	0.0000	-0.0001	-0.0019	-0.0001	-0.0007	-0.0013	0.0000	-0.0008	-0.0134
Island	RurNpoor	Fruit	-0.0230	-0.0106	-0.0001	-0.0040	-0.0024	-0.0029	-0.0020	-0.0020	0.0000	0.0000	-0.0087	-0.0033	-0.0052	0.0000	0.0000	-0.0040	-0.8606	0.0000	-0.0001	-0.0019	-0.0001	-0.0007	-0.0013	0.0000	-0.0008	-0.0134
Island	RurNpoor	Tea	-0.0230	-0.0106	-0.0001	-0.0040	-0.0024	-0.0029	-0.0020	-0.0020	0.0000	0.0000	-0.0087	-0.0033	-0.0052	0.0000	0.0000	-0.0040	-0.0172	-0.8434	-0.0001	-0.0019	-0.0001	-0.0007	-0.0013	0.0000	-0.0008	-0.0134
Island	RurNpoor	Oexcrp	-0.0135	-0.0062	0.0000	-0.0023	-0.0014	-0.0017	-0.0012	-0.0012	0.0000	0.0000	-0.0051	-0.0019	-0.0030	0.0000	0.0000	-0.0024	-0.0101	0.0000	-0.4956	-0.0011	0.0000	-0.0004	-0.0008	0.0000	-0.0004	-0.0078
Island	RurNpoor	Ofdcrp	-0.0230	-0.0106	-0.0001	-0.0040	-0.0024	-0.0029	-0.0020	-0.0020	0.0000	0.0000	-0.0087	-0.0033	-0.0052	0.0000	0.0000	-0.0040	-0.0172	0.0000	-0.0001	-0.8453	-0.0001	-0.0007	-0.0013	0.0000	-0.0008	-0.0134
Island	RurNpoor	Beef	-0.0254	-0.0117	-0.0001	-0.0044	-0.0026	-0.0032	-0.0022	-0.0022	0.0000	0.0000	-0.0096	-0.0037	-0.0057	0.0000	0.0000	-0.0044	-0.0190	0.0000	-0.0001	-0.0021	-0.9321	-0.0008	-0.0015	0.0000	-0.0008	-0.0148
Island	RurNpoor	Poultry	-0.0254	-0.0117	-0.0001	-0.0044	-0.0026	-0.0032	-0.0022	-0.0022	0.0000	0.0000	-0.0096	-0.0037	-0.0057	0.0000	0.0000	-0.0044	-0.0190	0.0000	-0.0001	-0.0021	-0.0001	-0.9328	-0.0015	0.0000	-0.0008	-0.0148
Island	RurNpoor	Pork	-0.0254	-0.0117	-0.0001	-0.0044	-0.0026	-0.0032	-0.0022	-0.0022	0.0000	0.0000	-0.0096	-0.0037	-0.0057	0.0000	0.0000	-0.0044	-0.0190	0.0000	-0.0001	-0.0021	-0.0001	-0.0008	-0.9334	0.0000	-0.0008	-0.0148
Island	RurNpoor	Mutton	-0.0254	-0.0117	-0.0001	-0.0044	-0.0026	-0.0032	-0.0022	-0.0022	0.0000	0.0000	-0.0096	-0.0037	-0.0057	0.0000	0.0000	-0.0044	-0.0190	0.0000	-0.0001	-0.0021	-0.0001	-0.0008	-0.0015	-0.9320	-0.0008	-0.0148
Island	RurNpoor	OlivPrd	-0.0254	-0.0117	-0.0001	-0.0044	-0.0026	-0.0032	-0.0022	-0.0022	0.0000	0.0000	-0.0096	-0.0037	-0.0057	0.0000	0.0000	-0.0044	-0.0190	0.0000	-0.0001	-0.0021	-0.0001	-0.0008	-0.0015	0.0000	-0.9328	-0.0148
Island	RurNpoor	Fish	-0.0254	-0.0117	-0.0001	-0.0044	-0.0026	-0.0032	-0.0022	-0.0022	0.0000	0.0000	-0.0096	-0.0037	-0.0057	0.0000	0.0000	-0.0044	-0.0190	0.0000	-0.0001	-0.0021	-0.0001	-0.0008	-0.0015	0.0000	-0.0008	-0.9467
Island	RurNpoor	Nagtrade	-0.0379	-0.0175	-0.0001	-0.0066	-0.0039	-0.0047	-0.0033	-0.0033	-0.0001	0.0000	-0.0143	-0.0055	-0.0086	0.0000	0.0000	-0.0066	-0.0285	0.0000	-0.0001	-0.0032	-0.0001	-0.0012	-0.0022	0.0000	-0.0012	-0.0221
Island	RurNpoor	Nagntrade	-0.0285	-0.0131	-0.0001	-0.0050	-0.0029	-0.0036	-0.0024	-0.0025	0.0000	0.0000	-0.0108	-0.0041	-0.0064	0.0000	0.0000	-0.0050	-0.0214	0.0000	-0.0001	-0.0024	-0.0001	-0.0009	-0.0016	0.0000	-0.0009	-0.0166

Table 4. Price elasticity in the household demand functions (J)

			Rice	Wheat	Maz_Sor	SwPotato	Cassava	Cocoyam	Yams	Oroots	Pulses	Grndnuts	Coconuts	Oilpalm	Bananas	Coffee	Cocoa	egetable	Fruit	Tea	Oexcrp	Ofdcrp	Beef	Poultry	Pork	Mutton	OlivPrd	Fish
Island	UrbPoor	Rice	-0.8421	-0.1425	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	0.0000	-0.0009	-0.0003	0.0000	-0.0009	-0.0057
Island	UrbPoor	Wheat	-0.0711	-0.9135	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	0.0000	-0.0009	-0.0003	0.0000	-0.0009	-0.0057
Island	UrbPoor	Maz_Sor	-0.0501	-0.1003	-0.5427	-0.0021	-0.0009	-0.0012	-0.0002	-0.0036	0.0000	0.0000	-0.0029	-0.0045	-0.0075	0.0000	0.0000	-0.0017	-0.0030	0.0000	-0.0001	-0.0011	0.0000	-0.0007	-0.0002	0.0000	-0.0007	-0.0040
Island	UrbPoor	SwPotato	-0.0137	-0.0274	0.0000	-0.1486	-0.0002	-0.0003	0.0000	-0.0010	0.0000	0.0000	-0.0008	-0.0012	-0.0020	0.0000	0.0000	-0.0005	-0.0008	0.0000	0.0000	-0.0003	0.0000	-0.0002	0.0000	0.0000	-0.0002	-0.0011
Island	UrbPoor	Cassava	-0.0137	-0.0274	0.0000	-0.0006	-0.1483	-0.0003	0.0000	-0.0010	0.0000	0.0000	-0.0008	-0.0012	-0.0020	0.0000	0.0000	-0.0005	-0.0008	0.0000	0.0000	-0.0003	0.0000	-0.0002	0.0000	0.0000	-0.0002	-0.0011
Island	UrbPoor	Cocoyam	-0.0137	-0.0274	0.0000	-0.0006	-0.0002	-0.1484	0.0000	-0.0010	0.0000	0.0000	-0.0008	-0.0012	-0.0020	0.0000	0.0000	-0.0005	-0.0008	0.0000	0.0000	-0.0003	0.0000	-0.0002	0.0000	0.0000	-0.0002	-0.0011
Island	UrbPoor	Yams	-0.0137	-0.0274	0.0000	-0.0006	-0.0002	-0.0003	-0.1481	-0.0010	0.0000	0.0000	-0.0008	-0.0012	-0.0020	0.0000	0.0000	-0.0005	-0.0008	0.0000	0.0000	-0.0003	0.0000	-0.0002	0.0000	0.0000	-0.0002	-0.0011
Island	UrbPoor	Oroots	-0.0137	-0.0274	0.0000	-0.0006	-0.0002	-0.0003	0.0000	-0.1490	0.0000	0.0000	-0.0008	-0.0012	-0.0020	0.0000	0.0000	-0.0005	-0.0008	0.0000	0.0000	-0.0003	0.0000	-0.0002	0.0000	0.0000	-0.0002	-0.0011
Island	UrbPoor	Pulses	-0.0278	-0.0557	0.0000	-0.0012	-0.0005	-0.0006	-0.0001	-0.0020	-0.3015	0.0000	-0.0016	-0.0025	-0.0042	0.0000	0.0000	-0.0009	-0.0016	0.0000	0.0000	-0.0006	0.0000	-0.0004	-0.0001	0.0000	-0.0004	-0.0022
Island	UrbPoor	Grndnuts	-0.0278	-0.0557	0.0000	-0.0012	-0.0005	-0.0006	-0.0001	-0.0020	0.0000	-0.3015	-0.0016	-0.0025	-0.0042	0.0000	0.0000	-0.0009	-0.0016	0.0000	0.0000	-0.0006	0.0000	-0.0004	-0.0001	0.0000	-0.0004	-0.0022
Island	UrbPoor	Coconuts	-0.0278	-0.0557	0.0000	-0.0012	-0.0005	-0.0006	-0.0001	-0.0020	0.0000	0.0000	-0.3031	-0.0025	-0.0042	0.0000	0.0000	-0.0009	-0.0016	0.0000	0.0000	-0.0006	0.0000	-0.0004	-0.0001	0.0000	-0.0004	-0.0022
Island	UrbPoor	Oilpalm	-0.0413	-0.0828	0.0000	-0.0017	-0.0008	-0.0010	-0.0001	-0.0030	0.0000	0.0000	-0.0024	-0.4516	-0.0062	0.0000	0.0000	-0.0014	-0.0025	0.0000	0.0000	-0.0009	0.0000	-0.0005	-0.0001	0.0000	-0.0005	-0.0033
Island	UrbPoor	Bananas	-0.0278	-0.0557	0.0000	-0.0012	-0.0005	-0.0006	-0.0001	-0.0020	0.0000	0.0000	-0.0016	-0.0025	-0.3056	0.0000	0.0000	-0.0009	-0.0016	0.0000	0.0000	-0.0006	0.0000	-0.0004	-0.0001	0.0000	-0.0004	-0.0022
Island	UrbPoor	Coffee	-0.0556	-0.1114	0.0000	-0.0023	-0.0010	-0.0013	-0.0002	-0.0040	0.0000	0.0000	-0.0032	-0.0050	-0.0083	-0.6029	0.0000	-0.0019	-0.0033	0.0000	-0.0001	-0.0013	0.0000	-0.0007	-0.0002	0.0000	-0.0007	-0.0044
Island	UrbPoor	Cocoa	-0.0413	-0.0828	0.0000	-0.0017	-0.0008	-0.0010	-0.0001	-0.0030	0.0000	0.0000	-0.0024	-0.0037	-0.0062	0.0000	-0.4478	-0.0014	-0.0025	0.0000	0.0000	-0.0009	0.0000	-0.0005	-0.0001	0.0000	-0.0005	-0.0033
Island	UrbPoor	Vegetable	-0.0556	-0.1114	0.0000	-0.0023	-0.0010	-0.0013	-0.0002	-0.0040	0.0000	0.0000	-0.0032	-0.0050	-0.0083	0.0000	0.0000	-0.6048	-0.0033	0.0000	-0.0001	-0.0013	0.0000	-0.0007	-0.0002	0.0000	-0.0007	-0.0044
Island	UrbPoor	Fruit	-0.0556	-0.1114	0.0000	-0.0023	-0.0010	-0.0013	-0.0002	-0.0040	0.0000	0.0000	-0.0032	-0.0050	-0.0083	0.0000	0.0000	-0.0019	-0.6062	0.0000	-0.0001	-0.0013	0.0000	-0.0007	-0.0002	0.0000	-0.0007	-0.0044
Island	UrbPoor	Tea	-0.0556	-0.1114	0.0000	-0.0023	-0.0010	-0.0013	-0.0002	-0.0040	0.0000	0.0000	-0.0032	-0.0050	-0.0083	0.0000	0.0000	-0.0019	-0.0033	-0.6030	-0.0001	-0.0013	0.0000	-0.0007	-0.0002	0.0000	-0.0007	-0.0044
Island	UrbPoor	Oexcrp	-0.0342	-0.0685	0.0000	-0.0014	-0.0006	-0.0008	-0.0001	-0.0024	0.0000	0.0000	-0.0020	-0.0031	-0.0051	0.0000	0.0000	-0.0011	-0.0020	0.0000	-0.3709	-0.0008	0.0000	-0.0005	-0.0001	0.0000	-0.0005	-0.0027
Island	UrbPoor	Ofdcrp	-0.0556	-0.1114	0.0000	-0.0023	-0.0010	-0.0013	-0.0002	-0.0040	0.0000	0.0000	-0.0032	-0.0050	-0.0083	0.0000	0.0000	-0.0019	-0.0033	0.0000	-0.0001	-0.6042	0.0000	-0.0007	-0.0002	0.0000	-0.0007	-0.0044
Island	UrbPoor	Beef	-0.0711	-0.1425	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	-0.7710	-0.0009	-0.0003	0.0000	-0.0009	-0.0057
Island	UrbPoor	Poultry	-0.0711	-0.1425	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	0.0000	-0.7719	-0.0003	0.0000	-0.0009	-0.0057
Island	UrbPoor	Pork	-0.0711	-0.1425	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	0.0000	-0.0009	-0.7713	0.0000	-0.0009	-0.0057
Island	UrbPoor	Mutton	-0.0711	-0.1425	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	0.0000	-0.0009	-0.0003	-0.7710	-0.0009	-0.0057
Island	UrbPoor	OlivPrd	-0.0711	-0.1425	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	0.0000	-0.0009	-0.0003	0.0000	-0.7719	-0.0057
Island	UrbPoor	Fish	-0.0711	-0.1425	0.0000	-0.0029	-0.0013	-0.0017	-0.0002	-0.0051	0.0000	0.0000	-0.0042	-0.0064	-0.0106	0.0000	0.0000	-0.0024	-0.0042	0.0000	-0.0001	-0.0016	0.0000	-0.0009	-0.0003	0.0000	-0.0009	-0.7767
Island	UrbPoor	Nagtrade	-0.0936	-0.1876	-0.0001	-0.0039	-0.0017	-0.0022	-0.0003	-0.0067	0.0000	0.0000	-0.0055	-0.0084	-0.0140	0.0000	0.0000	-0.0031	-0.0056	0.0000	-0.0001	-0.0021	0.0000	-0.0012	-0.0003	0.0000	-0.0012	-0.0075
Island	UrbPoor	Nagntrade	-0.0757	-0.1517	0.0000	-0.0031	-0.0014	-0.0018	-0.0003	-0.0054	0.0000	0.0000	-0.0044	-0.0068	-0.0113	0.0000	0.0000	-0.0025	-0.0045	0.0000	-0.0001	-0.0017	0.0000	-0.0010	-0.0003	0.0000	-0.0010	-0.0060
Island	UrbNpoor	Rice	-0.9140	-0.0203	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.0002	-0.0008	-0.0018	0.0000	-0.0006	-0.0053
Island	UrbNpoor	Wheat	-0.0206	-0.9138	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.0002	-0.0008	-0.0018	0.0000	-0.0006	-0.0053
Island	UrbNpoor	Maz_Sor	-0.0145	-0.0143	-0.6288	-0.0001	-0.0002	-0.0003	-0.0001	-0.0010	0.0000	0.0000	-0.0025	-0.0026	-0.0027	0.0000	0.0000	-0.0010	-0.0011	0.0000	0.0000	-0.0007	-0.0002	-0.0006	-0.0013	0.0000	-0.0004	-0.0038
Island	UrbNpoor	SwPotato	-0.0039	-0.0039	0.0000	-0.1716	0.0000	-0.0001	0.0000	-0.0003	0.0000	0.0000	-0.0007	-0.0007	-0.0007	0.0000	0.0000	-0.0003	-0.0003	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0004	0.0000	-0.0001	-0.0010
Island	UrbNpoor	Cassava	-0.0039	-0.0039	0.0000	0.0000	-0.1716	-0.0001	0.0000	-0.0003	0.0000	0.0000	-0.0007	-0.0007	-0.0007	0.0000	0.0000	-0.0003	-0.0003	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0004	0.0000	-0.0001	-0.0010
Island	UrbNpoor	Cocoyam	-0.0039	-0.0039	0.0000	0.0000	0.0000	-0.1717	0.0000	-0.0003	0.0000	0.0000	-0.0007	-0.0007	-0.0007	0.0000	0.0000	-0.0003	-0.0003	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0004	0.0000	-0.0001	-0.0010
Island	UrbNpoor	Yams	-0.0039	-0.0039	0.0000	0.0000	0.0000	-0.0001	-0.1716	-0.0003	0.0000	0.0000	-0.0007	-0.0007	-0.0007	0.0000	0.0000	-0.0003	-0.0003	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0004	0.0000	-0.0001	-0.0010
Island	UrbNpoor	Oroots	-0.0039	-0.0039	0.0000	0.0000	0.0000	-0.0001	0.0000	-0.1719	0.0000	0.0000	-0.0007	-0.0007	-0.0007	0.0000	0.0000	-0.0003	-0.0003	0.0000	0.0000	-0.0002	0.0000	-0.0002	-0.0004	0.0000	-0.0001	-0.0010
Island	UrbNpoor	Pulses	-0.0080	-0.0080	0.0000	0.0000	-0.0001	-0.0002	0.0000	-0.0006	-0.3494	0.0000	-0.0014	-0.0014	-0.0015	0.0000	0.0000	-0.0006	-0.0006	0.0000	0.0000	-0.0004	-0.0001	-0.0003	-0.0007	0.0000	-0.0002	-0.0021
Island	UrbNpoor	Grndnuts	-0.0080	-0.0080	0.0000	0.0000	-0.0001	-0.0002	0.0000	-0.0006	0.0000	-0.3494	-0.0014	-0.0014	-0.0015	0.0000	0.0000	-0.0006	-0.0006	0.0000	0.0000	-0.0004	-0.0001	-0.0003	-0.0007	0.0000	-0.0002	-0.0021
Island	UrbNpoor	Coconuts	-0.0080	-0.0080	0.0000	0.0000	-0.0001	-0.0002	0.0000	-0.0006	0.0000	0.0000	-0.3507	-0.0014	-0.0015	0.0000	0.0000	-0.0006	-0.0006	0.0000	0.0000	-0.0004	-0.0001	-0.0003	-0.0007	0.0000	-0.0002	-0.0021
Island	UrbNpoor	Oilpalm	-0.0119	-0.0118	0.0000	-0.0001	-0.0001	-0.0002	-0.0001	-0.0008	0.0000	0.0000	-0.0021	-0.5211	-0.0023	0.0000	0.0000	-0.0008	-0.0009	0.0000	0.0000	-0.0006	-0.0001	-0.0005	-0.0011	0.0000	-0.0003	-0.0031
Island	UrbNpoor	Bananas	-0.0080	-0.0080	0.0000	0.0000	-0.0001	-0.0002	0.0000	-0.0006	0.0000	0.0000	-0.0014	-0.0014	-0.3509	0.0000	0.0000	-0.0006	-0.0006	0.0000	0.0000	-0.0004	-0.0001	-0.0003	-0.0007	0.0000	-0.0002	-0.0021
Island	UrbNpoor	Coffee	-0.0161	-0.0159	0.0000	-0.0001	-0.0002	-0.0003	-0.0001	-0.0011	0.0000	0.0000	-0.0028	-0.0029	-0.0030	-0.6987	0.0000	-0.0011	-0.0013	0.0000	0.0000	-0.0008	-0.0002	-0.0006	-0.0014	0.0000	-0.0004	-0.0042
Island	UrbNpoor	Cocoa	-0.0119	-0.0118	0.0000	-0.0001	-0.0001	-0.0002	-0.0001	-0.0008	0.0000	0.0000	-0.0021	-0.0021	-0.0023	0.0000	-0.5190	-0.0008	-0.0009	0.0000	0.0000	-0.0006	-0.0001	-0.0005	-0.0011	0.0000	-0.0003	-0.0031
Island	UrbNpoor	Vegetable	-0.0161	-0.0159	0.0000	-0.0001	-0.0002	-0.0003	-0.0001	-0.0011	0.0000	0.0000	-0.0028	-0.0029	-0.0030	0.0000	0.0000	-0.6998	-0.0013	0.0000	0.0000	-0.0008	-0.0002	-0.0006	-0.0014	0.0000	-0.0004	-0.0042
Island	UrbNpoor	Fruit	-0.0161	-0.0159	0.0000	-0.0001	-0.0002	-0.0003	-0.0001	-0.0011	0.0000	0.0000	-0.0028	-0.0029	-0.0030	0.0000	0.0000	-0.0011	-0.7000	0.0000	0.0000	-0.0008	-0.0002	-0.0006	-0.0014	0.0000	-0.0004	-0.0042
Island	UrbNpoor	Tea	-0.0161	-0.0159	0.0000	-0.0001	-0.0002	-0.0003	-0.0001	-0.0011	0.0000	0.0000	-0.0028	-0.0029	-0.0030	0.0000	0.0000	-0.0011	-0.0013	-0.6987	0.0000	-0.0008	-0.0002	-0.0006	-0.0014	0.0000	-0.0004	-0.0042
Island	UrbNpoor	Oexcrp	-0.0099	-0.0098	0.0000	0.0000	-0.0001	-0.0002	0.0000	-0.0007	0.0000	0.0000	-0.0017	-0.0018	-0.0019	0.0000	0.0000	-0.0007	-0.0008	0.0000	-0.4298	-0.0005	-0.0001	-0.0004	-0.0009	0.0000	-0.0003	-0.0026
Island	UrbNpoor	Ofdcrp	-0.0161	-0.0159	0.0000	-0.0001	-0.0002	-0.0003	-0.0001	-0.0011	0.0000	0.0000	-0.0028	-0.0029	-0.0030	0.0000	0.0000	-0.0011	-0.0013	0.0000	0.0000	-0.6995	-0.0002	-0.0006	-0.0014	0.0000	-0.0004	-0.0042
Island	UrbNpoor	Beef	-0.0206	-0.0203	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.8937	-0.0008	-0.0018	0.0000	-0.0006	-0.0053
Island	UrbNpoor	Poultry	-0.0206	-0.0203	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.0002	-0.8943	-0.0018	0.0000	-0.0006	-0.0053
Island	UrbNpoor	Pork	-0.0206	-0.0203	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.0002	-0.0008	-0.8953	0.0000	-0.0006	-0.0053
Island	UrbNpoor	Mutton	-0.0206	-0.0203	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.0002	-0.0008	-0.0018	-0.8935	-0.0006	-0.0053
Island	UrbNpoor	OlivPrd	-0.0206	-0.0203	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.0002	-0.0008	-0.0018	0.0000	-0.8940	-0.0053
Island	UrbNpoor	Fish	-0.0206	-0.0203	0.0000	-0.0001	-0.0002	-0.0004	-0.0001	-0.0014	0.0000	0.0000	-0.0036	-0.0037	-0.0039	0.0000	0.0000	-0.0014	-0.0016	0.0000	-0.0001	-0.0010	-0.0002	-0.0008	-0.0018	0.0000	-0.0006	-0.8988
Island	UrbNpoor	Nagtrade	-0.0301	-0.0297	0.0000	-0.0002	-0.0003	-0.0006	-0.0001	-0.0021	0.0000	0.0000	-0.0052	-0.0054	-0.0057	0.0000	0.0000	-0.0021	-0.0024	0.0000	-0.0001	-0.0014	-0.0003	-0.0011	-0.0027	0.0000	-0.0008	-0.0078
Island	UrbNpoor	Nagntrade	-0.0243	-0.0240	0.0000	-0.0001	-0.0003	-0.0005	-0.0001	-0.0017	0.0000	0.0000	-0.0042	-0.0044	-0.0046	0.0000	0.0000	-0.0017	-0.0019	0.0000	-0.0001	-0.0012	-0.0003	-0.0009	-0.0022	0.0000	-0.0007	-0.0063

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