

## COSTA RICA: ESTIMATES OF SUPPORT TO AGRICULTURE

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### DEFINITIONS AND SOURCES

**Table 1. Agricultural Support Estimates / Total Transfers** contain country Total Support Estimate (TSE) and derived indicators, which cover all agricultural production, i.e. all agricultural commodities produced in the country. Definitions of basic data sets refer to the specific programmes applied in the country. For the Producer Support Estimate (PSE) and Consumer Support Estimate (CSE), each policy measure is classified according to implementation criteria, which include: the *transfer basis* of support (output, input, area/animal numbers/receipts/income, and non-commodity criteria); whether support is based on *current* or *non-current* basis; whether production *is required* or *not* to receive payment. Each policy measure is also assigned several “labels” indicating additional implementation criteria. “MPS commodities”, which vary across countries, are those for which market price support is explicitly calculated in Tables 4.1-4.11.

**Table 2. Breakdown of PSE by Commodity and Other Transfers** provides a breakdown of the total PSE into four categories reflecting the flexibility in production choices given to producer receiving support. These categories are: Single Commodity Transfers (SCT); Group Commodity Transfers (GCT); All Commodity Transfers (ACT); and Other Transfers to Producers (OTP). All data sets in Table 2 come from Tables 1 and 3.1-3.11 where definitions are included.

**Tables 3.1-3.11 Producer Single Commodity Transfers** contains producer SCT by commodity, which are calculated for Costa Rica for the following 10 commodities: rice, pineapples, bananas, coffee, sugar cane, palm oil, milk, beef, pig meat and poultry (Tables 3.1-3.11) provided that the value of production of that commodity exceeds 1% of the total value of agricultural production. In addition, SCT for “other commodities” is also calculated (Table 3.11), which covers transfers *to single commodities other than MPS commodities*. All data sets in the calculation of producer SCT by commodity come from Tables 1 and 4.1-4.11 where definitions are included.

**Tables 4.1-4.11** contain **Market Price Support (MPS)** and **Consumer Single Commodity Transfers** (consumer SCT) by commodity, calculated for the same set of commodities as in **Tables 3.1 to 3.11**. Definitions are provided only for basic data sets from which all the other data sets in this table are derived.

Definitions of the indicators, criteria for classification of policy transfers included in support estimates, and methods of calculation are contained in [the PSE Manual](#) (*OECD's Producer Support Estimate and Related Indicators of Agricultural Support: Concepts, Calculations, Interpretation and Use*).

**TABLE 1. COSTA RICA: Total Support Estimate**

***Definitions:***

**I. Total value of production (at farm gate):** Total agricultural production valued at farm gate prices, i.e. value (at farm gate) of all agricultural commodities produced in the country. Data was provided by the Executive Secretariat for Agricultural Sector Planning (SEPSA).

*I.1. Of which share of MPS commodities (%):* Share of the 10 commodities for which MPS is explicitly calculated (in Tables 4.1-4.11) in the total value of agricultural production.

**II. Total value of consumption (at farm gate):** Consumption of all commodities domestically produced valued at farm gate prices, and estimated by increasing the sum of the value of consumption (at farm gate) of the 10 MPS commodities according to their share in the total value of agricultural production  $[(II.1) / (I.1) \times 100]$ .

*II.1. Of which MPS commodities:* Sum of the value of consumption (at farm gate prices) of the MPS commodities as indicated in Tables 4.1-4.11.

**III.1 Producer Support Estimate (PSE):** Associated with total agricultural production, i.e. for all commodities domestically produced [Sum of A to G; when negative, the amounts represent an implicit or explicit tax on producers].

***A. Support based on commodity output***

*A.1. Market Price Support:* On quantities domestically produced (excluding for on-farm feed use -- *Excess Feed Cost*) of all agricultural commodities, and estimated by increasing the sum of MPS of the 10 MPS commodities according to their share in the total value of agricultural production  $[(\sum \text{MPS for MPS commodities listed in the rows below}) / (I.1) \times 100]$ .

***A.2. Payments based on output***

***B. Payments based on input use***

***B.1. Based on variable input use***

*National Food Plan. Plan Nacional de Alimentos.* (2008-2011) Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in Group of commodities GCT1 (rice, beans and maize). No PSE item. [2]

*Government purchases of food. Compra de alimentos.* (Since 1995) Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in Group of commodities GCT1 (rice, beans and maize). No PSE item. [2]

*Fonecafe. Agricultural credit subsidies for coffee farmers.* (2003-2005). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in coffee. [2]

*Agrarian management and land regularization (Subsidy for the purchase of land). Gestión Agraria y Regularización de la Tierra (Subsidio a la compra de tierra).* (Since 2000). Agricultural credit subsidies for land acquisition and variable inputs. Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC (all commodities). [2]

*Productive reconversion (repayable funds). Reconversión Productiva (fondos reembolsables).* (1998-2008). Credit subsidies for variable input purchases. Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in GCT2 (all crops). [2]

*Trust for the protection and agricultural promotion of small and medium producers (FIDAGRO). Fideicomiso para la protección y el fomento agropecuario de pequeños y medianos productores (FIDAGRO).* (2002-2008). Debt forgiveness (write offs), purchase of debts by the government. Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in AC. [2]

*FIDAGRO's write offs and productive reconversion. Condonación de deudas de FIDAGRO y Reconversión Productiva. Debt forgiveness (write offs).* (2011). Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in AC. [2]

*Development Banking System: credits to the agricultural sector. Sistema de Banca para el Desarrollo (SBD): Créditos al sector agropecuario.* (Since 2009). Implicit agricultural subsidies calculated as the difference between commercial interest rates and the preferential rates by loans. Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in AC. [2]

*Agricultural Development Program (PRODAPEN), Peninsula de Nicoya. Programa de Desarrollo Agrícola de la Península de Nicoya (PRODAPEN).* (2001-2003). Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in AC. [2]

*Rural credit Crédito Rural.* (Since 2004). Implicit agricultural subsidies calculated as the difference between commercial interest rates and the preferential rates by loans administered by INDER. Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in AC. [2]

*Write offs. Condonación de deudas.* (2005 and 2012). Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in AC. [2]

*Support to small-scale farmers from Palmito. Apoyo a pequeños productores de Palmito.* (2000-2001). Subsidies to pay credit interest rates. Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in AC. [2]

*Crop insurance. Seguro de Cosechas.* (1995-2016). Subsidies for the insurance premium. Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in AC. [2]

*Coffee renovation programme. Programa Renovación de Cafetales.* Subsidies for credit. (Since 2011). Use of labels: Production limits: NO; Variable payment rates: YES; Input constraints: YES. Payments are included in coffee. [2]

## *B.2 Based on fixed capital formation*

*Productive diversification. Diversificación Productiva. Equipment and machinery subsidies for productive projects.* (2012-2015). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Investments for the Sustainable Agricultural Production Program. Law No. 8408. Costa Rica and IADB. Inversiones en Producción Agropecuaria Sostenible del Programa de Producción Agropecuaria*

*Sostenible*. (2006-2010). Subsidies for investments in the farm. Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Transfers to private individuals (investment projects). Transferencias del a sujetos privados (proyectos de inversión)*. (Since 2009). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Management for Territorial Development (production modules). Gestión para el Desarrollo Territorial (Modulos de producción). Subsidies for auto-consumption production systems*. (Since 1995). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Agricultural Development Programme (PRODAPEN), Peninsula de Nicoya. Programa de Desarrollo Agrícola de la Península de Nicoya (PRODAPEN)*. (1998-2006). Subsidies for equipment and machinery. Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Temporary unemployment benefit programme. Programa de subsidio temporal por desempleo. Subsidies for the acquisition of machinery and equipment*. (2010-2011). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Small irrigation and drainage infrastructure works, at farm level. Obras de infraestructura de pequeño riego y drenaje a nivel de finca*. (Since 1995). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in AC. [2]

### *B.3. Based on use of on-farm services*

*National operations. Operaciones Nacionales. Animal and plant services at farm level*. (Since 1996). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Acreditation. Acreditación. Inspection services at farm level*. (Since 2010). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

*Productive reconversion (non-repayable funds). Reconversión Productiva (fondos no reembolsables)*. (1996-2008). Technical assistance for farmers. Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in AC. [2]

*Agricultural Development Program (PRODAPEN), Peninsula de Nicoya. Programa de Desarrollo Agrícola de la Península de Nicoya (PRODAPEN)*. (1998-2006). Training for farmers. Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: YES. Payments are included in AC. [2]

*Support to small-scale farmers from Palmito. Apoyo a pequeños productores de Palmito*. (2001-2002). Use of labels: Production limits: NO; Variable payment rates: NO; Input constraints: NO. Payments are included in AC. [2]

### *C. Payments based on current area planted/animal numbers/receipts/income – production required*

***D. Payments based on non-current area planted/animal numbers/receipts/income – production required***

***E. Payments based on non-current area planted/animal numbers/receipts/income – production not required***

***F. Payments based on non-commodity criteria***

***F.1. Long term resource retirement***

*Payments for environmental services in agroforestry systems, FONAFIFO-MINAE. Programa de Pago de Servicios Ambientales en Sistemas Agroforestales. (Since 2003). Use of labels: Production limits: NO; Variable payment rates: Not applicable; Input constraints: YES (environmental). [2]*

*Basin management programme. Programa de Manejo de Cuenca. ICE provides electricity supplies and material to farmers to develop projects for the sustainable use of natural resources. (Since 2001). Use of labels: Production limits: NO; Variable payment rates: Not applicable; Input constraints: YES (environmental). [2]*

*Payments for the recognition of environmental benefits for organic production (RBAO) for micro, small and medium organic producers. Law No. 8591. Reconocimiento de Beneficios Ambientales para la Producción Orgánica (RBAO) para los micro, pequeños y medianos productores orgánicos. Ley No. 8591 Desarrollo, Promoción y Fomento de la Actividad Agropecuaria Orgánica. (Since 2010). Use of labels: Production limits: NO; Variable payment rates: Not applicable; Input constraints: YES (environmental). [2]*

*Payments for the recognition of environmental benefits generated by projects from the Law No. 8591. Reconocimiento de Beneficios Ambientales generados por proyectos. Ley No. 8591 Desarrollo, Promoción y Fomento de la Actividad Agropecuaria Orgánica. (Since 2010). Use of labels: Production limits: NO; Variable payment rates: Not applicable; Input constraints: YES (environmental). [2]*

***F3. Other non-commodity criteria***

*Support to small and medium agricultural producers affected by natural hazards. Law 8047. Apoyo a pequeños y medianos productores agropecuarios afectados por fenómenos naturales predefinidos. (2001 & 2004). Use of labels: Production limits: NO; Variable payment rates: Not applicable; Input constraints: NO. Payments are included in Not applicable. [2]*

***G. Miscellaneous payments***

*Transfers for banana research. Transferencias de capital para investigación en Banano. (Since 2000). Use of labels: Production limits: Not applicable; Variable payment rates: Not applicable; Input constraints: Not applicable. Payments are included in Not applicable. [2]*

*Support to farmer associations. Apoyo a Asociaciones. (2000-2001). Use of labels: Production limits: Not applicable; Variable payment rates: Not applicable; Input constraints: Not applicable. Payments are included in Not applicable. [2]*

**III.2 Percentage PSE  $[100 \times (\text{III.1}) / ((\text{I}) + (\text{Sum of A2 to G}))]$**

**III.3 Producer NPC:** For all agricultural commodities the producer NPC is estimated as a weighted average of the producer NPC calculated for the individual MPS commodities and shown in Table 4. For each commodity Producer NPC = [domestic price received by producers (at the farm gate) + unit payments based on output] / border price (also at the farm gate).

**III.4 Producer NAC**  $[1 / (100 - (\text{III.2})) \times 100]$

**IV. General Services Support Estimate (GSSE):** total budgetary expenditure to support general services provided to agriculture [Sum of H to M].

#### ***H. Agricultural knowledge and innovation system***

##### ***H.1. Agricultural knowledge generation***

*National Institute for Innovation and Transfer of Agricultural Technology, INTA. Instituto Nacional de Innovación y Transferencia en Tecnología Agropecuaria. (Since 2000). Public finance allocations. [1,2]*

*Technological innovation for the generation of Dracaena spp. US market. Innovación Tecnológica para la Generación de Material Propagativo Sano de Dracaena spp. para exportación hacia el Mercado Estadounidense. (2006-2009). Public finance allocations. [1, 2]*

*Research and preservation of water resources. Investigación y Preservación de los Recursos Hídricos. (Since 1995). Public finance allocations. [1, 2]*

##### ***H.2. Agricultural knowledge transfer***

###### ***H.2.a. education***

###### ***H.2.b. extension***

*Agricultural Extension Services, MAG. Dirección Nacional de Extensión Agropecuaria +Programa de Desarrollo Rural + Programas Nacionales y Sectoriales. (Since 2000). Public finance allocations. [1, 2]*

*Strengthening management capacity. Fortalecimiento de la Capacidad de Gestión. (2012-2015). Public finance allocations. [1, 2]*

*Training and information of the programme for the promotion of sustainable agricultural production. Law No. 8408. Costa Rica and IADB. Capacitación e información del Programa de Fomento a la Producción Agropecuaria Sostenible. Ley No. 8408, Contrato préstamo entre la República de Costa Rica y el Banco Interamericano de Desarrollo. (2006-2010). Public finance allocations. [1, 2]*

*Support for youth and rural women, CONAC 4-S. Apoyo a la Juventud y Mujer Rural, CONAC 4-S. (Since 2000). Public finance allocations. [1, 2]*

*Transfers to Fittacori. Transferencias de capital a Fittacori. (Since 2000). Public finance allocations. [1, 2]*

*Programme Basin Binational River Sixaola. Programa Cuenca Binacional Río Sixaola. (Since 2016). Public finance allocations. [1, 2]*

#### ***I. Inspection and control***

### *I.1. Agricultural product safety and inspection*

*Program of verification of compliance of technical regulations of staple agricultural products. Programa de verificación de cumplimiento de Reglamentos Técnicos de productos agrícolas de la canasta básica.* (Since 1997). Public finance allocations. [2]

*Programme of agrochemicals and equipment. Programa de agroquímicos y equipo.* (Since 2000). Public finance allocations. [2]

### *I.2. Pest and disease inspection and control*

*Animal quarantine. Cuarentena Animal.* (Since 1996). Public finance allocations. [2]

*National laboratory of veterinary services, LANASEVE. Laboratorio Nacional de Servicios Veterinarios – LANASEVE.* (Since 1996). Public finance allocations. [2]

*Animal and plant reproductive health services. Salud Reproductiva.* (Since 1996). Public finance allocations. [2]

*Inspection services. Servicios de Inspección.* (Since 2000). Public finance allocations. [2]

### *I.3. Input control*

*Animal food safety – DIPOA. Inocuidad de Productos de Origen Animal – DIPOA.* (Since 1996). Public finance allocations. [2]

*Veterinary medicines. Medicamentos Veterinarios.* (Since 1996). Public finance allocations. [2]

*Animal food. Alimentos para Animales.* (Since 1996). Public finance allocations. [2]

## ***J. Development and maintenance of infrastructure***

### *J.1. Hydrological infrastructure*

*Construction, maintenance and operation of irrigation infrastructure at the national level, SENARA. Construcción, mantenimiento y funcionamiento de obras de Infraestructura de riego a nivel nacional.* (Since 1995). Public finance allocations. [2]

### *J.2. Storage, marketing and other physical infrastructure*

*Public services and infrastructure. Servicios Públicos e Infraestructura.* (2010-2015). Public finance allocations. [2]

### *J.3. Institutional infrastructure*

*Transfers to municipalities. Transferencias de capital a Municipalidades.* (2009-2014). Public finance allocations.

*Training and general services to the agricultural sector at free cost. Servicios de capacitación y servicios generales a la agricultura que son gratuitos.* (Since 2000). Public finance allocations. [2]

#### *J.4. Farm restructuring*

*Purchase of land for agricultural production, INVU. Compra de terreno para proyectos de producción agrícola, INVU. (2001). Public finance allocations. [2]*

*Management for territorial development (road infrastructure). Gestión para el Desarrollo Territorial (infraestructura vial). (Since 1995). Public finance allocations. [2]*

*Agrarian management and land regularization (Subsidy for the purchase of land). Gestión Agraria y Regularización de la Tierra (Compra de tierra). (Since 1995). Public finance allocations. [2]*

#### **K. Marketing and promotion**

*K.1. Collective schemes for processing and marketing*

*K.2. Promotion of agricultural products*

*Quality seal programme at the farmer fair. Programa de Sello de Calidad en la Feria del Agricultor. (2006-2007). Public finance allocations. [2]*

*Miami office. Oficina de Miami. (2003-2005). Public finance allocations. [2]*

*Traceability programme. Beans programme "100 Producto Costa Rica. Programa de trazabilidad de origen de productos Verificación de la trazabilidad de frijol "100 Producto Costa Rica. (Since 2012). Public finance allocations. [2]*

*Fresh product certification programme. Programa de certificación de productos frescos. (1996-1998). Public finance allocations. [2]*

*Market Information System. Sistema de Información de Mercados. (Since 1996). Public finance allocations. [2]*

*Information System of the Agricultural Sector of Costa Rica (INFOAGRO). Sistema de Información del Sector Agropecuario Costarricense (INFOAGRO). (Since 2000). Public finance allocations. [2]*

#### **L. Cost of public stockholding**

#### **M. Miscellaneous**

*Component I: Environmental management. Componente I: Gestión Ambiental. (2011-2015). Public finance allocations. [2]*

*Studies to support the competitiveness of the agricultural sector for the promotion of sustainable agricultural programme. Law No. 8408. Costa Rica IADB. Estudios para apoyar la competitividad del Sector Agropecuario del Programa de Fomento a la Producción Agropecuaria Sostenible. Ley No. 8408, Contrato préstamo entre la República de Costa Rica y el Banco Interamericano de Desarrollo. (2009-2010). Public finance allocations. [2]*

*Organic certifications. Certificaciones orgánicas. (Since 2000). Public finance allocations. [2]*



**V.1 Consumer Support Estimate (CSE):** Associated with agricultural production, i.e. for the quantities of commodities domestically produced, excluding the quantities used on-farm as feed -- excess feed cost. [Sum of O to R; when negative, the amounts represent an implicit tax on consumers].

**N. Transfers to producers from consumers:** Associated with market price support on all domestically produced commodities, estimated by increasing the transfers calculated for the MPS commodities according to their share in the total value of production  $[(O.1) / (I.1) \times 100]$ .

**N.1. Of which MPS commodities:** Sum of the values of transfers from consumers to producers associated with market price support for the MPS commodities as calculated in Tables 4.1 to 4.11.

**O. Other transfers from consumers:** Transfers to the budget associated with market price support on the quantities imported of domestically produced commodities, estimated by increasing the transfers calculated for the MPS commodities according to their share in the total value of production  $[(P.1) / (I.1) \times 100]$ .

**O.1. Of which MPS commodities:** Sum of the transfers to the budget associated with market price support on the quantities imported of the MPS commodities as calculated in Tables 4.1 to 4.11.

**P. Transfers to consumers from taxpayers**

**P.1. Commodity specific transfers to consumers:** Sum of commodity specific transfers from taxpayers to consumers (farm gate level) from commodity MPS tables.

**P.2. Non-commodity specific transfers to consumers:** Sum of non-commodity specific transfers from taxpayers to consumers.

**R. Excess Feed Cost:** Associated with market price support on quantities of domestically produced crops and used on-farm as feed as calculated [Sum of *Excess Feed Cost* in the MPS Tables for rice, beef, pig meat, poultry].

**V.2 Percentage CSE**  $[100 \times (V.1) / ((II) + (Q))]$

**V.3 Consumer NAC**  $[(1 / (100 - (V.2))) \times 100]$

**VI. Total Support Estimate**  $[(III.1) + (IV) + (Q)]$  and  $[(S) + (T) - (U)]$

**S. Transfers from consumers**  $[(O)+(P)]$

**T. Transfers from taxpayers**  $[(III.1)-(O)+(IV)+(Q)]$

**U. Budget revenues**  $[(P)]$

**Sources:**

[1] Ministry of Agriculture and Livestock (MAG).

[2] Costa Rican Executive Secretariat for Agricultural Sector Planning (SEPSA). Ministry of Agriculture and Livestock (MAG). SEPSA submission to OECD from different national sources.

**TABLE 2. COSTA RICA: Breakdown of PSE by commodity specificity and other transfers**

All data sets in Table 2 come from Tables 1 and 3.1-3.11 where definitions are included.

**Definitions:**

**I. Producer Single Commodity Transfers (producer SCT):** the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm level, arising from policy measures directly linked to the production of a single commodity such that the producer must produce the designated commodity in order to receive the payment. This includes policies where payments are specified on a per-commodity basis [Sum of SCTs for individual commodities from Tables 3.1-3.11].

**Percentage producer SCT:** is the commodity SCT expressed as a share of gross farm receipts for the specific commodities (including support in the denominator). This indicator can be expressed for the total SCT (Table 2), or for a specific commodity (Table 3.1 to 3.11).

$$\%SCT = 100 * SCT / (\text{value of production}_{COM} + A_{2COM} + B_{COM} + C_{COM} + D_{COM})$$

$$\text{Share in Total PSE (\%): } SCT_{SHARE} = 100 * SCT / PSE$$

**II. Group commodity transfers (GCT):** the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures whose payments are made on the basis that one or more of a designated list of commodities is produced. That is, a producer may produce from a set of allowable commodities and receive a transfer that does not vary with respect to this decision [GCT = B<sub>GROUP</sub> + C<sub>GROUP</sub> + D<sub>GROUP</sub>].

$$\text{Share in Total PSE (\%): } GCT_{SHARE} = 100 * GCT / PSE$$

**Transfers to specific groups of commodities:** The GCT involves the just one group of commodities: all crops.

**III. All commodity transfers (ACT):** the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level, arising from policy measures that place no restrictions on the commodity produced but require the recipient to produce some commodity of their choice [ACT = C<sub>ALL</sub> + B<sub>ALL</sub> + D<sub>ALL</sub>].

$$\text{Share in Total PSE (\%): } ACT_{SHARE} = 100 * ACT / PSE$$

**IV. Other Transfers to Producers (OTP):** the annual monetary value of gross transfers made under policies that do not fall in the above three cases (SCT, GCT, ACT). That is, payments that do not require any commodity production at all. [OTP = E + F + G]

$$\text{Share in Total PSE (\%): } OTP_{SHARE} = 100 * OTP / PSE$$

$$\text{V. Total PSE: } PSE = A+B+C+D+E+F+G = SCT + GCT + ACT + OTP$$

$$\text{Percentage PSE: } \%PSE = 100 * PSE / \text{Total Value of Production at farm gate} + A_2 + B + C + D + E + F + G$$

### **TABLE 3. COSTA RICA: Producer Single Commodity Transfers (by commodity)**

Tables 3.1 to 3.11 provide information on Producer Single Commodity Transfers (PSCT) for the following 10 commodities: rice, pineapples, banana, coffee (green), sugar cane, palm oil, milk, beef, pig meat and poultry and “other commodities”. All data sets in the calculation SCT by commodity come from Tables 1 and 4.1-4.11 where definitions are included.

#### ***Definitions:***

**I. Level of production:** Data from respective commodity Tables 4.1-4.11 (Market Price Support tables)

**II. Value of production (at farm gate):** Data from respective commodity Tables 4.1-4.11 (Market Price Support tables)

**III. Producer Single Commodity Transfers:** Sum of transfers to respective single-commodity in categories A, B, C and D.

#### ***A. Support based on commodity output***

*A1. Market Price Support* [Data for respective commodity from Tables 4.1-4.11]

*A2. Payments based on output*

Payments based on output (A2) provided to respective single commodity [Data from Table 1]

***B. Payments based on input use, single commodity*** [ $B1_{COM}+B2_{COM}+B3_{COM}$ ]

*B1. Based on variable input use*

Payments based on variable input use ( $B1_{COM}$ ) provided to respective single commodity [Data from Table 1].

*B2. Based on fixed capital formation*

Payments based on fixed capital formation ( $B2_{COM}$ ) provided to respective single commodity [Data from Table 1].

*B3. Based on on-farm services*

Payments based on on-farm services ( $B3_{COM}$ ) provided to respective single commodity [Data from Table 1].

***C. Payments based on current A/An/R/I, production required, single commodity***

Payments based on current A/An/R/I ( $C_{COM}$ ) provided to respective single commodity [Data from Table 1].

***D. Payments based on non-current A/An/R/I, production required, single commodity***

Payments based on non-current A/An/R/I ( $D_{COM}$ ) provided to respective single commodity [Data from Table 1].

**IV. Percentage producer SCT:**  $\%SCT = 100 * (III) / ((II) + (A.2) + (B_{COM}) + (C_{COM}) + (D_{COM}))$

**TABLE 4. COSTA RICA: Market Price Support and Consumer Support Estimate**

Tables 4.1 to 4.11 contain calculations of the Market Price Support (MPS) and Consumer Single Commodity Transfers (consumer SCT) for the following 10 commodities: rice, pineapples, banana, coffee (green), sugar cane, palm oil, milk, beef, pig meat, poultry and “other commodities”. The data sets used in calculations of the MPS and consumer SCT by commodity are described below.

For the purposes of calculating market price gaps, seven of the 10 commodities are treated as exported commodities (X): pineapples, bananas, coffee, sugar cane, palm oil, beef and milk. The remaining three are considered imported (M): rice, poultry and pig meat.

Producer prices: These are average prices received by producers at farm gate level. This information has been provided by Costa Rican Executive Secretariat for Agricultural Sector Planning (SEPSA), sourced from different institutions and farmer corporations. Producer prices for rice, pineapple, banana, coffee, milk, beef and pig meat were registered numbers. Producer prices for sugar cane, palm oil, and poultry were estimated by experts from SEPSA.

Price gaps were calculated for all products. However, “zero price gap” was used when negative gaps were obtained, as the estimated negative price gaps reflect factors other than agricultural policies. This assumption was used for exported products like pineapples, bananas, coffee and palm oil. For pig meat, the annual average tariff rate was used to estimate the price gap.

**Definitions:**

**I. Level of production (tonnes) [2]**

**Rice:** Total production of rice, measured in paddy terms. [2]

**Pineapples:** total domestic production of fresh pineapples [2]

**Bananas:** total domestic production of fresh bananas [2]

**Coffee:** Total production of green coffee (Arabica). [2]

**Sugar cane:** Total production of sugar cane, measured in equivalent to raw sugar terms. [2]

**Palm oil:** total domestic production of crude palm oil. [2]

**Milk:** total domestic fresh production equivalent in tonnes [2]

**Beef:** Total production of beef, in carcass weight equivalent. [2]

**Pig meat:** Total production of pig meat, in carcass weight equivalent. [2]

**Poultry:** Total production of poultry, in carcass weight equivalent. [2]

**II. Producer prices (at farm gate) [2]**

**Rice:** Average farm gate price of paddy rice [2]

**Pineapples:** Average farm gate price of fresh pineapples [2]

**Bananas:** Average farm price of fresh bananas[2]

**Coffee:** Average farm gate price of green coffee (Arabica). [2]

**Sugar cane:** Average farm price equivalent of raw sugar [2]

**Palm oil:** Average farm price equivalent to crude palm oil. [2]

**Milk:** Average farm gate price of fresh milk equivalent in tonnes [2]

**Beef:** Average farm gate price of bovine in carcass weight equivalent. [2]

**Pig meat:** Average farm gate price of pigs in carcass weight equivalent. [2]

**Poultry:** Average farm gate price of chicken in carcass weight equivalent. [2]

### **III. Value of production (at farm gate) [(I)\*(II)]**

### **IV. Level of consumption (at farm gate) [2]**

**Rice, pineapple, bananas, coffee,** total domestic consumption during the calendar year (total production, plus net trade)

**Beef, pig meat, poultry, sugar cane, milk, palm oil:** total domestic consumption during the calendar year (total production, plus net trade) measured on the same type of product e.g. carcass weight in the case of beef, pig meat and poultry, refined sugar in the case of sugar cane, fresh milk equivalent in tonnes, and crude palm oil in the case of palm.

### **V. Consumption prices (at farm gate)**

Implicit prices corresponding to reference prices plus the unit value of market transfers.

### **VI. Value of consumption (at farm gate) [(IV)\*(V)]**

### **VII. Reference prices**

Average export unit values registered at the border were used as the external reference price for pineapples, bananas, sugar cane, coffee, palm oil, and milk sourced by the Ministry of Trade (COMEX). For rice, average import unit values at the border were used. Import unit values for poultry were not sufficiently consistent across the period, which prompted the use of USA producer price-adjusted (added) with international transportation costs from the USA to Costa Rica. Lastly, for milk, the reference price used export unit values for both butter and skimmed milk powder.

**Rice:** Average c.i.f. import unit values (USD/tonne) [HS 100610]. [3]

**Pineapples:** Average f.o.b. export unit values (USD/tonne) (HS 080430). [3]

**Bananas:** Average f.o.b. export unit values (USD/tonne) (HS 080300). [3]

**Sugar cane:** Average f.o.b. export unit price of raw sugar in solid form (HS 170111). [3]

**Coffee:** Average f.o.b. export unit values (USD/tonne) of green coffee (Arabica) [HS 090111]. [3]

**Palm oil:** Average f.o.b. export unit values (USD/tonne) (HS 151110). [3]

**Milk:** border price of milk is a calculated implicit value [2, 3]. The calculation method is based on two assumptions. First, world markets for tradable dairy commodities are competitive, which allows the formation of a single price for each of the solid components of raw milk, milk fat and protein, used to make dairy products. Secondly, each type of dairy product contains a unique and fixed amount of each of those solid components of milk. Under this method, the implicit price of milk at the border ( $P_b$ ) is calculated from the prices of those components:

$$P_b = \left(\frac{a}{b}\right)P_{wb} + \left(\frac{c}{d}\right)P_{ws} \text{ where:}$$

$a$  and  $b$  are milk fat contained in one ton of raw milk and butter respectively,  $c$  and  $d$  are non-fat-solids contained in one ton of milk and skimmed milk powder respectively,  $P_{wb}$  and  $P_{ws}$  are Chilean unit import values of butter (HS 0405 1000) and skimmed milk powder (HS 0402 1000) respectively. The reference price of milk at farm gate ( $P_r$ ) is the implicit milk border price net of processing costs ( $C$ ):

$$P_r = P_b - C$$

**Beef:** Average F.o.b. export unit price of bovine meat, fresh or chilled (HS 020130). [3]

**Pig meat:** Not applicable as the annual average tariff rate was used to estimate the price gap. [3]

**Poultry:** USA producer price of poultry, marketing year weighted average. Price received by farmers in the USA, at carcass weight adjusted for the transportation costs of fresh meat from USA to Costa Rica. [4]

## VIII. Margins

Marketing margins are estimations of processing, handling and transportation costs for a given commodity. Marketing margin adjustment to the reference prices is required to make those prices comparable with domestic prices measured at the farm gate. Some products, margins were expressed as a percentage of the farm gate prices or reference prices (i.e. pineapples, bananas, sugar cane, milk, beef, poultry). For other products, registered data on processing and transportation costs were used, as well as the difference between the farm gate and the wholesale price, ensuring that prices were expressed in the same weight terms (rice, coffee, palm oil). For pig meat, margins were not calculated as tariffs were used as market price differential. These margin estimations were conducted by government official supply chain experts.

### Sources:

[1] Ministry of Agriculture and Livestock (MAG).

[2] Costa Rican Executive Secretariat for Agricultural Sector Planning (SEPSA). SEPSA submission to OECD from different national sources.

[3] Ministry of Trade (COMEX).

[4] OECD PSE/CSE database.