

## ICELAND: ESTIMATES OF SUPPORT TO AGRICULTURE

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### DEFINITIONS AND SOURCES

Country Total Support Estimate (TSE) and derived indicators in **Table 1** 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 Estimates (PSE) and Consumer Support Estimates (CSE), where relevant the description of policy measures indicates where the policies are related to specific commodities. "MPS commodities", which vary across countries, are those for which market price support is explicitly calculated in Table 4.

**Table 2** provides a breakdown of the total PSE into four categories reflecting the flexibility given to farmers regarding which commodity to produce within the various policy measures. 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 where definitions are included.

Producer Single Commodity Transfers (PSCT) by commodity in **Table 3** are calculated only for the commodities produced in the country within a common set of commodities (wheat, maize, barley, oats, rice, sorghum, soybeans, sunflower, rapeseed, sugar, milk, beef and veal, pigmeat, poultry meat, sheep meat, wool and eggs), provided that the value of production of that commodity exceeds 1% of the total value of production in the country concerned. All data sets in the calculation of PSCT by commodity come from Tables 1 and 4 where definitions are included.

Market Price Support (MPS) and Consumer Single Commodity Transfer (CSCT) by commodity in **Table 4** are calculated for the following commodities: milk, beef and veal, pigmeat, poultry meat, sheep meat, wool and eggs. Definitions are provided only for basic data sets from which all the other data sets in this table are derived, following the formula indicated in each commodity table.

Definitions of the indicators, criteria of classification of programmes included, and methods of calculation can be seen in OECD, Methodology for the measurement of support and use in policy evaluation [<http://www.oecd.org/agr/policy>].

**TABLE 1. ICELAND : 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.

*I.1. Of which share of MPS commodities (%):* Share of commodities for which MPS is explicitly calculated (in Table 4) 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 value of consumption (at farm gate) of the 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 Table 4.

**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 outputs**

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

*A.2. Payments based on output:*

*Refund of feed levies – pigmeat (1986-1994):* payment per tonne on quantities sold of pigmeat to compensate for taxes on imported feed. These transfers are included in pigmeat SCT (Table 3.3)

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Refund of feed levies – poultry meat (1986-1994):* payment per tonne on quantities sold of poultry meat to compensate for taxes on imported feed. These transfers are included in poultry SCT (Table 3.4)

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Refund of feed levies – eggs (1986-1994):* payment per tonne on quantities sold of eggs to compensate for taxes on imported feed. These transfers are included in egg SCT (Table 3.5)

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Payments for potatoes (1996):* payments per tonne of potatoes. These transfers are included in other SCT (Table 3.8)

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Payments for horticulture* (from 2002): payments per tonne of horticulture products. These transfers are included in other SCT (Table 3.8)

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Payments for milk* (1986-1995): payments per tonne of milk produced under quota limits. These transfers are included in milk SCT (Table 3.1)

Production limits (YES because of milk quota); Variable payment rates (NO); Input constraints (NO)

*Payments for sheep meat* (1986-1995): payments per tonne of sheep meat produced under quota limits. These transfers are included in sheep meat SCT (Table 3.6)

Production limits (YES because of sheep meat quota); Variable payment rates (NO); Input constraints (NO)

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

### *B.1. Variable input use*

*Capital grants* (From 1986): Half of the budgetary expenditures on *ad hoc* contributions for purchasing various agricultural inputs, including unpaid loans for purchasing variable inputs. [The other half is included under B2] These transfers are included in ACT (Table 2).

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Fertiliser payment* (1986-1990): Budgetary expenditures on payment to the state-owned fertiliser plant for covering costs associated with reduced prices to farmers. These transfers are included in ACT (Table 2).

Production limits (NO); Variable payment rates (YES because it varies with prices to farmers); Input constraints (NO)

*Feed payments* (1988-1990): budgetary expenditures on grants and loan write-offs to feed plants for covering costs associated with reduced prices to farmers. These transfers are included in livestock GCT (Table 2).

Production limits (NO); Variable payment rates (YES because it varies with prices to farmers); Input constraints (NO)

*Electricity subsidy* (From 2002) Payments to subsidize electricity cost used for agriculture. These transfers are included in ACT (Table 2).

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

### *B.2 Fixed capital formation*

*Capital grants* (From 1986): Half of budgetary expenditures are on *ad hoc* contributions for purchasing various agricultural inputs, including expenditures on unpaid loans for purchasing of fixed inputs. [The other half is included under B1]. These transfers are included in ACT (Table 2).

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Land and animal breed improvement* (From 1986): Payments to farmers for land improvement and breeding programmes. These transfers are included in livestock GCT (Table 2).

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Disaster payments* (From 1986): Budgetary expenditure on payments to farmers to compensate for production loss due to disasters or accidents in the sheep and cattle industries. These transfers are included in ruminants GCT (Table 2).

Production limits (YES because of sheep meat quota); Variable payment rates (NO); Input constraints (NO)

*Infrastructure* (From 1986): Budgetary expenditure by the Agricultural Productivity Fund to promote the development of on-farm projects to reduce the reliance on traditional agriculture. These transfers are included in ACT.

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

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

*Labour replacement* (1986-1995): Budgetary expenditure to finance the relief service. These transfers are included in ACT (Table 2).

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Advisory* (From 1986): Budgetary expenditure on advisory services provided by the Agricultural Society of Iceland. These transfers are included in ACT (Table 2).

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

*Disease control* (From 1986): Budgetary expenditure to compensate sheep and poultry farmers who have been ordered to slaughter their flock due to disease prevention measures. These transfers are included in poultry meat and sheep meat GCT (Table 2).

Production limits (NO); Variable payment rates (NO); Input constraints (NO)

## ***C. Payments based on current area planted/animal numbers/revenues/incomes***

### *C.1. Single commodities*

*Payments for milk* (From 2006): payments for milk producers based on animal numbers. These transfers are included in milk SCT (Table 3.1).

Production limits (YES because of milk quota); Variable payment rates (NO); Input constraints (NO)

### *C.2. Specific groups of commodities*

### *C.3. All commodities*

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

*Payments for sheep meat:* payments per tonne on 1986-88 sheep meat quota level (From 1996). These transfers are included in sheep meat SCT (Table 3.6).

Production limits (YES because of sheep meat quota); Variable payment rates (NO); Input constraints (NO)

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

*E.1. Variable rate*

*E.1. Fixed rate*

*Diversion payments* (1986-1996): payments under the Agricultural Productivity Fund for leasing milk and sheep meat quotas. These transfers are included in OTP.

Commodity exceptions (YES)

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

*F.1. Long-term resource retirement*

*Permanent removal of sheep-slaughter house, greenhouses* (From 2002): Budgetary payments for removal of sheep-slaughter houses and greenhouses. These payments are included in OTP.

*F.2. Specific non-commodity output*

*F.3. Other non-commodity criteria*

***G. Miscellaneous payments***

**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). **[The total PNP is not in the Table 1 of the country template, but we will include it in the version for the public website]**

**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 N].

***H. Research and development***

Budgetary expenditure on research and development institutions, mostly through the Agricultural Research Institute (until 2004).

40% of the budgetary expenditure on the Agriculture university of Iceland (New institution which was established on the merger of Agricultural Research Institution, Agricultural University and Agricultural schools) and other expenditure on research and development.(2005-)

### ***I. Agricultural schools***

Budgetary expenditure to finance the operation of the agricultural colleges (until 2004).

42% of the budgetary expenditure on the Agriculture university of Iceland (New institution which was established on the merger of Agricultural Research Institution, Agricultural University and Agricultural schools) and other expenditure on agricultural school.(2005-)

### ***J. Inspection services***

Budgetary expenditure to finance part of veterinary services.

### ***K. Infrastructure***

Budgetary expenditures under the Agricultural Productivity Fund providing funds in order to promote the development of off-farm infrastructure or programmes that will reduce the reliance on traditional agriculture.

### ***L. Marketing and promotion***

Budgetary expenditure under the Agricultural Production Board to finance various marketing projects and promotion activities (especially on dairy products and sheepmeat), plus expenditure on meat grading until 1992.

### ***M. Public stockholding***

Budgetary expenditure to finance inventory costs and cost of storage mainly through covering interest expenses.

### ***N. Miscellaneous***

**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].

***O. 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  $[(O.1) / (I.1) \times 100]$ .

*O.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 Table 4.

***P. 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  $[(P.1) / (I.1) \times 100]$ .

*P.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 Table 4.

### ***Q. Transfers to consumers from taxpayers***

*Q.1. Commodity specific transfers to consumers:* Sum of commodity specific transfers from taxpayers to consumers (farm gate level) from commodity MPS tables (Table 4). The descriptions of policies providing commodity specific transfers are provided below:

*Refund of feed levies:* Budgetary expenditure to processors of maize, other grains and oilseeds to reduce their wholesale prices, allocated to commodities according to the shares estimated by the Ministry of Agriculture.

*Consumer aids:* Granted at the wholesale level for milk, sheep meat, beef (until 1993), and for wool, allocated to commodities according to the shares estimated by the Ministry of Agriculture.

*Consumer levies:* Levies paid on livestock products at the wholesale level to the Agricultural Investment Fund to finance payments to farmers, allocated to commodities according to the shares estimated by the Ministry of Agriculture.

*Interest concessions:* Subsidised loans from the Agricultural Investment Fund to processors of livestock products under the price guarantee regime.

*Q.2. Non-commodity specific transfers to consumers:* Sum of non-commodity specific transfers from taxpayers to consumers (farm gate level). The descriptions of policies inducing non-commodity specific transfers are provided below:

**R. Excess Feed Cost:** Associated with market price support on quantities domestically produced and used on-farm as feed as calculated in Table 4. [Sum of excess feed costs in the MPS tables (Table 4) for feed crops.]

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

**V.3 Consumer NPC:** For all agricultural commodities the Consumer NPC is estimated as a weighted average of the consumer NPC calculated for the individual MPS commodities and shown in Table 2. For each commodity Consumer NPC = domestic price paid by consumers (at the farm gate)/ border price (also at the farm gate). ). ). **[The total CNPC is not in the Table 1 of the country template, but we will include it in the version for the public website]**

**V.4 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:

Icelandic Agricultural Information Service, *Icelandic Agricultural Statistics*, Reykjavik.

Agricultural Economic Institute, *Agricultural Accounts*, Hvanneyri.

National Economic Institute, *Agriculture 1945-1989*, Reykjavik.



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

All data sets in Table 2 come from Tables 1 and 3 where definitions are included.

**Definitions:**

**I. Single commodity transfers (SCT):** the annual monetary value of gross transfers from policies 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 broader policies where payments are specified on a per-commodity basis. SCT is also available by commodity. [Sum of commodity SCTs from Table 3]

**Percentage 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).

$$\%SCT = 100 * SCT / (\text{value of production}_{COM} + A2_{COM} + B_{COM} + C1_{COM} + D_{COM})$$

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

**II. Group commodity transfers (GCT):** the annual monetary value of gross transfers from policies whose payments are made on the basis that one or more of a designated list of commodities is produced. That is, a producer can choose among a set of allowable commodities to produce and receive a payment that does not vary with respect to this decision. [GCT = B<sub>GROUP</sub> + C<sub>2</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 following groups of commodities:

- **Livestock:** This group includes policies directed at producers of livestock, including cattle, pigs, dairy, and poultry. An example is the animal breeding programme.
- **Ruminants:** This group includes policies directed at producers of cattle, dairy and sheep meat.
- **Sheep meat and poultry:** This group includes policies directed at producers of sheep meat and poultry. An example is the animal disease control programme.

**III. All commodity transfers (ACT):** the annual monetary value of gross transfers from policies that place no restrictions on the commodity produced but require the recipient to produce some commodity of their choice. [ACT = C<sub>3</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]

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

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

$$\text{Percentage PSE: } \%PSE = 100 * PSE / \text{value of agr. production} + A.2. + B + C + D + E + F +G)$$

### **TABLE 3. ICELAND : Producer Commodity Specific Transfers by commodity**

Tables 3.1 to 3.8, provide information on Producer Single Commodity Transfers (PSCT) for the following commodities: milk, beef and veal, pigmeat, poultry meat, sheep meat, wool, eggs and other commodities. All data sets in the calculation SCT by commodity come from Tables 1 and 4 where definitions are included.

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

**I. Level of production:** Data from Table 4 (Market price support table)

**II. Value of production (at farm gate):** Data from Table 4 (Market price support table)

**III. Producer Single commodity transfers:** Sum of transfers to specific commodity in categories A, B, C1 and D.

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

*A1. Market Price Support* [Data from Table 4]

*A2. Payments based on output*

Data from Table 1 – see the policies providing payments based on output (A.2) to the specific PSE commodity, in the definitions in Table 1.

***B. Payments based on input use*** [B1+B2+B3]

*B1. Variable input use*

Data from Table 1 – see the policies providing payments based on variable input use (B.1) to the specific PSE commodity, in the definitions in Table 1.

*B2. Fixed capital formation*

Data from Table 1 – see the policies providing payments based on fixed capital formation (B.2) to the specific PSE commodity, in the definitions in Table 1.

*B3. On-farm services*

Data from Table 1 – see the policies providing payments based on on-farm services (B.3) to the specific PSE commodity, in the definitions in Table 1.

***C1. Payments based on current A/An/R/I, production required, single commodity"***

Data from Table 1 – see the policies providing payments based on current A/An/R/I, single commodity (C.1) to the specific PSE commodity, in the definitions in Table 1.

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

Data from Table 1 – see the policies providing payments based on non-current A/An/R/I, production required (D) to the specific PSE commodity, in the definitions in Table 1.

**IV. Percentage SCT : %SCT =100\*(III)/((II)+(A.2)+(B)+(C.1)+(D))**

**TABLE 4. ICELAND: Market Price Support estimate by commodity**

**Definitions:**

**I. Level of production**

**Milk:** Total production of cow milk delivered to dairies (including production in excess of quota) plus estimated on-farm use, converted from litres to kilos using the coefficient 1.032 kg per litre [1] [8].

**Beef and veal:** Gross indigenous production of beef and veal, carcass weight, deliveries to slaughterhouses plus on-farm use [2] [8].

**Pigmeat:** Gross indigenous production of pigmeat, carcass weight [2] [8].

**Poultry:** Gross indigenous production of poultry meat, carcass weight, delivered to slaughterhouses [2] [8].

**Sheep meat:** Gross indigenous production of sheep meat, carcass weight, including estimated on-farm consumption [2] [8].

**Wool:** Greasy equivalent weight of greasy and scoured wool [2] [8].

**Eggs:** Gross indigenous production of eggs [2] [8].

**II. Producer prices**

**Milk:** Average price of milk for feed purposes and milk for human consumption (delivered to dairies and on-farm consumption). The price of milk for human consumption is the administered price net of transportation costs and direct payments. The price of milk for feed purposes is assumed to be 20 per cent lower than the average price of milk for human consumption [1] [8].

**Beef and veal:** Administered price till 1998. Weighted average price received by farmers since 1999, excluding transport costs [3] [8].

**Pigmeat:** Average prices according to reference price lists published by the Pig Producers' Organisation, net of direct payments [2][8].

**Poultry:** Estimated producer prices for the period 1986-1987, administered producer prices for the period 1988-1994, transportation and processing costs (5 per cent) are deducted from wholesale price for period of 1995-2003 [4] and estimated farm gate price since 2004 [8].

**Sheep meat:** The administered price till 1998. Average price of sheep meat delivered to slaughter houses and on-farm consumption net of direct payments and transportation costs. For sheep meat in excess of quota, the unit value of deliveries is used [5].

**Wool:** Average price paid to farmers [2]. The administered price was abolished in 1998.

**Eggs:** Estimated average producer prices for the period 1986-1987, administered producer prices for the period 1988-1994, processing costs (15 per cent) deducted from wholesale price for the period for 1995-2003 [4] and estimated farm gate price since 2004 [8].

**IV. Level of consumption**

**Milk:** Total domestic use of fresh milk and milk products in milk-equivalent [1].

**Beef and veal, pigmeat, poultry, and sheep meat:** Total domestic use of meat, carcass weight [2].

**Wool:** Consumption of wool is assumed to be equal to production, in greasy equivalent terms [2].

**Eggs:** Domestic use of eggs [2].

**VII. Reference prices**

**Milk:** Border prices of butter and skimmed milk powder converted into a milk equivalent border price using technical coefficients minus a processing margin, calendar year. The border prices of butter and skimmed milk powder are the EU export prices [6]. The processing margin is calculated as a simple

average of the processing margin for the four main exporting countries: Australia, EU, New Zealand and the United States.

**Beef and veal:** EU export price of live animals for slaughter [6], free-at-EU frontier offer price, live-weight converted to carcass equivalent (coefficient 1.85).

**Pigmeat:** Farm gate price used in calculating the PSE for the EU implicit reference price calculated by deducting the EU feed adjustment from the EU producer price [6].

**Poultry:** EU unit value of exports of 70 per cent chickens outside the EU [7]. In order to make reference prices applicable to farm level prices, processing costs are subtracted from reference prices (estimated at 45 per cent of this unit value) [8].

**Sheep meat:** EU import price of New Zealand frozen lamb, c.i.f. U.K. [6], killing and processing deducted, and adjusted by a coefficient of 1.3 for the price difference between frozen New Zealand and fresh EU supplies.

**Wool:** New Zealand producer price adjusted for transportation costs estimated as the ratio of c.i.f./f.o.b. prices (5 per cent) [9].

**Eggs:** EU export unit value of eggs outside the EU of poultry, fresh or preserved shell eggs, except hatching eggs [7]. In order to make reference prices applicable to farm level prices, processing costs are subtracted from reference prices (estimated at 25 per cent of this unit value) [8].

#### **Sources:**

[1] Agricultural Production Board and Dairy Association.

[2] Agricultural Production Board.

[3] Prices: Agricultural Production Board; Transport costs: Agricultural Society of Iceland and Agricultural Economic Institute.

[4] Agricultural Production Board. Processing costs are estimated by the Ministry of Agriculture.

[5] Prices: Agricultural Production Board; Transport costs: Agricultural Society and Agricultural Economic Institute.

[6] EU Commission.

[7] EUROSTAT external trade -- exports.

[8] Icelandic Ministry of Agriculture; communication to OECD Secretariat.

[9] PSE/CSE database -- New Zealand; Statistical Bureau of Iceland for transport costs.