

## Supplementary Materials

**Table S1.** Direct payments: measures, payment levels, expenditures and classification (type of support).

No.	Code in OECD PSE Database <sup>a</sup>	Category/Measure	Targeted Externalities (Based on Official Objectives)	Year Introduced	Payment per Unit of Measure	Expenditures in 2018 (CHF)	Classification (Type of Support) in This Study <sup>b</sup>
<b>Payments for cultural landscapes</b>							
1	PNSO7	Contributions for open landscape	landscape	2014	100/.../390	139,992,958	PS
2	PC23	Payments for farming on steep slopes (3 levels 18–35, >35–50, >50%)	landscape	1986	410/700/1000	126,601,720	PS
3	PC35	Payments for farming on very steep slopes	landscape, biodiversity	2014	100/.../1000	11,314,875	PS
4	PC7	Payments for vineyards on steep slopes 30–50/>50/terraced	landscape	1999	1500/3000/5000	11,456,195	PS
5	PHR5	Alpine pasturing (payment to farm sending animals)	landscape, biodiversity, culture	2014	370	108,498,077	PS
6	PHR1	Payments for summer pasturing (to operation receiving animals)— animal and pasture categories	landscape, biodiversity, culture	1986	120/320/400/440	123,980,368	PS
<b>Payments for food security</b>							
7	PHR4	Payments for ensuring food supplies—base payment (UAA/biodiversity area)	food security	2014	900/450	811,549,623	SO
8	PC33	Payments for ensuring food supplies—contribution for difficult conditions (5 zones)	food security	2014	240-360	159,431,784	PS
9	PC34	Payments for ensuring food supplies—arable land and perennial cultures	food security	2014	400	113,123,296	SO
<b>Payments for biodiversity areas (BA)</b>							
10	PNSO9	BA—extensive grassland—level 1 (4 zones)	various emissions	1993	1080/860/500/450	67,013,623	SA
11	PNSO10	BA—extensive grassland—level 2 (4 zones)	biodiversity, landscape	2001	1920/1840/1700/1100	56,264,325	PS
12	PNSO9	BA—fen litter meadows—level 1 (4 zones)	biodiversity, landscape	1993	1440/1220/860/680	8,319,472	PS
13	PNSO10	BA—fen litter meadows—level 2 (4 zones)	biodiversity, landscape	2001	2060/1980/1840/1770	13,635,311	PS
14	PNSO9	BA—low-intensity meadow—level 1	various emissions	1993	450	7,175,975	SA
15	PNSO10	BA—low-intensity meadow—level 2 (2 elevation zones)	biodiversity, landscape	2001	1200/1000	3,991,018	PS
16	PNSO9	BA—extensive pasture, forest pasture—level 1	various emissions	1993	450	21,584,987	SA
17	PNSO10	BA—extensive pasture, forest pasture—level 2	biodiversity, landscape	2001	700	13,339,608	PS
18	PNSO9	BA—hedgerows, riparian and field woods—level 1	biodiversity, landscape	1999	2160	8,911,221	PS
19	PNSO10	BA—hedgerows, riparian and field woods—level 2	biodiversity, landscape	2001	2840	4,855,980	PS
20	PNSO6	BA—seeded flower fallow	biodiversity, landscape	1994	3800	8,550,649	PS
21	PNSO9	BA—seeded rotational fallow	biodiversity, landscape	1999	3300	2,160,855	PS
22	PNSO9	BA—field margin	biodiversity, landscape	2008	2300	827,336	PS
23	PNSO9	BA—fallow strips on arable land	biodiversity, landscape	1999	3300	729,001	PS

24	PNSO9	BA—vineyards with naturally occurring species diversity	biodiversity, landscape	2014	1100	207,779	PS
25	PNSO9	BA—riparian meadow—level 1	biodiversity, landscape	1999	450	38,219	PS
26	PNSO9	BA—flower strips for pollinators	biodiversity, landscape	2015	2500	335,719	SA
27	PNSO9	BA—high-growth fruit trees—level 1	landscape	1999	13.5	28,956,907	PS
28	PNSO10	BA—high-growth fruit trees—level 2	biodiversity, landscape	2014	31.5	26,410,577	PS
29	PNSO9	BA—high-growth walnut trees—level 1	landscape	2014	13.5	5,842,287	PS
30	PNSO10	BA—high-growth walnut trees—level 2	biodiversity, landscape	2014	16.5	5,842,287	PS
31	PNSO9	BA—single trees and alley trees	landscape	2014	16.5	678,402	PS
32	PNSO11	BA—supplement for habitat networks—extensive pasture and forest pasture	biodiversity	2001	500	57,016,762	PS
33	PNSO11	BA—supplement for habitat networks—fen litter meadows	biodiversity	2001	1000	6,478,636	PS
34	PNSO11	BA—supplement for habitat networks—low-intensity meadow	biodiversity	2001	1000	7,725,510	PS
35	PNSO11	BA—supplement for habitat networks—extensive pasture and forest pasture	biodiversity	2001	1000	15,683,530	PS
36	PNSO11	BA—supplement for habitat networks—hedgerows, riparian and field woods	biodiversity	2001	1000	2,937,670	PS
37	PNSO11	BA—supplement for habitat networks—riparian meadow	biodiversity	2001	1000	36,141	PS
38	PNSO11	BA—supplement for habitat networks—seeded flower fallow	biodiversity	2001	1000	1,573,011	PS
39	PNSO11	BA—supplement for habitat networks—rotational fallow	biodiversity	2001	1000	1,573,011	PS
40	PNSO12	BA—supplement for habitat networks—field margin	biodiversity	2001	1000	236,672	PS
41	PNSO13	BA—supplement for habitat networks—fallow strip on arable land	biodiversity	2001	1000	173,870	PS
42	PNSO11	BA—supplement for habitat networks—high-growth trees (fruit and other)	biodiversity	2001	5	5,842,287	PS
43	PNSO12	BA—supplement for habitat networks—high-growth walnut trees	biodiversity	2001	5	207,779	PS
44	PNSO13	BA—supplement for habitat networks—vineyards with naturally occurring species	biodiversity	2001	1000	1,947,692	PS
45	PNSO10	BA—summer pastures—level 2	biodiversity	2014	150	33,524,252	PS
46	PNSO9	BA—region specific measures	biodiversity, landscape	2014	variable	1,811,648	PS
<b>Payments for landscape quality</b>							
47	PNSO8	Contribution to landscape quality	landscape	2014	max. 360/ha, 240/LSU	145,917,053	PS
<b>Payments for production systems</b>							
48	PC31	Payments for organic farming—special cultures/ arable/other	various emissions	1993	1600/1200/200	55,209,236	SA
49	PC14	Payment for extensive (only herbicides) cultivation of grains, rapeseed, sunflower and legume fodder crops	pesticide emissions	1992	400	35,221,872	SA
50	PC32	Payments for extensive livestock on grassland	ammonia emissions	2014	200	110,790,923	SA
51	PC17	Payments for animal housing systems—several livestock categories	animal suffering	1996	90/155/280	83,916,838	SA
52	PC18	Payments for regularly keeping animals outdoors—several livestock categories	animal suffering	1993	80/165/190/290/370	191,616,256	SA
<b>Payments for resource efficiency</b>							
53	PIF4	Payments for reduced-emissions application of manure (trailing hose, trailing shoe, injection)	ammonia emissions	2014	30/appl. (max. 4 appl.)	13,079,968	SA

54	PIF4	Payments for soil conservation sowing (mulch/strip/direct sowing)	nitrate emissions	2014	150/200/250	16,715,968	SA
55	PIF4	Payments for precise application of pesticides—different devices	pesticide emissions	2014	25%/75% (up to limit)	1,395,646	SA
56	PIF4	Spraying device with separate rinsing water circuit	pesticide emissions	2018	50% of costs (max. CHF 2000)	—	SA
57	PIF4	Payments for nitrogen-reduced phase-feeding of pigs	ammonia emissions	2018	35/LSU	2,425,221	SA
58	PIF4	Payments for soil conservation sowing—supplement for not using herbicides	nitrate emissions, pesticide emissions	2018	200	1,779,303	SA
59	PIF4	Payment for fruit/wine production—reduced herbicides	pesticide emissions	2018	200	—	SA
60	PIF4	Payment for fruit/wine production—no herbicides	pesticide emissions	2018	600	—	SA
61	PIF4	Payment for fruit/wine production—reduced fungicides	pesticide emissions	2018	200	—	SA
62	PIF4	Payment for wine production—no fungicides	pesticide emissions	2018	300	—	SA
63	PIF4	Payment for sugar beet mechanical weeding from 4-leave stage	pesticide emissions	2018	200	—	SA
64	PIF4	Payment for sugar beet mechanical weeding from seeding	pesticide emissions	2018	400	—	SA
65	PIF4	Payment for sugar beet—no herbicides	pesticide emissions	2018	800	—	SA
66	PIF4	Payment for sugar beet—no fungicides and insecticides	pesticide emissions	2018	400	—	SA
67	PIF4	Payments for arable land—reduced herbicides	pesticide emissions	2018	250	—	SA
<b>Transitional payments</b>							
68	PHNR2	Transitional payments	none	2014	variable	113,846,761	SO
<b>Supplements of single crops</b>							
69	PC8	Payments for oilseeds cultivation	food security	1999	700	21,353,981	PS
70	PC36	Area payments to sugar beet	food security	2008	2100	33,285,510	PS
71	PC37	Area payments for leguminous crops as fodder and for soya	food security	2009	1000	5,742,804	SA
72	PIV2	Payments for growing seed of potato and corn	food security	2009	700	1,575,135	PS
73	PIV2	Payments for growing seed of grasses and leguminous crops	food security	2009	1000	—	PS
<b>Regional resource programs</b>							
74	PM3	Payments for sustainable use of agricultural resources (Agriculture Act, Art. 77a,b)	nitrate emissions, pesticide emissions	2009	variable	16,954,879	SA
<b>Water resources protection</b>							
75	PC28	Payments for water resources protection (Waters Protection Act, Art. 62a)	nitrate emissions, pesticide emissions	1999	variable	5,045,121	SA

Notes: “...” indicates additional payment levels in between those mentioned; “—” indicates cases where the official data sources provide only the sum of payments for two or several measures; LSU: livestock units; UAA: utilized agricultural area. <sup>a</sup>: OECD (2020), code given to the measure in the “country file” (online spreadsheet). <sup>b</sup>: Assessment based on available evaluations (see section 4.1); PS: payment for service; SA: subsidy for damage avoidance; SO: other subsidy). Data sources, see main text, Section 4.7.