

Trade Sustainability Impact Assessment (SIA) in support of Free Trade Agreement (FTA) negotiations between the EU and Thailand

Draft Final Report – Annex

<Written by>
September 2026

Sustainability Impact Assessment (SIA) in support of
Free Trade Agreement (FTA) negotiations between
the European Union and the Kingdom of Thailand

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Contract No EC-TRADE/2025/OP/0002

Contract title Trade Sustainability Impact Assessment in support of Free

Trade Agreement (FTA) negotiations between the EU and

Thailand

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EUROPEAN COMMISSION

Directorate-General for Trade and Economic Security
Directorate C — Trade relations with Africa, Caribbean and Pacific regions, South and South East Asia,
Australia and New Zealand, Trade and Sustainable Development, the Green Deal
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Manuscript completed in September 2026

1st edition

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Luxembourg: Publications Office of the European Union, 2026

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Print	ISBN <xxx-xx-xx-xxxxx-x>	ISSN <xxxx-xxxx>	doi:10.<xxxx/xx...x>	<xx-xx-xx-xxx-xx-x>
PDF	ISBN <xxx-xx-xx-xxxxx-x>	ISSN <xxxx-xxxx>	doi:10.<xxxx/xx...x>	<xx-xx-xx-xxx-xx-x>
EPUB	ISBN <xxx-xx-xx-xxxxx-x>	ISSN <xxxx-xxxx>	doi:10.<xxxx/xx...x>	<xx-xx-xx-xxx-xx-x>
HTML	ISBN <xxx-xx-xx-xxxxx-x>	ISSN <xxxx-xxxx>	doi:10.<xxxx/xx...x>	<xx-xx-xx-xxx-xx-x>

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Annex 1: CGE results

1.1. Trade in goods data

1.1.1. Table 8: Thai exports to the EU27, in EUR million

	Product code	Thai exports to the EU27	Trade value	in % of total
		Product description	Average 2022-2024	
	Total	Total trade in goods	26,538	100%
1	8471	Automatic data processing machines	3,027	11.4%
2	8542	Electronic integrated circuits	2,441	9.2%
3	8517	Telephone sets, including smartphone	1,482	5.6%
4	8415	Air conditioning machines; comprisi	1,227	4.6%
5	8504	Electric transformers, static conve	986	3.7%
6	8443	Printing machinery; used for printi	902	3.4%
7	7113	Jewellery articles and parts thereo	788	3.0%
8	8711	Motorcycles (including mopeds) and	637	2.4%
9	4011	New pneumatic tyres, of rubber	630	2.4%
10	4001	Natural rubber, balata, gutta-perch	588	2.2%
11	9001	Optical fibres and optical fibre bu	491	1.9%
12	8525	Transmission apparatus for radio-br	500	1.9%
13	8473	Machinery; parts and accessories (o	273	1.0%
14	8703	Motor cars and other motor vehicles	438	1.6%
15	8708	Motor vehicles; parts and accessori	331	1.2%
16	1602	Prepared or preserved meat, meat of	342	1.3%
17	2309	Preparations of a kind used in anim	289	1.1%
18	8534	Circuits; printed	350	1.3%
19	8704	Vehicles; for the transport of good	218	0.8%
20	4015	Articles of apparel and clothing ac	264	1.0%
		Top 10 in total		47.9%
		Top 20 in total		61.1%

Source: UN Comtrade (via WTIS), authors' calculations. Trade values are expressed in EUR. USD-denominated trade data were converted using European Central Bank annual average USD–EUR exchange rates for the respective years.

1.1.2. Table 9: Thai total exports (world), in EUR million

	Product code	Thai total exports (world)	Trade value	in % of total
		Product description	Average 2022-2024	
	Total	Total trade in goods	271,280	100%
1	2710	Petroleum oils and oils from bitumi	8,033	12.4%
2	1006	Rice	4,839	7.4%
3	810	Fruit, fresh; n.e.c. in chapter 08	4,023	6.2%
4	1604	Prepared or preserved fish; caviar	2,809	4.3%
5	1602	Prepared or preserved meat, meat of	2,837	4.4%
6	2309	Preparations of a kind used in anim	2,582	4.0%
7	1701	Cane or beet sugar and chemically p	2,788	4.3%
8	2202	Waters, including mineral and aerat	1,483	2.3%
9	1108	Starches; inulin	1,538	2.4%
10	2106	Food preparations not elsewhere spe	1,348	2.1%
11	207	Meat and edible offal of poultry; o	1,222	1.9%
12	1702	Sugars, including lactose, maltose,	788	1.2%
13	2103	Sauces and preparations therefor; m	920	1.4%
14	2707	Oils and other products of the dist	937	1.4%
15	3304	Cosmetic and toilet preparations; b	776	1.2%
16	2008	Fruit, nuts and other edible parts	900	1.4%
17	2009	Fruit or nut juices (including grap	756	1.2%
18	3505	Dextrins and other modified starche	886	1.4%
19	2902	Cyclic hydrocarbons	829	1.3%
20	2917	Acids; polycarboxylic acids, their	843	1.3%
		Top 10 in total		11.9%
		Top 20 in total		15.2%

Source: UN Comtrade (via WTIS), authors' calculations. Trade values are expressed in EUR. USD-denominated trade data were converted using European Central Bank annual average USD–EUR exchange rates for the respective years.

1.1.3. Table 10: Thai exports to ASEAN, in EUR million

	Product code	Thai exports to ASEAN	Trade value	in % of total
		Product description	Average 2022-2024	
	Total	Total trade in goods	65,004	100%
1	2710	Petroleum oils and oils from bitumi	6,496	10.0%

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	Product code	Thai exports to ASEAN	Trade value	in % of total
		Product description	Average 2022-2024	
2	1701	Cane or beet sugar and chemically p	1,991	3.1%
3	1006	Rice	930	1.4%
4	2202	Waters, including mineral and aerat	1,206	1.9%
5	2707	Oils and other products of the dist	769	1.2%
6	2309	Preparations of a kind used in anim	595	0.9%
7	2106	Food preparations not elsewhere spe	424	0.7%
8	2709	Petroleum oils and oils obtained fr	293	0.5%
9	1108	Starches; inulin	288	0.4%
10	3402	Organic surface-active agents (not	302	0.5%
11	1901	Malt extract; flour/groats/meal/sta	297	0.5%
12	3305	Hair preparations; for use on the h	314	0.5%
13	3004	Medicaments; (not goods of heading	273	0.4%
14	2103	Sauces and preparations therefor; m	274	0.4%
15	3304	Cosmetic and toilet preparations; b	269	0.4%
16	2716	Electrical energy	185	0.3%
17	207	Meat and edible offal of poultry; o	216	0.3%
18	1905	Bread, pastry, cakes, biscuits, oth	224	0.3%
19	1902	Pasta; whether or not cooked or stu	188	0.3%
20	1602	Prepared or preserved meat, meat of	157	0.2%
		Top 10 in total		20.4%
		Top 20 in total		24.1%

Source: UN Comtrade (via WTIS), authors' calculations. Trade values are expressed in EUR. USD-denominated trade data were converted using European Central Bank annual average USD–EUR exchange rates for the respective years.

1.1.4. Table 11: Thai imports from the EU27, in EUR million

	Product code	Thai imports from the EU27	Trade value	in % of total
		Product description	Average 2022-2024	
	Total	Total trade in goods	14,642	100%
1	8542	Electronic integrated circuits	819	5.6%
2	3004	Medicaments; (not goods of heading	683	4.7%
3	8708	Motor vehicles; parts and accessori	389	2.7%
4	3002	Human blood; animal blood for thera	500	3.4%

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	Product code	Thai imports from the EU27	Trade value	in % of total
		Product description	Average 2022-2024	
5	8411	Turbo-jets, turbo-propellers and ot	301	2.1%
6	7602	Aluminium; waste and scrap	191	1.3%
7	8802	Aircraft n.e.c. in heading no. 8801	212	1.4%
8	9018	Instruments and appliances used in	198	1.4%
9	8703	Motor cars and other motor vehicles	268	1.8%
10	1001	Wheat and meslin	107	0.7%
11	4301	Raw furskins (including heads, tail	185	1.3%
12	8422	Dish washing machines; machinery fo	155	1.1%
13	4202	Trunks; suit, camera, jewellery, cu	179	1.2%
14	8479	Machinery and mechanical appliances	200	1.4%
15	8517	Telephone sets, including smartphon	191	1.3%
16	8481	Taps, cocks, valves and similar app	175	1.2%
17	7113	Jewellery articles and parts thereo	155	1.1%
18	7404	Copper; waste and scrap	92	0.6%
19	8477	Machinery; for working rubber or pl	134	0.9%
20	3815	Reaction initiators, reaction accel	84	0.6%
		Top 10 in total		25.0%
		Top 20 in total		35.6%

Source: UN Comtrade (via WTIS), authors' calculations. Trade values are expressed in EUR. USD-denominated trade data were converted using European Central Bank annual average USD–EUR exchange rates for the respective years.

1.1.5. Table 12: Thai total imports (world), in EUR million

	Product code	Thai total imports (world)	Trade value	in % of total
		Product description	Average 2022-2024	
	Total	Total trade in goods	275,278	100%
1	2709	Petroleum oils and oils obtained fr	31,609	67.0%
2	2711	Petroleum gases and other gaseous h	10,470	22.2%
3	2710	Petroleum oils and oils from bitumi	4,347	9.2%
4	2716	Electrical energy	1,892	4.0%
5	303	Fish; frozen, excluding fish fillet	1,956	4.1%
6	3004	Medicaments; (not goods of heading	1,805	3.8%

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	Product code	Thai total imports (world)	Trade value	in % of total
		Product description	Average 2022-2024	
7	1201	Soya beans, whether or not broken	1,846	3.9%
8	2701	Coal; briquettes, ovoids and simila	1,875	4.0%
9	2304	Oil-cake and other solid residues;	1,481	3.1%
10	1001	Wheat and meslin	988	2.1%
11	3105	Fertilizers; mineral or chemical, c	954	2.0%
12	3102	Fertilizers; mineral or chemical, n	1,116	2.4%
13	2106	Food preparations not elsewhere spe	830	1.8%
14	3304	Cosmetic and toilet preparations; b	666	1.4%
15	3302	Odoriferous substances and mixtures	688	1.5%
16	3002	Human blood; animal blood for thera	950	2.0%
17	2905	Acyclic alcohols and their halogena	682	1.4%
18	714	Manioc, arrowroot, salep, Jerusalem	564	1.2%
19	2309	Preparations of a kind used in anim	506	1.1%
20	1005	Maize (corn)	457	1.0%
		Top 10 in total		21.2%
		Top 20 in total		23.9%

Source: UN Comtrade (via WTIS), authors' calculations. Trade values are expressed in EUR. USD-denominated trade data were converted using European Central Bank annual average USD–EUR exchange rates for the respective years.

1.1.6. Table 13: Thai imports from ASEAN, in EUR million

	Product code	Thai imports from ASEAN	Trade value	in % of total
		Product description	Average 2022-2024	
	Total	Total trade in goods	47,159	100%
1	2709	Petroleum oils and oils obtained fr	4,560	9.7%
2	2711	Petroleum gases and other gaseous h	3,580	7.6%
3	2716	Electrical energy	1,892	4.0%
4	2701	Coal; briquettes, ovoids and simila	1,376	2.9%
5	2710	Petroleum oils and oils from bitumi	1,249	2.6%
6	3302	Odoriferous substances and mixtures	518	1.1%
7	714	Manioc, arrowroot, salep, Jerusalem	553	1.2%
8	1005	Maize (corn)	437	0.9%

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	Product code	Thai imports from ASEAN	Trade value	in % of total
		Product description	Average 2022-2024	
9	2106	Food preparations not elsewhere spe	434	0.9%
10	901	Coffee, whether or not roasted or d	192	0.4%
11	3102	Fertilizers; mineral or chemical, n	283	0.6%
12	801	Nuts, edible; coconuts, Brazil nuts	148	0.3%
13	2905	Acyclic alcohols and their halogena	260	0.6%
14	2902	Cyclic hydrocarbons	173	0.4%
15	1905	Bread, pastry, cakes, biscuits, oth	189	0.4%
16	811	Fruit and nuts; uncooked or cooked	150	0.3%
17	2101	Extracts, essences, concentrates of	121	0.3%
18	2915	Acids; saturated acyclic monocarbox	173	0.4%
19	304	Fish fillets and other fish meat (w	148	0.3%
20	1901	Malt extract; flour/groats/meal/sta	149	0.3%
		Top 10 in total		31.4%
		Top 20 in total		35.2%

Source: UN Comtrade (via WTIS), authors' calculations. Trade values are expressed in EUR. USD-denominated trade data were converted using European Central Bank annual average USD–EUR exchange rates for the respective years.

1.2. Import tariffs

1.2.1. Table 14: Tariffs on EU imports from Thailand, top 20 product categories at HS-4 level, in per cent

EU imports from Thailand		Effectively Applied Tariff (AHS)					Most-Favored Nation Tariff (MFN)				
Product code	Product description	Simple Average	Weighted Average	MinimumRate	Maximum Rate	Number of Total Lines	Simple Average	Weighted Average	MinimumRate	Maximum Rate	Number of Total Lines
8471	Automatic data processing machines	0	0	0	0	345	0	0	0	0	345
8542	Electronic integrated circuits	0	0	0	0	523	0	0	0	0	523
8517	Telephone sets, including smartphon	0	0	0	0	254	0	0	0	0	254
8415	Air conditioning machines; comprisi	2.56	2.5	0	2.7	153	2.56	2.5	0	2.7	153
8504	Electric transformers, static conve	1.73	0.07	0	3.7	431	1.73	0.07	0	3.7	431
8443	Printing machinery; used for printi	0.15	0	0	1.7	218	0.15	0	0	1.7	218
7113	Jewellery articles and parts thereo	2.95	2.42	2	4	78	2.95	2.42	2	4	78

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EU imports from Thailand		Effectively Applied Tariff (AHS)					Most-Favored Nation Tariff (MFN)				
8711	Motorcycles (including mopeds) and	6.51	6.16	6	8	191	6.51	6.16	6	8	191
4011	New pneumatic tyres, of rubber	4.25	4.36	0	4.5	215	4.25	4.36	0	4.5	215
4001	Natural rubber, balata, gutta-perch	0	0	0	0	62	0	0	0	0	62
9001	Optical fibres and optical fibre bu	2.18	2.75	0	2.9	230	2.18	2.75	0	2.9	230
8525	Transmission apparatus for radio-br	0	0	0	0	110	0	0	0	0	110
8473	Machinery; parts and accessories (o	0	0	0	0	154	0	0	0	0	154
8703	Motor cars and other motor vehicles	9.97	10	5	10	187	9.97	10	5	10	187
8708	Motor vehicles; parts and accessori	3.75	3.61	0	4.5	1280	3.75	3.61	0	4.5	1280
1602	Prepared or preserved meat, meat of	14.53	14.45	10.9	16.6	190	14.53	14.45	10.9	16.6	190
2309	Preparations of a kind used in anim	4.56	3.14	0	12	631	4.56	3.14	0	12	631
8534	Circuits; printed	0	0	0	0	84	0	0	0	0	84
8704	Vehicles; for the transport of good	12.61	11.77	0	22	133	12.61	11.77	0	22	133
4015	Articles of apparel and clothing ac	3.19	2.37	2	5	72	3.19	2.37	2	5	72

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1.2.2. Table 15: Tariffs on EU exports to Thailand, top 20 product categories at HS-4 level, in per cent

EU exports to Thailand		Effectively Applied Tariff (AHS)					Most-Favored Nation Tariff (MFN)				
Product code	Product description	Simple Average	Weighted Average	Minimum Rate	Maximum Rate	Number of Total Lines	Simple Average	Weighted Average	Minimum Rate	Maximum Rate	Number of Total Lines
8542	Electronic integrated circuits	0	0	0	0	94	0	0	0	0	5
3004	Medicaments; (not goods of heading	9.18	8.38	0	10	1032	8.78	8.38	0	10	63
8708	Motor vehicles; parts and accessori	26.12	25.67	10	30	2729	25.3	25.67	10	30	119
3002	Human blood; animal blood for thera	0	0	0	0	91	0	0	0	0	12
8411	Turbo-jets, turbo-propellers and ot	0	0	0	0	46	0	0	0	0	7
7602	Aluminium; waste and scrap	0	0	0	0	18	0	0	0	0	1
8802	Aircraft n.e.c. in heading no. 8801	0	0	0	0	47	0	0	0	0	8
9018	Instruments and appliances used in	2.28	2.96	0	20	263	1.58	2.96	0	20	18
8703	Motor cars and other motor vehicles	73.42	73.67	0	80	1953	70.91	73.67	0	80	385
1001	Wheat and meslin	0	0	0	0	30	0	0	0	0	5
4301	Raw furskins(including heads, tail	0	0	0	0	9	0	0	0	0	4
8422	Dish washing machines; machinery fo	0	0	0	0	97	0	0	0	0	7

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EU exports to Thailand		Effectively Applied Tariff (AHS)					Most-Favored Nation Tariff (MFN)				
4202	Trunks; suit, camera, jewellery, cu	20	20	20	20	488	20	20	20	20	23
8479	Machinery and mechanical appliances	1.14	1.7	0	5	348	0.83	1.7	0	5	23
8517	Telephone sets, including smartphon	0	0	0	0	672	0	0	0	0	31
8481	Taps, cocks, valvesand similar app	0.11	0.38	0	10	1592	0.1	0.38	0	10	63
7113	Jewellery articles and parts thereo	0	0	0	0	110	0	0	0	0	6
7404	Copper; waste and scrap	0	0	0	0	6	0	0	0	0	1
8477	Machinery; for working rubber or pl	0	0	0	0	265	0	0	0	0	21
3815	Reaction initiators, reaction accel	5	5	5	5	35	5	5	5	5	4

1.3. Services schedules and commitments

1.3.1. Table 16: Major services sectors: WTO baseline commitments (Modes 1, 3, 4)

Sector	Mode 1	Mode 3	Mode 4
Maritime transport (international)	Often none or unbound	Thai-flag fleet unbound; others subject to horizontals	Unbound
Maritime auxiliary services	Often unbound	Subject to horizontals	Unbound
Telecommunications	Largely unbound	Subject to horizontals and sector-specific licensing	Unbound
Financial services	Unbound	Subject to domestic regulation and horizontals	Unbound
Business & professional services	Mixed; many unbound	Subject to horizontals	Unbound
Transport (non-maritime)	Mostly unbound	Subject to horizontals	Unbound

Note: "None" indicates that no market access or national treatment limitations are scheduled for the relevant mode of supply. This means the sector is, in principle, fully committed, subject only to general laws and regulations of the host country that apply in a non-discriminatory manner. "Unbound" indicates that no commitment is undertaken for the relevant mode of supply. The country retains full regulatory discretion to maintain or introduce any measure affecting market access or national treatment, including prohibitions or quantitative restrictions. Horizontal limitations refer to economy-wide conditions that apply across all scheduled sectors unless explicitly stated otherwise. These typically include requirements related to establishment, foreign equity participation, land ownership, licensing, and the temporary entry of natural persons.

1.3.2. Table 17: Horizontal limitations: Thailand's WTO baseline vs Thailand–EFTA FTA

Item	WTO baseline	Thailand–EFTA FTA
Mode 1 – Cross-border supply	No single horizontal rule; many sectors unbound	Where committed, subject to domestic legal framework
Mode 3 – Commercial presence	Thai-registered limited liability company; foreign equity ≤49%; foreign shareholders <50%	Thai-incorporated entity; foreign equity ≤49% unless otherwise specified
Mode 4 – Natural persons	Unbound except limited categories (e.g. business visitors; intra-corporate transferees)	Unbound except as indicated in horizontal section
Land ownership	Foreign ownership prohibited; leasing permitted	Same approach reflected
Other horizontal conditions	Domestic licensing and establishment requirements	Domestic licensing, foreign investment rules, and related conditions

Note: "None" indicates that no market access or national treatment limitations are scheduled for the relevant mode of supply. This means the sector is, in principle, fully committed, subject only to general laws and regulations of the host country that apply in a non-discriminatory manner. "Unbound" indicates that no commitment is undertaken for the relevant mode of supply. The country retains full regulatory discretion to maintain or introduce any measure affecting market access or national treatment, including prohibitions or quantitative restrictions. Horizontal limitations refer to economy-wide conditions that apply across all scheduled sectors unless explicitly stated otherwise. These typically include requirements related to establishment, foreign equity participation, land ownership, licensing, and the temporary entry of natural persons.

1.3.3. Table 18: Selected “WTO-plus” commitments under the Thailand–EFTA FTA (Modes 1, 3, 4)

Sector / activity (illustrative)	Mode 1	Mode 3	Mode 4
Management consulting	None	Up to 100% foreign equity	Unbound
Sales of internet advertising space	None	Up to 70% foreign equity via joint venture	Unbound
Technical testing and analysis	None	Up to 70% foreign equity via joint venture	Unbound
Maritime-related leasing (non-Thai flag, international use)	None	Up to 70% foreign equity via joint venture	Unbound
Other business services (selected)	None	Clarified commitments aligned with sector entries	Unbound

Note: “None” indicates that no market access or national treatment limitations are scheduled for the relevant mode of supply. This means the sector is, in principle, fully committed, subject only to general laws and regulations of the host country that apply in a non-discriminatory manner. “Unbound” indicates that no commitment is undertaken for the relevant mode of supply. The country retains full regulatory discretion to maintain or introduce any measure affecting market access or national treatment, including prohibitions or quantitative restrictions. Horizontal limitations refer to economy-wide conditions that apply across all scheduled sectors unless explicitly stated otherwise. These typically include requirements related to establishment, foreign equity participation, land ownership, licensing, and the temporary entry of natural persons.

1.4. Non-tariff measures (NTMs)

1.4.1. Table 19: Thailand’s non-tariff measures by sector

Sector	NTM Coverage ratio	NTM Frequency ratio	NTM affected product - count	NTM affected trade	NTM affected duty free imports
Animal Products	98.29	95.36	288	3.58	42.33
Minerals	93.81	86.73	85	0.55	86.57
Food Products	89.36	90.48	190	4.46	0.02
Stone and Glass	84.52	22.92	44	9.79	76.78
Plastic or Rubber	78.98	65.88	139	8.13	3.63
Vegetable	76.14	83.98	283	3.73	3.12
Chemicals	39.81	22.15	167	6.81	7.72
Fuels	31.12	44.74	17	10.85	19.42
All Import Products	31.09	29.63	1508	66.33	13.78
Wood	30.61	36.05	84	0.97	22.78
Machinery and Electrical Equipment	17.71	6.74	52	11.76	9.89
Metals	14.32	14.85	83	3.80	6.2
Miscellaneous	13.89	13.28	47	1.12	9.64

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Sector	NTM Coverage ratio	NTM Frequency ratio	NTM affected product - count	NTM affected trade	NTM affected duty free imports
Transportation	5.11	15.75	20	0.76	0.72
Textiles and Clothing	0.38	1.14	9	0.02	0.3

Source: UNCTAD – NTM, WITS World Integrated Trade Solution.

1.4.2. Table 20: Thailand's top ten most imposed non-tariff measures

Measure	NTM Coverage Ratio	NTM Frequency Ratio	NTM affected product - Count	NTM affected Trade, in million USD
Authorization requirement for TBT reasons (B140)	11.97	6.07	309	25.54
Traceability requirements (A850)	10.48	18.06	919	22.36
Labelling requirements (B310)	8.66	7.84	399	18.49
Registration requirement for importers for TBT reasons (B150)	7.54	1.83	93	16.08
Licensing for economic reasons n.e.s. (E119)	5.86	0.37	19	12.51
Import licence fee (F650)	5.67	15.25	776	12.09
Traceability information requirements (B850)	5.64	1.28	65	12.04
Export measures n.e.s.(P900)	5.55	0.75	37	12.26
Certification requirement (B830)	5.55	3.54	180	11.84
Packaging requirements (B330)	5.26	15.03	765	11.23

Source: UNCTAD – NTM, WITS World Integrated Trade Solution.

1.5. Trade in services data

1.5.1. Table 21: EU services exports to Thailand, in EUR million

Code	Description	2023	2022	2021	Average 2021-2023	Share int total
S	Services	7,300.4	7,175.7	5,731.7	6,735.9	100.0%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SA	Manufacturing services on physical inputs owned by others	30.8	42.6	41.6	38.3	0.6%
SB	Maintenance and repair services n.i.e.	234.3	152.4	165.3	184.0	2.7%
SC	Transport	960.9	1,803.4	1,295.2	1,353.2	20.1%
SC1	Sea transport	610.0	1,387.3	977.4	991.6	14.7%
SC12	Sea transport; Freight	595.1	1,337.7	935.2	956.0	14.2%
SC13	Sea transport; Other than passenger and freight	11.9	47.7	42.0	33.9	0.5%
SC2	Air transport	307.0	362.3	273.3	314.2	4.7%
SC21	Air transport; Passenger	121.0	100.2	23.6	81.6	1.2%
SC22	Air transport; Freight	131.0	220.7	233.4	195.0	2.9%
SC23	Air transport; Other than passenger and freight	55.6	38.7	17.3	37.2	0.6%
SC3	Other modes of transport	41.7	50.9	35.2	42.6	0.6%
SC31	Other modes of transport; Passenger	0.4	0.2	-	0.2	0.0%
SC32	Other modes of transport; Freight	23.0	37.9	22.0	27.6	0.4%
SC33	Other modes of transport; Other than passenger and freight	18.3	12.7	13.3	14.8	0.2%
SC3B	Rail transport	1.4	6.3	4.8	4.2	0.1%
SC3B1	Rail transport; Passenger	0.1	-	-	0.0	0.0%
SC3B2	Rail transport; Freight	1.3	6.3	4.8	4.1	0.1%
SC3C	Road transport	23.6	33.5	17.6	24.9	0.4%
SC3C1	Road transport; Passenger	0.3	0.2	-	0.2	0.0%
SC3C2	Road transport; Freight	20.8	30.6	16.2	22.5	0.3%
SC3C3	Road transport; Other than passenger and freight	2.5	2.7	0.5	1.9	0.0%
SC3G	Other supporting and auxiliary transport services	15.7	9.9	12.7	12.8	0.2%
SC4	Postal and courier services	2.0	2.9	5.0	3.3	0.0%
SD	Travel	444.8	388.9	171.8	335.2	5.0%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SDA	Travel; Business	70.5	49.9	58.8	59.7	0.9%
SDA1	Travel; Business; Acquisition of goods and services by border, seasonal, and other short-term workers	4.1	2.8	2.0	3.0	0.0%
SDA2	Travel; Business; Other than acquisition of goods and services by border, seasonal, and other short-term workers	66.4	46.0	56.8	56.4	0.8%
SDB	Travel; Personal	374.4	337.0	111.0	274.1	4.1%
SDB1	Travel; Personal; Health-related	1.4	1.3	0.2	1.0	0.0%
SDB2	Travel; Personal; Education-related	19.0	29.3	17.2	21.8	0.3%
SDB3	Travel; Personal; Other than health- related and education- related	352.0	306.2	93.6	250.6	3.7%
SE	Construction	19.4	23.2	25.7	22.8	0.3%
SE1	Construction abroad	18.4	23.0	25.7	22.4	0.3%
SF	Insurance and pension services	35.9	67.1	31.1	44.7	0.7%
SF1	Direct insurance	0.9	38.9	9.5	16.4	0.2%
SF11	Life insurance	- 7.7	29.3	3.2	8.3	0.1%
SF12	Freight insurance	1.8	2.1	1.1	1.7	0.0%
SF13	Direct insurance other than life and freight insurance	6.8	7.6	4.0	6.1	0.1%
SF2	Reinsurance	30.4	22.9	19.9	24.4	0.4%
SF3	Auxiliary insurance services	2.1	0.8	0.4	1.1	0.0%
SF4	Pension and standardized guarantee services	1.6	2.4	1.3	1.8	0.0%
SF41	Pension services	1.6	2.4	1.3	1.8	0.0%
SG	Financial services	224.6	213.8	195.5	211.3	3.1%
SG1	Financial services explicitly charged and other financial services	211.1	206.2	189.6	202.3	3.0%
SH	Charges for the use of intellectual property n.i.e.	446.2	445.2	411.2	434.2	6.4%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SI	Telecommunications, computer, and information services	3,142.1	2,509.1	2,199.0	2,616.7	38.8%
SI1	Telecommunications services	22.1	19.2	15.4	18.9	0.3%
SI2	Computer services	3,093.8	2,468.4	2,164.9	2,575.7	38.2%
SI3	Information services	26.2	21.3	17.6	21.7	0.3%
SI32	Information services other than news agency services	26.2	20.3	17.6	21.4	0.3%
SJ	Other business services	1,602.7	1,354.4	1,029.9	1,329.0	19.7%
SJ1	Research and development services	232.8	183.6	165.9	194.1	2.9%
SJ11	Work undertaken on a systematic basis to increase the stock of knowledge	229.4	181.4	163.6	191.5	2.8%
SJ111	Provision of customized and non-customized research and development services	229.4	181.4	162.6	191.1	2.8%
SJ12	Research and development services other than work undertaken on a systematic basis to increase the stock of knowledge	2.4	2.1	2.3	2.3	0.0%
SJ2	Professional and management consulting services	414.9	382.9	311.4	369.7	5.5%
SJ21	Legal, accounting, management consulting, and public relations services	305.3	297.6	266.3	289.7	4.3%
SJ211	Legal services	36.1	33.5	27.4	32.3	0.5%
SJ212	Accounting, auditing, bookkeeping, and tax consulting services	14.5	21.1	19.8	18.5	0.3%
SJ213	Business and management consulting and public relations services	253.8	241.9	219.1	238.3	3.5%
SJ22	Advertising, market research, and public opinion polling services	108.3	86.3	46.0	80.2	1.2%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SJ3	Technical, trade-related, and other business services	955.0	783.4	549.8	762.7	11.3%
SJ31	Architectural, engineering, scientific, and other technical services	227.8	213.4	247.8	229.7	3.4%
SJ311	Architectural services	0.4	0.5	1.9	0.9	0.0%
SJ312	Engineering services	213.7	198.3	232.1	214.7	3.2%
SJ313	Scientific and other technical services	12.7	12.8	14.5	13.3	0.2%
SJ32	Waste treatment and de-pollution, agricultural and mining services	2.1	5.7	6.9	4.9	0.1%
SJ321	Waste treatment and de-pollution	0.1	0.1	1.0	0.4	0.0%
SJ33	Operating leasing services	321.7	306.8	171.5	266.7	4.0%
SJ34	Trade-related services	13.5	15.7	9.6	12.9	0.2%
SJ35	Other business services n.i.e.	387.5	243.6	112.0	247.7	3.7%
SK	Personal, cultural, and recreational services	37.0	26.4	30.8	31.4	0.5%
SK1	Audiovisual and related services	18.2	17.2	25.3	20.2	0.3%
SK2	Personal, cultural, and recreational services other than audiovisual and related services	16.7	8.2	4.5	9.8	0.1%
SK21	Personal, cultural, and recreational services other than audiovisual and related services; Health services	0.3	0.3	0.3	0.3	0.0%
SK22	Personal, cultural, and recreational services other than audiovisual and related services; Education services	4.2	2.8	2.6	3.2	0.0%
SK23	Personal, cultural, and recreational services other than audiovisual and related services; Heritage and recreational services	7.0	1.1	1.0	3.0	0.0%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SK24	Personal, cultural, and recreational services other than audiovisual and related services; Personal services other than health, education and heritage and recreational services	6.2	4.0	1.6	3.9	0.1%
SL	Government goods and services n.i.e.	24.4	22.1	15.7	20.7	0.3%
SL1	Embassies and consulates	18.5	17.8	14.4	16.9	0.3%
SL3	Government goods and services n.i.e. other than embassies and consulates and military units and agencies	4.9	4.3	1.3	3.5	0.1%
SOX1	Other commercial services - other services excluding Government goods and services n.i.e	5,507.9	4,639.2	3,923.2	4,690.1	69.6%
SPX1	Other services - Total services excluding Manufacturing services on physical inputs owned by others, Maintenance and repair services, Transport and Travel	5,532.3	4,661.3	3,938.9	4,710.8	69.9%

Source: OECD.

1.5.2. Table 22: EU services imports from Thailand, in EUR million

Code	Description	2023	2022	2021	Average 2021-2023	Share int total
S	Services	6155.3	4895.6	2502.5	4,517.8	100.0%
SA	Manufacturing services on physical inputs owned by others	149.4	164.8	98.1	137.4	3.0%
SB	Maintenance and repair services n.i.e.	102.6	89.4	72.9	88.3	2.0%
SC	Transport	1192.2	1653.7	997.3	1,281.1	28.4%
SC1	Sea transport	307.8	772.3	477.6	519.2	11.5%
SC12	Sea transport; Freight	185.9	609.7	337	377.5	8.4%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SC13	Sea transport; Other than passenger and freight	122.6	163.8	140.5	142.3	3.1%
SC2	Air transport	756.2	713.6	364.4	611.4	13.5%
SC21	Air transport; Passenger	201.9	155	16.6	124.5	2.8%
SC22	Air transport; Freight	514.5	511.2	306.9	444.2	9.8%
SC23	Air transport; Other than passenger and freight	40.9	47.4	40	42.8	0.9%
SC3	Other modes of transport	107.5	145.5	138	130.3	2.9%
SC31	Other modes of transport; Passenger	0.1	0	0	0.0	0.0%
SC32	Other modes of transport; Freight	80.9	88.6	79.7	83.1	1.8%
SC33	Other modes of transport; Other than passenger and freight	25.4	55.9	58.3	46.5	1.0%
SC3B	Rail transport	11.9	14.5	12.4	12.9	0.3%
SC3B2	Rail transport; Freight	11.8	14.4	12.3	12.8	0.3%
SC3B3	Rail transport; Other than passenger and freight	0.1	0.1	0.1	0.1	0.0%
SC3C	Road transport	71.9	98	96.4	88.8	2.0%
SC3C1	Road transport; Passenger	0.1	0	0	0.0	0.0%
SC3C2	Road transport; Freight	67.8	74.1	66.9	69.6	1.5%
SC3C3	Road transport; Other than passenger and freight	3.9	21.6	28.5	18.0	0.4%
SC3F	Electricity transmission	0.1	0.1	0.1	0.1	0.0%
SC3G	Other supporting and auxiliary transport services	21.4	32.9	29.8	28.0	0.6%
SC4	Postal and courier services	18	17.1	16.2	17.1	0.4%
SD	Travel	3573.9	1988.1	448.7	2,003.6	44.3%
SDA	Travel; Business	329.5	142.1	69.4	180.3	4.0%
SDA1	Travel; Business; Acquisition of goods and services by border, seasonal, and other short-term workers	19.2	8	0.1	9.1	0.2%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SDA2	Travel; Business; Other than acquisition of goods and services by border, seasonal, and other short-term workers	310.3	134.1	69.4	171.3	3.8%
SDB	Travel; Personal	3243.3	1847.1	381.3	1,823.9	40.4%
SDB1	Travel; Personal; Health-related	86.8	15	3.5	35.1	0.8%
SDB2	Travel; Personal; Education-related	16.2	47.7	4.7	22.9	0.5%
SDB3	Travel; Personal; Other than health- related and education- related	3137.6	1783.2	371.2	1,764.0	39.0%
SE	Construction	5.4	12.5	13.7	10.5	0.2%
SE1	Construction abroad	4.2	12.2	10	8.8	0.2%
SE2	Construction in the reporting economy	1.2	0.3	3.7	1.7	0.0%
SF	Insurance and pension services	53.1	38.8	34.7	42.2	0.9%
SF1	Direct insurance	16	17.2	13.5	15.6	0.3%
SF12	Freight insurance	15.2	16.3	12.3	14.6	0.3%
SF13	Direct insurance other than life and freight insurance	0.8	0.9	1.1	0.9	0.0%
SF2	Reinsurance	3.6	1.4	2	2.3	0.1%
SF3	Auxiliary insurance services	32.5	20.1	18.2	23.6	0.5%
SG	Financial services	38.3	46.1	38.5	41.0	0.9%
SG1	Financial services explicitly charged and other financial services	28.1	40.3	36.3	34.9	0.8%
SH	Charges for the use of intellectual property n.i.e.	8.8	10.9	11	10.2	0.2%
SI	Telecommunications, computer, and information services	131.4	117.6	105.5	118.2	2.6%
SI1	Telecommunications services	52.7	42.2	42	45.6	1.0%
SI2	Computer services	72.4	67.1	42	60.5	1.3%
SI3	Information services	7.5	6.1	20.7	11.4	0.3%
SI31	News agency services	1	1	3.2	1.7	0.0%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SI32	Information services other than news agency services	6.5	6	17.4	10.0	0.2%
SJ	Other business services	830.5	709.3	614.8	718.2	15.9%
SJ1	Research and development services	84.9	108.4	80.4	91.2	2.0%
SJ11	Work undertaken on a systematic basis to increase the stock of knowledge	80.4	96.1	66.3	80.9	1.8%
SJ111	Provision of customized and non- customized research and development services	80.4	96.1	66.2	80.9	1.8%
SJ112	Sale of proprietary rights arising from research and development	0.1	0	0	0.0	0.0%
SJ12	Research and development services other than work undertaken on a systematic basis to increase the stock of knowledge	4.5	12.3	13.1	10.0	0.2%
SJ2	Professional and management consulting services	315.7	263.2	239.6	272.8	6.0%
SJ21	Legal, accounting, management consulting, and public relations services	272.2	231.1	218.4	240.6	5.3%
SJ211	Legal services	25.6	18.3	15.6	19.8	0.4%
SJ212	Accounting, auditing, bookkeeping, and tax consulting services	6.7	6.4	6.6	6.6	0.1%
SJ213	Business and management consulting and public relations services	242.5	205.2	195.4	214.4	4.7%
SJ22	Advertising, market research, and public opinion polling services	42.5	32.1	20.2	31.6	0.7%
SJ3	Technical, trade- related, and other business services	430	336	296.9	354.3	7.8%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SJ31	Architectural, engineering, scientific, and other technical services	160.4	102.7	69.4	110.8	2.5%
SJ312	Engineering services	147	83.4	41.3	90.6	2.0%
SJ313	Scientific and other technical services	13.4	19.3	27.2	20.0	0.4%
SJ32	Waste treatment and de-pollution, agricultural and mining services	0.2	0.1	1.9	0.7	0.0%
SJ33	Operating leasing services	6.3	5.1	5.1	5.5	0.1%
SJ34	Trade-related services	88.3	97.8	87.3	91.1	2.0%
SJ35	Other business services n.i.e.	172.4	130.3	132.1	144.9	3.2%
SK	Personal, cultural, and recreational services	50.7	49.9	45.7	48.8	1.1%
SK1	Audiovisual and related services	9.2	6.7	6.1	7.3	0.2%
SK2	Personal, cultural, and recreational services other than audiovisual and related services	41.5	43.1	39.6	41.4	0.9%
SK21	Personal, cultural, and recreational services other than audiovisual and related services; Health services	2.1	5.1	2.6	3.3	0.1%
SK22	Personal, cultural, and recreational services other than audiovisual and related services; Education services	2.7	0.3	0.1	1.0	0.0%
SK23	Personal, cultural, and recreational services other than audiovisual and related services; Heritage and recreational services	2.3	2.1	2.1	2.2	0.0%
SK24	Personal, cultural, and recreational services other than audiovisual and related services; Personal services other than health, education and heritage and recreational services	33.5	35.5	33.8	34.3	0.8%
SL	Government goods and services n.i.e.	15.5	16.3	13.9	15.2	0.3%

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Code	Description	2023	2022	2021	Average 2021-2023	Share int total
SL1	Embassies and consulates	13.5	13.3	11.9	12.9	0.3%
SL2	Military units and agencies	1	2	2	1.7	0.0%
SL3	Government goods and services n.i.e other than embassies and consulates and military units and agencies	1	1	1	1.0	0.0%
SOX1	Other commercial services - other services excluding Government goods and services n.i.e	1118.2	985.1	863.9	989.1	21.9%
SPX1	Other services - Total services excluding Manufacturing services on physical inputs owned by others, Maintenance and repair services, Transport and Travel	1133.7	1001.4	877.8	1,004.3	22.2%

Source: OECD.

1.6. CGE modelling results

1.6.1. Table 23: CGE modelling results, changes in bilateral exports, in million USD

In million USD	Bilateral export baseline values		Changes in bilateral exports, conservative liberalisation scenario				Changes in bilateral exports, ambitious liberalisation scenario			
Sector	EU27	Thailand	EU27	in per cent	Thailand	in per cent	EU27	in per cent	Thailand	in per cent
Rice	0.3	199.0	4.1	1200%	41.7	21%	3.6	1059%	96.4	48%
Vegetables and fruit	25.7	60.9	350.4	1362%	37.6	62%	350.8	1364%	37.5	61%
Sugar	0.2	4.7	0.6	311%	1.3	27%	0.6	311%	3.1	65%
Cattle (bovine)	1.7	0.0	0.0	2%	0.0	n/a	0.0	2%	0.0	n/a
Other cattle	273.3	1.8	60.9	22%	0.3	14%	62.6	23%	0.3	14%
Dairy products	189.6	3.3	978.2	516%	4.5	138%	979.8	517%	4.5	137%
Forestry products	4.6	11.0	0.2	5%	0.0	0%	0.2	5%	0.0	0%
Fishing products	9.2	4.4	0.9	9%	0.1	3%	0.9	10%	0.1	2%
Energy products	39.8	39.7	19.5	49%	4.7	12%	19.6	49%	4.6	12%
Mining and extraction	237.2	215.1	128.3	54%	77.6	36%	128.5	54%	78.0	36%
Red meat	1.8	0.2	0.6	32%	0.0	11%	1.4	76%	0.0	11%
Pork meat	4.7	0.1	2.0	43%	0.1	150%	4.9	103%	0.1	150%
Poultry meat	0.8	368.2	3.3	417%	79.4	22%	3.3	419%	173.4	47%
Other meat	31.9	178.7	7.9	25%	157.4	88%	8.0	25%	157.8	88%
Other fish prepared	114.8	176.1	56.4	49%	226.9	129%	56.6	49%	226.6	129%

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In million USD	Bilateral export baseline values		Changes in bilateral exports, conservative liberalisation scenario				Changes in bilateral exports, ambitious liberalisation scenario			
Tuna-based fish products	2.2	164.7	7.3	330%	65.0	39%	7.3	332%	155.4	94%
Processed foods	3.0	12.5	4.6	152%	3.8	31%	4.6	153%	8.6	69%
Other processed foods	555.0	764.0	649.5	117%	923.0	121%	651.2	117%	922.7	121%
Spirits	70.4	0.7	49.5	70%	0.0	3%	49.6	70%	0.0	3%
Other beverages	82.3	57.6	92.9	113%	14.4	25%	93.0	113%	14.4	25%
Agricultural goods	195.9	54.1	44.9	23%	6.2	11%	45.2	23%	6.1	11%
Textiles and wearing apparel	162.7	301.0	397.1	244%	201.1	67%	397.3	244%	200.5	67%
Leather products	304.6	209.0	470.8	155%	105.8	51%	471.2	155%	105.3	50%
Chemical products	3,636.8	623.8	1,819.2	50%	265.2	43%	1,816.9	50%	264.2	42%
Other pharmaceuticals	789.8	106.6	156.4	20%	23.7	22%	157.2	20%	23.4	22%
Pharmaceutical products	446.4	4.8	37.0	8%	0.6	13%	71.5	16%	0.6	13%
Rubber and plastic products	812.9	1,452.4	714.6	88%	273.1	19%	714.9	88%	271.1	19%
Iron and steel products	199.6	101.3	34.9	17%	2.7	3%	35.0	18%	2.7	3%
Non-ferrous metals	624.5	1,390.5	51.4	8%	341.0	25%	50.3	8%	338.0	24%
Computers	1,934.6	4,857.8	171.2	9%	20.2	0%	171.5	9%	18.5	0%
Electrical equipment	929.1	1,730.6	337.0	36%	89.3	5%	338.0	36%	89.0	5%
Machinery	3,766.8	5,035.0	398.5	11%	718.2	14%	406.7	11%	717.5	14%
Cars & Trucks	2,788.3	2,615.1	1,940.9	70%	2,505.9	96%	4,868.2	175%	2,708.1	104%
Cars Parts	289.9	47.7	1,024.0	353%	23.8	50%	1,011.1	349%	26.2	55%

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In million USD	Bilateral export baseline values		Changes in bilateral exports, conservative liberalisation scenario				Changes in bilateral exports, ambitious liberalisation scenario			
Transport equipment	588.1	927.6	189.7	32%	478.4	52%	191.4	33%	479.4	52%
Other manufactured products	1,507.7	2,382.3	931.7	62%	332.5	14%	934.8	62%	330.6	14%
Utilities and construction	102.7	66.7	9.2	9%	1.0	1%	9.5	9%	1.0	1%
Transport services	146.8	381.6	7.8	5%	4.3	1%	7.9	5%	5.1	1%
Public services	628.7	301.5	19.3	3%	0.2	0%	19.8	3%	0.0	0%
Other services	6,209.2	5,621.1	227.9	4%	12.1	0%	235.8	4%	9.0	0%

Source: European Commission, DG Trade.

1.6.2. Table 24: CGE modelling results, changes in domestic output, in million USD

In million USD	Total domestic output baseline values		Changes in domestic output, conservative liberalisation scenario				Changes in domestic output, ambitious liberalisation scenario			
Sector	EU27	Thailand	EU27	in per cent	Thailand	in per cent	EU27	in per cent	Thailand	in per cent
Rice	4,707.6	18,219.5	-31.5	-1%	47.2	0%	-75.2	-2%	112.1	1%
Vegetables and fruit	76,775.3	4,204.3	234.8	0%	-87.9	-2%	224.3	0%	-94.8	-2%
Sugar	24,504.3	5,786.1	3.7	0%	-75.0	-1%	0.3	0%	-75.0	-1%
Cattle (bovine)	28,432.2	1,062.9	-9.5	0%	6.5	1%	-12.4	0%	6.8	1%
Other cattle	74,043.6	7,476.1	-6.0	0%	115.2	2%	-34.5	0%	151.5	2%
Dairy products	263,710.8	4,364.3	1,399.7	1%	-643.2	-15%	1,390.9	1%	-641.1	-15%
Forestry products	59,520.1	1,510.5	-2.4	0%	9.2	1%	-0.7	0%	10.0	1%

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In million USD	Total domestic output baseline values		Changes in domestic output, conservative liberalisation scenario				Changes in domestic output, ambitious liberalisation scenario			
Fishing products	18,556.9	8,973.9	3.1	0%	121.4	1%	1.8	0%	130.5	1%
Energy products	332,990.5	55,123.1	-83.4	0%	-415.5	-1%	-160.9	0%	-427.7	-1%
Mining and extraction	331,814.9	17,678.6	-35.6	0%	121.9	1%	-82.7	0%	157.3	1%
Red meat	85,488.8	2,818.4	1.9	0%	18.7	1%	2.2	0%	20.6	1%
Pork meat	69,322.8	1,166.5	-12.0	0%	12.9	1%	-17.7	0%	13.3	1%
Poultry meat	47,569.5	984.5	-79.6	0%	100.9	10%	-167.2	0%	179.6	18%
Other meat	23,661.2	7,576.8	-132.1	-1%	232.6	3%	-134.1	-1%	249.6	3%
Other fish prepared	82,694.7	8,018.2	-95.9	0%	343.3	4%	-107.9	0%	352.0	4%
Tuna-based fish products	23,455.8	673.8	-47.0	0%	105.6	16%	-113.5	0%	169.7	25%
Processed foods	2,995.1	13.6	0.1	0%	4.5	33%	-4.2	0%	7.8	57%
Other processed foods	375,375.7	8,017.7	-171.1	0%	841.9	11%	-218.6	0%	847.1	11%
Spirits	32,440.2	2,971.4	49.0	0%	-5.6	0%	48.0	0%	-3.8	0%
Other beverages	186,857.5	10,222.6	84.6	0%	-3.3	0%	75.1	0%	1.7	0%
Agricultural goods	116,716.5	14,172.0	-16.4	0%	160.0	1%	-42.7	0%	165.7	1%
Textiles and wearing apparel	170,540.9	28,931.3	219.1	0%	143.9	0%	163.2	0%	139.2	0%
Leather products	33,529.2	6,221.0	406.8	1%	-53.8	-1%	370.4	1%	-57.0	-1%
Chemical products	352,176.1	17,957.5	1,552.8	0%	-122.8	-1%	1,284.3	0%	-171.6	-1%
Other pharmaceuticals	34,660.6	2,024.5	-199.9	-1%	-29.4	-1%	-325.8	-1%	-32.5	-2%
Pharmaceutical products	13,562.3	843.0	-87.8	-1%	-12.7	-2%	-110.7	-1%	-21.4	-3%
Rubber and plastic products	263,678.2	12,276.3	408.8	0%	60.6	0%	439.4	0%	20.2	0%

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In million USD	Total domestic output baseline values		Changes in domestic output, conservative liberalisation scenario				Changes in domestic output, ambitious liberalisation scenario			
Iron and steel products	271,860.6	8,812.6	-36.2	0%	126.1	1%	26.1	0%	128.3	1%
Non-ferrous metals	109,315.9	688.0	-581.1	-1%	-52.4	-8%	-703.5	-1%	-85.7	-12%
Computers	263,848.6	13,916.5	-359.1	0%	-239.2	-2%	-540.9	0%	-268.3	-2%
Electrical equipment	219,394.4	11,397.8	20.4	0%	176.5	2%	74.2	0%	169.6	1%
Machinery	450,552.8	13,684.3	-480.6	0%	799.2	6%	-587.5	0%	817.6	6%
Cars & Trucks	318,214.7	33,137.4	-480.9	0%	2,876.4	9%	2,347.5	1%	2,809.3	8%
Cars Parts	10,766.9	2,447.8	727.8	7%	-371.7	-15%	746.8	7%	-344.5	-14%
Transport equipment	102,417.5	5,165.8	-385.9	0%	480.3	9%	-523.9	-1%	498.9	10%
Other manufactured products	1,322,294.5	33,179.8	403.8	0%	144.3	0%	373.0	0%	158.4	0%
Utilities and construction	3,385,417.3	85,075.7	828.2	0%	850.0	1%	1,002.9	0%	1,067.6	1%
Transport services	1,129,329.8	30,868.4	246.5	0%	216.1	1%	292.2	0%	275.0	1%
Public services	5,090,573.5	100,454.4	214.0	0%	294.9	0%	327.9	0%	345.8	0%
Other services	12,543,868.0	222,613.8	1,248.6	0%	1,182.2	1%	1,514.5	0%	1,404.5	1%

Source: European Commission, DG Trade.

Annex 2: Economic SIA Indicators

Indicator	Description	Source
Bilateral trade in goods	Value of EU–partner goods trade (imports/exports) and its growth over recent years. Establishes the scale and momentum of the trade relationship to prioritise sectors and gauge potential exposure to tariff/NTM changes; a core baseline for any impact channel.	Eurostat COMEXT; UN Comtrade
Bilateral trade in services	Value and trend of services trade (e.g., travel, transport, business services). Critical for modern FTAs where services chapters drive welfare and competitiveness effects; supports selection of services case studies.	OECD Trade in Services; Eurostat; UN Services Trade (UNSD)
MFN/applied tariffs (overall and by product)	Simple/trade-weighted averages and distribution of MFN/applied tariffs, plus tariff peaks by HS chapter. helps identify sensitive sectors for early screening.	WTO/ITC/UNCTAD (WITS/TRAINS; World Tariff Profiles); WTO Tariff Data
Amount of trade affected by tariffs	Share/value of bilateral trade that faces positive tariffs vs. duty-free. Frames where preferences would bite most and where flanking measures may be needed.	WITS/TRAINS; WTO TTD bilateral indicators
Non-tariff measures (NTMs) – screening list	Qualitative/quantitative map of priority NTMs (TBT/SPS, licensing, quotas, conformity assessment). Early scan directs later modelling and stakeholder work and avoids over-reliance on tariffs alone.	EU Access2Markets; WTO I-TIP; OECD STRI (for services NTMs)
Foreign Direct Investment (FDI) stocks/flows	Baseline and projected changes in FDI linked to investment liberalisation. Investment is a key transmission channel for technology, productivity and jobs; screening flags where an FDI gravity module is warranted.	UNCTAD FDI; OECD FDI statistics
OECD FDI Restrictiveness Index	By measuring statutory restrictions on foreign investment, the OECD FDI Regulatory Restrictiveness Index (FDIRRI) allows governments and academics alike to benchmark regulatory barriers to FDI across countries, quantify the potential impacts of investment policy reforms, and track the pace of FDI liberalisation over time.	OECD FDI Regulatory Restrictiveness Index

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Indicator	Description	Source
Services Trade Restrictiveness Index (STRI) – overall & by sector	Indicator of services policy restrictiveness (OECD STRI). Screens where regulatory barriers may limit the gains from services commitments.	OECD STRI
Customs & trade facilitation frictions (screening)	Baseline evidence on customs procedures, checks and timelines that affect utilisation of preferences; supports identification of cooperation priorities.	WTO TFA database; World Bank LPI (border & logistics)
Government procurement – market openness (baseline)	Scan of GPA membership/coverage and transparency to assess scope for access gains; important for SME opportunities.	WTO GPA
Government procurement – WIOD database	Inputs for gravity modelling of government procurement	WIOD Database
SME share of sectoral employment – EU	Share of total employment in each sector accounted for by SMEs (by NACE Rev.2 sector and enterprise size class), used to apportion modelled sectoral employment and output effects to SMEs in the EU.	EUROSTAT SBS
SME share of sectoral value added – EU	Share of total value added in each sector generated by SMEs, by NACE Rev.2 sector, used to infer indicative impacts on SME value added from modelled sector-level output changes.	EUROSTAT SBS
SME share of sectoral exports – EU	Share of sectoral exports accounted for by SMEs, by sector, used to translate modelled changes in exports into indicative impacts on SME exporters.	EUROSTAT SBS
Number of SME exporters – EU	Number of exporting enterprises classified as SMEs by sector, used to approximate how many SMEs are potentially affected by tariff and non-tariff changes in each sector.	EUROSTAT SBS
SME participation in global value chains – EU	Indicators of SME integration into global value chains (e.g. share of SME exports that are intermediate goods, or share participating in cross-border supply chains) used to assess exposure to non-tariff and regulatory changes.	SME Performance Review

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Indicator	Description	Source
SME share of sectoral employment – Thailand	Share of total employment in each sector accounted for by Thai SMEs, used to map modelled sectoral employment and output effects onto SMEs in Thailand.	Asian Development Bank Asia Small and Medium-Sized Enterprise Monitor
SME share of sectoral value added – Thailand	Share of sectoral GDP/value added generated by Thai SMEs, used to estimate indicative impacts of sector-level output changes on SME value added.	Asian Development Bank Asia Small and Medium-Sized Enterprise Monitor
SME share of sectoral exports – Thailand	Share of each sector's exports accounted for by SMEs, used to translate modelled sectoral export changes into indicative impacts on Thai SME exporters.	Asian Development Bank Asia Small and Medium-Sized Enterprise Monitor
Number of SME exporters – Thailand	Number of exporting enterprises classified as SMEs by sector in Thailand, used to approximate the number of firms affected by tariff and non-tariff changes.	Asian Development Bank Asia Small and Medium-Sized Enterprise Monitor
SME participation in global value chains – Thailand	Measures of Thai SME participation in global value chains (for example, SME share of export volume integrated into GVCs or participation in cross-border supply chains), used to assess sensitivity to non-tariff measures and regulatory changes.	Asian Development Bank Asia Small and Medium-Sized Enterprise Monitor

Annex 3: Literature database - social

Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
UNFCCC, Thailand's Fourth Biennial Update Report (BUR4) + UN technical analysis of the report (2025)	2022, covers 2000–2019	National GHG inventory (IPCC guidelines); sectoral time-series to 2019	Thailand	GHG/energy (SDG13)	++	Total GHG rose substantially vs 2000; agriculture ~15% of 2019 emissions; technical review notes +51.6% (excl. LULUCF) vs 2000; Energy 69.96%, Agriculture 15.23%, IPPU 10.28%, Waste 4.53%; net – 91,988.52 GgCO ₂ e	Not applicable
Thailand Long Term LOW GREENHOUSE GAS EMISSION DEVELOPMENT STRATEGY	Revised 2022, covers 2022–2065	Long-term scenarios + sectoral measures document (energy, IPPU, waste, agriculture, forestry), underpinned by AIM/Enduse and AIM/CGE modelling.	Thailand	GHG/energy; policy (SDG13)	+	Targets carbon neutrality by 2050 and net-zero by 2065; It sets an electricity decarbonisation path including a coal phase-out by 2050 (see the power generation timeline showing “phase out coal power plants” by 2050).	SMEs
Wang & Yan, Assessing the economic impact of the Regional Comprehensive Economic Partnership: a dynamic GTAP analysis Global and regional benefits of RCEP	2025, covers to 2035	Paid article	ASEAN incl. Thailand				

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
Prakash et al., Insights from ASEAN-wide emissions trading schemes (ETSs): A general equilibrium assessment	2023	Global CGE; three scenarios: domestic ETS (auctioning; lumpsum recycling); domestic ETS + 50% RE input-augmenting tech change; regional ASEAN ETS with same 2030 abatement targets.	ASEAN incl. Thailand	GHG/energy; ETS design (SDG13)	++	For Thailand, GDP –3.1% (domestic ETS) and –7.87% (regional ETS at 62 \$/tCO ₂ e); permit seller (+85 MtCO ₂ e) in regional ETS; fossil power contracts sharply, renewables expand; private fossil-power demand –22%, renewables +45% (S2_reg); real private consumption –5.18% (S2_reg). Regional linkage benefits permit buyers (e.g., Indonesia) but can worsen macro outcomes for sellers under the paper's revenue-recycling assumption.	Consumers
Eora MRIO country footprint (Thailand)	2023	MRIO footprinting (consumption-based CO ₂)	Thailand	Trade–environment accounting (SDG13/12)	+	Provides consumption-based CO ₂ and embodied trade flows for Thailand—reusable for CBAM/FTA sensitivity checks.	Not applicable
World Bank, Thailand Country Climate and Development Report	2025	Macro-sector pathways; marginal abatement analysis	Thailand	GHG/energy; air; waste; water	++	Calls for carbon pricing and accelerated power/transport decarbonisation; compiles high-value	SMEs

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
						mitigation cost curves.	
UNDP, Life Cycle Analysis (LCA) of EV Manufacturing, Use and Recycling in Selected ASEAN Countries to Support EV Climate Credit Program	2024	Vehicle LCA (ICE/HEV/PHEV/BEV); cradle-to-grave; grid scenarios	Thailand, IDN, MYS, VNM	GHG/energy; waste (batteries) (SDG13/12)	+	BEVs lower life-cycle GHG vs ICE as grid decarbonises; battery end-of-life handling is material to total footprint.	Not applicable
Sae-Khow et al., Environmental trade-offs of EV battery end-of-life options in Thailand: A life cycle assessment with sensitivity to electricity mix and battery degradation	2025	Paid article	Thailand				
ASEAN, Regional Action Plan for Combatting Marine Debris	2021	Regional policy framework; measures & timelines	ASEAN; led by Thailand chairing AWGCME	Marine litter (SDG14/12)	++	Regional measures for source reduction, collection, and circular economy—reference for TSD cooperation text.	SMEs; Consumers; CSR/RBC
World Bank, Support Development of Thailand's Draft Action Plan on Marine Plastic Debris 2023–2027	2022, covers 2023–2027	Policy/action plan design	Thailand	Marine litter (SDG14/12)	++	Aligns with Roadmap; targets leakage reduction via collection, recycling, and governance improvements.	Consumers; CSR/RBC
PCD, State of Pollution – Annual (2022)	2023	National monitoring & compliance snapshots	Thailand	Air quality & waste (SDG11/12)	+++	Documents PM2.5 seasonality and winter accumulation episodes; supports need for trans-boundary/biomass controls.	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
PCD, State of Pollution - Annual (2023)	2024	National monitoring & compliance snapshots	Thailand	Air quality & waste (SDG11/12)	+++	Water quality (surface, coastal and groundwater) and industrial waste, infected waste, and industrial hazardous substances tended to be in a better direction compared to 2022. For air quality, solid waste, municipal hazardous waste, and agricultural hazardous substances still required constant surveillance.	Not applicable
SEI/IGES/PCD, Simultaneously Achieving Climate Change and Air Quality Goals in Thailand	2023	Co-benefits modelling of SLCP & GHG measures	Thailand	Air & GHG (SDG11/13)	+	Integrated package cuts PM2.5 and GHG simultaneously, informing cost-effective measures for transport/energy.	SMEs
WEPA/PCD, Updates on Industrial Wastewater management in Thailand	2022	Regulatory & infrastructure status; programme stats	Thailand	Water/wastewater (SDG6)	++	Notes treatment capacity gaps and compliance challenges; prioritises industrial clusters and municipal WWTP O&M.	Not applicable
IWA, Wastewater reclamation trends	2022	Synthesis of plants, reuse applications, barriers	Thailand	Water (reuse) (SDG6/12)	+	Significant opportunities for reuse; barriers include costs and governance alignment—relevant for sector	SMEs; Consumers; CSR/RBC

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
						safeguards.	
Department of Fisheries, Marine Fisheries Management Plan (FMP)	2022	National plan; effort control, area-based mgmt, FIPs	Thailand	Marine water; Fisheries (SDG14)	++	Goals: restore to MSY, eliminate IUU, protect habitats; provides management baseline & indicators (e.g., effort limits).	CSR/RBC
Blue Swimming Crab Fishery Management Plan 2023 - 2027	2023 (to 2027)	National plan	Thailand	Marine water; Fisheries (SDG14)	++	Sets stock-rebuilding targets; introduces effort and gear controls; expands nursery/habitat protection; strengthens MCS and traceability; supports small-scale fishers.	SMEs
EJF, A policy briefing on the future of Thai fisheries	2023, covers 1961–2015	Synthesis of CPUE time-series & policy context	Thailand (Gulf/Andaman)	Fisheries (SDG14)	++	CPUE fell ~92% (Gulf) and 75% (Andaman) 1960s–2015—underscores need for conservative stock management.	CSR/RBC
EPI, Thailand profile	2024	Composite indicators across 58 metrics	Thailand vs peers	Cross-cutting: air, water, fisheries, waste	++	Thailand ranks 90/180; weak on wastewater treatment (collection/treatment/reuse scores low) and air quality.	Not applicable
Global Forest Watch (latest) Thailand dashboard & datasets	2001–2024	Satellite-based tree-cover loss/drivers	Thailand	Land/forests (SDG15)	+++	Provides annual tree-cover loss and driver layers—inputs for spatial risk screening in	CSR/RBC

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
						rubber/palm/rice areas.	
Wang et al., resolution maps show that rubber causes substantial deforestation	2024/25	10 m rubber & 30 m deforestation maps; 2001–2021	SE Asia incl. Thailand	Land/forests/biodiversity (SDG15)	+++	Finds rubber-linked forest loss 2–3× higher than policy estimates; Thailand among top countries affected.	SMEs; CSR/RBC
CCAC/ACIAR, Country Report Scoping Study Climate Smart Rice Thailand	2021	Synthesis of rice GHG & mitigation practices	Thailand	Agriculture rice sector—rice CH ₄ (SDG13/6)	++	Rice ~51% of ag GHG (2016 basis); AWD & residue management highlighted for cost-effective CH ₄ cuts.	Not applicable
Sommano et al., Assessment of greenhouse gas mitigation from rice cultivation using alternate wetting and drying and rice straw biochar in Thailand	2023/24	Field/TEA modelling of AWD vs continuous flooding	Thailand	Agriculture rice systems—rice CH ₄ /water (SDG13/6)	+	AWD reduces CH ₄ while conserving irrigation water; net GHG benefit depends on N ₂ O management—policy-relevant for irrigation schemes.	Not applicable
PCD/MONRE, Waste management taxonomy brief	2025	Policy overview; methane from waste; constraints	Thailand	Waste & wastewater (SDG12/6/13)	++	Notes O&M and cost barriers for WWTPs; methane from landfills a priority mitigation target.	Not applicable
PCD, State of Environmental Performance Index—Thailand view (ONEP)	2023	National reflection on EPI metrics	Thailand	Cross-cutting	+	Summarises areas for improvement (air, water, fisheries, biodiversity) helpful for baseline indicators.	Not applicable
Thailand Environment Institute, Management and Reduction of Burning Practice in Agricultural Areas and	2022, covers 2019–2022	Policy/technical report on open burning	Thailand	Air quality & waste/agriculture (SDG11/12/13)	+++	burning is a major PM _{2.5} source; quantified PM _{2.5} loads by crop;	SMEs

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
Policy Recommendations to Tackle PM2.5 in Thailand						policy/measures focus incl. 17 northern provinces. Remove/relocate: the GHG % and the 2023 ban reference.	
Jaroenkietkajorn, Gheewala & Scherer, Species loss from land use of oil palm plantations in Thailand, Ecological Indicators	2021	Biodiversity impact modelling using Thai agricultural statistics	Thailand	Land/forests/biodiversity—palm oil (SDG15)	+++	Significant species losses with strongest effects in the south; highlights spatial heterogeneity and need for land-use safeguards.	Not applicable
USDA FAS, Oilseeds and Products Annual—Thailand	2023	Sector statistics & policy report	Thailand	Land use/energy (biofuels) (SDG12/13/15)	++	Palm oil used largely domestically (consumption & biodiesel); informs baseline on planted area, yields, trade exposure and biofuel blending policies.	Not applicable
Environmental Performance Index (EPI)	2024	Composite indicator set for cross-country benchmarking	Thailand & ASEAN/EFTA	Cross-cutting environment (SDG11/12/14/15/6/13)	++	Provides normalised scores/trends (e.g., air quality, wastewater, fisheries, biodiversity); useful for baseline and peer comparison.	Not applicable
EDGAR, Emissions Database for Global Atmospheric Research	2024	Global harmonised emissions inventory (CO ₂ /CH ₄ /N ₂ O + air pollutants); national totals and gridded; IPCC sector mapping	Global; Thailand series available	GHG/energy; air co-pollutants (SDG13/11)	+	Consistent national and gridded time series for Thailand; benchmark sectoral GHG and co-emitted air pollutants.	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
IEA – Energy system of Thailand	2023	Curated statistics/policy notes; pointers to electricity generation by source and industry energy indicators	Thailand	Energy supply & use; industry/power (SDG13)	+	Pointers to series for electricity generation and industry energy intensity; triangulation resource.	Not applicable
World Bank, Market Study for Thailand: Plastics Circularity Opportunities and Barriers	2021	Value-chain & material flow for PET/HDPE/LDPE/PP; collection/recycling/leakage quantification	Thailand	Plastics/circular economy; marine litter risk (SDG12/14)	++	Quantifies collection/recycling rates and leakage pathways; provides numbers for plastics indicators.	Not applicable
IEEP, “Environmental and social impacts embedded in EU trade policies — the case of EU trade-related autonomous measures in Vietnam.”	2023	Qualitative policy analysis; sector criteria matrix & heat-map to prioritise value chains; review of CSDD/EUDR design and EVFTA TSD implementation.	EU-Vietnam	Trade–environment governance (SDG12/14/15/13); due-diligence channels; sector prioritisation (electronics, apparel, timber, coffee).	+	EU trade spillovers require better externalisation control; EVFTA TSD has weak monitoring/enforcement; EUDR/CSDD will reshape environmental risks via supply-chain compliance; heat-map approach selects high-risk value chains; support needed for smallholders/SMEs and enforcement capacity.	Not applicable
Enablers for Effective EPR in the Asia-Pacific Region Lessons from developed and developing countries in the EU and Asia THAILAND	2025	Assessment of Thailand’s EPR readiness and enabling conditions	Thailand	Plastics/circular economy; waste management (SDG12)	+	Identifies gaps in Thailand’s EPR system (legislation, reverse logistics, informal sector) and highlights enabling factors such as CE/BCG policies, source separation, and	SMEs

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
						PRO development.	
Zhang & Shi (2016) RCEP and GHG (GTAP-E)	2016	Trade–environment / GHG emissions modelling (CGE) – GTAP-E type analysis	East Asia/RCEP	Trade–GHG (SDG13)	++	RCEP full tariff liberalisation increases total GHG emissions for RCEP members and globally; Thailand's GHG emissions rise slightly due to higher non-CO ₂ emissions. Results highlight that trade-led output shifts raise emissions in absence of accompanying mitigation policies.	Not applicable
Tantisattayakul et al. (2016): LEAP Thailand 2037 (EPPO)	2016 (to 2037)	LEAP energy modelling; BAU vs policy cases to 2037	Thailand	GHG/energy (SDG13)	++	Projects rising final energy use/CO ₂ under BAU; policy scenarios dampen growth but further measures needed for neutrality trajectory.	Not applicable
Kanchanomai et al. (2019) LMDI industrial CO₂	1995-2015	LMDI decomposition of industrial CO ₂	Thailand	GHG/energy (SDG13)	+	Activity effect is dominant driver; intensity improvements partly offset emissions growth—useful for sectoral benchmarking.	
Jambeck et al. (2015) Mismanaged plastic waste (Science)	2015-2018	National biodiversity reporting	Thailand	Land/forests/biodiversity (SDG15)	+++	Summarises status & mainstreaming; frames data gaps on species/habitat; baseline	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
						for biodiversity safeguards.	
Saswattecha et al. (2015) Assessing the environmental impact of palm oil produced in Thailand	2015	Process-based LCA of Thai palm oil supply chain	Thailand	GHG/air/water/waste (SDG13/12)	++	Key hotspots: boiler fibre burning, fertilisers, POME/wastewater, EFB disposal; identifies levers for mill/field mitigation.	Not applicable
BBC (2016) "Rice and palm oil risk to mangroves" (news synthesis)	2016	Evidence compilation citing scientific sources	Thailand	Land/forests/coastal ecosystems (SDG14/15)	++	Attributes ~38% of mangrove loss to rice & palm oil expansion (2000–2012); indicative of coastal land-use pressures (use with caution alongside primary studies).	Not applicable
Room for Reduction - Towards Sustainable Production and Consumption of Plastics in Thailand - EJF Report	2024	Emissions calculations, data analysis, case studies	Thailand	Plastics/circular economy; waste management (SDG12)	++	Thailand plastic production generates 27.3M tonnes CO ₂ e annually; 20-36% reduction potential	Not applicable
False Solutions: Unmasking Policy Gaps in Addressing Plastic Pollution in Thailand and Southeast Asia	2025	Policy analysis, stakeholder interviews, literature review	Thailand and southeast Asia	Plastics/circular economy; waste management (SDG12)	++	Thailand's plastic policies lack upstream measures; focus on recycling and WtE instead of production reduction	Not applicable.

Annex 4: Social SIA Indicators

Indicator	Description	Source
% or sectoral increase in forced labour	prevalence of forced labour cases reported, estimated number of victims, enforcement actions, sectoral breakdown for example fisheries, agriculture and manufacturing	ILO (Forced Labour Observatory) + ILO supervisory mechanism reports (CAS and CEACR especially) , some labour inspection reports from Thai ministry of labour, ILO-EU projects in Thailand could have more sector specific assessments
% or sectoral increase in child labour	prevalence of child labour cases reported, estimated number of victims, enforcement actions, sectoral breakdown for example fisheries, agriculture, manufacturing and services	ILO (ILOSDG), UNICEF + ILO supervisory mechanism reports (CAS and CEACR especially)
% of population living below the international poverty line	tariffs can affect vulnerable people with consumer prices, wages, employment	World Bank, world development indicators, Thai household socio-economic survey, our world in data
Real wages unskilled labour (% change)	affect wages via competitiveness and labour demand, real wage index by sector and median wages for unskilled workers	ILO ILOSTAT, NSO Thailand labour force survey, CGE modelling
Real wages skilled labour (% change)	same as above for skilled workers	ILO ILOSTAT, NSO Thailand labour force survey, CGE modelling
% of workers facing labour displacement	percentage of workers needing to move for jobs, FTA can shift production between sectors, can be for exiting declining sectors	NSO labour force survey, ILOSTAT for sectoral movement, Thai ministry of Labour, CGE modelling
Changes in sectoral employment	manufacture, agriculture, services, changes in sectoral specialisation	ILOSTAT employment by sector maybe OECD structural indicators? CGE modeling
Changes in consumer prices	lower import prices and household cost of living, CPI	Bank of Thailand, World bank consumer price index
Percentage change in household income	welfare gains and losses due to price changes, employment changes. Average household income per decile, rural vs urban	NSO Thailand household income and expenditure survey, World bank Thailand poverty assessment, CGE modelling
Union density	sectoral impact and enforcement of TSD provisions may have positive effects on union membership	ILOSTAT, ILO supervisory mechanism reports (CAS and CEACR especially)
Non-fatal occupational injuries and fatalities per 100,000 workers		

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Indicator	Description	Source
Indicators on women, migrant workers and indigenous people (and non-discrimination in general if possible)		

Annex 5: Private and multistakeholder sustainability initiatives

Initiative / scheme	Type	Sector(s)	Focus area(s)	Launch	Description and relevance for EU-Thai trade
Cross-sectoral — social compliance and labour audit schemes					
amfori BSCI <i>Business Social Compliance Initiative</i>	<i>Private — supply chain audit system</i>	Garments, textiles, food & beverage, general merchandise, electronics	Labour standards; human rights; OSH	2003	Membership-based system used by EU retailers and brands to audit supplier factories against a code of conduct aligned with ILO conventions and the UDHR. Produces a graded audit report (A–E) shared via the amfori platform. Not a certification. Over 40,000 audits per year in 120+ countries.
Sedex / SMETA <i>Supplier Ethical Data Exchange / Sedex Members Ethical Trade Audit</i>	<i>Private — shared data platform and audit methodology</i>	Garments, food & agriculture, electronics (cross-sectoral)	Labour standards; human rights; OSH; environment (4-pillar version)	Sedex 2001; SMETA 2006	Sedex is a data-sharing platform enabling suppliers to share audit results with multiple buyers. SMETA is the associated audit methodology, available in a 2-pillar version (labour and health & safety) and a 4-pillar version (adding environment and business ethics). One of the most widely used social audit frameworks globally.
SA8000 <i>Social Accountability International</i>	<i>Private — third-party certification</i>	Garments, manufacturing, food processing	Labour standards; human rights; OSH	1997	One of the most comprehensive social certifications available. Covers child labour, forced labour, discrimination, freedom of association, collective bargaining, OSH, working hours, remuneration, and management systems. Requires independent third-party auditing; results are publicly verifiable. Referenced in the ILO Responsible Supply Chains in Asia programme as a benchmark for Thai automotive sector SMEs.
Electronics and ICT manufacturing					
Responsible Business Alliance (RBA) <i>Formerly Electronic Industry Citizenship Coalition (EICC)</i>	<i>Private — industry multi-stakeholder initiative</i>	Electronics, semiconductors, automotive electronics, ICT manufacturing	Labour standards; human rights; OSH; environment; ethics	2004	The world's largest industry coalition dedicated to corporate social responsibility in global supply chains, with over 400 member companies. The RBA Code of Conduct sets standards on labour (no forced or child labour, freedom of association, working hours, wages), health and safety, environment, and business ethics. Directly relevant to Thailand's electronics sector, a major supplier of automotive electronic components to EU manufacturers.
Automotive parts and components					

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Initiative / scheme	Type	Sector(s)	Focus area(s)	Launch	Description and relevance for EU-Thai trade
Drive Sustainability <i>Formerly European Automotive Working Group on Supply Chain Sustainability</i>	<i>Private — industry multi-stakeholder initiative (coordinated by CSR Europe)</i>	Automotive parts and components	Labour standards; human rights; environment; business ethics	2012	Coalition of automotive manufacturers working collectively to enhance sustainability in their supply chains. Developed Automotive Industry Guiding Principles outlining expectations for suppliers on environment, business ethics, human rights and working conditions, including ILO fundamental labour standards. The ILO (2021) notes that while Drive Sustainability has global scope, many companies in Thailand — particularly outside European brands — are not yet aware of it or do not use it as an operational framework, representing a gap relevant to the FTA TSD chapter.
IATF 16949 <i>International Automotive Task Force — Quality Management System</i>	<i>Private — industry certification (quality management)</i>	Automotive parts and components	OSH; corporate responsibility; quality management	1999 (current edition 2016)	Quality management system certification required by major automotive OEMs for tier 1 suppliers. Covers continual improvement, defect prevention and waste reduction, and includes commitments on corporate responsibility (including anti-bribery) and operator safety. The ILO (2021) identifies IATF 16949 as a potential vehicle for developing a broader industry-wide approach to workers' rights, since IATF members include major US and EU carmakers with operations in Thailand. Currently focused primarily on quality rather than comprehensive labour standards.
Fisheries and seafood					
Marine Stewardship Council (MSC)	<i>Private — independent non-profit ecolabel</i>	Fisheries (wild-catch seafood, incl. tuna)	Environment (sustainable fisheries)	1997 (WWF & Unilever); certifications from 1999	International ecolabel and fishery certification programme assessing wild-capture fisheries against three principles: sustainable fish stocks, minimising environmental impact, and effective management. Standard version 3.1 published in 2024. As of 2024, approximately 550 fisheries in 66 countries are certified, representing around 19% of global wild catch. Widely required by EU retailers.
Aquaculture Stewardship Council (ASC)	<i>Private — independent non-profit ecolabel</i>	Aquaculture (shrimp, farmed fish)	Environment; labour standards	2010	Certification standard for responsibly farmed seafood, covering environmental impact, feed sourcing, chemical use, labour rights, and community relations. The Thai shrimp industry is a principal target sector. A revised Farm Standard entered into force in 2024. Widely recognised by EU food retailers and processors.

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Initiative / scheme	Type	Sector(s)	Focus area(s)	Launch	Description and relevance for EU-Thai trade
Gems and jewellery					
Responsible Jewellery Council (RJC)	<i>Private — independent non-profit certification (multi-stakeholder)</i>	Precious stones (rubies, sapphires, emeralds), diamonds, gold, silver, platinum group metals; jewellery manufacturing	Human rights; labour standards; environment; responsible sourcing; business ethics	2005	Principal voluntary certification body for the jewellery and gemstone supply chain, covering businesses from mine to retail. The RJC Code of Practices (2024 edition) covers human rights due diligence (aligned with UNGPs), labour rights, OSH, environmental impact, responsible sourcing from conflict-affected and high-risk areas (aligned with OECD Due Diligence Guidance), and business ethics. The 2024 edition explicitly extends scope to coloured gemstones — rubies, sapphires, and emeralds — which are Thailand's principal gem exports. Requires independent third-party audit on a three-year cycle. Over 2,000 members as of 2025. RJC certification services are actively offered in Thailand (SGS Thailand).
Agriculture — cross-commodity					
GlobalG.A.P. Global Good Agricultural Practices	<i>Private — multi-stakeholder standard and certification</i>	Fresh produce, aquaculture, livestock (poultry, pigs), floriculture, agri-food broadly	Environment; food safety; OSH; labour standards	1997 (as EurepGAP); rebranded GlobalG.A.P. 2007	One of the world's most widely applied farm-level sustainability standards, developed by a multi-stakeholder board of retailers, producers and service providers. Covers food safety, traceability, environmental management, OSH, and worker welfare. Widely required as a market-access condition by EU retailers for fresh produce and processed agri-food products. Directly relevant to Thai aquaculture (CP Foods was first in Thailand to receive GlobalG.A.P. Compound Feed Manufacturing certification with ESG module in 2024), poultry, and fresh fruit and vegetable exports.

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Initiative / scheme	Type	Sector(s)	Focus area(s)	Launch	Description and relevance for EU-Thai trade
Fairtrade International	<i>Civil society — multi-stakeholder certification</i>	Agri-food commodities (sugarcane/sugar, coffee, cocoa, rice)	Labour standards; environment	1988	Certification and labelling system focused on improving the livelihoods of smallholder farmers and workers in developing countries, through minimum price guarantees, a Fairtrade premium for community investment, and compliance with social and environmental standards. Relevant to Thai export commodities traded with the EU, particularly sugar and rice: as of July 2024, there are ten Fairtrade-certified rice producers in Thailand, giving Thai jasmine and organic rice an additional differentiation pathway for premium EU market segments.
Rainforest Alliance <i>Merged with UTZ Certified 2017; unified label from 2021</i>	<i>Civil society — multi-stakeholder certification</i>	Agriculture, forestry (tea, coffee, fruits)	Environment; labour standards	1987 (RA); 1997 (UTZ); unified label 2021	Certification programme covering sustainable land management, biodiversity conservation, climate resilience, and workers' rights. The 2021 unified standard integrates the former Rainforest Alliance and UTZ standards. Applicable to a range of Thai agricultural export commodities including tea, coffee, and certain fruits like mango.
Agriculture — specific commodities: sugarcane and rice					
Bonsucro <i>Better Sugar Cane Initiative</i>	<i>Private — multi-stakeholder standard</i>	Sugarcane / sugar	Environment; labour standards	2008	Global production and processing standard for sugarcane covering GHG emissions, water use, biodiversity, labour rights (including child labour prohibition), and occupational safety. Has an active Thailand programme: a white paper on the Thai sugarcane industry was published in partnership with FairAgora, followed by a Thailand Accelerator Plan developed with local stakeholders.

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Initiative / scheme	Type	Sector(s)	Focus area(s)	Launch	Description and relevance for EU-Thai trade
Sustainable Rice Platform (SRP)	<i>Multi-stakeholder — standard and verification programme (UNEP, GIZ, private sector)</i>	Rice	Environment; labour standards; smallholder livelihoods	2011; Thailand programme from 2018	Multi-stakeholder initiative that developed the SRP Standard for Sustainable Rice Cultivation. Has supported development of the Thai Rice Sustainability Standard (TAS 4408-2022) in collaboration with Thailand's Ministry of Agriculture. Between 2018 and 2022, certified 8,600 producers to SRP standards and trained 35,000 farmers in Thailand, with EUR 11 million invested (Olam Agri / GIZ project). SRP-verified rice is now available in over 20 countries. A Low-Carbon Assurance Module is due for launch in 2025, enabling Scope 3 emissions reporting — directly aligned with EU buyer requirements.
Garments and textiles					
Better Cotton Initiative (BCI) <i>Better Cotton</i>	<i>Private — multi-stakeholder programme</i>	Cotton / garments & textiles	Environment; labour standards	2005 (licencing from 2011)	Global programme promoting more sustainable cotton production, covering water stewardship, soil health, biodiversity, agrochemical management, and decent work. Relevant primarily as an input standard for Thai garment manufacturers sourcing cotton, rather than as a domestic production standard, as Thailand is not a major cotton-growing country.
Global Organic Textile Standard (GOTS)	<i>Private — independent certification</i>	Textiles / garments	Environment; labour standards	2006	Leading certification for organic textile products, covering the entire processing chain from raw fibre to finished garment. Requires certified organic fibre content and compliance with ecological processing criteria (prohibited chemicals, wastewater treatment) and social criteria aligned with ILO core conventions. Relevant for Thai garment manufacturers targeting the premium EU organic textile market.
WRAP <i>Worldwide Responsible Accredited Production</i>	<i>Private — industry self-certification</i>	Garments, textiles, footwear	Labour standards; OSH	2000	US-based certification programme applying 12 principles to apparel and footwear factories, covering prohibition of forced and child labour, freedom of association, OSH, non-discrimination, legal wages and benefits, and customs compliance. Widely used across Asian garment industries, including Thailand. Generally considered a baseline-level standard.

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Sources: SIA Draft Final Report v2; ITC Standards Map; ILO (2021); targeted web searches including standardsmap.org and sectoral industry sources; with research assistance from Claude Sonnet 4.6 (Anthropic). Three criteria were used to narrow down the scope: (1) sector relevance for Thai–EU trade; (2) EU market relevance (buyer requirements or regulatory alignment); (3) availability of independently verifiable information on the scheme's scope and operations.

Annex 6: Literature database – environmental

Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
UNFCCC, Thailand's Fourth Biennial Update Report (BUR4) + UN technical analysis of the report (2025)	2022 , covers 2000 – 2019	National GHG inventory (IPCC guidelines); sectoral time-series to 2019	Thailand	GHG/energy (SDG13)	++	Total GHG rose substantially vs 2000; agriculture ~15% of 2019 emissions; technical review notes +51.6% (excl. LULUCF) vs 2000; Energy 69.96%, Agriculture 15.23%, IPPU 10.28%, Waste 4.53%; net –91,988.52 GgCO ₂ e	not relevant
Thailand Long Term LOW GREENHOUSE GAS EMISSION DEVELOPMENT STRATEGY	Revised 2022 , covers 2022 – 2065	Long-term scenarios + sectoral measures document (energy, IPPU, waste, agriculture, forestry), underpinned by AIM/Enduse and AIM/CGE modelling.	Thailand	GHG/energy; policy (SDG13)	+	Targets carbon neutrality by 2050 and net-zero by 2065; It sets an electricity decarbonisation path including a coal phase-out by 2050 (see the power generation timeline showing “phase out coal power plants” by 2050).	SMEs (partially; enabling conditions mention capacity building, incentives, and support for enterprises, incl. SMEs, in technology switching/green investment. No SME-specific impact analysis, but it recognises needs (R&D, skills, finance)). Consumers (partially; mentions product carbon-labelling schemes (CFP/CFR/CE-CFP) that affect consumer information and may shape demand; again, not an impact analysis).

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
Wang & Yan, Assessing the economic impact of the Regional Comprehensive Economic Partnership: a dynamic GTAP analysis of Global and regional benefits of RCEP	2025 covers to 2035	Paid article	ASEAN incl. Thailand				
Prakash et al., Insights from ASEAN-wide emissions trading schemes (ETSs): A general equilibrium assessment	2023	Global CGE; three scenarios: domestic ETS (auctioning; lumpsum recycling); domestic ETS + 50% RE input-augmenting tech change; regional ASEAN ETS with same 2030 abatement targets.	ASEAN incl. Thailand	GHG/energy; ETS design (SDG13)	++	For Thailand, GDP -3.1% (domestic ETS) and -7.87% (regional ETS at 62 \$/tCO ₂ e); permit seller (+85 MtCO ₂ e) in regional ETS; fossil power contracts sharply, renewables expand; private fossil-power demand -22%, renewables +45% (S2_reg); real private consumption -5.18% (S2_reg). Regional linkage benefits permit buyers (e.g., Indonesia) but can worsen macro outcomes for sellers under the paper's revenue-recycling assumption.	Consumers (real private consumption impacts reported)
Eora MRIO country footprint (Thailand)	2023	MRIO footprinting (consumption-based CO ₂)	Thailand	Trade–environment accounting (SDG13/12)	+	Provides consumption-based CO ₂ and embodied trade flows for Thailand—reusable for CBAM/FTA sensitivity checks.	
World Bank, Thailand Country Climate and Development Report	2025	Macro-sector pathways; marginal abatement analysis	Thailand	GHG/energy; air; waste; water	++	Calls for carbon pricing and accelerated power/transport decarbonisation; compiles high-value mitigation cost curves.	SMEs (concerns about mitigation costs/compliance); Consumers (partly/indirectly, health, air-quality, heat and disaster-risk impacts on households and vulnerable groups are covered)

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
UNDP, Life Cycle Analysis (LCA) of EV Manufacturing, Use and Recycling in Selected ASEAN Countries to Support EV Climate Credit Program	2024	Vehicle LCA (ICE/HEV/PHEV/BEV); cradle-to-grave; grid scenarios	Thailand, IDN, MYS, VNM	GHG/energy; waste (batteries) (SDG13/12)	+	BEVs lower life-cycle GHG vs ICE as grid decarbonises; battery end-of-life handling is material to total footprint.	not relevant
Sae-Khow et al., Environmental trade-offs of EV battery end-of-life options in Thailand: A life cycle assessment with sensitivity to electricity mix and battery degradation	2025	Paid article	Thailand				
ASEAN, Regional Action Plan for Combatting Marine Debris	2021	Regional policy framework; measures & timelines	ASEAN; led by Thailand chairing AWGCME	Marine litter (SDG14/12)	++	Regional measures for source reduction, collection, and circular economy—reference for TSD cooperation text.	SMEs (Capacity-building and training are targeted at MSMEs/SMEs; the plan also stresses enabling conditions for smaller players to access finance/innovation platforms); consumers (behaviour-change “playbook” and a regional manual to clarify recycling/compostable/biodegradable labels); CSR/RBC (Private-sector engagement (EPR knowledge platform, standards, green public procurement) encourages responsible practices across supply chains)

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
World Bank, Support Development of Thailand's Draft Action Plan on Marine Plastic Debris 2023–2027	2022 , covers 2023 – 2027	Policy/action plan design	Thailand	Marine litter (SDG14/12)	++	Aligns with Roadmap; targets leakage reduction via collection, recycling, and governance improvements.	Consumers (Behaviour change, awareness, and voluntary/mandatory measures to cut single-use plastics, especially in tourist sites); CSR/RBC (emphasis on public-private-people partnerships (PPP Plastics) and EPR; calls for producer responsibility and clearer labelling/standards)
PCD, State of Pollution – Annual (2022)	2023	National monitoring & compliance snapshots	Thailand	Air quality & waste (SDG11/12)	+++	Documents PM2.5 seasonality and winter accumulation episodes; supports need for trans-boundary/biomass controls.	not relevant
PCD, State of Pollution - Annual (2023)	2024	National monitoring & compliance snapshots	Thailand	Air quality & waste (SDG11/12)	+++	Water quality (surface, coastal and groundwater) and industrial waste, infected waste, and industrial hazardous substances tended to be in a better direction compared to 2022. For air quality, solid waste, municipal hazardous waste, and agricultural hazardous substances still required constant surveillance.	

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
SEI/IGES/PCD. Simultaneously Achieving Climate Change and Air Quality Goals in Thailand	2023	Co-benefits modelling of SLCP & GHG measures	Thailand	Air & GHG (SDG11/13)	+	Integrated package cuts PM2.5 and GHG simultaneously, informing cost-effective measures for transport/energy.	SMEs (industry section highlights that many Thai firms are MSMEs lacking capital for clean tech and sometimes avoiding compliance; it recommends low-cost finance, disclosure-based compliance pressure, and support programmes)
WEPA/PCD. Updates on Industrial Wastewater management in Thailand	2022	Regulatory & infrastructure status; programme stats	Thailand	Water/wastewater (SDG6)	++	Notes treatment capacity gaps and compliance challenges; prioritises industrial clusters and municipal WWTP O&M.	

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
IWA, Wastewater reclamation trends	2022	Synthesis of plants, reuse applications, barriers	Thailand	Water (reuse) (SDG6/12)	+	Significant opportunities for reuse; barriers include costs and governance alignment—relevant for sector safeguards.	SMEs (Several technology case studies and recommendations address small- and mid-sized textile facilities (e.g., low-cost polishing/AOP, electro-oxidation) and decentralised/dome stic systems—relevant to SME constraints); Consumers (Public acceptance is a major theme; surveys show higher acceptance for non-potable uses and highlight trust/health concerns—relevant to consumer impacts); CSR/RBC (corporate water management and in-house measures in industrial estates as part of social acceptance and responsible practices)
Department of Fisheries, Marine Fisheries Management Plan (FMP)	2022	National plan; effort control, area-based mgmt, FIPs	Thailand	Marine water; Fisheries (SDG14)	++	Goals: restore to MSY, eliminate IUU, protect habitats; provides management baseline & indicators (e.g., effort limits).	CSR/RBC (through anti-IUU, full supply-chain traceability (PPS/TF systems), PSMA implementation, and labour-standards references (ILO conventions))

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
Blue Swimming Crab Fishery Management Plan 2023 - 2027	2023 (to 2027)	National plan	Thailand	Marine water; Fisheries (SDG14)	++		
EJF, A policy briefing on the future of Thai fisheries	2023, covers 1961 – 2015	Synthesis of CPUE time-series & policy context	Thailand (Gulf/Andaman)	Fisheries (SDG14)	++	CPUE fell ~92% (Gulf) and 75% (Andaman) 1960s–2015—underscores need for conservative stock management.	CSR/RBC (Strong emphasis on traceability, transparency, anti-IUU, and labour standards aligned with EU/US/Japan import regimes; recommends publishing licence/sanctions lists and banning/monitoring trans-shipment)
EPI, Thailand profile	2024	Composite indicators across 58 metrics	Thailand vs peers	Cross-cutting: air, water, fisheries, waste	++	Thailand ranks 90/180; weak on wastewater treatment (collection/treatment/reuse scores low) and air quality.	
Global Forest Watch (latest) Thailand dashboard & datasets	2001 - 2024	Satellite-based tree-cover loss/drivers	Thailand	Land/forests (SDG15)	+++	Provides annual tree-cover loss and driver layers—inputs for spatial risk screening in rubber/palm/rice areas.	CSR/RBC (data support supply-chain due diligence and EUDR-style risk checks for rubber/wood-based products (useful for the TSD/CSR angle))

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
Wang et al., resolution maps show that rubber causes substantial deforestation	2024 /25	10 m rubber & 30 m deforestation maps; 2001–2021	SE Asia incl. Thailand	Land/forests/biodiversity (SDG15)	+++	Finds rubber-linked forest loss 2–3× higher than policy estimates; Thailand among top countries affected.	SMEs (~85% smallholder dominance and the need to avoid disadvantaging smallholders under due-diligence regimes; farmer grouping/co-ops are highlighted); CSR/RBC (Strong linkage to EUDR, GPSNR, traceability and zero-deforestation commitments; stresses supply-chain transparency requirements)
CCAC/ACIAR, Country Report Scoping Study Climate Smart Rice Thailand	2021	Synthesis of rice GHG & mitigation practices	Thailand	Agriculture rice sector—rice CH ₄ (SDG13/6)	++	Rice ~51% of ag GHG (2016 basis); AWD & residue management highlighted for cost-effective CH ₄ cuts.	not relevant
Sommano et al., Assessment of greenhouse gas mitigation from rice cultivation using alternate wetting and drying and rice straw biochar in Thailand	2023 /24	Field/TEA modelling of AWD vs continuous flooding	Thailand	Agriculture rice systems—rice CH ₄ /water (SDG13/6)	+	AWD reduces CH ₄ while conserving irrigation water; net GHG benefit depends on N ₂ O management—policy-relevant for irrigation schemes.	not relevant
PCD/MONRE, Waste management taxonomy brief	2025	Policy overview; methane from waste; constraints	Thailand	Waste & wastewater (SDG12/6/13)	++	Notes O&M and cost barriers for WWTPs; methane from landfills a priority mitigation target.	not relevant
PCD, State of Environmental Performance Index—Thailand view (ONEP)	2023	National reflection on EPI metrics	Thailand	Cross-cutting	+	Summarises areas for improvement (air, water, fisheries, biodiversity) helpful for baseline indicators.	not relevant

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues
Thailand Environment Institute, Management and Reduction of Burning Practice in Agricultural Areas and Policy Recommendations to Tackle PM2.5 in Thailand	2022 , covers 2019 - 2022	Policy/technical report on open burning	Thailand	Air quality & waste/agriculture (SDG11/12/13)	+++	burning is a major PM2.5 source; quantified PM2.5 loads by crop; policy/measures focus incl. 17 northern provinces. Remove/relocate: the GHG % and the 2023 ban reference.	SMEs (SMEs: Relevant. The report repeatedly discusses smallholder constraints, machinery rental markets, conditional subsidies, and cost differentials of non-burning practices)
Jaroenkietkajorn, Gheewala & Scherer, Species loss from land use of oil palm plantations in Thailand, Ecological Indicators	2021	Biodiversity impact modelling using Thai agricultural statistics	Thailand	Land/forests/biodiversity —palm oil (SDG15)	+++	Significant species losses with strongest effects in the south; highlights spatial heterogeneity and need for land-use safeguards.	not relevant
USDA FAS, Oilseeds and Products Annual—Thailand	2023	Sector statistics & policy report	Thailand	Land use/energy (biofuels) (SDG12/13/15)	++	Palm oil used largely domestically (consumption & biodiesel); informs baseline on planted area, yields, trade exposure and biofuel blending policies.	not relevant
Environmental Performance Index (EPI)	2024	Composite indicator set for cross-country benchmarking	Thailand & ASEAN/EFTA	Cross-cutting environment (SDG11/12/14/15/6/13)	++	Provides normalised scores/trends (e.g., air quality, wastewater, fisheries, biodiversity); useful for baseline and peer comparison.	not relevant

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
EDGAR, Emissions Database for Global Atmospheric Research	2024	Global harmonised emissions inventory (CO ₂ /CH ₄ /N ₂ O + air pollutants); national totals and gridded; IPCC sector mapping	Global; Thailand series available	GHG/energy; air co-pollutants (SDG13/11)	+	Consistent national and gridded time series for Thailand; benchmark sectoral GHG and co-emitted air pollutants.	not relevant
IEA – Energy system of Thailand	2023	Curated statistics/policy notes; pointers to electricity generation by source and industry energy indicators	Thailand	Energy supply & use; industry/power (SDG13)	+	Pointers to series for electricity generation and industry energy intensity; triangulation resource.	not relevant
World Bank, Market Study for Thailand: Plastics Circularity Opportunities and Barriers	2021	Value-chain & material flow for PET/HDPE/LDPE/PP; collection/recycling/leakage quantification	Thailand	Plastics/circular economy; marine litter risk (SDG12/14)	++	Quantifies collection/recycling rates and leakage pathways; provides numbers for plastics indicators.	not relevant

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
IEEP, "Environmental and social impacts embedded in EU trade policies — the case of EU trade-related autonomous measures in Vietnam."	2023	Qualitative policy analysis; sector criteria matrix & heat-map to prioritise value chains; review of CSDD/EUDR design and EVFTA TSD implementation.	EU-Vietnam	Trade–environment governance (SDG12/14/15/13); due-diligence channels; sector prioritisation (electronics, apparel, timber, coffee).	+	EU trade spillovers require better externalisation control; EVFTA TSD has weak monitoring/enforcement; EUDR/CSDD will reshape environmental risks via supply-chain compliance; heat-map approach selects high-risk value chains; support needed for smallholders/SMEs and enforcement capacity.	not relevant
Enablers for Effective EPR in the Asia-Pacific Region Lessons from developed and developing countries in the EU and Asia THAILAND	2025	Lessons learnt from Thailand regarding Extended Producer Responsibility			+		
FAOSTAT						Statistics (related to foodsystemsdashboard); land use indicators; water and agriculture	
Zhang & Shi (2016) RCEP and GHG (GTAP-E)	2016	GTAP with CO ₂ & non-CO ₂ emissions databases	East Asia/RCEP	Trade–GHG (SDG13)	++	Simulated RCEP tends to raise GHG in absence of mitigation; highlights need to pair FTAs with ETS/energy policies.	

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
Tantisattayakul et al. (2016): LEAP Thailand 2037 (EPPO)	2016 (to 2037)	LEAP energy modelling; BAU vs policy cases to 2037	Thailand	GHG/energy (SDG13)	++	Projects rising final energy use/CO ₂ under BAU; policy scenarios dampen growth but further measures needed for neutrality trajectory.	
Kanchanomai et al. (2019) LMDI industrial CO₂	1995 - 2015	LMDI decomposition of industrial CO ₂	Thailand	GHG/energy (SDG13)	+	Activity effect is dominant driver; intensity improvements partly offset emissions growth—useful for sectoral benchmarking.	

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
PCD (2019, updated) Roadmap on Plastic Waste 2018–2030	2019 (2018–2030)	National roadmap with bans/phase-outs; 3 phases	Thailand	Waste & plastics (SDG12/14)	++	Bans on cap seals/oxo-degradables/microbeads; ban on several single-use items by 2022; ambition for 100% reuse by 2027 (policy brief).	
Jambeck et al. (2015) Mismanaged plastic waste (Science)	2015–2018	National biodiversity reporting	Thailand	Land/forests/biodiversity (SDG15)	+++	Summarises status & mainstreaming; frames data gaps on species/habitat; baseline for biodiversity safeguards.	
Saswattecha et al. (2015) Assessing the environmental impact of palm oil produced in Thailand	2015	Process-based LCA of Thai palm oil supply chain	Thailand	GHG/air/water/waste (SDG13/12)	++	Key hotspots: boiler fibre burning, fertilisers, POME/wastewater, EFB disposal; identifies levers for mill/field mitigation.	
MONRE (2015) Master Plan for Integrated Biodiversity Management (2015–2021)	2015–2021	National biodiversity policy framework			++		

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues
BBC (2016) "Rice and palm oil risk to mangroves" (news synthesis)	2016	Evidence compilation citing scientific sources	Thailand	Land/forests/coastal ecosystems (SDG14/15)	++	Attributes ~38% of mangrove loss to rice & palm oil expansion (2000–2012); indicative of coastal land-use pressures (use with caution alongside primary studies).	

Annex 7: Environmental SIA Indicators

1.1. EU: Environmental and climate policy framework, recent trends and baseline for the future

1.1.1. Trade-related environmental commitments in recent EU FTAs

Regarding commitments on trade favouring sustainable development, EU FTAs promote best business practices related to Corporate Social Responsibility (CSR) and encourage parties to support voluntary sustainable initiatives such as eco-labelling and fair-trade schemes¹. Furthermore, cooperation activities may cover the exchange of information and experiences related to CSR. Several FTAs refer to Responsible Business Conduct (RBC), some citing the OECD Guidelines for Multinational Enterprises².

EU FTAs also establish institutional mechanisms for implementation, including government-to-government mechanisms, such as implementation committees, responsible for overseeing TSD commitments (EU-Canada CETA) alongside platforms for civil society participation with an advisory role in the implementation and monitoring of environmental provisions, such as Domestic Advisory Groups (DAGs) or a Civil Society Forum (EU-UK TCA).

Concerning enforcement mechanisms, traditionally TSD chapters enforcement relied on dedicated mechanisms centred on consultations, expert-panel reviews, TSD committees and civil society monitoring and was exempted from general dispute settlement mechanisms of EU FTAs³. The EU's new TSD approach from 2022⁴ strengthened the approach, calling for more proactive cooperation with partners, a more country-specific and targeted approach, including implementation priorities or roadmaps, mainstreaming sustainability beyond the TSD chapter, stronger monitoring and a reinforced role for civil society, including Domestic Advisory Groups. Therefore,

(¹) EU-Colombia/Peru/Ecuador Trade Agreement.

(²) For instance, the EU-Singapore Free Trade Agreement.

(³) Marc Jütten, 'Trade and sustainable development in EU free trade agreements' PE 754.61, November 2023, [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754613/EPRS_BRI\(2023\)754613_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754613/EPRS_BRI(2023)754613_EN.pdf).

(⁴) European Commission, 'Commission unveils new approach to trade agreements to promote green and just growth', Press Release, European Commission website, 22 June 2022, accessed 18 February 2026, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3921.

TSD commitments are to be enforceable through the agreement's state-to-stage dispute settlement framework.

In the EU-New Zealand FTA, for example, Chapter 26 applies to disputes concerning the agreement as a whole, with Chapter 19 on TSD not excluded from its scope. However, temporary remedies (including compensation or suspension/withdrawal of trade preferences) are available only as a last resort and for narrowly defined core TSD breaches such as serious non-compliance with the ILO fundamental principles and rights at work or failure to refrain from action or omission materially defeating the object and purpose of the Paris Agreement.⁵ Other TSD obligations remain subject to consultations, panel proceedings, compliance monitoring by the TSD Committee, and input from DAGs but not to temporary remedies. In the EU-New Zealand FTA, TSD-related disputes are subject to a longer consultation period than ordinary disputes under the general state-to-state dispute settlement procedure, while the subsequent panel and compliance stages largely follow the general dispute settlement framework.

1.1.2. Current environmental trends in the EU and key elements for the baseline: detailed overview

By one international benchmark, the EU's performance in environmental governance is comparatively strong: in the most recent Environmental Performance Index the EU Member States all ranked in the top 50 in the 2024 Environmental Performance Index (EPI)rank⁶. An analysis of EU environmental trends, however, shows both ongoing progress as well as challenges⁷.

Climate mitigation

EU net greenhouse gas (GHG) emissions have decreased substantially compared to 1990. GHG emissions fell by 36% between 1990 and 2023, including international

(⁵) Marc Jütten, 'Trade and sustainable development in EU free trade agreements' PE 754.61, November 2023, [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754613/EPRS_BRI\(2023\)754613_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754613/EPRS_BRI(2023)754613_EN.pdf).

(⁶) Block, S., Emerson, J.W., Esty, D.C., de Sherbinin, A., Wendling, Z.A., *et al.*, 'Environmental Performance Index', 2024, <https://epi.yale.edu/downloads/2024-epi-report-20250106.pdf>.

(⁷) The information presented here is largely based on the State of the Environment report published by the European Environmental Agency in September 2025: European Environment Agency, 'Europe's environment and climate : knowledge for resilience, prosperity and sustainability', doi:10.2800/3817344, 29 September 2025, https://www.eea.europa.eu/en/europe-environment-2025/main-report/report/@_@download/file (subsequently referenced as the EEA State of the environment report)

transport as regulated by EU Climate Law⁸. Looking forward, the EU's binding framework (notably the EU Climate Law's -55% by 2030 target and net-zero by 2050) should continue to drive decarbonisation across sectors. Member State reporting of measures and trends suggests that a 47% reduction in net emissions will be reached by 2030 compared to 1990 levels. Additionally, the integration of countries' planned policies and measures allows to attain the 55% ambition. Indeed, it is projected that the EU will reach a projected 54% reduction by 2030 compared to 1990 levels⁹. To achieve climate neutrality by 2050, the pace of emission reductions necessary to meet the 2030 target must be maintained in the years that follow¹⁰.

There has been a recent acceleration in emissions reductions linked to declining fossil fuel use and rapid changes in the energy system, including the expansion of renewables and improved efficiency; however, the energy mix remains fossil-fuel heavy. Indeed, in 2023, fossil fuels represented almost 70% of gross available energy use¹¹. The share of electricity generated from renewables (excluding hydropower) increased from 11.5% in 2011 to 24.9% in 2021¹² while renewables reached 24.5% of gross final energy consumption by 2023. This historical high share is driven by EU policies such as the Fit for 55 EU policy package and the RePowerEU plan.¹³ Additionally, the EU's energy intensity is reported as 3 in 2013 and 2023 indicating a

(⁸) European Environment Agency, 'Total net greenhouse gas emissions trends and projections in Europe', EEA website, 6 November 2025, accessed 7 February 2026, <https://www.eea.europa.eu/en/analysis/indicators/total-greenhouse-gas-emission-trends>.

(⁹) European Environment Agency, 'Total net greenhouse gas emissions trends and projections in Europe', EEA website, 6 November 2025, accessed 7 February 2026, <https://www.eea.europa.eu/en/analysis/indicators/total-greenhouse-gas-emission-trends>.

(¹⁰) European Environment Agency, 'Greenhouse gas emissions (thematic briefing)', EEA website, 29 September 2025, accessed 5 February 2026, <https://www.eea.europa.eu/en/europe-environment-2025/thematic-briefings/climate-change/greenhouse-gas-emissions>.

EEA: <https://www.eea.europa.eu/en/europe-environment-2025/thematic-briefings/climate-change/greenhouse-gas-emissions>.

(¹¹) EEA, State of the environment report, pp. 78, 145.

(¹²) World Bank, 'European Union data', World Bank Group Data, accessed 8 February 2026, <https://data.worldbank.org/region/european-union>.

(¹³) EEA, State of the environment report, p. 150.

stable level over the period¹⁴. Efficiency gains have also reduced energy use (e.g., primary energy consumption down 19.2% since 2005)¹⁵.

Transport emissions remain a challenge. Indeed, domestic transport emissions in 2023 were still 18% higher than in 1990¹⁶. This matters for trade-related impacts as sectors linked to mobility (vehicles, fuels, logistics) remain structurally emission-intensive despite growing decarbonisation.

Consequently, the measures currently adopted and planned, as reported by Member States, however, fall short of ensuring that the 2050 climate neutrality target can be achieved¹⁷. By 2050, EU net greenhouse-gas emissions are projected to decline to around 1,511 MtCO₂e under the 'with existing measures' pathway, or to about 1,062 MtCO₂e under the 'with additional measures' pathway¹⁸.

Climate adaptation

Europe is warming around twice as fast as the global average, and most extreme weather hazards (outside of snow/ice-related events) are becoming more frequent and more intense¹⁹. Recent impacts underline the adaptation challenge with weather and climate-related extremes generating very large losses (EUR 738 billion in 1980–2023 in the EU, with 22% of this amount just in 2021–2023)²⁰. Moreover, in 2018 five

(¹⁴) World Bank, 'Energy intensity levels of primary energy – European Union', World Bank Group Data, accessed 8 February 2026, <https://data.worldbank.org/indicator/EG.EGY.PRIM.PP.KD?locations=EU&start=2012>.

(¹⁵) EEA, State of the environment report, p. 78.

(¹⁶) EEA, State of the environment report, p. 79.

(¹⁷) European Environment Agency, 'Greenhouse gas emissions (thematic briefing)', EEA website, 29 September 2025, accessed 5 February 2026, <https://www.eea.europa.eu/en/europe-environment-2025/thematic-briefings/climate-change/greenhouse-gas-emissions>.

(¹⁸) European Environment Agency, 'Total net greenhouse gas emissions trends and projections in Europe', EEA website, 6 November 2025, accessed 7 February 2026, <https://www.eea.europa.eu/en/analysis/indicators/total-greenhouse-gas-emission-trends>.

(¹⁹) EEA, State of the environment report, p.8.

(²⁰) EEA, State of the environment report, p.8.

selected EU Member States²¹ showed a vulnerability to climate risks (NG-GAIN vulnerability) score lower than 0.40 (a lower value indicates lower vulnerability)²².

Looking ahead, climate change is projected to increase economic costs substantially across Europe, driven by more frequent and intense extremes and slow-onset impacts, with some regions exposed to cascading and compounding effects, hence the need to mainstream and upscale adaptation across sectors and levels of governance²³.

Despite national adaptation policy and governance structures developing in every Member State, societal preparedness remains low and implementation is “lagging substantially behind” rapidly increasing risk levels²⁴. The forthcoming EU Climate Adaptation Plan (expected in late 2026) is, however, expected to strengthen EU action in this area.

Air quality

Air quality has improved substantially over recent decades for most pollutants, driven by policy and regulation, but health burdens remain. The Air Quality Index for the five selected Member States are uneven with Sweden, Ireland and France performing better²⁵ with respective scores of 30, 45 and 36²⁶ while Poland and Croatia scores are 62 and 60²⁷.

Emissions reported under the NEC Directive show downward trends since 2005, including reductions by 2023 of SO₂ (85%), NO_x (53%), NMVOCs (35%) and PM_{2.5}

(²¹) When data was not available for the EU, the data reported is for 5 EU Member States deemed representative of the Union. There are: Poland, Croatia, Sweden, France and Ireland.

(²²) Climate Watch, ‘Climate Watch’, accessed 16 February 2026, https://www.climatewatchdata.org/countries/POL?end_year=2023&start_year=1990. Climate Watch, ‘Climate Watch’, https://www.climatewatchdata.org/countries/POL?end_year=2023&start_year=1990.

(²³) EEA, State of the environment report, p.33.

(²⁴) EEA, State of the environment report, p.81.

(²⁵) For the Air Quality Index lower values indicate cleaner air.

(²⁶) IQAir, ‘Air quality in the world’, IQAir website, accessed 17 February 2026, <https://www.iqair.com/world-air-quality>.

(²⁷) IQAir, ‘Air quality in the world’, IQAir website, accessed 17 February 2026, <https://www.iqair.com/world-air-quality>.

(38%)²⁸. Moreover, in 2024, the PM2.5 exposure scores²⁹ in selected EU countries were 28.8 (Poland), 77.1 (Sweden), 29.3 (Croatia), 49.0 (France) and 67.1 (Ireland) showing uneven exposure across the EU but all show great improvement compared to 10 years ago³⁰.

Recent EU legislation, notably the Ambient Air Quality Directive, revised in 2024, should put in place further actions that should reduce air pollution and improve air quality. The EEA has estimated that the EU is on track to reduce the health impacts of air pollution by at least 55% by 2030, though air pollution will remain a health concern³¹.

Water management

Water stress is widespread in the EU and is expected to intensify with climate change. On average, water stress affects 30% of Europe's territory and 34% of the population each year, and these figures are likely to increase in the future due to climate change. Moreover, climate change is expected to increase drought frequency and severity, making it unlikely that water scarcity will be reduced by 2030³².

Water pollution from industry and urban sources has decreased significantly in recent decades with the implementation of the Urban Wastewater Treatment Directive, as well as EU and national funding for infrastructure. This Directive was revised in 2024 and is expected to further reduce water pollution from these sources. In 2022, the wastewater indicator values reported for selected EU countries were 61.50 (Poland), 100 (Sweden), 69 (Croatia), 88 (France) and 87 (Ireland), a score of 0 indicates that no wastewater is reported as treated within a country³³.

Agriculture is identified as a major pressure on surface and groundwater, including via diffuse pollution (fertiliser and pesticide runoff) and abstraction. Demand from irrigated

(²⁸) EEA, State of the environment report, p. 101.

(²⁹) Higher scores indicate lower exposure. Indeed, a score of 100 indicates exposure to an average annual concentration below 2.5 micrograms per cubic meter (half of the WHO's guideline) and a score of 0 indicates exposure to some of the highest concentrations of PM2.5 in the world. (see: [2024 Environmental Performance Index - Anthropogenic PM2.5 exposure](#)).

(³⁰) Environmental Performance Index, *Country*, EPI website accessed 13 February 2026, <https://epi.yale.edu/country/2024/country>

(³¹) EEA, State of the environment report, p. 98.

(³²) EEA, State of the environment report, pp. 113, 115, p. 121.

(³³) Environmental Performance Index, *Country*, EPI website accessed 13 February 2026, <https://epi.yale.edu/epi-results/2022/country/irl> (change country from drop down menu).

agriculture is likely to increase with climate change, raising the risk of seasonal shortages and conflicts across uses (including drinking water supply and food security)³⁴. EU waters are assessed mainly through the Water Framework Directive, which is the basis for ensuring the “good ecological status” of water bodies and clean drinking and bathing water³⁵. In practice, this relies on Member State monitoring and management to protect freshwater and (where relevant) saltwater ecosystems, supported by complementary EU rules on areas like bathing water, drinking water, groundwater, surface-water pollution, urban wastewater and floods, with EU-wide reporting and data access. The current outcomes are mixed with only 37% of surface water bodies achieving good ecological status, while 85% of bathing water sites are rated excellent and over 90% of urban wastewater is handled in line with EU standards.

Recent EU legislation, notably the revised Urban Wastewater Treatment Directive, as well as policy initiatives such as the Water Resilience Strategy, address many of these issues, though progress is likely to be slow.

Chemical and pesticide management

EU chemicals and pesticides management is mainly based on a precautionary and risk-based approach. Under REACH, companies are responsible for identifying and managing the risks of chemicals placed on the EU market³⁶, while pesticide active substances are approved at EU level following scientific assessment by Member States and EFSA, with Member States remaining responsible for authorising individual plant protection products³⁷. Recent developments place greater emphasis on targeted risk management, simplification and competitiveness. This is reflected in the “one substance, one assessment” package³⁸, which aims to streamline chemical safety assessments and improve data sharing through an ECHA-managed common data

(³⁴) EEA, State of the environment report, pp. 37, 123, 15

(³⁵) European Commission, ‘Water’, European Commission website, accessed 6 February 2026, https://environment.ec.europa.eu/topics/water_en.

(³⁶) European Commission website, *REACH Regulation*, accessed 11 May 2026, https://environment.ec.europa.eu/topics/chemicals/reach-regulation_en

(³⁷) EFSA website, *Pesticide active substances*, accessed 11 May 2026, <https://www.efsa.europa.eu/en/topics/pesticide-active-substances>.

(³⁸) European Commission website, DG ENV (Jan 2026), *New rules to streamline EU chemical assessments enter into force*, accessed 11 May 2026, https://environment.ec.europa.eu/news/new-rules-streamlining-chemical-assessments-enter-force-2026-01-05_en

platform³⁹, as well as in the 2025 Chemicals Action Plan⁴⁰ and Omnibus VI package⁴¹, which seek to reduce administrative burdens while maintaining a high level of protection. PFAS restrictions remain a key priority in chemicals policy⁴². Regarding pesticides, the Commission withdrew the proposed Sustainable Use Regulation in 2024⁴³, leaving Directive 2009/128/EC⁴⁴, national action plans and integrated pest management as the main framework. Overall, current trends show continued ambition to reduce chemical and pesticide risks, but with stronger attention to regulatory simplification and industrial competitiveness.

Since 2011, the European Commission's indicator for pesticide risks has fallen, due to the withdrawal of hazardous pesticide active substances from the EU market.⁴⁵

Land use and agriculture

In 2022, 38.8% of EU land was agricultural⁴⁶, and 39.9% was forest – the latter a small increase compared with 39.4% in 2012⁴⁷. Soil degradation and compaction have been highlighted as recurring issues linked to intensive agricultural land use practices, reducing infiltration and

(³⁹) OSOA laws, Regulation (EU) 2025/2455

(⁴⁰) European Commission, COM (2025)530 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions A European Chemicals Industry Action Plan, 8 July 2022, https://single-market-economy.ec.europa.eu/publications/european-chemicals-industry-action-plan_en

(⁴¹) European Commission, COM(2025)531 - Proposal for a Regulation of the European Parliament and of the Council amending Regulations (EC) No 1272/2008, (EC) No 1223/2009 and (EU) 2019/1009 as regards simplification of certain requirements and procedures for chemical products

(⁴²) European Commission website, *Chemicals Strategy*, accessed 11 May 2025, https://environment.ec.europa.eu/strategy/chemicals-strategy_en

(⁴³) PAN Europe Network (6 February 2024) *Black day for Health and Biodiversity: EU Commission withdraws proposal for Pesticide Reduction*, accessed 11 May 2026, <https://www.pan-europe.info/press-releases/2024/02/black-day-health-and-biodiversity-eu-commission-withdraws-proposal-pesticide>

(⁴⁴) Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides, *OJ L 309*, 24.11.2009, pp. 71–86.

(⁴⁵) European Commission, “Trends in Harmonised Risk Indicators for the EU” (2025)

(⁴⁶) EEA, State of the environment report, p. 71.

(⁴⁷) World Bank, ‘European Union data’, World Bank Group Data, accessed 8 February 2026, <https://data.worldbank.org/region/european-union>.

fertility and increasing runoff and flood risk⁴⁸, while urban sprawl remains a further, common issue.

Expected trends for agriculture will be strongly shaped by climate extremes, as more frequent episodes of drought and high temperatures are projected to affect yields across Europe⁴⁹.

Solid waste management and circularity

The EU's consumption footprint remains a major pressure, and circularity improvements are deemed insufficient relative to ambition. Only 11.8% of EU material demand is sourced from recycling⁵⁰. Nevertheless, there is some progress regarding the share of waste recycling increasing, resource efficiency and financing improving over the last decade in the EU. Indeed, the overall recycling rate of waste (excluding major mineral waste) reached around 44% in 2022, and recycling rates for key streams such as packaging (67.5%) and municipal waste (47.7%) have increased compared with previous years, reflecting a slow but positive shift towards a circular economy⁵¹. The EU's material footprint decreased slightly from 14.899 t per capita in 2010 to 14.076 t per capita in 2024⁵².

Nonetheless, municipal waste generation was 507 kg per capita (2023), up from 478 kg per capita (2013)⁵³. Moreover, the EU is only partially on track to meet its policy targets⁵⁴. Progress in recycling has recently stalled, with a significant portion of waste still destined for landfills or incineration, and for waste electronic and electrical equipment the recycling rate has decreased in 2023 compared to the 2016-2021 period⁵⁵.

EU legislation, notably recent revisions to the Waste Framework Directive, seek to continue progress, as have the EU's Circular Economy Action Plans, and the Commission has announced that a Circular Economy Act will be proposed in 2026.

(⁴⁸) EEA, State of the environment report, p. 121.

(⁴⁹) EEA, State of the environment report, p. 178.

(⁵⁰) EEA, State of the environment report, p. 13.

(⁵¹) European Environment Agency, 'Waste recycling in Europe', EEA website, 3 December 2025, accessed 17 February 2026, <https://www.eea.europa.eu/en/analysis/indicators/waste-recycling-in-europe>.

(⁵²) European Environment Agency, 'Europe's material footprint', EEA website, 3 November 2025, accessed 17 February 2026, <https://www.eea.europa.eu/en/analysis/indicators/europes-material-footprint>.

⁵³ OECD, 'Municipal waste', OECD website, accessed 5 February 2026, <https://www.oecd.org/en/data/indicators/municipal-waste.html>.

⁵⁴ EEA, State of the environment report, p. 13.

⁵⁵ European Environment Agency, 'Waste recycling in Europe', EEA website, 3 December 2025, accessed 17 February 2026, <https://www.eea.europa.eu/en/analysis/indicators/waste-recycling-in-europe>.

Biodiversity

In 2022, four of the five selected EU Member States received relatively low scores on the EPI Biodiversity Habitat Index: 37.00 (Poland), 33.50 (Croatia), 36.60 (France) and 40.20 (Ireland), while Sweden reached 60.60 (0 indicates complete habitat loss)⁵⁶. This indicator shows a deterioration rather than progress in the five countries in the period from 2012 to 2022.

Biodiversity is declining across terrestrial, freshwater and marine ecosystems due to persistent pressures (land/sea-use change, pollution, invasive alien species, over-exploitation, and climate change impacts). Over 80% of protected habitats are in poor or bad state, and the EEA's 2025 State of the Environment Report notes that the EU's 2020 objective to halt and reverse biodiversity loss was not achieved. One positive note is the expansion of protected areas. Indeed, by 2022, 26.1% of EU land and 12.3% of EU seas were protected⁵⁷.

The EU Biodiversity Strategy to 2030 and the recent Nature Restoration Regulation (2024) aim to recover nature and biodiversity.

⁵⁶ Environmental Performance Index, *Country*, EPI website accessed 13 February 2026, <https://epi.yale.edu/epi-results/2022/country/irl> (change country from drop down menu).

⁵⁷ EEA, State of the environment report, p. 9.

1.1.3. Table 25: Overview of EU environmental and climate policy framework, trends and baseline

Theme	Key Legislation	Key policies, strategies and plans	Recent trends	Baseline: near future	SDGs
Climate mitigation	Carbon Border Adjustment Mechanism (Regulation (EU) 2023 956) Climate Law (Regulation (EU) 2021/1119) Emissions Trading System (Directive 2003/87) Fit for 55 package (several pieces of legislation)		EU emissions fell by almost 40% since 1990 Share of electricity from non-hydro renewables has increased to about 25% Transport emissions, however, have increased since 1990, with increases notably for motor vehicles and air transport	Further declines in total emissions expected due to EU legislation and associated reduction targets Further increased in renewable electricity expected Reduction in transport emissions will depend on EV adoption Reduction in agriculture emissions may proceed slowly	9,13
Climate adaptation		Climate Adaptation Strategies (2013 and 2021)	Europe has warmed faster than the global trend Extreme weather events have become more frequent	Further warming and more frequent extreme weather events expected, with associated economic costs	13
Air quality	Ambient Air Quality Directive National Emissions Ceilings Directive	Zero-Pollution Action Plan	Reductions in emissions and improvements in air quality in recent decades Air quality varies: a range of urban and other areas do not meet EU and WHO standards	Further decrease in emissions and improvements in air quality expected Key factor: pace of adoption of EVs and replacement of ICE vehicles	3,11

Sustainability Impact Assessment (SIA) in support of
Free Trade Agreement (FTA) negotiations between
the European Union and the Kingdom of Thailand

Theme	Key Legislation	Key policies, strategies and plans	Recent trends	Baseline: near future	SDGs
Water management	Marine Strategy Framework Directive Water Framework Directive (which covers freshwater and coastal waters) Urban Wastewater Treatment Directive	EU Biodiversity Strategy for 2030 Zero-Pollution Action Plan	Major reductions in water pollution discharges from urban and industrial sources Agricultural runoff remains an issue for many water bodies Water stress affects 30% of EU territory Abstractions, including from agriculture are a major stress on water resources	Further urban and industrial water pollution reductions expected Reductions in agricultural runoff may be slow Climate change is expected to increase water stress With climate change, pressure likely to increase for greater abstraction for many sectors	14
Chemical and pesticide management	Biocidal Products Regulation Plant Protection Products Directive REACH Pesticide Maximum Residue Levels Regulation OSOA Laws	European Chemicals Industry Action Plan Zero-Pollution Action Plan Chemicals Strategy for Sustainability: 'one substance one assessment' package	Strengthening of chemicals risk management through CLP and OSOA reforms, with PFAS restrictions progressing. The European's Commission's Harmonised Risk Indicator has fallen since 2011 with hazardous active pesticide substances withdrawn.	Further risk reduction in chemicals and pesticides is expected, but broader REACH and pesticide-use reforms may proceed slowly due to simplification, competitiveness and farmer-viability concerns.	12

Sustainability Impact Assessment (SIA) in support of
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the European Union and the Kingdom of Thailand

Theme	Key Legislation	Key policies, strategies and plans	Recent trends	Baseline: near future	SDGs
Land use, forestry and agriculture	Soil Monitoring Law (Directive (EU) 2025/2360) EU Regulation on Deforestation-Free Products ((EU) 2023/1115)	EU Biodiversity Strategy for 2030 EU Soil Strategy for 2030	Increase in urban land use, small rise in forestry land use, increase in protected areas Intensive agriculture has led to soil degradation and compaction	Increases in urban and forestry land use expected to continue Reduction in agricultural impacts on soil likely to be slow	15
Solid waste and circularity	Ecodesign for Sustainable Products Regulation (Regulation (EU) 2024/1781) EU Ecolabel Waste Framework Directive (last amended in 2025)	Bioeconomy Strategy Plastics Strategy Textiles Strategy Circular Economy Action Plans (2015 and 2020)	Waste recycling and resource efficiency (and the overall circularity rate) have risen slowly Municipal waste generation has increased The EU's consumption footprint remains a major pressure	Recycling, resource efficiency, and circularity rate expected to continue to increase, including in industry Policies should slow and perhaps reverse municipal waste levels Trend in EU footprint unclear, depends on shifts in consumption patterns	SDG 12, 11, 9
Biodiversity: Marine and Terrestrial	Marine Strategy Framework Directive (Directive 2008/56/EC) Nature Restoration Regulation ((EU) 2024/1991) Soil Monitoring Law	EU Biodiversity Strategy for 2030 Forest Strategy	Biodiversity has declined in terrestrial, freshwater and marine ecosystems Protected areas have been established across EU ecosystems	EU legislation and policy aims to halt biodiversity declines and restore ecosystems, though achieving objectives may be slow	SDG 15, 14

Sustainability Impact Assessment (SIA) in support of
Free Trade Agreement (FTA) negotiations between
the European Union and the Kingdom of Thailand

Theme	Key Legislation	Key policies, strategies and plans	Recent trends	Baseline: near future	SDGs
Cross-cutting	Environmental Impact Assessment Directive (2011/92/EU) Industrial Emissions Directive (2010/75/EU, amended by Directive 2024/1785) Strategic Environmental Assessment Directive (2001/42/EC)	European Green Deal (2019) 8th Environmental Action Programme			

1.2. Thailand: environmental and climate policy framework, recent trends and baseline for the future

1.2.1. Environmental policy framework

Environmental protection in the Constitution and the National Strategy

The 2017 Constitution of the Kingdom of Thailand⁵⁸ shapes the country's regulatory policy-making landscape⁵⁹, including with respect to the environment. The Constitution enshrines environmental rights and duties⁶⁰ as well as environmental safeguards in state action⁶¹. Furthermore, Section 65 mandates a national strategy for sustainable development.

The National Strategy 2018-2037, published in 2018, outlines a 20-year vision for Thailand to become a 'developed country with security, prosperity, and sustainability in accordance with the Sufficient Economy Philosophy'⁶². A key concern of the Strategy is environmental sustainability and the preservation of natural resources⁶³. The Strategy is operationalised by secondary plans such as the National Economic and Social Development Plan.

The 13th National Economic and Social Development Plan (2023-2027) is a roadmap to turn Thailand's long term National Strategy into concrete policies, budget, programmes and sector plan⁶⁴. The Plan's ambition is to 'transform' the country into a more advanced society and a

(⁵⁸) B.E. 2560/2017.

(⁵⁹) OECD, 'Regulatory Reform in Thailand: Reinforcing an Effective Regulatory Environment', doi.org/10.1787/7892759c-en, 2025, https://www.oecd.org/en/publications/regulatory-reform-in-thailand_7892759c-en/full-report.html, p. 14.

(⁶⁰) Section 43(2) of the Constitution of the Kingdom of Thailand.

(⁶¹) Section 58 of the Constitution of the Kingdom of Thailand.

(⁶²) This philosophy seeks to guide the way of living and practices for people at all levels, as well as national development and administration along the middle path, especially economic development. It enables keeping pace with global trends based on moderation, reasonableness, and appropriate preparedness within societal contexts to build resilience. *Source*: Office of Natural Resources and Environmental Policy and Planning, 'Thailand's National Biodiversity Action Plan 2023-2027'. UNDP website, 2025, <https://www.undp.org/sites/g/files/zskgke326/files/2025-06/undp-nbsaps-eng-060625.pdf>, p.43.

(⁶³) OECD, 'Regulatory Reform in Thailand: Reinforcing an Effective Regulatory Environment', doi.org/10.1787/7892759c-en, 2025, https://www.oecd.org/en/publications/regulatory-reform-in-thailand_7892759c-en/full-report.html, p. 14.

(⁶⁴) Office of the National Economic and Social Development Council, The Thirteenth National Economic and Social Development (2023-2027), <https://www.nesdc.go.th/en/the-national-economic-and-social-development-plan/the-thirteenth-plan-2023-2027/>

more sustainable economy. It translates the objectives of the National Strategy into four guiding principles: the Sufficient Economy Philosophy, Resiliency (surviving shocks, capacity to adapt to change and transform for the future), the SDGs (development should leave no one behind) and the Bio-Circular-Green Economy Model (BCGE: use science, technology, and innovation to create more economic value while protecting the environment).

Overview of the institutional and legal framework

The 1992 Enhancement and Conservation of National Environmental Quality Act (NEQA)⁶⁵ establishes the overall legal framework for environmental protection and planning. For instance, the NEQA sets regulations on pollution control and environmental standards for air, water, soil quality and provides a framework for monitoring and enforcement⁶⁶.

The Ministry of Natural Resource and Environment (MNRE) is the primary government body responsible for environmental management, conservation and the sustainable use of natural resources⁶⁷. It plays a key role in managing Thailand's protected areas, biodiversity, and responding to environmental issues like pollution and deforestation. The MNRE has, among others, a Department of National Parks, Wildlife and Plant Conservation (DNP); and a Pollution Control Department (PCD). Each is tasked with specific mandates related to environmental protection; the most recent addition is the establishment of a new Climate Change Department (DCCE)⁶⁸.

Additionally, the Office of Environmental Policy and Planning (OPEP) was established under the MNRE by the NEQA and is responsible for overseeing environmental policies⁶⁹. This office has a central role for Environmental Impact Assessments (EIAs): it examines and considers EIA reports and preliminary environmental impact reports submitted by developers for both government and private projects. It also prepares and develops guidelines and technical standards for EIAs as well as establishing the forms, methods and procedures for public and stakeholder participation within the process. Furthermore, the OEPP coordinates with competent agencies that review and act on EIA reports (including expert committees), providing technical opinions and assistance throughout.

(⁶⁵) B.E. 2535 (1992).

(⁶⁶) Law Gratis, 'Environmental law in Thailand', Law Gratis website, 13 March 2025, accessed 3 February 2026, <https://lawgratis.com/blog-detail/environmental-laws-at-thailand>.

(⁶⁷) Office of Natural Resources and Environmental Policy and Planning, 'Duties', ONEP website, accessed 2 February 2026, <https://www.onep.go.th/en/duties/>.

(⁶⁸) International Trade Association (U.S.A), 'Thailand Energy and Climate, International Trade Administration website, 9 August 2023, accessed 2 February 2026, <https://www.trade.gov/market-intelligence/thailand-energy-and-climate>. <https://washingtondc.thaiembassy.org/en/content/thai-government-establishes-department-of-climate>.

(⁶⁹) Office of Natural Resources and Environmental Policy and Planning, 'Duties', ONEP website, accessed 2 February 2026, <https://www.onep.go.th/en/duties/>.

EIAs are required for specified project categories, ranging from infrastructure and energy facilities to industrial developments, based on type and scale, and include provisions for Environmental Health Impact Assessments (EHIAs) and Strategic Assessments where appropriate⁷⁰.

Other Ministries are explicitly delegated to intervene or even take a leading role in environmental policies;

- The Ministry of Interior (MOI) regulates ...
- The Ministry of Energy of course plays a crucial role in the deployment of renewable energy sources, energy efficiency and grid modernisation.
- The Ministry of Public Health (MOPH) regulates businesses detrimental to health which are, regarding air quality problems, those that collect and burn coal, mining companies, metal smelting and forging companies, while
- under the Land Development Act, the Ministry of Agriculture and Cooperatives (MoAC) can regulate deforestation and land use where chemicals or other substances may contaminate the land or reduce its suitability for agricultural use⁷¹.
- The Ministry of Higher Education, Science and Innovation (MHESI) leads on skills for the green transition, remote sensing and the streamlining of the BCGE across Thai Policies.
- The Ministry of Industry (MIND) is defacto responsible for environmental aspects of e.g. manufacturing, recycling, sugar (burning), electric vehicles, plastics/packaging, textiles, or industrial standards.
- In addition, the Council of State plays an important role in advising and orchestrating such institutional arrangements (e.g. setting inter-ministerial committees, like for Deforestation/EUDR).

Lastly, regarding the United Nations' Sustainable Development Goals (SDGs), the National Committee for Sustainable Development (CSD), chaired by the Prime Minister and supported by the Office of the National Economic and Social Development Council (NESDC), provides policy direction and oversees monitoring of SDG implementation⁷². Sub-committees and working groups under the CSD support coordination on specific themes. Thailand assigns lead ("custodian") agencies for goals and targets to coordinate implementation and reporting.

Thailand's environmental governance is primarily shaped by this layered legal framework and the institutions involved in policy-setting, implementation, and enforcement. The judicial system has the potential to play a crucial role in environmental governance in Thailand holding both

(⁷⁰) Office of Natural Resources and Environment Policy and Planning Ministry of Natural Resources and Environment, 'Environmental Impact Assessment in Thailand', 4th Edition, 2021, <https://eiathailand.onep.go.th/imgeditor/maptaput/EIA-Eng-2021.pdf>.

(⁷¹) Baker McKenzie, 'In review: environmental protection regulations in Thailand', Lexology website, 2023, accessed 4 February 2026, <https://www.lexology.com/library/detail.aspx?g=8af0630b-19d6-4fa8-b793-11b36617e125>.

(⁷²) Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, p.5.

private actors and governmental bodies liable⁷³. Thailand's environmental governance nonetheless faces persistent challenges such as capacity gaps, fragmentation of responsibilities among multiple agencies and insufficient monitoring systems, which all contribute to hinder effective enforcement⁷⁴.

Regarding institutional fragmentation and capacity gaps, the World Bank notes that more than 30 ministries and departments are involved in water resources management alone, leading to unclear mandates and overlapping responsibilities. While the recent establishment of the Office of the National Water Resources (ONWR) aimed to centralise this, protocols for inter-agency coordination during emergencies remain inadequate. The newly created Department of Climate Change and Environment (DCCE) is intended to be a central coordination body, but its key deliverable -in the making since 2021-, the draft "Climate Change act" is still undergoing the first of three rounds of legal scrutiny by the Council of State, which makes its planned 2027 adoption most daunting.. Its 14 chapters largely mirror the whole EU climate framework elaborated and gradually implemented since the EU ETS Directive was adopted in 2003. The World Bank has moreover indicated that capacity gaps are especially pronounced at the sub-national level, where provincial and local governments have limited mandates, fiscal resources, and technical expertise to implement mitigation and adaptation solutions⁷⁵.

The World Bank moreover has found that effective enforcement of environmental legislation is hindered by **a lack of rigorous monitoring and reporting system, inconsistent enforcement and a lack of interoperable data platforms** complicating the emission tracking and the climate screening of public investments. The World Bank notes that Thailand needs to strengthen the coherence and enforcement of climate-related regulations and improve transparency and data systems to support better climate screening of public investments and better monitoring and reporting of emissions; additionally, SMEs are particularly vulnerable, as they often lack the financial resources, technical expertise, and data capacity needed to comply with emerging climate and environmental requirements⁷⁶. DCCE instead argues they need the whole Climate Act adopted before these systems can be adapted accordingly. Furthermore, while the draft Climate Change Act mandates public consultations, private sector and civil society representatives still require dissemination and capacity building to

(⁷³) UNEP, Law and Environment Assistance Platform, 'Thailand', UNEP-LEAP website, accessed 17 February 2026, <https://leap.unep.org/en/countries/th/national-case-law>.

(⁷⁴) World Bank Group, 'Thailand Country Climate and Development Report', 2025, accessed 19 January 2026, <https://documents1.worldbank.org/curated/en/099063025043513963/pdf/P507208-2e39fbdd-4d16-4660-a7eb-9c99c88864f0.pdf> (subsequently referenced as World Bank. Thailand Country Climate and Development Report); World Bank Group, 'Thailand Economic Monitor: Advanced Green Manufacturing for Growth', 2026, accessed 18 February 2026, <https://documents1.worldbank.org/curated/en/099021026053539312/pdf/P513268-b02b64e1-f987-46ff-80b6-e6e02bc2369a.pdf>.

(⁷⁵) World Bank. Thailand Country Climate and Development Report, p. 14-17.

(⁷⁶) World Bank. Thailand Country Climate and Development Report, pp. 17, 77.

become more active in the National Committee on Climate Change Policy, they are often in minority and there is no formal requirement for the government to respond to their inputs⁷⁷.

Conceptually, Thailand has invested in a significant transition in environmental governance through recent legal reforms, new plans and strategies as well as initiatives such as the plastic waste import ban in 2025⁷⁸, the end of crop burning in sugar production, or the EUDR National Single Window platform. However, the results remain mixed in light of remaining challenges in other key areas: adaptation, electrification, resource and energy efficiency, air and water quality or transports, to name a few (see also section 6.1.8).

1.2.2. Current environmental trends

While Thailand has strengthened its legal and policy frameworks, several areas of environmental management remain of concern. In the most recent Environmental Performance Index (EPI), Thailand ranked at 90 out of 180 countries in the 2024 EPI rank, score and regional rank⁷⁹. At the regional level (Asia-Pacific), Thailand ranks in 9th position⁸⁰. Key areas where Thailand is given lower scores include environmental health⁸¹, air quality⁸² and water resources⁸³. However, it ranks relatively high in climate change⁸⁴, heavy metals⁸⁵ and forest issues⁸⁶.

(⁷⁷) World Bank. Thailand Country Climate and Development Report, p. 14-17.

(⁷⁸) Sandra Laville, 'Thailand bans imports of plastic waste to curb toxic pollution', The Guardian, 7 January 2025, accessed 17 February 2026, <https://www.theguardian.com/environment/2025/jan/07/thailand-bans-imports-plastic-waste-curb-toxic-pollution>. Sandra Laville, 'Thailand bans imports of plastic waste to curb toxic pollution', The Guardian, 7 January 2025 <https://www.theguardian.com/environment/2025/jan/07/thailand-bans-imports-plastic-waste-curb-toxic-pollution>.

(⁷⁹) Block, S., *et al.*, 'Environmental Performance Index', 2024, <https://epi.yale.edu/downloads/2024-epi-report-20250106.pdf>.

(⁸⁰) Environmental Performance Index report, p. 19.

(⁸¹) Global rank of 121 out of 180 and rank of 17 out of 25 regionally

(⁸²) Global rank of 139 out of 180 and 17 out of 25 regionally

(⁸³) Global rank of 123 out of 180 and regional rank of 14 out of 25

(⁸⁴) Global rank of 65 out of 180 and regional rank of 9 out of 25

(⁸⁵) Global rank of 28 out of 180 and regional rank of 4 out of 25

(⁸⁶) Global rank of 24 out of 180 and regional rank of 6 out of 25

Climate change: mitigation

Thailand's greenhouse gas (GHG) emissions have more than doubled since 1990, although emissions intensity per unit of GDP has declined moderately⁸⁷. (The table below shows the recent trend from 2014 to 2024.) Electricity and heat generation are the largest sources of GHG emissions⁸⁸, followed by industrial processes and transport⁸⁹. Although dependence on coal is lower than in neighbouring countries, the country is heavily reliant on natural gas, and its national reserves are rapidly depleting. Thailand has committed to achieving carbon neutrality by 2050 and net zero GHG emissions by 2065 (recently revised to 2050 in NDC 3.0)⁹⁰ under the country's first Climate Change Act.

1.2.3. Table 26. Selected climate change and energy indicator snapshot over 2014-2024 in Thailand

Indicator	2014	2024
Total GHG emissions (excl. LULUCF) (Mt CO ₂ e) ⁹¹	395.7	422.4
Total GHG emissions (excl. LULUCF) per capita (t CO ₂ e) ⁹²	5.6	5.9
Carbon dioxide (CO ₂) emissions (excl. LULUCF) per capita (t CO ₂ e) ⁹³	3.9	4.0
Change of emissions (as %) of current year with respect to emissions in baseline year 1990 emissions of methane (CH ₄) excl. LULUCF ⁹⁴	19	11.5

(⁸⁷) World Bank Group, Mani. M. & Pollitt. H, 'Towards a Green and Resilient Thailand', September 2024,
<https://documents1.worldbank.org/curated/en/099103024104538193/pdf/P1795931febf19013187fa16db0b0d5cc3b.pdf>, p.7. (subsequently referenced as World Bank Group, Towards a Green and Resilient Thailand)

(⁸⁸) IEA, 'Thailand', IEA website, accessed 3 February 2026,
<https://www.iea.org/countries/thailand/emissions>

(⁸⁹) Suzuki. K *et al.*, 'A growth-friendly and inclusive green transition strategy for Thailand', OECD Economics Department Working Papers No. 1797, 2024, p.7,
https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/05/a-growth-friendly-and-inclusive-green-transition-strategy-for-thailand_639d7b46/35b34175-en.pdf (K. Suzuki et al., A growth-friendly and inclusive green transition strategy for Thailand).

(⁹⁰) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, pp. 7, 9.

(⁹¹) World Bank: <https://data.worldbank.org/indicator/EN.GHG.ALL.MT.CE.AR5?locations=TH>.

(⁹²) World Bank:
<https://data.worldbank.org/indicator/EN.GHG.ALL.PC.CE.AR5?locations=TH&start=2014>.

(⁹³) World Bank: <https://data.worldbank.org/country/thailand>.

(⁹⁴) World Bank:
<https://data.worldbank.org/indicator/EN.GHG.CH4.ZG.AR5?end=2024&locations=TH&start=2014&view=chart>.

Source: data from the World Bank

Thailand increased the share of electricity generated from renewables (excluding hydropower) from 7.7% (2011) to 17.3% (2021)⁹⁵. Furthermore, the country's energy intensity improved from 5 to 4 MJ per 2021 USD PPP GDP⁹⁶ in that same ten-year timeframe⁹⁷. The alternative energy development plan (AEDP) aims for 30% to 50% renewable electricity by 2037⁹⁸.

A voluntary carbon pricing (ETS) pilot carbon-market / MRV / pilot infrastructure, but the national (mandatory) compliance ETS foreseen in the draft Climate Act is not operational. The government is also supporting the adoption of electric vehicles through subsidies and tax incentives. Thailand also aims to terminate hydrochlorofluorocarbons (HCFCs) before 2030. OECD considers that the implementation of these pledges will most likely constitute a major economic policy challenge for the next few decades, though their achievement would reduce Thailand's emissions significantly⁹⁹.

Climate Adaptation

Thailand is considered vulnerable to climate change due to its monsoon climate, long coastlines, fragile agricultural systems, and exposure to floods, droughts, and tropical storms¹⁰⁰. Indeed, it has an NDC-Gain Vulnerability Score of 0.435 (on a scale of 1 to 0, with a score closer to 0 showing less vulnerability to climate change). The overall vulnerability is measured by considering the vulnerabilities of food, water, and health systems, ecosystem services, human habitat and infrastructure¹⁰¹. By way of

(⁹⁵) World Bank, 'Thailand Data', World Bank Group website, accessed 16 February 2026, <https://data.worldbank.org/country/thailand>.

(⁹⁶) The MJ/\$2021 PPP GDP unit means that Thailand uses 4 megajoules of primary energy to produce 1 constant 2021 PPP US dollar of GDP.

(⁹⁷) World Bank, 'Energy intensity level of primary energy' accessed 18 May 2026, <https://data.worldbank.org/indicator/EG.EGY.PRIM.PP.KD?locations=TH>.

(⁹⁸) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, p.21.

(⁹⁹) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, p.7.

(¹⁰⁰) UNDP, 'Thailand', UNDP website, accessed 30 January 2026, <https://www.adaptation-undp.org/explore/asia-and-pacific/thailand>.

(¹⁰¹) Climate Watch, 'Climate Watch', accessed 16 February 2026, https://www.climatewatchdata.org/countries/THA?end_year=2023&start_year=1990.

comparison, the highest-ranking countries (top 10) have a score between 0.251 and 0.304 whereas Thailand is considered to be in the upper middle group¹⁰².

Thailand faces substantial climate vulnerability, particularly to flooding, extreme heat, drought, water scarcity and coastal impacts. While composite vulnerability indices do not place Thailand among the world's most vulnerable countries, its exposure to particular hazards is high. The World Bank identifies Thailand as one of the world's ten most flood-prone countries, while Germanwatch's Climate Risk Index ranks it among the countries that have historically experienced most severe human and economic impacts from extreme weather over recent decades.

Rising temperatures and changing rainfall patterns threaten food security, particularly rice production¹⁰³. To address these risks¹⁰⁴, farmers are adopting climate-smart practices to cope with climate change, including adjusting crop calendars, using short-duration and climate-resilient crop varieties, and diversifying crops and farming systems. Practices such as crop rotation, especially growing maize after rice using residual soil moisture, are gaining policy support, alongside the introduction of alternative crops like mung beans and sun hemp. In highland areas, farmers are shifting to vegetable production and combining farming with tourism. In livestock systems, improved housing with modern designs and cooling technologies is being used to reduce heat stress.

For SDG 13 (Climate Action), progress is mixed with challenges persisting for greenhouse-gas emissions embodied in imports, where trends are stagnating, while the indicator for CO₂ emissions embodied in fossil-fuel exports is assessed as achieved¹⁰⁵.

Air quality

Air pollution remains a major public-health and economic threat in Thailand, particularly in industrial and urban areas, where PM2.5 and PM10 concentrations are

(¹⁰²) ND-Gain, 'Rankings', accessed 16 February 2026, [Rankings // Notre Dame Global Adaptation Initiative // University of Notre Dame](#).

(¹⁰³) UNDP, 'Thailand', UNDP website, accessed 30 January 2026, <https://www.adaptation-undp.org/explore/asia-and-pacific/thailand>.

(¹⁰⁴) World Bank, 'Thailand Country Climate and Development Report', The World Bank Group, 2025, Chapter 3: Adapting to the Physical Impacts of Climate Change, p. 14, <https://documents1.worldbank.org/curated/en/099100425072084606/pdf/P507208-8321ad61-ee4c-4671-aa19-7f9a8f0c95eb.pdf>.

(¹⁰⁵) Sustainable Development Report website, 'Thailand', accessed 2 February 2026, <https://dashboards.sdgindex.org/profiles/thailand/>.

often high and contribute to respiratory and cardiovascular disease¹⁰⁶. Motor vehicles are a major source of air pollution in urban areas, particularly for PM_{2.5} and nitrogen oxides, due to heavy traffic and a large share of diesel vehicles¹⁰⁷. Industry is also an important contributor, especially near industrial estates, emitting particulate matter and gaseous pollutants such as SO₂ and NO_x¹⁰⁸. Agricultural residue burning and forest fires are a dominant seasonal source of particulate pollution, especially in the dry season, and can outweigh urban sources during peak haze episodes¹⁰⁹. Thailand also stands out for its striking reduction in sugarcane burning (one of the major sources of PM and land emissions after rice straw burning and methane): the share of burned cane delivered to sugar mills fell from around 60–70% in 2022 to just 3.8% in the 2025/26 crushing season, the lowest level on record. The result reflects a combination of incentives for harvesting fresh cane, restrictions on mills' acceptance of burned cane, support for harvesting machinery and the commercial use of cane leaves, backed by close cooperation between government, mills and farmers.

Air pollution in Thailand is characterised by recurring periods of high PM_{2.5} concentrations, particularly during the dry season. During the 2025/26 cool season, across the 22 monitoring stations of Bangkok and its surrounding provinces, 88% of all daily readings were above the WHO safe level of 15 µg/m³. On 115 of the 212 days, at least one area exceeded Thailand's own daily limit of 37.5 µg/m³¹¹⁰. Pollution is also very uneven between the more central areas and the roadside or industrial ones.

(¹⁰⁶) World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p.13.

(¹⁰⁷) Narita, Daiju, *et al. Pollution Characteristics and Policy Actions on Fine Particulate Matter in a Growing Asian Economy: The Case of Bangkok Metropolitan Region*, *Atmosphere*, vol. 10, no. 5, 2019, p. 227, <https://doi.org/10.3390/atmos10050227>.

(¹⁰⁸) IQAir, 'Air quality in Thailand', accessed 17 February 2026, <https://www.iqair.com/thailand>.

(¹⁰⁹) Suriyawong, Phuchiwan, *et al. Airborne Particulate Matter from Biomass Burning in Thailand: Recent Issues, Challenges, and Options*, *Heliyon*, vol. 9, no. 3, 2023, e14261, <https://doi.org/10.1016/j.heliyon.2023.e14261>; Pirard, Cassian & Charoenpanwutikul, Artima, *Comprehensive review of the annual haze episode in Northern Thailand*, 2023,10.31223/X5509C.

¹¹⁰ Thai Pollution Control Department, Air4Thai website, historical data, accessed 16 September 2026, <https://air4thai.pcd.go.th/webV3/#/History>. All figures are own calculations from the published station data.

This indicates that sensitive individuals should limit outdoor activity seek indoor shelter if they experience respiratory symptoms¹¹¹. Thailand's PM2.5 exposure score¹¹² improved from 8.2 (2014) to 11.9 (2024)¹¹³; however, its average annual PM2.5 concentration (19.84 µg/m³) is currently four times the guideline value set by the World Health Organization (WHO)¹¹⁴. The burden is substantial: in 2019, the social cost of PM2.5 pollution was estimated at around 11% of GDP¹¹⁵.

Pollution levels become especially severe during the dry season in the North, when forest fires and crop burning drive sharp spikes in particulate matter. For example, in early 2020, nearly one-fifth of Northern Thailand's forested area reportedly faced forest fires in the first four months, worsening hazardous air conditions¹¹⁶. Internationally, Thailand's PM2.5 challenge is reflected in its ranking among the 48 countries globally (out of 143) with the highest PM2.5 concentrations in 2025¹¹⁷. While sulphur dioxide (SO₂) levels are described as relatively low compared with WHO thresholds and SO₂ emissions (80% from the industry sector) have been declining, nitrogen oxides (NO_x) emissions are increasing, largely linked to the transport sector¹¹⁸.

To mitigate the risks of reduced air quality the Thai government has imposed measures through a programme to reach 'zero burning'. The programme included a subsidy of THB 6 million for distribution in 2020-2021 to discourage burning and to help reduce air pollution. The government has put in place reduce air pollution. The government has put in place financial incentives for fresh cane and penalties for burned cane. Therefore, a subsidy is allocated per ton of fresh unburned cane and the imposition of a financial penalty per ton of burned sugarcane. Additional policies include legal measures to limit the amount of burned sugarcane processed by sugar production factories, government support for agricultural machinery and collaborative management initiative between sugar mills and farmers to establish no burn zones and

(¹¹¹) The worst scoring countries have an Air Quality Index between 151 and 200 and are in the unhealthy category. IQAir, 'Air quality in Thailand', accessed 17 February 2026, <https://www.iqair.com/thailand>.

(¹¹²) A score of 100 indicates exposure to an average annual concentration below 2.5 micrograms per cubic meter and a score of 0 indicates exposure to some of the highest concentrations of PM2.5 in the world.

(¹¹³) Environmental Performance Index, *Thailand*, EPI website accessed 13 February 2026 <https://epi.yale.edu/country/2024/THA>.

(¹¹⁴) IQAir, 'Air quality in Thailand', accessed 17 February 2026, <https://www.iqair.com/thailand>.

(¹¹⁵) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, p.18.

(¹¹⁶) World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p. 5.

(¹¹⁷) EPIC, University of Chicago, 2022.

(¹¹⁸) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, p.18.

promote the harvesting of fresh sugar cane¹¹⁹. These national measures are consistent with the ASEAN Guidelines on the Reduction of Crop Burning, which provide a regional framework for ASEAN Member States to prevent and reduce agricultural burning and its associated transboundary haze and air-pollution impacts¹²⁰.

The same challenge, on a larger scale, remains in the rice sector (rice straw burning), where the incentives, machinery support and mill–farmer cooperation used for cane could be replicated. The residues could be turned into local energy, sustainable aviation and maritime fuels, biochar, and bio-based fibres, textiles and chemicals. This aligns with EU policies such as the ReFuelEU Aviation and FuelEU Maritime mandates, the EU Bioeconomy Strategy, and the Ecodesign for Sustainable Products Regulation (ESPR) and PPWR (Packaging and Packaging Waste Regulation).

Water management

Thailand is facing a growing vulnerability to water shortages with particularly adverse effects for the agriculture sector. Indeed, Thailand’s water availability is declining largely due to high irrigation demand from rice cultivation. Traditional flood-based rice farming intensifies water depletion and increases vulnerability to droughts and erratic rainfall, heightening competition between agriculture, cities, and industry and highlighting the need for more sustainable water management.

Water stress is expected to intensify with climate change, as rainfall becomes more erratic¹²¹. The level of water stress rose from 9.68 in 2015 to 14.69 in 2023, indicating increased pressure on available resources¹²².

Bangkok is also vulnerable to subsidence making Bangkok particularly vulnerable to flooding¹²³. Indeed, excessive groundwater extraction, combined with the weight of large-scale and high-rise development on the city’s soft-clay foundation, have caused

(¹¹⁹) FFTC Agricultural Policy Platform website, 2024, *Policy Practices to Mitigate Sugarcane Burning in Thailand*, accessed 28 May 2026, <https://ap.fttc.org.tw/article/3596>.

(¹²⁰) ASEAN Secretariat, *ASEAN Guidelines on the Reduction of Crop Burning*, available at: <https://asean.org/book/asean-guidelines-on-the-reduction-of-crop-burning/> (accessed 19 August 2026).

(¹²¹) World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p. 62.

(¹²²) Thailand’s Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, 2025, p. 124, [https://image.mfa.go.th/mfa/0/wmuEa8nR2N/VNR_2025/Thailand_VNR_2025_\(ENG\).pdf](https://image.mfa.go.th/mfa/0/wmuEa8nR2N/VNR_2025/Thailand_VNR_2025_(ENG).pdf).

¹²³ World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, pp. 5, 10.

the land to sink, with one government-commissioned assessment attributing roughly 69% of the subsidence to groundwater pumping¹²⁴. Although mitigation measures have slowed the phenomenon, continued sinking is increasing the capital exposure to flooding.

Wastewater management remains a major challenge: only 14.4% of domestic and industrial wastewater was safely treated in 2023¹²⁵. The discharge of untreated water is a major source of surface water pollution, leading to eutrophication and contamination by agrochemicals and microplastics¹²⁶.

Thailand scored a low 21.7 in the water resources category of the 2024 Environmental Performance Index (EPI), highlighting a lag behind other economies by ranking at 123 out of 180¹²⁷. Thailand's wastewater indicator scored 1.80 in 2023¹²⁸, noting that a score of 0 indicates that no wastewater is reported as treated within a country, the top score is 100 corresponding to 100% of the population connected to a sewer system and 100% if household water is treated¹²⁹. Five countries have scores of 100¹³⁰. Furthermore, the poultry sector contributes to this challenge. Indeed, manure and litter from intensive poultry systems can contribute nitrogen, phosphorus, organic matter, pathogens and antimicrobial residues to surrounding soils and water bodies if not properly stored, treated or applied to land¹³¹. Regarding aquaculture, water quality parameters such as dissolved oxygen, transparency, ammonia and nitrites are important indicators for the sector's performance and sustainability. Furthermore, Excessive crowding in tanks or pens can lead to low oxygen levels, high ammonia

¹²⁴ S. Ahmed, 'Land subsidence in Bangkok vicinity : Causes and long-term trend analysis using InSAR and machine learning', *Science of the Total Environment* 946 (2024), [10.1016/j.scitotenv.2024.174285](https://doi.org/10.1016/j.scitotenv.2024.174285).

(¹²⁵) Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, 2025, p. 124, [https://image.mfa.go.th/mfa/0/wmuEa8nR2N/VNR_2025/Thailand_VNR_2025_\(ENG\).pdf](https://image.mfa.go.th/mfa/0/wmuEa8nR2N/VNR_2025/Thailand_VNR_2025_(ENG).pdf).

(¹²⁶) Block, S, *et al.*, 'Environmental Performance Index', 2024, <https://epi.yale.edu/downloads/2024-epi-report-20250106.pdf>. p. 100.

(¹²⁷) Block, S., *et al.*, 'Environmental Performance Index', 2024, <https://epi.yale.edu/downloads/2024-epi-report-20250106.pdf>. p. 102.

(¹²⁸) Environmental Performance Index, *Thailand*, EPI website accessed 13 February 2026, <https://epi.yale.edu/epi-results/2022/country/tha>.

(¹²⁹) Environmental Performance Index, *Wastewater treatment*, EPI website accessed 18 May 2026, <https://epi.yale.edu/epi-results/2022/component/wwt>.

(¹³⁰) Denmark, Finland, Netherlands, Singapore, Sweden.

(¹³¹) Blot, E., Flottes de Pouzols, A. and Hiller, N., 'Briefing: Thailand — Animal Protection in EU Trade Negotiations', Eurogroup for Animals, Brussels, 2025.

concentrations and disease outbreaks. Investigations of Thai tilapia farms have documented unhygienic conditions, while footage from markets has showed fish suffocating post-harvest¹³².

Looking forward, these traditional pressures on water will increasingly compete with fast-growing demands from the energy transition and the digital economy. This could concern small hydro at existing irrigation dams, pumped-storage hydropower, hybrid hydro–floating-solar systems, cooling in cities, planned nuclear and data centres¹³³. Rapid growth in data centres could also create a significant new source of industrial water demand, particularly in the Eastern Economic Corridor, where many projects are concentrated and water resources already serve competing industrial, urban and agricultural users. Future nuclear deployment could add further locally significant cooling-water requirements, although impacts will depend strongly on reactor siting and cooling technology. Water-resource planning should therefore increasingly integrate the expansion of digital infrastructure and prospective nuclear generation, with emphasis on recycled water, low-water cooling technologies and dry-season availability.

Chemical and pesticide management

Thailand's chemical and pesticide management relies primarily on the Hazardous Substance Act (HSA) B.E. 2535 (1992), with no standalone pesticide law and authority split between the Department of Agriculture and the FDA. In 2024 the country used around 0.15 kg/ha of pesticide per hectare of cropland, below the world average¹³⁴, with the market projected to grow at 5.2% Compound Annual Growth Rate through 2030¹³⁵.

Policy frameworks including the Chemical Management Master Plan (2019–2037) and the Sustainable Pesticide Management Framework promote safer alternatives, and a fast-track biopesticide registration system has been introduced, though conventional pesticides remain dominant despite 65% of surveyed farmers reporting some biopesticide use¹³⁶.

(¹³²) Kurokawa, M., Sinergia Animal & We Animals, 'Investigation: Thai fish farms and markets', 2022.

¹³³ BOI-approved projects represented about 1,365 MW of IT load by March 2025, with many additional projects approved since, i.e. >6 million m³/year. Data from EEAS.

(¹³⁴) Food Agriculture Organization of United Nations. (FAO). FAOSTAT: pesticides. (2024), <https://www.fao.org/faostat/en/#search/pesticide>

(¹³⁵) Ken Research (2025): <https://www.kenresearch.com/thailand-pesticides-market>

(¹³⁶) Praneetvatakul & Schreinemachers (2024), *Heliyon* via PMC: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10827763/>

Thailand is also highly dependent on imports for pesticide. In 2024, Thailand imported approximately 173.5 million kg of hazardous substances for agricultural use (up from 140.9 million kg in 2023). The top imported active substances were glufosinate-ammonium, glyphosate-isopropylammonium, 2,4-D-dimethylammonium, emamectin benzoate, abamectin, carbendazim, propineb, ethephon, ametryn, and diuron¹³⁷. However, the FAO specifies that pesticide trade data may exceed actual use because imports can include non-agricultural uses, stockpiling, or formulated products containing adjuvants⁶.

MRL standards were updated in June 2024 (MOPH Notification No. 449)¹³⁸, and export pressures are increasingly acting as de facto compliance drivers with MRLs set by importing countries. The Thai Consumers Council (TCC) found that 68% of domestically produced fruits and vegetables were found to exceed residue standards, including 57% of products carrying official state or private quality certification labels¹³⁹. However weak enforcement, the absence of applicator licensing, and of economic instruments such as pesticide taxes to curb overuse remain important challenges¹⁴⁰. The TCC adds that the current Food Act is outdated as the Food and Drug Administration has no legal power to compel product recalls and can only request cooperation from operators. The country also lacks an independent national food safety risk assessment body.

Land use and agriculture

In 2023, forest coverage represented 38.7% of land area, a small decrease compared to 39.3% in 2013¹⁴¹.

(¹³⁷) Thai Agricultural Regulatory Division website – *Plant and Agricultural Materials Control Division – Summary of Import and Export Data on Hazardous Agricultural Materials*, 2024, accessed 2 June 2026, https://www.doa.go.th/ard/?page_id=386.

(¹³⁸) MOPH Notification No. 449, ChemLinked website, accessed 23 May 2026, <https://food.chemlinked.com/news/food-news/thailand-amends-the-regulation-on-food-with-toxic-residue>

(¹³⁹) Thailand Consumers Council (TCC) website, *Contaminated Fruits and Vegetables Crisis — Chemicals Found in 100% of Samples*, September 2025, accessed 27 May 2026, <https://www.tcc.or.th/120968-contaminated-fruits-vegetables/>

(¹⁴⁰) W. Laohaudomchok et al., (2020): Pesticide use in Thailand: Current situation, health risks, and gaps in research and policy, *Human and Ecological Risk Assessment: An International Journal*, DOI: 10.1080/10807039.2020.1808777

(¹⁴¹) World Bank, 'Thailand Data', World Bank Group website, accessed 16 February 2026, <https://data.worldbank.org/country/thailand>.

Agriculture covers 43.8% of the land¹⁴², with large areas used for monocultures¹⁴³. The sector is highly vulnerable to droughts and floods. Agriculture moreover accounts for approximately 15% of GHG emissions, mainly methane from rice cultivation¹⁴⁴. The government is promoting the 'alternate wetting and drying' (AWD) technique to reduce methane emissions from rice¹⁴⁵.

The government's 'Large-Scale Agricultural Project' aims to improve productivity and reduce costs for small farmers¹⁴⁶. In addition, an action plan for organic farming (2023-2027) targets the expansion of certified land. The EU Deforestation Regulation (EUDR), requires several commodity groups to be deforestation-free and traceable to plot-level geolocation to access the EU market. It is an increasingly important challenge for Thailand's important sectors such as palm oil, timber and rubber. Thailand is currently classified as 'low risk'¹⁴⁷, its traceability systems make it a potential regional model for integrating smallholders into deforestation-free supply chains. This status is subject to review and relies on the ability to support smallholders in the process especially if expanding commodities such as oil palm for biodiesel, coffee and cocoa raise deforestation pressures. Solid waste management and circularity

Since 2014, Thailand has strengthened municipal waste management by giving provincial governors a stronger mandate to steer and coordinate autonomous local governments¹⁴⁸. This included merging waste services across neighbouring municipalities, helping to support smaller, under-resourced ones, and requiring regular progress reporting. Increased funding helped reduce open burning and illegal dumping and raised the recycling rate from 23% in 2015 to 38% in 2019¹⁴⁹. Thailand generated 348 kg per capita of municipal waste in 2021, a small decrease compared

¹⁴² FAO/WDI data.

(¹⁴³) Office of Natural Resources and Environmental Policy and Planning, 'Thailand's National Biodiversity Action Plan 2023-2027'. UNDP website, 2025, <https://www.undp.org/sites/g/files/zskgke326/files/2025-06/undp-nbsaps-eng-060625.pdf>, p.15.

(¹⁴⁴) World Bank Group, Towards a Green and Resilient Thailand, September 2024, p. 8.

(¹⁴⁵) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, p. 31.

(¹⁴⁶) Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, pp. 31, 33.

¹⁴⁷ European Commission website, Green forum, *Country Classification List*, accessed 16 September 2026, https://green-forum.ec.europa.eu/countries-and-partnerships/country-classification-list_en.

(¹⁴⁸) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, p. 41.

(¹⁴⁹) Suzuki. K. *et al.*, A growth-friendly and inclusive green transition strategy for Thailand, p. 41.

to 382 kg per capita in 2016¹⁵⁰. Food waste accounts for nearly 37% of municipal waste¹⁵¹.

While recent reforms have improved how cities manage waste, the country has not yet passed broad laws on the circular economy or extended producer responsibility (EPR). Four such bills are still at the drafting stage (the Circular Economy Promotion Act, the Sustainable Packaging Management Act, the WEEE Management Act and the Waste Management and Resource Circulation Act). Most are not expected to take effect before 2027. This puts Thailand behind neighbours like Vietnam, which has required EPR since 2022¹⁵². The role of the informal sector

The Bio-Circular-Green (BCG) economic model is at the heart of the national strategy to promote sustainable growth¹⁵³. The BCG model emphasises science, technology and innovation to turn Thailand's comparative advantage in biological and cultural diversity into a competitive advantage by focusing on the key sectors of agriculture and food, wellness and medicine, energy, materials and biochemicals and tourism and creative economy¹⁵⁴. The BCG aligns with the UN SDGs and the Sufficiency Economy Philosophy and aims to apply the concepts of bioeconomy, circular economy and green economy¹⁵⁵.

Regarding plastic waste, Thailand had an estimated 428 thousand ton/year (2021) of mismanaged plastic waste¹⁵⁶. The World Bank indicates that an estimated 9.3 thousand tons reach the marine environment each year; this is despite a relatively high

(¹⁵⁰) OECD, 'Municipal Waste', OECD website, accessed 16 February 2026, <https://www.oecd.org/en/data/indicators/municipal-waste.html>.

(¹⁵¹) Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, p. 44.

¹⁵² Vietnam Law & Legal Forum (2022), *New environment law highlights the responsibilities of stakeholders*, accessed 16 September 2022, <https://vietnamlawmagazine.vn/new-environment-law-highlights-the-responsibilities-of-stakeholders-48300.html>.

(¹⁵³) World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p. 2; Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, p. 13.

(¹⁵⁴) Bio-Circular-Green Economy model website, 'Background', accessed 16 February 2026, <https://www.bcg.in.th/eng/background/>.

(¹⁵⁵) Bio-Circular-Green Economy model website, 'Background', accessed 16 February 2026, <https://www.bcg.in.th/eng/background/>.

(¹⁵⁶) OECD, 'Municipal Waste', OECD website accessed 16 February 2026, <https://www.oecd.org/en/data/indicators/municipal-waste.html>.

collection and recycling rate of 88.8%¹⁵⁷. The main drivers of marine plastic pollution are uncollected waste (particularly in rural areas, which account for 70% of exposed mismanaged plastic) and the widespread use of open dumpsites and controlled dumps that leak plastic into the environment, with discharges peaking sharply during the rainy season when rainfall washes accumulated waste into rivers and ultimately the sea¹⁵⁸.

A roadmap for plastic waste management (2018-2030) aims for the full recycling of plastics by 2027¹⁵⁹, and an extended producer responsibility (EPR) framework is currently being developed under the Draft Sustainable Packaging Management Act and the Draft Waste Electrical and Electronic Equipment Management Act (draft WEEE Act)¹⁶⁰.

There is no specific law governing solid and hazardous waste, but most types of waste are classified as hazardous substances under the HAS.

The informal recycling sector plays a significant yet largely invisible and undervalued role in Thailand's plastic waste management system. Estimated at over 100,000 workers nationally and generating economic value of approximately THB 500 million, exceeding that of Bangkok's formal municipal waste system (THB 437 million) informal waste workers, known as *salengs*, operate across at least ten distinct roles in the waste chain, collectively contributing to over 95% of plastics recovered for recycling across Asia¹⁶¹. Despite this, they remain entirely absent from Thailand's Roadmap on Plastic Waste Management 2018–2030¹⁶².

(¹⁵⁷) World Bank (2022). 'Plastic Waste Material Flow Analysis for Thailand ', Summary Report. Marine Plastics Series, East Asia and Pacific Region. Washington DC, <http://documents.worldbank.org/curated/en/099515103152238081>.

(¹⁵⁸) World Bank (2022). 'Plastic Waste Material Flow Analysis for Thailand'.

(¹⁵⁹) Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, p. 46; Towards a Green and Resilient Thailand, World Bank Group, Towards a Green and Resilient Thailand September 2024, p. 37.

(¹⁶⁰) Baker McKenzie, 'Thailand: The Draft Industrial Waste Management Act – A new waste management regime', Baker McKenzie website, 11 April 2025, accessed 4 February 2025, https://insightplus.bakermckenzie.com/bm/environment-climate-change_1/thailand-the-draft-industrial-waste-management-act-a-new-waste-management-regime.

(¹⁶¹) Stockholm Environment Institute website, *Towards inclusive urban waste systems: integrating informal waste workers for a circular economy*, accessed 2 June 2026, <https://www.sei.org/projects/circular-economy-urban-waste-system-thailand/>.

(¹⁶²) Stockholm Environment Institute website (2021), *Living with trash: Bangkok's waste pickers and the recycling economy*, accessed 2 June 2026, <https://www.sei.org/features/bangkoks-waste-pickers-recycling-economy/>.

In the National Action Plan on Waste Management 2022–2027, Thailand targets 80% of municipal solid waste to be properly managed, promotes household separation and recycling, increases the use of recycled materials in production, reduces food waste, and improves management of hazardous, infectious and industrial waste.

Under SDG 12 (Responsible Consumption and Production), most indicators are stagnating, including production-based nitrogen emissions and nitrogen emissions associated with imports¹⁶³. However, Thailand is considered to have achieved and maintained performance on plastic-waste exports.

Terrestrial biodiversity

Thailand's terrestrial ecosystems are dominated by forests, agricultural lands, and freshwater wetlands. Forests provide habitats for a wide range of mammals, birds, reptiles, amphibians, and plants, though as noted above, agricultural areas occupy more than half of the land, with monocultures supporting limited biodiversity¹⁶⁴. Freshwater wetlands account for nearly half of all wetland areas and are critical for sustaining aquatic and semi-aquatic species.

Thailand's rich terrestrial biodiversity is threatened by climate change, illegal wildlife hunting and logging, forest fires, forest clearing, expansion of urban areas and land use changes, livestock overgrazing, pollution, and invasive alien species¹⁶⁵. Climate change exacerbates these pressures by altering habitats and affecting species survival, leading to the decline or local extinction of many terrestrial species.

As a result, habitats and species are under threat. Thailand's EPI score in 2024 for the Biodiversity Habitat Index is 31.80 out of 100, where a score of 0 indicates complete habitat loss¹⁶⁶: this indicates a strong loss of habitats. However, its EPI Species

(¹⁶³) Sustainable Development Report website, 'Thailand', accessed 2 February 2026, <https://dashboards.sdgindex.org/profiles/thailand/>.

(¹⁶⁴) Office of Natural Resources and Environmental Policy and Planning, 'Thailand's National Biodiversity Action Plan 2023-2027'. UNDP website, 2025, <https://www.undp.org/sites/g/files/zskgke326/files/2025-06/undp-nbsaps-eng-060625.pdf>, p. 15.

(¹⁶⁵) World Bank Group, Towards a Green and Resilient Thailand, September 2024, p. 10.

(¹⁶⁶) Environmental Performance Index, 'Biodiversity Habitat Index', EPI website, accessed 12 February 2026, <https://epi.yale.edu/epi-results/2022/component/bhv>.

Habitat Index is at 0¹⁶⁷, with 100 indicating no loss and 0 the worst level of habitat loss¹⁶⁸.

Thailand has designated new biosphere reserves, such as Doi Chiang Dao¹⁶⁹, and the Wildlife Conservation and Protection Act strengthens the fight against poaching and illegal trade. The country has subscribed to the global goal, under the Convention on Biodiversity, of protecting 30% of land and seas by 2030¹⁷⁰. In 2025, terrestrial protected areas represented 18.4% of the total land area¹⁷¹.

The (Draft) Biodiversity Act B.E aims to create robust mechanism for sustainable biological resource utilisation, ensuring fair and equitable benefit-sharing and implementing effective controls on biodiversity impacts¹⁷². The principles of this legislation were approved in 2022 and it is currently under consideration by the Council of State with the objective to be adopted by 2027¹⁷³.

Moreover, Thailand is also recognised as a key transit and destination country for illegal wildlife trade, for example for live mammals from other Asian countries. Recent cases illustrate its role in regional trafficking routes, including the interception in 2025 of infant orangutans smuggled from Indonesia into Thailand¹⁷⁴, and 2026 operations

(¹⁶⁷) Environmental Performance Index, 'Species Habitat Index' EPI website, accessed 12 February 2026, <https://epi.yale.edu/measure/2024/SHI>.

(¹⁶⁸) World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p. 10.

(¹⁶⁹) Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, p. 46; World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p. 47.

(¹⁷⁰) Convention on Biological Diversity website, 'Kunming-Montreal, Global Biodiversity Framework – 2030 Targets', accessed 27 January 2025, <https://www.cbd.int/gbf/targets>.

(¹⁷¹) World Bank Group, *Data – Terrestrial protected areas*, World Bank website, accessed 26 May 2026, <https://data.worldbank.org/indicator/ER.LND.PTLD.ZS?locations=TH>.

(¹⁷²) Office of Natural Resources and Environmental Policy and Planning, 'Thailand's National Biodiversity Action Plan 2023-2027'. UNDP website, 2025, <https://www.undp.org/sites/g/files/zskgke326/files/2025-06/undp-nbsaps-eng-060625.pdf>, p.214.

(¹⁷³) United Nations Development Programme, *National Biodiversity Strategies and Action Plans: Thailand* (New York: United Nations Development Programme, 2025), p.118.

¹⁷⁴ U.S. Fish & Wildlife Service, *Stopping Orangutan Trafficking in Thailand*, 16 May 2025, accessed 19 August 2026, <https://www.fws.gov/story/2025-05/stopping-orangutan-trafficking-thailand> (accessed 19 August 2026).

involving a leopard cub trafficked across the Myanmar-Thailand border and an emerging Thailand-India trafficking nexus involving live animals¹⁷⁵.

The Greater Mekong region, including Thailand, is a global hotspot for zoonotic diseases¹⁷⁶ and the wildlife trade is a recognised source of such spillovers because of the close contact it creates between wild animals, livestock and humans¹⁷⁷. China's 2020 ban on "wildlife farming and wet markets" may add to this pressure, as it risks pushing part of the trade into neighbouring countries. At the same time, as farming and grazing spread into forests rich in wildlife, contact between wild animals, domestic animals and people grows, increasing the risk of future outbreaks¹⁷⁸.

For SDG 15, outcomes are also uneven as the Red List Index of species survival is worsening and the protection of terrestrial sites important for biodiversity is stagnating with significant challenges remaining, yet permanent deforestation indicators show improvement¹⁷⁹.

Thailand has strengthened its biodiversity policy framework in recent years, combining expansion and improved management of protected areas with species recovery, ecosystem restoration and new financing mechanisms. The National Biodiversity Action Plan 2023–2027, endorsed by Cabinet in 2024, incorporates the Kunming–Montreal Global Biodiversity Framework and commits Thailand to conserve at least 30% of terrestrial and marine areas by 2030, including through Other Effective Area-based Conservation Measures (OECMs). Implementation has already produced some notable conservation successes: Thailand is one of the few countries in Southeast Asia recording a recovery of wild tiger populations, while mangrove area has increased substantially over the past decade. Thailand has furthermore complemented conservation policies with a Biodiversity Finance Plan and established a dedicated

¹⁷⁵ Wildlife Justice Commission, *One Arrest at a Time: Targeting the Criminal Networks Behind Wildlife Trafficking*, 20 April 2026, accessed 19 August 2026, <https://wildlifejustice.org/one-arrest-at-a-time-targeting-the-criminal-networks-behind-wildlife-trafficking/>.

¹⁷⁶ H. Luong & N. Thomson, 'Tackling Environmental Crimes and Biological Threats Across Borders of the Greater Mekong Subregion', *Journal of Illicit Economies and Development*, 4(1) (2022), DOI: [10.31389/jied.181](https://doi.org/10.31389/jied.181).

¹⁷⁷ H. Nguyen et al., 'Understanding zoonotic pathogens and risk factors from wildlife in Southeast Asia: a systematic literature review', *Vet Q.* 2025 Mar 10;45(1):1–17. doi: [10.1080/01652176.2025.2475990](https://doi.org/10.1080/01652176.2025.2475990).

¹⁷⁸ Development Asia website (2020), *Conserving Biodiversity to Mitigate Pandemic Risks*, accessed 16 September 2026, <https://development.asia/explainer/conserving-biodiversity-mitigate-pandemic-risks>.

(¹⁷⁹) Sustainable Development Report website, 'Thailand', accessed 2 February 2026, <https://dashboards.sdgindex.org/profiles/thailand/>.

Biodiversity Finance Unit within ONEP to mobilise public and private resources for implementation.

Marine Biodiversity

In 2025, 5% of Thailand's territorial waters were protected areas¹⁸⁰. Thailand's marine biodiversity is concentrated in coastal and marine ecosystems, including mangroves, coral reefs, and saltwater wetlands. Mangroves cover 1.74 million rai (approximately 2,784 km²) and provide crucial breeding grounds for fish and invertebrates, while coral reefs harbour diverse marine life, including molluscs, crustaceans, and endangered coral species¹⁸¹. Marine biodiversity is threatened by overfishing, destructive fishing practices, coastal development, and pollution such as marine debris and plastic waste, which harm marine animals and disrupt ecosystems. Climate change impacts, including rising sea temperatures and coral bleaching¹⁸², further threaten marine species, while invasive alien species disturb the balance of coastal and marine communities. Conservation efforts, such as marine protected areas and coral restoration projects, aim to safeguard Thailand's rich marine biodiversity for the future¹⁸³. Climate change also poses a massive threat to fisheries, with potential production losses estimated at \$26.2 billion by 2050 due to ocean heat stress¹⁸⁴.

Improvements can be expected through nature-based solutions, such as the restoration of mangroves as natural barriers against sea level rise. For instance, the Thailand Mangrove Alliance, established in 2024, is a collaboration between the Department of Marine and Coastal Resources and partner organisations engaging with communities and businesses across Thailand's coastal provinces with the overarching goal of bringing 30% of Thailand's mangroves under effective management and recovery by 2030. More than 90 organisations have so far joined the alliance¹⁸⁵. In

(¹⁸⁰) World Bank Group, *Data – Marine protected areas*, World Bank website, accessed 26 May 2026, <https://data.worldbank.org/indicator/ER.MRN.PTMR.ZS?locations=TH>.

(¹⁸¹) Office of Natural Resources and Environmental Policy and Planning, 'Thailand's National Biodiversity Action Plan 2023-2027'. UNDP website, 2025, <https://www.undp.org/sites/g/files/zskgke326/files/2025-06/undp-nbsaps-eng-060625.pdf>, p.15.

(¹⁸²) World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p. 11.

(¹⁸³) Office of Natural Resources and Environmental Policy and Planning, 'Thailand's National Biodiversity Action Plan 2023-2027'. UNDP website, 2025, <https://www.undp.org/sites/g/files/zskgke326/files/2025-06/undp-nbsaps-eng-060625.pdf>, p.15.

(¹⁸⁴) World Bank Group, *Towards a Green and Resilient Thailand*, September 2024, p. xiv.

(¹⁸⁵) C. Cowan, *Thailand's budding mangrove restoration plans spark both hope and concern*, Mongabay website, 2024, accessed 26 May 2026, <https://news.mongabay.com/2024/10/thailands-budding-mangrove-restoration-plans-spark-both-hope-and-concern/>.

addition, the country aims to restore 500,000 rai (80,000 hectares) of mangroves for carbon credits by 2031 through the Thailand's Coastal Community Mangrove for Carbon Credit programme¹⁸⁶. However, concerns have been raised that ambitions are running ahead of implementation capacity, and the quality and ecological soundness of restoration efforts remains a challenge¹⁸⁷. A potential concern under the EU–Thailand FTA is whether improved market access could increase trade in aquaculture products, including shrimp, and thereby create pressure on coastal ecosystems.

Indeed, the Thai aquaculture sector accounts for around 40% of the country's total fish production by volume but around 57% by value, confirming its significant economic importance, particularly for export orientated such as prawns¹⁸⁸. Current EU imports of Thai aquaculture products remain modest, amounting in 2024 to around 277 tonnes of frozen shrimps and prawns (4,46 million euros) and 157 tonnes of frozen tilapia (0.31 million euros). For freshwater ecosystems another current issue is invasive species. Indeed, the Blackchin tilapia has now spread to 19 provinces in central Thailand, impacting local ecosystems. The Thai agri-food giant CP Foods was suspected of importing the species for research in 2010 and allegedly botching the disposal of the species after their research failed. With few natural predators and minimal ongoing containment efforts, the species has rapidly established itself in several provinces, outcompeting native fish for food and disrupting local ecosystems¹⁸⁹.

Marine policy is also becoming more ambitious, with a national 30% marine-conservation objective, dedicated coral-reef and seagrass restoration programmes, and increasing use of community-based marine management.

(¹⁸⁶) N, Wachpanich, *Thailand turns to mangrove carbon credits despite scepticism*, Dialogue Earth website, 2024, accessed 26 May 2026, <https://dialogue.earth/en/nature/thailand-turns-to-mangrove-carbon-credits-despite-scepticism/>

(¹⁸⁷) C. Cowan, *Thailand's budding mangrove restoration plans spark both hope and concern*, Mongabay website, 2024, accessed 26 May 2026, <https://news.mongabay.com/2024/10/thailands-budding-mangrove-restoration-plans-spark-both-hope-and-concern/>; Global Environmental Institute (GEI), 'Overview of the Mangrove Ecosystem and Conservation Challenges in Thailand', Open Development Mekong, 2025, https://data.opendatacommons.org/dataset/e7948b40-5e6d-42de-a2ea-4158a6114266/resource/3656df60-a0c7-41d6-bb21-b1c076a3c37d/download/th_overview-of-mangrove-ecosystem-and-conservation-challenges_final.pdf.

(¹⁸⁸) Blot, E., Flottes de Pouzols, A. and Hiller, N., 'Briefing: Thailand — Animal Protection in EU Trade Negotiations', Eurogroup for Animals, Brussels, 2025.

(¹⁸⁹) Wipatayotin, A. (17 January 2025), Invasive blackchin tilapia spreading again in Thailand. Bangkok Post. [Bangkok Post - Invasive blackchin tilapia spreading again in Thailand](#).

For SDG 14, damaging fishing practices are a concern and fish caught by trawling or dredging is worsening although the share of fish caught from overexploited or collapsed stocks shows moderate improvement¹⁹⁰.

Global Sustainable Development overview

More than 40% of Thailand's SDG targets are assessed as achieved or on track, but close to 30% are worsening¹⁹¹. The table below presents an overview of the UN assessments of the environmental SDGs in Thailand.

1.2.4. Table 17. Dashboards and trends of environment
Sustainable Development Goals in Thailand

SDG	Overview	Current trend
SDG 3 - Good Health and Well-being	Major challenges remain	Moderately improving ¹⁹²
SDG 9 – Industry, Innovation and Infrastructure	Significant challenges remain	Moderately improving
SDG 11 – Sustainable Cities and Communities	Major challenges remain	Moderately improving
SDG 12 – Responsible Consumption and Production	Significant challenges remain	Stagnating or increasing at less than 50% of required rate
SDG 13 – Climate Action	Significant challenges remain	Stagnating or increasing at less than 50% of required rate
SDG 14 – Life Below Water	Major challenges remain	Stagnating or increasing at less than 50% of required rate
SDG 15 – Life on Land	Major challenges remain	Stagnating or increasing at less than 50% of required rate

Source: Sustainable Development Report - Thailand¹⁹³

(¹⁹⁰) Sustainable Development Report website, 'Thailand', accessed 2 February 2026, <https://dashboards.sdgindex.org/profiles/thailand/>.

(¹⁹¹) Sustainable Development Report website, 'Thailand', accessed 2 February 2026, <https://dashboards.sdgindex.org/profiles/thailand/>.

(¹⁹²) Moderately improving means the progress is insufficient to attain the goal.

(¹⁹³) Sustainable Development Goals Report – Thailand
<https://dashboards.sdgindex.org/profiles/thailand/>.

Thailand's Spillover Score (89.73) indicates a moderate overall spillover footprint, meaning that its trade, financial, and security linkages generate relatively more positive and fewer negative cross-border effects on SDG outcomes¹⁹⁴.

(¹⁹⁴) Sustainable Development Report website, 'Thailand', accessed 2 February 2026,
<https://dashboards.sdgindex.org/profiles/thailand/>.

1.2.5. Table 28: Overview of Thailand's environmental and climate policy framework, trends and baseline

Theme	Legislation	Planning instruments/Strategies	Recent trends	Baseline: near future	Link to the SDGs
Climate mitigation	Climate Change Act (2025) Carbon tax Cross-border adjustment mechanism Industrial Emissions Control Act	National Energy Plan - Power Development Plan 2018-2037 - Thailand Smart Grid Development Master Plan 2015-2036 - Energy Efficiency Plan 2018-2037 - Alternative Energy Development Plan 2018-2037 - Gas plan/Oil plan Nationally Determined Contribution (2022)/ Thailand's NDC roadmap (2021-2030) Long-Term Low GHG Emissions Development Strategy (2021) Environmentally Sustainable Transport System Plan 2013-2030	GHG emissions have more than doubled since 1990, although emissions intensity per unit of GDP has declined moderately. Electricity and heat generation remain the largest sources of emissions, followed by industry and transport. The share of electricity generated from renewables, excluding hydropower, increased from 7.7% in 2011 to 17.3% in 2021, while energy intensity improved over the same period.	Further emission reductions will depend on implementation of actions to achieve Thailand's carbon neutrality and net-zero commitments, including the Climate Change Act, the voluntary ETS pilot, EV support measures, HCFC phase-out, and the AEDP target of 30% to 50% renewable electricity by 2037. Full implementation is expected to be a major policy challenge but would substantially reduce emissions.	11, 13, 12
Climate adaptation		Master Plan for Climate Change Adaptation 2015-2050 National Adaptation Plan (NAP)	Thailand is vulnerable to climate change. Rising temperatures and changing rainfall patterns threaten food security,	Further warming and changing rainfall patterns are expected to increase pressure on food, water, health, ecosystems,	

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Theme	Legislation	Planning instruments/Strategies	Recent trends	Baseline: near future	Link to the SDGs
			especially rice production. Farmers are adopting climate-smart practices, including adjusted crop calendars, resilient crop varieties, crop diversification and improved livestock housing.	human settlements and infrastructure. Policy and private measures for further uptake of climate-smart agriculture are expected, including short-duration crop varieties, alternative crops, diversified farming systems, highland vegetable production and cooling technologies for livestock, though the extent of their adoption is uncertain.	
Air quality	The Pollution Control Act (1992) Clean Air Act Hazardous Substance Act (1992) <i>No specific legislation gathering all air quality standards</i>	20-Year Master Plan on Air Quality Management (2018-2037)	Air pollution remains a major public-health and economic threat, especially in urban and industrial areas. PM2.5 and PM10 concentrations remain high. Motor vehicles, industry, agricultural residue burning and forest fires are major sources of pollution. PM2.5 exposure score improved from 8.2 in 2014 to 11.9 in 2024, but average annual PM2.5 concentration remains around four times the WHO guideline value.	Continuing air-quality pressures from transport, industry, agricultural burning and forest fires are expected. Seasonal haze in Northern Thailand likely to remain a major challenge during the dry season. Further reductions in PM2.5 and NOx will depend on stronger control of vehicle emissions, industrial emissions, open burning and forest fires, including effective implementation of planned measures.	3,13
Water management	The Pollution Control Act	Clean Water for	Water stress has	Water stress is expected	14

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Theme	Legislation	Planning instruments/Strategies	Recent trends	Baseline: near future	Link to the SDGs
	(1992) Navigation in Thai Territorial Waters Act B.E. 2456 (1913) (amended 1997 B.E. 2540) Hazardous Substance Act (1992) Factory Act Water Resources Act B.E. 2561(2018) Water Quality Management Act Public Health Act B.E. 2535 (1992)/Building Control Act B.E.2522 (1979)	Domestic Use and Consumption Action Plan (2023–2037) Bio-Circular Green Economic Model (reuse of treated wastewater) Waste Management Roadmap	increased, with growing pressure from rice irrigation and traditional flood-based farming. Water shortages particularly affect agriculture. Competition between agriculture, cities and industry is increasing. Only 14.4% of domestic and industrial wastewater was safely treated in 2023. Untreated wastewater remains a major source of surface water pollution.	to intensify with climate change and more erratic rainfall. Further pressure on agricultural production, urban water supply and industrial demand is expected. Bangkok's flood vulnerability is likely to remain high due to groundwater overexploitation, infrastructure weight and soil subsidence. Wastewater treatment improvements expected to remain a key challenge.	
Chemical and pesticide management	Hazardous Substance Act (HSA) B.E. 2535 (1992) Factory Act Food Act (B.E. 2522) Public Health Act B.E. 2535 (1992)	Chemical Management Master Plan (2019–2037) Sustainable Pesticide Management Framework (SPMF)	Periodic bans/restrictions on highly hazardous pesticides (e.g. paraquat, chlorpyrifos) under HAS Fast-track biopesticide registration introduced; ~65% of sampled farmers use biopesticides but conventional pesticides remain dominant Growing shift toward organic farming (135,410 ha certified in 2024)	Pesticide market projected to grow at ~5.2% CAGR to 2030, driven by agricultural productivity and biopesticide expansion Policy reforms under discussion: pesticide applicator licensing, pesticide tax, and economic instruments to curb overuse Export market pressures (China, EU residue standards) expected to act as de facto regulatory	12

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Theme	Legislation	Planning instruments/Strategies	Recent trends	Baseline: near future	Link to the SDGs
				drivers	
Land use and agriculture	Standards of Soil Quality (the Notification) B.E. 2547 Thailand's Land Development Act, B.E. 2551 (2008)	Bio-Circular Green Economic Model (focus on food and agriculture) National Land and Soil Resources Management Policy and Plan (2023-2027) Organic Farming Action Plan (2023 – 2027) Land Allocation for Community Use (2015)	Forest coverage slightly decreased from 39.3% of land area in 2013 to 38.7% in 2023. Agriculture covers 55.5% of land, with large areas under monocultures. The sector is highly vulnerable to droughts and floods and accounts for around 15% of GHG emissions, mainly methane from rice cultivation.	Further pressure on agricultural land and forest coverage expected. Climate risks from droughts and floods likely to remain significant for agriculture. Emissions reductions may depend on wider uptake of alternate wetting and drying in rice cultivation, productivity gains under large-scale farming, expansion of certified organic land and sustainable community land use.	15
Solid waste and circularity	Public Health Act B.E. 2535 (1992)	National Industrial Development Master Plan 2012-2031 Bio-Circular Green Economic Model Industrial Development Strategy 4.0 (2017-2036) Roadmap for plastic waste management (2018-2030) National Roadmap on Food Waste Management (2023–2030) - Food Waste	Municipal waste management has improved since 2014, supported by stronger provincial coordination, merged services across municipalities, regular reporting and increased funding. Open burning and illegal dumping have declined, while recycling rose from 23% in 2015 to 38% in 2019. Municipal waste	Recycling and circularity expected to increase under the BCG economic model and the plastic waste management roadmap. Full recycling of plastics targeted by 2027. Further development of EPR frameworks expected under draft sustainable packaging and WEEE legislation.	11, 12

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Theme	Legislation	Planning instruments/Strategies	Recent trends	Baseline: near future	Link to the SDGs
		Management Action Plan (2023–2027)	generation decreased slightly from 382 kg per capita in 2016 to 348 kg in 2021. Food waste remains a major issue, accounting for nearly 37% of municipal waste. Mismanaged plastic waste remains significant.		
Biodiversity Marine/Terrestrial	(Draft) Biodiversity Act B.E Fisheries Act B.E.2558 (2015) The Forest Act (1941) Wild Animal Conservation and Protection Act B.E. 2562 (2019)	13 th National and Economic and Social Development Plan (2023-2027): target 2 Thailand's National Biodiversity Action Plan (2023-2027) Master Plan for Integrated Biodiversity Management (2015) National Forest Policy 20-year Forest Strategic Plan (2017-2036) National Maritime Security Plan (2023-2027) (Draft) National Marine and Coastal Resources Management Policy and Plan (2023–2027)	Biodiversity under pressure from land-use change, monocultures, illegal hunting and logging, forest fires, pollution, invasive species and climate change. Habitat loss remains significant; more than 13% of species are threatened. SDG 15 trends are mixed, with species survival worsening but deforestation indicators improving. Marine ecosystems under pressure from overfishing, destructive fishing, coastal development, plastic pollution, invasive species and climate change.	Continued pressure on habitats and species expected. Protection expected to strengthen through new biosphere reserves, wildlife protection, other measures to achieve the 30% protection target by 2030, and the planned Biodiversity Act. Further risks expected from ocean warming, coral bleaching and fisheries stress. Improvements may come from marine protected areas, coral restoration and mangrove restoration as nature-based coastal protection.	14, 15

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Theme	Legislation	Planning instruments/Strategies	Recent trends	Baseline: near future	Link to the SDGs
			Mangroves cover around 2,784 km². Coral bleaching and ocean warming are increasing risks. SDG 14 trends are mixed, with damaging fishing practices worsening but overexploited fish stocks moderately improving.		
General/cross-cutting	The Enhancement and Conservation of National Environmental Quality Act, (1992)	National Strategy 2018-2037 13th National and Economic and Social Development Plan (2023-2027) Environmental Quality Management Plan (2023–2027) National Policy and Plan for the Promotion and Conservation of Environmental Quality (2017-2037) Master Plan under the National Strategy (2023-2037) National Reform Plan on Natural Resources and Environment			

1.3. Ratification of MEAs

Table 29: Ratification (or accession) by Thailand and the EU of presents the international agreements ratified (or accessed) by the Parties to the FTA. Where appropriate for analytical clarity, some agreements are excluded from the shortlist (e.g., certain regional or site-specific instruments), while instruments that are not MEAs *stricto sensu* but contain relevant environmental provisions may still be referenced because they concern an important economic sector and contain environmental provisions.

1.3.1. Table 29: Ratification (or accession) by Thailand and the EU of Multilateral Environmental Agreements

	European Union	Thailand
Biodiversity		
Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973)	09/04/2013	21/01/1983
Convention on Biological Diversity (1992)	21/04/1982	31/10/2003
Convention on Migratory Species	01/11/1983	/
Cartagena Protocol on Biosafety (2000)	27/08/2002	10/11/2005
Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity (2010)	16/05/2004	Signed only (31/01/2012)
Ramsar Convention on Wetlands (1971)	Not EU but all MS are Parties	13/05/1998
International Treaty on Plant Genetic Resources for Food and Agriculture	Not EU but all MS are Parties	Signed only (04/11/2022)
International Tropical Timber Agreement (2006)	Approved (28/03/2012)	01/09/2015
Oceans and Fisheries		
International Convention for the Prevention of Pollution from Ships (MARPOL) as modified by the Protocol of 1978 (1978)	Not EU but all MS are Parties	02/11/2007
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972)	Not EU Not all coastal MS are parties (18/22)	/
International Convention on Oil Pollution Preparedness, Response and Cooperation (1990)	Not EU but all coastal MS are Parties	20/04/2000

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	European Union	Thailand
United Nations Convention on the Law of the Sea (1982)	01/04/1998	15/05/2011
Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995)	19/12/2003	28/04/2017
Agreement for the Establishment of the Indian Ocean Tuna Commission (1993)	27/10/1995	17/04/1997
Convention on the Conservation and Management of highly Migratory Fish Stocks in the Western and Central Pacific Ocean	15/05/2007	Cooperating non-member
Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing	07/07/2011	06/05/2016
Agreement on Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement) ¹⁹⁵	28/05/2025	Signed only (17/04/2025)
Southern Indian Ocean Fisheries Agreement (SIOFA)	21/06/2012	21/04/2017
Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean	24/08/2012	/
Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean	28/02/2022	/
World Trade Organisation Agreement on Fisheries Subsidies (2022) ¹⁹⁶	07/06/2023	/
Waste and chemicals		
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1989)	07/02/1994	24/11/1997
Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal [Ban amendments] (1995)	30/09/1997	09/03/2023
Basel Protocol on Liability and Compensation for Damage resulting from Transboundary Movements of Hazardous Wastes and their Disposal (1999)	/ Signed (2000) by: DK , FR , HU , LU , SE	/
Amendments to Annexes II, VIII and IX to the Basel Convention [Plastic waste amendments] (2019)	¹⁹⁷	24/03/2020
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (1998)	20/12/2002	19/02/2002
Stockholm Convention on Persistent Organic Pollutants (2001)	16/11/2004	31/01/2005
Minamata Convention on Mercury (2013)	18/05/2017	22/06/2017
ASEAN Agreement on Transboundary Haze Pollution (AATHP)	/	10/09/2003
Climate change and ozone layer		

(¹⁹⁵) Entered into force in January 2026.

(¹⁹⁶) Entered into force in September 2025.

(¹⁹⁷) The amendments entered into force for all Parties that had not submitted a notification of non-acceptance on expiry of six months from the date of the circulation of the communication by the depositary.

	European Union	Thailand
Vienna Convention for the Protection of the Ozone Layer (1985)	17/10/1988	07/07/1989
Montreal Protocol on Substances that Deplete the Ozone Layer (1987)	16/12/1988	07/07/1989
The United Nations Framework Convention on Climate Change (1992)	21/12/1993	28/12/1994
Kyoto Protocol to the United Nations (1997)	31/05/2002	28/09/2002
Paris Agreement on Climate Change (2015)	05/10/2016	21/09/2016
Desertification		
United Nations Convention to Combat Desertification	26/03/1998	07/03/2001

1.4. Environmental indicators

Table 30: Baseline data per indicator for Thailand and the EU presents the data included in the environmental baseline analysis. Where the data was not available for the EU, five EU countries (Poland, Sweden, Croatia, France and Ireland) were selected as a representative sample. Where possible equivalent data, sources and timelines were preferred for better comparison between Thailand and the EU. However, these were not always available and some of the data are specific to one Party or the other. F

1.4.1. Table 30: Baseline data per indicator for Thailand and the EU

Indicator	Thailand	EU/5 MS	Source
Climate mitigation and adaptation			
Evolution of GHG emissions emitted compared to 1990 (%)	/	2023: æ 36	EEA
Total greenhouse gas emissions excluding LULUCF (Mt CO ₂ e)	2014: 395.7 2024: 422.4	2014: 3.831 2024: 3.34	World Bank
Total greenhouse gas emissions excluding LULUCF per capita (t CO ₂ e/capita)	2014: 5.9 2024: 5.6	2014: 8.6 2024: 7	World Bank
Carbon dioxide (co ₂) emissions excluding LULUCF per capita (t CO ₂ e/capita)	2014: 3.9 2024: 4.0	2014: 6.8 2024: 5.5	World Bank
Change of emissions (as %) of current year with respect to emissions in baseline year 1990 emissions of methane (CH ₄) excl. LULUCF	2014: 19 2024: 11.5	2014: - 32.2 2024: - 38.3	World Bank
Electricity production from renewable sources, excluding hydroelectric (% of total)	2011: 7.7 2021: 17.3	2011: 11.5 2021: 24.9	World Bank
Share of fossil fuels in gross available energy use (%)	/	2023: 70	EEA
Energy intensity of primary level (MJ/\$2021 PPP GDP)	2011: 5 2021: 4	2013: 3 2022: 3	World Bank

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Indicator	Thailand	EU/5 MS	Source
Evolution of domestic transport emissions compared to 1990 (%)	/	2023: 18	EEA
NDC-Gain Vulnerability Score ¹⁹⁸	2018: 0.435 (≈0.44)	2018 : PL (0.31); SE (0.30); HR (0.38); FR (0.30); IE (0.30)	Climate Watch
Air quality			
Air Quality Index (2024)	2024: 71 2025: 59 (Bangkok)	2024 : PL (62); SE (30); HR (60); FR (45); IE (36)	IQair
Air quality PM 2.5 exposure ¹⁹⁹	2014: 8.2 2024: 11.9	2014 : PL (16.3); SE (12.7); HR (3.3); FR (3.3); IE (1.3) 2024 : PL (28.8); SE (77.1); HR (29.3); FR (49.0); IE (67.1)	EPI Yale
PM 2.5 concentrations	PM2.5 19.84 µg/m³		
Waste & wastewater management			
Level of water stress	2015: 9.68 2023: 14.69	/	Thailand Voluntary Review on the implementation of the SDGs
Share of waters affected by stress (%)	/	Date: 30	EEA
Share of surface water bodies achieving good ecological status (%)	/	Date: 37	EU Commission
Wastewater treated ²⁰⁰	2023: 1.80	2022 : PL (61.5); SE (100); HR (69); FR (88); IE (87)	EPI Yale
Urban wastewater handled in line with EU standards (%)	/	Date: 90	EU Commission

⁽¹⁹⁸⁾ NDC-GAIN Vulnerability Score (closer to 0.0 means less vulnerable).

⁽¹⁹⁹⁾ Pm2.5 exposure. A score of 100 indicates exposure to an average annual concentration below 2.5 micrograms per cubic meter and a score of 0 indicates exposure to some of the highest concentrations of PM2.5 in the world.

⁽²⁰⁰⁾ A score of 0 indicates that no wastewater is reported as treated within a country).

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Indicator	Thailand	EU/5 MS	Source
Domestic and industrial wastewater was safely treated (%)	2023: 14.4	/	Thailand Voluntary Review on the implementation of the SDGs
Land use & agriculture			
Forest area % of land area	2013: 39.3 2023: 38.7	2012: 39.4 2022: 39.9	World Bank
Share of the land which is agricultural (%)	Date: 55	2022: 38.8	UNDP/ EEA
Share of agriculture in GHG emissions (%)	Date: 15	/	World Bank
Solid waste & circularity			
Mismanaged plastic waste (in kilotons/year)	2021: 428	/	
Municipal waste (kg/person)	2016: 382 2021: 348	2013: 478 2023: 507	OECD
Recycling rate (%)	2015: 23 2019: 38	/	OECD
Share of food waste in municipal waste (%)	Date: 37	/	Thailand Voluntary Review on the implementation of the SDGs
Rate of overall waste recycling (excl. Major mineral waste) (%)	/	2022: 44	EEA
Material footprint (tonnes/capita)	2014: 11 2024: 12.2	2010: 14.899 2024: 14.076	Asian Development Bank / EEA
Biodiversity (marine/terrestrial)			
Biodiversity Habitat Index ²⁰¹	2023: 31.80	2022 : PL (37.00); SE (60.60); HR (33.50); FR (36.60); IE (40.20)	EPI Yale
Species habitat Index ²⁰²	2013: 92.10 2023: 70.10	2012 : PL (-1.50); SE (25.40); HR (-7); FR (-4.90); IE (N/A) 2022 : PL (92.60); SE (70); HR (89); FR (88.70); IE (96.90)	EPI Yale
Share of species threatened with extinction (%)	Date: 13	/	World Bank

(²⁰¹) EPI score: a score of 0 indicates complete habitat loss.

(²⁰²) EPI score: a score of 100 no loss, 0 indicates the worst levels of habitat loss.

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Indicator	Thailand	EU/5 MS	Source
Share or protected habitats in poor or bad state (%)	/	Date: 80	EEA
Protected areas (%)	/	2022: 26.1 of land and 12.3 of seas	EEA
Cross-cutting			
Environmental Performance Index - EPI rank	2024: 90/180	2024: All MS in top 50 ranking from 1 (EE) to 43 (CY)/180	EPI Yale
Environmental Performance Index – regional level	2024: 9/25	/	EPI Yale

1.4.2. Table 31: CGE results – changes in GHG emissions for selected goods

	EU27		Thailand	
	Tonnes	% change	Tonnes	% change
1 Rice	-2,485	-0.493%	5,239	0.431%
2 Veg fruit	11,803	0.156%	-10,864	-0.861%
6 Dairy	18,623	0.278%	-31,369	-14.563%
8 Fishing	390	0.006%	58,885	1.696%
9 Energy	-29,254	-0.005%	-300,610	-0.481%
12 White Meat	-1,450	-0.060%	18,026	3.685%
13 Other Food	-3,046	-0.012%	65,875	4.312%
18 Chemicals	24,356	0.037%	-14,102	-0.276%
19 Pharma	-766	-0.056%	-2,297	-1.263%
20 Rubber Plastic	1,776	0.030%	2,273	0.073%
22 Non Ferrous	-2,726	-0.026%	-1,022	-0.395%
24 Elec Equip	120	0.003%	6,131	0.909%
25 Machinery	-700	-0.015%	21,702	2.943%
26 Motorvehicle	3,725	0.064%	2,822	2.740%
27 Transp Equip	-881	-0.058%	1,204	5.628%
29 Util_Cons	137,460	0.044%	1,026,567	2.539%
30 Transp Serv	98,344	0.012%	415,461	0.684%

Annex 8: Literature database – human rights

Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, suger, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
UN Treaty Body Database	2015-2025	Ratifications of UN Human Rights conventions and implementation reports	Global	Not sector-specific	N / A	Reports from UN human rights treaty monitoring bodies on Thailand express significant concerns about torture, arbitrary detention, limitations on freedom of expression and assembly, and issues related to human trafficking. For the EU, concerns relate to migration/asylum and border controls, detention conditions.	Not applicable
Universal Human Rights Index (UHRI)	2015-2025	Recommendations/observations under UN human rights conventions	Global	Not sector-specific	N / A	N / A	Not applicable
ILO CEACR Reports, including CEACR 2025	2015-2025	Independent examination by legal experts of application ILO Conventions	Global, with specific information about EU MS and Thailand	Cross-sectoral	++	Thailand: strengthened legal/institutional response to forced labour and trafficking (2023–2027 national	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
						<u>action plan and targeted measures in sectors like fisheries), but ongoing risks and enforcement/data gaps—especially regarding protection of migrant workers across sectors, prevention and monitoring of child labour especially in informal and own-account work.</u> <u>EU Member States: comparatively strong legal frameworks and institutions, yet recurring implementation challenges (effective freedom of association/collective bargaining in specific categories, and closing persistent equality gaps (gender pay /</u>	

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
						sanctions). Enforcement and remedies key.	
ILO CAS Reports, including 2025 Report	2015-2025	ILC (tripartite) examination of application ILO Standards	Global, with specific information about EU MS	Not sector-specific	+	Thailand is not discussed as an individual “serious case” on specific labour-rights violations in the ILC 113 report. EU: labour-rights governance frameworks in EU Member States generally operate through established social-dialogue institutions, there remain pockets of contested compliance (e.g. SK example).	Not applicable
Implementation reports under the Convention Against Torture and other cruel inhuman or degrading	2021-2024	National reporting and verification	EU MS/Thailand	Not sector-specific	++	Concern over detention conditions, high levels of prison overcrowding, torture, and enforced disappearances in Thailand. Concerns over detention conditions and	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
treatment or punishment (CAT)						the treatment of migrants/refugees in Europe.	
Implementation reports under the Optional Protocol of the Convention Against Torture (CAT-OP)		National reporting and verification	EU MS	Not sector-specific			Not applicable
Implementation reports International Covenant on Civil and Political Rights (CCPR)	2017	National reporting and verification	EU MS/Thailand	Not sector-specific			Not applicable
Implementation Reports Second Optional Protocol to the International Covenant on Civil and Political Rights aiming to the abolition of the death penalty (CCPR-OP2-DP)		National reporting and verification	EU MS	Not sector-specific			Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Implementation Reports CED - Convention for the Protection of All Persons from Enforced Disappearance		National reporting and verification	EU MS	Not sector-specific		Only ratified by Thailand in 2024. No implementation report yet.	Not applicable
Implementation Reports CEDAW - Convention on the Elimination of All Forms of Discrimination against Women	2025	National reporting and verification	EU MS/Thailand	Not sector-specific		Thailand: progress noted (accession Convention Enforced Disappearance, gender strategies/action plans). However, serious concerns about gaps in legal framework, gendered harm in Southern provinces, barriers to access to justice for women, high number of women on death row, trafficking/prostitution, low participation in public life, etc. EU MS: gender-based violence, gender pay gaps, under-	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
						representation of women in decision-making in some MSs	
Implementation Reports CERD - International Convention on the Elimination of All Forms of Racial Discrimination	2021	National reporting and verification	EU MS/Thailand	Not sector-specific		EU: hate speech and hate crime on the rise, persistent discrimination against Roma, ill-treatment of migrants/asylum seekers/refugees, data gaps	Not applicable
Implementation Reports CESCR - International Covenant on Economic, Social and Cultural Rights	2025	National reporting and verification	EU MS/Thailand	Not sector-specific			Not applicable
CMW - International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families		National reporting and verification		Not sector-specific		Not ratified by Thailand nor EU MS	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Implementation Reports CRC - Convention on the Rights of the Child		National reporting and verification	EU MS	Not sector-specific		Latest Thai implementation report dates from 2012.	Not applicable
Implementation Reports CRC-OP-AC - Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict		National reporting and verification	EU MS	Not sector-specific		Latest Thai implementation report dates from 2012.	Not applicable
Implementation Reports CRC-OP-SC - Optional Protocol to the Convention on the Rights of the Child on the sale of children child prostitution and child pornography		National reporting and verification	EU MS	Not sector-specific		Latest Thai implementation report dates from 2012.	Not applicable
Implementation Reports CRPD -	2016-2025	National reporting and verification	EU MS/Thailand	Not sector-specific		Latest Thai implementation report	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Convention on the Rights of Persons with Disabilities						(due 2022) not yet submitted. Latest EU submission 2025	
FRA - Fundamental Rights Report	2025	Independent data collection by national human rights experts on human rights situation in EU Member States	EU	Not sector-specific		Areas of concern: rise of racism/hate crimes, rights abuses at EU borders, digitalisation/AI.	Not applicable
US Department of State - 2024 Country Reports on Human Rights Practices	2025	Country reports prepared by the US Department of State on human rights	Global	Contains information by sector, e.g. fishing, construction, manufacturing	++	Thailand: significant human rights issues included credible reports of: arbitrary arrest and detention; serious restrictions on freedom of expression and media freedom, including censorship; and significant restrictions on workers' freedom of association. For EU, MS-level reports highlight issues with freedom of expression, degrading treatment, detention in some MSs.	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
US Office to monitor and combat trafficking in persons 2025	2025	Information collected from US embassies, official government sources, NGO, los, academic studies/reports + classification of countries in Tier 1, Tier 2, Tier 2 watchlist, Tier 3	Global	Contains information by sector, e.g. fishing, construction, manufacturing		Thailand identified as Tier 2, not fully meeting the standards for the elimination of trafficking, but making significant efforts to do so.	Not applicable
Fischman K., Adrift in the sea: the impact of the business supply chain transparency on trafficking and Slavery Act of 2015 on forced labor in the Thai fishing industry notes	2017	Legal analysis / case studies	Thailand	Fisheries / seafood processing	++	Business Supply chain transparency legislation on trafficking/slavery alone is unlikely to significantly reduce forced labour in Thai seafood supply chains. Authors recommend a broader, multi-stakeholder effort—bringing additional actors into the solution-making process—to achieve meaningful change.	Consumers, CSR, RBC
Human Rights Watch - World Report 2025	2025	Field investigations, interviews, document and data review.	Global (specific country information covering	Not sector-specific	+++	HR violation in EUMS in practice more prevalent than EU human rights 'rhetoric', in particular on asylum/migration, anti-	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
			Thailand, EU and EU MS)			racism and rule of law protection. For Thailand, serious backsliding in 2024.	
Thailand – First National Action Plan on Business & Human Rights (2019–2022)	2019	Policy plan aligned with UNGPs; identifies priority areas incl labour, HR defenders	Thailand	Not sector-specific	+	Establishes national commitments on labour rights, human rights defenders, remedies.	RBC, SMEs
Thailand - Second National Action Plan on Business & Human Rights (2022-2027)	2023	Policy plan, following up from 1st NAP	Thailand	Not sector-specific	+	Establishes current national commitments on labour rights, human rights defenders, remedies.	RBC, SMEs
ILO Endline findings on fishers and seafood workers in Thailand	2020	Large-scale worker survey on decent work in fisheries / seafood processing sectors in Thailand; ILO force labour measurement method	Thailand	Fisheries / seafood processing	+++	Report assesses changes in working conditions in the sector, focusing on recruitment, contracts, wages, forced labour, access to remedies, housing conditions. Forced labour prevalence estimated at 14% among fishers and 7% in seafood processing,	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
						mostly migrant men (Cambodian).	
ILO - Baseline research findings on fishers and seafood workers in Thailand	2018	Baseline survey of workers in Thai fishing and seafood processing in five zones	Thailand	Fisheries / seafood processing	+++	Progress compared to 2013 in certain areas, e.g. written contracts, fixed wage payments compared to payments in catch, presence of minor workers. However, wage reductions, payments under minimum wage, forced labour practices still prevalent.	SMEs,
ILO - Global Estimates of Modern Slavery	2022	Main data sources: nationally representative household surveys, forced labour surveys; CTDC anonymised dataset on victims of trafficking, collected by IOM and partners.	Global	Not sector-specific	++	Prevalence of forced labour: 4.4 per 1000 people, high shares in services, manufacturing, construction, agriculture and domestic work. 3 times higher prevalence for migrant workers	RBC, SMEs, consumer,
Environmental Justice Foundation - Blood and Water: human rights	2018	Own-initiative investigations by the NGO + literature review.	Thailand, Myanmar, Vietnam, Cambodia,	Fisheries	+++	Case study on Thailand highlights trafficking of migrant workers in the fishing industry and	SMEs

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
abuses in the seafood industry		Case studies of human rights abuses.	Indonesia (in the region).			situations of labour exploitation.	
Greenpeace - Turn the tide: human rights abuses and illegal fishing in Thailand's overseas fishing industry	2019	Own-initiative investigation by Greenpeace. Mixed methods, incl. vessel monitoring, interviews with fishers and trafficking victims, inspection observation and document review.	Thailand	Fisheries	+++	Thai fishing fleet, convicted of labour exploitation abuses, shifted operations to Papua New Guinea.	Consumers, RBC
Issara Institute and International Justice Mission - Not in the Same Boat: prevalence and patterns of labour abuse across Thailand's diverse fishing industry	2019	Structured surveys with 260 Burmese and Cambodian fishermen across 20 key Thai fishing localities in 2016. Statistical analysis of prevalence of human trafficking.	Thailand	Fisheries		Illegal overwork and underpay, physical violence, debt bondage, trafficking prevalent. Study extracts percentages to provide quantitative estimation working conditions violations.	RBC
ILO, OECD, IOM and UNICEF, Ending Child Labour, Forced Labour and Human Trafficking in	2019	Joint research findings from several international bodies on child labour linked to global supply chains. Empirical evidence on the prevalence and risk factors of child labour.	global	Not sector-specific	++	Provides empirical evidence on the prevalence and risk factors of child labour as well as policy recommendations to	RBC, SMEs

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Global Supply Chains, 2019						incentivise RBC in global supply chains.	
UNODC, Global Report on Trafficking in Persons 2020	2020	Official national data on detected trafficking cases	global (country profiles on Thailand / Europe)	Cross-sectoral	++	38% of detected trafficking cases relate to forced labour. Majority women and girls, rising share of children. Thailand: mostly migrant workers from Cambodia, Laos, Myanmar and Thai nationals; main sectors: fishing/seafood and manufacturing. EU: higher conviction rates than other regions. Less forced labour.	Not applicable
US Department of Labour - Supply Chain Study on Forced Labor in the Fishing Industry in Thailand	2024	Mixed method supply chain study, including desk research, interviews, case studies	Thailand	Fisheries	++	Persistent forced labour risks, incl. debt related to recruitment, document retention, wages withheld, working time excess for migrant fishermen.	RBC; CSR; SMEs
Supang Chantavanich,	2016	Large-scale quantitative survey of sea fishermen; forced labour	Thailand	fisheries	++	Using ILO indicators, 16.9% (101/596) of	LDCs

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Samarn Laodumrongchai, Christina Stringer, "Under the shadow: Forced labour among sea fishers in Thailand", Journal Marine Policy 68 (2016)		measurement following ILO SAP-FL				respondents met the threshold for forced labour for human trafficking. Migrant fishers were disproportionately affected (Myanmar 26%, Cambodia 9%).	
IOM and Walk Free Foundation, Migrants and their vulnerability to human trafficking, modern slavery and forced labour, 2019	2019	Literature review; IOM data; policy analysis	Global (Thailand cited in examples)	Cross-sectoral	++	Vulnerability to trafficking, forced labour and modern slavery is situational and produced by context, not inherent to being a migrant, e.g. limited access to remedies, migration regimes. Systemic prevention, strong labour inspection, access to remedies needed.	Not applicable
London School of Hygiene and Tropical Medicine,	2019	Mixed methods assessment, including household survey, in-	Bangladesh, India, Nepal	Cross-sectoral	+++	Pre-departure trainings for migrant workers had limited effect on risk of	LDCs; gender

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
South Asia Work in Freedom Three-Country evaluation: A theory-based intervention evaluation to promote safer migration of women and girls in Nepal, India and Bangladesh, 2019.		depth interviews, forced labour quantification				exploitation. Women highly reliant on recruiters.	
ODI ILO IOM UNHCR UNICEF REA - Children on the move report	2020	Rapid Evidence Assessment (REA) covering 89 studies	Global (covers Thailand)	Cross-sectoral	++	Identifies factors hindering effectiveness combatting child labour, including in Thailand.	Not applicable
European Commission – IUU “yellow card” to Thailand (2015) and lifting (2019)	2015; 2019	Compliance benchmarking against EU IUU regime; trade conditionality	Thailand; EU	Fisheries	++	Formal dialogue EU-Thailand for shortcoming in fisheries monitoring, control and sanctioning systems. Cleared in H27	Not applicable
UN Human Rights Council, Report of the Special Rapporteur on Contemporary	2016	UN Special Rapporteur thematic report on debt bondage	global	Cross-sectoral		Relevance for SIA: - For Thailand, align fisheries, agriculture, manufacturing, and construction supply	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Forms of Slavery, Including Its Causes and Consequences, A/HRC/33/46 (2016).						chains with the report's calls on no-debt recruitment, enforcement of wage/payment rights, and accessible grievance/compensation for migrants - For EU, map FTA labour-chapter cooperation and trade-and-sustainable-development (TSD) tools to the report's recommendations: recruitment regulation, due diligence, remedy, and targeted support to labour inspectorates and civil-society monitoring.	
Marine Policy – “More than just a carding system” (Kadfak et al.) (ScienceDirect)	2021	Qualitative policy analysis of IUU reforms and labour outcomes	Thailand	Fisheries	+	EU “yellow card” spurred reforms, but worker-centred enforcement and remedy gaps remain;	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
						ongoing risks for migrants.	
IOM/UN – “In the Shadow of the Ships” (business responses to forced labour)	2023	Qualitative research. Stakeholder interviews; case analysis	Thailand	Fisheries	+++	Highest infringements of labour rights concentrated in small-scale undertakings / lower tiers of supply chain.	RBC, SMEs
ILO/UN Network – Thailand Migration Report 2024 (International Labour Organization)	2024	Statistical overview + thematic chapters on rights, inclusion, social protection	Thailand	Cross-sector (incl. agriculture, manufacturing, services)	+++	Thailand hosts millions of migrant workers central to key export sectors; documents persistent barriers in social protection and access to justice. (International Labour Organization).	Consumers, SMEs,
ILO – Responsible Supply Chains in Asia: Vehicle Parts (Japan–Thailand cases) (International Labour Organization)	2022	Multi-case study vs ILO MNE Declaration; supplier due-diligence practices	Thailand	Automotive/parts	++	Finds gaps in supplier HRDD and worker voice; recommends remediation protocols and migrant-worker safeguards in Thai supply chains.	RBC; SMEs

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
						(International Labour Organization)	
IOM – Key risks for migrant workers in Thailand's fashion industry	2021	Desk research + stakeholder insights	Thailand	Textiles/garment	++	Identifies wage theft, excessive hours, document retention risks; calls for grievance access in migrant languages.	Gender
OECD/ILO/RSC Asia – Thailand country briefs (auto/parts) (International Labour Organization)	2020–24	Policy briefs; RBC mainstreaming	Thailand	Automotive/parts	++	Underscore need for freedom of association, OHS, and fair recruitment in export-oriented tiers. (International Labour Organization)	RBC; SMEs
ITUC Global Rights Index – Thailand	2024	Annual scoring of workers' rights (violations of civil liberties at work)	Thailand	Cross-sector (labour rights)	+++	Severe violations persist (e.g., restrictions on organising/collective bargaining); useful for baseline trend. (European Commission)	Not applicable
ITUC Global Rights Index – EU	2025	Annual scoring of workers' rights (violations of civil liberties at work)	EU	Cross-sector (labour rights)	++	Significant decline in workers' rights in Europe. Worst score for the EU since index	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
						began in 2014. While EU still least repressive region overall, 2025 report highlights a rapid deterioration, in particular for access to justice and right to strike.	
DOL – Worst Forms of Child Labour: Thailand	2019	Government enforcement data ; policy review	Thailand	Cross-sector (garment, shrimp, sugarcane)	+	Records enforcement actions and remaining gaps (e.g., child labour risks in shrimp, sugarcane, garments)	Not applicable
Kaack, S., Human Rights Expectations for an EU-Thailand Free Trade Agreement, 2023	2023	Forward-looking policy paper	Thailand	Cross-sector		Identifies enforcement needs	CSR
EU Annual Report on Human Rights and Democracy in the World (country reports)	2025	Reporting by EU delegations	Global (Thailand country report)	Not sector-specific	++	Overview of human rights situation in Thailand in 2025.	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
EPBD - Safeguarding individuals' digital rights	2023	Annual report by the EPBD	EU	Cross-sector (e.g. digital, finance, health,...)	+	Report on legislative developments, cross-border cooperation initiatives, enforcement actions, decisions from EPBD.	Not applicable
EPBD - Protecting personal data in a changing landscape	2024	Annual report by the EPBD	EU	Cross-sector (e.g. digital, finance, health,...)	+	Report on legislative developments, cross-border cooperation initiatives, enforcement actions, decisions from EPBD.	Not applicable
The 6th Thailand Human Development Report Sufficiency Economy Philosophy: Empowerment of People and Communities to Achieve the SDGs and Human Development 2024	2025	Qualitative research.	Thailand	Cross-sector (e.g. digital, finance, health,...)	+	Focus on vulnerable groups, e.g. people with disabilities, children, migrants.	Not applicable

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+, ++, +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Civil Society Report on the Implementation of the CEDAW (HRDF-MWG)	2025	Case studies and legal analysis	Thailand	Cross-sector (healthcare, labour)	++	Migrant workers face systematic discrimination in accessing health insurance and social protection despite CEDAW commitments	Not applicable
Thailand's Progress in Combatting IUU, Forced Labour & Human Trafficking - EJJ Report	2023	Field observations, vessel inspections, stakeholder interviews	Thailand	Fisheries	++	Labour violations persist, beneficial ownership opacity, inadequate victim identification	CSR/RBC
The situation of migrant workers and business and human rights in Thailand - MWG/HRDF Submission to UN Working Group	2025	Legal analysis, case documentation, policy review	Thailand	Labour/migration	++	2M+ Myanmar workers face expired permits; discrimination in social protection; ILO Conventions 87 & 98 not ratified; 90% workers overcharged by brokers	CSR/RBC
EJJ Policy Briefing	2024	Field investigations, fisher interviews, policy analysis	Thailand	Fisheries	++	rollbacks to Thailand's Fisheries Act threaten IUU fishing controls and labour protections	CSR/RBC

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Study (incl. link)	Year	Methodology and assumptions	Countries	Sector (as specific as possible, e.g., car industry, electric vehicles)	Scale of concern (+. ++. +++)	Main Findings	Cross-cutting issues (least developed countries; outer most regions (banana, sugar, rum); SMEs; consumers; corporate social responsibility; responsible business conduct)
Seafood Working Group - TIP Report Submission Thailand	2025	CSO consultations, focus groups, worker surveys, policy analysis	Thailand	Fisheries	++	Forced labour indicators persist; weak enforcement; restrictions on migrant worker organizing; no forced labour cases identified despite prevalence	CSR/RBC

Annex 9: Human Rights SIA Screening results

Human rights potentially affected	Direct / indirect impact	Scale of impact (high/medium/low)	Potentially affected / at-risk groups
Prohibition of slavery, forced labour and trafficking ICCPR Art. 8; ILO C29, C105 & 2014 Protocol; Palermo Protocol; EU CFR Art. 5	Direct - Trade and sustainable development (TSD) commitments to ILO fundamental principles and rights at work (elimination of forced labour) - TSD commitments to effective labour inspection; enforcement commitment; non-regression - RBC (UNGP/IOE/OILO) extends supply-chain leverage; - SSDS allows temporary remedies for persistent TSD non-compliance; Note that the prohibition of slavery and forced labour is an absolute human right , meaning that it cannot be limited or suspended under any circumstances	High (prevention, detection, remediation); Residual risk if monitoring/enforcement are weak.	Migrant/low-wage workers in fisheries/seafood, agriculture, textiles/garments, construction, electronics/auto; agency-hired and platform workers.
Prohibition of child labour and children's rights CRC Art. 32; ILO C138, C182; EU CFR Art. 32	Direct - TSD (Decent Work; inspection) - RBC due diligence in risk-exposed chains (agri-food, fisheries, garments, electronics); Indirect: transparency/consumer provisions can reinforce market pressure.	High with better inspection/HRDD; Persistent risks in informal/subcontracted segments.	Children in agricultural/seafood chains and informal subcontracting; migrant children and youth.
Labour rights and the right to decent work ILO FPRW; ICESCR Arts. 7–8; EU CFR Arts. 28, 31	Direct - TSD (ILO FPRW; labour inspection; non-regression); - RBC (UNGP/IOE/OILO); - Digital-Trade cooperation on platform workers/algorithmic management.	High ; Risk of weak monitoring.	Workers in fisheries, agriculture, textiles/garments, electronics/auto; migrant and platform workers.
Right to a safe and healthy working environment ILO C155 / C187	Direct - TSD (ILO FPRW, labour inspection; non-regression) - CSR / RBC Indirect	High Risk of weak monitoring, persistent risks in subcontracted segments Potential higher trade volumes in goods from	Workers in fisheries, agriculture, textiles/garments, electronics/auto; migrant and platform workers.

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Human rights potentially affected	Direct / indirect impact	Scale of impact (high/medium/low)	Potentially affected / at-risk groups
ESC Art. 3 EU CFE Art. 31	- TBT standards / SPS - Trade in goods - Services/investment (domestic regulation) - Public procurement	sectors with higher risks	
Right to privacy (data protection) ICCPR Art. 17; EU CFR Arts. 7–8	Direct - Digital Trade: recognition of data protection as a fundamental right; cross-border data flows with safeguards/exceptions; - customs protocol references personal data; - financial-services confidentiality.	High: on condition of interoperable safeguards; see compatibility agreements EU-third countries Low if enforcement challenges.	Consumers; workers under algorithmic management; SMEs handling personal data; other vulnerable users.
Freedom of expression, access to information ICCPR Art. 19; EU CFR Arts. 11, 42	Direct Transparency requirements (good regulatory practice (GRP), access to information,...), - TSD references to transparency and GRP chapters	Medium Focus on transparency less on freedom of expression. Depends on timely publication and language accessibility.	Journalists/CSOs; trade unions; SMEs/consumers seeking regulatory information.
Right to public participation in public affairs ICCPR Art. 25; EU CFR Arts. 41–42	Direct/indirect Transparency (opportunities to be heard, review/appeal), TBT/SPS consultation duties (comment periods, written replies), and TSD stakeholder avenues (committee/contact points).	Medium/low if participation is meaningful (sufficient time, multilingual notices).	CSOs/community groups; social partners; SMEs; DAG-type bodies.
Right to join and form a trade union; right to collective bargaining ILO C87, C98 ICCPR Arts. 21–22; EU CFR Art. 12	Direct TSD participatory architecture (committee/contact points) enabling civil-society engagement; Indirect: Transparency/TBT/SPS consultations provide spaces for collective input; labour strand covers CB.	Medium if civic space is ensured in practice.	Trade unions; CSOs/NGOs; community groups; workers
Non-discrimination and equal treatment ICERD;	Direct via procurement; anti-corruption and equal treatment of locally established suppliers;	Medium	Female workers/entrepreneurs; persons with disabilities; minority and migrant workers;

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Human rights potentially affected	Direct / indirect impact	Scale of impact (high/medium/low)	Potentially affected / at-risk groups
CEDAW; CRPD; ICCPR Art. 26; EU CFR Arts. 20–21, 23) ILO Conventions 100, 111	RBC due diligence addressing discrimination.		SMEs.
Women's rights CEDAW; ICCPR Art. 3; ICESCR Art. 3; EU CFR Arts. 21, 23	Indirect - TSD trade and gender cooperation, stakeholder participation, and labour-rights strand; - procurement equal-treatment/anti-corruption and SME access can improve women-owned firms' opportunities; - platform-work cooperation may address gendered risks.	Medium if monitored	Female workers (textile, agri-food services), women-owned SMEs, platform workers, female migrants.
Right to an effective remedy ICCPR Art. 2(3); EU CFR Art. 47	Direct - Digital-Trade consumer redress; - procurement notice/review architecture; horizontal review/appeal duties; - SSDS with reasoned reports, compliance review, and temporary remedies.	Medium dependent on accessibility/independence of domestic mechanisms.	Consumers; companies (esp. SMEs); workers seeking redress.
Right to health ICESCR Art. 12; EU CFR Arts. 35, 38	Indirect - via online product-safety and redress; SPS/TBT transparency/precaution; sustainable Food Systems cooperation on AMR, fraud . IP protection (Doha Declaration/TRIPS, cooperation against health-risk counterfeits)	Low–Medium Limited in scope	Consumers; workers in risk-prone sectors.
Right to a healthy environment UNGA Res. 76/300; EU CFR Art. 37	Direct TSD (Paris Agreement implementation, non-regression), SSDS temporary remedies for TSD breaches (incl. Paris), Sustainable Food	Medium potential with adequate monitoring/enforcement;	Communities near industrial clusters; fishers; consumers; workers in pollution-intensive sectors.

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Human rights potentially affected	Direct / indirect impact	Scale of impact (high/medium/low)	Potentially affected / at-risk groups
	Systems chapter (reduce use of antimicrobials, chemical pesticides; promote sustainable food production, transport, fight fraud in agri-food chain), • TBT/SPS science/precaution transparency.		
Indigenous peoples' rights UDHR; Art. 3, 19, 25 and 26) ICCPR Art. 27	Indirect • RBC references to responsible governance of tenure and responsible investment in agriculture/food systems; • Participatory channels for civil society may support voice of indigenous communities.	Low-Medium Not all rights likely addressed, e.g. protection of collective property	Indigenous and coastal communities; smallholders; small-scale fishers; forest-dependent peoples.
Right to property (UDHR Art. 17; EU CFR Art. 17)	Indirect • IP protection (national treatment, enforcement) and Geographical Indication (GI) protection (preventing deceptive uses), supporting legitimate property interests; • Services/Investment administrative review procedures protect due process in licensing that can affect property/use rights; • RBC tenure safeguards relate to land/sea use.	Medium positive where enforcement is fair and accessible; risks if weaker actors cannot vindicate claims or tenure governance is weak.	Farmers/smallholders; MSMEs/SMEs with IP; GI producer groups; communities with customary tenure.
Right to an adequate standard of living ICESCR Art. 11; EU CFR Arts. 34, 38	Indirect • employment/income and price effects from trade; • SME access and procurement transparency impacting opportunities; • Sustainable Food Systems cooperation (food safety/AMR/waste) and consumer protection/redress influencing affordability and safety; • non-regression clauses on social protection and core labour standards.	Medium: Potential improvements, e.g. jobs, lower prices, safer food; Implementation risks of unequal distribution.	Low-income households; rural smallholders; informal and migrant workers; women-headed households; urban poor.

Annex 10: Applicable Human Rights Legal Framework

The current annex describes the legal framework regulating the rights assessed in the Human Rights analysis.

1.1. Labour rights, including forced labour and of child labour

The prohibition of slavery and servitude is an **absolute right**, thus accepting **no limitation or restriction**²⁰³. Similarly, forced labour is prohibited in almost all situations. These rights are protected by a number of human rights instruments, including the following.

1.1.1. Table 32: Prohibition of slavery and forced labour under international human rights law

Prohibition of slavery, servitude and forced labour under international human rights law	
Human Rights instrument	Description
ICCPR, Article 8	The ICCPR was adopted by the UN General Assembly in 1966 and sets out rights deriving from the inherent dignity of the human person. Article 8 of the ICCPR provides that: "1. No one shall be held in slavery; slavery and the slave-trade in all their forms shall be prohibited. 2. No one shall be held in servitude. 3. (a) No one shall be required to perform forced or compulsory labour; (b) Paragraph 3 (a) shall not be held to preclude, in countries where imprisonment with hard labour may be imposed as a punishment for a crime, the performance of hard labour in pursuance of a sentence to such punishment by a competent court; (c) For the purpose of this paragraph the term "forced or compulsory labour" shall not include: (i) Any work or service, not referred to in subparagraph (b), normally required of a person who is under detention in consequence of a lawful order of a court, or of a person during conditional release from such detention; (ii) Any service of a military character and, in countries where conscientious objection is recognized, any national service required by law of conscientious objectors; (iii) Any service exacted in cases of emergency or calamity threatening the life or well-being of the community; (iv) Any work or service which forms part of normal civil obligations."

⁽²⁰³⁾ For example, Article 4 of the ICCPR states that no derogation from Article 8(1) and (2), prescribing the prohibition of slavery and servitude, can be made. Furthermore, in its general comment no. 24, the UN Human Rights Committee explicitly states that, in relation to the ICCPR, "a State may not reserve the right to engage in slavery". See United Nations Human Rights Committee, 1994, CCPR General Comment No. 24: Issues Relating to Reservations Made upon Ratification or Accession to the Covenant or the Optional Protocols thereto, or in Relation to Declarations under Article 41 of the Covenant, para. 8.

Prohibition of slavery, servitude and forced labour under international human rights law	
ILO Convention No. 29 on Forced Labour (1930) and its 2014 Protocol	ILO Convention No. 29 on Forced Labour (1930) is a core ILO treaty that commits ratifying States to suppress forced or compulsory labour in all its forms. It defines forced labour as work or service done under the threat of a penalty and not offered voluntarily, while allowing only limited exceptions (such as certain forms of compulsory military service or narrowly regulated civic obligations). The 2014 Protocol to Convention No. 29 modernises and strengthens implementation by requiring effective measures focused on prevention, protection of victims, and access to remedies (including compensation), as well as sanctioning perpetrators.
The Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime (Palermo Protocol)	The Palermo Protocol was adopted in 2000 and provides the widely used definition of trafficking as the recruitment, transportation, transfer, harbouring or receipt of persons by means such as coercion, deception or abuse of vulnerability for the purpose of exploitation (including, among others, forced labour, slavery or practices similar to slavery and servitude), while making clear that a child's consent is irrelevant where exploitation is involved. It requires States to criminalise trafficking, strengthen law enforcement and international co-operation, and take measures to prevent trafficking and protect and assist victims (with particular attention to women and children), including support for recovery and safe return where appropriate.
EU Charter of Fundamental Rights, Article 5	The Charter of Fundamental Rights of the European Union enshrines into primary EU law a wide array of fundamental rights enjoyed by EU citizens and residents. Article 5 of the Charter provides that: "1. No one shall be held in slavery or servitude. 2. No one shall be required to perform forced or compulsory labour. 3. Trafficking in human beings is prohibited."

A number of instruments also prohibit the employment of young **children** and impose important restrictions on the employment of adolescents, including the following:

1.1.2. Table 33: Prohibition of and restrictions to child labour under international human rights law

Prohibition of and restrictions to child labour under international human rights law	
Human Rights instrument	Description
UN Convention on the Rights of the Child, Article 32	The UN Convention on the Rights of the Child is the most widely ratified international human rights instrument, with 196 ratifications. Its Article 32 provides that: "1. States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development. 2. States Parties shall take legislative, administrative, social and educational measures to ensure the implementation of the present article. To this end, and having regard to the relevant provisions of other international instruments, States Parties shall in particular: (a) Provide for a minimum age or minimum ages for admission to employment; (b) Provide for appropriate regulation of the hours and conditions of employment; (c) Provide for appropriate penalties or other sanctions to ensure the effective enforcement of the present article."

Prohibition of and restrictions to child labour under international human rights law

ILO Convention No. 138 on the Minimum Age (1973)

ILO Convention No. 138 on the Minimum Age (1973) aims to achieve the effective abolition of child labour by requiring States to set and enforce a minimum age for admission to employment or work, linked to children's full physical and mental development. It calls on countries to pursue a national policy to raise minimum ages progressively, and to ensure that the general minimum age is not lower than the age for completing compulsory schooling (and in any case not below 15, with a temporary option of 14 for some countries). It also permits "light work" for younger children under strict conditions and sets a higher minimum age of 18 for work likely to jeopardise young people's health, safety or morals.

ILO Convention No. 182 on the Worst Forms of Child Labour Convention (1999)

ILO Convention No. 182 on the Worst Forms of Child Labour (1999) requires ratifying States to take immediate and effective measures to prohibit and eliminate the worst forms of child labour for all persons under 18. The definition of "worst forms of child labour" includes slavery and practices similar to slavery (such as the sale and trafficking of children, debt bondage and forced or compulsory recruitment of children for use in armed conflict), the use of children in prostitution or pornography, the use of children for illicit activities (including drug production and trafficking), and hazardous work likely to harm children's health, safety or morals. The Convention also emphasises removing affected children from such work and supporting their rehabilitation and social integration, alongside prevention measures and access to free basic education where relevant.

EU Charter of Fundamental Rights, Article 32

The Charter of Fundamental Rights of the European Union enshrines into primary EU law a wide array of fundamental rights enjoyed by EU citizens and residents. Article 32 of the Charter provides that:

"The employment of children is prohibited. The minimum age of admission to employment may not be lower than the minimum school-leaving age, without prejudice to such rules as may be more favourable to young people and except for limited derogations. Young people admitted to work must have working conditions appropriate to their age and be protected against economic exploitation and any work likely to harm their safety, health or physical, mental, moral or social development or to interfere with their education."

1.2. The rights of indigenous people

The rights of indigenous people are protected by different human rights instruments, including the following:

1.2.1. Table 34: Rights of indigenous people under international human rights law

Rights of indigenous people under international human rights law	
Human Rights instrument	Description

Rights of indigenous people under international human rights law	
United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)	The UNDRIP “is the most comprehensive international instrument on the rights of Indigenous Peoples. It establishes a universal framework of minimum standards for the survival, dignity and well-being of the Indigenous Peoples of the world and it elaborates on existing human rights standards and fundamental freedoms as they apply to the specific situation of Indigenous Peoples”²⁰⁴. The UNDRIP affirms that indigenous peoples have the right to equality and freedom from discrimination, self-determination and self-government, and participation in decisions that affect them. It protects their rights to lands, territories, and natural resources, as well as to maintain their cultures, languages, traditions, and institutions. The UNDRIP also requires states to respect free, prior, and informed consent before taking actions that affect indigenous peoples.
ICCPR, Article 27	The ICCPR was adopted by the UN General Assembly in 1966 and sets out rights deriving from the inherent dignity of the human person. Article 27 provides that: “In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language.” While not explicitly addressing indigenous people, Article 27 has been interpreted to apply to them as a minority. In this regard, the UN Human Rights Committee notes, in its General Comment No. 23, that some aspects of the rights protected under Article 27 - for example, to enjoy a particular culture - may consist in a particular way of life which is closely associated with territory and use of its resources, especially in the case of indigenous peoples (paras. 3.2 and 7).
ICERD	The ICERD sets out commitments for states to prohibit, prevent, and eliminate racial discrimination and to guarantee equality before the law for all individuals and groups. Racial discrimination is defined in the Convention as “any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural or any other field of public life” (Article 1). While not explicitly referring to indigenous peoples, the UN Committee on the Elimination of Racial Discrimination has consistently affirmed that discrimination against indigenous peoples falls under the scope of the Convention. In its General Comment No. 23, the Committee calls on states to respect and preserve indigenous peoples’ cultures, languages, histories, and ways of life, ensure equality and freedom from discrimination, support culturally appropriate economic and social development, and guarantee effective participation in public life, including informed consent for decisions affecting them. It also urges states to recognise and protect indigenous peoples’ rights to their lands, territories, and resources, including returning lands taken without consent or, where that is not possible, providing fair and prompt compensation, preferably in the form of land (paras. 4-5).

1.3. Right to privacy

The right to privacy is protected by different human rights instruments, including the following:

⁽²⁰⁴⁾ See United Nations, Department of Economic and Social Affairs, United Nations Declaration on the Rights of Indigenous Peoples: <https://social.desa.un.org/issues/indigenous-peoples/united-nations-declaration-on-the-rights-of-indigenous-peoples>.

1.3.1. Table 35: Right to privacy under international human rights law

Right to privacy under international human rights law	
Human Rights instrument	Description
ICCPR, Article 17	The ICCPR was adopted by the UN General Assembly in 1966 and sets out rights deriving from the inherent dignity of the human person. Article 17 provides that: “1. No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation. 2. Everyone has the right to the protection of the law against such interference or attacks.”
EU Charter of Fundamental Rights, Articles 7 and 8	The Charter of Fundamental Rights of the European Union enshrines into primary EU law a wide array of fundamental rights enjoyed by EU citizens and residents. Article 7 provides that: “Everyone has the right to respect for his or her private and family life, home and communications.” Article 8 provides that: “1. Everyone has the right to the protection of personal data concerning him or her. 2. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law. Everyone has the right of access to data which has been collected concerning him or her, and the right to have it rectified. 3. Compliance with these rules shall be subject to control by an independent authority.”

1.4. Freedom of expression, access to information and right to public participation

The rights to freedom of expression and access to information as well as to public participation play a crucial role in promoting democratic governance and are protected in various international human rights instruments, including in the ones mentioned in the tables below:

1.4.1. Table 36: Freedom of expression and right of access to information under international human rights law

Freedom of expression and right of access to information under international human rights law	
Human Rights instrument	Description
ICCPR, Article 19	The ICCPR was adopted by the UN General Assembly in 1966 and sets out rights deriving from the inherent dignity of the human person. Article 19(1)-(3) provides that: ‘1. Everyone shall have the right to hold opinions without interference.

Freedom of expression and right of access to information under international human rights law

	2. Everyone shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice. 3. The exercise of the rights provided for in paragraph 2 of this article carries with it special duties and responsibilities. It may therefore be subject to certain restrictions, but these shall only be such as are provided by law and are necessary: (a) For respect of the rights or reputations of others; (b) For the protection of national security or of public order (ordre public), or of public health or morals.'
EU Charter of Fundamental Rights, Articles 11, 42	The Charter of Fundamental Rights of the European Union enshrines into primary EU law a wide array of fundamental rights enjoyed by EU citizens and residents. Article 11(1)-(2) provides that: '1. Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers. 2. The freedom and pluralism of the media shall be respected.' Article 42 provides that 'Any citizen of the Union, and any natural or legal person residing or having its registered office in a Member State, has a right of access to documents of the institutions, bodies, offices and agencies of the Union, whatever their medium.'

1.4.2. Table 37: Right to public participation under international human rights law

Right to public participation under international human rights law	
Human Rights instrument	Description
ICCPR, Article 25	The ICCPR was adopted by the UN General Assembly in 1966 and sets out rights deriving from the inherent dignity of the human person. Article 25 provides that: 'Every citizen shall have the right and the opportunity, without any of the distinctions mentioned in article 2 and without unreasonable restrictions: (a) To take part in the conduct of public affairs, directly or through freely chosen representatives; (b) To vote and to be elected at genuine periodic elections which shall be by universal and equal suffrage and shall be held by secret ballot, guaranteeing the free expression of the will of the electors; (c) To have access, on general terms of equality, to public service in his country.'
EU Charter of Fundamental Rights, Articles 39-41	The Charter of Fundamental Rights of the European Union enshrines into primary EU law a wide array of fundamental rights enjoyed by EU citizens and residents. Article 39 provides that: '1. Every citizen of the Union has the right to vote and to stand as a candidate at elections to the European Parliament in the Member State in which he or she resides, under the same conditions as nationals of that State.

Right to public participation under international human rights law

2. Members of the European Parliament shall be elected by direct universal suffrage in a free and secret ballot.'

Article 40 provides that:

'Every citizen of the Union has the right to vote and to stand as a candidate at municipal elections in the Member State in which he or she resides under the same conditions as nationals of that State.'

Article 41(1)-(4) provides that:

1. Every person has the right to have his or her affairs handled impartially, fairly and within a reasonable time by the institutions, bodies, offices and agencies of the Union.

2. This right includes:

(a) the right of every person to be heard, before any individual measure which would affect him or her adversely is taken;

3. Every person has the right to have the Union make good any damage caused by its institutions or by its servants in the performance of their duties, in accordance with the general principles common to the laws of the Member States.

4. Every person may write to the institutions of the Union in one of the languages of the Treaties and must have an answer in the same language.'

1.5. Right to join and form trade unions and to collective bargaining

The right to join and form trade unions and to collective bargaining are protected by different human rights instruments, including the following:

1.5.1. Table 38: Right to join and form trade unions and to collective bargaining under international human rights law

Right to join and form trade unions and to collective bargaining under international human rights law	
Human Rights instrument	Description
ICCPR, Articles 21-22	The ICCPR was adopted by the UN General Assembly in 1966 and sets out rights deriving from the inherent dignity of the human person. Article 21 provides that: "The right of peaceful assembly shall be recognized. No restrictions may be placed on the exercise of this right other than those imposed in conformity with the law and which are necessary in a democratic society in the interests of national security or public safety, public order (ordre public), the protection of public health or morals or the protection of the rights and freedoms of others." Article 22 provides that: "1. Everyone shall have the right to freedom of association with others, including the right to form and join trade unions for the protection of his interests."

Right to join and form trade unions and to collective bargaining under international human rights law	
	2. No restrictions may be placed on the exercise of this right other than those which are prescribed by law and which are necessary in a democratic society in the interests of national security or public safety, public order (ordre public), the protection of public health or morals or the protection of the rights and freedoms of others. This article shall not prevent the imposition of lawful restrictions on members of the armed forces and of the police in their exercise of this right. 3. Nothing in this article shall authorize States Parties to the International Labour Organisation Convention of 1948 concerning Freedom of Association and Protection of the Right to Organize to take legislative measures which would prejudice, or to apply the law in such a manner as to prejudice, the guarantees provided for in that Convention."
ILO Convention No. 87 on Freedom of Association and Protection of the Right to Organise (1948)	ILO Convention No. 87 on Freedom of Association and Protection of the Right to Organise (1948) establishes the fundamental right of workers and employers to form and join organisations of their own choosing without prior authorisation. It guarantees that such organisations may operate independently, including the right to draw up their own constitutions and rules, elect representatives, and organise their activities without interference from public authorities. The Convention protects organisations from dissolution or suspension by administrative authority and affirms their right to establish and join federations and confederations, including at international level. States that ratify the Convention are required to take all necessary measures to ensure these rights are effectively respected in law and in practice.
ILO Convention No. 98 on the Right to Organise and Collective Bargaining (1948)	ILO Convention No. 98 on the Right to Organise and Collective Bargaining (1949) protects workers against acts of anti-union discrimination, including dismissal or other prejudice on the grounds of union membership or participation in union activities. It requires states to ensure that workers' and employers' organisations are protected from interference by each other, particularly through acts designed to establish or control such organisations. The Convention also promotes the voluntary negotiation of collective agreements by encouraging measures that support collective bargaining between employers or employers' organisations and workers' organisations. Ratifying states required to take appropriate steps to ensure that these protections and mechanisms are effectively implemented in law and practice.
EU Charter of Fundamental Rights, Article 12	The Charter of Fundamental Rights of the European Union enshrines into primary EU law a wide array of fundamental rights enjoyed by EU citizens and residents. Article 12 of the EU Charter provides that: "1. Everyone has the right to freedom of peaceful assembly and to freedom of association at all levels, in particular in political, trade union and civic matters, which implies the right of everyone to form and to join trade unions for the protection of his or her interests. 2. Political parties at Union level contribute to expressing the political will of the citizens of the Union."

1.6. Right to equal treatment and non-discrimination, including persons with disabilities and women's rights

The right to non-discrimination and equal treatment are protected by different human rights instruments, including the following:

1.6.1. Table 39: Right to non-discrimination and equal treatment under international human rights law

Right to non-discrimination and equal treatment	
Human Rights instrument	Description
ICERD, Article 1(1)	The ICERD was adopted by the UN General Assembly in 1965 and aims to eliminate racial discrimination in all its forms. Article 1(1) provides that: “1. In this Convention, the term “racial discrimination” shall mean any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural or any other field of public life.”
ICCPR, Article 26	The ICCPR was adopted by the UN General Assembly in 1966 and sets out rights deriving from the inherent dignity of the human person. Article 26 provides that: “All persons are equal before the law and are entitled without any discrimination to the equal protection of the law. In this respect, the law shall prohibit any discrimination and guarantee to all persons equal and effective protection against discrimination on any ground such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.”
EU CFR, Articles 20, 21	The Charter of Fundamental Rights of the European Union enshrines fundamental principles of equality and non-discrimination within EU law. Article 20 provides that: “Everyone is equal before the law.” Article 21(1) provides that: “Any discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited.”
ILO Conventions 100-111	ILO Convention No. 100 was adopted in 1951 and aims to promote equality of remuneration for men and women for work of equal value. Article 2(1) provides that: “Each Member shall, by means appropriate to the methods in operation for determining rates of remuneration, promote and, in so far as is consistent with such methods, ensure the application to all workers of the principle of equal remuneration for men and women workers for work of equal value.” ILO Convention No. 111 was adopted in 1958 and addresses discrimination in employment and occupation. Article 1(1) provides that: “For the purpose of this Convention the term “discrimination” includes — (a) any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation; (b) such other distinction, exclusion or preference which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation as may be determined by the Member concerned after consultation with representative employers' and workers' organisations, where such exist, and with other appropriate bodies.”

Right to non-discrimination and equal treatment	
ICESCR, Article 2(2)	The International Covenant on Economic, Social and Cultural Rights (ICESCR) is a core UN treaty that obliges States to guarantee the progressive realisation of economic, social, and cultural rights for all individuals without discrimination. Article 2(2) provides that: “The States Parties to the present Covenant undertake to guarantee that the rights enunciated in the present Covenant will be exercised without discrimination of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.”
ECHR, Article 14	The ECHR guarantees equality before the law and protects against discrimination in the enjoyment of all rights, including for persons with disabilities. Article 14 provides that: “The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.”

1.6.2. Table 40: Right to non-discrimination and equal treatment of persons with disabilities under international human rights law

Right to equal treatment of persons with disabilities	
Human Rights instrument	Description
CRPD, Article 2 and 5	The CRPD was adopted by the UN General Assembly in 2006 and promotes the full and equal enjoyment of all human rights by persons with disabilities. Article 2 defines discrimination on the basis of disability as follows: “Discrimination on the basis of disability’ means any distinction, exclusion or restriction on the basis of disability which has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field. It includes all forms of discrimination, including denial of reasonable accommodation.” Article 5 provides that: “States Parties recognize that all persons are equal before and under the law and are entitled without any discrimination to the equal protection and equal benefit of the law. States Parties shall prohibit all discrimination on the basis of disability and guarantee to persons with disabilities equal and effective legal protection against discrimination on all grounds.”
ICESCR, Articles 6, 7, 12, 13	The ICESCR requires States to ensure the progressive realisation of economic, social, and cultural rights for all, guaranteeing equality and protection against discrimination, including for persons with disabilities. Article 6 provides that: “The States Parties to the present Covenant recognise the right to work, which includes the right of everyone to the opportunity to gain his living by work which he freely chooses or accepts, and will take appropriate steps to safeguard this right.” Article 7 provides that: “The States Parties to the present Covenant recognise the right of everyone to the enjoyment of just and favourable conditions of work which ensure, in

Right to equal treatment of persons with disabilities	
	particular: fair wages and equal remuneration for work of equal value...safe and healthy working conditions...equal opportunity for everyone to be promoted...rest, leisure and reasonable limitation of working hours.” Article 12 provides that: “The States Parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.” Article 13 provides that: “The States Parties to the present Covenant recognise the right of everyone to education. They agree that education shall be directed to the full development of the human personality and the sense of its dignity... and shall enable all persons to participate effectively in a free society.”
CRC, Article 23	The CRC ensures that children with disabilities enjoy all rights on an equal basis with other children, including access to education, care and social services. Article 23 provides that: “States Parties recognize that a mentally or physically disabled child should enjoy a full and decent life, in conditions which ensure dignity, promote self-reliance and facilitate the child's active participation in the community. States Parties shall ensure that disabled children have effective access to education, training, healthcare services, rehabilitation services, preparation for employment and recreation opportunities in a manner conducive to the child's achieving the fullest possible social integration and individual development, including his or her cultural and spiritual development.”

1.6.3. Table 41: Women’s right to equal treatment under international human rights law

Women’s rights	
Human Rights instrument	Description
CEDAW, Article 2	The CEDAW was adopted by the UN General Assembly in 1979 and sets out the obligations of States to eliminate discrimination against women. Article 2 provides that: “States Parties condemn discrimination against women in all its forms, agree to pursue by all appropriate means and without delay a policy of eliminating discrimination against women and, to this end, undertake: (a) To embody the principle of the equality of men and women in their national constitutions or other appropriate legislation if not yet incorporated therein and to ensure, through law and other appropriate means, the practical realization of this principle; (b) To adopt appropriate legislative and other measures, including sanctions where appropriate, prohibiting all discrimination against women; (c) To establish legal protection of the rights of women on an equal basis with men and to ensure through competent national tribunals and other public institutions the effective protection of women against any act of discrimination; (d) To refrain from engaging in any act or practice of discrimination against women and to ensure that public authorities and institutions shall act in conformity with this obligation; (e) To take all appropriate measures to eliminate discrimination against women by any person, organization or enterprise;

Women's rights	
	(f) To take all appropriate measures, including legislation, to modify or abolish existing laws, regulations, customs and practices which constitute discrimination against women; (g) To repeal all national penal provisions which constitute discrimination against women."
ICCPR, Article 3	The ICCPR guarantees the equal enjoyment of civil and political rights by women and men. Article 3 provides that: "The States Parties to the present Covenant undertake to ensure the equal right of men and women to the enjoyment of all civil and political rights set forth in the present Covenant."
ICESCR, Article 3;	The ICESCR guarantees the equal enjoyment of economic, social and cultural rights by women and men. Article 3 provides that: "The States Parties to the present Covenant undertake to ensure the equal right of men and women to the enjoyment of all economic, social and cultural rights set forth in the present Covenant."
EU CFR, Article 23	The Charter of Fundamental Rights explicitly addresses the equality between men and women. Article 23 provides that: "Equality between men and women must be ensured in all areas, including employment, work and pay. The principle of equality shall not prevent the maintenance or adoption of measures providing for specific advantages in favour of the under-represented sex."

1.7. Right to an effective remedy

The right to an effective remedy, which guarantees that individuals whose human rights have been violated can access legal procedures to obtain redress, reparation, or compensation, is safeguarded by various human rights instruments, as outlined in the table below:

1.7.1. Table 42: Right to an effective remedy under international human rights law

Right to effective remedy	
Human Rights instrument	Description
ICCPR, Article 2(3)	The ICCPR was adopted by the United Nations General Assembly in 1966 and codifies fundamental rights arising from the inherent dignity of the human person. Article 2(3) provides that: "3. Each State Party to the present Covenant undertakes: (a) To ensure that any person whose rights or freedoms as herein recognized are violated shall have an effective remedy, notwithstanding that the violation has been committed by persons acting in an official capacity;

Right to effective remedy	
	(b) To ensure that any person claiming such a remedy shall have his right thereto determined by competent judicial, administrative or legislative authorities, or by any other competent authority provided for by the legal system of the State, and to develop the possibilities of judicial remedy; (c) To ensure that the competent authorities shall enforce such remedies when granted."
EU Charter of Fundamental Rights, Article 47	The Charter of Fundamental Rights of the European Union, proclaimed in 2000, sets out fundamental rights binding on EU institutions and Member States when implementing EU law. Article 47 provides that: "Everyone whose rights and freedoms guaranteed by the law of the Union are violated has the right to an effective remedy before a tribunal in compliance with the conditions laid down in this Article. Everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal previously established by law. Everyone shall have the possibility of being advised, defended and represented. Legal aid shall be made available to those who lack sufficient resources in so far as such aid is necessary to ensure effective access to justice."
ECHR, Article 13	Article 13 provides that: "Everyone whose rights and freedoms as set forth in this Convention are violated shall have an effective remedy before a national authority notwithstanding that the violation has been committed by persons acting in an official capacity."

1.8. Right to health and to a healthy environment

The rights to health and a healthy environment are protected in various international human rights instruments, including in the ones mentioned in the tables below.

1.8.1. Table 43: Right to health under international human rights law

Right to health under international human rights law	
Human Rights instrument	Description
ICESCR, Article 12	The ICESCR requires States to ensure the progressive realisation of economic, social, and cultural rights for all. Article 12 (1)-(2) provides that: "1. The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. 2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for: (a) The provision for the reduction of the stillbirth-rate and of infant mortality and for the healthy development of the child; (b) The improvement of all aspects of environmental and industrial hygiene; (c) The prevention, treatment and control of epidemic, endemic, occupational and other diseases;"

Right to health under international human rights law	
	(d) The creation of conditions which would assure to all medical service and medical attention in the event of sickness.
EU Charter of Fundamental Rights, Article 35	The Charter of Fundamental Rights of the European Union, proclaimed in 2000, sets out fundamental rights binding on EU institutions and Member States when implementing EU law. Article 35 provides that: “Everyone has the right of access to preventive health care and the right to benefit from medical treatment under the conditions established by national laws and practices. A high level of human health protection shall be ensured in the definition and implementation of all the Union's policies and activities.”

1.8.2. Table 44: Right to a healthy environment under international human rights law

Right to a healthy environment under international human rights law	
Human Rights instrument	Description
UN GA Resolution 76/300	The UN General Assembly Resolution 76/300, adopted in July 2022, recognized the right to a clean, healthy and sustainable environment as a human right, taking into account that a vast majority of States have recognized some form of the right to a clean, healthy and sustainable environment through international agreements, their national constitutions, legislation, laws or policies. In this regard, it affirmed that the promotion of the human right to a clean, healthy and sustainable environment requires the full implementation of the multilateral environmental agreements under the principles of international environmental law.
EU Charter of Fundamental Rights, Article 37	The Charter of Fundamental Rights of the European Union, proclaimed in 2000, sets out fundamental rights binding on EU institutions and Member States when implementing EU law. A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.

1.9. Right to an adequate standard of living

The right to an adequate standard of living, which guarantees everyone access to essential necessities for health and well-being, including adequate food, clothing, housing, social protection and security, is protected by different human rights instruments, including the ones outlined in the table below:

1.9.1. Table 45: Right to an adequate standard of living under international human rights law

Right to an adequate standard of living under international human rights law	
Human Rights instrument	Description

Right to an adequate standard of living under international human rights law	
UDHR, Article 25(1)	The Universal Declaration of Human Rights sets out fundamental rights to be universally protection. Its Article 25(1) provides that: “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.”
ICESCR, Article 11	The ICESCR requires States to ensure the progressive realisation of economic, social, and cultural rights for all individuals without discrimination. Article 11 provides that: “The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing, housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international co-operation based on free consent. 2. The States Parties to the present Covenant, recognizing the fundamental right of everyone to be free from hunger, shall take, individually and through international co-operation, the measures, including specific programmes, which are needed: (a) To improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge, by disseminating knowledge of the principles of nutrition and by developing or reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources; (b) Taking into account the problems of both food-importing and food-exporting countries, to ensure an equitable distribution of world food supplies in relation to need.”
European Social Charter (Revised), Articles 13, 16, 30, 31	The European Social Charter is a Council of Europe treaty that safeguards fundamental social and economic rights, complementing the European Convention on Human Rights, which primarily protects civil and political rights. It guarantees a wide spectrum of everyday human rights relating to areas such as employment, housing, health, education, social protection and welfare. The Charter revised in 1996 consolidates in a single instrument the rights contained in the 1961 Charter and its 1988 Additional Protocol, while introducing new rights and amendments adopted by the States Parties; it is progressively replacing the original 1961 treaty. Article 13 provides for the right to social and medical assistance, as follows: “With a view to ensuring the effective exercise of the right to social and medical assistance, the Parties undertake: 1 to ensure that any person who is without adequate resources and who is unable to secure such resources either by his own efforts or from other sources, in particular by benefits under a social security scheme, be granted adequate assistance, and, in case of sickness, the care necessitated by his condition; 2 to ensure that persons receiving such assistance shall not, for that reason, suffer from a diminution of their political or social rights; 3 to provide that everyone may receive by appropriate public or private services such advice and personal help as may be required to prevent, to remove, or to alleviate personal or family want; 4 to apply the provisions referred to in paragraphs 1, 2 and 3 of this article on an equal footing with their nationals to nationals of other Parties lawfully within their territories, in accordance with their obligations under the European

Right to an adequate standard of living under international human rights law	
	Convention on Social and Medical Assistance, signed at Paris on 11 December 1953.” Article 16 on the right of the family to social, legal and economic protection provides that: “With a view to ensuring the necessary conditions for the full development of the family, which is a fundamental unit of society, the Parties undertake to promote the economic, legal and social protection of family life by such means as social and family benefits, fiscal arrangements, provision of family housing, benefits for the newly married and other appropriate means.” Article 30 prescribes the right to protection against poverty and social exclusion, requiring that: “With a view to ensuring the effective exercise of the right to protection against poverty and social exclusion, the Parties undertake: a to take measures within the framework of an overall and co-ordinated approach to promote the effective access of persons who live or risk living in a situation of social exclusion or poverty, as well as their families, to, in particular, employment, housing, training, education, culture and social and medical assistance; b to review these measures with a view to their adaptation if necessary.” Article 31 lays down the right to housing, requesting that: “With a view to ensuring the effective exercise of the right to housing, the Parties undertake to take measures designed: 1 to promote access to housing of an adequate standard; 2 to prevent and reduce homelessness with a view to its gradual elimination; 3 to make the price of housing accessible to those without adequate resources.”
EU Charter of Fundamental Rights, Article 34	The EU Charter of Fundamental Rights enshrines into EU law certain civil, political, social and economic rights for EU citizens and residents. Article 34 provides that: “1. The Union recognises and respects the entitlement to social security benefits and social services providing protection in cases such as maternity, illness, industrial accidents, dependency or old age, and in the case of loss of employment, in accordance with the rules laid down by Community law and national laws and practices. 2. Everyone residing and moving legally within the European Union is entitled to social security benefits and social advantages in accordance with Community law and national laws and practices. 3. In order to combat social exclusion and poverty, the Union recognises and respects the right to social and housing assistance so as to ensure a decent existence for all those who lack sufficient resources, in accordance with the rules laid down by Community law and national laws and practices.”

Specific UN instruments, focusing on certain vulnerable groups, such as children, women and people with disabilities, adapt the right to an adequate standard of living to the specific needs of these groups, as described in the table below:

1.9.2. Table 46: Right to an adequate standard of living of children, women and people with disabilities under international human rights law

Right to an adequate standard of living of children, women and people with disabilities under international human rights law	
Human Rights instrument	Description
CRC, Article 23	The CRC provides for the fundamental civil, political, economic, social, and cultural rights of children, including the right to an adequate standard of living. Article 27 sets out that: “1. States Parties recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development. 2. The parent(s) or others responsible for the child have the primary responsibility to secure, within their abilities and financial capacities, the conditions of living necessary for the child's development. 3. States Parties, in accordance with national conditions and within their means, shall take appropriate measures to assist parents and others responsible for the child to implement this right and shall in case of need provide material assistance and support programmes, particularly with regard to nutrition, clothing and housing. 4. States Parties shall take all appropriate measures to secure the recovery of maintenance for the child from the parents or other persons having financial responsibility for the child, both within the State Party and from abroad. In particular, where the person having financial responsibility for the child lives in a State different from that of the child, States Parties shall promote the accession to international agreements or the conclusion of such agreements, as well as the making of other appropriate arrangements.”
CEDAW, Article 14(2)h	The CEDAW sets out the obligations of States to eliminate discrimination against women. Article 14(2)(h) ensures women in rural areas enjoy adequate living conditions, requiring that: “2. States Parties shall take all appropriate measures to eliminate discrimination against women in rural areas in order to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development and, in particular, shall ensure to such women the right: [...] (h) To enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications.”
CRPD, Article 2 and 5	The CRPD promotes the full and equal enjoyment of all human rights by persons with disabilities. Article 28 recognises the right of persons with disabilities to an adequate standard of living and social protection, setting forth that: “1. States Parties recognize the right of persons with disabilities to an adequate standard of living for themselves and their families, including adequate food, clothing and housing, and to the continuous improvement of living conditions, and shall take appropriate steps to safeguard and promote the realization of this right without discrimination on the basis of disability. 2. States Parties recognize the right of persons with disabilities to social protection and to the enjoyment of that right without discrimination on the basis of disability, and shall take appropriate steps to safeguard and promote the realization of this right, including measures:

Right to an adequate standard of living of children, women and people with disabilities under
international human rights law

- a) To ensure equal access by persons with disabilities to clean water services, and to ensure access to appropriate and affordable services, devices and other assistance for disability-related needs;
- b) To ensure access by persons with disabilities, in particular women and girls with disabilities and older persons with disabilities, to social protection programmes and poverty reduction programmes;
- c) To ensure access by persons with disabilities and their families living in situations of poverty to assistance from the State with disability-related expenses, including adequate training, counselling, financial assistance and respite care;
- d) To ensure access by persons with disabilities to public housing programmes;
- e) To ensure equal access by persons with disabilities to retirement benefits and programmes.”

Annex 11: Website and digital outreach tools – description and performance

A dedicated project website (euthailandsia.org) serves as the principal public platform for the SIA. The website provides an accessible summary of the purpose and stage of the SIA process, an introductory description of the scope and objectives of the study in all official EU languages, the documents produced under the study (including study reports), announcements of consultation activities and events, and a search function.

It also hosts a permanent feedback mechanism through which any organisation or citizen can submit views, position papers or evidence beyond the formal consultation windows. The website is updated at least every two weeks and will remain active for at least two years after the approval of the final report. All final deliverables will be published.

Electronic communications complemented the website. Consenting stakeholders in the project database received electronic newsletters covering the progress of the SIA, invitations to participate in the OPC and business survey, and announcements of the CSD meetings and the Bangkok workshop, with the option to unsubscribe at any time. The study maintained social media channels on LinkedIn and Facebook to disseminate updates and promote the consultations, supported by the communication channels of DG Trade and the EU Delegation to Thailand. Written contributions received through the website and by email were logged and considered alongside the other consultation inputs.

The newsletters performed particularly well. Both editions achieved very high open rates and strong click rates, with no unsubscribes, spam complaints or bounces. While the “Workshop in Thailand outcomes” newsletter with an audience of 23 recipients and a 55.6% click-to-open rate reached a slightly larger audience, the earlier “Issue No. 1” newsletter generated stronger engagement overall (19 recipients, 87.5% click-to-open rate). This suggests sustained interest among recipients throughout the consultation process.

The project website functioned as the main information hub for the consultation. It recorded around 2.8K views and 1.1K visitors, with the highest traffic concentrated on the Home, Reports, Consultations and Contributions pages. The audience was international, with particularly strong traffic from Belgium and Thailand, followed by the United States and several other European countries. Access came through a mix of search engines, direct visits and external referrals, indicating that stakeholders reached the website both through active searches and through links shared in emails, institutional channels and social media. The site was used predominantly on desktop devices, which suggests mainly professional or office-based consultation of project materials.

LinkedIn generated more visible and more substantive engagement than Facebook. On the Milieu Consulting page, performance was strongest for the post on the workshop in Thailand (606 impressions, 118 engagements), which clearly outperformed the reminder posts in impressions, clicks and overall engagement. Other posts achieved lower but still relevant visibility, generally ranging between 277 and 561 impressions, with engagement rates mostly between 1.5% and 6.2%. More broadly, the LinkedIn activity on the Milieu page showed moderate to strong visibility, with reminder posts generating some interaction but generally lower engagement than milestone content such as the project-page announcement or the workshop post.

On the dedicated Thailand–EU FTA SIA LinkedIn page, overall reach was much smaller than on the Milieu page, which is expected given the narrower audience base. However, engagement rates were often relatively high compared with the number of people reached. The workshop post, for example, generated only 86 impressions and reached 54 members, but it recorded 20 engagements, including 12 clicks, corresponding to an engagement rate of 23.3%. Other posts on the project page typically reached between 23 and 98 members and generated engagement rates between 7.1% and 11.6%. This suggests that the dedicated page was reaching a smaller but more targeted audience that was responsive to the content.

Facebook activity was more limited in both reach and engagement. Posts on the Milieu page achieved modest visibility between 25 and 84 views, largely among existing followers, but generated almost no active interaction and no meaningful traffic to external content. Posts on the dedicated project Facebook page performed even more weakly, with very small audiences, no measurable engagement, and no follower growth. Across both Facebook pages, the audience was concentrated mainly in the 35–44 age group.

Taken together, the website and newsletters were the strongest channels for disseminating information and encouraging stakeholders to engage with project materials. LinkedIn was useful for visibility and targeted professional outreach, particularly through the Milieu page and for milestone posts such as the workshop announcement. Facebook, by contrast, had only a marginal role and appears to have added limited value in terms of stakeholder interaction.

Annex 12: OPC results

16 responses had been received through the OPC. Following the data cleaning procedure described below, one entry was removed as a suspected test or mischievous submission, leaving 15 substantive responses for analysis. Two organisations were reclassified: one respondent that self-classified as a trade union was reclassified as a business association, as desk research confirmed that it was an employers' organisation representing sugar manufacturers, and one respondent that self-classified as an academic institution was retained in that category while noting its advocacy-oriented profile, which was closer in character to an NGO. The number of responses is low in absolute terms, characteristic of recent OPCs for comparable SIAs, and the results are therefore treated as a source of qualitative insight into stakeholder positions rather than as a statistically representative measure of opinion. All figures remain subject to final verification for the final report.

Eight of the 15 responses came from EU-based respondents (including one from the outermost region of La Réunion), five from Thailand-based respondents, and three from respondents in third countries (Malaysia, the US and Aruba, the latter subsequently removed). Twelve of the 15 remaining respondents indicated at least one sector of activity; the most frequently selected sectors were other agriculture (six respondents), other services (four respondents), processed food including fishing (four respondents) and trade and distribution services (two respondents). Respondent organisations were predominantly small in staff numbers: six identified as micro organisations, three as small, three as medium-sized and two as large organisations, with the remaining entry being an individual citizen for whom the question did not apply. The high share of micro organisations reflected the participation of associations, whose secretariats tend to be small even where their memberships are extensive.

The dataset was cleaned in accordance with the guidance of the Better Regulation Toolbox on the analysis of public consultations. Two categories of issue were identified and recorded in a data cleaning tracker. Firstly, two pairs of linked submissions were identified and retained. The same individual submitted two contributions on behalf of two related industry bodies, a Spanish canned fish association and an EU-level tuna association; the closed-question answers differ meaningfully between the two entries, but the open-text responses substantively advanced the same position, and the two contributions were thus treated in the analysis as linked submissions from a single sectoral representative. In addition, two offices of the same international organisation, one listed under Malaysia and one under Thailand, each submitted a response; the two contributions differed substantially in content and were retained as two contributions from the same organisation.

Beyond these individual issues, the cleaning exercise identified a pattern of closely aligned responses from the European tuna processing and canned fish sector. Three responses, submitted by two national canned fish associations and one EU-level tuna association, advanced the same core position opposing the inclusion of tuna products

in the tariff liberalisation commitments of the envisaged FTA. The responses did not meet the Better Regulation Toolbox threshold for treatment as a coordinated campaign, as the closed-question answers differed across the entries and the open-text contributions, while aligned in substance, were individually drafted. They were therefore retained as individual contributions, but the sector's viewpoint was presented in the analytical chapters as a consolidated industry position rather than as three independent data points.

The OPC responses concentrated on a relatively small number of themes. Respondents from the agri-food and fisheries sectors expressed concern that tariff liberalisation would expose EU production to competition from Thai products manufactured under different cost structures and regulatory standards, and called for sensitive products to be excluded from liberalisation or subject to safeguards; these positions are considered in the sectoral analysis and the tuna and sugar case studies in. Civil society respondents and trade unions emphasised labour rights, including the ratification and implementation of fundamental ILO conventions, the situation of migrant workers, and the enforceability of the TSD provisions; these contributions inform the social and human rights analysis in Chapters 4 and 6. Other respondents highlighted animal welfare, sustainable commodity production and human rights due diligence.

The results of the OPC are triangulated with findings from the quantitative analysis and literature research and where relevant integrated into the economic, social, environmental and human rights chapters.

Annex 13: Business survey results

A targeted business survey was designed to gather more specific and technical information from companies and business organisations on trade and investment conditions between the EU and Thailand and on the expected effects of the envisaged FTA. The questionnaire was modelled on instruments used in comparable exercises, including the ex-post evaluation of the EU-Japan Economic Partnership Agreement and the EU-India SIA, and was piloted before launch. It was distributed through trade and SME associations, bilateral chambers of commerce, business networks in the EU and Thailand, and the project website, with promotion support from DG Trade and the EU Delegation to Thailand. The survey was launched on 11 February 2026 and closed on 15 May 2026. The survey also asked respondents whether they would be willing to take part in a follow-up interview, providing a recruitment channel for the interview programme described in Section 8.5.

At the time of closing the survey, 18 responses had been received, all of which contained substantive answers; no entries required removal. The absolute number of responses is modest and the results are interpreted as qualitative evidence of the positions of the responding firms and associations rather than as a representative sample of the business population.

Breakdown of OPC respondents

Type of respondent	Responses (as submitted)	Responses (after reclassification)
Company/business	8	8
Business association	7	10
Other	2	0
Trade union	1	0
Total	18	18

Source: Analysis of EU Survey export of 2 May 2026.

Notes: Three respondents that self-classified as 'Other' or 'Trade union' were reclassified as business associations following verification of their organisational profiles.

Fifteen of the 18 responses came from EU-based respondents (including one from La Réunion), two from Thailand-based respondents and one from a third country (Ecuador). The sectoral profile of the responses was heavily concentrated: nine respondents (half of the sample) indicated activity in fishing and aquaculture and six in other agriculture and food products, with the remaining selections spread across manufacturing, business services, beverages, transport and distribution. By organisation size, eight respondents identified as micro, two as small, two as medium-sized and six as large organisations. The micro category largely reflected association secretariats rather than the size of the member companies they represent.

The data cleaning exercise was recorded in a dedicated tracker and identified two sets of issues. Firstly, three classification corrections were applied following desk research on the responding organisations: a Danish aquaculture producer organisation and a Basque tuna industry association, both self-classified as 'Other', and an Ecuadorian fisheries chamber, self-classified as a trade union, were each reclassified as business associations as all three represent the collective interests of companies rather than workers. One company's sector selection ('Other manufacturing') was noted as more accurately belonging to fishing and aquaculture, raising the count for that sector to 10. Secondly, two responses were identified as originating from entities within the same corporate group: a Spanish canned fish producer and its parent group each submitted a response, and while both were retained as separate legal entities, the corporate link was reflected in the weighting of the sector's views.

The most significant data quality consideration concerned the composition of the sample. Nine of the 18 responses were submitted by companies and associations in the European and international tuna and canned fish sector, and these responses advanced a closely aligned position: opposition to tariff concessions on tuna products, concern about displacement of EU production and about competition from products manufactured under lower labour and environmental standards, and calls for the exclusion of tuna from the agreement or for strict rules of origin. The open-text responses differed sufficiently in language and detail to be considered individual contributions and the pattern did not meet the Better Regulation Toolbox threshold for campaign treatment. Nonetheless, the survey results are not read as a measure of overall business sentiment and the tuna sector's position is presented in the analysis as a consolidated industry viewpoint, considered in depth in the tuna case study.

Beyond the tuna sector, respondents addressed a broader range of issues, including high Thai tariffs in specific product categories, NTMs such as import licensing and certification requirements, restrictions on foreign equity participation in services, and the opportunities that improved market access would create for EU exporters currently at a disadvantage compared to competitors from countries that already hold preferential access to the Thai market.

The results of the Business survey are triangulated with findings from the quantitative analysis and literature research and where relevant integrated into the economic chapter.

Annex 14: Summary of CSD meeting on 19 January 2026

CIVIL SOCIETY DIALOGUE

Sustainability Impact Assessment (SIA) in support of FTA negotiations between the EU and the Kingdom of Thailand

Date: 19 January 2026

Time: 14.30 – 16.00

Location: Berlaymont

Lead speakers

- TRADE/C/2, Directorate-General for Trade and Economic Security, European Commission
- The SIA Project team (Milieu Consulting SRL, LSE Consulting)

Moderator

- TRADE/C/2, Directorate-General for Trade and Economic Security, European Commission

1. Introduction: FTA negotiations between the EU and Thailand

The Commission presented recent developments and the overall status regarding the FTA negotiations between the EU and Thailand. The negotiations started in 2023 with three rounds per year. The next round of negotiations will commence in early February. The Sustainability Impact Assessment (SIA) study was commissioned by DG TRADE to feed into the FTA negotiations. The CSD provides an opportunity to look into the first phase of the SIA and to set up ways to work together moving forward. The focus of the CSD is on the SIA process rather than the FTA negotiations.

2. Presentation: Sustainability Impact Assessment

The project team presented the SIA process, including the focus areas, preliminary findings, the stakeholder consultation process including how participants can engage

with the SIA process, the heat map and the in-depth sectoral analysis, as well as the next steps.

3. Discussion / Questions & Replies

One NGO supported the consideration of the meat sector, in particular poultry as a sensitive sector, for in-depth sectoral analysis in the SIA process. The NGO stated that the poultry sector affected all of the sustainability areas (economic, social, environmental and human rights). The sector was particularly important, since poultry had after rice the second largest share in trade between Thailand and the EU. The project team welcomed the input and suggested that the NGO submit documentation either via the website or the email address of the study. They were invited to engage in an interview with the study team.

One national business association supported the speedy and efficient FTA and SIA process. They raised three concrete expectations towards an FTA between the EU and Thailand. First, full elimination of all tariffs would be desirable while currently, the average tariff is at 5%. Second, the reduction of technical barriers to trade should be achieved. The business association explained that currently, there were barriers in terms of mandatory certification requirements through the Thai industrial standards institute, which related to product standards and quality insurance. Thirdly, the FTA should create a level playing field between EU and Thai companies, in particular relating to subsidies and public procurement. The project team welcomed the input and encouraged the association to share the business survey with its members to ensure their experiences were recorded.

Another business association also attempted to take the floor, however technical issues meant the question was not heard in the meeting. The representative was encouraged to either email the CSD team or the project team.

To wrap up, the project team voiced their appreciation about all contributions and encouraged further stakeholder engagement through the website, the submission of any additional documents as well as sharing the open public consultation, and business survey within business members of the participants.

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