

International Investment in Climate Change Mitigation and Adaptation

Trends and Policy Developments



**United
Nations**

Geneva, 2022

© 2022, United Nations

This work is available through open access, by complying with the Creative Commons licence created for intergovernmental organizations, at <http://creativecommons.org/licenses/by/3.0/igo/>.

The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the United Nations or its officials or Member States.

The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Photocopies and reproductions of excerpts are allowed with proper credits.

This publication has not been formally edited.

United Nations publication issued by the United Nations Conference on Trade and Development

UNCTAD/DIAE/INF/2022/2

This publication aims to inform the debate on climate finance at COP27. It presents the latest international climate change investment trends and policy developments.

The publication brings together the key findings of several recent monitors published by UNCTAD's Division on Investment and Enterprise, including a Special Issue of the Global Investment Trends Monitor (GITM no. 43) on climate change investment trends, a Special Issue of the Investment Policy Monitor (IPM no. 9) on national investment policy developments relevant to climate change, and two IIA Issues Notes on developments in the area of international investment agreements and investor-State dispute settlement.

The publication further incorporates key findings from the World Investment Report 2022, insights from the intergovernmental debate during UNCTAD's Multi-Year Expert Meeting on Investment and Climate Change held in October 2022, and elements from the G20 Compendium on Promoting Investment for Sustainable Development, prepared by UNCTAD under the guidance of the Indonesian presidency of the G20.

UNCTAD will continue to monitor global investment trends and prospects, as well as national and international policy developments, with a special focus on progress towards the SDGs and on climate change mitigation and adaptation.

INTERNATIONAL INVESTMENT IN CLIMATE CHANGE ADAPTATION AND MITIGATION

EXECUTIVE SUMMARY.....1

A. INVESTMENT TRENDS.....2

B. NATIONAL INVESTMENT POLICY TRENDS.....7

C. INTERNATIONAL INVESTMENT AGREEMENTS.....13

D. INVESTOR–STATE DISPUTE SETTLEMENT.....23

REFERENCES.....31

EXECUTIVE SUMMARY

Investment in climate change mitigation and adaptation risks a temporary setback. Monthly investment data shows declining numbers of new project announcements after the first quarter of 2022. Worsening financial conditions and investor uncertainty caused by the war and the effects of the triple food, fuel and finance crises are putting downward pressure on all cross-border investment. Although the search for solutions to the energy crisis has raised hopes for a faster transition to green energy, the first signals are that climate change investment will not escape the short-term FDI slump.

In climate change mitigation sectors, the number of new project announcements in the first three quarters of 2022 was 7 per cent lower than in 2021. In adaptation sectors it was 12 per cent lower. Urgent action is needed for international investment to return to its growth path.

The longer-term trend in international (cross-border) investment in climate change mitigation and adaptation invites three critical observations: (i) although investment in climate change mitigation has seen significant growth after the adoption of the SDGs in 2015 and a strong acceleration after 2020, the rate of growth is not sufficient to meet even the pre-SDG needs assessment (UNCTAD, 2014); (ii) there are significant regional imbalances in the growth of climate change investment, and most is so far concentrated in developed countries (especially Europe); (iii) international investment in adaptation sectors lags far behind investment in mitigation, especially renewable energy.

Targeted policies for attracting FDI in climate change mitigation and adaptation sectors matter, probably even more than in other sectors. Recent national policy initiatives to promote international investment in climate change adaptation and mitigation focus primarily on the renewable energy and electricity sectors. These sectors account for 60 per cent of climate change investment measures adopted worldwide in the last decade. Other mitigation areas have not received equal policy attention, and policy measures to attract investment in climate change adaptation sectors still need to be developed and implemented in developing countries. In developed economies, three out of four policy measures in climate change sectors in recent years concerned the introduction or expansion of FDI screening mechanisms, reflecting a trend towards heightened national security concerns.

The need for climate action has added urgency to the reform of the international investment agreements (IIA) regime. The current IIA regime can constrain States when implementing measures to combat climate change. The risk of investor–State dispute settlement (ISDS) being used to challenge climate policies is a major concern. Two broad approaches to fast-track IIA reform can be considered: first, making individual IIAs climate-responsive by ensuring that only low-carbon and sustainable investments are covered and by safeguarding the right and duty of States to regulate in the public interest. This can be coupled with provisions aimed at promoting and facilitating sustainable investment. Second, exploring the possibilities to reconceptualize the scope, purpose and design of the IIA regime through engagement in comprehensive IIA reform actions at the multilateral, regional, bilateral and national levels.

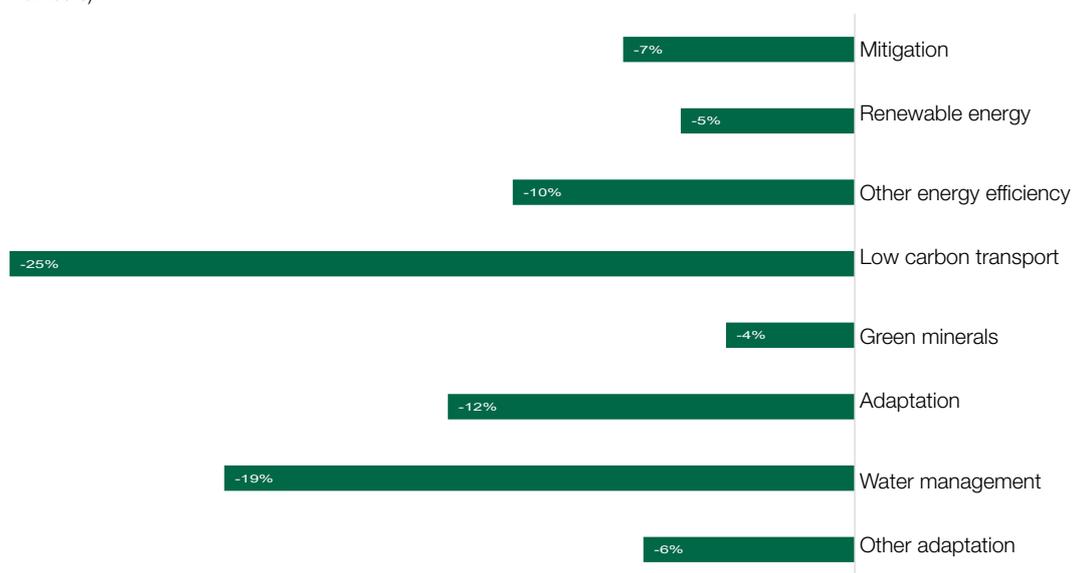
Innovative ways and means are needed to attract international private investment in climate change adaptation and mitigation. Enabling policy frameworks, public-private partnerships, pipelines of bankable and impactful projects, and initiatives to de-risk climate FDI are all important. The introduction of climate impact assessments of investment projects should be considered. Investment promotion agencies (IPAs) can develop “red carpet” services for climate FDI. Provisions related to climate FDI should be considered for inclusion in international investment agreements. Finally, capital exporting countries can include outward FDI policies as part of their climate strategies, for example, by linking outward FDI support to carbon content and standards, and by supporting climate-impact reporting requirements.

A. INVESTMENT TRENDS

Global foreign direct investment (FDI) flows in the second quarter of 2022 reached an estimated \$357 billion, down 31 per cent from the first quarter and 7 per cent less than the quarterly average of 2021. The negative trend after the first quarter reflects a shift in investor sentiment due to the Ukraine war; the food, fuel and finance crises around the world; rising inflation and interest rates; and fears of a coming recession. Expectations for the full year are for a marked slowdown.

In line with the downshift in global investment, cross-border investment in climate change mitigation and adaptation is likely to decline in 2022. The number of new project announcements in the first 3 quarters of 2022 was 7 per cent lower than in 2021 in mitigation, and 12 per cent lower in adaptation sectors (Figure A.1).

Figure A.1. Climate change investment trend, Q1-Q3 2022 vs 2021, greenfield project announcements and international project finance deals
(project numbers)



Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield FDI projects and Refinitiv SA for international project finance deals.

Note: Numbers for 2022 are projected based on the first three quarters for international project finance deals and the first 8 months for greenfield projects.

INTERNATIONAL INVESTMENT IN CLIMATE CHANGE

Table A.1. Announced greenfield projects and international project finance deals in climate change sectors and fossil fuel energy, 2020–2021 and partial year data for 2022

(millions of dollars and number)

Climate change-relevant sector	Greenfield projects				International project finance deals			
	2020	2021	2022:Q1-Q3	2021–2022 Growth rate (%)	2020	2021	2022:Q1-Q3	2021–2022 Growth rate (%)
Renewable energy								
Value	96 750	97 584	169 078	160	189 153	413 374	199 653	-36
Number of projects	525	486	327	1	786	1 098	759	-8
Other energy efficiency								
Value	23 705	58 212	71 064	83	16 639	134 561	61 749	-39
Number of projects	197	486	294	-9	42	153	100	-13
Low carbon transport								
Value	250	156	500	379	20 214	11 047	3 196	-61
Number of projects	10	12	9	13	12	22	9	-45
Adaptation								
Value	736	4 448	2 904	-2	3 834	10 035	8 128	8
Number of projects	25	68	35	-23	23	22	20	21
Water management								
Value	613	4 039	2 574	-4	3 834	9 998	8 128	8
Number of projects	8	21	5	-64	23	21	20	27
Other adaptation								
Value	122.87	408.71	330	21	-	38	-	..
Number of projects	17	47	30	-4	-	1	-	..
Green minerals								
Value	1 037	5 083	5 522	63	9 552	22 007	12 665	-23
Number of projects	11	38	28	11	17	32	19	-21
Fossil fuel energy^a								
Value	47 550	16 234	52 197	382	84 371	179 761	49 136	-64
Number of projects	91	67	48	7	123	181	102	-25

Source: UNCTAD, information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield FDI projects and Refinitiv SA for international project finance deals.

Note: Fossil fuel investments include power generation and extraction of oil, gas and coal.

Table A.2. Announced greenfield projects and international project finance deals in climate change mitigation, 2020–2021 and partial year data for 2022

(number)

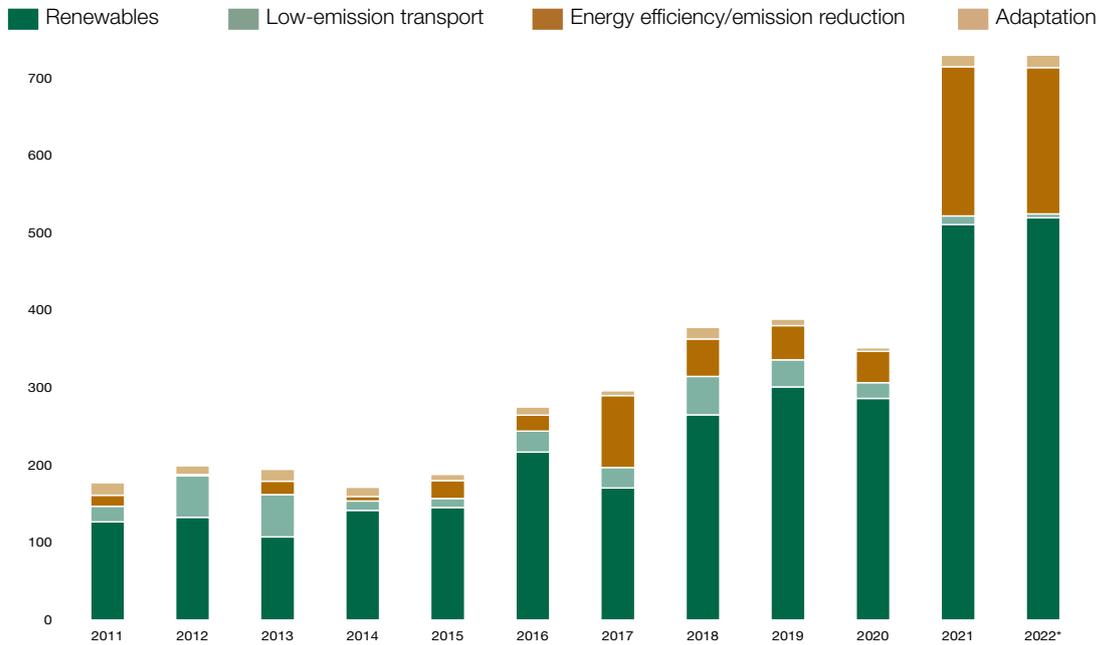
Region / economy	Greenfield projects				International project finance deals			
	2020	2021	2022:Q1-Q3	2021–2022 Growth rate (%)	2020	2021	2022:Q1-Q3	2021–2022 Growth rate (%)
World	732	984	630	-4	840	1 273	868	-9
Developed economies	483	724	449	-7	549	865	592	-9
Europe	343	514	305	-11	336	543	405	-1
European Union	275	410	215	-21	274	409	317	3
Other Europe	68	104	90	30	62	134	88	-12
North America	92	157	111	6	130	203	116	-24
Other developed economies	48	53	33	-7	83	119	71	-20
Developing economies	249	260	181	4	291	408	276	-10
Africa	40	48	46	44	43	44	47	42
North Africa	5	6	30	650	9	7	10	90
Other Africa	35	42	16	-43	34	37	37	33
Asia	99	138	93	1	108	187	120	-14
Central Asia	3	10	2	-70	8	9	3	-56
East Asia	25	42	19	-32	11	35	15	-43
South-East Asia	30	31	27	31	47	58	38	-13
South Asia	16	15	16	60	28	69	57	10
West Asia	25	40	29	9	14	16	7	-42
Latin America and the Caribbean	110	73	42	-14	139	175	109	-17
South America	82	59	25	-36	122	150	98	-13
Central America	25	13	15	73	13	15	5	-56
Caribbean	3	1	-	..	4	10	6	-20
Oceania	-	1	1	2	-	..

Source: UNCTAD, information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield FDI projects and Refinitiv SA for international project finance deals.

Climate change investment showed an upward trend after the adoption of the SDGs in 2015, and a strong acceleration in 2021, especially in renewable energy (Figure A.2). The boom was supported by post-COVID stimulus investment packages, particularly in Europe, and loose financing conditions for international project finance worldwide. Total project values in 2021 were twice the pre-pandemic level. This momentum, however, is now at risk.

Figure A.2. Announced greenfield projects and international project finance deals in climate change sectors , 2011–2022

(billions of dollars)

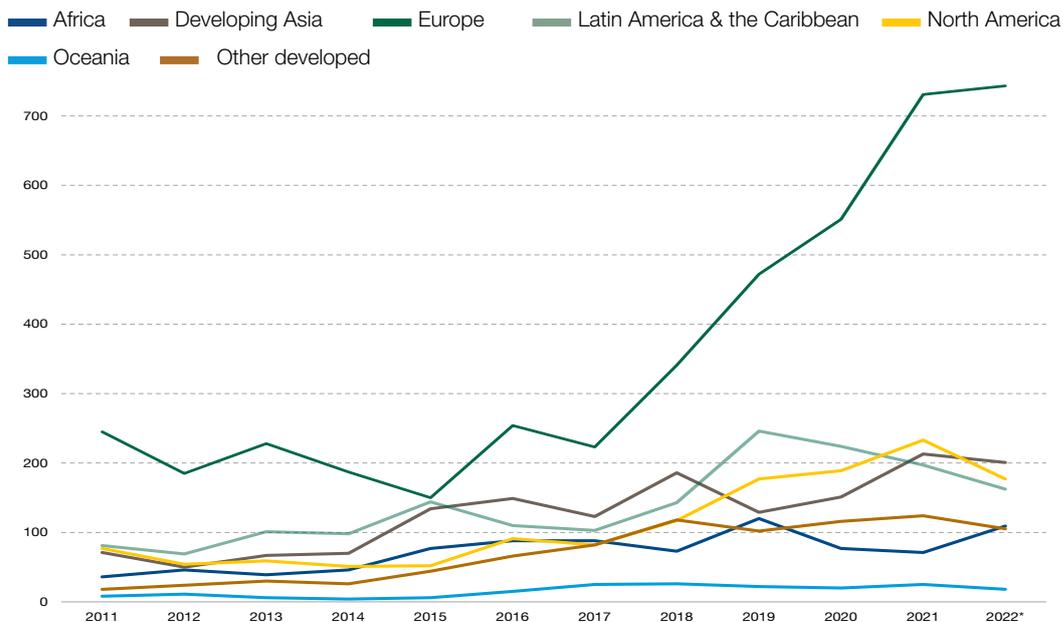


Source: UNCTAD, information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield FDI projects and Refinitiv SA for international project finance deals.

Note: Values for 2022 are projected based on the first three quarters for international project finance deals and 8 months for greenfield projects.

Figure A.3. Announced greenfield projects and international project finance deals in renewable energy, 2011–2022

(project numbers)



Source: UNCTAD, information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield FDI projects and Refinitiv SA for international project finance deals.

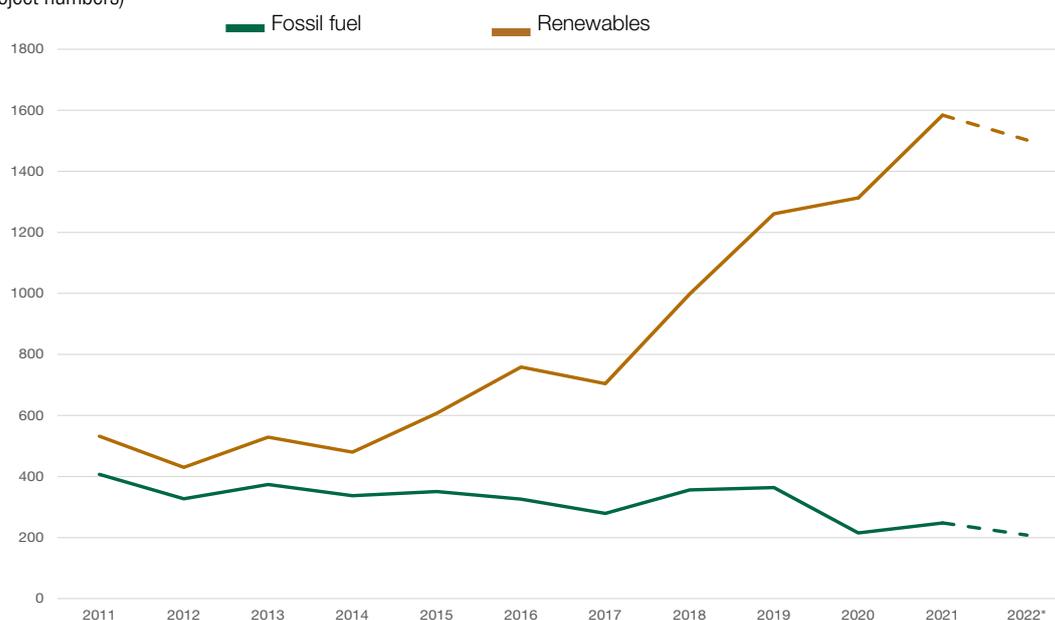
Note: Values for 2022 are projected based on the first three quarters for international project finance deals and 8 months for greenfield projects.

Mitigation projects account for the lion's share (94 per cent) of international climate investments, while adaptation projects continue to lag far behind. Most mitigation investments are in renewable energy and, to a lesser extent, in various energy efficiency projects. See UNCTAD's World Investment Report 2022. for details on the relative propensities for international investors to participate in different types of climate change projects and table in the appendix). Developed economies account for two thirds of international project finance deals and greenfield investments in renewables. Europe alone accounts for more than half of renewables projects, with more than 700 projects in the first three quarters of 2022. North America and developing Asia attracted about 200 projects each, Latin America and the Caribbean about 150, and Africa about 100 (Figure A.3).

The shift from fossil-fuel to green investments to support the energy transition risks a setback due to the loss of momentum in renewables and high oil and gas prices (Figure A.4). For now, the downward trend in investment is also affecting extractive industries and fossil-fuel-based energy generation, with project numbers in these sectors about 16% lower in the first 3 quarters of 2022. But high profits of multinationals in these sectors combined with the energy crisis could lead to a renewed push for investments in dirty energy. An early indication is the value of cross-border M&As in the extractive industry, which rose six-fold in the first three quarters of 2022 (see GITM, no. 42).

Figure A.4. Announced greenfield projects and international project finance deals in renewables and fossil fuels, 2011–2022

(project numbers)



Source: UNCTAD, information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com) for announced greenfield projects and Refinitiv SA for international project finance deals.

Note: Fossil fuel investments include power generation and extraction of oil, gas and coal. Numbers for 2022 are projected based on the first three quarters for international project finance and 8 months for greenfield projects.

B. NATIONAL INVESTMENT POLICY TRENDS

Targeted policies aimed at attracting FDI in climate change mitigation and adaptation sectors matter, probably even more so than in other sectors. In the renewable energy sector, for example, energy policies are critically important to attract FDI in developing countries. While FDI attraction in the sector also depends on other generally accepted determinants of investment such as institutional and macroeconomic conditions, the single most important determinant to attract FDI in the sector is the existence of renewable energy policies, including risk mitigation mechanisms and tariff regulation (e.g. feed-in tariffs) or regulatory aspects such as access to the grid (Keeley and Ikeda, 2017; Mahbub et al, 2022; Ragosa and Warren, 2019; Criscuolo and Menon, 2015; Keeley and Matsumoto, 2018). Other important determinants include the provision of international public finance (Ragosa and Warren, 2019, Haščič et al., 2015), the existence and quality of PPP mechanisms (Cedrick and Long, 2017; David and Venkatachalam, 2018), and policy stability and longer-term perspective of public policies (Criscuolo and Menon, 2015).

Policies also play a key role in mitigating the possible environmental harm of FDI in the host country and tapping into the positive environmental externalities, e.g. the transfer of technology and the diffusion of management practices to lower carbon emissions (Sarkodie et al, 2020; Udemba, 2021; Nejati and Taleghani, 2022).

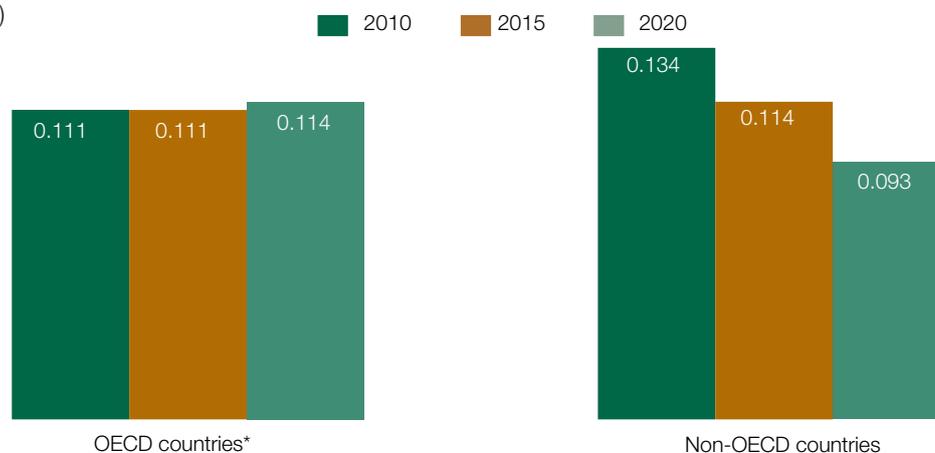
On the eve of the adoption of the SDGs, UNCTAD estimated that between 2015 and 2030 the annual investment required for climate change mitigation and adaptation in developing countries was \$630-970 billion, with an investment gap of \$440-780 billion (UNCTAD, 2014). International investment in sectors relevant to the SDGs in developing countries increased substantially in 2021, by 70 per cent, but most of the growth went to renewable energy (UNCTAD, 2022). In the context of increasing financing needs of developing countries to respond to the climate change adaptation challenge (UNEP, 2021) and the emergency to enable climate resilience in a rapidly narrowing window of opportunity (IPCC, 2022), effective policies to mobilize private sector investment and FDI in key adaptation and mitigation sectors are needed.

Between January 2010 and June 2022, 103 national policy measures affecting FDI in climate change-related sectors were adopted worldwide. The analysis of these measures signals that initiatives to promote climate change adaptation and mitigation through FDI are still very concentrated in the renewable energy and electricity sector (60 per cent of the measures). It also highlights differing concerns between developing and developed countries. In developing economies, 30 per cent of the policy measures adopted in climate change-related sectors between 2010 and 2022 concerned liberalization, mostly related to the unbundling of the energy market or the privatization of State-owned enterprises (SOEs). The remainder primarily consisted of measures aimed at promoting investment in renewable energy generation and in green technologies (e.g. incentive schemes aimed at reducing the carbon footprint of industrial and agricultural production); or at introducing regulations to promote the green energy transition (e.g. the adoption of carbon taxes, the promotion of sustainability standards or the introduction of risk-based business licensing systems). Conversely, in developed economies, 3 out of 4 measures were related to the introduction or enhancement of FDI screening mechanisms, confirming the trend towards heightened national security concerns highlighted by UNCTAD in recent years.

Developing countries: Focus on liberalization and investment attraction

The liberalization of the electricity sector is an important step to allow private investment in renewable energy. The average FDI restrictiveness index for the electricity sector of non-OECD countries shows an increase in liberalization over the last decade (Figure B.1). This trend reflects the continued opening of the electricity sector to investment, led by the liberalization of the Chinese and Russian electricity markets.

Figure B.1. FDI regulatory restrictiveness index in the electricity sector, by group of countries, 2010-2020
(average)



Source: OECD Stat, FDI regulatory restrictiveness index database

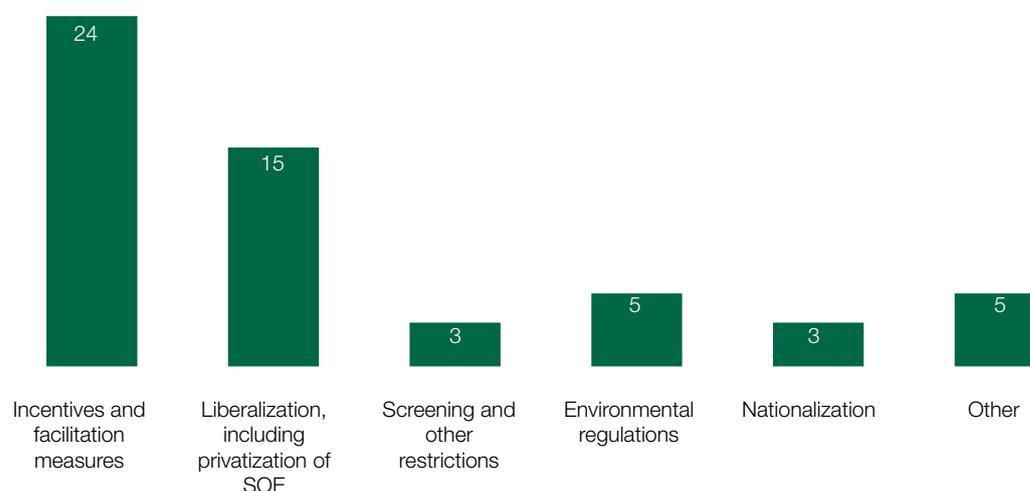
Note: *OECD countries in 2022 are considered OECD countries for the whole period analyzed

In this context, it is not surprising that about 30 per cent of policy measures adopted in climate change-related sectors in developing countries between 2010 and 2022 concern liberalization (Figure B.2). These included the unbundling of the energy market and the privatization of SOEs (15 measures in total). Privatization measures concerned primarily the electricity and water sectors. Based on the analysis of the Investment Policy Monitor database, 7 developing countries (China, Ethiopia, India, Indonesia, Syria, Türkiye, and the United Arab Emirates) adopted measures to open their electricity market to private and/or foreign investment during the last decade, while the Philippines and the United Arab Emirates have also adopted measures to specifically open the renewable energy sector to foreign investors. Restrictive measures affecting FDI in climate change-related sectors were less frequent. They included the nationalization of electricity companies (3 measures), and the introduction of screening mechanisms or other restrictions (3 measures), such as the prohibition of foreign investment in specified activities (e.g. drinking water).

Other policies adopted by developing countries aimed mainly to attract investment through incentives and investment facilitation in climate change-related sectors (Figure B.2). Such policies account for 43 per cent of measures taken between 2010 and June 2022 (24 measures).

Figure B.2. Developing economies: investment policy measures in climate change-related sectors, 2010-2022

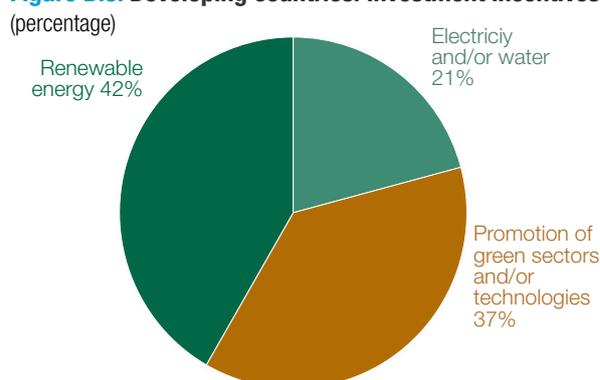
(number of measures)



Source: UNCTAD's [Investment Policy Monitor](#)

Out of the 24 policy measures aiming to promote investment in climate change-related sectors adopted by developing countries, 42 per cent concerned specifically investment in renewable energy and 37 per cent aimed to promote and facilitate investment in green sectors and technologies in general. This latter category includes, for example, the promotion of FDI in energy-saving and environmental technologies or tax incentive programmes in support of green industries. Finally, 21 per cent of these 24 policy measures concern the promotion of investment in the electricity and/or water sector in general (Figure B.3). These incentives and promotion mechanisms vary depending on countries and targeted sectors (for related examples, see [UNCTAD, 2022d](#)).

Figure B.3. Developing countries: Investment incentives and promotion measures by sector, 2010-2022



Source: UNCTAD's [Investment Policy Monitor](#)

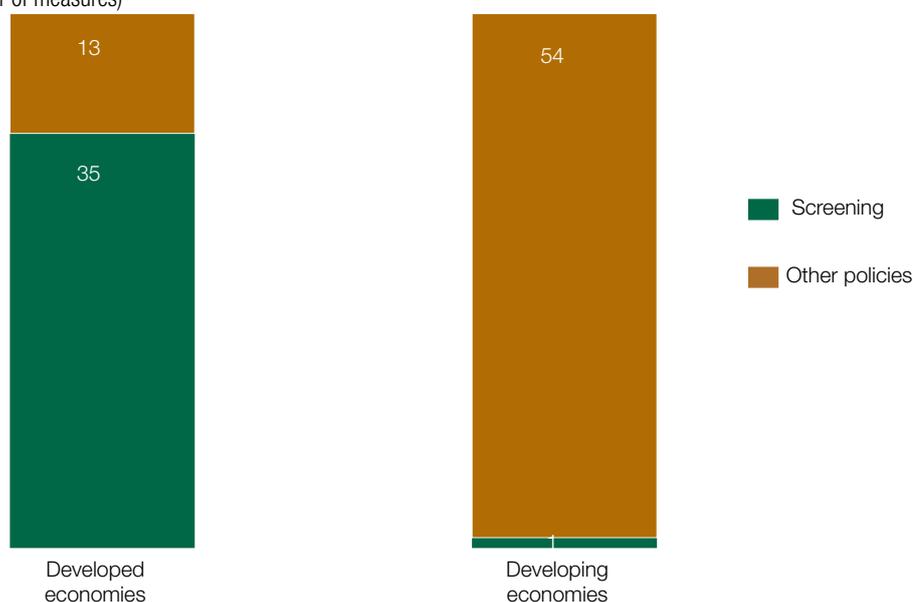
Finally, several developing countries adopted environmental regulations or other measures to enhance sustainability. These include the adoption of a carbon tax by South Africa (2019), the enactment of a law on prior consultation in environmentally sensitive investment projects by Peru (2012), or the issuing by the Philippines of an executive order to ensure that the environmental standards in mining are fully enforced (2012). Other relevant measures included the creation of guidelines for sustainable outward FDI by Chinese companies released by the Chinese Government (2013), and the introduction of a risk-based business licensing system in Indonesia (2021).

Developed economies: Heightened national security concerns underpin tighter investment regulation

Electricity generation and transmission and water supply are among the critical sectors usually protected by FDI screening mechanisms, falling under the general term of “critical infrastructure”. With the growing importance of renewables in their energy mix, several developed countries have broadened the scope of critical industries and technologies to explicitly include clean energy, energy storage systems or environmental technologies. As a result, 73 per cent of the identified policy measures concerning these sectors in developed economies were related to the introduction or expansion of FDI screening mechanisms (Figure B.4).

Figure B.4. Investment policy measures in climate change-related sectors, 2010-2022

(number of measures)

Source: UNCTAD's [Investment Policy Monitor](#)

In particular, 22 countries took measures related to screening mechanisms in climate change-related sectors in the period under consideration, including: Australia, Canada, Israel, Japan, the United Kingdom, the United States, and several European Union countries (for examples, see [UNCTAD, 2022d](#)). China was the only developing country that adopted screening measures related to climate change-related sectors in the period.

The trend towards increased controls on FDI in climate change-related sectors is also reflected in the FDI restrictiveness index. For OECD countries, the average index in the electricity sector has been relatively stable in the last decade (Figure B.1), as most developed economies had already liberalized the sector before 2010. In Europe, for example, the liberalization of the electricity market started in the 1990s. The average index for 2020, however, shows a slight increase in FDI restrictions, explained by the screening policies that have been put in place in many developing economies. This trend is likely to continue in light of the energy security concerns raised by the war in Ukraine and its impact on energy supply and prices.¹

In developed economies, non-screening measures adopted in climate change-related sectors between 2010 and 2022 concern mainly the further liberalization of the electricity market through the privatization of the remaining SOEs (6 measures), followed by the introduction of investment incentives for the promotion of green sectors and technologies, including renewable energy (4 measures). Other measures include the revoking of the license of a foreign power firm in Albania as well as the reform of the renewable energy subsidies in Spain and in the United Kingdom in 2013, to better align them with technology maturity and political priorities respectively (Figure B.5).

¹ In July 2022, for instance, the Government of France announced its intention to take full control of the power company EDF in a deal worth \$9.8 billion. The Government intends to hold 100 per cent of EDF's shares, compared with the 84 per cent it owns currently. The Ministry of Economy and Finance stated that the project to nationalize EDF "comes in the context of a climate emergency and at a time when the geopolitical situation requires strong decisions to ensure France's energy independence and sovereignty". (<https://presse.economie.gouv.fr/19-07-2022-letat-annonce-son-intention-de-lancer-une-offre-publique-dachat-simplifiee-sur-les-titres-de-capital-dedf-dans-lobjectif-de-retirer-la-societe-de-la-co/>)

Figure B.5. Developed economies: investment policy measures in climate change-related sectors, 2010-2022

(number of measures)

Source: UNCTAD's [Investment Policy Monitor](#)

National investment policy outlook

With increased energy security concerns, the trend towards tighter FDI access policies is expected to continue and may increasingly extend to developing countries. While regulations will continue to be adopted in most countries due to the strategic nature of the sector, a certain degree of liberalization is an important step to attract FDI and private finance in renewable energy and accelerate the decarbonization of electricity generation in developing economies.

Attracting international private investment to respond to countries' specific needs in climate adaptation and mitigation is key to closing the financing gaps in these sectors. Innovative ways and means are needed to foster public and private partnerships, improve the enabling policy frameworks, and build capacity for preparing pipelines of bankable and impactful projects in developing countries. Countries should also consider providing political-risk insurance to de-risk climate FDI, adopt climate impact assessments when reviewing investment projects, and, to further facilitate such low carbon investments, investment promotion agencies (IPAs) could develop "red carpet" services for climate FDI. Moreover, these new incentives and instruments to attract climate FDI need to be aligned to commitments in Nationally Determined Contributions, and, to encourage and protect low carbon investments, provisions related to climate FDI should be included in international investment agreements. In addition, at a time where ESG reporting requirement for MNEs is gaining momentum around the world, countries could include outward FDI policies as part of their climate strategies, for example, by linking outward FDI support to carbon content and standards, and require reporting (Stephenson and Zhan, 2022).

Investment policy measures to promote climate change mitigation and adaptation are still highly concentrated in the renewable energy and electricity sectors. Although the deployment of renewable energy plays a key role in the transition to a low-carbon economy, other mitigation policies such as energy and resource efficiency technologies and other environmental technologies would also need to be promoted. Moreover, climate change adaptation-related sectors need to be defined on a country-basis as vulnerabilities and priorities differ nationally and locally.

INTERNATIONAL INVESTMENT IN CLIMATE CHANGE ADAPTATION AND MITIGATION

Climate change strategies should comprehensively address energy issues such as security of supply, efficiency and affordability, and environmental sustainability, but also the development of climate change mitigation and adaptation sectors and technologies. Such strategies should be developed through a participatory process and be publicly communicated. Climate change strategies should embed investment promotion as a key component and clearly communicate the government's priorities in the medium and long run. In parallel, the targets arising from the comprehensive climate change strategy should be embedded in investment promotion strategies to inform the activities of the actors involved in the investment promotion efforts, so it is important to include climate goals in the strategies and the key performance indicators of IPAs.

C. INTERNATIONAL INVESTMENT AGREEMENTS

The IIA regime and climate action

Goal 13 of the Sustainable Development Goals adopted in September 2015 calls for “urgent action to combat climate change and its impacts” (A/RES/70/1). The Paris Agreement – the benchmark for climate action – was adopted shortly after, in December 2015, under the umbrella of the 1992 United Nations Framework Convention on Climate Change (UNFCCC). More recently, on 28 July 2022, the United Nations General Assembly recognized the right to a clean, healthy and sustainable environment as a human right (A/RES/76/300). IIA policymaking has so far shown limited consideration for climate action and environmental protection as a specific concern.

The international investment agreements (IIA) regime consists of 3,300 treaties: 2,871 bilateral investment treaties (BITs) and 429 other treaties with investment provisions (TIPs). IIAs contain substantive protection standards for foreign investors and investments, coupled with access to investor–State arbitration, known as investor–State dispute settlement (ISDS). IIAs proliferated in the 1990s as an instrument of global investment policymaking and have become increasingly contentious over the past decade, including due to the fast-growing number of ISDS claims and States’ increased exposure to ISDS risks and costs.²

The urgency of climate action has added attention to the need to reform the IIA regime. The 2022 Intergovernmental Panel on Climate Change (IPCC) report highlighted the risks of ISDS being used to challenge climate policies (Box C.1). To substantially reduce greenhouse gas emissions in order to meet climate change objectives, a transition to a low-carbon economy and significant changes in investment patterns are needed (IPCC, 2014, p. 30). Many governments and other actors in public and private sectors are taking steps to align financial flows with net-zero targets for greenhouse gas emissions and Paris Agreement objectives, notably in the financial sector (lending, asset management and insurance).³

Reform of existing IIAs is essential to ensure that IIAs do not hinder States from implementing climate change measures and from achieving a just transition to low-carbon economies. The reform should minimize the States’ risk of facing ISDS claims related to climate change policies and those related to high-carbon investments.

Many past ISDS cases were related to measures or sectors of direct relevance to climate action (UNCTAD, 2022a). Using IIAs as the legal basis, investor claimants brought at least 175 ISDS cases concerning measures taken for the protection of the environment. Moreover, investors in the fossil fuel sector have been frequent ISDS claimants, initiating at least 192 ISDS cases against different types of State conduct. The last decade has also seen the emergence and proliferation of ISDS cases brought by investors in the renewable energy sector, with 80 known cases. Many of these cases challenged Governments’ legislative changes involving reductions in feed-in-tariffs for renewable energy production. The following Section D looks at these three types of ISDS cases.

While IIA reform is underway in many countries, a lot remains to be done. The large stock of old-generation IIAs can constrain States when implementing measures to combat climate change and protect the environment, among other public policy imperatives. The narrow window available to keep warming within 1.5°C and the unprecedented aggregate scale of potential ISDS claims that

² For the evolution of the IIA regime, including the shift from the era of proliferation to the era of re-orientation, see UNCTAD, 2015.

³ See, for example: <https://tinyurl.com/33vn29rn>; <https://www.gfanzero.com/about/>; <https://tinyurl.com/3j46bvt9>; <https://tinyurl.com/ynrp24t9>

could challenge climate measures such as fossil fuel phase-outs call for States to deepen and accelerate IIA reform processes (UNCTAD-IIED, 2022). These reforms should align IIAs with the Paris Agreement and net-zero targets by promoting and facilitating investment into climate-related projects – such as renewable energy ones – and limit or exclude coverage of high-carbon investments under IIAs. Such reforms can be taken at the multilateral, regional, bilateral and national levels. A coordinated multilateral approach to IIA reform is preferable as it could result in an international instrument creating legal certainty for multiple stakeholders. More immediate, smaller scale reforms at the bilateral or regional level should be pursued in parallel. Individual regions and countries can lead the way in fast-tracking IIA reforms.

This may require a reconceptualization of the scope, purpose and design of IIAs. Intergovernmental and multistakeholder dialogue can play a role in identifying and devising investment policy tools to promote and facilitate sustainable investments, in support of climate action.

States have options and tools at their disposal to reform their existing IIAs, including based on UNCTAD's IIA Reform Accelerator (2020), the IIA Reform Package (2018) and the Investment Policy Framework for Sustainable Development (2015). A recent UNCTAD-IIED Policy Brief highlighted key policy recommendations supporting the reform of the IIA regime in order to advance climate goals (UNCTAD-IIED, 2022).

Box C.1. The 2022 Report of the Intergovernmental Panel on Climate Change (IPCC) and ISDS

Climate change is among the most pressing global challenges of our time. The Intergovernmental Panel on Climate Change (IPCC) found that human-induced global warming has already caused changes in the climate system and that global warming will exceed 2°C unless “deep reductions” in greenhouse gas emissions occur (IPCC, 2022, Chapter 15). The achievement of the Sustainable Development Goals (SDGs) is directly at stake, as are human rights including the rights to life, health, water, and a clean and healthy environment.

Rising to this challenge will require transformations in economies and societies. Regarding the energy sector, the International Energy Agency noted that a global transition to net-zero emissions energy involves “nothing less than a complete transformation of how we produce, transport and consume energy” (IEA, 2021, p. 13). This transformation includes phasing out unabated coal power plants and reorienting energy sources from fossil fuels to renewables. Energy scenarios consistent with limiting global warming to 1.5°C require more investments in renewable energy.

The IPCC Report highlighted that ISDS based on IIAs might significantly hamper governments in adopting necessary climate policies:

- “A large number of bilateral and multilateral agreements, including the 1994 Energy Charter Treaty, include provisions for using a system of investor-state dispute settlement (ISDS) designed to protect the interests of investors in energy projects from national policies that could lead their assets to be stranded. Numerous scholars have pointed to ISDS being able to be used by fossil-fuel companies to block national legislation aimed at phasing out the use of their assets [...]” (IPCC, 2022, Chapter 14, p. 81, citations omitted)
- “In particular, transactions in the energy sector show a high level of investor protection also against much needed climate action which is also well illustrated by share of claims settled in favour of foreign investors under the Energy Charter Treaty and investor-state dispute settlement [...]” (IPCC, 2022, Chapter 15, p. 66, citations omitted)

According to a recent study on this issue, climate adaption ISDS claims may run as high as USD 340 billion (Tienhaara et al., 2022).

Source: UNCTAD, based on IPCC and others.

Stocktaking of IIA provisions relevant to climate action

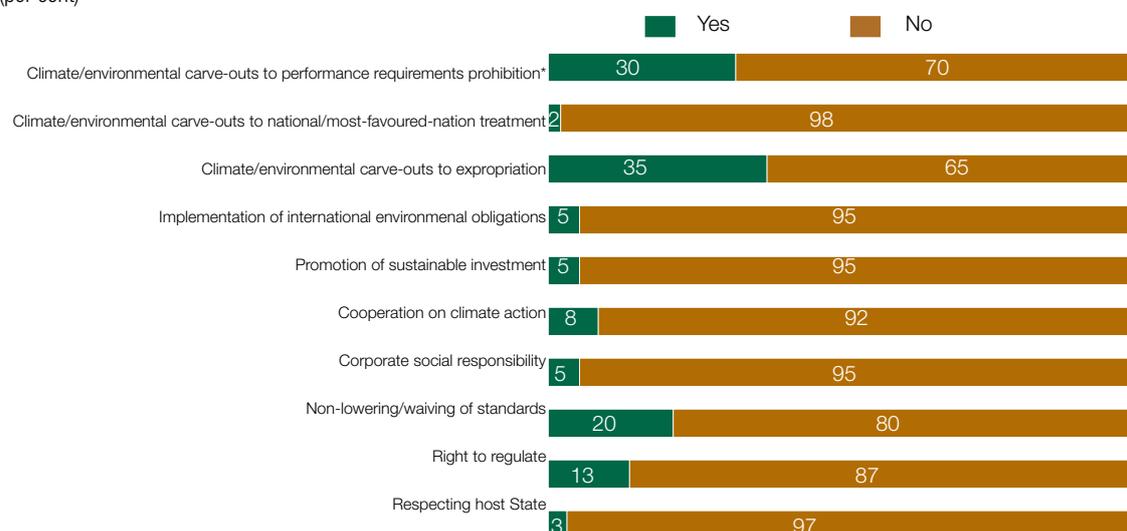
Some 3,300 IIAs were concluded between 1959 and 2009 representing over 85 per cent of all IIAs ever signed.⁴ About 2,300 of them are still in force today. Typically, these are old-generation IIAs that do not contain explicit provisions to preserve States' regulatory space for environmental protection or climate action. They feature broad and vague formulations for substantive treatment standards, with few exceptions or safeguards. Such old-generation IIAs serve as a basis for virtually all existing ISDS claims. As old IIAs significantly outnumber more recent ones, it is critical to address the problems and risks posed by them (UNCTAD, 2018).

New-generation IIAs fare relatively better in safeguarding the States' right to regulate and in incorporating specific provisions on the protection of the environment, climate action and sustainable development. As documented in UNCTAD's World Investment Reports, new-generation IIAs generally contain more circumscribed and clarified substantive provisions, often accompanied by narrower access to ISDS (UNCTAD, 2020b). Questions remain whether refined provisions in newer IIAs will shield climate change measures from ISDS claims or prevent investors with high-carbon investments from invoking ISDS to claim compensation.

Since 2010, some 500 IIAs were concluded and about half of them are in force. While climate change and the environment feature more prominently in these IIAs (Figure C.1), they are still relatively rare. Some newer IIAs contain:

- General environmental provisions aimed at safeguarding the State's policy space
- Specific climate action provisions

Figure C.1. Selected provisions relevant to climate action in IIAs concluded between 2010-2021
(per cent)



Source: UNCTAD, based on IHEID International Economic Law Clinic Report "IIAs and Climate Action", May 2022.

Note: The survey analysed 347 IIAs signed between 2010 and 2021, with available texts.

* The percentage concerns only the IIAs that include performance requirements provisions, i.e. 103 out of the 347 analysed IIAs.

⁴ This includes about 500 IIAs that were signed but have not entered into force and 500 IIAs that have been terminated.

Moreover, both old and recent IIAs lack pro-active provisions aimed at effectively supporting climate action. For example, IIAs generally do not distinguish between low-carbon and high-carbon investments.⁵ They cover investments across all sectors and typically offer high levels of protection. Old IIAs and most new IIAs also still lack detailed provisions for promoting and facilitating investments. Some IIAs, such as the Cooperation and Facilitation Agreements spearheaded by Brazil, are notable exceptions.

(i) General environment-related provisions safeguarding the State's policy space

A small share of IIAs concluded since 2010 contain general environmental provisions and provisions dealing with sustainable development that might help safeguarding climate action. While they do not explicitly refer to climate action, they are essential because climate action forms part of sustainable development (e.g. as part of Goal 13 of the SDGs).

Preambular clauses pertaining to environmental protection help establish the overall objective of the IIA. Such references are helpful since the entire treaty must be interpreted in a manner consistent with the aim of environmental protection. Well-drafted preambular clauses serve to clarify the application of substantive provisions. Preambles can contain references to sustainable development and environmental protection, reaffirm the right to regulate in the area of environment and reiterate commitments to uphold levels of environmental protection.

Substantive provisions directly related to environmental protection can be found in the main text of the IIA. For example, new-generation IIAs contain specific sections on environmental protection and sustainable development or the implementation of multilateral environmental agreements. They can also have clauses for the non-lowering of environmental protection, the promotion and facilitation of sustainable investment, the right to regulate, requirements for environmental impact assessments and the maintenance of an environmental management system, and corporate social responsibility.

Environmental protection as a carve-out from and clarification of standards of treatment aims at safeguarding policy space and reducing the discretion of ISDS tribunals in relation to environmental matters. Several IIAs have introduced carve-outs and clarifications in provisions dealing with indirect expropriation, national treatment and the prohibition of performance requirements. Notably, the reviewed new-generation IIAs do not include environmental carve-outs from fair and equitable treatment (FET). Given the broad interpretations of FET in ISDS practice, this could be seen as a shortcoming of the recent reform efforts.

Procedures for cooperation in and implementation of environmental protection. Some recent IIAs require their contracting parties to effectively enforce their environmental laws and establish institutional mechanisms for cooperation. These procedures include joint-committee mechanisms, public participation, consultations, panel of experts, national focal points and expert reports. These procedures do not preclude investors from challenging environmental measures in arbitration, i.e. environmental measures would not be shielded (as IIAs generally do not carve-out such measures from the scope of ISDS).

Environmental protection as a general exception. General exceptions or public policy exceptions are included in an increasing number of IIAs (UNCTAD, 2020a). They identify the policy areas for which flexibility is to be preserved in respect of all (or specified) IIA protection standards. New-generation IIAs frequently include environmental protection as a legitimate policy objective in general exceptions clauses. However, it is critical to note that ISDS tribunals have applied general exception clauses in narrow and unexpected ways.⁶

⁵ See further Brauch, 2022 (forthcoming), available at <https://academiccommons.columbia.edu/doi/10.7916/d8-300v-7h63>.

⁶ E.g. *Eco Oro v. Colombia*, [Decision on Jurisdiction, Liability and Directions on Quantum](#), 9 September 2021; see also UNCTAD, 2022a.

(ii) Specific climate action provisions

New-generation IIAs, and some recent model BITs,⁷ occasionally include provisions relating specifically to climate action. These kinds of provisions generally feature in FTAs with investment chapters, not in stand-alone investment protection agreements. Examples include preambular clauses pertaining to climate action and provisions directly related to climate action.

Preambular clauses pertaining to climate action. Some new-generation IIAs' preambles highlight the commitment to mitigate climate change and contain direct references to climate action treaties such as the UNFCCC.

Provisions directly related to climate action. Several new-generation IIAs (mostly TIPs) include sections that deal with climate mitigation and adaptation measures, reaffirm the right to regulate on climate change, reiterate commitments to implement climate action treaties, contain non-lowering of standards provisions, and address facilitation and promotion of investment in climate-friendly technologies. A few new-generation IIAs include specific procedures and mechanisms to implement States' climate action policies through inter-State cooperation. For example, they establish joint committees, joint dialogues, climate action consultations and panels of experts.⁸ However, none of the reviewed IIAs distinguish between high- and low-carbon investments.

(iii) Other IIA provisions relevant to climate action

Virtually all IIA provisions could potentially impact climate action, constraining or supporting it. The following selected elements illustrate two different dimensions. On the one hand, the broad scope of IIAs, the inclusion of broad and vague substantive protections and access to ISDS can make climate action more difficult and costly for host States. On the other hand, clauses on investor obligations and responsibility, and on promoting investment in new technologies may support climate action.

The broad scope of IIAs. The issue of IIAs' scope is highly relevant to climate action. Commonly, IIAs cover investments across all sectors and offer high levels of protection, including access to ISDS. Existing IIAs do not distinguish in their scope between low-carbon emission and high-emission investments.⁹ The definitions of "investment" and "investor" are the entry point for investors and investments to obtain such protections.

The inclusion of broad and vague substantive protections. The FET clause constitutes by far the most litigated IIA provision in ISDS proceedings, often in combination with indirect expropriation claims (UNCTAD, 2020a). These two clauses are also the most likely basis for challenges to climate change measures. Provisions prohibiting the use of certain performance requirements can also be an issue. Provisions on performance requirements regulate the extent to which host States can impose certain operational conditions on foreign investors/investments (UNCTAD, 2015a). The transition to a low-carbon economy will require investments into research and development (R&D) for low-carbon and sustainable technologies, the operationalization of such new technologies and the creation of the necessary infrastructure. Flexibility to use certain performance requirements, in line with national development strategies and SDG action plans, will be needed (e.g. related to the transfer of technology and know-how). IIAs with a prohibition on performance requirements can constrain the array of measures available to States to create a conducive environment for this transition.

Access to investor-State arbitration. ISDS is a distinct feature of the IIA regime. About 95 per cent of IIAs provide for States' advance consent to international arbitration proceedings between an investor

7 E.g. Netherlands Model BIT (2019), available at <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/5832/download>.

8 Such provisions remain largely absent from BITs, including new-generation ones.

9 A few recent IIAs have excluded natural resources from their scope. One example is the Japan–United Arab Emirates BIT (2018), Art. 1.

claimant and the respondent State (UNCTAD, 2021a). Under the great majority of ISDS provisions in IIAs, claimants are not required first to have recourse to domestic courts or exhaust local remedies. Legitimacy concerns with ISDS have been a driver of global IIA reform efforts (UNCTAD, 2015).

Promotion of investment in clean technologies. Climate action policies will require significant new investments from both the public and private sectors. Promotion of sustainable investment appears in a small number of existing IIAs. The transition to a green economy will require investment into research and development (R&D), implementation of new technologies and infrastructures necessary for the sustainable use of such technologies.

Strengthening investor responsibility for the protection of the environment. New-generation IIAs increasingly recognize investors' responsibility in contributing to the transition to a low-carbon economy. States have considered including references to various standards of corporate social responsibility (CSR), responsible business conduct (RBC) standards, such as the United Nations Guiding Principles on Business and Human Rights, OECD Guidelines for Multinational Enterprises and other codes of conduct as applicable to foreign investors within the treaty's scope. Some IIAs also reiterate that investors are responsible for complying with domestic laws and specifically oblige investors to comply with environmental impact reporting practices.

Recent policy initiatives related to IIAs and climate action

Several recent initiatives aim to contribute to the reform of the IIA regime in light of climate change objectives.

UNCTAD-IIED Cooperation on International Investment Agreements and Climate Action: In 2022, UNCTAD and IIED organized a joint workshop in which government officials and experts shared their experience and ideas on IIAs and climate action.¹⁰ The resulting policy brief outlines overarching recommendations from participants, aimed at supporting IIA reform to advance climate goals.¹¹ The high-level meeting called on policymakers to ensure that IIAs do not hinder States from implementing climate measures and accelerating the transition to low-carbon economies. UNCTAD and IIED will continue cooperation on issues relating to IIAs and climate action to ensure that investment policy is consistent with and supports national, regional and global climate commitments.

The Energy Charter Treaty (ECT) Modernization: Concluding the negotiations for a modernized Energy Charter Treaty (ECT), formally initiated in July 2020,¹² the contracting parties of the ECT reached an agreement in principle on 24 June 2022. The draft text was communicated to the contracting parties by 22 August 2022 for adoption by the Energy Charter Conference on 22 November 2022. The agreement in principle covers proposed revisions to definitions in part I of the ECT "Definitions and Purpose", revisions and additions to investment protection provisions in part III of the ECT "Investment Promotion and Protection" and dispute settlement (part V, including ISDS).¹³ It also covers provisions on sustainable development and corporate social responsibility, with references to multilateral environmental agreements and climate change-related policies. According to the agreement in principle, a new provision will clarify that the ISDS mechanism "shall not apply among Contracting Parties that are members of the same Regional Economic Integration Organisation" (REIO). This new provision is aimed at precluding intra-EU ISDS claims under the ECT.¹⁴

10 <https://investmentpolicy.unctad.org/news/hub/1684/20220124-register-now-webinar-on-iias-climate-%20act>

11 https://unctad.org/system/files/non-official-document/IIED_UNCTAD_IIAs_climate_action.pdf

12 <https://www.energychartertreaty.org/modernisation-of-the-treaty/>

13 The revised provisions include: definition of investment, definition of investor, most constant protection and security, transfers, fair and equitable treatment, indirect expropriation, denial of benefits, most-favoured-nation, right to regulate and umbrella clause. For dispute settlement (ISDS), revisions/additions relate to transparency, frivolous claims, security for costs, third-party-funding and valuation of damages.

14 The EU/Euratom and 26 out of 27 EU member States are currently Contracting Parties of the ECT (1994). Italy

Proposed revisions in part I of the ECT (“Definitions and Purpose”) build on three pillars. First, an updated list of “Energy Materials and Products” covered by the investment protection provisions. Second, a “flexibility mechanism” that would allow contracting parties to exclude investment protection for fossil fuel-related investments in their territories, considering their individual energy security and climate goals.¹⁵ Third, a “review mechanism” that would give contracting parties the possibility to review pillars 1 and 2 at specific intervals.

With 50 contracting parties and the EU/Euratom, the ECT is the world’s largest existing agreement that contains BIT-like investment protection provisions and ISDS.¹⁶ It protects a large part of foreign investments in the energy sector (Tienhaara et al., 2022). The modernization of the ECT is of systemic relevance for IIA reform and climate action. A number of scholars and civil society groups have called for a withdrawal from the ECT.¹⁷ The option to withdraw from the ECT is governed by Article 47.

OECD work programme on the future of investment treaties: This OECD work programme explores how future investment treaties could help address challenges such as the COVID-19 pandemic, the climate crisis and achievement of the SDGs.¹⁸ It also considers how to deal with existing IIAs in a pragmatic way. The work programme is organized around two tracks: Track 1 addresses challenges facing future IIAs and changes to the current treaty regime, and track 2 discusses the possible modernization of provisions found in old-generation IIAs.

Some other recent policy initiatives propose to redesign IIAs, address ISDS risks in specific areas or operationalize specific IIA reform options:

- Draft Treaty on Sustainable Investment for Climate Change Mitigation and Adaptation (The Creative Disrupters – Stockholm Treaty Lab)¹⁹
- UN Working Group on Business and Human Rights’ Report on Human Rights-Compatible IIAs²⁰
- African Union declaration on the risk of ISDS with respect to COVID-19 pandemic related measures²¹
- UNCTAD policy options to mitigate the risks of ISDS claims related to global tax policymaking²²
- Draft Withdrawal of Consent to Arbitrate and Termination of IIAs (CCSI-IIED-IISD)²³

effectively withdrew as of 1 January 2016.

15 According to the agreement in principle: “For example, the EU and the UK have opted to carve-out fossil fuel related investments from investment protection under the ECT, including for existing investments after 10 years from the entry into force of the relevant provisions and for new investments made after 15 August 2023 as of that date with limited exceptions.” Available at <https://www.energycharter.org/fileadmin/DocumentsMedia/CCDECS/2022/CCDEC202210.pdf>.

16 The ECT Contracting Parties consist of 50 countries and the EU/Euratom for which the ECT is in force, following signature and ratification or accession. This excludes two signatories that have not ratified it: Belarus (for which provisional application and observer status were suspended as of 24 June 2022) and Norway (which provisionally applies Part VII of the ECT). It also excludes Italy (which effectively withdrew as of 1 January 2016), Australia (which notified of its intention not to become a Contracting Party) and the Russian Federation (which terminated provisional application in 2009 and is not considered a Signatory since 2015).

17 Among others, a statement signed by 402 worldwide civil society organisations was released in July 2021 prior to COP26 asking governments to exit the ECT: <https://www.bilaterals.org/?more-than-400-civil-society>.

18 <https://www.oecd.org/investment/investment-policy/investment-treaties.htm>

19 <https://martinbrauch.files.wordpress.com/2022/04/treaty-on-sustainable-investment-for-climate-change-mitigation-and-adaptation.pdf>

20 <https://undocs.org/A/76/238>

21 A draft text of the declaration is available at <https://ifrc.org/>

22 See UNCTAD, 2022a, pp. 151–153.

23 https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/wgiii_withdrawalconsent_0.pdf

Accelerating the reform of the IIA regime for climate action

Progress on IIA reform is crucial for countries to address the challenges of climate change. Two broad strategic objectives need to be considered: 1. How to minimize the risk of ISDS based on measures taken for the protection of the environment or for mitigating climate change; and 2. how to ensure that IIAs pro-actively promote and facilitate investments that are conducive to climate change objectives. Both climate-specific objectives should be considered in light of the overarching need to reform IIAs for sustainable development.

UNCTAD has been advocating the reform and modernization of the IIA regime for over a decade. UNCTAD's Investment Policy Framework for Sustainable Development first launched in 2012, updated in 2015 contains:

- 10 guiding principles for investment policymaking
- Guidelines for national investment policies
- Guidance for the design and use of international investment agreements (IIAs)
- An action menu for the promotion of investment in sectors related to the sustainable development goals

UNCTAD's 2018 Reform Package for the International Investment Agreements Regime analyses the pros and cons of the various policy options to reform the existing stock of IIAs (Figure C.2). Countries can adapt and adopt these options to pursue the reforms in line with their policy priorities. These policy options may be taken into account for climate-responsive IIA reform. To complement the Reform Package for the IIA regime, UNCTAD launched its IIA Reform Accelerator in 2020. The IIA Reform Accelerator aims to expedite the reform of old-generation IIAs. It operationalizes the idea of gradual innovation, focusing on the reform of key substantive provisions. The Accelerator identifies eight IIA provisions that are most in need of reform and have seen a clear reform trend. For each provision, the IIA Reform Accelerator identifies sustainable development-oriented policy options (building on UNCTAD's Investment Policy Framework for Sustainable Development 2015) and proposes ready-to-use model language that implements these options. The IIA Reform Accelerator can be used as the basis for joint interpretation, amendment or replacement of old treaty provisions. Countries may pursue other reform options, each with their pros and cons (e.g. terminating old-generation IIAs jointly or unilaterally).

Figure C.2. UNCTAD's 10 IIA reform options



Source: UNCTAD.

The IIA regime makes it more costly for States to take climate action. Considering the urgency to combat climate change, the global community may have to fast-track IIA reform to address climate change-related concerns and other public policy imperatives. Such reforms can be taken at the multilateral, regional, bilateral and national levels. Reforming individual IIAs should not be deferred in the hope of future reform of the whole IIA regime (e.g. via a coordinated multilateral approach). Individual regions and countries can lead the way in fast-tracking IIA reforms. Some 2,300 IIAs in force today were concluded before 2010. The overwhelming majority of the past ISDS cases – 99 per cent – have been filed pursuant to IIAs signed before 2010. While this highlights the importance of addressing the stock of old-generation IIAs, it does not exclude the possibility of future ISDS claims based on new-generation IIAs. As more new-generation IIAs signed in the past decade enter into force, they could give rise to ISDS cases in the future.²⁴

(i) Making individual IIA provisions climate-responsive

Climate-responsive reform of IIAs could focus on specific IIA components, building on various existing reform proposals (Table C.1). The policy options could help ensure that only low-carbon and sustainable investments are covered and that all provisions in IIAs safeguard the right and duty of States to regulate in the public interest. Provisions with pro-active measures for the promotion and facilitation of sustainable investment aimed at building national technology capacities could be added. As discussed in UNCTAD's World Investment Report 2015 and the IIA Reform Package, the first strategic choice is whether “to have or not to have” an IIA, and whether to maintain or terminate existing agreements (UNCTAD, 2015b; UNCTAD, 2018).

In 2015, UNCTAD observed that the “ISDS system suffers from a legitimacy crisis” (UNCTAD, 2015b). As some recent IIAs have shown, different approaches exist regarding ISDS, including the option to limit access to ISDS or omit it (UNCTAD, 2020b; UNCTAD, 2018). For example, a small number of countries have opted to exclude ISDS provisions from any newly signed treaties (e.g. Brazil), while some countries include ISDS on a treaty-by-treaty basis, i.e. in some but not necessarily all IIAs (e.g. Australia, New Zealand).

(ii) Holistic climate-responsive reform of the IIA regime

Effective and holistic climate-responsive IIA reform may require a reconceptualization of the scope, purpose and design of IIAs. IIA reform may take the form of multilateral, regional, bilateral and national action.

A coordinated multilateral approach to IIA reform is preferable as it could result in an international instrument creating legal certainty for multiple stakeholders. Such an instrument may, for instance, provide for a moratorium on ISDS claims related to climate change measures, an ISDS carve-out for such measures or a general carve-out of high-carbon investments from the scope of IIAs. The application of the carve-out may be subject to a special review mechanism.

States may also pursue such actions at the bilateral and regional level. This approach could be faster in bringing about effective reforms among smaller groups of countries and could be pursued in parallel to multilateral reform processes. States may move towards the termination, renegotiation and replacement of old IIAs. Alternatively, they could adopt joint interpretations that clarify the non-applicability of IIAs to climate change measures in line with States' international climate change commitments. Depending on each country's specific circumstances and policy choices, preference may be given to different reform paths. This includes the option of foreclosing on an IIA relationship in its entirety (by terminating an existing agreement by consent or unilaterally, without replacing it; or by deciding not to sign an IIA after a cost-benefit analysis).

All of the above calls for a multistakeholder dialogue on the scope, purpose and design of the international investment policy regime to ensure that: (i) it contributes to sustainable development, (ii) it is coherent with

²⁴ A total of 511 IIAs were concluded since 2010 (247 are not yet in force and 264 are in force). Some 16 ISDS cases – 1 per cent of all known cases – invoked IIAs signed since 2010. In addition, 9 cases were based on both older and newer IIAs.

domestic policies, and (iii) it is consistent with international obligations, including those relating to climate action.

Table C.1. Policy options for climate-responsive IIAs

IIA component	Selected reform actions
Preamble	<ul style="list-style-type: none"> • Referencing commitment to combat climate change and undertake climate action • Referencing relevant climate law principles and climate change treaties • Committing not to lower environmental standards to attract foreign investment • Committing to cooperation on climate change mitigation and sustainable development
Treaty scope	<ul style="list-style-type: none"> • Distinguishing between climate-friendly and climate-harmful investments in the scope of the IIA, e.g. through: <ul style="list-style-type: none"> • Exhaustive or non-exhaustive lists, schedules or annexes of covered investments (e.g. investments in renewable energy and low-carbon technology) that may be periodically reviewed • Classification mechanisms that give the state discretion over determining whether a specific investment qualifies as sustainable • Defining characteristics of sustainable investment (e.g. by using the emerging climate-related financial disclosures, emerging indicators of sustainable investment);^a each country should consider what kind of investments are needed based on its national policy and capacity • States should reflect their national development policies and needs as well as their respective capacities in defining sustainable investment
Right to regulate for climate action	<ul style="list-style-type: none"> • Clarifying the content of investment protection standards with regard to climate action • Carving-out climate action measures from investment standards and/or ISDS • Considering limiting the scope of FET or excluding it altogether, while detailing specific types of conduct against which sustainable investors and investments are protected • Including general climate action exceptions • Distinguishing the level of protection based on the climate-profile of the investment • Clarifying provisions on compensation and damages • Excluding ISDS
Investor obligations and responsibilities	<ul style="list-style-type: none"> • Including corporate social responsibility (CSR) and other responsible business conduct codes and practices • Reiterating investors' obligation to comply with domestic and international law • Specifically obliging investors to comply with requirements for sustainable investment (e.g. by requiring environmental impact assessments and maintenance of environmental management system)
Climate change and investment governance	<ul style="list-style-type: none"> • Non-lowering of environmental standards • Committing to cooperate on climate action through adequate institutional mechanisms (e.g. joint committees, experts panels) • Committing to the implementation of the main environmental and climate change conventions • Encouraging transparency of environmental regulations
Promotion and facilitation of sustainable investment	<ul style="list-style-type: none"> • Promoting and facilitating sustainable investment • Allowing performance requirements relevant to climate action • Encouraging technology transfers of low-carbon and sustainable technologies • Establishing institutional mechanisms for cooperation on research and development (R&D) of sustainable technologies • Preferential treatment of sustainable investments that contribute to national sustainable industrial policies and development of local capacities and infrastructures

Source: UNCTAD, building on existing treaty practice and reform proposals.

^a: Sauvart, K. P., and H. Mann (2017); see also standards developed by the Task Force on Climate-related Financial Disclosures, Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), International Integrated Reporting Council (IIRC), Climate Disclosure Standards Board (CDSB) and Carbon Disclosure Project (CDP).

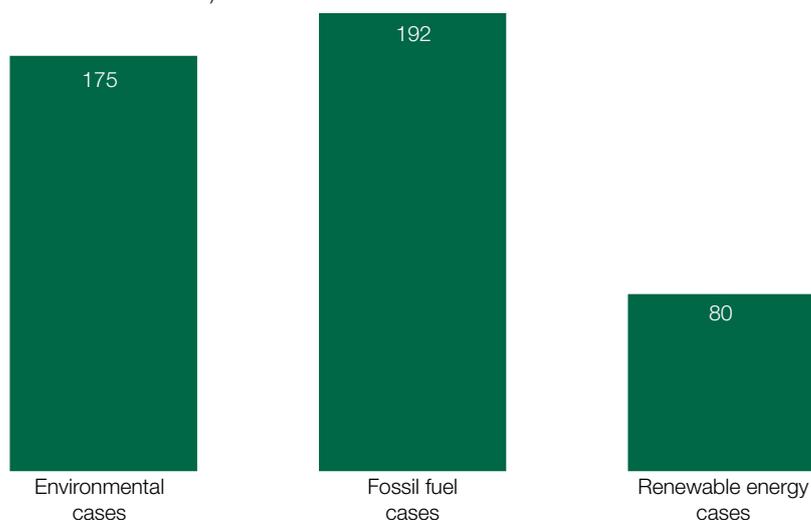
D. INVESTOR–STATE DISPUTE SETTLEMENT

The urgency of climate action has added attention to the need to reform the international investment agreements (IIA) regime. The risk of investor–State dispute settlement (ISDS) being used to challenge climate policies is a major concern. Many past IIA-based ISDS cases were related to measures or sectors that are of direct relevance to climate action. Three categories of cases can be identified (Figure D.1):²⁵

- Environmental ISDS cases (amounting to at least 175 cases)
- Fossil fuel ISDS cases (at least 192)
- Renewable energy ISDS cases (at least 80)

Investor claimants brought at least 175 IIA-based ISDS cases in relation to measures taken for the protection of the environment. Investors in the fossil fuel sector have been frequent ISDS claimants, initiating at least 192 ISDS cases against different types of State conduct. The last decade has also seen the emergence and proliferation of ISDS cases brought by investors in the renewable energy sector, with 80 known cases. More immediate IIA reform steps are needed to alleviate ISDS risks and create the necessary policy space for States to take urgent climate action.

Figure D.1. IIA-based ISDS cases related to sectors or measures relevant to climate action, 1987-2021
(cumulative number of cases)



Source: UNCTAD, ISDS Navigator.

Note: The categories are not mutually exclusive, e.g. some cases are counted as environmental ISDS cases and fossil fuel cases at the same time. ISDS cases have been compiled based on UNCTAD's ISDS Navigator and information from public sources, including notices of arbitration, arbitral decisions and specialized reporting services. UNCTAD's statistics do not cover investor–State cases that are based exclusively on investment contracts (State contracts) or national investment laws, or cases in which a party has signalled its intention to submit a claim to ISDS but has not commenced the arbitration.

²⁵ The categories are not mutually exclusive, e.g. some cases are counted as environmental ISDS cases and fossil fuel cases at the same time.

Eco Oro v. Colombia and *RWE v. Netherlands* are prominent examples (Box D.1).

Box D.1. Recent examples of ISDS cases directly impacting countries' efforts to combat climate change

Two recent high-profile ISDS cases were directly relevant to countries' efforts to protect the environment.

In *Eco Oro v. Colombia*,^a the tribunal held that Colombia's environmental mining ban decision violated the minimum standard of treatment in the investment chapter of the Colombia–Canada FTA (2008) and that the general environmental exception included in the FTA (Article 2201(3)) did not preclude the obligation to pay compensation. The decision has two distinct repercussions. First, it signals that measures taken for the protection of the environment can be challenged and deemed a violation of IIAs; and second, it sheds doubt on the effectiveness of countries' efforts to rebalance IIAs by including explicit safeguards and exceptions to protect the State's right to regulate for the protection of the environment and climate adaptation.

The Netherlands faced its first-ever ISDS claim in *RWE v. Netherlands* (based on the Energy Charter Treaty, 1994) as a result of the Government's decision to ban the burning of coal for electricity generation by 2030 in compliance with the country's Paris Agreement commitments. According to the claimant, the new law prohibiting the use of coal to generate electricity would not provide appropriate compensation for losses incurred by coal plant operators. While the case is pending, it demonstrates countries' risk when implementing regulations for phasing out fossil fuels.

Source: UNCTAD

^a: *Eco Oro v. Colombia*, [Decision on Jurisdiction, Liability and Directions on Quantum](#), 9 September 2021.

(i) Environmental ISDS cases

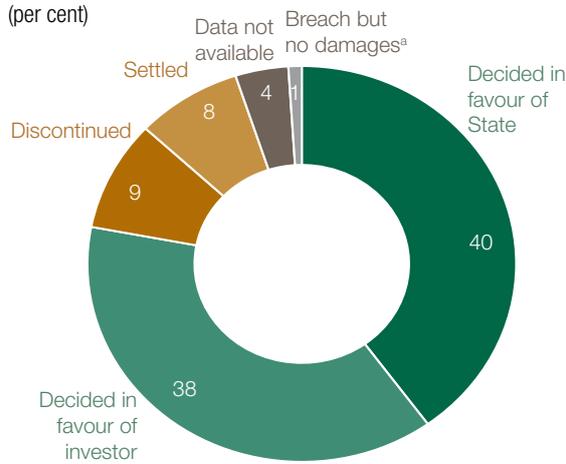
Many IIA-based ISDS cases have been brought against measures that are related to environmental protection.²⁶ At least 175 such cases have been brought against States, amounting to about 15 per cent of all 1,190 known ISDS cases based on IIAs.²⁷ As some arbitrations can be kept confidential, the actual number of disputes is likely higher. Some of the challenged measures involved allegations that the claimants' investment projects were environmentally harmful (causing pollution and degradation of the environment). Several cases, also counted under this category, challenged measures related to regulatory changes for renewable energy production.

About one third of the analysed environmental cases are pending. Looking at the outcomes of concluded environmental ISDS cases (Figure D.2), 40 per cent were decided in favour of the State (jurisdiction declined or claims dismissed on the merits) and 38 per cent were decided in favour of the investor (with damages awarded). The remaining cases were discontinued, settled, the outcome is unknown, or the tribunal found an IIA breach but did not award monetary compensation (breach but no damages).

²⁶ A wide working definition of the term "environmental protection" was used to identify environmental ISDS cases. The motives behind the challenged measures can be subject to differing views between the claimant investor and the respondent State. The analysis of this question rests with the arbitral tribunal deciding the specific case.

²⁷ See also Chapter II of the UNCTAD World Investment Report 2022 (UNCTAD, 2022a).

Figure D.2. Outcomes of environmental ISDS cases, 1987–2021



Source: UNCTAD, ISDS Navigator.

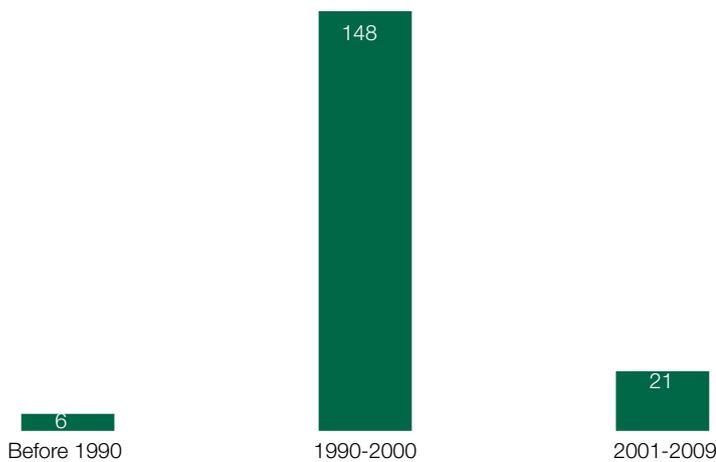
Note: Based on 118 concluded cases out of 175 environmental ISDS cases identified by UNCTAD (the remaining 57 cases are pending).

^a: Decided in favour of neither party (liability found but no damages awarded).

All of the analysed environmental ISDS cases were brought on the basis of IIAs signed before 2010. The vast majority was based on IIAs signed in the 1990s (Figure D.3). The Energy Charter Treaty (1994) was the most frequently invoked IIA with 80 cases, amounting to about half of the 175 environmental ISDS cases. This highlights the need for addressing the large stock of old-generation IIAs.

Figure D.3. IIAs invoked in environmental ISDS cases, by IIA date of signature

(cumulative number of cases)



Source: UNCTAD, ISDS Navigator.

As opposed to the general trend whereby developing countries are the most frequent respondents in ISDS overall,²⁸ environmental ISDS cases have been more often brought against developed regions (67 per cent, Figure D.4). Developing countries as respondents accounted for about one third of environmental ISDS cases. As to the home States of claimants, 95 per cent of environmental ISDS cases were initiated by investors from developed regions (Figure D.5).

Figure D.4. Respondent States in environmental ISDS cases, by country category

(per cent)

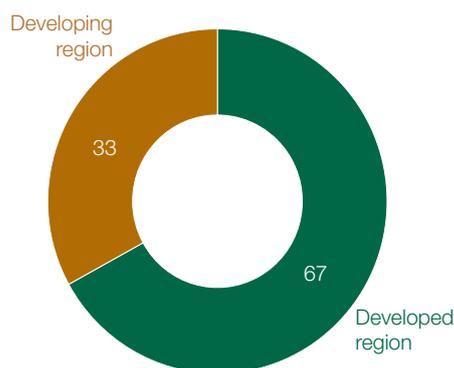
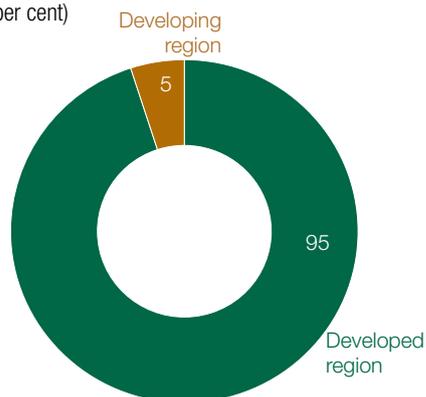


Figure D.5. Respondent States in environmental ISDS cases, by country category

(per cent)



Source: UNCTAD, ISDS Navigator.

(ii) Fossil fuel ISDS cases

Past ISDS disputes relating to the fossil fuel sector provide insights on IIAs and climate action. At least 192 IIA-based ISDS have been brought related to fossil fuels (Figures 6, 7 and 8). These ISDS cases involve investments in the following economic activities:²⁹

- Mining of coal and lignite
- Extraction of crude petroleum and natural gas
- Power generation from coal, oil and gas
- Transportation and storage of fossil fuels

In the underlying disputes, fossil fuel investors challenged measures that were not necessarily related to climate action or the protection of the environment. For example, challenged measures included changes in regulatory frameworks applicable to the investment and the denial or revocation of permits on other than environmental grounds. As fossil fuel investors have frequently resorted to ISDS, they can also be expected to use existing ISDS mechanisms to challenge climate action measures aimed at restricting or phasing out fossil fuels. A recent high-profile example is the *RWE v. Netherlands* case (Box D.1).

About 30 per cent of fossil fuel ISDS cases are currently pending. Out of the concluded cases (Figure D.6), 32 per cent were settled³⁰ and 31 per cent were decided in favour of the investor (with damages being

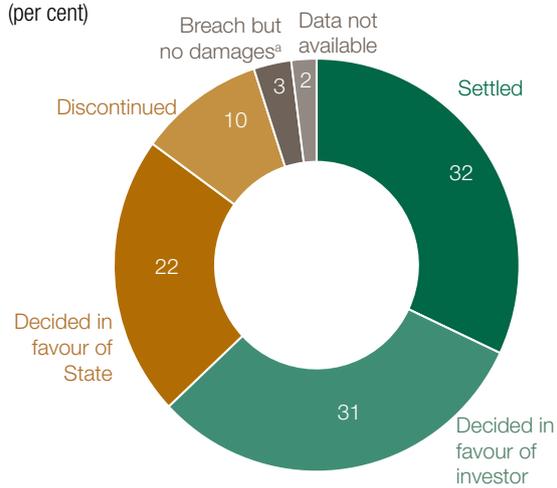
28 See also Chapter II of the UNCTAD's World Investment Report 2022 (UNCTAD, 2022a).

29 Building on the definition used in IISD (2021, p. 5), fossil fuel ISDS cases relate to investment activities in the extraction, processing, distribution, supply, transportation, storage and the power generation from coal, oil, gas.

30 In most cases the terms of settlement remained confidential. For settled cases, it is likely that respondent States have offered monetary or non-pecuniary relief to the claimants.

awarded). The remaining cases were decided in favour of the State (22 per cent; jurisdiction declined, or claims dismissed on the merits), discontinued, the tribunal found an IIA breach but did not award monetary compensation (breach but no damages), or the outcome is unknown.

Figure D.6. Outcomes in fossil fuel ISDS cases, 1987-2021



Source: UNCTAD, ISDS Navigator.

Note: Based on 144 concluded cases out of 192 fossil fuel ISDS cases identified by UNCTAD (the remaining 48 cases are pending).

^a: Decided in favour of neither party (liability found but no damages awarded).

The overwhelming majority of fossil fuel ISDS cases were brought against respondent States from developing regions (74 per cent, Figure D.7). Claimants from developed regions initiated about 90 per cent of the cases (Figure D.8).

Figure D.7. Respondent States in fossil fuel ISDS cases, by country category

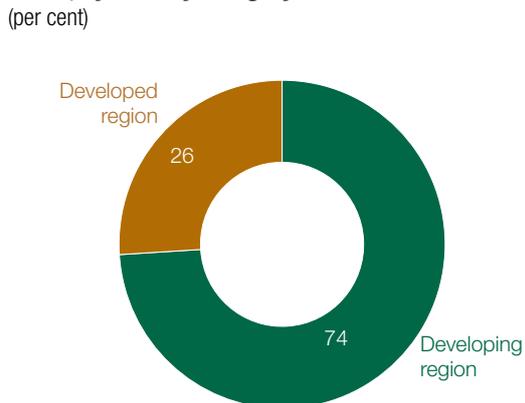
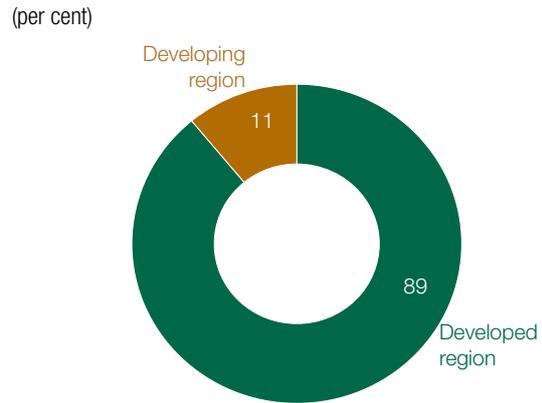


Figure D.8. Home States of claimants in fossil fuel ISDS cases, by country category



Source: UNCTAD, ISDS Navigator.

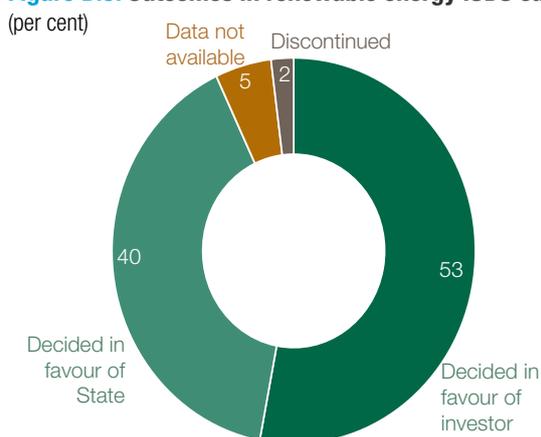
(iii) Renewable energy ISDS Cases

During the last decade, ISDS cases brought by investors in the renewable energy sector have proliferated, amounting to at least 80 cases (Figure D.9).³¹ Many of these cases challenged Governments' legislative changes involving reductions in feed-in-tariffs for renewable energy production. The renewable energy cases primarily concerned investments in solar photovoltaic power generation. A minority related to wind and hydroelectric power generation. Spain was the respondent State in 60 per cent of cases, which typically related to the same set of legislative and regulatory measures.

States have used different types of incentives to promote investments in renewable energy over time. The underlying regulatory frameworks have also evolved, partly due to concerns about State expenditures and budget deficits, as well as advances in technology for renewable energy (declined costs and increased efficiency).

About half of the renewable energy ISDS cases are currently pending. Out of the concluded cases (Figure D.9), 53 per cent were decided in favour of the investor (with damages awarded), while 40 per cent were decided in favour of the State. The remaining cases have been discontinued or the outcome is unknown.

Figure D.9. Outcomes in renewable energy ISDS cases, 2011-2021



Source: UNCTAD, ISDS Navigator.

Note: Based on 43 concluded cases out of 80 renewable energy ISDS cases identified by UNCTAD (the remaining 37 cases are pending).

More than 90 per cent of the recent renewable energy ISDS cases have been initiated on the basis of the same IIA, the Energy Charter Treaty (1994) (72 cases, Figure D.10). Overall, about 20 per cent of the 1,190 known ISDS cases have invoked the ECT (UNCTAD, 2022b). This puts the modernization of the ECT under the spotlight (see UNCTAD, 2022c).

Renewable energy ISDS cases have been almost exclusively brought by claimants from developed regions against other developed countries (98 per cent I; Figures D.11 and D.12).

These cases show that IIAs may increase the costs of adapting energy regulatory frameworks in host States. States need flexibility for the necessary regulatory experimentation leading to climate adaptation.

31 Prior to 2010, a small number of ISDS cases were brought in relation to renewable energy projects, such as hydro-electric/water power supply projects. See e.g. [Empresa Nacional de Electricidad v. Argentina](#); [Impregilo v. Pakistan \(I\)](#); [Impregilo v. Pakistan \(II\)](#); [Cementownia v. Turkey \(I\)](#).

While investors seek stability and guarantee of returns, States should not be unduly hindered by extending unsustainable regulatory frameworks that socialize the risks arising from the energy transition.

Figure D.10. IIAs invoked in renewable energy ISDS cases
(cumulative number of cases)



Source: UNCTAD, ISDS Navigator.

Note: In eight cases brought under the Energy Charter Treaty, other IIAs were invoked at the same time (these cases have been counted under the Energy Charter Treaty). The cases under other IIAs are those exclusively based on IIAs other than the ECT.

Overall, past ISDS cases provide the following insights:

- Different types of State conduct, including environmental measures and other regulatory actions, can give rise to ISDS claims.
- Investors have challenged measures taken by both developed and developing countries.
- The overwhelming majority of ISDS cases relied on old-generation IIAs.

Figure D.11. Respondent States in renewable energy ISDS cases, by country category

(per cent)

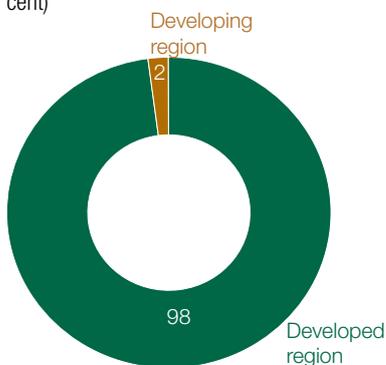
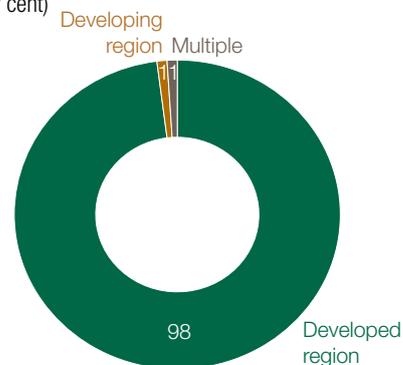


Figure D.12. Home States of claimants in renewable energy ISDS cases, by country category

(per cent)



Source: UNCTAD, ISDS Navigator.

While not all claims brought by investors under IIAs are successful, ISDS is costly. In general, the disputing parties – including the respondent States – incur significant costs for the arbitrators' work, the administration of proceedings and legal representation, all of which usually amount to several million dollars or more. In addition, claimants and respondent States face several years of uncertainty while ISDS proceedings concerning the challenged measures are ongoing. The amounts at stake in ISDS proceedings can be hundreds of millions and even billions of dollars. Moreover, ISDS proceedings may have reputational costs for the respondent States.

More immediate IIA reform steps are needed to alleviate ISDS risks and create the necessary policy space for States to take urgent climate action, including through a higher level of flexibility in undertaking regulatory changes.

REFERENCES

- Brauch, M. D. (2022, forthcoming). [Reforming International Investment Law for Climate Change Goals](#). Research Handbook on Climate Finance and Investment, Edward Elgar Publishing.
- Cedrick, B. Z. E., and Long, P. W. (2017). *Investment motivation in renewable energy: A PPP approach*. Energy Procedia, 115, 229-238.
- Criscuolo, C. and C. Menon (2015). *Environmental policies and risk finance in the green sector: Cross-country evidence*. Energy Policy, Volume 83, Pages 38-56.
- David, D. and Venkatachalam, A. (2018). *A comparative study on the role of public-private partnerships and green investment banks in boosting low-carbon investments*. ADBI Working Paper, No. 870.
- Hašičič, I., M. Cárdenas Rodríguez, R. Jachnik, J. Silva and N. Johnstone. (2015). *Public Interventions and Private Climate Finance Flows: Empirical Evidence from Renewable Energy Financing*. OECD Environment Working Papers, n° 80, Éditions OCDE, Paris.
- IPCC (Intergovernmental Panel on Climate Change) (2014). [Climate Change 2014: Synthesis Report](#). Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. Geneva: IPCC.
- IPCC (2022). [Climate Change 2022: Mitigation of Climate Change](#). Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC
- IISD (International Institute for Sustainable Development) (2021). [Investor–State Disputes in the Fossil Fuel Industry](#). December 2021, written by Lea Di Salvatore. Winnipeg: IISD.
- IPCC (2022). [Climate Change 2022: Mitigation of Climate Change](#). Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC.
- IEA (International Energy Agency) (2021). [Net Zero by 2050: A Roadmap for the Global Energy Sector](#). Paris: IEA.
- Keeley, A. R. and K. Matsumoto (2018). *Investors' perspective on determinants of foreign direct investment in wind and solar energy in developing economies – Review and expert opinions*. Journal of Cleaner Production, Volume 179, Pages 132-142.
- Keeley, I.R. and Yuichi Ikeda, (2017). *Determinants of foreign direct investment in wind energy in developing countries*. Journal of Cleaner Production, Volume 161, 2017, Pages 1451-1458.
- Mahbub, T., M. F. Ahammad, S. Y. Tarba, and S.M. Yusuf Mallick (2022). *Factors encouraging foreign direct investment (FDI) in the wind and solar energy sector in an emerging country*. Energy Strategy Reviews, Volume 41, 100865.
- Nejati, M. and F. Taleghani (2022). *Pollution halo or pollution haven? A CGE appraisal for Iran*. Journal of Cleaner Production, Volume 344, 131092
- Owens, J., and J. Zhan (2018). [Trade, investment and taxation: policy linkages](#). Transnational Corporations Special Issue on Investment and International Taxation, Part 1, 25 (2): 1–8.
- Ragosa, G. and P. Warren (2019). *Unpacking the determinants of cross-border private investment in renewable energy in developing countries*. Journal of Cleaner Production, 235 (2019), pp. 854-865.
- Sarkodie, S.A., S. Adams and T. Leirvik (2020). *Foreign direct investment and renewable energy in climate change mitigation: Does governance matter?*. Journal of Cleaner Production, Volume 263, 121262.
- Sauvant, K. P., and H. Mann (2017). [Towards an Indicative List of FDI Sustainability Characteristics. The E15 Initiative](#). Geneva: ICTSD and World Economic Forum.

- Stephenson, Matthew and James Zhan (2022). *What is Climate FDI? How can we help grow it?*. T20 Policy Brief, September 2022.
- Tienhaara, K., R. Thrasher, B. A. Simmons, K. P. Gallagher (2022). *Investor-state disputes threaten the global green energy transition*. *Science*, 376 (6594): 701–703.
- Udemba, E.N. (2021). *Mitigating environmental degradation with institutional quality and foreign direct investment (FDI): new evidence from asymmetric approach*. *Environ Sci Pollut Res* 28, 43669–43683.
- UNCTAD (2014). *World Investment Report 2014: Investing in the SDGs: An Action Plan*. New York and Geneva: United Nations. United Nations publication.
- UNCTAD (2015a). *Investment Policy Framework for Sustainable Development*. New York and Geneva: United Nations.
- UNCTAD (2015b). *World Investment Report 2015: Reforming International Investment Governance*. New York and Geneva: United Nations.
- UNCTAD (2018). *UNCTAD's Reform Package for the International Investment Regime*. New York and Geneva: United Nations.
- UNCTAD (2019). *World Investment Report 2019: Special Economic Zones*. New York and Geneva: United Nations.
- UNCTAD (2020a). *International Investment Agreements Reform Accelerator*. New York and Geneva: United Nations.
- UNCTAD (2020b). *World Investment Report 2020: International Production Beyond the Pandemic*. New York and Geneva: United Nations.
- UNCTAD (2021a). *International Investment Agreements and Their Implications for Tax Measures*. New York and Geneva: United Nations.
- UNCTAD (2021b). *World Investment Report 2021: Investing in Sustainable Recovery*. New York and Geneva: United Nations.
- UNCTAD (2022a). *World Investment Report 2022: International Tax Reforms and Sustainable Investment*. New York and Geneva: United Nations.
- UNCTAD (2022b). *The International Investment Treaty Regime and Climate Action*. IIA Issues Note, No. 3, September 2022.
- UNCTAD (2022c). *Treaty-based investor–State dispute cases and climate action*. IIA Issues Note, No. 4, September 2022.
- UNCTAD (2022d). *Investment Policy Trends in Climate Change Sectors 2010-2022*. Investment Policy Monitor, Special Issue No. 9, September 2022.
- UNCTAD-IIED (2022). *International Investment Agreements and Climate Action*. Policy brief based on a UNCTAD-IIED joint webinar held on 4 February 2022.
- UNEP (2021). *Adaptation Gap Report 2021*. Nairobi.

UNCTAD/DIAE/INF/2022/2

