

Overview of the evolution of the methodology and coverage of EU ex-ante trade sustainability impact assessments over time*

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Abstract

We overview and summarise the evolution of the coverage and methodological approaches to analyse non-trade policy objectives in the EU's sustainability impact assessments (SIAs). We survey papers that evaluate impact assessments, the SIA handbooks, and the final reports of all the European Commission's trade SIAs carried out to date. We find that the thematic coverage in the SIAs has been steadily increasing over time, in particular by including labour-related and human rights topics. The SIA methodology has evolved to include these new topics, and also, the depth of the analysis and the inclusion of more quantitative tools has also been expanded over time. The consultation process has also been broadened and this has generated a rich feedback, which can also explain the expanded thematic coverage of the most recent trade SIAs. On the other hand, the main limitations of the SIA process is that most of the topic-specific analyses are still done using qualitative and inference-based tools, specially to assess the social, political and environmental impacts. The ad-hoc and speculative nature of this secondary analysis greatly limits the validity and usefulness of the whole SIA process. In addition, labour market issues can be more adequately analysed within the SIA process. Finally, the expected effective influence of the ex-ante trade SIAs on non-trade policy issues in the partner countries has been usually overstated.

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1 Introduction

Starting from 1999, the European Commission (EC) has employed ex-ante trade sustainability impact assessments (SIA) to analyse the potential economic, social and environmental effects of the trade agreements that are negotiated by the European Union (EU). These trade SIAs have two main components: an in-depth evidence based analysis and a broad consultation process with relevant stakeholders, including those from the negotiating partner. The objectives of the trade SIAs are multiple. Besides identifying the main economic, social and environmental changes that can be potentially caused by the implementation of the trade agreement, it also helps the negotiating parties and guides some of the negotiations on particular topics. It allows stakeholders –in both the EU and in the partner countries– to share their opinions and concerns with negotiators and the EC. The ultimate aim of the trade SIAs is that the negotiating process is optimised, through an identification of sensible topics, providing recommendations for policy changes to address these concerns and that the whole process is interlinked with a broad dialogue with stakeholders.

The precise methodology and coverage of the trade SIAs has evolved and changed over time. The main objective of this paper, therefore, is to summarise the evolution of the coverage and methodological approaches to non-trade policy objectives (NTPOs) in the EU's trade SIAs. In general, most of the emphasis of the SIA studies is given to economic topics, in particular changes to bilateral trade, which is the main expected impact from implementing the trade agreements. Nevertheless, from the start, the SIAs have also focused on non-trade issues that are broadly classified under social and environmental topics. Our first objective is to analyse how the SIAs methodology has evolved to assess these NTPOs and which analytical frameworks have been used to underpin the SIA studies. The second objective is to analyse how the coverage of these non-trade issues in the trade SIAs has changed over time.

On a broader context, this study is part of the RESPECT (Realising Europe's soft power in external cooperation and trade) project.¹ This paper contributes to the overall objectives of the project by identifying what the EC's NTPO priorities are related to trade agreements. Hence, we overview which NTPOs provisions and analysis have been included in the SIAs over time and this survey can be as an input to analyse if these particular NTPOs are effectively included (and enforced) in the actual trade agreements that are finally signed. Moreover, this will provide the starting point to evaluate the effective impact on NTPOs of the trade agreements negotiated and implemented by the European Union. Thus, it will provide the analytical bases for assessing the overall impact of trade agreements in the context of broader policy goals (NTPOs). To this effect, we first describe the main characteristics of the EC's ex-ante trade SIAs, and then we conduct a literature survey on papers that evaluated and or criticised impact assessments in general, and trade assessments in particular. With this information we then analyse how the SIA methodology changed over time and if/how the analytical framework has improved

¹This project is part of the Horizon 2020 work program topic "The strategic potential of EU external trade policy". For more details see: <http://respect.eui.eu>

to account for the recommendations and criticisms in the literature. We then survey each trade SIA individually to account for the non-trade issues covered and how this coverage has changed over time. Therefore, we study the SIA coverage to assess what the focus of the EC was for each trade agreement. We can then use the topic coverage of the SIAs as an information source for what the EU deems important topics. Then we can summarise how these topics and their coverage changed over time to provide insights into changes in policy preferences.

We find that the coverage of NTPOs in the EC's SIAs has substantially increased over time. From the start, environmental and social issues had usually been broadly covered, while labour-related issues and human rights topics were gradually included in the analysis, and hence, experienced a substantial coverage increase. This reflects larger policy concern of the EC on non-trade issues and how these had moved from a focus on economic, social and environmental issues, to include more labour-related, civil and political themes, including human rights and gender equality. An important change in the SIA methodological procedures has been the increased focus on the consultation process and the transparency of the whole SIA process, involving many stakeholders. This has created feedback loops where the expansion of the coverage and the broadening and increased transparency of the consultation process have been heavily influenced by this civil society dialogue, as well as including the recommendations from external and internal (within-EU) evaluations of the SIA system.

Regarding methodological changes, another finding is that the core of the analytical SIA framework has not changed substantially over time. For a vast majority of SIAs, a computable general equilibrium (CGE) economic model has been the main analytical tool employed. These models provide a wide range of economic outputs that directly assess the economic impacts of the trade agreements. In addition, some of these outputs (employment and production changes at the sectoral levels) are then used to indirectly assess the social and environmental impacts of the model. In this study, we refer to the outputs directly obtained from the CGE model as primary coverage, while secondary coverage refers to impacts that are indirectly assessed using outputs from the quantitative (CGE) economic models.² This indirect analysis is qualitative and inference-based, and hence, there is no explicit quantification of the impacts. However, after 2010 there has been an increase in the primary coverage of topics, using additional quantification methods that complement the output obtained from the CGE models. For example, the use of micro-level household survey data provides more detailed information on social impacts related to poverty, income distribution and vulnerable groups. Using integrated economic-environmental analysis also provide better information regarding the expected environmental impacts of the trade agreements.

Nevertheless, the SIA still relies heavily on this secondary coverage to analyse most of the social, political and environmental issues. This is a critical limitation in

²This secondary coverage is usually labelled in the SIA methodology as causal chain analysis (CCA) (European Commission, 2006, 2016).

the SIA process.³ The use of qualitative assessments –instead of direct quantitative tools– is a speculative and ad-hoc approach.⁴ The resulting lack of information regarding the magnitude and relative importance of the shocks, greatly reduces the usefulness and the quality of the SIA analysis. For instance, asserting that the expected increase in manufacturing output can affect water and air pollution only provides a partial equilibrium effects, without accounting for general equilibrium effects, where the contraction of other sectors and/or the incentives to pollute can counteract or expand these partial effects. In the same way, using changes in low-skill wages to assess poverty effects is too broad to account for important characteristics of poorer households –such as its reliance on governmental assistance, lack of formal jobs or long-term unemployment. Moreover, the lack of a quantitative impacts also makes it difficult to prioritise on the most relevant and influential impacts, and how to deal with trade-offs when different conflicting effects are expected. Finally, the treatment of labour effects can be upgraded to provide more information on the impacts of the trade agreements on employment –both labour participation and hours worked– and unemployment rates, for a larger set of skill levels or broad occupational groups.

This paper is organised as follows. In Section 2 we describe the main characteristics and current methodology employed in the SIAs. Section 3 surveys papers that evaluate impact assessments and we analyse how the SIA methodology changed over time, sometimes directly incorporating recommendations from these papers. The evolution of the thematic coverage in SIAs is examined in Section 4 and we summarise our main findings and conclusions in Section 5.

2 The EC's sustainability impact assessments

The European Commission (EC) has broadly two types of ex-ante assessments. EC-wide impact assessments (IAs) and the trade-specific sustainability impact assessments (SIAs). The trade SIAs are an instrument employed exclusively by the Directorate-General for Trade (DG-Trade) to provide more detailed analysis of the potential effects of trade agreements under negotiation. This paper focuses solely on SIAs.

2.1 Main characteristics of the SIAs

DG-Trade is responsible for trade negotiations within the EC. Starting from 1999, performs ex-ante trade SIAs on all trade agreements it negotiates.⁵ Each SIA is

³This issue is more problematic for SIAs done for multilateral agreements than for bilateral agreements (see Section 4.2).

⁴In essence, it is left to the external consultant, usually interacting with the consultation process, to define and subjectively evaluate the expected direction of the impact and which interlinkages to consider or not.

⁵However, as pointed out by the European Court of Auditors (2014) special report, no SIAs were done for the FTAs (i.e. Stabilisation and Association Agreements) signed with the six countries from the Western Balkans. See Section 3.1.

done by external consultants (or a consortium) to assure independent analysis and opinions. They provide the European Commission with an in-depth analysis of the potential economic, social, environmental, and (more recently) human rights impacts of ongoing trade negotiations. These assessments fulfil several objectives: i. feed information into the negotiations (helping also to steer these negotiations); ii. assess the main economic, social and environmental changes that are likely to be caused by the trade agreement; iii. be an opportunity for stakeholders in both the EU and in the partner countries to share their views with negotiators; iv. help to identify trade-offs; and v. ensure that policy changes related to the identified impacts can be optimised (European Commission, 2006, 2016).

In general, the overall goal of the trade SIAs is to contribute to evidence-based and transparent trade negotiations conducted by the EC.⁶ Each SIA is adapted to suit the type of trade deal being negotiated –e.g. FTA, investment agreement, WTO multilateral agreement. The number of preliminary and final reports also varies, but in generally most SIA consist of three phases: the inception report, the interim report and the final report. After the SIA reports are delivered, the EC creates a "position paper", which explain how the SIA findings will or have been used as part of the trade negotiations. To date, there are 29 completed SIAs and six are still ongoing (see Table A.1 in the Appendix).

2.2 Methodological framework for SIAs

The SIA methodology is laid down in a handbook (European Commission, 2016), which defines the main characteristics, objectives and principles of the SIAs. This second edition of the handbook, which replaced the previous edition (European Commission, 2006), reflects methodological changes and improvements adopted through the years.⁷ In particular, it defines a new generation of SIAs that analyse more dimensions and employs more evidence than previous SIAs. It also adopts practices established in the Better Regulation Agenda (European Commission, 2015a).⁸ Many of these additions stem from recommendations gathered during the consultation processes carried with different stakeholders and other dialogues with civil society.⁹ For instance, human rights has been added as an explicit new topic of analysis that needs to be incorporated in each SIA.¹⁰

The SIA handbook (European Commission, 2016) highlights two main objectives: transparency and employing SIAs to integrate sustainable development issues into

⁶For more details on the ongoing and completed SIAs, and full access to all the SIA reports, check the official website of DG-Trade: http://ec.europa.eu/trade/policy/policy-making/analysis/policy-evaluation/sustainability-impact-assessments/index_en.htm.

⁷In turn, the trade SIA methodology was initially developed in the first SIA study (Kirkpatrick and Lee, 1999), where one of the main tasks was to precisely propose a methodological framework to be used in later studies.

⁸For example, it strengthens the ex-post evaluation system and puts a larger emphasis on the consultation and feedback process with stakeholders and civil society (Dudley and Wegrich, 2016).

⁹See Section 3.1 for more details on the recommendations of two internal EU studies.

¹⁰This reflects the fact that since 2012, the SIAs have been also assessing potential human rights consequences of the trade agreements.

trade policy. This last objective is based on three pillars: economic development, social development and environmental protection. There are two key elements to every trade SIA:

1. Robust evidence-based analysis.¹¹
2. A continuous and wide-ranging consultation process.

The SIA handbook (European Commission, 2016) distinguishes three phases. The first phase consists of an Inception Report, which describes the methodological approach proposed by the external consultants, the particular sectors to be analysed, the stakeholders to be consulted and a preliminary screening and scoping process is conducted to identify key sustainability issues. The second phase consists of an Interim Report that can be complemented with (or include) sectoral analysis. In this interim phase the external consultants present their initial expected impacts of the trade deal and the consultation process with stakeholders is intensified, using for example: workshops, questionnaires and interviews. In the third and final phase, the analysis is refined and the Final Report is delivered. This report must be written in a non-technical language, with an executive summary of the main findings (sometimes translated into the language of the trading partner). Importantly, this Final Report must include a list of recommendations and measures (i.e. flanking mechanisms) that should be implemented to maximise the benefits or mitigate possible negative impacts.¹² These recommendations are, in turn, based on the previously identified impacts from the first two components.

The most visible change in the coverage and SIA methodology, is the inclusion of human rights as a main analytical topic. This started with the SIA for Georgia and Moldova (Ecorys, 2012) and was later formally included in the second SIA handbook (European Commission, 2016). This has been the most visible change in SIA coverage. The current analysis of human rights is done using three steps.¹³ First, an overview of the current human rights conditions in the negotiating partner country. Second, a qualitative analysis to identify which human rights are most likely to be affected by the trade agreement. In the third and last step, the potential expected impacts on human rights is assessed, using as basis the results from the economic (CGE) model, and other quantitative estimations done in previous phases of the SIA –for example, using the results from detailed household survey data on vulnerable groups.

In general terms, the main (quantitative) analytical component of most SIAs employs a computable general equilibrium (CGE) model. This analytical framework simulates the complex economic interrelations between trade policy and the rest of

¹¹Chapter III of the SIA handbook provides guidelines related to the quantitative and qualitative analyses required to evaluate the impacts on all three pillars: economics, social and environmental.

¹²In this context, 'flaking mechanisms' indicate national or international measures, which are simultaneously implemented with the trade agreement, to avoid or mitigate the expected negative impacts and maximise the beneficial ones (Kirkpatrick and George, 2006).

¹³The initial human rights analysis were based on the Commission-wide guidelines (European Commission, 2011) and updated in European Commission (2015b).

the economy, distinguishing many sectors and different trading partners (included third countries not directly involved in the trade agreement).¹⁴ This CGE (or other trade) model generates the main economic effects of the trade agreement. As part of the SIA methodology (European Commission, 2016) a certain number of specific sectors is chosen for a further and more detailed analysis (i.e. scoping and screening). Additionally, some "horizontal" issues are also analysed. These are particular components of the trade agreement that affect multiple sectors, and include issues such as: rules of origin, intellectual property rights, investment issues, technical barriers to trade (TBTs) and sanitary and phytosanitary measures (SPM).

Once the main quantitative economic effects of the trade agreements are obtained from the CGE model, some of these economic outputs are used to infer and/or inform on the social and environmental consequences of the trade agreement. For example, output changes in a particular sector (or sectors) are employed to assess how this can affect vulnerable workers (e.g. female, migrants) and particular environmental issues (biodiversity, land use, water contamination) in that sector. These type of indirect (or secondary) links between the economic output, at different levels of aggregation (macro or sectoral), provide the basis for the assessment of the main social and environmental effects of the studies.¹⁵ As explained below, we define primary coverage when a topic is directly assessed using quantitative estimations. Secondary coverage is then defined as the analyses that rely on the output of the CGE model to infer and/or conduct qualitative assessments of potential social and environmental impacts, usually for particular sectors.

During all three phases, there are different consultation processes with stakeholders that are taken into account at each stage. For instance, the reports are publicly released (in draft form) to give the opportunity to stakeholders to comment and propose changes. In practical terms, however, not all SIAs have followed the three different phases described above.¹⁶ Each SIA consists of a number of reports, ranging from one to more than ten (see Figure A.1 in the Appendix). These can be inception reports, interim technical reports, documentation of the consultation processes, annexes and other technical documentation. However, each SIA concludes with a Final Report. In our analysis of the coverage and evolution of SIAs below, we focus our analysis on this Final Report of each SIA.

The SIAs, nonetheless, are only one of several evaluations conducted by the EC related to trade agreements.¹⁷ First, an impact assessment (IA) is conducted to obtain a negotiating authorisation and the draft negotiating directives from the Council of the EU. Second, the trade SIAs are done to guide and provide evidence-based aid for the negotiations. Third, there is an economic assessment of the negotiated

¹⁴See Dixon and Jorgenson (2013) for a broad overview on CGE models. Nilsson (2018) provides a recent overview of the main characteristics and limitations of CGE models from the perspective of a DG-Trade official.

¹⁵Some exceptions are employment changes and CO2 emissions, which can be directly obtained from the CGE model.

¹⁶This is of course, a consequence of the methodology being changed over time.

¹⁷See Dudley and Wegrich (2016) for a detailed description of the full EU-wide procedure regarding impact assessments.

outcome (EANO), which focus specifically on the outcome of the negotiations and specifically, on the economic value of the trade costs reductions (both tariffs and non-tariff measures) effectively achieved with the agreement (Nilsson, 2018).¹⁸ The fourth and final, is an ex post evaluation, which is a Commission-wide tools to assess specific policies achieved the expected objectives.¹⁹

3 Methodological and procedural changes to the SIAs over time

We now focus our analysis on the changes on the SIA methodology and the different analytical approaches it used over time. To facilitate the overview of the papers, we start by analysing different evaluations and critiques to the SIA done internally within the EU. We then comment on how the recommendations and/or limitations pointed out by these studies have influenced the SIA system. We then overview papers that evaluate overall impact assessment analyses, paying special attention to papers that focus on trade-related IAs. In the last two sections we then analyse papers that have evaluations and/or criticisms that apply directly to the two main components of the trade SIAs: robust evidence-based analysis and the open consultation process.

3.1 Evaluations of the SIAs within the EU

Within the EU system, there have been two main evaluations of the SIA system. First, the report by the European Economic and Social Committee (2011) recommended, in general terms, a comprehensive expansion on the number and scope of the SIA components. For example, to include an ex-post monitoring mechanism involving civil society, prioritise the detection of social and environmental risks, perform more detailed analysis (based on specific sectors and/or households), include environmental-specific analysis (i.e. life cycle analysis, carbon footprint, measurement of ecosystem services), include local experts from the negotiating partner countries, expand the number of analytical methods (including qualitative evaluations), and to include analysis on the impact on gender equality.²⁰ It also recommends the increase in the transparency and open communications in the process: that all the reports (from different phases) remain available to the public; that the consultations are opened to any interested parties from civil society (and provide financial means

¹⁸The EANO is prepared by Commission services for the European Parliament and the Council of the EU.

¹⁹There is only one ex-post evaluation of a particular trade agreements where a SIA was conducted: Bureau and Jean (2012). Although ex-post evaluations have been done for more general trade policy issues. See <http://ec.europa.eu/trade/policy/policy-making/analysis/policy-evaluation/ex-post-evaluations>.

²⁰It goes as far as recommending the analysis of the working conditions for the legal and health professions. Although it is not clear why other professions should not be given the same attention.

for them to participate); and not surprisingly, it advocates for increased participation and decision power for the European Economic and Social Committee itself.

Second, the special report by the European Court of Auditors (2014) found that SIAs were not done for all negotiated agreements. In particular, there are no SIAs for the FTAs negotiated with the Western Balkan countries. There were six FTAs with these countries, also known as Stabilisation and Association Agreements (SAAs): the former Yugoslav Republic of Macedonia (2004), Albania (2009), Montenegro (2010), Serbia (2013), Bosnia and Herzegovina (2015) and Kosovo (2016). Although the special report also found that the EC did not appropriately assess all the economic effects of the FTAs, this is clearly related to a misunderstanding of the limitations of economic ex-ante analysis.²¹ The European Court of Auditors (2014) report, made three main recommendations to SIAs: i. to include both an IA and a SIA for all trade agreement negotiations; ii. to routinely involve EuroStat in assessing the quality of the data employed in the SIAs; and iii. to carry-out ex-post assessments as well.

Most of the recommendations from both studies were adopted. The exceptions were those that, to a great extent, had been already implemented, or the recommendations that were unpractical to implement. For instance, ex-ante analyses of trade policy are already a methodologically complicated and a data-intensive process. However, ex-post trade policy analysis are even more demanding. In particular, such an analysis will need to include and isolate the effects of non-trade-related economic events: e.g. recessions and booms, fiscal and monetary policy changes, political events with economic consequences, and more importantly, other structural changes (i.e. technological advances). All these events must be accounted for in order to isolate the precise trade effects related to the signing of the trade agreement. In addition, several trade agreements are usually signed each year, which will further require to isolate the effects of each agreement. The very complex nature of this exercise is one of the main reasons why there are very few ex-post trade analytical studies.²² Moreover, the non-trade issues (i.e. environmental and social effects) also become extremely complicated to analyse, since all non-trade events from the past must also be isolated to properly understand the effect of the trade policy on each of these issues. An added complication is that social and environmental issues are mainly driven by domestic policies and institutions (Bureau and Jean, 2012).

Moreover, in the recommendations from the European Economic and Social Committee (2011) study, there is the implicit assumption that trade policy can generate substantial economic, social and environmental impacts, and in addition,

²¹For instance, the study devotes plenty of attention to forgone tariff revenues from FTAs. However, this a relatively minor source of revenue income for the EU and more importantly, the study fails to take into account the revenue from other (direct and indirect) taxes generated by increased economic activity facilitated by these FTAs. In general, most quantitative trade analysis find increases in overall tax revenues from FTAs.

²²The EC, for example, has only conducted two ex-post evaluations of FTAs. For more information check: <http://ec.europa.eu/trade/policy/policy-making/analysis/policy-evaluation/ex-post-evaluations>.

that it can be an effective instrument to spur sustainable development goals in other regions. We analyse this assumptions with more detail in Section 5.2.

Given, therefore, the intrinsic impracticalities of some of these recommendations, not all of them were directly incorporated into the newest SIA handbook (European Commission, 2016), but a majority was. For instance, currently civil society organisations are now part of the monitoring process of implemented agreements – specifically, by providing feedback on the social and environmental issues (Nilsson, 2018). In addition, there was an explicit effort to improve the communications and consultation procedures related to the SIA process, which were in line with the broader commitments on more inclusive and transparent trade negotiations (European Commission, 2015c). In addition, it also explains why the scope of the SIAs was broadened –e.g. including gender equality and human rights as key analytical issues.

3.2 Evaluation of impact assessments in general

It is important to remember that the EC’s trade SIAs, is just a part of the much broader area of impact assessment (IA) analyses –which should not be confused with the EC-wide IA analysis. As such, one can consider the EC’s trade SIA to be a specific IA instrument that is applied exclusively to trade policies. Given the breadth of this literature, here we focus mostly on studies that evaluated or discussed the EC-wide IA system.²³

George and Goldsmith (2006) overview a series of papers that evaluated trade-specific IAs. They argue that, in principle, trade-specific IAs can make a major contribution to reaching sustainable development goals, at different levels of aggregation (global, regional and national). In this regard, from the onset of the SIA process, there was this strong implicit believe that SIAs could make an important contribution to achieving sustainable development goals (George and Goldsmith, 2006). However, this seems to have been over optimistic.²⁴ One important remark they make is that trade IAs are much more complex than other more common IAs (e.g. single-project assessments) and this makes them unique. They usually include more than one country –and sometimes a large number of countries– all of which have different and/or conflicting interests. In addition, even at the national level, there is no single body that makes decisions regarding trade –usually a government department deals with trade negotiations, but the executive and legislative powers have the last say, and sometimes the judicial branch is also involved. Thus recommendations generated by trade SIAs can easily be overlooked and/or changed during any part of the complex political process that goes from the negotiation of the trade agreement to its final implementation.

Other papers are even more pessimistic. Adelle et al. (2006), for instance, found that overall IAs from the EC, have not been an effective instrument to achieve the

²³Importantly these are external studies that were not financed by the EU.

²⁴Already in their 2006 paper, George and Goldsmith already acknowledged that many challenges needed to be overcome for this to happen.

EU's commitments to promoting sustainable development in developing countries. This reflects, at least in part, the fact that the initial objective –i.e. to use direct policies and soft power to measurably improve sustainable development– is extremely ambitious. In essence, the fact is that the EU has no formal instruments to directly and effectively influence domestic policies related to social and environmental laws (and their implementation) at the regional nor global level. For example, the EU has no mandate to establish international environmental laws, nor to address economic and social disparities within and among countries (Kirkpatrick and George, 2006). In this regard, domestic development outcomes, in general, are strongly influenced by domestic policies, and more importantly, by the established institutions (political, social, cultural and economic) that are intrinsic to each country (Acemoglu and Robinson, 2012). Furthermore, it is important to acknowledge that the major source of structural change in the last 30 years, has been technological developments rather than trade policy changes (Acemoglu and Autor, 2010), although both are also inter-related (Bloom et al., 2016).

It is also questionable that indirect and/or 'soft power' instruments can have a decisive effects in these domestic outcomes. The main function of the SIAs is to identify the potential impacts of trade policies and influence the civil and political debate on these issues. Although most trade agreements aim to achieve sustainable development, the bodies that negotiate these agreements (DG-Trade in the case of the EU), are not responsible for sustainable development and (in the case of the EU's negotiating counterpart) are not bound to act upon sustainable development measures – unless these are subject to international law or specific regional and/or global international institutions.²⁵ Therefore, how the insights and recommendations from the SIAs are practically (and politically) addressed within the trade agreement, and how the implementation of flanking mechanisms is effectively determined and acted upon, is clearly beyond the scope of SIAs (Kirkpatrick and George, 2006).

3.3 Critical overview of the SIAs analytical framework

In this section we analyse different methodological issues regarding IA's in general, that have a direct relation with the EC's trade SIAs.

3.3.1 Defining sustainability

An intrinsic limitation of sustainability analysis in general, is that there is no one set of broadly accepted –and comprehensive enough– sustainable "outcomes". Different stakeholders have different framings and expectations of what such an outcome should be (Bond and Morrison-Saunders, 2011).²⁶ One approach is to develop sus-

²⁵The negotiating agencies, moreover, do not have the competence to even define what sustainable development entitles in practical terms.

²⁶See also Kirkpatrick and George (2006) for debates between stakeholders regarding this particular issue in the early stages (1999-2006) of the SIA system.

tainability indicators to focus and standardise the analysis.²⁷ Another is to apply a holistic approach to sustainability, which provides more flexible and case-specific assessments. Although this approach also makes the evaluation process more difficult.²⁸

In the case of the early EC's trade SIAs, they focused on indicator-based analyses.²⁹ For instance, the first SIA handbook recommended the use of indicators to assess the expected economic outcomes –e.g. real income, net fixed capital formation, employment, self-employment, informal employment and consumer effects (European Commission, 2006). The use of social and environmental indicators was also encouraged, but the precise definition of these indicators was vague –i.e. poverty, health and education, environmental quality, air/water/land quality indicators. In the second SIA handbook (European Commission, 2016), however, the focused changed. Although the use of indicators is still strongly encouraged, the analysis was not indicator-based any longer.³⁰ Thus, recent trade SIAs are more focused into risk-based analyses, since they usually aim at identifying social groups at risk and/or environmental issues that can be important. This positions SIAs, in a general sense, as a more holistic and risk-based approach.³¹ Bond and Morrison-Saunders (2011) suggest that defining the ultimate objectives or desired sustainability outcomes of the IA should be one of the main goals of the dialogue with stakeholders. From the SIA perspective, this seems to be attained during the open consultation process where social groups and environmental issues that are expected to be at risk from the trade policy can be identified.

3.3.2 Integrating environmental and social modules into the quantitative framework

The survey paper by Torriti and Löfstedt (2012) finds that one of the main problems with the EC's IA system is the lack of integration between macroeconomic and microeconomic modelling. This is also an important limitation in trade SIAs.³² In particular, trade SIAs aim to systematically assess economic, social and environmental issues simultaneously, but it does not employ a quantitative methodology that

²⁷Using for example environmental indicators (McCool and Stankey, 2004; Donnelly et al., 2006, 2007; Laedre et al., 2015) and social indicators (Valentin and Spangeberg, 2000; Cloquell-Ballester et al., 2006).

²⁸Bond and Morrison-Saunders (2011) label the first approach as reductionist and the second as holistic. They also find that another limitation of sustainability analyses is that the time horizon of the analysis is hard to establish –i.e. how should we treat inter-generational transfers. This last issue, for instance, is left out of SIAs.

²⁹In particular, the first SIA conducted by the University of Manchester (Kirkpatrick and Lee, 1999) relied heavily on this approach, and the methodology was specifically focused to analyse particular sustainability indicators.

³⁰Tellingly, no particular indicators are provided or suggested, and just a broad advice to use "state-of-the-art available indicators" is mentioned.

³¹For instance, the survey by Torriti and Löfstedt (2012) finds that this is a worldwide trend, where analysis assessments are more holistic and risk-based. Particularly in the UK, US and increasingly in Australia and Canada.

³²Even though this survey did not explicitly analyse trade SIAs.

directly estimates the interactions of these three pillars within the same analytical framework. This is, however, a daunting and extremely complicated task. So far, all SIAs have a strong methodological framework to analyse the economic impacts (mostly a CGE model). We define this direct quantitative assessment as "primary" coverage. On the contrary, the social and environmental issues are (usually) not integrated into this economic analysis. They are, in general, assessed with a top-down approach using as basis the expected economic changes –both at the aggregated country level and by specific sectors (and sometimes by country sub-regions). In other words, the social and environmental analysis are analysed only indirectly and we define this as "secondary" coverage. In particular, inferences and qualitative analysis are used to link changes in the main economic variables –which are obtained from the quantitative trade model– with potential changes in social and environmental issues. For example, using estimated changes in employment and sectoral production from the CGE model, inferences are made regarding how these changes may affect poverty, female employment and other social issues. A similar approach is used to assess environmental impacts. The SIA handbooks (European Commission, 2006, 2016) refer to this analytical approach as a Causal Chain Analysis (CCA).³³ The CCA methodology acknowledges that there are multiple cross-linkages between the economic, social and environmental impacts (Kirkpatrick and George, 2009). However, most SIAs just analyse the top-down link between economic effects (e.g. sectoral employment and production) and social and environmental impacts.³⁴ Thus, this secondary coverage of social and environmental issues is, in general terms, a partial-equilibrium exercise, which leaves out many inter-relations between the three main topics of the SIA analysis.

The integration of the social and environmental effects into a single analytical framework is possible, but complex. CGE models are very advanced in integrating environmental and economic issues (see for example, McKibbin and Wilcoxen, 2013; Nordhaus, 2013). There have been attempts to bridge this gap in some of the trade SIAs. For example, in the SIA conducted for the EU-Canada CETA agreement (Development Solutions, 2011) and TTIP (Ecorys, 2017), a CGE model was linked to an energy model (E3MG) to generate more detailed environmental results that were directly linked with the CGE model. Another exception started with the SIAs for Georgia and Armenia (Ecorys, 2012, 2013), where a separate quantification was done regarding released air emissions of pollutants. This was done in total for nine other SIAs.

The use of micro level data (households or individuals) to directly assess poverty, household inequality and the effects on particular population groups, has also been widely modelled within the CGE framework (cf. Chen and Ravallion, 2013; Bourguignon and Bussolo, 2013). One important limitation for this approach, however, is that not every country has household survey data that is readily available, and

³³In the European Commission (2006), page 35, Chart 3, it is clearly depicted how changes in sectoral production are the main input to conduct the social and environmental assessments.

³⁴This analysis, however, does benefit substantially from the consultation process with stakeholders.

thus, such a household-level CGE analysis is not possible in some cases.³⁵ Starting with the SIAs for Georgia and Armenia (Ecorys, 2012, 2013), SIAs started included such an analysis to have a in-depth assessment of the impact of the agreement on poorer households and overall household inequality effects.³⁶ With such a micro-level household analysis, more detailed income distribution (Gini coefficient) and poverty indicators can be analysis –e.g. absolute poverty, relative poverty and depth of poverty. In addition, vulnerable groups (by income, skill, age, gender and geographical location) can also be assessed quantitatively.

Nevertheless, the integration of both micro-level and environmental CGE model, has been constrained to the analysis of the households of a single country (see Buddelemyer et al., 2012). Thus, to conduct such an analysis for multiple countries, will entitle large data requirements and the computational effort will be substantial.³⁷

3.3.3 Labour markets

One topic that is seldom analysed in depth in SIAs is the labour market adjustments to trade policy changes. This is surprising, given the weight that labour outcomes (number of jobs lost or gained) has in public trade policy debates. Most CGE models used in SIAs assume a fixed labour supply (and fixed unemployment rates), to reflect a medium-term horizon where changes in labour demand are channeled through wage changes (Kirkpatrick and George, 2006; Nilsson, 2018). In some cases, wages are hold constant to reflect a sticky-wages situation with excess labour supply. However, both settings are extreme and in reality, the adjustment of the labour market can go through a combination of wage changes, and adjustments to the labour extensive margin (employment) and the intensive margin (hours worked). The empirical implementation of a setting with endogenous labour markets –i.e. where wages, labour supply at the extensive and intensive margin and unemployment are all changing– is a complex undertaking with specific data requirements on labour parameters. However, such as a setting has been already implemented in some CGE models (see for example Boeters and van Leeuwen, 2010).³⁸ Including an endogenous labour market setting into CGE (or the trade modelled employed) will be an important improvement in the main economic analytical framework of SIAs.

However, it is important to note that CGE models are still not suitable to capture the frictional costs of employment moving between sectors and/or occupations as a consequence of trade shocks (Boeters and Savard, 2012). The models do not capture

³⁵In a mid-way approach, the SIA done for India (Ecorys, 2009) links the CGE model outcomes with detailed poverty indicators and their links with consumption prices –which were obtained from other studies that used Indian household survey data– to assess the potential poverty impacts of the trade agreement.

³⁶In total six SIAs used micro-level household in their analyses.

³⁷The E3MG model used in the SIA for TTIP (Ecorys, 2017), includes links to an energy-environmental module and also to micro-level household data, but it is not clear how the social and environmental components of the model interact, or if there are any interactions at all.

³⁸Moreover, other trade models also include some form of endogenous labour markets, although with different degrees of success. See Bekkers and Rojas-Romagosa (2018) for a survey on trade models used to analyse the Transatlantic Trade and Investment Partnership (TTIP).

either the private costs to workers or the fiscal costs for the government (re-training, unemployment benefits, etc.) associated with these adjustments. One metric that helps to assess the magnitude of these potential labour adjustment costs, is the potential number of displaced workers, by estimating the number of workers that need to change from one sector to another.³⁹

3.4 Evaluation of the consultation process

Dudley and Wegrich (2016) emphasise the importance that transparency as gained in the whole IA process over time. The OECD, for example, recommends the application of the principles transparency and open participation in the the regulatory process. This includes meaningful opportunities (including online access) for the public to participate and contribute in the whole process (OECD, 2009). Applied to SIAs, to ensure their effectiveness, transparency should be present in all phases of the process: determining the analytical goals, evaluating alternative means to reach and to enforce these goals.

Even though transparency seems to be desirable component of the IA process, it is not empirically clear that it actually increases the quality of the process. Dudley and Wegrich (2016) analyse IA analysis used in regulatory procedures in the US and the EU, and conclude that further research is needed to effectively estimate the impact of transparency on regulatory quality. In particular, to evaluate the effectiveness of the transparency procedures, a more in-depth analysis is required to account for the incentives and opportunities of the different stakeholder to 'game' the procedure. Kirkpatrick and George (2006) find that the consultation process was most effective when there already existed a strong stakeholder network that had a relatively high level of expertise in sustainable development topics. Although this might be the case within the EU and other OECD countries, it is less likely to occur in developing countries. Thus, the effectiveness of the consultation process is substantially reduced when dealing with developing countries. This negative impact could be mitigated by creating opportunities for these networks to develop in these countries.

On the other hand, it has also been argued that the communication openness and broad consultation processes in IA, is not a means to an end, but the end-objective itself (Torriti and Löfstedt, 2012). In other words, openness is generated by stakeholder pressure to participate in the process.⁴⁰ But it also serves the evaluating agency's purposes (i.e. DG-Trade), to assert that a broad set of opinions has been taken into account before the final policy decision is made. Applying this to the case of trade SIAs –where this openness principle constitutes the second main

³⁹Reporting the expected number of displaced workers, sometimes by sectors, has been a regular feature in the trade SIAs starting with the SIA for India Ecorys (2009).

⁴⁰For example, Kirkpatrick and George (2006) details how, already in the initial years of the SIAs (1999-2006), civil society was strongly involved and how it maintained pressure to influence the whole process.

component of the assessment– it can be argued that the open consultative process is as important, or even takes precedence over the analytical component.

Another important contribution of SIAs is that, since they are publicly available at all stages of the process, they also provide developing countries (and their negotiators) with very valuable information. Given that governmental capacity is much lower in developing countries, sometimes the EC’s trade SIA can be the only information source of the expected impacts of the trade agreements in these countries. In the case where the EU is negotiating trade agreements with developing countries, the communication openness engrained in the SIA process benefits more the partner country than the EU itself. The fact that the consultation process is also carried out in the partner countries’s in these cases, increases the value added of the SIAs and its contribution to the awareness and internal political and social debate in the partner country.

Finally, it is interesting that not many trade SIAs explicitly assess the country-specific results for each of the 28 EU member states. In principle, the CGE model can be set to provide this level of detail at the EU member-state level, but so far, only two SIAs (for CETA and TTIP) have presented these results. The main reason, is that for many of the trade agreements, the impacts on the EU as a whole are negligible, and thus, there is no expectation that any particular country will have any non-marginal impacts as well. However, for some other cases, the impacts can be more substantial (if still relatively small) and here it can be interesting to corroborate that this also holds for each EU member-state. In general, presenting these detailed country-specific results can increase the transparency of the whole SIA process.

4 Coverage of non-trade issues in SIAs

By construction, the economic trade model (e.g. CGE) that is at the core of the SIA quantitative analysis covers most trade issues and economic variables of interest, such as GDP, welfare (i.e. real income, equivalent variation), consumption, production, and public finances. Results are also available at the more detailed sectoral level and most studies (particularly after 2006) also analyse specific sectors of interest in more detail. Therefore, in this section we focus on the evolution of the thematic coverage of non-trade policy objectives (NTPOs) within the Final Reports of each SIA. In particular, we conduct a detailed survey of several specific non-trade issues analysed in each of the 29 completed SIAs.

To be consistent with the other databases and documents in the overall RESPECT project, we follow the non-trade issues classification from Lechner (2016). Her coding includes four main categories: i. civil and political rights; ii. economic and social rights; iii. environmental protection; and iv. security and geopolitical issues (See Table A.2 in the Appendix). Each category has between 4 and 14 subtopics, for a total number of 39 non-trade issues. Lechner (2016) also distinguishes different degrees of treatment to each issue. For instance if there are concrete measures or

body created to deal with issues, enforcement mechanisms (consultation with an international organisation, filling of complaints, dispute settlements), cooperation efforts (dialogue, assistance). However, not all topics covered on the SIAs fall into these categories, so we adjust the classification to include only some particular issues.

In addition, we make small adjustments to this classification to include topics that were not identified. For example, inequality issues –wage and household inequality– do not fall in any of the categories from Lechner (2016) so we create two new categories. In principle, atmospheric pollution (greenhouse gases) can be classified under the "reduction of air pollution" category, but we chose to separate it, since many SIAs analyse both topics separately. Finally, we also decided to split labour-related issues from the broader "economic and social rights" main category. Therefore, we employ a classification with five main categories and 42 non-trade issues (see Table A.3 in the Appendix).⁴¹

To analyse the thematic coverage of each SIA, we focus solely on the Final Report of each SIA. There are different degrees of coverage, in terms of how in-depth each topic is analysed. We distinguish two main categories:

1. Primary coverage refers to topics that were directly analysed in the empirical study using quantitative methodologies (e.g. CGE model, household survey data).
2. Secondary coverage involves topics that were analysed as a by-product of the empirical quantitative study. This includes qualitative analysis and indirect inference of the potential consequences of some of the main empirical findings.⁴²

The distinction is important, because the main economic analysis (usually a CGE model) takes into account the general equilibrium effects of the trade policy shock. On the other hand, using indirect inference and qualitative assessments of the impact of this directly estimated economic effects on social and environmental issues is at best a partial-equilibrium approach.⁴³ Therefore, some of what we define as secondary coverage can be an analysis based on other variables (e.g. employment, sectoral production changes) and/or a partial analysis that focused only on specific sectors, and not on all sectors.

A common trend throughout most SIAs regarding secondary coverage, is that the social impact assessments rely heavily on the employment and/or wage effects (at both the macro and sectoral level) obtained from the CGE model. Meanwhile, the environmental impact assessments depend mainly on sector production changes and inferences on how the expansion of some sectors can affect the environmental

⁴¹To keep tractability with the coding in Lechner (2016) we keep the same code as in Table A.2 when applicable.

⁴²In the SIA terminology these indirect effect analysis are usually referred to as Casual Chain Analysis (CCA) (European Commission, 2006, 2016).

⁴³In some SIAs, for instance, specific partial-equilibrium analysis were done, usually for selected sectors.

impacts they generate. The main directly estimated indicator is CO_2 emissions changes, which are directly obtained from the CGE model.

Finally, there are two main types of trade agreements that are analysed using SIAs. Those analysing (mainly bilateral) FTAs and those analysing multilateral WTO agreements. We define "bilateral" FTAs as those involving the EU and a trading block that has no more than ten countries (e.g. Central America, ASEAN, Andean Community, Mercosur). Multilateral agreements, on the other hand, are defined as involving more than 10 countries. Since the scope and coverage of these SIAs are fundamentally different, we treat and analyse them separately.

4.1 Bilateral trade agreements

We first account for which of the 42 NTPOs (from Table A.3) is included in each of the 23 impact assessment on bilateral trade agreements. Specifically, if there is an analysis (quantitative or qualitative) of the potential impact that the trade agreement under negotiation could have in that particular topic. We do not include the topic as covered by the SIA, if it was only mentioned in the "context" (or initial conditions) section of the SIA, where a characterisation of the current situation (i.e. at the time the study) is done for a negotiating partner country.

It is important to mention that the topical coverage of SIA is conditional on the negotiation partner's particular circumstances. For instance, poverty issues are usually covered when dealing with developing countries, but not with developed countries. Another example are the Core Labour Standards and Decent Work Agenda from the International Labour Organisation (ILO), which are mostly implemented in developed countries, and thus, usually not analysed in negotiations with developed countries.⁴⁴

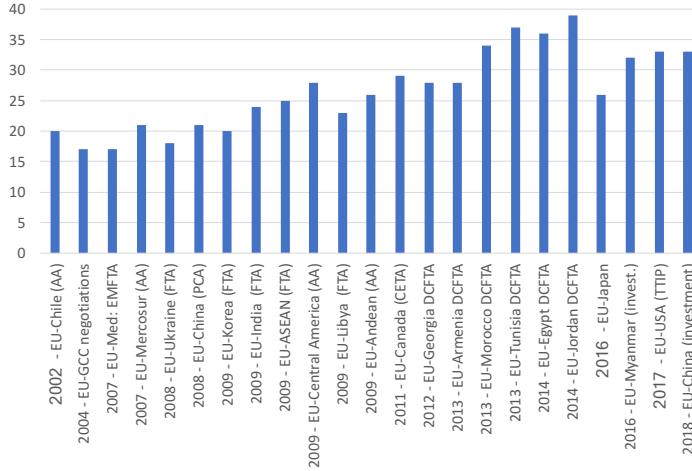
In principle, most SIAs should analyse the impacts in both the EU and on the negotiating partner. However, in reality the focus shifts between regions, conditional on the developing status of the negotiating partner. When the EU is negotiating with developing countries, the bulk of the social and environmental impact analysis is focused on these countries, instead of the EU. This is understandable, since in most of these cases the broad economic effects for the EU are relatively small, and thus, the expected social and environmental effects are only marginal or none. Moreover, developing countries in general, have smaller governmental capacity and established institutions to deal with any potential social and environmental issues, which makes the assessments for these countries more relevant. On the other hand, when the EU is negotiating with developed countries, the SIAs pay more attention to the impacts in the EU.

The overall coverage of NTPO issues (based on Table A.3) is shown in Figure 1. The main take-away is that there has been a steady increase in the number of NTPOs analysed over time. For SIAs concluded before 2010, the average number

⁴⁴The ILO core labour standards include supporting the right to join a trade union, the freedom to collective bargaining, the fight against forced labour and child labour.

of topics covered was 22 (or around 50% of the total number of NTPOs). For SIAs finished in 2010 or later, the average was 32 topics (77% of the total).

Figure 1: Total number of NTPO issues covered in each SIA report



Notes: Based on the NTPO list in Table A.3. By year in which the Final Report of the SIA was delivered. Source: Final SIA reports downloaded from DG-Trade website.

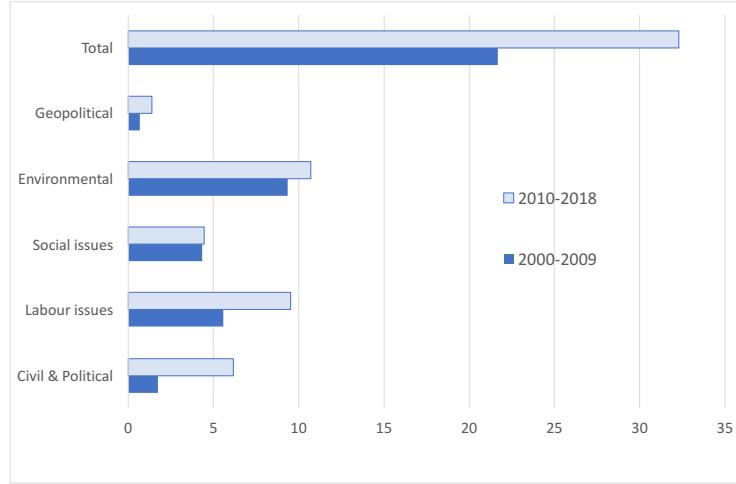
When we look at the five main categories, we find that the increase in coverage has mainly occurred in the civil and political topic and the labour-related issues (see Figure 2). Here we observe that the coverage of environmental and social issues has remained relatively unchanged, while geopolitical issues are usually not covered.⁴⁵ As already mentioned in Section 2, one specific NTPO that was gradually included in trade SIAs was the impact of the agreements on human rights. This is clearly reflected in the large increase in the coverage of civic and political topics.

We also see that mainly environmental and social issues are covered. But this is due to the fact that there are more of them in our NTPO list. Therefore, we also construct a graph where we calculate the percentage of topics that is covered in a particular area relative to the number of topics in that area (see Table 3). Here we observe that usually most of the social issues are fully covered in SIAs, followed by environmental issues. Around 50% of labour issues were covered in the older SIAs but the coverage has increased over time. The largest relative increase in coverage, however, is for civil and political topics, which went from less than 20% to more than 60% coverage. Finally, geopolitical issues had an initial very low coverage percentage and increased over time, but this topic has still less than 40% coverage.

When we analyse the type of coverage in each SIA. We find that a relatively small percentage of the total NTPOs have primary coverage –i.e. assessed with explicit quantitative analysis of the potential impacts, while the majority of NTPOs are assessed with indirect and inference-based analysis (secondary coverage). In

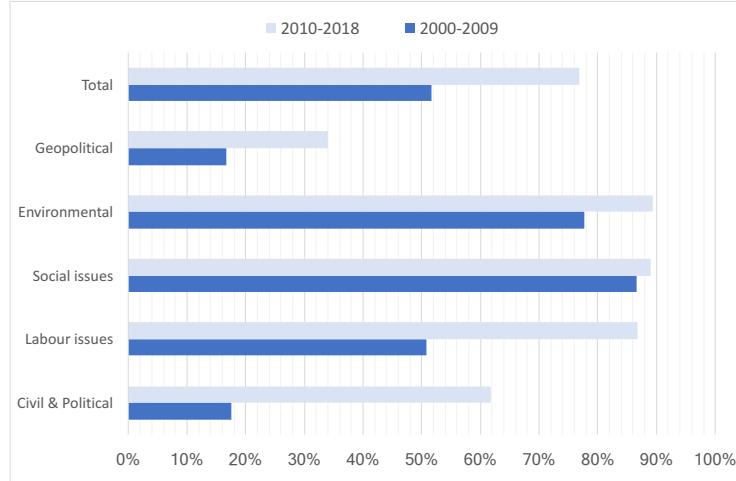
⁴⁵In Table A.4 in the Appendix, we present the total number of NTPOs by main category for all SIAs on bilateral trade agreements.

Figure 2: Average number of NTPO, by main categories covered in SIAs



Notes: Based on the NTPO list in Table A.3. By year in which the Final Report of the SIA was delivered. Source: Final SIA reports downloaded from DG-Trade website.

Figure 3: Average number of NTPOs as percentage of total NTPOs, by main categories covered in SIAs



Notes: Based on the NTPO list in Table A.3. By year in which the Final Report of the SIA was delivered. Source: Final SIA reports downloaded from DG-Trade website.

Table A.5 in the Appendix we classify NTPOs by type of coverage and there we see that on average, only around 14% of the topics are directly assessed. There was a slight increase over time (from 12% to 15% before and after 2010). However, this also reflects that the number of NTPOs covered over time has increased. In fact, the number of NTPOs with primary coverage almost doubled, from 2.8 to 4.8, before and after 2010, respectively. The topics with primary coverage are usually the

same by each SIA, since they are direct outputs from the CGE models: employment (and/o potential work displacement) effects, wage inequality effects (i.e. changes in wages by skill level), greenhouse gas (GHG) emission changes (usually of CO_2) and regional integration effects (including third country effects).

We also find that a vast majority of SIAs (21 out of 23 studies) use a CGE model as their main economic analytical tool. We also find that around half the SIAs (12) have investment analysis (FDI and/or fixed capital changes) incorporated in the CGE model or as a separate quantitative estimation. Many studies (14) have explicit analysis on the effects of the trade agreements on third countries. On the other hand, only two SIAs have EU country-specific impacts.⁴⁶ Finally, concerning primary coverage, besides the direct output from CGE models, 9 studies have direct environmental analysis (usually a detailed analysis on GHG emissions and air pollutants), one study has an integrated economic-environmental analysis,⁴⁷ and 6 studies use detailed micro-level household survey data. All these additional primary analysis where done after 2010.

4.2 Multilateral trade agreements

To date, there are six completed trade SIAs done for multilateral trade agreements (see Table A.1). In Figure 4 we show the number of NTPOs covered in each SIA. We observe that the number of non-trade topics has increased over time. As with the SIAs for bilateral agreements, this increase is mainly due to an enhanced coverage of civil and political topics (i.e. human rights) and labour-related issues.

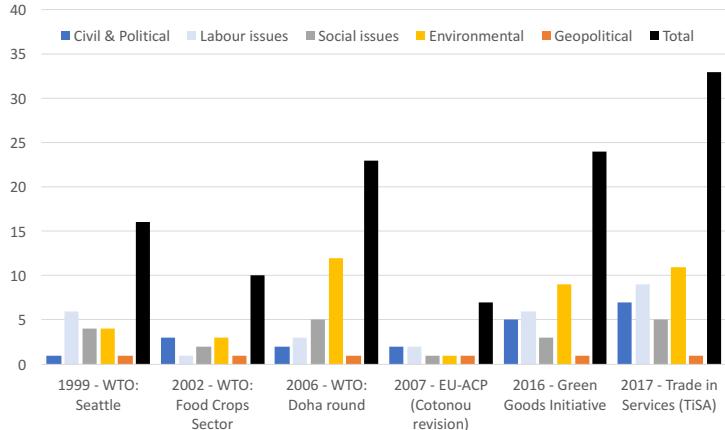
The trade SIAs performed for multilateral agreements, are by definition, concerned with global effects. Thus, they always include third-country and regional integration analyses in their studies. This is a major difference with respect to the bilateral agreements, where the SIAs usually just focus on a single partner country, and not always include third-country effects. Another important difference between the SIAs for multilateral and bilateral agreements, is that the former usually focuses on a particular trade policy or sector (e.g. food crops, services). This limits the thematic coverage of the SIA studies. For instance the average number of NTPOs covered for multilateral agreements (18) is bellow the average for bilateral agreements (22).

The primary coverage of the trade SIAs for multilateral agreements, furthermore, is substantially lower than for bilateral agreements. From Table A.6 in the Appendix, we observe that only two of the six studies employed direct quantitative analyses, and on average only 3.2% of the topics covered in the SIAs for multilateral agreements had such primary coverage –compared with 14% for bilateral agreements (see Table A.5). In this regard, the first three SIAs (WTO-Seattle, WTO-Food Crops and WTO-Doha Round) did not have a quantitative economic model as the bases of the analysis. Hence, no quantitative effects where estimated and these studies relied

⁴⁶The SIA for the EU-Canada (CETA) negotiations (Development Solutions, 2011) and the SIA for TTIP (Ecorys, 2017).

⁴⁷The E3GM model employed in the SIA for TTIP (Ecorys, 2017).

Figure 4: Number of NTPOs by category covered in SIAs for multilateral agreements



Notes: Based on the NTPO list in Table A.3. By year in which the Final Report of the SIA was delivered. Source: Final SIA reports downloaded from DG-Trade website.

exclusively on inferences based on the outputs of quantitative models from related studies. Needless to say, using exclusively a secondary coverage of the main impacts substantially reduces the quality and usefulness of these studies. On the other hand, the SIA for the ACP agreement used CGE and partial equilibrium models for certain components of the analysis, while the SIA for the Green Goods Initiative employed the E3ME model (Development Solutions, 2016), which is an econometric macro model that integrates economic, energy and environmental modules, to quantify the impacts on CO_2 emissions. Only the SIA for the Trade in Services agreement employed a CGE model to quantify the global and country-specific effects of the trade policy changes.

The EU-ACP agreement⁴⁸, however, is fundamentally different from other EU agreements, since it unilaterally grants tariff-free access to a group of developing countries to promote poverty reductions and sustainable development. The ACP-EU 2010 revision was expanded to include new developing challenges: climate change, food security, regional integration, State fragility and aid effectiveness. The corresponding SIA for the EU-ACP agreement, moreover, also has a different format and scope than other trade SIAs. In particular, given the large number of countries included (around 80) there is less emphasis on potential impacts, and the focus is shifted to providing recommendations for domestic measures that can complement the trade agreement and promote sustainable development.⁴⁹

⁴⁸Also known as the Cotonou Agreement originally signed in 2003. The SIA analysed here refers to the the second revision to the Cotonou Agreement that was concluded in 2010.

⁴⁹This is also the main reason that this particular SIA covered a relatively small number of NTPOs.

5 Summary and conclusions

To conclude this study, we first summarise the changes over time of the EC's trade SIAs methodology and procedures. We also summarise the main criticism that the approach has generated and some recommendations to improve on the methodology. Second, we overview the main changes in the thematic coverage of the trade SIAs over time.

5.1 Summary on methodological changes and recommendations

The analytical framework of the SIAs has been standardised and formalised over time, in particular after the publication of the first SIA handbook (European Commission, 2006). In the initial years –between 1999 and 2006– the methodology was being developed, and it incorporated several and important lessons gained at the time.⁵⁰ The trade SIAs started mainly as an indicator-based approach, and even though broad indicators are still used, the approach has mutated into a more holistic and risk-based analysis. This change of methodological approach is observable between the first (European Commission, 2006) and second SIA handbook (European Commission, 2016).

Nevertheless, the core analytical framework of the SIAs, specially after 2006, has remained relatively unchanged over time. As explained above, all quantitative modelling techniques have relied on trade-based economic models (mostly CGE models) that do not directly integrate social and environmental topics. Although there are analytical frameworks available to generate this integration, at least to a greater degree than currently done, this has only been partially implemented in the later SIAs. For example, only nine SIAs have in-depth direct environmental analysis and only six use household survey data to assess social impacts. Furthermore, the CGE models employed have not been updated to include some form of endogenous labour markets, which can provide more detailed information on the expected medium and long-term labour adjustments. One relatively straight-forward extension to the current CGE outputs in SIAs, which can increase the visibility and the political interest in the reports, is to present results on job changes (for an example, see Francois and Baughman, 2018).⁵¹ Moreover, going one step further, another option is to map these country-wide employment changes to sub-national regions (see Francois et al., 2018). A more riskier communication strategy will be to increase the level of detail, and map the job changes to political districts (as in Winters and Serwicka, 2018). In this last case, the potential employment effects can be directly linked to local

⁵⁰Kirkpatrick and George (2006) provide a detailed overview of the initial years of the SIAs and how the whole SIA process evolved during the 1999–2006 period.

⁵¹This will substitute the current standard practice of presenting overall wage changes. In technical terms, this is done by changing the labour market closure, and assuming short-medium term wages are 'sticky', and allowing labour demand changes to be channeled through employment (job) changes.

communities, and thus, involve members of local and national councils/parliaments in the debate –substantially increasing the political visibility of the results.⁵²

For the SIA system to have a substantial rise in the quality of its analysis, it should rely much less on secondary coverage and expand the primary coverage. Since not all the NTPOs are going to be affected significantly by particular trade agreements, this implicitly requires that the SIA is also more transparent and openly asserts that many of these NTPOs will not be affected in any substantial manner by the EU's trade agreements. This applies in particular to topics that are strongly influenced by domestic policies and long-term institutions, such as human rights, gender issues and the treatment of minorities. Many of the SIAs include very speculative analysis of potential, but still too indirect (and sometimes too hypothetical) mechanisms on how trade policy changes could affect the trading partner's internal institutions and sustainable development levels. Another limitation is that the qualitative (or non-quantitative) nature of most of the issue-specific impact assessments does not provide valuable information regarding potential trade-offs. If for example, a trade agreement is expected to have a positive (but not quantified) impact on air pollution, but also has a non-quantified negative impact on water pollution, then it is very difficult to evaluate the overall environmental impact, and thus, to properly assess the trade-offs implicit in the trade agreement. Of course, many of the issues are difficult to quantify and more importantly, to measure against other topics in different areas (for example, measuring the trade-off between changes in poverty and in environmental quality). However, in the current SIA system a majority of the assessments are evaluated as simple positive and negative effects, and this generates very limited (useful) information on the relative importance of different impacts. This is a critical constraint on the current SIA process, that limits the effective influence and usefulness that these ex-ante trade SIAs can generate for the European Commission, the negotiations and the public perceptions on potential sustainability impacts.

Finally, from the onset of the trade SIAs there was over-optimism regarding the effective power of SIAs to achieve sustainable development goals. At best, ex-ante trade SIAs aid and facilitates the negotiations, and it can increase the general public's awareness toward the effective changes that can be expected from implementing trade agreements. However, SIAs cannot even assure the successful conclusion of the negotiations and/or its legal ratification (George and Goldsmith, 2006). There is more positive evidence regarding the sustainable development effects associated with the implementation of the trade agreements, but even these impacts are conditional on the sequencing of the trade shocks and also depend on adequate national and international support (flanking) measures (George and Goldsmith, 2006). In addition, for trade agreements where the EU is not the main (or very significant) partner for the countries analysed (e.g. for some Latin American and Southeast Asian countries), even the direct trade and economic effects are already relatively

⁵²Of course, this will entail larger risks of particular communities and interest groups lobbying for or against trade agreements that directly or indirectly affect them, and this can substantially complicate the political process. However, it will also improve the transparency of the process.

small, leaving the indirect impact on social and environmental issues to be even more marginal or nonexistent. Therefore, it is clear that SIAs can only be instruments or means to realise the potential effects implicit in the trade agreements they assess, but on their own, they are not effective instruments to achieve sustainable development goals.

5.2 Patterns in NTPO coverage in SIAs

The coverage of NTPOs has been increasing during time. This is evident in the publication of the second edition of handbook of SIA (European Commission, 2016), which expanded the number of required topics and amount of evidence required in the SIA. In our detailed SIA survey, we also empirically confirm that the number of NTPOs analysed has increased over time. The main emphasis of the SIAs on non-trade issues has been on environmental, labour and social issues. After 2010, political and legal issues have also been covered in the SIAs, in particular, by focusing on the impacts on human rights.

This expansion in the number of non-trade topics covered under more recent SIAs has provided detailed analysis on several vertical (in-depth sectoral analysis) and horizontal (cross-sectoral) impacts, while increasing the environmental, social and human rights analysis. On the other hand, it is not empirically clear that the impact of a trade agreement can reach as far as to change intrinsic institutional settings of a country. This is reflected in impact assessments that usually expect relatively small changes in the NTPOs covered. However, since most of the analysis is done using qualitative analysis, it is hard to properly assess the relative magnitude and importance of these potential impacts.

There seems to be an overzealous approach to the evaluation of trade policy. In particular, trade policy is probably one of the most thoroughly analysed policy areas of the European Commission (Nilsson, 2018). This is reflected in the increasing scope of SIAs (including more topics such as human rights and gender equality), in addition to more transparent and inclusive processes. In part, this reflects more public debate and controversy surrounding the negotiation and approval of trade agreements. But it also seems to arise from unrealistic expectations of the overall aggregate impacts of trade policy on the economy and society in general. In this respect, it is important to remark that the EU's ex-ante assessment system embodied in the EU's SIAs, is the most complex, open and comprehensive trade impact assessments done in the developed world.⁵³ In addition, the SIA process also aims at producing an assessment for every trade agreement under negotiation, and its communications and consultive process are, usually, also open to the partner country or region in the negotiations.

⁵³Canada, for instance, has focused mainly on the environmental impacts of trade agreements. See for example, <https://www.international.gc.ca/trade-agreements-accords-commerciaux/env/env-ea.aspx?lang=eng>. Although it has also incorporated labour and gender issues in later assessments (see https://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/mercousur/notice_intent-avis_intention.aspx?lang=eng).

In this regard, the increasing scope and analytical ambitions in the most recent SIAs, is also based (at least implicitly) on the strong assumption that trade policy can be used as an effective and efficient instrument to further sustainable development goals in third countries. The evaluation of this assumption of a realistic and effective soft-power impact of trade policy is beyond the scope of this paper.⁵⁴ This soft power assumption –*a priori*– seems to be overstated. Most economic, social and environmental outcomes are strongly driven by domestic policies and institutions, both of which are hard to influence externally, and less so, using trade policy as the main instrument. Therefore, it is clear that a comprehensive evaluation of this assumption must be performed, before the SIA scope is further expanded in the future.

⁵⁴This is one of the objectives of the RESPECT project, of which this paper is part. Thus, further research from the overall project will analyse this premise in much more detail.

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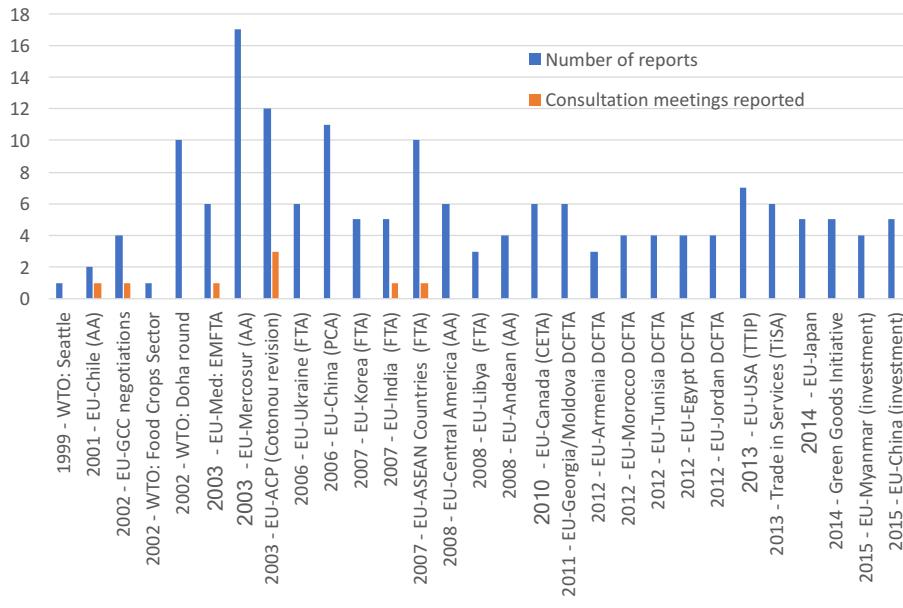
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A Additional tables and figures

Figure A.1: Number of SIA reports and published consultations



Notes: Ordered by the year when the SIA started. The number of reports include Position Papers and published annexes, and exclude summaries in the negotiating partner's language. Source: Own elaboration using the DG-Trade website on SIA (accessed December 2018).

Table A.1: List of completed and ongoing SIAs

	<i>started</i>	<i>finish</i>	
Completed SIAs (bilateral < 10 countries)			
1	2001	2002	EU-Chile Association Agreement Negotiations
2	2002	2004	EU-Arab States of the Gulf (GCC) Trade Negotiations
3	2003	2007	Euro-Mediterranean Free Trade Area (EMFTA)
4	2006	2007	EU-Ukraine Free Trade Agreement (FTA)
5	2007	2008	EU-Korea Free Trade Agreement (FTA)
6	2006	2008	EU-China Partnership and Cooperation Agreement (PCA)
7	2003	2009	EU-Mercosur Association Agreement Negotiations
8	2007	2009	EU-India Free Trade Agreement (FTA)
9	2007	2009	EU-ASEAN Countries Free Trade Agreement (FTA)
10	2008	2009	EU-Central America Association Agreement
11	2008	2009	EU-Libya Free Trade Agreement (FTA)
12	2008	2009	EU-Andean Community Association Agreement
13	2010	2011	EU-Canada Comprehensive Economic and Trade Agreement (CETA)
14	2011	2012	EU-Georgia and EU-Moldova DCFTA
15	2012	2013	EU-Armenia DCFTA
16	2012	2013	EU-Morocco DCFTA
17	2012	2013	EU-Tunisia DCFTA
18	2012	2014	EU-Egypt DCFTA
19	2012	2014	EU-Jordan DCFTA
20	2015	2016	EU-Myanmar investment protection agreement
21	2014	2016	EU-Japan
22	2013	2017	EU-USA (TTIP)
23	2015	2018	EU-China investment agreement
Completed SIAs (multilateral > 10 countries)			
1	1999	1999	WTO New Round (Seattle) - Phase II
2	2002	2002	WTO Negotiations in the major Food Crops Sector
3	2002	2006	WTO Negotiations, Overview assessment of the DDA (Phase III)
4	2003	2007	EU-ACP Economic Partnership Agreements (EPA)
5	2014	2016	Green Goods Initiative
6	2013	2017	Trade in Services Agreement (TiSA)
Ongoing SIAs:			
1	2017	–	EU-Mercosur Association Agreement Negotiations
2	2017	–	EU-Mexico trade pillar modernisation negotiations
3	2017	–	EU-Malaysia free trade agreements negotiations
4	2017	–	EU-Philippines free trade agreements negotiations
5	2017	–	EU-Indonesia free trade agreements negotiations
6	2017	–	EU-Chile trade pillar modernisation negotiations

Source: Taken from DG-Trade website (December 2018).

Table A.2: Coding of non-trade issues in free trade agreements (FTAs)

	Non-trade issues in FTAs	% appearance in FTA main text
	A Civil and Political Rights	
1	A.1 Civil and political rights	9.10
2	A.2 Human rights/physical integrity	10.47
3	A.3 Rule of law	3.64
4	A.4 Good governance	1.82
5	A.5 Women rights	1.67
6	A.6 Prohibition of human trafficking	1.97
7	A.7 Right to food security	3.19
8	A.8 Minority protection	1.21
9	A.9 Children rights	0.15
10	A.10 Right to free belief	0.15
	B Economic and Social Rights	
11	B.1 Labor rights at work	2.58
12	B.2 Right to development	6.07
13	B.3 Right to health	2.73
14	B.4 Right to education	1.21
15	B.5 Right to social protection	3.49
16	B.6 Right to equal opportunity at work	7.89
17	B.7 Right to unionise and bargain	7.44
18	B.8 Prohibition of forced labor	6.68
19	B.9 Prohibition of child labor	6.68
20	B.10 Right for free-time and leisure	3.34
21	B.11 Health and safety at work	7.44
22	B.12 Right to minimum wage	3.34
23	B.13 Right to work	4.70
24	B.14 Migrant worker protection	7.89
	C Environmental protection	
25	C.1 Protection of wildlife and biodiversity	8.35
26	C.2 Protection of fishing resources	4.25
27	C.3 Reduction of air pollution	10.47
28	C.4 Reduction of water pollution	6.83
29	C.5 Protection of forests	9.10
30	C.6 Reduction of toxic chemicals	4.70
31	C.7 Protection of mineral resources	0.76
32	C.8 Renewable energy	1.06
33	C.9 Fostering of environmental goods	0.61
34	C.10 Reduction of waste	7.89
35	C.11 Reduction of soil contamination	5.31
	D Security and geopolitical issues	
36	D.1 Fight against terrorism	1.06
37	D.2 Anti-corruption (fight against corruption)	3.34
38	D.3 Fight against illegal drugs	0.76
39	D.4 Regional integration	8.80

Source: Lechner (2016).

Table A.3: Classification of NTPOs employed to analyse the coverage in SIAs

Civil and Political Rights
1 A.1 Civil and political rights
2 A.2 Human rights/physical integrity
3 A.3 Rule of law
4 A.4 Good Governance
5 A.5 Women rights (incl. gender equality)
6 A.6 Prohibition of human trafficking
7 A.7 Right to food security
8 A.8 Minority protection (incl. indigenous groups)
9 A.9 Children rights
10 A.10 Right to free belief
Labour-related issues
11 B.0a Wage inequality
12 B.1 Labour rights at work (incl. labour conditions, informal employment)
13 B.6 Right to equal opportunity at work (incl. female employment)
14 B.7 Right to unionise and bargain
15 B.8 Prohibition of forced labour
16 B.9 Prohibition of child labour
17 B.10 Right for free-time and leisure
18 B.11 Health and safety at work
19 B.12 Right to minimum wage
20 B.13 Right to work (incl. employment and displacement)
21 B.14 Migrant worker protection (migration effects)
Social issues
22 B.0b Household (overall) inequality
23 B.2 Right to development (incl. poverty effects)
24 B.3 Right to health (incl. effects on health expenditure/services)
25 B.4 Right to education (incl. effects on education expenditure/services)
26 B.5 Right to social protection (impacts on vulnerable social groups)
Environmental Issues
27 C.0 Atmosphere pollution (GHG emissions)
28 C.1 Protection of wildlife and biodiversity
29 C.2 Protection of fishing resources
30 C.3 Reduction of air pollution
31 C.4 Reduction of water pollution (incl. water resources)
32 C.5 Protection of forests (incl. changes in land use)
33 C.6 Reduction of toxic chemicals (incl. hazardous waste)
34 C.7 Protection of mineral resources (incl. other natural resources)
35 C.8 Renewable energy (incl. clean technologies)
36 C.9 Fostering of environmental goods
37 C.10 Reduction of waste (incl. waste management)
38 C.11 Reduction of soil contamination (incl. soil fertility)
Security and geopolitical issues
39 D.1 Fight against terrorism
40 D.2 Anti-corruption (fight against corruption)
41 D.3 Fight against illegal drugs
42 D.4 Regional integration

Notes: Categories with a zero where added from the classification in Table A.2. Source: Own elaboration based on Lechner (2016).

Table A.4: Number of NTPOs covered by each SIA's Final Report on bilateral trade agreements

	Civil & Political	Labour issues	Social issues	Environmental	Geopolitical	Total
2002 - EU-Chile (AA)	2	3	5	10	0	20
2004 - EU-GCC negotiations	1	6	2	7	1	17
2007 - EU-Med: EMFTA	1	2	5	8	1	17
2007 - EU-Mercosur (AA)	3	3	4	9	2	21
2008 - EU-Ukraine (FTA)	1	6	5	6	0	18
2008 - EU-China (PCA)	1	4	4	12	0	21
2009 - EU-Korea (FTA)	2	7	4	6	1	20
2009 - EU-India (FTA)	1	7	5	10	1	24
2009 - EU-ASEAN (FTA)	1	8	4	11	1	25
2009 - EU-Central America (AA)	3	8	5	11	1	28
2009 - EU-Libya (FTA)	2	5	5	11	0	23
2009 - EU-Andean (AA)	3	8	4	11	0	26
2011 - EU-Canada (CETA)	2	11	4	11	1	29
2012 - EU-Georgia DCFTA	4	8	4	11	1	28
2013 - EU-Armenia DCFTA	4	8	4	11	1	28
2013 - EU-Morocco DCFTA	9	11	4	9	1	34
2013 - EU-Tunisia DCFTA	9	11	5	9	3	37
2014 - EU-Egypt DCFTA	7	11	5	11	2	36
2014 - EU-Jordan DCFTA	10	11	5	11	2	39
2016 - EU-Japan	4	7	4	10	1	26
2016 - EU-Myanmar (invest.)	7	8	5	11	1	32
2017 - EU-USA (TTIP)	7	8	5	12	1	33
2018 - EU-China (investment)	5	11	4	12	1	33

Notes: NTPO categories are taken from Table A.3. Source: Own elaboration using the final SIA reports downloaded from DG-Trade website.

Table A.5: Number of NTPOs, by type of coverage, for each SIA and averages by period

	Type of coverage		% primary to total	
	primary	secondary	Total	
2002 - EU-Chile (AA)	1	19	20	5.0
2004 - EU-GCC negotiations	1	16	17	5.9
2007 - EU-Med: EMFTA	1	16	17	5.9
2007 - EU-Mercosur (AA)	3	18	21	14.3
2008 - EU-Ukraine (FTA)	2	16	18	11.1
2008 - EU-China (PCA)	4	17	21	19.0
2009 - EU-Korea (FTA)	3	17	20	15.0
2009 - EU-India (FTA)	5	19	24	20.8
2009 - EU-ASEAN (FTA)	4	21	25	16.0
2009 - EU-Central America (AA)	4	24	28	14.3
2009 - EU-Libya (FTA)	2	21	23	8.7
2009 - EU-Andean (AA)	3	23	26	11.5
2011 - EU-Canada (CETA)	2	27	29	6.9
2012 - EU-Georgia DCFTA	7	21	28	25.0
2013 - EU-Armenia DCFTA	6	22	28	21.4
2013 - EU-Morocco DCFTA	4	30	34	11.8
2013 - EU-Tunisia DCFTA	7	30	37	18.9
2014 - EU-Egypt DCFTA	8	28	36	22.2
2014 - EU-Jordan DCFTA	6	33	39	15.4
2016 - EU-Japan	4	22	26	15.4
2016 - EU-Myanmar (invest.)	0	32	32	0.0
2017 - EU-USA (TTIP)	7	26	33	21.2
2018 - EU-China (investment)	2	31	33	6.1
Average (all)	2.7	18.5	21.3	13.6
Average 2000-2009	2.8	18.9	21.7	12.3
Average 2010-2018	4.8	27.5	32.3	14.9

Source: Own elaboration using final SIA reports downloaded from DG-Trade website.

Table A.6: Number of NTPOs, by type of coverage, for each SIA for multilateral agreements

	Type of coverage		% primary to total	
	primary	secondary	Total	
1999 - WTO: Seattle	0	16	16	0.0
2002 - WTO: Food Crops Sector	0	10	10	0.0
2006 - WTO: Doha round	0	23	23	0.0
2007 - EU-ACP (Cotonou revision)	0	7	7	0.0
2016 - Green Goods Initiative	1	23	24	4.2
2017 - Trade in Services (TiSA)	5	28	33	15.2
Average	1.0	17.8	18.8	3.2

Source: Own elaboration using final SIA reports downloaded from DG-Trade website.