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Greening regional trade agreements: Subsidies related to energy and environmental goods

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Abstract

Greening Regional Trade Agreements – Subsidies Related to Energy and Environmental Goods

Shunta Yamaguchi

Many regional trade agreements (RTAs) contain chapters and articles that are environmentally specific. However, Parties can elect to more broadly incorporate environmental objectives in their RTAs to address their environmental concerns in such agreements.

This report investigates in what ways RTAs could incorporate environmental objectives in chapters and articles related to subsidies for energy and environmental goods. It highlights the current state of play in incorporating provisions related to environmentally related subsidies in RTAs, and also illustrates possible ways to incorporate environmental objectives in RTAs based on existing practice and information.

Regional disciplines on subsidies could be considered in RTAs with respect to the Parties' environmental objectives in several ways, such as ensuring non-discriminatory measures, agreeing on a set of non-actionable subsidies, committing to phase-out certain subsidies, and securing greater transparency.

JEL classification: H23, F13, F18, R11, N50, Q56.

Keywords: Regional trade agreements, free trade agreements, environmental provisions, trade and environment, environment policy, trade policy, subsidies.

Résumé

De nombreux accords commerciaux régionaux (ACR) contiennent des chapitres et des articles spécifiques à l'environnement. Toutefois, les Parties peuvent choisir d'incorporer plus largement les objectifs environnementaux dans leurs ACR afin de promouvoir leurs préoccupations environnementales dans ces accords.

Ce rapport examine de quelle manière les ACR pourraient incorporer les objectifs environnementaux dans les chapitres et les articles relatifs aux subventions pour les biens énergétiques et environnementaux. Il souligne l'état d'avancement actuel de l'incorporation de dispositions relatives aux subventions liées à l'environnement dans les ACR et illustre également les moyens possibles d'incorporer des objectifs environnementaux dans les ACR sur la base des pratiques et des informations existantes.

Les disciplines régionales sur les subventions pourraient être envisagées dans les ACR en ce qui concerne les objectifs environnementaux des parties de différentes manières, en prenant des mesures non discriminatoires, en convenant d'un ensemble de subventions ne donnant pas lieu à une action, en s'engageant à éliminer progressivement les subventions et en assurant une plus grande transparence.

Classification JEL: H23, F13, F18, R11, N50, Q56.

Mots clés : Accords commerciaux régionaux, commerce et environnement, politique environnementale, politique commerciale, politique commerciale, subventions.

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Executive summary

Many regional trade agreements (RTAs) contain chapters and articles that are environmentally specific. But Parties can elect to more broadly incorporate environmental objectives in their RTAs to promote their environmental concerns in such agreements. This report investigates in what ways RTAs could incorporate environmental objectives in chapters and articles related to subsidies for energy and environmental goods based on existing practice and information.

Subsidies can have trade effects and are therefore disciplined by the Agreement on Subsidies and Countervailing Measures (ASCM) at the World Trade Organization (WTO). The Agreement disciplines the use of trade distorting subsidies and stipulates actions which Members can take in response, including through the WTO dispute settlement mechanism to seek withdrawal of the subsidy or removal of its adverse effects, or remedial unilateral action in the form of countervailing duties to offset the effects of subsidised imports.

Some subsidies, such as those that support domestic renewable energy development and environmental goods and services, can have stated environmental objectives. On the other hand, certain subsidies may potentially contribute to over-exploitation of natural resources, or result in other environmental impacts, and can be flagged for reduction among Parties consistent with their national priorities.

This paper provides an overview of how trade disciplines on subsidies for energy and environmental goods in certain RTAs could address environmental concerns of Parties. While other subsidies including those for agriculture and fisheries could also have environmental implications, they are excluded from the scope of this report due to the complexity of the issue as well as resources required to develop the work.

In the absence of new multilateral disciplines, RTAs offer an opportunity for like-minded Parties to agree on disciplines. With respect to WTO rules, RTAs can provide an additional layer of disciplines by reaffirming WTO rules, agreeing to deepen or expand multilateral commitments; or agreeing to refrain from taking remedial actions between the Parties to the agreement.

Two specific questions are examined in this paper: (i) to what extent can the objectives of particular subsidies for energy and environmental goods be considered in RTAs without prejudice to WTO obligations and (ii) how could RTAs serve to secure greater transparency of energy and environmentally related subsidies?

Subsidies for the energy and environmental goods can have environmental consequences as well as trade effects, and thus they are an important topic when considering how to green RTAs. The application of *local-content requirements* in renewable energy development has emerged in the past two decades and is a subject that requires consideration to ensure non-discriminatory measures, including for the environment. As already observed in agreements such as the EU-Singapore Free Trade Agreement (FTA) that has been signed but not yet entered into force, Parties may agree to explicitly prohibit the use of such requirements in the framework of RTAs either in relation to renewable energy development

or in a general sense as a way to signal the strength of their commitments to non-discriminatory forms of environmental regulation.

This approach can reaffirm the prohibition of local-content requirements under WTO rules that preclude quantitative and mandatory requirements on goods, and provide additional commitments to discipline those attached to services or qualitative requirements such as technology transfer, employment conditions, staff training, joint ventures, local procurement, or domestic equity participation.

In addition, Parties could agree on a set of *non-actionable subsidies* that clearly benefit the environment. These non-actionable subsidies would be protected from formal WTO challenges and remedial action between like minded Parties. Such an example is provided by the CARICOM Agreement. There are however several issues that require consideration. A first issue is the difficulty of identifying a special regime for the environment and to determine products that count as "environmental goods". As a possible solution, Parties may agree on common coding of those goods. A second limitation of creating such carve-outs in RTAs is that these could still be challenged by other WTO members outside of a RTA. Nevertheless, agreeing on non-actionable subsidies related to the environment could initially be a symbolic move between the Parties, it could create a reference point for other RTAs as well as a stepping stone for plurilateral and multilateral agreements.

Subsidy phase-outs based on stated environmental objectives are another area for consideration. Disciplines to progressively reduce fossil-fuel subsidies have been committed in only one RTA, the EU-Singapore Agreement, which has not yet entered into force. Nevertheless, these areas could be further explored between Parties of the willing to encourage reforms to phase-out certain subsidies based on national priorities.

Parties can also commit to increase the *transparency of environmentally related subsidies,* including by fulfilling their notification obligations under the WTO. For energy and environmentally related subsidies, Parties could reaffirm reporting obligations of the WTO, and also align reporting efforts with existing schemes such as through the OECD, or SDG Indicator 12.c.1 process to avoid unnecessary duplication. As in the EU-Korea FTA, these transparency commitments can also be legally binding and enforceable.

While this report suggests that governments can potentially incorporate environmental objectives in RTAs through chapters and articles related to subsidies in a number of ways, it is a retrospective exercise based on available information or existing provisions in RTAs and does not intend to speculate the effects of possible provisions and proposals. This study also does not intend to judge whether some options are superior to others. To answer the question of whether some of the available options would be more effective or realistic would require additional study on a case-by-case basis.

1. Introduction

Many regional trade agreements (RTAs) contain chapters and articles that are specifically related to environmental issues. But environmental objectives can be more broadly incorporated in RTAs to promote an integrated approach for addressing environmental concerns in such agreements (hereafter referred to as "greening RTAs"). This report investigates in what ways RTAs can incorporate environmental objectives in chapters and articles related to subsidies based on existing practice and information.[1]

Subsidies or the disciplining of subsidies within RTAs can have stated environmental objectives. Some subsidies are put in place with the explicit aim of advancing environmental objectives. This is notably the case for subsidies related to research and development for renewable energy and the domestic deployment of renewable-energy technologies. On the other hand, certain subsidies that may contribute to over-exploitation of natural resources, or result in other environmental impacts can be flagged for reduction among Parties consistent with their national priorities.

While a wide range of subsidies, including those for agriculture, fisheries, renewable energy, fossil fuels, and environmental goods and services, could have potential environmental implications, this paper focuses primarily on subsidies related to energy and environmental goods due to the complexity of the issue, as well as resources required to develop the work. Other subsidies such as for agriculture and fisheries are beyond the scope of this paper and could be addressed in follow up studies.

To date, there is no agreed upon international definition for what constitutes an environmentally related subsidy. Box 1 briefly explores definitional issues in relation to the stated environmental objectives for some subsidies and disciplines.

Box 1. The challenge of defining environmentally related subsidies

To date, there is no universally agreed definition that qualifies certain subsidies as environmentally supportive or environmentally harmful. In a broad sense, "a subsidy is a result of a government action that confers an advantage on consumers or producers, in order to supplement their income or lower their costs" (OECD, 2005). The Agreement on Subsidies and Countervailing Measures (ASCM) at the World Trade Organization

[1] The report forms part of the project on "Greening RTAs" and should be read in conjunction with the introductory paper [COM/TAD/ENV/JWPTE(2017)1]. Seeking potential possibilities in greening RTAs in chapters and articles related to subsidies was initially raised in the preliminary workshop in Paris in June 2016 (OECD, 2017a) and was identified as a priority area, together with investment, in the scoping paper [COM/TAD/ENV/JWPTE(2016)8] presented to the JWPTE in December 2016. The scoping process highlighted a number of potential barriers and synergies at the nexus of subsidies and the environment under RTAs subject to further investigation. This report develops the work further in addressing these possibilities.

(WTO) serves as a reference point by providing an internationally agreed legal definition of a subsidy among their respective members (WTO, 1999) as follows (see ASCM Article 1):

For the purpose of this Agreement, a subsidy shall be deemed to exist if:

(a)(1) there is a financial contribution by a government or any public body within the territory of a Member (referred to in this Agreement as "government"), i.e. where:

(i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees); (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)1 ;

(iii) a government provides goods or services other than general infrastructure, or purchases goods;

(iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;

or

(a)(2) there is any form of income or price support in the sense of Article XVI of GATT 1994;

and

(b) a benefit is thereby conferred.

Since there is no commonly agreed methodology for determining the environmental effects of a subsidy, there is no universally agreed basis to qualify which environmental components or externalities qualify a measure as environmental. Therefore, the environmental dimension of subsidies or disciplines related to subsidies is currently tied to the stated objective of the party rather than any universally applied definition.

Subsidies underpinned by stated environmental objectives are usually designed to mitigate environmental consequences or to boost the diffusion of environmental goods (OECD, 2007). Several studies attempt to analyse these factors further. As an example, the OECD Policy Instruments for the Environment (PINE) database defines environmentally motivated subsidies as those that "reduce directly or indirectly the use of something that has a proven, specific negative impact on the environment".[2]

Similarly, an OECD (2007) report establishes criteria on the characteristics of the environmental effectiveness of subsidies, which includes the objective to: (i) reduce pollution; (ii) preserve habitat; (iii) encourage the use of an environmentally preferable product; or (iv) speed the development of more-efficient or clean technologies.

Similarly, qualifying a subsidy as environmentally harmful is also very challenging. OECD work from 2005 provides that, "a subsidy is harmful to the environment if it leads

[2] The PINE database covers environmentally motivated subsidies consisting of payments from government to producers, or of preferential tax treatments with the objective of influencing the level of production, the price, or the remuneration of the factors of production.

to higher levels of waste and emissions, including those in the earlier stages of production and consumption, than what would be the case without the support measure" (OECD, 2005).

Some subsidies, such as export subsidies and local content subsidies, are accepted as having negative trade effects, and therefore are prohibited *per se* under the Agreement on Subsidies and Countervailing Measures (ASCM) under World Trade Organization (WTO) rules. Other subsidies may be classified as actionable subsidies and thus subject to dispute settlement or national countervailing duty procedures (WTO, 1999).

In the absence of new multilateral disciplines, RTAs may offer an opportunity for like-minded Parties to agree on disciplines that support their respective environmental objectives but do not distort trade. While building on the multilateral trading rules under the WTO would provide the broadest approach to advance such disciplines,[3] recent slow progress on multilateral trade negotiations underscores the importance of regional approaches to providing flexibility for agreement on disciplines among a limited number of Parties with similar interests. For this reason, this paper examines to what extent RTAs have incorporated disciplines on subsidies related to stated environmental objectives. The way in which RTAs can set forth disciplines in relation to WTO rules is an important question and is further explored in Box 2.

First, the report examines how regional disciplines for subsidies related to energy and environmental goods could be considered with respect to their stated environmental objectives. The report also explores how RTAs could serve to secure greater transparency of environmentally related subsidies in order to take stock of these programmes and to inform Parties on their efforts to better secure a level playing field in this area.

The following sections focus on the current practice of incorporating provisions on environmentally related subsidies in RTAs (Section 2), and current practice and proposals available in the literature to incorporate environmental objectives in RTAs in relation to environmentally related subsidies (Section 3). The report then concludes with a summary of its findings (Section 4).

Box 2. The additional role of RTAs in relation to WTO rules

With respect to WTO rules, RTAs can provide an additional layer of disciplines in three notable ways, namely: (i) reaffirming WTO rules to make disciplines available to alternative mechanisms provided by a RTA; (ii) agreeing on provisions that deepen or expand multilateral commitments; and (iii) agreeing on provisions that define the scope of non-actionable subsidies between the Parties to the agreement.

The first approach reaffirms disciplines provided by the WTO and may reduce transaction costs by avoiding formal WTO dispute settlement mechanisms by reaffirming these disciplines or referring them to parallel consultation mechanisms provided by a RTA.

[3] While discussions on WTO reforms concerning subsidies is important and on-going (for example, see: ICTSD, 2018), this is separate topic and beyond the scope of this paper.

The second approach is to agree on disciplines in addition to WTO rules, such as extended categories of prohibited subsidies or advanced transparency rules that are subject to dispute settlement mechanisms under an RTA. As these commitments provide for additional rules on top of WTO disciplines (e.g. under the ASCM), the approach likely offers great flexibility.

The third approach would be to agree to avoid taking remedial action between the Parties to the agreement with respect to certain environmentally supportive subsidies. For example, Parties may agree on a set of non-actionable subsidies to reflect their stated environmental objectives. While these subsidies would be subject to challenges from other WTO members outside the RTA, they can still be agreed by these Parties either as a symbolic move, a reference point for possible replication in other RTAs, a stepping stone towards a potential plurilateral agreement, or an attempt to deepen economic integration between important trading partners.

2. Environmental provisions in RTAs related to subsidies for energy and environmental goods

Incorporating specific environmental provisions in RTAs related to subsidies has been very limited so far. Disciplines on subsidies are not typically specified in a dedicated chapter, with the exception of the Comprehensive Economic and Trade Agreement (CETA) signed between Canada and the EU. This is to be expected, as a country cannot restrict the benefits of subsidy reforms to its RTA partners. Nevertheless, a few RTAs provide commitments on environmentally related subsidies.

The first set of commitments encourages the phase-out of subsidies related to fossil fuels with the stated objective of reducing greenhouse gas emissions. The well-cited example is the EU-Singapore Free Trade Agreement (FTA), which was signed between the two Parties in June 2015 but has yet to go into force. The agreement specifies commitments on fossil-fuel subsidies in the chapter of trade and sustainable development in Article 13.11:[4]

> *The Parties recognise the need to ensure that, when developing public support systems for fossils fuels, proper account is taken of the need to reduce greenhouse gas emissions and to limit distortions of trade as much as possible. While subparagraph (2)(b) of Article 12.7 (Prohibited Subsidies) does not apply to subsidies to the coal industry, the Parties share the goal of progressively reducing subsidies for fossil fuels. Such a reduction may be accompanied by measures to alleviate the social consequences associated with the transition to low carbon fuels. In addition, both Parties will actively promote the development of a sustainable and safe low-carbon economy, such as investment in renewable energies and energy efficient solutions.*

[4] For information, this agreement does not address environment related subsidies in other sectors such as agriculture or fisheries.

This is the only agreement which provides commitments in reducing fossil-fuel subsidies (van Asselt, 2017).

A second example establishes scope for environmentally related subsidies that are non-actionable. For example, the Caribbean Community and Common Market (CARICOM) Agreement, signed in 2001 and in force since 2002, sets forth a non-actionable set of subsidies with stated environmental objectives with a clear set of safeguards and limitations against their misuse.[5] Article 111 (1) states that:

> *The Member States shall not ordinarily impose or introduce countervailing duties or take countermeasures on products which benefit from: […] (d) subsidies granted to assist entities in the adaptation of existing facilities to new environmental requirements imposed by law and/or regulations which result in greater constraints and financial burden on enterprises provided that the subsidies - (i) are a one-time non-recurring measure; and (ii) are limited to 20 per cent of the cost of adaptation; and (iii) do not cover the cost of replacing and operating the assisted investment, which must be fully borne by firms; and (iv) are directly linked to and proportionate to a firm's planned reduction of nuisances and pollution, and do not cover any manufacturing cost savings which may be achieved; and (v) are available to all firms which can adopt the new equipment and/or production processes.*

This language on environmentally related subsidies is similar to that found in the lapsed Article 8 of ASCM, which created a specific category of non-actionable subsidies. This Article permitted certain subsidies deemed beneficial to society or the environment to be protected from challenge (WTO, 1999), as long as the subsidies were pre-notified to the Committee on Subsidies and Countervailing Measures. However, in the event no countries sought protection through Article 8, and it expired at the end of 1999 and was never renewed (Meltzer, 2014; Charnovitz, 2014; IISD and UNEP, 2014).

The current practice of including disciplines on subsidies related to the environment (e.g. on energy or environmental goods) in RTAs has been limited to date. Nevertheless, these two examples show how commitments concerning environmentally related subsidies could be incorporated in RTAs for like-minded countries of common interest.

3. Options for greening RTAs related to subsidies for energy and environmental goods

This section looks into the possible ways to integrate stated environmental objectives of Parties for subsides within RTAs.

[5] More specifically, the CARICOM Agreement in force since 2002 provides for provisions on "Subsidies Causing Serious Adverse Effects" in its articles 111 to 116, which include strict rules for investigations, consultations, provisional measures and countervailing duties.

3.1. Disciplines on local content requirements attached to renewable energy support measures

Local content requirements (LCRs) are policies that require a certain share of inputs for an investment to be sourced domestically. LCRs can take different forms and can broadly be classified into two categories. First, they can take the form of quantitative requirements that are legally binding in terms of volumes, such as number of local staff and contracts to domestic suppliers, or in value such as the percentage of local procurement in the overall investment. Second, they can also be qualitative requirements such as local technology transfer and local staff training (Ramdoo, 2015).

LCRs are frequently attached to feed-in tariffs and other government support programmes applied for renewable energy power supply such as solar and wind energy (Bahar et al., 2013; Frey, 2015a; Frey, 2015b; OECD, 2015a). One OECD (2015a) report indicates that LCRs have been applied in 28 renewable energy development schemes by 21 countries since the early 2000s. The main motivation behind linking LCRs to feed-in tariff programmes is the belief that they spur the scale-up of the domestic industry and local job creation (Frey, 2015b).

While the use of LCRs are frequently utilised in the renewable energy sector (and in other sectors) as preconditions to access certain government support measures including feed-in-tariffs, they are deemed discriminatory and, accepted to have negative trade effects, and are therefore, prohibited *per se* under WTO rules. WTO rules governing the use of LCRs are available under the 1994 General Agreement on Tariffs and Trade (GATT); [6] the Agreement on Trade-Related Investment Measures (TRIMs);[7] the General Agreement on Trade in Services (GATS);[8] the ASCM;[9] and the Agreement on Government Procurement (GPA).[10] These sets of rules discipline against the use of mandatory and quantitative LCRs. The GATT, TRIMs and ASCM discipline goods trade and prohibit the use of LCRs while disciplines under the GATS on services are a function of the national schedules provided under the agreement. The GPA, being a plurilateral agreement, only covers a limited number of WTO signatories.

Despite their practical use, LCRs to renewable energy support measures raises a number of concerns. While such measures are thought to be useful in some limited contexts, they are mainly criticised as distortive and costly, and thus illegal and countervailable under WTO rules (Bahar et al., 2013; OECD, 2016; 2015a). Bahar et al. (2013) and OECD (2016, 2015a) suggests that LCRs attached to renewable-energy development bring mixed or negative effects to local job creation, local manufacturing and technology transfer at the expense of distortions to international trade, reduced competitiveness, and higher input costs that can raise wholesale electricity prices. While some of these regulations can be claimed as effective policy tools in certain contexts such as sufficient market size and

[6] See: GATT, Article III.4, .5 and .8.a

[7] See: TRIMS, Article II and Annex

[8] See: GATS, Article XVI

[9] See: ASCM, Article III 3.1b

[10] See: GPA, Article XVI, Annex 4

technical local expertise, these domestic incentive measures can be better designed in a non-discriminatory fashion to avoid negative impacts (OECD, 2015a).

Alternative and less distorting policies are available to encourage domestic technological development such as research and development support programmes, training programmes and demand-side instruments that help increase domestic demand without the use of LCRs (OECD, 2015a). Such approaches should be legitimate as long as they are applied in a non-discriminatory manner.[11]

Furthermore, additional policies related to rules of origin (ROO) provisions may also play a significant role to foster domestic and regional development objectives instead of the use of LCRs. For example, regional value content rules that require a certain percentage of a product to originate from the Parties in order to qualify for regional origin and benefit from special duty treatment under an RTA could be an alternative way to facilitate domestic industrial development and job creation (Ramdoo, 2015). This approach can typically be appealing to Parties to an RTA, which seek common interest of like-minded countries and aim to facilitate regional markets. As such, these disciplines for instance can be seen in the North American Free Trade Agreement (NAFTA)[12] and the U.S.-Korea FTA.[13]

In addition, explicit obligations to avoid the use of LCRs for renewable energy development have been made by Parties of the willing, such as in the EU-Singapore FTA (Frey, 2015b). Article 7.4(a) of this agreement clearly states that Parties shall "refrain from adopting measures providing for local content requirements or any other offset affecting the other Party's products, service suppliers, investors or investments". Furthermore, Article 7.5(b) states that Parties shall "refrain from adopting measures requiring the formation of partnerships [including joint ventures] with local companies, unless such partnerships are deemed necessary for technical reasons and the Party can demonstrate such technical reasons upon request by the other Party" (explanation added).

Drawing on these examples, pledges to reaffirm WTO rules to prohibit the use of LCRs can be made explicit in RTAs in order to secure non-discriminatory measures for international trade and investment and to provide incentives (e.g. feed-in tariffs) for the diffusion of environmental goods and services in a non-discriminatory fashion (Frey, 2015a). Such pledges may also reduce transaction costs by avoiding disputes being taken to the WTO by, for example, providing alternative dispute-settlement procedures such as bilateral dialogues and consultation mechanisms between the Parties, or investor-state dispute settlement mechanisms. Furthermore, these commitments can seek to provide additional disciplines to supplement WTO rules, such as those on LCRs attached to services, and LCRs with qualitative requirements such as for technology transfer, employment conditions, staff training, joint ventures, local procurement, and domestic equity participation (Ramdoo, 2015).

[11] These alternative policies can contribute to SDG Indicator 17 on global partnerships for sustainable development without using LCRs.

[12] See: NAFTA (1994), Article 402: Regional Value Content

[13] See: U.S.-Korea Free Trade Agreement, Article 6.2: Regional Value Content

3.2. Agreeing on a set of non-actionable subsidies that are supportive to the environment

Subsidies that encourage the diffusion of renewable-energy technologies and environmental goods may be intended to reallocate public resources to correct market failures and to offset existing market distortions for the purpose of promoting the use of environmental technologies (Meltzer, 2014; Charnovitz, 2014). For this reason, a special regime for environmentally supportive subsidies that address market failures or other externalities could be considered as a part of commitments under RTAs (Horlick and Clarke, 2016).

Article 8 of the ASCM contains a specific category of "non-actionable" subsidies. This Article, which expired at the end of 1999 and was never renewed, created procedures for protecting certain subsidies deemed beneficial to society or the environment from a formal WTO challenge or remedial action. While some argue that the ASCM already provides adequate scope for non-actionable subsidies, others have charged that the lapse of Article 8 limits the policy space for governments to provide effective subsidies that are aimed at protecting the environment and correcting market failures (Meltzer, 2014; Charnovitz, 2014; IISD and UNEP, 2014; Horlick and Clarke, 2016). On the other hand, during the five years in which Article 8 was operative, no country ever availed itself of the "safe harbour" it provided, and no firm evidence has been produced to substantiate the claim that governments feel limited in what policies they can use for environmental protection.[14] Indeed, judging from the large number of environmentally related subsides in place, governments do not seem to be very shy in using subsidies for stated environmental purposes (OECD, 2017a).

In terms of regional initiatives, the CARICOM Agreement provides for a set of non-actionable subsidies that support stated environmental objectives between the Parties to the agreement (see Section 2). These commitments on subsidies and the environment are similar to the lapsed Article 8 of the ASCM which expired in the end of 1999. Although such language relates to a narrow set of subsidies that aim to deliver environmental incentives, the concept could serve as a starting point for Parties that share similar national priorities and environmental objectives.

Drawing on these examples, RTAs could consider incorporating disciplines that provide special treatment to subsidies that internalise environmental externalities or correct market failures. Making certain types of environmentally related subsidies non-actionable could be one possibility as argued by some scholars (Meltzer, 2014; Charnovitz, 2014; IISD and UNEP, 2014).

However, this approach would require agreement on a narrowly defined scope of environmentally supportive subsidies with clearly defined boundaries (Horlick and Clarke, 2016). While it is beyond the scope of this paper to define these boundaries in detail, there are a few things to bear in mind. First, it would be necessary to ensure that a carve-out for a special regime making environment-related subsidies non-actionable should not be used by a Party to gain commercial advantage over their trading partners (Horlick and Clarke, 2016). Second, including subsidies for the production or use of intermediate goods that could have dual use for both environmental and non-environmental purposes would

[14] The ASCM Article 8 on "non-actionable" subsidies elapsed at the end of 1999 following a sunset clause. While the WTO Committee on Subsidies and Countervailing Measures at the time made a decision not to extend their application, the main reason for this decision is not made clear.

complicate any attempt to reach an agreement on the scope and definitions (OECD/Eurostat, 1999; OECD, 2001; Steenblik, 2005; Lester and Watson, 2013; Charnovitz, 2014). The dual-use characteristics of many goods can also face the issue of limited granularity of the Harmonized System classification codes to distinguish them in trade flows. This problem of limited granularity could potentially be alleviated for some goods by the Parties to the agreement agreeing to common coding of those goods at the 8- or 10-digit level in each of their national tariff schedules (Vossenaar, 2010).

Another important consideration is that such commitments would only apply to the Parties to the agreement and could not limit any of the rights held by other WTO members (van Asselt, 2017; OECD, 2017a). Nevertheless, agreeing on non-actionable subsidies related to the environment could initially be a symbolic move between the Parties, it could create a reference point for other RTAs as well as a stepping stone for plurilateral and multilateral agreements.

3.3. Commitments to phase-out subsidies based on environmental objectives

RTAs could provide disciplines on reducing subsidies based on stated environmental objectives. While bearing in mind that only multilateral disciplines include all trading countries and reduce the potential for free-riding, regional, plurilateral and voluntary approaches can be useful to make incremental progress and to demonstrate what effective and workable rules could look like.

In terms of WTO rules, a country's decision to phase-out any subsidy, whether environmentally motivated or not, would not be challengeable by other WTO Members, whereas an environmentally motivated subsidy that benefits a specific exporting or import-competing industry could in principle be subject to a WTO challenge or a unilateral action (i.e. countervailing duty). In this regard, RTAs may be well situated to provide additional disciplines on subsidy phase-outs.

As indicated in section 2, the EU-Singapore agreement commits both Parties, in a non-binding way, to "work towards progressively reducing subsidies for fossil fuels" (apart from coal) with the stated objective of reducing greenhouse gas emissions. Such an approach could provide a starting point to make such commitments between Parties with mutual interests. RTAs could follow this pioneering example and mutually commit to subsidy reforms based on shared environmental objectives. Furthermore, although no RTA currently in force has such kind of commitments, Parties of the willing could agree to categorise certain subsidies as prohibited subsidies and apply concrete trade disciplines to facilitate such reforms (van Asselt, 2017).

3.4. Transparency commitments for environmentally related subsidies

One area that is relevant for environmentally related subsidies is the role of increased transparency. Enhanced transparency on environmentally related subsidies helps take stock of the scope and scale of these programmes, and serves to inform considerations in disciplining environmentally related subsidies in the future. It can also help to build political will for action. To this end, RTAs could promote better transparency of such subsidies that are often difficult to identify.

While broadly applied to all actionable subsidies, such initiatives are currently promoted at the multilateral level by the WTO notification schemes required by the ASCM every two

years.[15] However, some view that progress has been limited due to the lag in notification by certain members (Meltzer, 2014; Steenblik and Simón, 2011; Casier et al., 2014). To address this issue, a group of WTO members are proposing a set of procedures to enhance transparency and strengthen notification requirements under WTO agreements, as of October 2018 (ICTSD, 2018).

As a complementary approach to these multilateral and regional initiatives, Parties to an RTA could commit to improve the transparency of environmentally related subsidies through an established reporting mechanism (Meltzer, 2014; van Asselt, 2017). Such initiatives would be an important step towards sharing wider information on subsidy programmes to other Parties (Meltzer, 2014).

Such kinds of considerations in securing transparency on subsidy programmes can also refer to existing commitments in an RTA. While not only limited to environmentally related subsidies, the EU-Korea FTA in force since 2011 provides an example of increasing transparency on subsidies by setting forth obligations to annually report on the total amount, types and the sectoral distribution of subsidies which are specific. Furthermore, the Parties are committed to further report on any subsidies upon request of the other Party.[16] These disciplines are also subject to dispute settlement mechanisms provided by the RTA.

Initiatives to increase the transparency of certain environmentally related subsidies in the framework of RTAs could reaffirm reporting commitments of the WTO ASCM and align efforts with other existing schemes such as through the OECD,[17] or the SDG Indicator 12.c.1 process.[18] Such an approach could help avoid unnecessary duplication of international efforts in place to increase transparency on the use of specific subsidies with environmental impacts.

4. Summary of findings

Investigations of greening RTAs in the area of subsidies related to energy and environmental goods identify a few grounds for potential improvement. These possible ways of incorporating environmental objectives into RTAs in chapters and articles related

[15] "In May 2001, the Committee on Subsidies and Countervailing Measures discussed the frequency of subsidy notifications, and reached an understanding that Members believed that their resources would be best utilized by giving maximum priority to submitting new and full notifications, every two years, and by de-emphasizing the review of the annual updating notifications." See:www.wto.org/english/tratop_e/scm_e/notif_e.htm

[16] See: EU-Korea FTA (2011), Article 11.12 Transparency.

[17] See: OECD's Inventory of fossil fuel support (OECD, 2018)

[18] In September 2018, the SDG Indicator 12.c.1 was upgraded to a Tier 2 indicator, which is a conceptually clear and internationally established methodology. Voluntary reporting by UN members will start from 2020 and continue up to 2030.

to subsidies would enable an integrated approach and align different commitments embedded in RTAs with the environmental goals of Parties.

As already observed in agreements such as the EU-Singapore FTA, Parties may agree to reaffirm WTO rules to prohibit the use of local content requirements either in relation to renewable energy development or in a more general sense in the framework of RTAs as a way to signal the strength of their commitments to non-discriminatory forms of environmental regulation. Parties may also opt to provide additional commitments based on their national priorities, to further discipline those attached to services or those with qualitative requirements such as technology transfer, employment conditions, staff training, joint ventures, local procurement, and domestic equity participation.

Building on the example of the CARICOM Agreement, Parties may also wish to agree on a set of non-actionable subsidies that are targeted for the environment. One notable challenge is to identify a special regime for the environment and to determine products that count as "environmental goods" because of issues arising from the dual-use characteristics of many goods and the limited granularity of the Harmonized System classification codes to distinguish them in trade flows. Another limitation is that these commitments would only apply to the Parties to the agreement and could still be legitimately challenged by other WTO members outside of a RTA. While these commitments can be arguably symbolic, it could serve as a reference point for other RTAs as well as a stepping stone for plurilateral and multilateral agreements.

Commitments on reducing subsidies related to greenhouse gas emissions have only been committed in the EU-Singapore Agreement, which has not yet entered into force. Nevertheless, these commitments to reduce subsidies could be further explored between Parties of the willing to encourage reforms and phase-out subsidy programs based on environmental objectives.

Parties can also commit to increase the transparency of environmentally related subsidies including those that are potentially environmentally supportive and harmful. Parties could reaffirm WTO rules and also align reporting efforts with the OECD, or SDG Indicator 12.c.1 process to avoid unnecessary duplication. As in the EU-Korea FTA, these transparency commitments can also be made available to dispute settlement mechanisms provided by the RTA.

These possible ways of greening RTAs on subsidies for energy and environmental goods are compiled in Table 1 below. Furthermore, the potential feasibility of these approaches in terms of their policy implications and challenges is further illustrated in Table A.1 in Annex A.

While this report suggests that governments can potentially incorporate environmental objectives in RTAs through chapters and articles related to subsidies in a number of ways, it is a retrospective exercise based on available information or existing provisions in RTAs and does not intend to speculate the effects of possible provisions and proposals. This study also does not intend to judge whether some options are superior to others.

Table 1. Summary of possible approaches in greening RTAs on subsidies for energy and environmental goods

Key issues	Possible approaches
Local content requirements (LCRs)	Reaffirm the Parties' WTO commitments to explicitly prohibit the use of LCRs tied to subsidies.
	Install additional measures to avoid the use of LCRs tied to subsidies in relation to services or qualitative requirements.
Non-actionable subsidies	Agree on a list of subsidies that are supportive to the environment that would be treated as non-actionable between the Parties.
Subsidy phase-outs	Include commitments to reduce subsidies that impact greenhouse gas emissions.
	Agree on prohibited subsidies
Transparency	Include transparency commitments on environmentally related subsidies to establish further disciplines and to encourage reforms
	Reaffirm commitments to report on specific subsidies through the WTO, and also through other existing schemes such as the OECD and the SDG Indicator 12.c.1.
	Reinforce transparency commitments on specific subsidies that are subject to dispute settlement mechanisms

Source: Author based on cited references.

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Annex A. Feasibility of possible approaches

Table A.1. Feasibility of possible approaches - policy implications and challenges

Key issues	Possible approaches	Policy implications	Challenges
Local content requirements (LCRs)	Reaffirm the Parties' WTO commitments to explicitly prohibit the use of LCRs tied to subsidies.	Avoid distortions to international trade, reduced competitiveness, and higher input costs. Reaffirm WTO obligations to refrain from using LCRs (Bahar et al., 2013; OECD, 2015b). Install additional commitments beyond WTO rules to better discipline the use of LCRs. attached to services or qualitative requirements (Ramdoo).	Proponents may argue that LCRs spur the scale-up of the domestic industry and local job creation (Frey, 2015b). Nevertheless, alternative policies could be better placed to encourage domestic technological development such as research and development support programmes, training programmes and demand-side instruments that help increase domestic demand without the use of LCRs (OECD, 2015a).
	Install additional measures to avoid the use of LCRs tied to subsidies in relation to services or qualitative requirements.		
Non-actionable subsidies	Agree on non-actionable subsidies that are supportive to the environment.	Carve-out subsidies that have stated environmental objectives (Meltzer, 2014; Charnovitz, 2014; IISD and UNEP, 2014; Horlick and Clarke, 2016).	The approach would require to agree on a narrowly defined scope of environmentally supportive subsidies with clearly defined boundaries. It would be important to ensure that a carve-out for a special regime on non-actionable subsidies with regards to the environment should not be used to enable a Party to gain commercial advantage over their trading partners (Horlick and Clarke, 2016). Subsidies for intermediate goods that could have dual use for both environmental and non-environmental purposes can pose additional challenges (Charnovitz, 2014). The problem of limited granularity can be alleviated for some goods by the Parties to the agreement agreeing to common coding of those goods at the 8- or 10-digit level in each of their national tariff schedules (Vossenaar, 2010).
			Commitments in RTAs would only apply to the Parties to the agreement and could not limit any of the rights held by other WTO members (van Asselt, 2017; OECD, 2017a).
Subsidy phase-outs	Include commitments to reduce Fossil-Fuel Subsidies (FFS)	The phase out of certain energy subsidies to reduce greenhouse gas emissions may benefit national GHG reduction commitments	Trade disciplines targeted at FFS have been limited to date. One reason for the reluctance of disciplining fossil-fuel subsidies through WTO rules could be due to conflicting political

Key issues	Possible approaches	Policy implications	Challenges
	Agree on prohibited subsidies		interests, such as between national energy-security and trade (OECD, 2017b).
Transparency	Include transparency commitments on environment related subsidies.	Enhanced transparency on environmentally related subsidies helps take stock of the scope and scale of these programmes, and serves to inform considerations in disciplining environmentally related subsidies (e.g. support for renewable energy technology and greenhouse gas reductions) in the future. It can also help to build political will for action. As a complementary approach to these multilateral and regional initiatives, Parties to an RTA could commit to reinforce existing transparency obligations through an established reporting mechanism (Meltzer, 2014; van Asselt, 2017; OECD, 2018). Such initiatives would be an important step to reveal subsidies that are often difficult to identify (Meltzer, 2014).	One challenge would be to make transparency commitments subject to dispute settlement mechanisms provided in a RTA. Nevertheless, the EU-Korea FTA includes such commitments and can provide a reference point for other RTAs.
	Include commitments to promote the reporting of specific subsidies in existing schemes such as through the WTO, the OECD, or the SDG Indicator 12.c.1.		
	Include transparency commitments on specific subsidies that are subject to dispute settlement mechanisms		

Source: Author based on cited references.