# THE INDIA — SOLAR CELLS DISPUTE: RENEWABLE ENERGY SUBSIDIES UNDER WORLD TRADE LAW AND THE NEED FOR ENVIRONMENTAL EXCEPTIONS

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*In 2013 certain measures adopted by India under the Jawahar Lal Nehru National Solar Mission were challenged by the United States before the World Trade Organization in the India–Solar Cells dispute. One of the measures was the grant of long-term power purchase agreements to solar energy providers, based on domestic content requirements. Though the United States initially challenged this as violating the Agreement on Subsidies and Countervailing Measures, the Panel did not address this clam as it was subsequently withdrawn by the United States. The subsidisation of renewable energy restricts free trade, and potentially conflicts with the obligations of States under the Agreement on Subsidies and Countervailing Measures. This paper seeks to provide a justification for the potential violation of the Agreement on Subsidies and Countervailing Measures using the environmental exceptions provided under Article XX of the General Agreement on Tariffs and Trade, such that the essential balance between trade liberalisation and the right of regulation of States is maintained. For this purpose, the potential implications of the existing renewable energy subsidy policies in terms of conflicts with the Agreement on Subsidies and Countervailing Measures are examined, along with an analysis of the previous cases involving such conflicts. Thereafter, an analysis is done of the covered agreements under the WTO to which the exceptions under Article XX of the General Agreement on Tariffs and Trade are applicable, either directly or indirectly. Drawing from this analysis, it is argued that the exceptions under Article XX of the General Agreement on Tariffs and Trade should be applicable to the Agreement on Subsidies and Countervailing Measures potentially violated by renewable energy subsidies. Finally, the implications for the Indian renewable energy sector are discussed, in the event that the balance between free trade and the right of States to regulate in light of environmental concerns is maintained.*

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# I. INTRODUCTION

Climate change is considered to be the biggest market failure caused as a result of fossil fuel usage.[1] As a result of climate change, the global average temperature has risen by 0.88 degrees Celsius due to which adverse environmental effects have been caused.[2] Further, forty-two percent of carbon dioxide emissions are caused by electricity generation through fossil fuels.[3] Thus, to combat climate change, the usage of renewable energy to substitute fossil fuels has become increasingly prominent.[4] However, as a result of high capital cost and low levels of investment as compared to fossil fuels, it is difficult for renewable energy to compete with fossil fuels.[5] To solve this problem, governments around the world have tried to formulate various policies towards the development of renewable energy.[6]

Governments, across the globe, are keen to develop their economies through the implementation of subsidy programs promoting renewable energy.[7] Investment in renewable energy is a core strategy to combat climate change,[8] and renewable energy subsidies are extremely important to address the problem of climate change. Renewable energy subsidies are one of the best ways to build a renewable energy sector that develops and implements the technologies necessary to reduce carbon emissions.[9] One such renewable energy subsidy is based on domestic content requirements ('DCRs'). These

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1 The Guardian, *Stern: Climate Change a 'Market Failure',* November 29, 2007, available at https://www.theguardian.com/environment/2007/nov/29/climatechange.carbonemissions (Last visited on May 24, 2017).

2 NASA, *Global Climate Change,* available at http://climate.nasa.gov/vital-signs/global-temperature/ (Last visited on May 24, 2017).

3 International Energy Agency, *CO2 Emissions from Fuel Combustion: Highlights*, 2016, 12, available at https://www.iea.org/publications/freepublications/publication/CO2EmissionsfromFuelCombustion_Highlights_2016.pdf (Last visited on May 17, 2017).

4 Ibrahim Dincer, *Renewable Energy and Sustainable Development: A Crucial Revie*w, 4(2) RENEWABLE AND SUSTAINABLE ENERGY REVIEWS 157, 167 (2000).

5 Edith Kiragu, *Transition into A Green Economy: Are There Limits to Government Intervention?* 1 (World Trade Institute Working Paper Group, Paper No. 05, 2015), available athttp://seco.wti.org/media/filer_public/5b/dd/5bddb3d9-5ed8-448a-8d38-ff3325c4cd97/wti_seco_wp_05_2015.pdf (Last visited on May 21, 2017).

6 *See*, *e.g.*, Rick A. Waltman Esq., *Renewable Energy Development for WTO Member Nations*, 14 SANTA CLARA J. INT'L L. 543 (2016).

7 Mark Wu & James Salzman, *The Next Generation of Trade and Environment Conflicts: The Rise of Green Industrial Policy,* 108 NORTHWESTERN UNIVERSITY LAW REVIEW 401, 418 (2014).

8 Paolo Davide Farah & Elena Cima, *The World Trade Organization, Renewable Energy Subsidies, and the Case of Feed-in-Tariffs: Time for Reform Toward Sustainable Development?,* 27 THE GEROGETOWN INT'L ENVTL. LAW REVIEW 515, 518 (2015).

9 *Id*., 516; Judith Lipp, *Lessons for Effective Renewable Electricity Policy from Denmark, Germany and the United Kingdom*, 35(11) ENERGY POLICY 5484, 5486-5488 (2007); Anthony D. Owen, *Renewable Energy: Externality Costs as Market Barriers*, 34(5) ENERGY POLICY 633 (2006); Staffan Jacobsson & Volkmar Lauben, *The Politics and Policy of Energy System Transformation — Explaining The German Diffusion Of Renewable Energy Technology*, 34(3) ENERGY POLICY 259 (2006).

requirements help in the fast and steady development of domestic industrial sectors, such as the renewable energy sector.[10] For policy considerations, DCRs are effective tools to achieve both industrial and environmental objectives.[11]

Under the World Trade Organisation ('WTO') regime, the Agreement on Subsidies and Countervailing Measures ('ASCM') is the main agreement that regulates subsidies. However, the ASCM does not distinguish between renewable subsidies and other subsidies.[12] The WTO strictly opposes subsidies that distort trade, such as the ones based on DCRs.[13] The ASCM, as it exists today does not recognise environmental interests of countries and does not provide for exceptions with regard to the environment. This means that a violation of the ASCM is found, the subsidy program in question would have to be withdrawn irrespective of the environmental benefits it has.[14] In this context, leading scholar on WTO law and jurisprudence, Robert Howse notes that, "[...] simply excluding subsidies from WTO compatibility because they have industrial policy as well as environmental goals in unrealistic, especially in the current economic and financial crisis, where support for climate measures may be inadequate unless such measures also serve economic recovery or reconstruction goals."[15]

An example of a country giving renewable energy subsidies to achieve both industrial and environmental objectives is India. In 2010, India had decided to give renewable energy subsidies which were contingent on the usage of domestic inputs of solar modules under the Jawaharlal Nehru National Solar Mission ('JNNSM').[16] The United States of America ('USA') was aggrieved by this policy as it believed that such a policy would adversely affect

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[10] Farah & Cima, *supra* note 8, 522; *See* OECD, Linking Renewable Energy to Rural Development 78 (2012).

[11] Farah & Cima, *supra* note 8, 519; *See* Aaron Cosbey, *Renewable Energy Subsidies and the WTO: The Wrong Law and the Wrong Venue,* June, 2011, available at http://www.iisd.org/gsi/sites/default/files/sw44_jun_11.pdf (Last visited on May 24, 2017); *See also* Jan-Christoph Kuntze& Tom Moerenhout, *Local Content Requirements and the Renewable Energy Industry – A Good Match?*, May, 2013, 6, available at https://pdfs.semanticscholar.org/6872/7a8d62a9722b28a250bef0470aeb847108f9.pdf (Last visited on May 24, 2017).

[12] Henok Birhanu Asmelash, *Energy Subsidies and WTO Dispute Settlement: Why only Renewable Energy Subsidies are Challenged?* 16 (Law and Economics Research Paper Series, Paper No. 5, 2014).

[13] *See* Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Art. 3 & Art. 5.

[14] *See*, *e.g.*, Appellate Body Report, *Canada – Measures Relating to Feed-in Tariff Program – Complaint by the European Union*, ¶6.2, WT/DS412/AB/R (May 6, 2013 adopted on May 24, 2013) (In this case, the Appellate Body asked Canada to withdraw its DCR measures and bring it in conformity with the WTO rules).

[15] Robert Howse, *Climate Mitigation Subsidies and the WTO Legal Framework*, May, 2010, 7, available at https://www.iisd.org/pdf/2009/bali_2_copenhagen_subsidies_legal.pdf (Last visited on May 24, 2017).

[16] Panel Report, *India – Certain Measures Relating to Solar Cells and Solar Modules – Complaint by the United States*, ¶7.7, WT/DS456/R (February 24, 2016 adopted on October 14, 2016).

its own manufacturers of solar modules. Thus, in 2013, USA challenged this policy under the ASCM and other agreements before the WTO.[17] On the other hand, recently, India also challenged the subsidies of USA before the WTO on the ground that they were based on DCRs and were trade distortive.[18] This demonstrates that renewable energy subsidies can come into conflict with the ASCM.

As the ASCM does not have its own environmental exceptions, a way in which this conflict can be resolved is through the application of Article XX of the General Agreement on Tariffs and Trade, 1994 ('GATT').[19] Article XX of the GATT provides a list of exceptions to the trade obligations member states have.[20] Article XX recognises concerns other than trade and allows for situations in which these might take precedence over trade liberalisation.[21] Under GATT Article XX, there are two exceptions particularly important for protecting environmental concerns. First, GATT Article XX(b) which allows for trade-restrictive measures that are "necessary to protect human, animal or plant life or health". Second, GATT Article XX(g) which allows for measures "relating to the conservation of exhaustible natural resources". Hence, by invoking these exceptions, members can argue that even trade-distortive measures are complaint under the GATT as they fall within the ambit of Article XX.

In this paper, we argue that renewable energy subsidies based on DCRs potentially violating the ASCM should be allowed justification under the environmental exceptions of GATT Article XX. In Part II, we elaborately discuss the renewable energy subsidy policies based on DCRs adopted by India, and the wide range of benefits they have. In Part III, we discuss the treatment of subsidies under the ASCM, to understand how renewable energy subsidies based on DCRs can potentially violate the ASCM. Subsequently, we conduct an analysis of covered agreements[22] and cases in Part IV, to ascertain the reasons

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17 Request for Consultations by the United States, *India – Certain Measures Relating to Solar Cells and Solar Modules – Complaint by the United States,* WT/DS456/1 (February 11, 2013).

18 Request for Consultations by India, *United States – Certain Measures Relating to the Renewable Energy Sector – Complaint by India,* WT/DS510/1 (September 9, 2016).

19 Simon Lester, Bryan Mercurio & Arwel Davies, World Trade Law: Text, Materials and Commentary (2nd ed., 2012); Luca Rubini, The Definition of Subsidy and State Aid: WTO and EC Law in Comparative Perspective (2009); James J. Nedumpara, *Renewable Energy and the WTO: The Limits of Government Intervention*, 16, available at https://ssrn.com/abstract=2368918 (Last visited on May 24, 2017); *See* Luca Rubini, *The Subsidization of Renewable Energy in the WTO: Issues and Perspectives*, September 23, 2011, available at-ttps://www.iisd.org/pdf/2011/tri-cc_conf_2011_rubini.pdf (Last visited on May 21, 2017).

20 General Agreement on Tariffs and Trade 1994, April 15, 1994, 1867 U.N.T.S. 187, Art. XX(a-j).

21 Peter Van den Bossche & Werner Zdouc, The Law and Policy of the World Trade Organization (3rd ed., 2013).

22 *See* World Trade Organization, *Understanding on Rules and Procedures Governing the Settlement of Disputes,* available at https://www.wto.org/english/res_e/booksp_e/analytic_index_e/dsu_01_e.htm (Last visited on May 24, 2017) (It states:

> "The 'covered agreements' include the WTO Agreement, the Agreements in Annexes 1 and 2, as well as any Plurilateral Trade Agreement in Annex 4 where its Committee

and ways in which GATT Article XX exceptions have been made applicable outside the scope of the GATT. In Part V, we aim to build an argument to justify the application of Article XX exceptions to protect renewable energy subsidies based on DCRs that are otherwise incompatible with the ASCM. In Part VI, we analyse the implications of India's renewable energy subsidy policies and their conflict with the ASCM. The possible impact of allowing renewable energy subsidies on India's energy sector is also discussed. Part VII concludes.

## II. RENEWABLE ENERGY SUBSIDY POLICIES BASED ON DOMESTIC CONTENT REQUIREMENTS

In this part, we will discuss important policies launched by the Government of India ('Government') to harness solar energy based on DCRs, along with the multiple benefits of DCRs. As solar energy is an extremely important source of renewable energy, it is essential to have concrete policies to harness the same. One such policy implemented by the Government is the JNNSM in 2010.[23] The main aim of JNNSM is to ensure that solar power can be used on a large scale for the generation of electricity and eventually substitute fossil fuel based energy.[24] The quantitative goal set by the Government was the production of 20,000 Mega Watt ('MW') energy which was increased to 100,000 MW in 2015.[25]

To ensure smooth implementation, JNNSM was divided into three phases. Phase I was scheduled from 2010-2013 and its target was the production of 1,000MW energy. In this phase, there was a DCR of thirty percent as far as solar modules were concerned.[26] This meant that at least thirty percent of the solar modules used by Solar Power Developers ('SPDs') had to be sourced from India. However, this was only mandated for crystalline silicon modules and not thin film ones.[27]

Phase II is scheduled from 2013-2017 and is set to be completed in four parts.[28] For Batch I of this Phase, the target was 750MW and till date,

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of signatories has taken a decision to apply the DSU. In a dispute brought to the DSB, a panel may deal with all the relevant provisions of the covered agreements cited by the parties to the dispute in one proceeding.")

23 Govt. of India, Ministry of New and Renewable Energy, No. 30/80/2014-15/NSM (July 1, 2015), ¶1.

24 *Id*., ¶1.

25 Govt. of India, Ministry of New and Renewable Energy, No.5/14/2008-P&C (January 11, 2010).

26 Guidelines for Selection of New Grid Connected Solar Power Projects (August 24, 2011), Cl. 3.5.E.

27 *Id*., Cl. 2.5.D.

28 Govt. of India, Ministry of New and Renewable Energy, No. 29/5(1)/2012-13/JNNSM (October 15, 2013), ¶1.1; Guidelines for Selection of 3000 MW Grid – Connected Solar PV

718MW capacity has been commissioned.[29] Additionally, the Government decided to open two separate bids, one for usage of indigenously manufactured modules and the other for imported modules.[30] The first bid of 375 MW mandated that crystalline technology modules as well as solar thin film technology modules must be sourced from India.[31] In the other bid of 375 MW, companies could use imported modules.[32] In addition to this, the Government set up a Viability Gap Fund ('VGF') which was a cash subsidy given to the SPDs to offset high costs of building solar plants.[33]

Subsequently, the targets were further increased in Batch II of Phase II (15,000 MW by the end of 2019)[34] and Batch III (2,000 MW).[35] Batch II is divided into three tranches. This is a state-specific scheme and individual states would be selected by the Government for the implementation of the same.[36] The DCR capacity shall be intimated by the Government before announcing the state-specific bid.[37] There is a DCR of 250 MW out of 1,000 MW for the first part of this scheme.[38] In addition to this, there is a bundling mechanism.[39] However, there is no provision for VGF.

Batch III on the other hand reserves 250 MW out of 2,000MW for bidding with DCRs (applicable to both crystalline as well as thin film modules).[40] This is also a state-specific scheme and encourages development of

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Power Projects under Batch-II (March, 2015).

29 Govt. of India, Ministry of New and Renewable Energy, No. 32/8/2013-14/NSM (March 5, 2015), Cl. 1.1.

30 Govt. of India, Ministry of New and Renewable Energy, No. 29/5(1)/2012-13/JNNSM, Cl. 2.6.E

31 *Id*.

32 *Id*.

33 *Id*., Cl. 1.3.

34 Govt. of India, Ministry of New and Renewable Energy, No. 32/8/2013-14/NSM (March 5, 2015), ¶1; Guidelines for Selection of 3000 MW Grid –Connected Solar PV Power Projects under Batch-II (March, 2015).

35 Govt. of India, Ministry of New and Renewable Energy, No.32/2/2014-15/GSP (August 4, 2015), ¶1; Guidelines for Implementation of Scheme for Setting up of 2000 MW Grid-connected Solar PV Power Projects under Batch-III (August, 2015).

36 Govt. of India, Ministry of New and Renewable Energy, No. 32/8/2013-14/NSM (March 5, 2015), ¶2.1.

37 *Id*., ¶3.5.D.

38 *Id*.

39 *See* Cleantechnica, *Solar Power Bundling Scheme And Its Impact On The Health Of The Discoms*, September 13, 2015, available at https://cleantechnica.com/2015/09/13/solar-power-bundling-scheme-and-its-impact-on-the-health-of-the-discoms/ (Last visited on May 9, 2017) (In a bundling mechanism, the NTPC Vidyut Vyapar Nigam will purchase comparatively expensive solar power from the SPDs and thermal power from NTPC Limited and sell it to the distribution companies jointly at a lower rate).

40 Govt. of India, Ministry of New and Renewable Energy, No. 32/2/2014-15/GSP (August 4, 2015), ¶1.6.

solar projects in solar parks.[41] In addition to this there is a VGF mechanism.[42] However, SPDs in the DCR category are eligible to get a higher subsidy than those in the open category to offset the higher cost of procuring solar modules from India.[43] Thus, the Government has formulated these policies with an objective to promote local manufacturing in India.

In addition to the JNNSM, the Government decided to launch the Grid Connected Rooftop Solar scheme in June, 2014- another scheme which could potentially come into conflict with existing WTO obligations.[44] The main aim of this scheme is to promote Solar PV plants on rooftops of residential, educational, industrial and commercial buildings. In this scheme, there is a DCR.[45] However only residential, educational and government buildings can avail this DCR facility.[46] Thus, to offset the cost of using DCRs, the Central Financial Assistance ('CFA'), which is thirty percent of the total cost of the project will be provided to the project developers.[47] The Power Purchase Agreement ('PPA') in this case will be between the owner of the particular buildings and the distribution companies ('Discoms') or the third party and the Discoms.[48]

The key feature of all these schemes under the JNNSM is the signing of a PPA, whose benefits will be enumerated in detail subsequently.[49] The PPA has to be signed by the SPDs with the Solar Energy Corporation of India ('SECI'), which is the nodal implementing agency of the Government, for a period of twenty-five years (till Phase II, the same was signed with NTPC Limited).[50] Under the PPA, SECI will purchase power at a fixed rate which shall depend on the bid amount quoted by the SPDs and sell it to the Discoms at a fixed rate which will depend on the particular scheme.[51] For example, under

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41 Solar Parks are designated areas within a specific state which promote the development of solar power plants.

42 Govt. of India, Ministry of New and Renewable Energy, No. 32/2/2014-15/GSP (August 4, 2015); Guidelines for Implementation of Scheme for Setting up of 2000 MW Grid-connected Solar PV Power Projects under Batch-III (August, 2015).

43 Govt. of India, Ministry of New and Renewable Energy, No. 32/2/2014-15/GSP (August 4, 2015), ¶1.7

44 Govt. of India, Ministry of New and Renewable Energy, No. 30/11/2012-13/NSM (June 26, 2014).

45 Govt. of India, Ministry of New and Renewable Energy, No. 5/34/2013-14/RT, ¶3.

46 *Id*., ¶2(i).

47 *Id*., ¶2(ii).

48 Govt. of India, Ministry of New and Renewable Energy, No. 30/11/2012-13/NSM (June 26, 2014), ¶11.6.

49 *See* Govt. of India, Ministry of New and Renewable Energy, No. 32/2/2014-15/GSP (August 4, 2015); Govt. of India, Ministry of New and Renewable Energy, No. 29/5(1)/2012-13/JNNSM (October 15, 2013); Guidelines for Implementation of Scheme for Setting up of 2000 MW Grid-connected Solar PV Power Projects under Batch-III (August, 2015); Guidelines for Implementation of Scheme for Setting up of 750 MW Grid-connected Solar PV Power Projects under Batch-1 (October, 2013).

50 *Id*., ¶1.3.

51 *Id*.

Batch I of Phase II of the JNNSM, the rate is INR 5.50/KWh.[52] The purpose of these PPAs is to encourage SPDs to bid for solar projects by generating a sense of security among them as the power will be bought regardless of the demand for the same.[53]

While the JNNSM has already been challenged on the ground of violation of WTO rules,[54] it is possible that the solar rooftop programme as well as subsequent batches of the JNNSM may also be challenged on similar grounds. Thus, we believe that it is important to justify these schemes on the ground that they will further the objective of sustainable growth in the solar sector within the framework of the WTO legal framework. Additionally, the criteria for the success of these polices will be discussed along with its application in India.

## *A. BENEFITS OF DOMESTIC CONTENT REQUIREMENT POLICIES*

The renewable energy sector is highly capital intensive and will not be able to compete with the fossil fuel sector without proper government support.[55] Such support is even more important in light of the fact that fossil fuels are largely subsidised.[56] For example, in 2014 global fossil fuels subsidies amounted to USD 490 billion.[57] Thus, government intervention by way of DCRs along with PPAs and other financial incentives is one possible way of helping renewable energy resources to compete with fossil fuels.

DCR is a government policy whereby a certain percentage of inputs must be sourced locally.[58] The objectives of such a policy in the field of solar energy is to promote sustainable development of the same.[59] This goal can be achieved because DCRs in the long run facilitate the creation of a domestic industry, the reduction in prices of solar energy and the accumulation of techni-

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52 *Id*.

53 *Id*.

54 Panel Report, *India – Certain Measures Relating to Solar Cells and Solar Modules – Complaint by the United States*, WT/DS456/R (February 24, 2016 adopted on October 14, 2016).

55 Kiragu, *supra* note 5, 1.

56 International Energy Agency, *World Energy Outlook Factsheet*, 2015, available at https://www.iea.org/media/news/2015/press/151110_WEO_Factsheet_GlobalEnergyTrends.pdf (Last visited on May 10, 2017).

57 *Id*.

58 Solar Energy Industries Association, *Local Content Provisions*, available athttp://www.seia.org/policy/manufacturing-trade/international-trade/local-content-provisions (Last visited on May 10, 2017).

59 International Renewable Energy Agency, *The Socio-Economic Benefits of Solar and Wind Energy*, 2014, 51, available at https://hub.globalccsinstitute.com/publications/socio-economic-benefits-solar-and-wind-energy/22-local-content-requirements (Last visited on May 10, 2017).

cal skills in the concerned country.[60] However at the same time, DCRs lead to initial short term costs due to SPDs being forced to procure relatively expensive domestic inputs.[61] In the short term the government can provide subsidies, tax exemptions, infrastructure support, PPAs and other beneficial measures to mitigate the cost borne by SPDs.[62] Among these measures PPAs are particularly important.[63] In the PPA mechanism, a government or a government body promises to purchase power at a fixed rate.[64] Such PPAs guarantee price stability and fixed demand for companies who produce renewable energy.[65] This can vastly mitigate the risks associated with investing in renewable energy which can in turn enable further growth.[66] PPAs are more successful when complemented by support measures such as tax deductions, soft loans and policies which support investment in renewable energy technologies.[67]

DCRs allow for the protection of domestic infant industries, i.e., industries which cannot compete with foreign industries.[68] This eventually allows the concerned nation to reduce the costs as well as increase sustainability of renewable energy by which it would be able to achieve grid parity and replace fossil fuels.[69] Since the country will not be solely dependent on imports, it will not be subject to the fluctuations in the global market which will assure a stable supply of components required for solar power.[70] This will be beneficial for developing countries who will find it costly to finance imports of such inputs on a regular basis.[71] Thus, manufacturing components locally will create a stable supply for developing countries which will potentially reduce costs as compared to imports.[72]

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60 Luca Rubini, *Ain't Wastin' Time No More: Subsidies for Renewable Energy, The SCM Agreement, Policy Space, and Law Reform*, 15(2) J. Int. Economic Law 525, 530 (2012).

61 *Id*.

62 International Renewable Energy Agency, *supra* note 59, 75.

63 *Id*.

64 National Renewable Energy Laboratory, *Power Purchase Agreement Checklist for State and Local Government*, 1, available at http://www.nrel.gov/docs/fy10osti/46668.pdf (Last visited on May 10, 2017).

65 *Id*.

66 United States Environmental Protection Agency, *Solar Power Purchase Agreements*, available athttps://www.epa.gov/greenpower/solar-power-purchase-agreements (Last visited on May 10, 2017).

67 International Renewable Energy Agency, *supra* note 59, 75.

68 Gillian Moon, *Capturing the Benefits of Trade? Local Content Requirements in WTO Law and the Human Rights-Based Approach to Development*, 2009, 1, available at https://ssrn.com/abstract=1392049 (Last visited on May 10, 2017).

69 Kiragu, *supra* note 5, 1.

70 United Nations Conference on Trade and Development, *Local Content Requirements and the Green Economy*, 5, U.N. Doc. UNCTAD/DITC/TED/2013/7.

71 *Id*.

72 Oliver Johnson, *Exploring Effectiveness of Local Content Requirements in Promoting Solar PV Manufacturing in India* (German Development Institute, Paper No. 11, 2013), available at http://edoc.vifapol.de/opus/volltexte/2014/5039/pdf/DP_11.2013.pdf (Last visited on May 11, 2017).

Another way in which DCRs reduce price is by way of competition.[73] As a result of competition there is a further reduction in the cost of solar energy, which is essential for it to replace fossil fuels.[74] Increased competition also promotes innovation which also drives prices down.[75] Thus, having more sellers in the market is beneficial for the environment, and DCRs ensure that the same happens. Hence, decreased costs would bring sustainability to the solar energy sector and make solar power viable in the long run.[76]

Additionally, DCRs can be instrumental in building technical expertise which is essential to maintain and sustain the use of a particular technology.[77] This will happen because DCRs will compel domestic companies to source a part of their inputs domestically. On the other hand, foreign firms will have to do the same or set up their own plants.[78] The latter, which is foreign direct investment, will facilitate a transfer of technological know-how.[79] This technical expertise will help a country tailor the technology to its local needs.[80] For example, solar plants can be established in areas having different levels of humidity and irradiation patterns with the help of local manufacturing skills.[81] Thus, these positive economic as well as non-economic effects of DCR will boost the use of solar energy in developing countries.

## *B. LIKELIHOOD OF SUCCESS OF THE DOMESTIC CONTENT REQUIREMENT POLICIES IN INDIA*

After analysing the potential benefits of DCR, we will examine the conditions which increase the chance of a DCR policy's success, in the context of India. It is important to do so because if a DCR policy has a greater chance of success in a particular country, then it will be more viable to implement it.

Even today, the empirical evidence for the effectiveness of DCR in renewable energy is limited.[82] However, the criteria laid down by Lewis and

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73 Jan-Christoph Kuntze & Tom Moerenhout, *Local Content Requirements and the Renewable Energy Industry - A Good Match?*, September 12, 2012, 5, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2188607 (Last visited on May 11, 2017).

74 Cosbey, *supra* note 11, 2.

75 *Id*.

76 *Id*.

77 *Id*.

78 Johnson, *supra* note 72, 6.

79 *Id*.

80 *Id*.

81 *Id*.

82 Kuntze & Moerenhout, *supra* note 73, 7; *See* Fransisco Velo, *Local Content Requirements and Industrial Development: Economic Analysis and Cost Modeling of the Automotive Supply Chain* (2001) (unpublished Ph. D. dissertation, Massachusetts Institute of Technology) (on file with author); *See* Joanna Lewis & Ryan Wiser, *Fostering a Renewable Energy Technology*

Weiser are accepted by many scholars.[83] These are: market size and stability, market potential, and favourable government policies such as tax breaks, subsidies, and assistance in land acquisition.[84]

Having a large and a stable market encourages businesses to invest in production inputs for solar energy locally.[85] Thus, it mitigates the risk of a relatively higher cost for businesses to invest in DCR. Similarly, it also offers more avenues for learning by doing.[86] Learning by doing means that firms find more efficient ways of producing technology simply by experience rather than by using superior technology.[87] It is applicable in the context of DCRs, because they encourage local firms to increase production.[88] Thus, gradually, firms will produce solar modules more efficiently which will lead to a reduction in costs.[89]

With respect to the first criterion, it is clear that India has a large peak demand for power which is equivalent to 148,406 MW.[90] On the other hand, market potential refers to the exploitable capacity of a particular resource.[91] Due to its tropical location India has a significant amount of solar energy which can be utilized (amounting to 750 Giga Watt ('GW')).[92] Thus, the market potential for solar energy in India is extremely high. As far as government support is concerned, there is no shortage of the same, as SPDs will get subsidies to offset their costs, long term PPAs and infrastructural support through solar parks.[93] Solar power parks are essentially a concentrated zone for setting up solar power plants.[94] The benefit of solar parks is that companies wanting to set up solar power plants do not have to go through the lengthy process of acquiring land.[95] Instead, the state governments will lease such lands to the SPDs on which solar power plants can be built, thus speeding up the process.[96] Thus, it is likely that India's DCR policy will give an impetus to the manufacturing of technology necessary for solar power plants.

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*Industry: An International Comparison of Wind Industry Policy Support Mechanisms*, 35(3) Energy Policy (2007).

83 *Id*., 8.

84 *Id*.

85 *Id*.

86 *Id*., 9.

87 *Id*.

88 *Id*.

89 *Id*.; Bastian Becker & Doris Fischer, *Promoting Renewable Electricity Generation in Emerging Economies*, May 25, 2012, 8, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2025036 (Last visited on May 13, 2017).

90 Ministry of Power, Central Electricity Authority, *Power Sector Nov-2016 Monthly Report*.

91 Kuntze & Moerenhout, *supra* note 73.

92 Govt. of India, Ministry of New & Renewable Energy, No. 22/02/2014-15/Solar-R&D (Misc.) (November 24, 2014).

93 This requires citation. Guidelines for Development of Solar Parks (February, 2016), Cl. 1.

94 Guidelines for Development of Solar Parks (February, 2016), Cl. 1.*Id*.

95 *Id*., Cl. 6.

96 *Id*.

After having described the benefits of DCRs, we will discuss the case of China[97] where the criteria mentioned above were met to demonstrate the effectiveness of DCR. China is estimated to have an extremely high amount of exploitable capacity of wind energy (1,000GW to 4,000GW).[98] Further, at the time of the launch of its DCR program in 1997, it had a large demand for electricity.[99] There was also substantial financial support from the government to offset the cost of DCR.[100] These favourable factors ultimately helped China to increase its capacity from 56.6 MW in 1997 to 145.1 GW in 2015.[101] This is primarily a result of DCRs which allowed China to build a strong manufacturing base for wind energy.[102] It must be noted that this program was discontinued by China in 2009, after USA raised an objection.[103] However, by that time, China had already built a strong domestic industry of wind turbine manufacturing.[104] Therefore, since China fulfilled the conditions under which DCRs have a high chance to succeed, its DCR policy was successful.

Thus, after having discussed the benefits of DCR policies in the context of India, it is essential to analyse how the renewable energy subsidies based on DCRs would violate the ASCM.

## III. SUBSIDIES UNDER THE AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES

After having analysed the renewable energy subsidy policies implemented by the Government, their benefits and the likelihood of success, we now examine the subsidy regime under world trade law, as laid out under the ASCM. This entails an analysis of the extent and scope of the ASCM, and the grounds on which India's policies may be challenged under the ASCM.

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97 It is helpful to compare the policy of China with India because both are developing countries. India, like China had very little renewable energy capacity to begin with, when it launched the JNNSM. Similarly, India's DCR scheme has a greater chance to succeed since it possesses the same favourable conditions which China possessed. However, China's scheme was somewhat different because only Chinese firms or foreign firms having a joint venture with Chinese companies, firms were eligible for the subsidy programme. For a considerable period of time only joint ventures with the government were eligible for this scheme.

98 Global Wind Energy Council, *Overview of China's Wind Development*, available at http://www.gwec.net/news/china-focus/graphs-chinese-marke/ (Last visited on May 13, 2017).

99 Joanna Lewis & Ryan Wiser, *Fostering a Renewable Energy Technology Industry: An International Comparison of Wind Industry Policy Support Mechanisms*, 35(3) Energy Policy 1852 (2007).

100 *Id*.

101 Global Wind Energy Council, *China Wind Power Blows Past EU – Global Wind Statistics*, available at http://www.gwec.net/china-wind-power-blows-past-eu-global-wind-statistics-release/ (Last visited on May 13, 2017).

102 Kuntze & Moerenhout, *supra* note 73, 12.

103 *Id*., 15.

104 *Id*.

Subsequently, we highlight the applicability of environmental exceptions to covered agreements other than the ASCM, based on which we build a case for the justification of renewable energy subsidies through the use of such exceptions.

The ASCM aims to prohibit subsidies which can have an adverse impact on international trade.[105] For that purpose it has clearly defined the extent and scope of subsidies. For a subsidy to be disciplined by the ASCM it has to be a financial contribution,[106] which confers a benefit[107] and is specific.[108] Under the ASCM, a subsidy involves a financial contribution given by a government or any public body within the territory of a member state with an aim to confer a benefit.[109] An entity which performs the duties and functions of the government will be deemed to be a public body.[110] Further, the definition of a financial contribution is given in the four subparagraphs of ASCM Article 1.1(a).[111] This definition is exhaustive in nature.[112] However, measures which are not explicitly listed can also be included provided that they fall within the criteria mentioned in the subparagraphs.[113]

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[105] Panel Report, *Brazil – Export Financing Programme for Aircraft – Complaint by Canada*, ¶7.26, WT/DS46/R (April 14, 1999 adopted on August 23, 2001).

[106] Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Art. 1.1(a).

[107] *Id*., Art. 1.1(b).

[108] *Id*., Art. 2.3.

[109] *Id*., Art. 1.

[110] Appellate Body Report, *United States – Definitive Anti-Dumping and Countervailing Duties on Certain Products from China – Complaint by China*, ¶317-318, WT/DS379/AB/R (March 11, 2011 adopted on March 25, 2011).

[111] *See* Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Art. 1.1(a) (It states that a financial contribution shall be deemed to exist if:

"[...] 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)

(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.").

[112] Panel Report*, United States – Measures Affecting Trade in Large Civil Aircraft – Second Complaint – Complaint by the European Communities*, ¶7.95, WT/DS353/R (March 31, 2011 adopted on March 23, 2012).

[113] Appellate Body Report, *Japan – Countervailing Duties on Dynamic Random Access Memories from Korea – Complaint by the Republic of Korea*, ¶250, WT/DS336/AB/R (November 28, 2007 adopted on December 17, 2007).

Additionally, for a financial contribution to be a subsidy capable of being challenged under the ASCM, it has to confer a benefit.[114] A financial contribution is said to confer a benefit if the beneficiary receives it on more favourable terms than others in the market.[115] This benefit can be determined with respect to the benchmark rate, i.e., the rate prevailing in the market at which other competitors will get the same benefit.[116] However, if market prices are distorted due to government regulation and intervention, it is possible to refer to a constructed benchmark or a foreign benchmark, provided appropriate adjustments are made to account for conditions in the concerned market.[117]

A further requirement under the ASCM is for the subsidy to be specific. Only subsidies which are specific in nature will be subject to the ASCM.[118] A subsidy is said to be specific if it is given to particular enterprises by the public authority who has jurisdiction in the particular geographical region.[119] However, it is not said to be specific if the criteria under which it is received is neutral and "[...] does not favour certain enterprises over others, and which are economic in nature and horizontal in application, such as number of employees or size of enterprise."[120] Thus, a financial contribution that confers a benefit, and which is specific, can be challenged as a subsidy potentially violating the ASCM. These subsidies can be further classified into actionable and prohibited subsidies.[121]

Under Part III of the ASCM, actionable subsidies are subsidies which cause adverse effects to other WTO members.[122] Adverse effects are caused when the subsidies lead to serious prejudice or injury to another member[123] or impair the benefits of concessions accrued under the GATT.[124] Additionally, ASCM Article 6.1 lays down conditions whose presence will be sufficient to prove the existence of serious prejudice. Thus, if the subsidy purports to compensate a specific industry or an enterprise for operating

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[114] Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Art. 1.1(b).

[115] Panel Report, *Canada – Measures Affecting the Export of Civilian Aircraft – Complaint by Brazil*, ¶9.112, WT/DS70/R (April 14, 1999 adopted on August 20, 1999).

[116] Appellate Body Report, *United States – Tax Treatment for "Foreign Sales Corporations" – Complaint by the European Communities*, ¶91, WT/DS108/AB/R (February 24, 2000 adopted on March 20, 2000).

[117] Appellate Body Report, *United States – Final Countervailing Duty Determination with respect to certain Softwood Lumber from Canada – Complaint by Canada*, ¶103, WT/DS257/AB/R (January 1, 2004 adopted on February 17, 2004).

[118] Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Art. 1.2.

[119] *Id*., Art. 2.2.

[120] *Id*.

[121] *See id*., Art. 3 & Art. 5.

[122] *Id*., Art. 5.

[123] *Id*., Art. 5(a) & Art. 5(c).

[124] *Id*., Art. 5(b).

losses sustained, such a subsidy will be deemed to cause serious prejudice.[125] However, a one-time subsidy which is given for business development will be exempted.[126] Further, complete *ad valorem* subsidisation of a product exceeding five percent will also be a sufficient ground for proving serious prejudice.[127]

Serious prejudice may also exist if one or more of the four grounds under ASCM Article 6 are proven. The first ground is that the subsidy has to cause a loss to the exports of a like product of another member in the market of the subsiding member.[128] Under the second ground, the subsidy has to cause a similar effect to another member in the market of a third country.[129] Under the third ground, a significant reduction in prices has to occur as a result of the subsidy due to which loss is caused to the member country in the same market.[130] The fourth ground states that, as a result of the subsidy, the world market share of the product has to increase consistently as compared to the average share of the past three years.[131]

Under Part II of the ASCM, prohibited subsidies are per se invalid and no actual harm, such as serious prejudice under actionable subsidies, has to be demonstrated by the aggrieved party.[132] There are two types of prohibited subsidies under this part. The first, under ASCM Article 3.1(a), is a subsidy which is contingent *de jure* or *de facto* upon export performance. The second one, under ASCM Article 3.1 (b), is a subsidy which is contingent on the usage of domestic goods over foreign ones. In *Canada–Aircraft*, the Appellate Body ('AB') held that 'contingent' means to be conditional or dependent on something else.[133] However, under ASCM Article 3.1(b), this contingency is not just de jure but also a *de facto one*.[134] This is because even if the drafters omitted to mention a '*de facto* contingency' under ASCM Article 3.1(b), the same will not preclude it from being applied.[135] Thus the AB held that the 'de facto contingency' mentioned in ASCM Article 3.1(a) should also apply to ASCM Article 3.1(b).[136] The reason given was that governments would try to circumvent this provision and try to indirectly give such discriminatory subsidies.[137] Further, if

[125] *Id*., Art. 6.1(b) & Art. 6.1(c).
[126] *Id*., Art. 6.1(c).
[127] *Id*., Art. 6.1(a).
[128] *Id*., Art. 6.3(a).
[129] *Id*., Art. 6.3(b).
[130] *Id*., Art. 6.3(c).
[131] *Id*., Art. 6.3(d).
[132] World Trade Organisation, *Anti-dumping, Subsidies, Safeguards: Contingencies, etc.*, available athttps://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm8_e.htm (Last visited on May 15, 2017).
[133] Appellate Body Report, *Canada – Measures Affecting the Export of Civilian Aircraft – Complaint by Brazil*, ¶166, WT/DS70/AB/R(August 2, 1999 adopted on August 20, 1999).
[134] Appellate Body Report, *Canada – Certain Measures Affecting the Automotive Industry – Complaint by Japan*, ¶139-143, WT/DS139/AB/R (May 31, 2000 adopted on June 19, 2000).
[135] *Id*.
[136] *Id*.
[137] *Id*.

a subsidy falls under ASCM Article 3, it shall be deemed to be specific by virtue of ASCM Article 2.3.[138] Therefore, for a measure to qualify as a 'subsidy', there has to be a specific financial contribution conferring a benefit. Once this is proved, it can either be challenged as an actionable or prohibited subsidy.

# IV. AGREEMENTS AND CASES TO DETERMINE THE REASONS FOR APPLICABILITY

In this Part, we will examine WTO covered agreements and instruments, and analyse disputes resolved to throw light on how GATT Article XX has been made directly applicable, such as the Agreement on Trade-Related Investment Measures ('TRIMs'), and China's Accession Protocol in *China–Audiovisuals*. Further, flexibilities and exceptions similar to GATT Article XX exist in the Agreement on Technical Barriers to Trade ('TBT') and the Agreement on the Application of Sanitary and Phytosanitary Measures ('SPS'). The reasons derived from this analysis will be used in the following Part to strengthen the argument for the provision of exceptions in the ASCM. Therefore, the aim of this analysis is to examine the applicability of GATT Article XX to the ASCM, such that India is able to avail the benefits of its renewable subsidy policies listed out under Part II of this paper.

## *A. AGREEMENT ON TRADE-RELATED INVESTMENT MEASURES*

TRIMs prevents member countries from conditioning foreign direct investments and other financial resources on factors that favour domestic industry.[139] TRIMs Article 2 reflects the principles set out in the GATT. According to TRIMs Article 2.1, " [...] no Member shall apply any TRIM that is inconsistent with the provisions of Article III or Article XI of GATT 1994", and TRIMs Article 2.2 refers to the Annex to TRIMs, which provides an illustrative list of measures that are inconsistent with TRIMs, by virtue of being inconsistent with GATT Article III:4 and Article XI:1. It is important to note that the exceptions under GATT Article XX are applicable to TRIMs by virtue of TRIMs Article 3, which states that "all exceptions under GATT 1994 shall apply, as appropriate, to the provisions of this Agreement".[140]

To understand the reasons for the applicability of the exceptions under GATT Article XX to TRIMs, it is important to understand the relationship between them. The prohibited measures listed in the Annex to TRIMs

[138] Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Art. 2.3.

[139] Waltman Esq., *supra* note 6, 554.

[140] Agreement on Trade-Related Investment Measures, April 15, 1994, 1868 U.N.T.S. 186, Art. 3.

highlight the close link between foreign investment and international trade.[141] The negotiating history suggests that countries favoured the invocation of the GATT exceptions because of the close link of TRIMs to the GATT.[142] The close link is clearly established. This is because TRIMs interprets and clarifies GATT Article III and Article XI, which makes "The application of GATT exceptions to the TRIMs [...] a logical extension of the function of TRIMs as a clarification of GATT articles."[143] It can be said that TRIMs builds on GATT Article III, requiring member countries to provide national treatment to imported products, and GATT Article XI, prohibiting member countries from imposing quantitative restrictions on the importation or exportation of goods.[144] Further, In *Indonesia–Autos*, the Panel noted that as both TRIMs and GATT Article III prohibit local content requirements, by forbidding the conditionality of benefits on domestic sourcing of input supplies, they can be said to cover the same subject matter.[145] Therefore, TRIMs and GATT Article III are closely interconnected.[146]

The above analysis brings out the reasons for the applicability of GATT Article XX, which are: direct textual support, the close link between TRIMs and GATT, and the fact that TRIMs elaborates on GATT disciplines.

## *B. AGREEMENT ON THE APPLICATION OF SANITARY AND PHYTOSANITARY MEASURES*

SPS establishes a framework of rules to guide the development, adoption, and enforcement of national measures to protect human, animal, or plant life or health.[147] These measures are referred to as sanitary and phytosanitary measures. Countries can impose more stringent requirements on imports as compared to domestic goods for the purposes of protecting human, animal, or

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[141] Arthur E. Appleton & Michael G. Plummer, The World Trade Organization: Legal, Economic and Political Analysis 123 (2007).

[142] Multilateral Trade Negotiations: The Uruguay Round, Negotiating Group on Trade-Related Investments Measures, *Submission by the Nordic Countries*, ¶30, 7, November 22, 1989, MTN. GNG/NG12/W/23 (It states: " The Nordic Countries strongly favour a close link to the GATT Agreement. This would imply scope for the invocation of many of the normal exceptions. The exceptions detailed in articles XI:2 (quantitative restrictions), XII (balance of payments safeguards), XVIII:B & C (economic development), XX (public morals, health, etc) and XXI (security) should therefore be examined for their relevance when negotiating a discipline.").

[143] Antonia Eliason, *The Trade Facilitation Agreement: A New Hope for the World Trade Organization*, 14(4) World Trade Review 643 (2015).

[144] Appleton & Plummer, *supra* note 141, 123.

[145] Panel Report, *Indonesia – Certain Measures Affecting the Automobile Industry – Complaint by the European Communities*, ¶14.61, WT/DS54/R (July 2, 1998 adopted on July 23, 1998).

[146] Steve Charnovitz & Carolyn Fischer, *Canada – Renewable Energy: Implications for WTO Law on Green and Not-So-Green Subsidies*, October, 2014, 14, available at *http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-14-38.pdf* (Last visited on May 24, 2017).

[147] Hal S. Shapiro, *The Rules that Swallowed the Exceptions: The WTO SPS Agreement and its Relationship to GATT Articles XX and XXI*, 24 Ariz. J. Int'l & Comp. L. 199, 203 (2007).

plant health.[148] A sanitary and phytosanitary measure may fall within the scope of application of SPS, and at the same time be inconsistent with the GATT.[149] In the case of a conflict between the applicable GATT rules and SPS, SPS prevails as it is *lex specialis* with respect to sanitary and phytosanitary measures.[150] However, the chance of such a conflict is slim, as the relevant GATT rules are subsumed in SPS.[151] This is because according to SPS Article 2.4, sanitary and phytosanitary measures conforming to the relevant provisions of SPS are presumed to be consistent with the relevant rules of the GATT.

The Preamble and some other articles of SPS indicate the relationship between SPS and GATT Article XX.[152] As per the Preamble of SPS, it was established to "elaborate rules for the application of the provisions of GATT 1994 which relate to the use of sanitary or phytosanitary measures, in particular the provisions of Article XX(b)".[153] This suggests that there are provisions of GATT Article XX(b) which are related to sanitary and phytosanitary measures, and that SPS elaborates these measures substantively.[154] It has also been argued that the current legal position allows for the application of GATT Article XX(b) to justify a measure inconsistent with SPS.[155]

In *EC–Hormones*, commenting on the relationship between SPS and GATT Article XX(b), the Panel observed that the provisions of SPS impose substantive obligations, which are significantly beyond GATT Article XX(b).[156] The Panel also noted that some provisions of SPS elaborate on GATT provisions, in particular GATT Article XX(b).[157] Therefore, SPS does not only explain an exception to GATT disciplines, but also creates an extensive new set of affirmative obligations for the adoption and maintenance of sanitary and phytosanitary measures.[158] Additionally, SPS Article 2.3 embodies certain GATT trade disciplines, such as the non-discrimination provisions of the GATT, and

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148 The WTO Agreements Series, *Sanitary and Phytosanitary Measures,* 11, available at https://www.wto.org/english/res_e/booksp_e/agrmntseries4_sps_e.pdf (Last visited on May 24, 2017).

149 Appleton & Plummer, *supra* note 141, 252.

150 WTO Agreement: Marrakesh Agreement Establishing the World Trade Organization, April 15, 1994, 1867 U.N.T.S. 154, General Interpretative Note to Annex IA.

151 Appleton & Plummer, *supra* note 141, 252.

152 Senai W. Andemariam, *Can (Should) Article XX(b) GATT be a Defense against Inconsistencies with the SPS and TBT Agreements?*, 7 J. World Investment & Trade 519, 523 (2006).

153 Agreement on the Application of Sanitary and Phytosanitary Measures, April 15, 1994, 1867 U.N.T.S. 493, Preamble.

154 Andemariam, *supra* note 152, 533.

155 *Id*., 535.

156 Panel Report, *European Communities – Measures Concerning Meat and Meat Products (Hormones) – Complaint by the United States*, ¶8.38, WT/DS26/R/USA (August 18, 1997 adopted on February 13, 1998).

157 *Id*.

158 Shapiro, *supra* note 147, 201; Appleton & Plummer, *supra* note 141, 251; United Nations Conference on Trade and Development, *3.9 SPS Measures*, 7, available at http://unctad.org/en/docs/edmmisc232add13_en.pdf (Last visited on May 24, 2017).

the *chapeau*[159] of GATT Article XX.[160] The national treatment requirement can be said to be at the centre of SPS obligations.[161]

Therefore, SPS elaborates upon and embodies GATT disciplines, and allows for a protection similar to GATT Article XX(b).

## C. AGREEMENT ON TECHNICAL BARRIERS TO TRADE

TBT establishes a framework concerning technical regulations, and aims to ensure that these regulations do not create unnecessary obstacles to international trade, while recognising WTO members' right to implement measures to achieve legitimate policy objectives.[162] Like SPS, TBT is *lex specialis* to the GATT, and acts as a specialised legal regime applying to a limited class of measures.[163] However, this does not exclude the applicability of GATT, and both TBT and GATT operate apply cumulatively unless there is a conflict between them.[164]

TBT Articles 2.1 and 2.2 are important for understanding the relationship of TBT with the GATT. These provisions deal with non-discrimination in respect of technical regulations.[165] TBT Article 2.1 incorporates the principle of national treatment, and according to TBT Article 2.2, technical regulations should not be more trade-restrictive than necessary to achieve a legitimate objective. TBT does not contain a provision, like GATT Article XX, to justify a violation of these non-discrimination provisions. However, TBT Articles 2.1 and 2.2 have been interpreted in terms similar to GATT Article XX.[166]

It has been argued that the GATT Article XX *chapeau* test has been used by the AB to examine a claim of discrimination under TBT Article

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[159] The opening paragraph of GATT Article XX, laying down the conditions which have to must be satisfied in order to get the exemptions.

[160] United Nations Conference on Trade and Development, *supra* note 158, 11.

[161] Yenkong Ngangjoh Hodu, *Relationship of GATT Article XX Exceptions to Other WTO Agreements*, 80 Nordic International Journal of Law 12 (2011).

[162] World Trade Organisation, *Technical Barriers to Trade,* available at https://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm (Last visited on May 21, 2017).

[163] Appellate Body Report, *European Communities – Measures Affecting Asbestos and Products Containing Asbestos – Complaint by Canada*, ¶80, WT/DS135/AB/R (March 12, 2001 adopted on April 5, 2001).

[164] Gracia Marin Duran, *Measures with Multiple Policy Objectives and Article 2.1 TBT Agreement – A GATT-like Balance, or a Likely Conflict, after EC – Seal Products?* 25 (CTEI Working Paper, Paper No. 6, 2015).

[165] Jason Houston-McMillan, *A Critical Analysis of the Legitimate Regulatory Distinction test as Conceived in US –Clove Cigarettes, US – Tuna II and US – COOL,* 2, available at https://www.sielnet.org/resources/Houston-McMillan%20-%20winner.pdf (Last visited on May 24, 2017).

[166] *Id*., 16.

2.1.[167] The AB has effectively added an exception to TBT by incorporating the chapeau-like test into an analysis under TBT Article 2.1.[168] The use of the *chapeau* test can be said to be a sound legal principle because of the similar purposes of GATT Article XX and TBT.[169] It is an effective way of striking a balance between trade liberalisation and regulatory protection, as it functions as an exception provision in TBT.[170] Additionally, TBT Article 2.2 includes the necessity test, which is a part of GATT Article XX.[171]

The relationship between TBT and GATT Article XX can be better understood through disputes decided by the AB. In *US–Clove Cigarettes*, the AB while emphasising on the balance between trade liberalisation and domestic regulatory autonomy observed that the ordinary meaning of a provision that does not provide such a balance is absurd.[172] As the Preamble of TBT mentions that the drafters desired to further the objective of the GATT, the AB regarded this as suggesting that TBT and the GATT have similar objectives and are of an overlapping nature. This is in addition to the fact that TBT is a development from the disciplines of the GATT.[173] The Preamble of TBT suggests that TBT expands on pre-existing GATT disciplines and indicates that TBT and the GATT should be interpreted coherently and consistently.[174] The AB further noted that there is a balance indicated by the Preamble of TBT between the desire to avoid obstacles to free trade, and the recognition of the right of countries to regulate.[175] This balance is the same as the balance struck by the GATT, which qualifies obligations such as national treatment (GATT Article III) by general exceptions (GATT Article XX).[176] Further, it was noted that the balance is found in TBT Article 2.1, read in light of its context, and the object and purpose of TBT.[177] This eliminates the need to invoke GATT Article XX as

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[167] Jonathan Carlone, *An Added Exception to the TBT Agreement After Clove, Tuna II, and Cool*, 37(1) B.C. INT'L & COMP. L. REV. 103, 128 (2014).

[168] *Id*., 128.

[169] *Id*., 136.

[170] *Id*., 137.

[171] Petros C. Mavroidis, *Driftin' Too Far from Shore – Why the Test for Compliance with the TBT Agreement developed by the WTO Appellate Body is Wrong, and What Should the AB have done instead,* 12(3) WORLD TRADE REVIEW 509, 524 (2013); The necessity test is used under subparagraphs (a), (b), and (d) of GATT Article XX, which begin with the word "necessary". Other subparagraphs have different tests, such as subparagraph (g), which starts with the words "relating to".

[172] Appellate Body Report, *United States – Measures Affecting the Production and Sale of Clove Cigarettes – Complaint by Indonesia*, ¶169, WT/DS406/R (September 2, 2011 adopted on April 24, 2012).

[173] *Id*., ¶91; *See* Henry Hailong Jia, *Entangled Relationship Between Article 2.1 of the TBT Agreement and Certain Other WTO Provisions*, 12 CHINESE JIL CHINESE JOURNAL OF INTERNATIONAL LAW 723 (2013).

[174] Appellate Body Report, *United States – Measures Affecting the Production and Sale of Clove Cigarettes – Complaint by Indonesia*, ¶91, WT/DS406/R (September 2, 2011 adopted on April 24, 2012).

[175] *Id*., ¶96.

[176] *Id*.

[177] *Id*., ¶109.

a separate defence.[178] Therefore, the jurisprudence under GATT Articles III and XX was adopted and applied to TBT non-discrimination obligations.[179] The AB concluded that the object and purpose of TBT is to strike a balance between the objective of trade liberalisation and the right of countries to regulate.[180]

In a later dispute, the *EC–Seals*, the AB observed that the non-discrimination obligations in the GATT are balanced by the right of countries to regulate under GATT Article XX.[181] As TBT does not have an exception provision like GATT Article XX, the 'legitimate regulatory distinction' test acts as the balancing factor in TBT.[182] The AB incorporated the concept of 'legitimate regulatory distinction' in TBT Article 2.1 to offer the same regulatory space provided by GATT Article XX, thereby maintaining the balance between free trade and the right of countries to regulate.[183] The incorporation of the 'legitimate regulatory distinction' test introduced the GATT Article XX analysis into TBT.[184]

Therefore, the AB has interpreted TBT in a manner that successfully balances the right of member countries to implement technical regulations, with the prevention of protectionism.[185] Though GATT Article XX is not directly applicable to TBT, TBT allows for similar exceptions in its scheme by incorporating the *chapeau* test under GATT Article XX, thereby eliminating the need for the invocation of GATT Article XX.

## *D. CHINA–AUDIOVISUALS AND CHINA–RAW MATERIALS: THE TEXTUAL APPROACH*

The disputes of *China–Audiovisuals and China–Raw Materials* are important for understanding how GATT Article XX can be used to justify violations of obligations arising out of instruments other than the GATT. The

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[178] The Newjurist, *A Critical Assessment of the Application of Article XX of the General Agreement on Tariffs and Trade,* October 18, 2015, available at http://newjurist.com/the-application-of-article-xx-of-the-general-agreement-on-tariffs-and-trade.html (Last visited on May 24, 2017).

[179] Houston-McMillan, *supra* note 165, 6.

[180] Appellate Body Report, *United States – Measures Affecting the Production and Sale of Clove Cigarettes – Complaint by Indonesia*, ¶174, WT/DS406/R (September 2, 2011 adopted on April 24, 2012).

[181] Appellate Body Report, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products – Complaint by Canada*, ¶5.118, WT/DS400/AB/R (May 22, 2014 adopted on June 18, 2014).

[182] *Id*., ¶5.127.

[183] Josephine Cutfield, *Exception Measures: The Pursuit of Non-Trade Objectives in Light of the EC – Seals Products Dispute,* October, 2015, 24, available at http://www.otago.ac.nz/law/research/journals/otago451220.pdf (Last visited on May 24, 2017).

[184] Houston-McMillan, *supra* note 165, 16.

[185] Carlone, *supra* note 167, 137.

textual approach was the legal principle applied in these disputes to justify the invocation of GATT Article XX.

In *China–Audiovisuals*, China invoked GATT Article XX(a)[186] to justify measures challenged as being inconsistent with paragraph 5.1 of its Accession Protocol.[187] The question that arose for consideration was whether China could invoke GATT Article XX for a breach of its obligations under the Accession Protocol.[188] The AB held that GATT Article XX was available outside the context of the GATT, and allowed for the application of GATT Article XX to justify the violation of paragraph 5.1 of China's Accession Protocol.[189] The introductory clause of paragraph 5.1 stated, "without prejudice to China's right to regulate trade in a manner consistent with the WTO Agreement.", which the AB interpreted in a manner so as to apply GATT Article XX exceptions to China's Accession Protocol by way of incorporation.[190] The applicability of GATT Article XX beyond the GATT framework was not excluded.[191] A reason for this finding was the recognition by the AB of the policy consideration of respecting the inherent right of countries to regulate trade.[192] The measures that China sought to justify were linked to its regulation of trade, and in light of this relationship between measures inconsistent with China's obligations and China's right to regulate trade, China could rely upon the introductory clause of paragraph 5.1 of its Accession Protocol to invoke GATT Article XX.[193]

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[186] General Agreement on Tariffs and Trade 1994, April 15, 1994, 1867 U.N.T.S. 187, Art. XX(a).

[187] China, not being an original contracting party to the WTO Agreement, became a member of the WTO by accession, as provided under Article XII of the WTO Agreement, through the Accession Protocol. In relation to Article 15 of the Accession Protocol, there has been a recent debate about granting "market economy status" to China. *See* Financial Express, *WTO Head says China Accession Deal must be fully applied in Market Status Debate,* July 22, 2016, available at http://www.financialexpress.com/world-news/wto-head-says-china-accession-deal-must-be-fully-applied-in-market-status-debate/325542/ (Last visited on June 20, 2017); Li Yu, *WTO and National Cultural Policy: Rethinking China Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, 472, available at https://ssl.editionsthemis.com/uploaded/revue/article/31849_45-3%20Yu.pdf (Last visited on May 24, 2017).

[188] Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products – Complaint by the United States*, WT/DS363/AB/R (December 21, 2009).

[189] *Id*.

[190] Ilaria Espa, *The Appellate Body Approach to the Applicability of Article XX GATT in the Light of China – Raw Materials: A Missed Opportunity?,* 46(6) Journal of . World Trade 1399, 1408 (2012).

[191] Nedumpara, *supra* note 19, 17.

[192] Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products – Complaint by the United States*, WT/DS363/AB/R (December 21, 2009).

[193] Van den Bossche & Zdouc, *supra* note 21, 549.

In a later dispute, the *China–Raw Materials*, a claim was brought against China for violating paragraph 11.3 of its Accession Protocol.[194] China invoked GATT Article XX to defend itself against the claim.[195] The Panel held that GATT Article XX could only apply to violations of the GATT, unless it is specifically incorporated into a non-GATT discipline or instrument.[196] The Panel observed that GATT Article XX exceptions could be used to justify violations of non-GATT obligations only if language to that effect is incorporated in the instrument in question by cross-reference.[197] The legal basis for using GATT Article XX to justify a violation of obligations other than those arising out of the GATT can only be the text of incorporation.[198] There was no text in paragraph 11.3 of the Accession Protocol which could provide a basis for the invocation of GATT Article XX, because of which China could not use it as a defence.[199] Therefore, the Panel based its finding of non-application of GATT Article XX on a strict textual interpretation of paragraph 11.3 of China's Accession Protocol.[200]

Subsequently, the AB upheld the Panel's finding.[201] As opposed to *China–Audiovisuals*, the AB did not allow for the application of GATT Article XX to justify the violation of paragraph 11.3 of China's Accession Protocol, due to the lack of specific reference to GATT Article XX, or a general reference to GATT or the WTO Agreement.[202]

On a cumulative reading of *China–Audiovisuals* and *China–Raw Materials*, it becomes clear that the textual interpretation was followed in these cases, as the application of GATT Article XX to instruments other than the GATT was made contingent on the incorporation of text to that effect.[203] Though the finding in the two disputes was different, the strict textual interpretation approach was applied in both of them.[204]

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194 Panel Report, *China– Measures Related to the Exportation of Various Raw Materials – Complaint by the United States*, WT/DS394/R (July 5, 2011).

195 *Id*.

196 *Id*.

197 *Id*.

198 Espa, *supra* note 190, 1410.

199 Guan Wenwei, *How General Should the GATT General Exceptions be?* 3 (RCCL Working Paper Series, Paper No. 6, 2012).

200 Yu, *supra* note 187, 476.

201 Appellate Body Report, *China – Measures Related to the Exportation of Various Raw Materials – Complaint by the United States*, WT/DS394/AB/R (January 30, 2012 adopted on February 22, 2012).

202 *Id*.

203 Yu, *supra* note 187, 474.

204 *Id*., 476.

# V. APPLICABILITY OF EXCEPTIONS TO THE AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES

In this part, we argue that the environmental exceptions under GATT Article XX must be applicable to the ASCM. For this, we rely on the reasons derived from Part IV, such as the ASCM being an elaboration upon GATT disciplines, close link, and textual support. Additionally, the balance between free trade and the right to regulate of member states, and the expiry of Article 8 of the ASCM, strengthen this argument.

## *A. ELABORATION OF GATT DISCIPLINES, CLOSE LINK, AND TEXTUAL SUPPORT*

Based on an analysis in Part IV of various covered agreements and decisions of the AB to determine the reasons for the applicability of GATT Article XX, it can be argued the GATT Article XX exceptions should apply to the ASCM.

Just like TRIMs and SPS elaborate upon GATT disciplines, the ASCM relates back to GATT Article XVI concerning subsidies.[205] In the field of subsidies, GATT Article XVI together applies with the ASCM.[206] As has been held by the AB on a number of occasions, the principal object and purpose of the ASCM is to augment and improve GATT disciplines regarding the use of subsidies.[207] The ASCM can be seen an application or extension of GATT Article XVI, signifying the direct relationship between ASCM and GATT.[208] Part III of the ASCM, which deals with 'actionable subsidies', elaborates upon GATT Article XVI:1, and ASCM Article 6 clearly defines 'serious prejudice'.[209] This relationship is strengthened by footnote 13 to ASCM Article 5(c), which states that, "The term "serious prejudice to the interests of another Member" is used in this Agreement in the same sense as it is used in paragraph 1 of Article

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[205] Eliason, *supra* note 143, 649.

[206] Bradly J. Condon, *Climate Change and Unresolved Issues in WTO Law*, 12(4) J. INT. ECONOMIC LAW 895, 903 (2009).

[207] *Id*.

[208] Davide Soto et al., *National Incentive Measures to Protect Biodiversity and Compliance with the WTO Agreements*, May 3, 2009, 32, available at http://graduateinstitute.ch/files/live/sites/iheid/files/sites/ctei/shared/CTEI/Research%20Projects/Trade%20Law%20Clinic/National%20Incentive%20Measures%20to%20Protect%20Biodiversity%20and%20Compliance%20with%20the%20WTO%20Agreements,%202009.pdf (Last visited on May 21, 2017).

[209] Tomer Broude & Mikella Hurley, *The Limits of Morality: Application of the Public Morals Exception Beyond the GATT* 28 (Society of International Economic Law Online Proceedings, Paper No. 43, 2012).

XVI of GATT 1994, and includes threat of serious prejudice.".[210] Further, Part II of the ASCM, which deals with 'prohibited subsidies' also elaborates upon GATT Article XVI. On a combined reading of ASCM Articles 3.1(a) and 3.2, it becomes clear that member states cannot grant or maintain subsidies contingent upon export performance as they are prohibited. This is an elaboration of GATT Articles XVI:2, XVI:3 and XVI:4, which discourage export subsidisation. Additionally, ASCM Article 3.1(b), which prohibits the grant of subsidies which have a DCR, can be deemed to be an elaboration of GATT Article III:5.[211] Therefore, there is a clear relationship between the ASCM and GATT Article XVI.[212]

Therefore, because a violation of GATT Article XVI could be justified under GATT Article XX, and as GATT Article XVI is linked to the ASCM and both deal with the same matters, the exceptions under GATT Article XX should also apply to the ASCM.[213] It would be odd if that is not the case.[214]

Further, another argument supporting the claim that GATT Article XX exceptions should be applicable to the ASCM is built on the 'single undertaking' principle, which strengthens the close link between the GATT and the ASCM.[215] According to the 'single undertaking' principle, the WTO Agreement is a 'single undertaking', with all the covered agreements under it being a part of an 'integrated' legal system.[216] This implies all covered agreements are cumulative and apply simultaneously.[217] Article II.2 of the WTO Agreement states that all covered agreements are an integral part of the WTO.[218] The WTO is a 'single undertaking', and the GATT is clearly developed in multiple covered agreements, with the discipline of subsidies being developed in the ASCM.[219] The fact that the WTO Agreement is a single treaty instrument, and has been accepted by the member states as a 'single undertaking', was affirmed by the AB in *Brazil–Desiccated Coconut*.[220] Therefore, the 'single un-

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[210] Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Footnote 13.

[211] Broude & Hurley, *supra* note 209, 28.

[212] Paola Conconi & Joost Pauwelyn, *Trading Cultures* in The WTO Case Law of 2009: Legal and Economic Analysis 95, 105 (2011).

[213] Soto, *supra* note 208, 32.

[214] Condon, *supra* note 206, 903.

[215] Luca Rubini, *The Subsidization of Renewable Energy in the WTO: Issues and Perspectives*, September 23, 2011, 32, available at https://www.iisd.org/pdf/2011/tri-cc_conf_2011_rubini.pdf (Last visited on May 21, 2017).

[216] Rubini, *supra* note 19, 195.

[217] Bradly J. Condon &Tapen Sinha, The Role of Climate Change in Global Economic Governance xxiii (2013).

[218] Rafael Leal-Arcas, Andrew Filis & Ehab S. Abu Ghosh, International Energy Governance: Selected Legal Issues 439 (2014);

[219] Luca Rubini, *Subsidies for Emissions Mitigation under WTO Law* in Research Handbook on Environment, Health and the WTO 561, 602 (2013).

[220] Appellate Body Report, *Brazil – Measures Affecting Desiccated Coconut – Complaint by Philippines*, 13, WT/DS22/AB/R (February 21, 1997 adopted on March 20, 1997).

dertaking' principle further highlights the strong relationship the GATT shares with the ASCM.

Additionally, there is significant textual connection between the GATT and the ASCM.[221] As discussed in Part IV, textual support in *China–Audiovisuals* allowed for the applicability of GATT Article XX exceptions to the China Accession Protocol. Similarly, there is also textual support for justifying the application of GATT Article XX exceptions to the ASCM. ASCM Article 32.1 provides the textual connection with GATT, stating that, "No specific action against a subsidy of another Member can be taken except in accordance with the provisions of GATT 1994, as interpreted by this Agreement." Additionally, footnote 56 to ASCM Article 32.1 states that, "This paragraph is not intended to preclude action under other relevant provisions of GATT 1994, where appropriate". This strengthens the claim that member states should be allowed to invoke GATT Article XX as a defence to the violation of the ASCM.

## *B. REGULATORY AUTONOMY*

An issue that has been central to the WTO regime is the balancing of the WTO's objective of liberalisation of trade against the avoidance of prejudice to the autonomy of member states, by recognising their right to regulate in order to achieve legitimate objectives.[222] In principle, there is a broad consensus that WTO law should not encroach on the right of member states to enact *bona fide* regulatory measures.[223] The need for a balance is vital because trade rules because of their nature impinge on other policy objectives of member states, whereas policies with non-trade objectives inevitably result in trade restrictions.[224] A regulatory measure aimed at environmental protection has the capacity to restrict international trade, and the pursuit of trade liberalisation can restrict the freedom of member states to regulate to achieve non-economic objectives.[225] The recognition of the right to regulate under the WTO regime is evinced by covered agreements and decisions of the AB.

One such agreement is SPS, which recognises the discretion of a State to determine its own appropriate health policies by invoking the precautionary principle as an exception to risk assessment and international standards

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[221] Rubini, *supra* note 60, 566.

[222] Peter Govindswamy, *Domestic Regulations in Services: A Chairman's Perspective* in Economic Diplomacy: Essays and Reflections by Singapore's Negotiators 103, 104 (2011).

[223] Boris Rigod, Optimal Regulation and the Law of International Trade: The Interface between the Right to Regulate and WTO Law xix (2015).

[224] Bregt Natens & Jan Wouters, *Regulatory Autonomy Constraints from GATS' Unconditional Obligations: The Case of the European Union* 24 (Leuven Centre for Global Governance Studies Working Paper Series, Paper No. 132, 2014).

[225] Emily Reid, Balancing Human Rights, Environmental Protection and International Trade: Lessons from the EU Experience, 2 (2015).

requirements.[226] This is reflected in SPS Article 5.7, which allows countries to adopt precautionary measures in the absence of sufficient scientific evidence, instead of waiting for a time when the risk assessment is complete.[227] The AB in *EC–Hormones* observed that SPS Article 5.7 is reflective of the precautionary principle,[228] allowing the member states to determine their own optimal policies for protecting human health and environment.[229] Similarly, TBT also seeks to strike a balance between the goal of international trade liberalisation and the right of member states to regulate.[230] As discussed in Part IV, the AB on different occasions has interpreted TBT in a manner that allows for the same regulatory space as under GATT Article XX, by balancing free trade and the right of member states to regulate and pursue legitimate policy objectives.[231]

A sweeping recognition of the member states' power to regulate is found in *China–Audiovisuals*, where the AB held that the 'right to regulate' is an inherent right enjoyed by a member's government, and not a right bestowed by international treaties, like the WTO Agreement.[232] This right must be exercised in a manner which is consistent with the WTO obligations assumed by the member state.[233] The AB allowed the member state to exercise its right to regulate in a manner consistent with the WTO Agreement, by allowing it to invoke GATT Article XX exceptions. The Panel in *China–Rare Earths*, recognised the right of nations to regulate. It observed that:

> "[...] an interpretation of the covered agreements that resulted in sovereign States being legally prevented from taking measures that are necessary to protect the environment or human, animal or plant life or health would likely be inconsistent with the object and purpose of the WTO Agreement. In the Panel's view, such a result could even rise to the level of being "manifestly absurd or unreasonable"."[234]

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[226] Soyoung Jung, *A State's Sovereign Rights and Obligations in the WTO to Harmonize Environmental Policies,* 21(2) Michigan State International Law Review 462, 485 (2013).

[227] Agreement on the Application of Sanitary and Phytosanitary Measures, April 15, 1994, 1867 U.N.T.S. 493, Art. 5.7.

[228] Appellate Body Report, *European Communities – Measures Concerning Meat and Meat Products (Hormones) – Complaint by the United States*, ¶124, WT/DS26/AB/R (January 16, 1998 adopted on February 13, 1998).

[229] Jung, *supra* note 226, 485.

[230] Gracia Marin Duran, *NTBs and the WTO Agreement on Technical Barriers to Trade* in European Yearbook of International Economic Law 87, 88 (2015).

[231] Markus Wagner, *Regulatory Space in International Trade Law and International Investment Law*, 36(1) U. Pa. J. Int'l L. 1, 61 (2014).

[232] Appellate Body Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products – Complaint by the United States*, ¶171, WT/DS363/AB/R (December 21, 2009 adopted January 19, 2010).

[233] Perry Keller, European and International Media Law: Liberal Democracy, Trade, and the New Media 171 (2011).

[234] Panel Report, *China – Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum – Complaint by the United States*, ¶7.11, WT/DS431/R (March 26, 2013 adopted

Further, in *US–Gasoline*, the AB recognised the regulatory autonomy of member states, and took into account the preamble to the WTO Agreement as demonstrating the importance of coordinating policies on trade and the environment. It observed that WTO Members have a large measure of autonomy to achieve environmental objectives and accordingly enact and implement environmental legislation.[235]

Therefore, in light of the recognition of regulatory autonomy under the WTO regime, exceptions for environmental protection must be allowed under the ASCM, such that the balance between the right to regulate and free trade is maintained.

Further, we argue that subsidies best maintain the balance between the right to regulate and free trade, as they are less trade restrictive as compared to other measures adopted by countries. Subsidies are considered to be more efficient trade policy instruments.[236] Measures such as total bans, tariffs, and quantitative restrictions such as quotas, are more trade distorting than domestic policy measures such as subsidies because they have an impact on both production and consumption directly.[237] Subsidies are less trade distorting as they affect only production and not consumption.[238] They allow for the change in production and consumption in response to world market conditions, as opposed to quantitative restrictions.[239] It has been noted that a subsidy seems to the "first-best" solution which is less trade-restrictive than import prohibitions.[240] Additionally, if subsidies are used well, they can correct market failures and promote behaviour that is environmentally sound.[241]

The measures covered by the GATT, such as total bans and quantitative restrictions, which are widely considered to be more restrictive and trade-distorting than subsidies, can be justified for environmental protection by virtue of GATT Article XX.[242] Robert Howse is of the view that if GATT Article XX is not allowed as a defence against a claim of violation of the ASCM, it would lead to an illogical result of member states having " [...]

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on August 29, 2014).

235 Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline – Complaint by the Bolivarian Republic of Venezuela*, 30, WT/DS2/AB/R (April 29, 1996 adopted May 20, 1996).

236 Cairn.Info, *Subsidies in the Context of the World Trade Organization*, 2004, 25, available at https://www.cairn.info/revue-reflets-et-perspectives-de-la-vie-economique-2004-1-page-25.htm (Last visited on May 21, 2017).

237 David Blandford et al., *Agricultural Trade Liberalization* in Agricultural Policies in a New Decade 231, 243 (2015); Soto, *supra* note 208, 32.

238 *Id*., 243.

239 *Id*.

240 *Id*.

241 Markus W. Gehring& Marie-Claire Cordonier Segger, Sustainable Development in World Trade Law 57 (2005).

242 Farah & Cima, *supra* note 8, 534.

more policy space to enact much more obviously and severely trade-distorting measures, such as import bans and quotas, than what are generally understood to be less distortive measures, namely domestic subsides.".[243] If measures that are more trade-restrictive than subsidies get the protection of GATT Article XX, subsidies not getting the same protection would lead to unjustified policy inconsistencies.[244] This is especially true because subsidies being less trade-restrictive, would maintain the balance between regulatory autonomy and free trade better than other measures such as total bans and quantitative restrictions.

## C. ARTICLE 8 OF THE AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES

It is pertinent to note that until end of 1999, ASCM Article 8 was in force, which expired due to its non-renewal by member states.[245] This provision dealt with non-actionable subsidies, and recognised that certain subsidies, including environmental subsidies could not be challenged as violating the ASCM as they were overall beneficial.[246] According to commentators, in spite of the non-renewal of ASCM Article 8, there is a consensus among member states that some subsidies are better not challenged.[247] It is often argued that the non-renewal of ASCM Article 8 implies that the member states decided that exceptions should not exist under the ASCM.[248] However, according to Luca Rubini, the expiry of the provision on non-actionable subsidies only implies that the special exceptions under the ASCM have disappeared, which has made way for the applicability of the GATT Article XX general exceptions.[249] Further, he argues that assuming that there was an overlap between ASCM Article 8 exceptions and GATT Article XX exceptions, it could be argued that the role of GATT Article XX was quite limited in the presence of non-actionable subsidies under ASCM Article 8.[250] However, due to the expiry of the category of non-actionable subsidies, there now exists no conflict between the GATT and the ASCM, allowing for the application of the discipline on general exceptions in the field of subsidies.[251]

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[243] Howse, *supra* note 15, 17.

[244] Farah & Cima, *supra* note 8, 534; Rubini, *supra* note 60, 563; Conconi & Pauwelyn, *supra* note 212, 105.

[245] World Trade Organization, *WTO Analytical Index: Subsidies and Countervailing Measures*, available at https://www.wto.org/english/res_e/booksp_e/analytic_index_e/subsidies_04_e.htm (Last visited on May 24, 2017).

[246] Ingrid Jegou & Luca Rubini, *The Allocation of Emission Allowances Free of Charge,* August, 2011, 40, available at http://www.ictsd.org/downloads/2011/08/the-allocation-of-emission-allowances-free-of-charge.pdf (Last visited on May 24, 2017).

[247] Leal-Arcas, Filis & Abu Ghosh, *supra* note 218, 439.

[248] Jegou & Rubini, *supra* note 246, 40; Asmelash, *supra* note 12, 18; *Id*., 439.

[249] *Id*.

[250] Rubini, *supra* note 19, 195 (This is because assuming that both these rules regulated the same subject matter, ASCM (*lex specialis*) would prevail over GATT (*lex generalis*) in case of a conflict between ASCM Art. 8 and GATT Art. XX).

[251] *Id*.

It is also argued that ASCM Article 8, an exception provision designed exclusively for the ASCM indicates that GATT Article XX should not apply to the ASCM.[252] However, the negotiating history does not suggest that the category of non-actionable subsidies under ASCM Article 8 was supposed to be the only justification for certain subsidies, precluding the application of GATT Article XX to the ASCM.[253] Additionally, the scope of ASCM Article 8 with respect to the environment was very narrow,[254] because of which there was no common purpose and subject matter between the limited exceptions under ASCM Article 8, and the broad environmental exceptions under GATT Article XX.[255] This leads to the conclusion that GATT Article XX could have been invoked to justify subsidies not permissible under the ASCM, even during the time ASCM Article 8 was in force.[256] As a result, the non-renewal of ASCM Article 8 does not signify that the member states did not intend for the application of GATT Article XX, because of their subject matter being different. Therefore, the expiry of Article 8 reinforces the argument in favour of allowing for the application of GATT Article XX to the ASCM.[257]

## VI. IMPLICATION OF INDIA'S POLICIES

In this part, we discuss the *Canada – Feed-In Tariff Program* case, which dealt with a challenge to a feed-in tariff ('FIT') scheme as violating the ASCM. Further discussed is the *India – Solar Cells* dispute, in which though the USA initially challenged India's policies as violating the ASCM, it later withdrew its argument under the ASCM. The USA feared that India would also retaliate by filing a complaint against it under the ASCM for its alleged DCR programs.[258] Thus, it restricted its arguments to the GATT and TRIMs. Subsequently, the policy impact on India's energy sector, in the event that it is allowed the exception under GATT Article XX, is discussed.

### *A. APPLICATION OF THE AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES TO FEED-*

[252] Farah & Cima, *supra* note 8, 534.

[253] Rubini, *supra* note 60, 562.

[254] Luca Rubini, *Rethinking International Subsidies Disciplines: Rationale and possible Avenues for Reform,* November, 2015, 8, available at http://e15initiative.org/wp-content/uploads/2015/09/E15-Subsidies-Rubini-final.pdf (Last visited on May 24, 2017).

[255] Jegou & Rubini, *supra* note 246, 40; Rubini, *supra* note 60, 562.

[256] Jegou & Rubini, *supra* note 246, 40.

[257] *Id*., 40.

[258] EconPlus, *"Minus the Shooting": World Trade Organisation and the Path to Legalisation*, March 15, 2016, available at https://econplus.wordpress.com/2016/03/15/minus-the-shooting-world-trade-organisation-and-the-path-to-legalisation/ (Last visited on May 14, 2017); See Request for Consultations by India, *United States – Certain Measures Relating to the Renewable Energy Sector – Complaint by India*, WT/DS510/1 (September 9, 2016) (India subsequently challenged the measures adopted by the United States of America).

## IN TARIFF PROGRAM AND INDIA'S DOMETIC CONTENT REQUIREMENT POLICIES

*Canada – Feed-In Tariff Program* is an important case which deals with the ASCM. The FIT program was a scheme implemented by the Government of Ontario to enhance the production of renewable energy in Canada which would diversify its supply mix, i.e., the proportion in which various sources of energy available to the country are used.[259] FIT schemes aim to offer fixed prices over a specific period of time for energy produced from renewable energy sources.[260] They aim to incentivise people to invest more in the generation of solar energy.[261] Thus, the objectives of this program were to increase the capacity of generating renewable energy resources, create new jobs and further the investment in the renewable energy sector.[262] Anyone participating in this program would be required to operate and build his own power plant.[263] For doing this, it would receive remuneration from the Government of Ontario which would be stipulated by the terms of the contract between them.[264] However, the granting of these FIT schemes itself was contingent on the usage of certain percentage of DCRs in the construction of the power plant.[265]

Aggrieved by the DCR policy, in 2010, Japan and the European Union ('EU') challenged this policy at the WTO as violating TRIMS, the GATT and the ASCM. Their argument under the ASCM was that it violated ASCM Article 3.1(b). The WTO Panel decided this case in favour of Japan and the EU on claims related to the GATT and TRIMS, and it rejected their argument under the ASCM. The Panel held that the wholesale electricity market price in Ontario was heavily influenced by government intervention and hence distorted.[266] It could thus not be regarded as constituting an appropriate benchmark. Further, the four alternative benchmarks proposed by Japan and the EU were not considered by the Panel because they themselves were distorted and could not accurately represent the market conditions in Ontario.[267] Since the Panel could not find the appropriate benchmark, it dismissed the claim of the complainants under the ASCM. Canada appealed the decision of the Panel. The AB dismissed Canada's appeal, but reversed the finding of the Panel with respect to the ASCM.

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[259] Panel Report, *Canada – Measures Relating to the Feed-in Tariff Program – Complaint by the European Union*, ¶7.65, WT/DS412/R (December 19, 2012).

[260] Toby Couture & Yves Gagnon, *An Analysis of Feed-in Tariff Remuneration Models: Implications for Renewable Energy Investment*, 38 Energy Policy 955(2010).

[261] *Id*.

[262] Panel Report, *Canada – Measures Relating to the Feed-in Tariff Program – Complaint by the European Union*, ¶7.65, WT/DS412/R (December 19, 2012).

[263] *Id*.,¶7.68.

[264] *Id*.,¶7.68.

[265] *Id*.,¶7.68.

[266] *Id*.,¶7.300.

[267] *Id*.,¶7.305-7.307.

It held that the Panel should have considered the solar and wind energy markets as the relevant market for determining the benchmark rate and not the wholesale electricity market.[268] This is because the solar and wind energy markets would not exist if it was not for the government intervention.[269] Such government intervention, on its own, cannot be inferred to be a subsidy.[270] Only if in that market a government provides a specific financial contribution which confers a benefit, could it be called a subsidy.[271] Thus, to determine whether the FIT scheme conferred a benefit, the terms and conditions under the competitive solar and wind energy markets should be examined.[272] However, due to insufficient evidence, the AB could not determine the appropriate benchmark rate with respect to the terms and conditions in the solar and wind energy market.[273] Thus, it could not determine whether a benefit was received under the FIT program.

However, hypothetically, if the AB had completed its analysis and held that the FIT program confers a benefit, then the measure would have been declared to be a subsidy. As a result, it would have been deemed to be specific since it was contingent on the use of domestic inputs.[274] Thus, by virtue of ASCM Article 3.1(b), such a subsidy would have been held to be a prohibited one and would have had to be withdrawn with immediate effect under ASCM Article 3.2.

With respect to India, we argue that there is a possibility that the DCR schemes under JNNSM and other solar policies would be challenged under the ASCM. While Phase I along with Batch I of Phase II have been declared to be violating the provisions of the GATT and TRIMS, subsequent batches as well as phases continue to exist. As mentioned in Part II, these policies also have a mandatory DCR upon which subsidies (VGF) are contingent. Additionally, the solar rooftop programme also has DCR provisions upon which the grant of the CFA is dependent. Thus, these policies may be challenged under ASCM Article 3.1(b).

To determine whether the financial contribution given by the Government would confer a benefit, the Panel would have to decide whether the beneficiaries are receiving this financial contribution at a better rate than the market rate. For that the Panel would have to identify an appropriate benchmark

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[268] Appellate Body Report, *Canada – Measures Relating to the Feed-in Tariff Program – Complaint by the European Union*, ¶5.185, WT/DS412/AB/R (May 6, 2013 adopted on May 24, 2013).

[269] *Id*.,¶5.185.

[270] *Id*.,¶5.190.

[271] *Id*.,¶5.190.

[272] *Id*.,¶5.219.

[273] *Id*.,¶5.245.

[274] Agreement on Subsidies and Countervailing Measures, April 15, 1994, 1869 U.N.T.S. 14, Art. 2.3.

rate in the market. If the Panel is able to determine these questions affirmatively, the financial contribution of the Government would qualify as a subsidy. Consequently, under ASCM Article 2.3 it will be deemed to be a specific one as it falls under ASCM Article 3.1(b). As a result of this, the subsidy given by the Government under JNNSM will be deemed to be prohibited. Thus, India would have to withdraw its DCR policies.

Hence, there exists a distinct possibility that India's DCR policies may be challenged successfully in front of the WTO Panel, under the ASCM. Since a complainant can challenge a measure based on multiple covered agreements, a challenge under the ASCM serves as an attractive option due to the non-existence of environmental exceptions under the ASCM, unlike other covered agreements such as the GATT and TRIMs. A successful challenge under the ASCM will hinder India's objective of sustainable use and production of solar energy in the long term which will ultimately benefit the environment. Thus, it is important to justify these measures under the exceptions provided under GATT Article XX, such that India is allowed to develop a strong manufacturing base for solar modules, in light of environmental concerns.

## *B. POLICY IMPACT ON THE INDIAN ENERGY SECTOR*

In this section of the paper, we discuss how availing GATT Article XX exceptions will help India meet its policy objective of reducing its dependence on coal imports, and satisfying its electricity requirements without increasing its greenhouse gas emissions. The Cabinet Committee of Economic Affairs of India has projected that India's peak power demand will increase four-fold by 2035.[275] However, India still heavily relies on coal to meet its electricity demand.[276] As of 2017, coal power plants account for about sixty percent of India's installed electricity capacity.[277] To meet the aforementioned power demand, India's reliance on coal will continue as is if left unchecked. Additionally, India is the second largest importer of coal,[278] despite being the third largest producer of coal in the world.[279] This is due to the fact that Indian

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[275] The Hindu, *India's Peak Power Demand to Jump Four-Fold by 2035-36: Draft CEA plan,* January 2, 2017, available at http://www.thehindubusinessline.com/economy/macro-economy/indias-peak-power-demand-to-jump-fourfold-by-203536-draft-cea-plan/article9455467.ece (Last visited on May 21, 2017).

[276] International Energy Agency, *India Energy Outlook*, 2015, 25, available at https://www.iea.org/publications/freepublications/publication/IndiaEnergyOutlook_WEO2015.pdf (Last visited on May 21, 2017).

[277] *Id*.

[278] Reuters, *Column - India Cedes Top Coal Importer Spot Back to China as Growth Trend Stalls: Russell*, January 30, 2017, available at http://in.reuters.com/article/column-russell-coal-india-idINKBN15E0JH (Last visited on May 21, 2017).

[279] World Atlas, *The Top 10 Coal Producers Worldwide*, February 21, 2017, available athttp://www.worldatlas.com/articles/the-top-10-coal-producers-worldwide.html (Last visited on May 21, 2017).

coal is poor in quality, and hence inefficient when compared to imported coal.[280] While recently, imports of coal have fallen, they are projected to rise at a rapid rate in the future.[281] This will not be favourable for India as it will be dependent on the volatility of the foreign market.[282]

As a result of its coal consumption, India is also the fourth largest emitter of carbon dioxide in the world after China, USA, and the EU.[283] Thus, India's emission of carbon dioxide will not be reduced if it continues to rely on thermal energy. In order to meet its power demand while trying to reduce carbon dioxide emissions simultaneously, India would necessarily have to rely more on renewable energy sources. To this effect, India has made certain international commitments. Under the Paris Agreement,[284] which deals with the mitigation of greenhouse gases, India aims to produce forty percent of its electricity from renewable energy sources, out of which seventy percent should be from solar energy.[285] However, as of 2016, renewable energy accounts for only about fifteen percent of the total electricity production in India.[286] Out of this, solar energy accounts for only ten percent of the total renewable energy produced. Thus, the target of 2030 is clearly an ambitious one and requires a dramatic increase in the production of electricity from solar energy.

Hence, to limit greenhouse emissions while meeting the increased demand for power, a considerable increase in renewable energy capacity is needed. In Part II of this paper, we have clearly laid down the benefits a renewable energy subsidy based on DCR can have. These include a stable manufacturing base, technical expertise and reduced costs for solar power which can

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[280] The Hindu, *Rising Thermal Coal Imports set to Propel India to Top Spot*, April 5, 2017, available at http://www.thehindubusinessline.com/economy/rising-thermal-coal-imports-set-to-propel-india-to-top-spot/article7070717.ece (Last visited on May 21, 2017).

[281] Livemint, *India's Oil Consumption to be Fastest in World by 2035: Report*, January 26, 2017, available at http://www.livemint.com/Industry/zg7DwSctFlCdoacLLf5m6O/Indias-oil-consumption-to-be-fastest-in-world-by-2035-repo.html (Last visited on May 21, 2017).

[282] *See* International Energy Agency, *What is Energy Security?*, available at https://www.iea.org/topics/energysecurity/subtopics/whatisenergysecurity/ (Last visited on May 21, 2017).

[283] Environmental Protection Agency, *Global Greenhouse Gas Emissions Data*, available at https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data#Country (Last visited on May 21, 2017).

[284] Paris Agreement, November 4, 2016, C.N.735.2016.TREATIES-XXVII.7.d.; Since USA is the second largest polluter of carbon dioxide, it will be extremely difficult to fulfil the targets of the agreement due to USA's recent withdrawal. To meet the existing targets, other countries will need to increase their commitments. *See* Hindustan Times, *Why US exit from Paris climate deal is a tight slap for the rest of the world*, June 3, 2017, available athttp://www.hindustantimes.com/opinion/why-us-exit-from-paris-climate-deal-is-a-tight-slap-for-the-rest-of-the-world/story-qwZZk1paeaKOYUGqnwlt7L.html (Last visited on June 14, 2017).

[285] Business Standard, *India's Energy Mix to have 40% Renewable Sources by 2030*, September 22, 2015, available at http://www.business-standard.com/article/economy-policy/india-s-energy-mix-to-have-40-renewable-sources-by-2030-115092200057_1.html (Last visited on May 21, 2017).

[286] Make in India, *Renewable Energy*, available at http://www.makeinindia.com/sector/renewable-energy (Last visited on May 21, 2017).

allow for sustainable generation of the same. Further, the problem of setting up domestic solar power plants, unique to India, can be solved more efficiently by the use of local knowledge and manufacturing skills. This argument is further strengthened by the fact that DCR policies have a high chance of success in India, due to the factors mentioned in Part II of this paper. However, for these benefits to materialise, it is imperative that the WTO allows India to avail of GATT Article XX benefits. By being able to avail the environmental exception, India would be able to reduce its reliance on coal and thereby reduce its carbon dioxide emission, and will be able to strengthen its electricity production simultaneously.

## VII. CONCLUSION

The role of renewable energy subsidies based on DCRs in achieving both industrial and environmental objectives cannot be overemphasised. Renewable energy subsidies can play a vital part in giving impetus to the renewable energy sector, in turn combating the globally recognised difficulty posed by the phenomenon of climate change. Such subsidies based on DCRs are particularly important for developing nations like India, looking to build a domestic renewable energy industry for the sustainable generation of green electricity, and reap the numerous benefits associated with it. We have elaborately discussed India's solar energy policies under the JNNSM, which are especially attractive because of their likelihood of success.

However, the ASCM, which contains the regulations governing subsidies, does not exempt measures that are beneficial for the environment, such as renewable energy subsidies. Therefore, it is likely that renewable energy subsidies based on DCRs such as those given by India under the JNNSM, are found by the WTO to be violative of the ASCM, and would have to be resultantly withdrawn. In the past, renewable energy subsidies have indeed been challenged before the WTO as violating the ASCM. To tackle this situation, the WTO must consider allowing the application of GATT Article XX to the ASCM, such that States are ensured regulatory autonomy. This argument becomes clear on an examination of various covered agreements and disputes decided by the WTO, along with the reasons derived therefrom.

As a consequence, if the argument does find favour with the WTO, a positive policy impact on India's energy sector can be expected. It will serve to be an immense aid in assisting India achieve its twin policy objective of satisfying its domestic electricity requirement, while minimising its carbon dioxide emission because of reduced dependence on coal. Therefore, in light of there being some kind of environmental exceptions in various regimes other than subsidies, the WTO must consider the provision of similar environmental exceptions in the ASCM. This is strengthened by the fact there is a significant overlap that exists between subsidies and the promotion of

environmental concerns, and the increasing use of subsidies as a tool for the promotion of renewable energy. This will ensure that the ASCM is in line with the present times, where climate change is considered to pose a severe threat to the environment.