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INDONESIA – MEASURES RELATING TO RAW MATERIALS

REPORT OF THE PANEL

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US – Superfund	GATT Panel Report, *United States – Taxes on Petroleum and Certain Imported Substances*, L/6175, adopted 17 June 1987, BISD 34S/136
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EU-2(b)	Law No. 3/2020	Law of the Republic of Indonesia Number 3 of 2020 on Amendment of Law Number 4 of 2009 on Mineral and Coal Mining
EU-3(b)	Government Regulation No. 23/2010	Regulation of the Government No. 23/2010 of 1 February 2010
EU-4(b)	MEMR Regulation No. 7/2012	Minister of Energy and Mineral Resources of the Republic of Indonesia Number 7 Year 2012 concerning increasing added value of minerals through processing and refining of minerals activities
EU-5(b)	MEMR Regulation No. 11/2012	Minister of Energy and Mineral Resources of the Republic of Indonesia Number 11 Year 2012 concerning amendment to Minister of Energy and Mineral Resources Regulation Number 07 Year 2012 concerning increasing added value of minerals through processing and refining of minerals activities
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EU-7(b)	MEMR Regulation No. 1/2014	Minister of Energy and Mineral Resources of the Republic of Indonesia Regulation Number 1 Year 2014 concerning increasing added value of minerals through domestic processing and refining of mineral activities
EU-8(b)	MOT Regulation No. 1/2017	Regulation of the Minister of Trade of the Republic of Indonesia Number: 01/M-DAG/PER/1/2017 concerning export provisions for processed and purified mining products
EU-9(b)	MEMR Regulation No. 25/2018	Regulation of Minister of Energy and Mineral Resources of the Republic of Indonesia Number 25 Year 2018 regarding minerals and coal mining business
EU-10(b)	MEMR Regulation No. 11/2019	Regulation of the Minister for Energy and Mineral Resources of the Republic of Indonesia Number 11 Year 2019 regarding second amendment of the Regulation of the Minister of Energy and Mineral Resources Number 25 Year 2018 on mineral and coal mining businesses
EU-11(b)	MOT Regulation No. 96/2019	Regulation of the Minister of Trade of the Republic of Indonesia Number 96 of 2019 on export provisions for processed and purified mining products
EU-12(b)	MEMR Regulation No. 7/2020	Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 7 of 2020 on procedures for the granting of areas, licensing, and reporting in relation to mineral and coal-mining business activities
EU-16 (rev)	Medium-Term National Development Plan (RPJMN) 2020–2024	Presidential Regulation No 18 of 2020 on Medium-Term National Development Plan (RPJMN) 2020–2024, signed by President Joko Widodo on 17 January 2020 and entered into force on 20 January 2020
EU-17 (rev)	Government Regulation No. 14 of 2015, Master Plan of National Industry Development 2015-2035	Government Regulation No 14 of 2015 on Master Plan of National Industry Development 2015 – 2035, signed by President Joko Widodo and entered into force on 6 March 2015
EU-18 (rev)	Presidential Regulation No. 2 of 2018, National Industrial Policy (2015-2019)	Presidential Regulation No 2 of 2018 on National Industrial Policy 2015-2019, signed by President Joko Widodo on 2 February 2018 and entered into force on 6 February 2018
EU-20	The Indonesian Government's Arguments to WTO Regarding the Ban on Nickel Exports, 5 December 2019	Larissa Huda, "The Indonesian Government's Arguments to WTO Regarding the Ban on Nickel Exports", 5 December 2019, available at https://bisnis.tempo.co/read/1280152/ini-argumentasi-pemerintah-unt

[1] The European Union provided two versions of exhibits that were originally published in Bahasaa Indonesian: version (a) in the original language and version (b) in English. English is an official language of the WTO and the working language of the Panel. The Panel, therefore, has systematically referred to version (b) of the EU exhibits in the Report.

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EU-21		Transcript of President Joko Widodoi's Speech (translated) at the groundbreaking ceremony of PT Freeport Indonesia's (PTFI) new copper smelter, at the Gresik Special Economic Zone, East Java, 12 October 2021
EU-22		"Remarks of President of the Republic of Indonesia at the Opening Inauguration of the 2021 National Coordination Meeting and Investment Service Award, at Ballroom of the Ritz-Carlton Hotel at Pacific Place, SCBD, 24 November 2021, Special Capital Region of Jakarta"
EU-23	President Joko Widodo Inaugurates Nickel Smelter in SE Sulawesi, 27 December 2021	President Jokowi Inaugurates Nickel Smelter in SE Sulawesi, Office of Assistant to Deputy Cabinet Secretary for State Documents & Translation, 27 December 2021
EU-24	Bisnis Indonesia Interview with President Joko Widodo, 10 January 2022	"SPECIAL INTERVIEW: President Joko Widodo openly talks about coal exports and the next targets", Bisnis Indonesia Team – Bisnis.com 10 January 2022
EU-27	Macquarie, Commodities Outlook, M. Garvey and J. Lennon, March 2021	Macquarie, Commodities Outlook, Marcus Garvey & Jim Lennon, March 2021
EU-28		Ministry of Energy and Mineral resources, Government of Indonesia, Press Release Number: 253.Pers./04/SJI/2020 "Pushing Domestic Nickel Market Growth, Government Sets Reference Prices of Minerals (RPM) Regulations"
IDN-1	MEMR, Indonesian Mining Guidance (2020)	Directorate General of Mineral and Coal MEMR, Indonesian Mining Guidance (2020)
IDN-4		A. van der Ent, A.J.M. Baker, M.M.J. van Balgooy, A. Tjoa, "Ultramafic nickel laterites in Indonesia (Sulawesi, Halmahera): Mining, nickel hyperaccumulators and opportunities for phytomining", Journal of Geochemical Exploration, Vol. 128 (2013) 72-79
IDN-5		B. Devi, D. Prayogo, "Mining and Development in Indonesia: An Overview of the Regulatory Framework and Policies", International Mining for Development Centre: Action Research Report, (March 2013)
IDN-7		PWC, "Mining in Indonesia", *Investment and Taxation Guide*, 11th ed., (June 2019)
IDN-11	Nickel Institute, "About nickel", (last accessed 20 August 2021)	Nickel Institute, "About nickel", available at: https://nickelinstitute.org/about-nickel/ (last accessed 20 August 2021)
IDN-12		Minerals UK, "Nickel", *British Geological Survey, Natural Environment Research Council*, (September 2008)
IDN-13		INSG, *Report on Nickel Production and Usage in Indonesia*, (February 2020)
IDN-15	Sayoga Gautama Report	Expert Report of R. Sayoga Gautama (3 September 2021)
IDN-16	IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021)	IEA, "The Role of Critical Minerals in Clean Energy Transition", *World Energy Outlook Special Report* (2021)
IDN-18 (BCI)	Maryono Report	Expert Report of A. Maryono (4 September 2021)
IDN-19		A. Dalvi, W. Bacon, R. Osborne, "The Past and the Future of Nickel Laterites", *PDAC 2004 International Convention, Trade Show & Investor Exchange*, 7-10 March 2004
IDN-20		USGS, Excel of "Nickel Reserves"
IDN-21		INSG, "Production, Usage and Price", available at https://insg.org/index.php/about-nickel/production-usage/ (last accessed 20 August 2021)
IDN-22		Fraser, Jake; Anderson, Jack; Lazuen, Jose; Lu, Ying; Heathman, Oliver; Brewster, Neal; Bedder, Jack; Masson, Oliver, *Study on future demand and supply security of nickel for electric vehicle batteries*, Publications Office of the European Union, Luxembourg, 2021
IDN-23	UNCTAD, Lessons from Indonesia's ban on nickel exports, Background document	K. Terauds, *Using trade policy to drive value addition: Lessons from Indonesia's ban on nickel exports. Background document to the Commodities and Development Report*, Special Unit on Commodities UNCTAD, 2017

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IDN-26		The White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth – 100-day Reviews under Executive Order 14017* (June 2021), Washington
IDN-30	MOT Regulation No. 96/2019	MOT Regulation 96/2019
IDN-33	MEMR Regulation No. 5/2017	MEMR Regulation 5/2017
IDN-37		National Standardization Agency, *Indonesian National Standard (SNI)*, 2019 Ed.
IDN-38		Kode KCMI IAGI-PERHAPI*, Indonesian Joint Committee for Mineral Reserves KCMI- Code*, 2017 Ed.
IDN-42		CRIRSCO, *Standard Definitions and International Report Template*, October 2012
IDN-45	JORC Code	*Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves* (The JORC Code), 2012 Ed.
IDN-48		MEMR, Excel of "Nickel Data 2012 – 2020"
IDN-50		Bank Indonesia, "Gross Domestic Product by Industrial Origin at Current Prices", *Indonesian Economic and Financial Statistics* (2021), 226-227
IDN-51		NIKKEI Asia, "Indonesia teams with LG to build $1.2bn battery plant" (25 May 2021), available at: https://asia.nikkei.com/Business/Automobiles/Indonesia-teams – with-LG-to-build-1.2bn-battery-plant(last accessed 30 August 2021)
IDN-53		Law No. 32/2009
IDN-56	MEMR Regulation No. 26/2018	MEMR Regulation 26/2018
IDN-58 (BCI)		Sample of Nickel Ore Sales Contract 2
IDN-62	UNESCAP, 1992 Environmental Impact Assessment, Guidelines for Mining Development	UNESCAP 1992. *Environmental Impact Assessment, Guidelines for Mining Development*, p. 6. New York/Bangkok: UN Econ. Soc. Comm. Asia Pacific
IDN-63		G. Bridge, "Contested Terrain: Mining and the Environment", *Annual Review of Environment and Resource* (2004), Vol. 29, 205-259
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IDN-65	NIWA, "Sediment and Mining" (9 March 2021)	NIWA, "Sediment and Mining" (9 March 2021), available at https://niwa.co.nz/our-science/freshwater/tools/kaitiaki_ tools/land-use/mining/impacts/sedimentation-and-mining (last accessed 20 August 2021)
IDN-66	Clean Technica, Image of Indonesia at "Electric Vehicles: The Dirty Nickel Problem", (Exhibit IDN-66), available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021)	DigitalGlobe Earthstar Geographics, Image of Indonesia, available at: Clean Technica, "Electric Vehicles: The Dirty Nickel Problem" (27 September 2020), available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021)
IDN-67		Agricultural and Environmental Policy Minutes, *Formulating Policies in Addressing the Environmental Damage Due to Nickel Mine Activities in Tinanggea Sub-District, South Konawe Regency*, Vol. 4 No. 2, August 2017: 125-142
IDN-68		WALHI, *Study Report on Environmental Conditions around Coastal Sea near the Mining Area due to the Nickel Industry in Morowali regency. Central Sulawesi, Kolaka and North Konawe Regencies, Southeast Sulawesi* (2021)

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IDN-78		Financial Times, "Indonesia and Foxconn in talks over electric vehicle investment" (01 November 2021), available at: https://www.ft.com/content/f1a805aa-82ac-4f24-ad22-58e43712091e (last accessed 11 November 2021)
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IDN-99		Nikkei Asia, Automobiles "Indonesia's electric car dreams at odds with deforestation pledge", available at: https://asia.nikkei.com/Business/Automobiles/Indonesia-s-electric-car-dreams-at-odds-with-deforestation-pledge (last accessed 21 January 2022)
IDN-100		BPS, Excel of "GRDP of South Sulawesi, Central Sulawesi and North Maluku"
IDN-106		Reuters, "Update 1 – Indonesia Stays China's Second-Biggest Nickel Ore Supplier Despite Export Ban (January 2021)", available at https://www.reuters.com/article/china-economy-trade-nickel-idUSL1N2JV0FP (last accessed 20 January 2022)
IDN-108		The Pan-European Reserves and Resources Reporting Committee (PERC asbl), Pan-European Standard for the Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves (1 October 2021)
IDN-109	Sayoga Gautama Supplemental Expert Report, 17 March 2022	Supplemental Expert Report of R. Sayoga Gautama (17 March 2022)
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IDN-127 (BCI)		MEMR, Presentation on "The Role of Minerals in the Development of Indonesia's Battery Industry" (10 September 2021)

ABBREVIATIONS USED IN THIS REPORT

Abbreviation	Description
AMDAL	Environmental impact analysis
BCI	Business Confidential Information
CRIRSCO	Committee for Mineral Reserves International Reporting Standards
dmt	Dry metric tonne
DPR	Domestic Processing Requirement
DSB	Dispute Settlement Body
DSU	Understanding on Rules and Procedures Governing the Settlement of Disputes
GATT 1994	General Agreement on Tariffs and Trade 1994
GDP	Gross domestic product
GRDP	Gross regional domestic product
HGSO	High-grade saprolite ore
HPAL	High Pressure Acid Leach
HS	Harmonized system
IEA	International Energy Agency
IPR	Community Mining Licences
IUP	Mining Licences
IUPK	Special Mining Licences
KK	Contract of Work
LGSO	Low-grade saprolite ore
MEMR	Ministry of Energy and Mineral Resources of the Republic of Indonesia
MOT	Minister of Trade of the Republic of Indonesia
RIPIN	National Industry Development Master Plan 2015-2035
RKAB	Work Plan and Budget
RKEF	Rotary Kiln Electric Furnace
SCM Agreement	Agreement on Subsidies and Countervailing Measures
USGS	United States Geological Survey
WTO	World Trade Organization

1 INTRODUCTION

1.1. This dispute concerns Indonesia's imposition of two measures that the European Union alleges prevent the export of nickel ore from Indonesia. The European Union challenges a prohibition on the exportation of nickel ore as well as another measure that requires that all nickel ore be processed domestically.

1.1 Complaint by the European Union

1.2. On 22 November 2019, the European Union requested consultations with Indonesia pursuant to Articles 1 and 4 of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) and Article XXII:1 of the General Agreement on Tariffs and Trade 1994 (GATT 1994) and Article 4.1 of the Agreement on Subsidies and Countervailing Measures (SCM Agreement) with respect to the measures and claims set forth below.[2]

1.3. Consultations were held on 30 January 2020, but they were unsuccessful.

1.2 Panel establishment and composition

1.4. On 14 January 2021, the European Union requested the establishment of a panel pursuant to Article 6 of the DSU with standard terms of reference.[3] At its meeting on 22 February 2021, the Dispute Settlement Body (DSB) established a panel pursuant to the request of the European Union in document WT/DS592/3, in accordance with Article 6 of the DSU.[4]

1.5. The Panel's terms of reference are the following:

> To examine, in the light of the relevant provisions of the covered agreements cited by the parties to the dispute, the matter referred to the DSB by the European Union in document WT/DS592/3 and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in those agreements.[5]

1.6. On 19 April 2021, the European Union requested the Director-General to determine the composition of the panel, pursuant to Article 8.7 of the DSU. On 29 April 2021, the Director-General accordingly composed the Panel as follows:

Chairperson:	Ms Leora BLUMBERG
Members:	Mr Gonzalo DE LAS CASAS SALINAS Ms Sanji M. MONAGENG

1.7. Brazil, Canada, China, India, Japan, Korea, the Russian Federation, the Kingdom of Saudi Arabia, Singapore, Chinese Taipei, Türkiye[6], Ukraine, the United Arab Emirates, the United Kingdom, and the United States reserved their rights to participate in the Panel proceedings as third parties.[7]

1.3 Panel proceedings

1.8. After consultation with the parties, the Panel adopted its Working Procedures[8], timetable, and Additional Working Procedures Concerning Business Confidential Information (BCI)[9] on 28 May 2021. The Panel amended its timetable on 29 June and 5 October 2021, and 17 August 2022.

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[2] See WT/DS592/1. The Panel notes that the European Union did not advance claims under the SCM Agreement in the panel request or in its submissions before the Panel.
[3] Request for the establishment of a panel by the European Union, WT/DS592/3 (European Union's panel request).
[4] See WT/DSB/M/449.
[5] WT/DS592/4.
[6] Formerly "Turkey" (see WT/INF/43/Rev.23).
[7] WT/DS592/4.
[8] Working Procedures of the Panel (Annex A-1).
[9] Additional Working Procedures Concerning Business Confidential Information (Annex A-2).

1.9. In light of the rapidly changing sanitary situation with respect to the COVID-19 pandemic, the Panel committed in its communication of 28 May 2021 transmitting the Working Procedures, timetable, and BCI Procedures to inform the parties by 30 September 2021 as to whether the Panel would hold the first substantive meeting in-person or remotely.

1.10. On 23 September 2021, the Panel informed the parties that due to sanitary requirements for both outbound and inbound travellers in the places of residence of the panelists, the Panel would be unable to attend the first substantive meeting in Geneva during the week of 15 November 2021. That same day, the Panel sent to the parties draft Additional Working Procedures Concerning Substantive Meetings with Remote Participation[10] to complement the Working Procedures with respect to the conduct of the substantive meeting, and a proposed amended timetable reflecting the need to spread the meeting over more days due to the time differences between the various participants.

1.11. The European Union informed the Panel that it had no comments on the Panel's draft Additional Working Procedures Concerning Substantive Meetings with Remote Participation or the proposed amended timetable. Indonesia objected to the Panel's proposal to conduct the first substantive meeting with the parties and third parties remotely and requested that the Panel hold in-person hearings. Indonesia suggested that the Panel either consider postponing the first substantive meeting or holding it in hybrid format if applicable quarantine requirements rendered it more difficult for individual panelists to attend the substantive meeting in-person. On 5 October 2021 the Panel informed the parties that it was not in a position to hold an in-person first substantive meeting *inter alia* due to restrictions on travel and meeting room capacity at the WTO. The Panel further noted that it had based its decision on preserving the due process rights of all parties and that delaying the meeting until an uncertain future date could prevent the Panel from ensuring the prompt settlement of the dispute in accordance with Article 3.3 of the DSU. The Panel therefore confirmed its intention to hold the first substantive meeting remotely.[11]

1.12. The Panel held a first substantive meeting with the parties on 15 and 17-19 November 2021. A session with the third parties took place on 18 November 2021. The Panel conducted the first substantive meeting and third-party session via secure videoconference.

1.13. The Panel held an in-person second substantive meeting with the parties on 22-23 March 2022.

1.14. On 7 June 2022, the Panel issued the descriptive part of its Report to the parties. The Panel issued its Interim Report to the parties on 29 August 2022. The Panel issued its Final Report to the parties on 17 October 2022.

2 FACTUAL ASPECTS

2.1 The measures at issue

2.1. The European Union's claims concern two measures, namely a prohibition on the exportation of nickel ore and a requirement that all nickel ore be processed (purified or refined) domestically. The European Union refers to the latter measure as the Domestic Processing Requirement (DPR).

2.1.1 Export prohibition of nickel ore

2.2. The European Union describes the export prohibition of nickel ore in its consultations request as follows:

> As part of the implementation of a national plan to develop certain downstream industry sectors including that of stainless steel production, Indonesia introduced a number of limitations on exports of raw materials. In particular, exports of nickel ore were prohibited in Indonesia in 2014. In 2017, Indonesia partially relaxed the export ban by temporarily allowing exports of certain minerals, including nickel ore with a

[10] Additional Working Procedures Concerning Substantive Meetings with Remote Participation (Annex A-3).
[11] Panel's communication to the parties, 5 October 2021.

> concentration below 1.7%, subject to certain additional requirements (see below). It was foreseen that these requirements be temporary and that the full export prohibition be reinstated on 11 January 2022. However, in August 2019 Indonesia's Ministry of Energy and Mineral Resources (MEMR) established that the validity of certain documents necessary to export low-concentration nickel ore expire on 31 December 2019, thereby effectively reinstating the total export prohibition of nickel ore as of 1 January 2020.
>
> The temporary permission to export low-concentration nickel ore has been without prejudice to the continued prohibition to export nickel ore with a concentration above 1.7%, which may not be exported even during the temporary relaxation of the export ban. Exports of nickel ore is also subject to the additional export requirements as described below.[12]

2.3. In its request for establishment of a panel the European Union describes the measure at issue thusly:

> Indonesia has restricted exports of nickel ore to different extents and under different rules since at least 2014. In January 2014 nickel was excluded from the regime on the necessary processing and purification of mining commodities for export, which effectively outlawed exports of nickel ore. From January 2017 to December 2019 exports of nickel ore with a concentration below 1.7% were permitted subject to certain conditions, while those of nickel ore with a higher concentration remained prohibited. Since January 2020 all exports of nickel ore, regardless of its concentration, are banned.[13]

2.4. In its request for establishment of a panel, the European Union also provides the following illustrative list of legal instruments through which this prohibition has been implemented over time[14]:

i. Law No. 4/2009 on Coal and Mining;

ii. Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia (MEMR Regulation) No. 7/2012 concerning increasing added value of minerals through processing and refining of minerals activities of 6 February 2012;

iii. MEMR Regulation No. 11/2012 amending MEMR Regulation No. 7/2012 of 16 May 2012;

iv. MEMR Regulation No. 20/2013 amending MEMR Regulation No. 7/2012 of 1 August 2013;

v. MEMR Regulation No. 1/2014 concerning increasing added value of minerals through domestic processing and refining of minerals activities of 11 January 2014;

vi. Regulation of the Minister of Trade of the Republic of Indonesia (MOT Regulation) No. 1/2017 concerning export provisions for processed and purified mining products of 9 January 2017;

vii. MEMR Regulation No. 25/2018 concerning mineral and coal mining business of 3 May 2018;

viii. MEMR Regulation No. 11/2019 amending MEMR Regulation No. 25/2018 of 28 August 2019;

[12] WT/DS592/1.
[13] WT/DS592/3.
[14] It should be noted that four of the legal instruments listed in the European Union's request for establishment of a panel (namely MEMR Regulation Nos. 7/2012, 11/2012, 20/2013, and 1/2014) were not expressly listed in the European Union's consultations request even though they pre-date that request).

ix. MOT Regulation No. 96/2019 on export provisions for processed and purified mining products of 30 December 2019; and

x. any annexes thereto, notices, preliminary findings, reviews, amendments, supplements, replacements, renewals, extensions, implementing measures or any other related measures.

2.5. In its first written submission, the European Union notes that since 1 January 2020 the export prohibition has, in particular, been implemented through Article 3 and Appendix IV of the MOT Regulation No. 96/2019 and Article 1 paragraph 2 of the MEMR Regulation No. 11/2019.[15]

2.6. Article 3 of MOT Regulation No. 96/2019 states that "[p]rocessed and/or Purified Mining Products and Mining Products in the form of raw material or ore with certain criteria which export is restricted are as contained in Appendix IV, which constitutes an integral part of this Regulation of the Minister."[16] Appendix IV is set out below in relevant part:

Appendix IV of MOT Regulation No. 96/2019[17]

MINING PRODUCTS WHOSE EXPORTS ARE PROHIBITED

A. ORE/ RAW MATERIAL

No.	Goods Description	Tariff Head/HS
…	…	…
8.	Nickel ore and its concentrate	2604.00.00
…	…	…

2.7. Article 1 paragraph 2 of MEMR Regulation No. 11/2019 provides for the insertion of Article 62A into MEMR Regulation No. 25/2018. Pursuant to Article 62A, exports of nickel ore with a nickel content of <1.7% were allowed until 31 December 2019. Previously, Article 46 of MEMR Regulation No. 25/2018 (as amended by MEMR Regulation No. 50/2018) permitted the export of nickel ore with a nickel content of <1.7% (less than one point seven percent) until 11 January 2022.[18]

2.8. In its first written submission, the European Union reiterated that Indonesia had imposed an export prohibition since January 2014 and made specific reference to

[15] European Union's first written submission, paras. 24-26 (referring to MOT Regulation No. 96/2019, (Exhibit EU-11(b)) and MEMR Regulation No. 11/2019, (Exhibit EU-10(b))). The European Union, as the complainant, placed English versions of the relevant Indonesian legal instruments on the record. Indonesia placed its own versions of some of the same documents on the record with its own submissions. The Panel raised the issue with the parties, and Indonesia has confirmed that it has no objection to the Panel relying upon the European Union's versions of the following legal instruments: Law No. 4/2009 (Exhibit EU-1(b)); Law No. 3/2020 (Exhibit EU-2(b)); Government Regulation No. 23/2010 (Exhibit EU-3(b)); MEMR Regulation Nos. 7/2012 (Exhibit EU-4(b)), 11/2012 (Exhibit EU-5(b)), 20/2013 (Exhibit EU-6(b)), 1/2014 (Exhibit EU-7(b)), 25/2018 (Exhibit EU-9(b)), 11/2019 (Exhibit EU-10(b)) and 7/2020 (Exhibit EU-12(b)); and MOT Regulation Nos. 1/2017 (Exhibit EU-8(b)) and 96/2019 (Exhibit EU-11(b)). Indonesia did note that Exhibit EU-11(b) did not include Appendix IV of that regulation. See Indonesia's response to Panel question No. 15. The Panel, therefore, will use the Indonesian version of MOT Regulation No. 96/2019 (Exhibit IDN-30) when it refers to Appendix.

[16] MOT Regulation No. 96/2019, (Exhibit EU-11(b)).

[17] MOT Regulation No. 96/2019, (Exhibit IDN-30).

[18] MEMR Regulation No. 11/2019, (Exhibit EU-10(b)):

1. Provisions in Article 46 are revised to be written as follow:

Article 46

(1) The holders of Mining Business License (IUP) for Production Operation or Special Mining Business License (IUPK) for Production Operation can conduct the sales of ~~nickel with a level of <1,7% (less than one point seven percent) or~~ washed bauxite with a level of A12O3 >42% (more than or equal to forty two percent) abroad in the specific quantities by using the Tariff Post/ HS (Harmonized System) in accordance with the provisions of the laws and regulations at the latest of the date of January 11, 2022.

(2) The sales of ~~nickel with a level of <1,7% (less than one point seven percent) or~~ washed bauxite with a level of A12O3 >42% (more than or equal to forty two percent) as referred to in Paragraph (1) is conducted with the conditions…

MEMR Regulation No. 1/2014.[19] The European Union requested the Panel to make findings on the legal instruments that implemented the export prohibition that were currently in force[20], which, in its view, included MEMR Regulation No. 1/2014.[21] In that regulation, Indonesia prohibited the exportation of all types of nickel ore from 12 January 2014 until 11 January 2017.[22]

2.9. For its part, Indonesia noted that MEMR Regulation No. 1/2014 was revoked by MEMR Regulation No. 5/2017 which, along with MOT Regulation No. 1/2017, continued the prohibition on the exportation of nickel ore but only with respect to nickel content over 1.7% from 12 January 2017 until 11 January 2022.[23] Both MEMR Regulation No. 5/2017 and MOT Regulation No. 1/2017 allowed for the export of nickel ore with a nickel content below 1.7%.[24] These regulations were subsequently revoked by MEMR Regulation No. 25/2018 and MOT Regulation No. 96/2019, respectively. MEMR Regulation No. 25/2018, as amended by MEMR Regulation No. 11/2019, prohibits exportation of all types of nickel ore since 1 January 2020.[25] MOT Regulation No. 96/2019 prohibits exportation of all types of nickel ore since 2 January 2020. Based on these regulations, as of 1 January 2020 the exportation of all nickel ore, regardless of nickel content, was prohibited.

2.10. In its first written submission, Indonesia noted that the European Union had included in its panel request several legal instruments that had not been subject of consultations and that purportedly implemented the export prohibition on nickel ore, namely MEMR Regulation Nos. 7/2012, 11/2012, 20/2013, and 1/2014, and MOT Regulation No. 96/2019.[26] Indonesia considered that the inclusion of MEMR Regulation Nos. 7/2012, 11/2012, 20/2013 and 1/2014 in the European Union's panel request "expanded the scope and changed the essence of the dispute".[27] Indonesia argued that the Panel should find that MEMR Regulation Nos. 7/2012, 11/2012, 20/2013 and 1/2014 fall outside its terms of reference. Indonesia clarified that if the European Union did not request the Panel to make findings on the above-mentioned legal instruments, Indonesia's "due process rights [would] not … be prejudiced if the Panel were to address its jurisdictional challenge together with the issuance of its report".[28]

2.11. The European Union maintains that MEMR Regulation No. 1/2014 is within the Panel's terms of reference as it was described, although not explicitly named, in both the consultations request and the request for establishment of a panel.[29] At the same time, the European Union clarified that it requests that the Panel make findings on the export prohibition that began with MEMR Regulation No. 1/2014 but also acknowledges that any findings or recommendations should be addressed towards the legal instruments implementing the export prohibition that are legally in force.[30] The European Union also acknowledges and accepts Indonesia's explanation that MEMR Regulation No. 1/2014 was repealed and replaced by MEMR Regulation No. 5/2017, which was itself subsequently revoked and replaced.[31]

2.12. The Panel understands that the measure at issue is an export prohibition that has been in place since January 2014 and is currently implemented through MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019.[32] The Panel, therefore, will make its findings on this basis and sees

[19] European Union's first written submission, para. 19, referring to MEMR Regulation No. 1/2014 (Exhibit EU-7(b)).
[20] European Union's opening statement at the first meeting of the Panel, para. 6.
[21] European Union's response to Panel question No. 20(b).
[22] MEMR Regulation No. 1/2014, (Exhibit EU-7(b)), Article 12(4).
[23] Indonesia's second written submission, para. 22, referring to Article 22 of MEMR Regulation No. 5/2017 (Exhibit IDN-33).
[24] MEMR Regulation No. 5/2017 (Exhibit IDN-33) and MOT Regulation No. 1/2017 (Exhibit EU-8(b)).
[25] Before this amendment, MEMR Regulation No. 25/2018 prohibited exports of nickel ore with a nickel content over 1.7% while permitting exports of nickel ore with a nickel content below 1.7% provided that holders of IUP for Production Operation or IUPK for Production Operation had, *inter alia,* a purification facility or were in the process of building one. See MEMR Regulation No. 25/2018, (Exhibit EU-9(b)), Arts. 17, 44, 46.
[26] Indonesia's first written submission, para. 71.
[27] Indonesia's first written submission, para. 72, referring to Appellate Body Report, *Argentina – Import Measures*, para. 5.3.
[28] Indonesia's first written submission, para. 76.
[29] European Union's response to Panel question Nos. 20 and 72.
[30] European Union's response to Panel question No. 20(b).
[31] European Union's response to Panel question No. 72.
[32] The Panel notes that the export ban was originally imposed in January 2014 through MEMR Regulation No. 1/2014. This MEMR Regulation was revoked by MEMR Regulation No. 5/2017, which partially

no need for a preliminary ruling on its terms of reference with regard to the prohibition on the export of nickel ore.

2.1.2 Domestic processing requirement on nickel ore

2.13. The European Union challenges the requirement whereby holders of mining business licence (IUP) for Production Operation, Special Mining Business Licence (IUPK) for Production Operation, and Mining Business Licence (IUP) for Production Operation specifically for the processing and/or purification of metallic mineral, non-metallic mineral, or rocks[33] are required to process (purify or refine) nickel ore in Indonesia.

2.14. In its consultations request the European Union provides a narrative description of the measure as:

> Exports of certain mining products are subject to them undergoing an added value enhancement through certain processing and/or purification activities in Indonesia as determined by the MEMR. This obligation is directed to holders of production permits and applies, among others, to nickel ore, iron ore and chromium, as well as to coal and coal products. As a result, minerals that have not undergone such processing and/or purification operations, as required by law, may not be exported. This obligation does not apply in cases of domestic interest or research and development.[34]

2.15. In its request for establishment of a panel, the European Union describes the DPR as:

> Indonesia applies domestic processing requirements with regard to certain raw materials, notably nickel ore and iron ore, prior to them being exported. Domestic processing requirements oblige mining companies to enhance the value of the relevant raw materials through the conduct of certain processing and/or purification operations in Indonesia before exporting them.[35]

2.16. According to the European Union, the DPR has "the consequence of preventing exports of the raw materials concerned unless they have been duly processed and/or purified".[36] The European Union also provides in its request for establishment of a panel an illustrative list of the legal instruments through which the DPR is implemented. These instruments are:

i. Law Number No. 4/2009 on Coal and Mining.

ii. Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia (MEMR Regulation) No. 25/2018 concerning mineral and coal mining commercialisation of 3 May 2018.

iii. MEMR Regulation No. 50/2018 amending MEMR Regulation No. 25/2018 of 5 December 2018.

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lifted the export ban on nickel ore as from 12 January 2017 by allowing for the exportation of nickel ore with a nickel content less than 1.7%. The prohibition of nickel ore with a nickel content over 1.7% remained in place. MOT Regulation No. 1/2017, which entered into force on 1 February 2017, also provided for an export ban on nickel ore with a nickel content less than 1.7%. MEMR Regulation No. 5/2017 and MOT Regulation No. 1/2017 were revoked by MEMR Regulation No. 25/2018 and MOT Regulation No. 96/2019, respectively. MEMR Regulation No. 25/2018 set a deadline for the exportation of nickel ore with a nickel content less than 1.7%, i.e. 11 January 2022. MEMR Regulation No. 11/2019 amended MEMR Regulation No. 25/2018 and established a prohibition on the exportation of all types of nickel ore as from 1 January 2020. MOT Regulation No. 96/2019 confirmed that prohibition as from 2 January 2020 and revoked the approvals to export nickel ore.

[33] The names of the types of mining licences available were established in 2009 in the Law on Mineral and Coal Mining (Law No. 4/2009). Law No. 4/2009 was amended in 2020 by Law No. 3/2020. The amendments replaced this categorization. The text of the relevant regulations that the parties provided the Panel does not reflect the 2020 amendments and throughout their argumentation the parties have utilized the pre-2020 nomenclature. The Panel, therefore, will continue to refer to the relevant licences using the nomenclature that was in force prior to 2020.

[34] WT/DS592/1.

[35] WT/DS592/3.

[36] WT/DS592/3.

iv. MEMR Regulation No. 11/2019 amending MEMR Regulation No. 25/2018 of 28 August 2019.

v. This request also covers any annexes thereto, notices, preliminary findings, reviews, amendments, supplements, replacements, renewals, extensions, implementing measures or any other related measures.[37]

2.17. The requirement to process or refine mining products domestically is imposed in Article 103(1) of Law No. 4/2009, which states that "[t]he holders of IUP and IUPK […] must conduct mineral processing and/or refinery of mining products domestically."[38]

2.18. MEMR Regulation No. 25/2018 contains relevant articles that the European Union challenges with respect to a requirement to process or purify nickel ore domestically.[39] First, Article 17, which is entitled "Mineral Sales of the results of Processing and/or Purification Abroad", states in relevant part:

> (1) The holders of Mining Business License (IUP) for Production Operation, Special Mining Business License (IUPK) for Production Operation, and Mining Business License (IUP) for Production Operation specifically for the processing and/or purification of metallic Mineral, nonmetallic Mineral, or rocks before conducting the sales activity abroad shall at first conducting the Enhancement of Added Values through the activities of Processing and/or Purification in accordance with the minimum limits of Processing and/or Purification as included in Appendix I, Appendix II, and Appendix III which are the integral part of this Ministerial Regulation.
>
> (2) Type of mining commodities of metallic Mineral, nonmetallic Mineral, or rocks that have not been included in the Appendix I, Appendix II, and Appendix III may only be sale abroad after the minimum limits of the Processing and/or Purification is stipulated by the Minister.[40]

2.19. Secondly, Article 19(1) states that IUP and IUPK holders may conduct sales abroad of the specified metallic minerals that have met the minimum limits of purification and/or non-metallic minerals that have met the minimum limits of processing. Article 19(2) permits other parties who process and/or purify minerals to conduct sales abroad if they have met the requisite minimum limits for purification (in the case of metallic minerals) or processing (in the case of non-metallic minerals). Article 19(3) exempts minerals used for domestic interest and research and development through the delivery of mineral samples abroad from the processing and purification limits.[41]

2.20. Finally, in Chapter XV of MEMR Regulation No. 25/2018 in a section entitled "Transitional Provisions", Article 46 allowed IUP and IUPK holders to conduct sales abroad of nickel with a level of <1.7% (less than one point seven percent) in accordance with the provisions of laws and regulations, up until 11 January 2022 if such sales are conducted by a licence holder who has or is building a facility for purification and pays the relevant export duty.[42] As noted in paragraph 2.7 above, Article 1 paragraph 2 of MEMR Regulation No. 11/2019 added Article 62A of MEMR Regulation No. 25/2018, which removed the permission to conduct sales abroad of nickel with a level of <1.7% (less than one point seven percent) as of 1 January 2020.[43]

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[37] WT/DS592/3.

[38] Law No. 4/2009, (Exhibit EU-1(b)), Article 103(1).

[39] Article 16 of MEMR Regulation No. 25/2018 also sets out a requirement that IUP and IUPK holders enhance added value of mineral and coal mining including through the activities of processing and/or purifying metallic minerals. The European Union, however, does not specifically challenge Article 16.

[40] MEMR Regulation No. 25/2018, (Exhibit EU-9(b)).

[41] MEMR Regulation No. 25/2018, (Exhibit EU-9(b)).

[42] MEMR Regulation No. 25/2018, (Exhibit EU-9(b)), Article 46. According to Article 46, "[h]as or is building the facility of Purification" can take the form of (a) building one's own purification facility or (b) cooperating to build a purification facility through share ownership directly to the Business Entity of the holders of Mining Business Licence (IUP) for Production Operation specifically for the processing and/or purification; or share ownership directly to the holders of Mining Business Licence (IUP) for Production Operation specifically for the processing and/or purification at the Business Entity of the holders of Mining Business Licence (IUP) for Production Operation or Special Mining Business Licence (IUPK) for Production Operation.

[43] MEMR Regulation No. 11/2019, (Exhibit EU-10(b)).

2.21. Indonesia's laws and regulations make a distinction between "processing" and "purification" or "refining".[44] Indonesia has also explained that the term "processing" has two meanings. It can refer to "all activity conducted to treat ore" or it can be understood as "an effort to improve the quality of Minerals that produce products with the same physical and chemical properties as the origin Minerals".[45] This latter definition is what is used in MEMR Regulation No. 25/2018. Indonesia confirmed that while some minerals can be both processed and purified (such as iron, manganese, or chromium) others (such as nickel or bauxite) can only be purified.[46] This is because any treatment to nickel will result in a change in its physical or chemical property. The Panel notes that while MEMR Regulation No. 25/2018 uses the term "purification", Law No. 4/2009, as amended by Law No. 3/2020, refers to "refining". Indonesia has clarified that the distinction is merely an issue of translation and that the same Bahasa term 'pemurnian' is used in both legal instruments. The Panel, thus, understands that the terms refining and purification can be used interchangeably. When referencing exhibits or the arguments of the parties, the Panel will, therefore, use the term that appears in the exhibit or arguments.

2.22. Appendix I of MEMR Regulation No. 25/2018 (reproduced below) sets forth the minimum limits of processing and purification referred to in Article 19 for each relevant ore or mineral. It contains a column for processing and a separate one for purification, recognizing that these are two separate and distinct phases in production.

Appendix I of MEMR Regulation No. 25/2018

LIMITATION OF MINIMUM PROCESSING AND PURIFICATION MINING MINERAL METAL COMMODITIES IN THE STATE

Ore or Mineral	**Processing**		**Purification**	
	Product	*Quality*	*Product*	*Quality*
Nickel and / or cobalt (process smelting) a. Saprolite; b. Limonite			Nickel mate, metal alloy, metal nickel and metal oxide	a. Ni Mate, Ni ≥ 70%; b. Metal FeNi, Ni ≥ 8 %; c. Nickel Pig Iron (NPI), 2% ≤ Ni <4% , and Fe ≥ 75% ; d. Nickel Pig Iron (NPI), Ni ≥ 4%; e. Nickel Metal, Ni ≥ 93%; and / or f. Nickel Oksida (NiO), Ni ≥ 65 %.
Nickel and / or cobalt (process [l]eaching) Limonite			Metal, metal oxide, metal sulfide, mix it up hydroxide/ sulfide precipitate, and hydroxide nickel carbonate	a. Nickel Metal, Ni ≥ 93%; b. Mix Hydroxide Precipitate (MHP), Ni ≥ 25%; c. Mix Sulfide Precipitate (MSP), Ni ≥ 45%; d. Hydroxide Nickel Carbonate (HNC), Ni ≥ 40%; e. Nickel Sulphate and Nickel Sulfate Hydrate (NiSO4 and NiSO4xH2O), Ni ≥ 20%; f. Cobalt sulfate and Cobalt Sulfate Hydrate (CoSO4 and CoSO4.xH2O), Co ≥ 19 %; g. Nickel Chloride and Nickel Hydrate Chloride (NiCl2 and NiCl2.xH2O), Ni ≥ 20%; h. Cobalt Chloride and Cobalt Klorida Hydrate (CoCl2 and CoCl2.xH2O), Co ≥19%; i. Nickel Carbonate (NiCO3), Ni≥40%; j. Cobalt Carbonate (CoCO3), Co ≥ 40% Co; k. Nickel Oxide (NiO), Ni ≥ 65%; l. Cobalt Oxide (CoO), Co ≥ 65%; m. Hydroxide Nickel (Ni(OH)2), Ni ≥ 50%; n. Cobalt Hydroxide (Co(OH)2), Co ≥ 50%; o. Sulfide Nickel (NiS), Ni ≥ 40%; p. Metal Cobalt, Co ≥ 93% ; q. Cobalt Sulfide (CoS), Co ≥ 40%; and / or r. Metal Chromium, Cr ≥ 99%.

[44] Indonesia's response to Panel question No. 66(a).
[45] Indonesia's response to Panel question No. 66(a) (referring to Article 1(20) of MEMR Regulation No. 25/2018).
[46] Indonesia's response to Panel question No. 66(a).

Ore or Mineral	Processing		Purification	
	Product	*Quality*	*Product*	*Quality*
Nickel and / or cobalt (process reduction) a. Saprolite; b. Limonite			Metal alloy	a. FeNi sponge (Sponge FeNi), 2% ≤ Ni <4%, and Fe ≥ 75%; b. FeNi sponge (Sponge FeNi), Ni ≥ 4%; c. Luppen FeNi, 2% ≤ Ni <4% and Fe ≥ 75%; and / or d. Luppen FeNi, Ni ≥ 4%; e. Nugget FeNi, 2% ≤ Ni <4%, and Fe ≥ 75%; and / or f. Nugget FeNi , Ni ≥ 4%.

2.23. Indonesia has confirmed that the column for "processing" is blank because nickel is a mineral that can only be purified or refined.[47] Indonesia has further confirmed that the product resulting from the purification or refining of nickel ore ceases to be nickel ore and becomes a different product, such as nickel pig iron, ferro nickel and nickel matte, which are classified under different codes in the Harmonized System.[48] Thus, any products exported after compliance with MEMR Regulation No. 25/2018 would not be nickel ore, but another product.

2.24. In its first written submission, the European Union also identifies and requests findings on Article 66 of MEMR Regulation No. 7/2020 as one of the legal instruments through which the DPR is implemented.[49] Article 66 of MEMR Regulation No. 7/2020 which is in a subdivision entitled "Prohibitions" notes that holders of IUP and IUPK are prohibited from "sell[ing] products resulting from Mining abroad before carrying out processing and/or refineries domestically in accordance with provisions of laws and regulations…".[50]

2.25. This regulation was not explicitly mentioned in either the European Union's consultations request or its request for establishment of a panel. Indonesia considers that "the inclusion of MEMR Regulation 7/2020 [in] these proceedings would impermissibly expand the scope and change the essence of this dispute".[51] The Panel will deal with this issue in section 7.1 below.

2.2 Other factual aspects

2.2.1 Nickel

2.26. Nickel is a naturally occurring metallic element. It is the fifth most common element on earth and occurs extensively in the earth's crust and core.[52] Economic concentrations of nickel occur in sulfide and laterite-type ore deposits.[53] Nickel occurs naturally, principally as oxides, sulfides, and silicates. There are many different nickel ores requiring a variety of techniques to extract the nickel. Improved technologies in mining, smelting, and refining, as well as increased capacities allow lower-grade nickel ore to be utilized. Decreasing ore grade is, therefore, not necessarily a sign of diminishing resources, but a reflection of innovation and improvements made in mining and process

[47] Indonesia confirms that the relevant term in Bahasa Indonesian ("pemurnian") is translated as both "refining" and "purifying". See Indonesia's response to Panel question No. 66(a).

[48] Nickel pig iron is produced from low-grade laterite ores, it can be used to produce the low-nickel 200-series stainless steels and contains only 3-5% of nickel and higher concentrations of sulfur and phosphorus than ferronickel. Ferronickel is an alloy normally produced by direct smelting of lateritic ore that contains 20-38% of nickel. Nickel matte is an intermediate product of nickel metallurgy that contains approximately 70% of nickel and is used in the preparation of refined metal. It is produced in smelters and comprises a mixture of nickel and iron sulfides. The HS codes for nickel ore, nickel pig iron, ferronickel and nickel matte are 260400, 720150, 720260, and 750110, respectively. See Minerals UK, "Nickel", *British Geological Survey, Natural Environment Research Council*, (September 2008), (Exhibit IDN-12), p. 10; and Indonesia's response to Panel question No. 66(c).

[49] European Union's first written submission, para. 36. See also, European Union's response to Panel question No. 22.

[50] MEMR Regulation No. 7/2020 (Exhibit EU-12(b)).

[51] Indonesia's comments on the European Union's response to Panel question No. 72.

[52] Nickel Institute, "About nickel", (last accessed 20 August 2021), (Exhibit IDN-11).

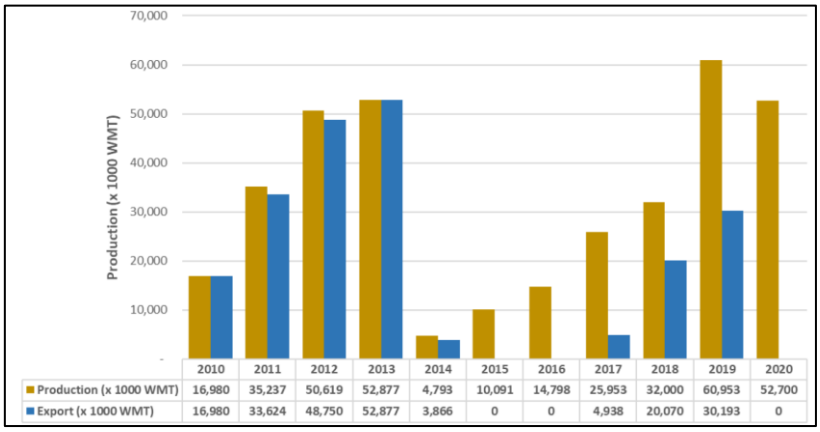
[53] Nickel Institute, "About nickel", (last accessed 20 August 2021), (Exhibit IDN-11) noting that the Committee for Mineral Reserves International Reporting Standards defines a mineral resource as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality that there are reasonable prospects for eventual economic extraction".

technology.[54] Essentially, the development of technology may render it economic to process lower grades of nickel, which could, therefore, expand economically viable nickel reserves. A change in the type of processing technology operating in a country, therefore, could result in a change in the volume of its mineral reserves.[55]

2.27. Australia, Indonesia, South Africa, the Russian Federation, and Canada account for more than 50% of the global nickel resources.[56] Indonesia accounts for one quarter of overall global reserves[57] and is the world's biggest nickel producer, with a production contribution to the world of 800,000 tonnes, i.e. 29.6% of the world production, in 2019.[58] The Philippines and the Russian Federation join Indonesia in the top three nickel-producing countries that provide around half of the global supply of nickel.[59] Indonesia is expected to dominate nickel ore production through 2040. Multiple nickel-refining projects with a combined capacity of 0.42 Mt per year as of 2020 are under construction in Indonesia.[60]

2.28. Nickel ore production and export in Indonesia in the period 2010-2020 is shown in Figure 1 below.

Figure 1: Indonesian nickel ore production and export (2010-2020)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Production (x 1000 WMT)	16,980	35,237	50,619	52,877	4,793	10,091	14,798	25,953	32,000	60,953	52,700
Export (x 1000 WMT)	16,980	33,624	48,750	52,877	3,866	0	0	4,938	20,070	30,193	0

Source: MEMR 2021 Sayoga Gautama Report, (Exhibit IDN-15, Figure 5, p. 5; and Exhibit IDN-24)

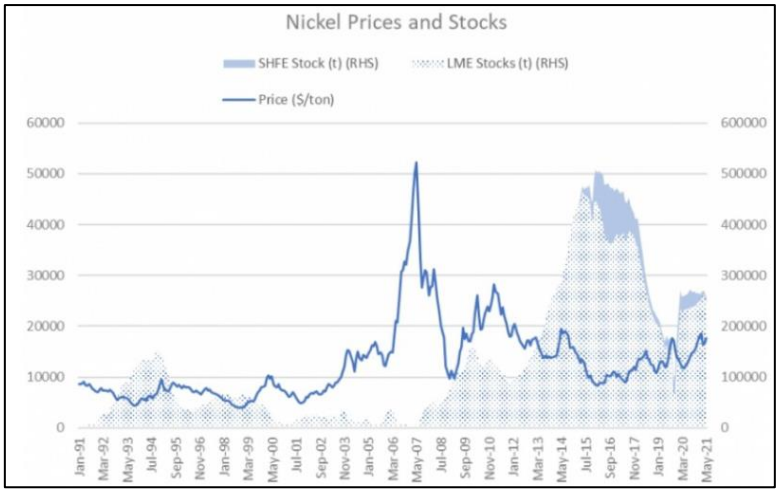
2.29. Over the past two decades, the nickel market has increased in total production from 1.1 million tonnes in 2000 to 2.4 million tonnes in 2019.[61] This growth was largely due to rapid expansion in demand for stainless steel. From 2010-2021 nickel demand for the production of stainless steel has more than doubled.[62] In 2020, 73% of the global nickel consumption by first use was for production of stainless steel, while 8% was assigned to producing batteries.[63]

[54] Nickel Institute, "About nickel", (last accessed 20 August 2021), (Exhibit IDN-11).
[55] Indonesia's response to Panel question No. 9(b).
[56] Nickel Institute, "About nickel", (last accessed 20 August 2021), (Exhibit IDN-11).
[57] The White House, Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth – 100-day Reviews under Executive Order 14017 (June 2021), Washington, (Exhibit IDN-26), p. 99.
[58] MEMR, Indonesian Mining Guidance (2020), (Exhibit IDN-1), p. 52.
[59] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 30.
[60] The White House, Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth – 100-day Reviews under Executive Order 14017 (June 2021), Washington, (Exhibit IDN-26), p.100.
[61] INSG, "Production, Usage and Price", available at https://insg.org/index.php/aboutnickel/production-usage/ (last accessed 20 August 2021), (Exhibit IDN-21). See also, The White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth – 100-day Reviews under Executive Order 14017* (June 2021), Washington, (Exhibit IDN-26), p. 99.
[62] J. Fraser, J. Anderson, J. Lazuen, et al., *Study on future demand and supply security of nickel for electric vehicle batteries*, Publications Office of the European Union, Luxembourg, 2021, (Exhibit IDN-22), p.1.
[63] Macquarie, Commodities Outlook, M. Garvey and J. Lennon, March 2021, (Exhibit EU-27), p. 3. See also IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16),

2.30. It is expected that world nickel demand will increase due to the use of nickel in the production of lithium-ion batteries, which are an important component in electric vehicles and stationary storage.[64] In this respect, some reports estimate that the global nickel consumption by first use will considerably increase in the coming years, as a result of growing demand from stainless steel and EV battery production.[65] The combination of demand from stainless steel production and in electric vehicles and battery storage could see demand for nickel increase between 20-25 times by 2040.[66]

2.31. The increasing demand for nickel in recent years finds reflection in the nickel price, which increased from 11,526 USD per dry metric tonne (dmt) in 2017 to 13,558 USD/dmt in 2019.[67] The drop in 2020 is probably due to the impact of the COVID-19 pandemic on nickel demand (e.g. less need for stainless steel because of construction projects in standby).[68] Figure 2 below summarizes nickel price trends from 1991 to 2021:

Figure 2: Nickel price trends (1991-2021)



Source: London Metal Exchange and Shanghai Futures Exchange (Exhibit IDN-21)

2.32. Globally, the nickel value chain supports large numbers of jobs, from mining through to end use and recycling.[69]

p. 144; and J. Fraser, J. Anderson, J. Lazuen, Y. Lu, O. Heathman, N. Brewster, J. Bedder, M. Oliver, *Study on future demand and supply security of nickel for electric vehicle batteries*, Publications Office of the European Union, Luxembourg, 2021, (Exhibit IDN-22), pp. 11 and 56.

[64] MEMR, Indonesian Mining Guidance (2020), (Exhibit IDN-1), p. 33. See also IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), pp. 26 and 28; and The White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth – 100-day Reviews under Executive Order 14017* (June 2021), Washington, (Exhibit IDN-26), pp. 99-100.

[65] According to Macquarie, global nickel consumption by first use will have increased around 80% (4.3 mt by 2030 versus 2.4 mt in 2020), and 57% will go to stainless steel production and the 30% to battery production. For its part, the IEA estimates that "EVs and battery storage … are set to take over from stainless steel as the largest end user of nickel by 2040". See Macquarie, Commodities Outlook, M. Garvey and J. Lennon, March 2021, (Exhibit EU-27), p. 3, and IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 5. The Panel notes that some exhibits refer to metric tonnes while others refer to imperial tons. This is not a matter of a mere spelling difference. A metric tonne is 1,000 kilograms while an imperial ton is 2,240 pounds (about 1,016 kilograms). For this reason, the Panel will continue to use the terminology as presented in the exhibits or submissions and not attempt to harmonize the terminology.

[66] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 8.

[67] MEMR, Indonesian Mining Guidance (2020), (Exhibit IDN-1), p. 55.

[68] INSG, "Production, Usage and Price", available at https://insg.org/index.php/aboutnickel/production-usage/ (last accessed 20 August 2021), (Exhibit IDN-21).

[69] Nickel Institute, "About nickel", (last accessed 20 August 2021), (Exhibit IDN-11).

2.2.2 Nickel mining in Indonesia

2.2.2.1 Legal and policy framework of mining activities

2.33. Mining in Indonesia is regulated by several legal instruments on a variety of issues ranging from environmental protection, water and forestry, resource conservation policy, resource and reserves reporting mechanisms to raw material certification, land reclamation and post-mining activities.[70]

2.34. Law No. 4/2009 establishes the fundamental regulatory framework for coal and mineral mining in Indonesia. This law establishes the regime for granting licenses and permits for mining activities.[71] In 2014, pursuant to Local Government Law No. 23/2014, authority for issuing mining permits was transferred from the central government to regional governors. In 2020, following the adoption of Law No. 3/2020, which amended Law No. 4/2009, the authority for mining permits returned again to the central government.[72]

2.35. In its preamble, Law No. 4/2009 emphasizes the important role of the mining industry in giving real added value to the national economy. It also establishes that management of mineral mining will be conducted "siding with national interests" and from a "sustainable and environment-oriented" approach.[73] In line with these principles, Law No. 4/2009 sets out objectives to provide for sustainable management of mineral resources such as "ensuring the benefit of mineral and coal mining in a sustainable and environment-oriented way", "ensuring the availability of mineral[s] … as raw materials and/or energy sources to meet the domestic needs", and "supporting and developing national capacity to enable the nation to compete with other countries…".[74]

2.36. Indonesia also regulates mining activities in relation to their impact on the environment through Law No. 32/2009 on the Protection and Management of the Environment, which entered into force on 3 October 2009.[75] This law requires that businesses that may have a significant environmental impact, such as mining companies, prepare an environmental impact analysis (AMDAL).[76] Some of the objectives of Law No. 32/2009 concern "the control [over] the use of natural resources on a wise basis"; the "realiz[ation of] … sustainable development"; and "anticipat[ing] any of global issues on environment".[77]

2.37. Finally, in addition to the legal instruments that regulate the industry, mining activity in general and nickel mining, in particular, are an important focus of the industrial policy of Indonesia. The National Industry Development Master Plan 2015-2035 (RIPIN) sets 10 priority industries for the 2015-2035 period. One of these priority industries is the basic metal and non-metal mineral industry. The RIPIN outlines 11 strategies to achieve the vision and mission of national industry development. Two of the 11 strategies concern the development of the upstream and intermediate industry based on natural resources; and the control on the exportation of raw materials and energy resources.[78] The RIPIN establishes a first phase covering the 2015-2019 period. In this first phase

[70] Indonesia's first written submission, para. 7 and Figure 10.
[71] Indonesia's first written submission, para. 154.
[72] Sayoga Gautama Supplemental Expert Report, 17 March 2022, (Exhibit IDN-109), pp. 1-2.
[73] Law No. 4/2009, (Exhibit EU-1(b)), Article 2(b) and (d).
[74] Law No. 4/2009, (Exhibit EU-1(b)), Article 3(b), (c), and (d). The preference accorded to domestic needs is also reflected in one of the first implementing measures of Law No. 4/2009. See Government Regulation No. 23/2010 as amended by Government Regulation No. 24/2012, (Exhibit EU-3(b)), Article 84. In its defence under Article XX(d) of the GATT 1994, Indonesia specifically refers to Articles 96(c) and (d) of Law No. 4/2009.
[75] Indonesia's first written submission, para. 161.
[76] The AMDAL consists of an environmental impact assessment, an environmental management plan, and an environmental monitoring plan. In cases where an AMDAL is not required, other documents such as environmental management effort documents and environment monitoring effort documents are generally required. See INSG, Report on Nickel Production and Usage in Indonesia, February 2020, (Exhibit IDN-13 (revised)), p. 57; and PWC, "Mining in Indonesia", *Investment and Taxation Guide*, 11th edn., June 2019, (Exhibit IDN-7), p. 143.
[77] Law No. 32/2009, (Exhibit IDN-53), Article 3. In its defence under Article XX(d) of the GATT 1994, Indonesia specifically refers to Article 57 of Law No. 32/2009.
[78] Government Regulation No. 14 of 2015, Master Plan of National Industry Development 2015-2035, (Exhibit EU-17 (rev)), Chapter I, p. 18. The Panel notes that the European Union initially submitted this exhibit in a non-official WTO language and provided a summary in English of the main relevant provisions in

the increase of the added value of the natural resources in agricultural, mineral, and oil-processing-based upstream industry took a prominent role.[79] Although not legally binding, the RIPIN describes the overall industrialization goals of the Indonesian government for the relevant period. Presidential Regulation No. 2 of 2018 on the National Industrial Policy (2015-2019) outlines the target to secure the supply and distribution of natural resources to meet the demand for raw materials, intermediate goods, energy and water resources for Indonesia's national industry.[80]

2.38. The RIPIN further outlines programmes that the Indonesian government will implement to guarantee the availability of natural resources for industrial development, in particular those that are based on mining mineral, coal, oil and gas, and agriculture. One of the programmes relates to the prohibition or restriction of exports of natural resources required for the utilization plan and the needs of industrial companies and industrial areas companies.[81]

2.2.2.2 Types of nickel ore and reserves

2.39. The two measures at issue, namely the export ban and the DPR, concern the same product: nickel ore. Ore is defined as "[a] naturally occurring solid material containing a precious or useful metal in such quantity and in such chemical combination as to make its extraction profitable"[82] or "rock or soil from which metal can be obtained".[83] In 2021 nickel mining (including smelter activity) in Indonesia represented [[***]] of its gross domestic product (GDP) and [[***]] of its total employment.[84] In certain regions of Indonesia where nickel mining predominantly takes place it makes a significant contribution to the gross regional domestic product (GRDP). In 2020, nickel mining (including purification and refining) accounted for 27% of the GRDP in Southeast Sulawesi, 41% of the GRDP in Central Sulawesi, and 23% of the GRDP in North Maluku.[85]

2.40. Nickel ore originates from two types of deposits: sulfide deposits and laterite deposits. Indonesia's nickel resources are mainly of the laterite type since they "are formed by weathering in a high-temperature and humid climate".[86] Lateritic ore is divided into limonite (more weathered upper soil) and saprolite (less weathered lower soil) ore. Saprolite ore has a higher grade of nickel than limonite.[87]

Exhibit EU-19. The European Union filed a revised version of Exhibit EU-17 with its responses to the Panel questions following the second meeting. This revised version includes translations into English of the relevant excerpts of the original document.

[79] Government Regulation No. 14 of 2015, Master Plan of National Industry Development 2015-2035, (Exhibit EU-17 (rev)), Chapter II, part B, p. 20. See above explanation on the filing of a revised version of Exhibit EU-17 by the European Union.

[80] Presidential Regulation No. 2 of 2018, National Industrial Policy (2015-2019), (Exhibit EU-18 (rev)), p. 21. The Panel notes that the European Union initially submitted this exhibit in a non-official WTO language and provided a summary in English of the main relevant provisions in Exhibit EU-19. The European Union filed a revised version of Exhibit EU-18 with its responses to the Panel questions following the second meeting. This revised version includes translations into English of the relevant excerpts of the original document.

[81] Government Regulation No. 14 of 2015, Master Plan of National Industry Development 2015-2035, (Exhibit EU-17 (rev)), pp. 53-54. See above explanation on the filing of a revised version of Exhibit EU-17 by the European Union.

[82] Oxford English Dictionary Online, at https://www.oed.com/search?searchType=dictionary&q=ore&_searchBtn=Search

[83] Cambridge Dictionary Online, at https://dictionary.cambridge.org/dictionary/english/ore

[84] Indonesia's response to Panel question No. 101.

[85] See Indonesia's second written submission, para. 109, referring to BPS, Excel of "GRDP of South Sulawesi, Central Sulawesi and North Maluku", (Exhibit IDN-100).

[86] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), pp. 144 and 146; J. Fraser, J. Anderson, J. Lazuen, Y. Lu, O. Heathman, N. Brewster, J. Bedder, M. Oliver, *Study on future demand and supply security of nickel for electric vehicle batteries*, Publications Office of the European Union, Luxembourg, 2021, (Exhibit IDN-22), p. 23; and WALHI, *Study report on Environmental Conditions around Coastal Sea near the Mining Area due to the Nickel Industry in Morowali regency. Central Sulawesi, Kolaka and North Konawe Regencies, Southeast Sulawesi* (2021), (Exhibit IDN-68), p. 15.

[87] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 144.

2.41. As regards Indonesia's nickel reserves, the term "mineral reserve" refers to the "economically mineable part of a measured and/or indicated mineral resource".[88] Mineral reserves are divided into probable or proved reserves depending on the lower or higher level of confidence in the modifying factors.[89] Probable reserves are "the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource.[90] The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proved Mineral Reserve." Proved reserves are "the economically mineable part of a Measured Mineral Resource. A Proved Mineral Reserve implies a high degree of confidence in the Modifying Factors".[91]

2.42. The Panel notes that evidence on the record provides different estimates on the level of nickel reserves in Indonesia. The divergences may be due, *inter alia*, to the economic value attributed to limonite and low-grade saprolite nickel ore (LGSO).[92] In its argumentation Indonesia asserts that only reserves of high-grade saprolite ore (HGSO) are economically mineable and, therefore, it is only that ore that is relevant for the reserve calculations.[93] Additionally, in accordance with the Indonesia National Standard (SNI) 2019 Edition and the Indonesian KCMI Code 2017 Edition by Kombers KCMI IAGI-PERHAPI[94] and CRIRSCO, Indonesia only includes in its reserves those reported by IUP and IUPK holders, as part of the application for a mining permit, which were verified by a Competent Person.[95] A "Competent Person" is defined as a minerals industry professional with at least five years of relevant experience in the style of mineralization or type of deposit under consideration and in the activity that the person is undertaking.[96]

2.43. The following table summarizes the reserve estimates (in million tonnes) provided to the Panel:

[88] CRIRSCO, *Standard Definitions and International Report Template*, October 2012, (Exhibit IDN-42), pp. 3-5. "Mineral resource" is in turn defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". An "Indicated Mineral Resource" is "that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit". This type of mineral resource "has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve". Measured Mineral Resource is "that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit". This type of mineral resource "has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Mineral Reserve or to a Probable Mineral Reserve". Similar definitions of "mineral reserve" and "mineral resource" can be found in Exhibits IDN-37, p. 7; IDN-5, and IDN-108.

[89] The modifying factors are "considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors". See CRIRSCO, *Standard Definitions and International Report Template*, October 2012, (Exhibit IDN-42), p. 3.

[90] CRIRSCO, Standard Definitions and International Report Template, October 2012, (Exhibit IDN-42), p. 5.

[91] CRIRSCO, Standard Definitions and International Report Template, October 2012, (Exhibit IDN-42), p. 5.

[92] The Panel notes that the parties dispute the economic value of low-grade saprolite nickel ore and limonite nickel ore. Indonesia does not include low-grade saprolite ore and limonite nickel ore in its reserve estimate because it considers that only high-grade saprolite ore has economic value whereas the European Union notes that low-grade saprolite ore and limonite nickel ore can be processed using hydrometallurgical processes. See Indonesia's first written submission, para. 118; and European Union's second written submission, para. 98.

[93] Indonesia's first written submission, para. 118; Indonesia's responses to Panel question Nos. 16 and 38. See also the Maryono Report, (Exhibit IDN-18 (BCI)), pp. 18-19.

[94] National Standardization Agency, *Indonesian National Standard (SNI)*, 2019 edn. (Exhibit IDN-37) and Kode KCMI IAGI-PERHAPI, *Indonesian Joint Committee for Mineral Reserves KCMI – Code*, 2017 edn. (Exhibit IDN-38).

[95] MEMR Director General Circular No. 741/2021 Regarding Implementation of the Use of Competent Person in the Estimation of Mineral and Coal Resources and Reserves, (Exhibit IDN-97), p. 3. Failure to use a Competent Person results in a sanction and the non-approval of the Annual Work Plan and Budget.

[96] CRIRSCO, Standard Definitions and International Report Template, October 2012, (Exhibit IDN-42), pp. 2-3.

Table 1: Estimates of Indonesian nickel ore reserves (in million tonnes) (2012-2020)

Year → Source ↓	2012	2013	2014	2015	2016	2017	2018	2019	2020
Mining Guidance of 2020 IDN-1				3.19	3.15	3.16	3.57	4.59	
Maryono Report IDN-18(BCI)[97] (only HGSO reserves)	[[***]]	[[***]]	[[***]]	[[***]]	[[***]]	[[***]]	[[***]]	[[***]]	[[***]]
USGS IDN-20[98]	3.9	3.9	4.5	4.5	4.5	4.5	21	21	21
MEMR / Indonesia's Geological Agency IDN-48[99]	2.5– prov.- / 19.1– prob.-	2.6 prov./ 18.9 prob.	2.4 prov./ 18.9 prob.	3.9 prov./ 46.9 prob.	4.2 prov./ 44.2 prob.	22.5 prov./ 39.7 prob.	37 prov./ 39.7 prob	17 prov./ 54.2 prob	20.9 prov./ 48.4 prob

Prov.= proven reserves; Prob. = probable reserves

2.2.2.3 Extraction and refining of nickel ore

2.44. Nickel ore extraction from lateritic deposits is normally accomplished through strip or open-cast mining techniques.[100] It is essentially an earth-moving exercise requiring more land clearing than vertical digging. This makes nickel mining land intensive and facilitates the development of small nickel mines in which strip-mining operations using "relatively crude" techniques are conducted, with the subsequent higher impact on the environment, mainly in terms of deforestation and water pollution.[101]

2.45. The nickel mining activity basically consists of the following steps: (i) Land clearing; (ii) Top soil (red limonite) stripping and stockpiling for later use for reclamation of mined-out area, (iii) Stripping of overburden (yellow limonite) and dumped in overburden stockpile area; (iv) Stripping of saprolite ore, the main target of nickel mine, as run-of-mine product; and (v) Reclamation of mined-out area.[102]

[97] This reserve estimate only includes high-grade saprolite ore (HGSO). See the Maryono Report, (Exhibit IDN-18 (BCI)), p. 21.

[98] This exhibit was the only source that contained estimates for 2010 and 2011. That estimate – 3.9 million tonnes – was the same as the estimate for 2012. See USGS, Excel of "Nickel Reserves", (Exhibit IDN-20), p.1.

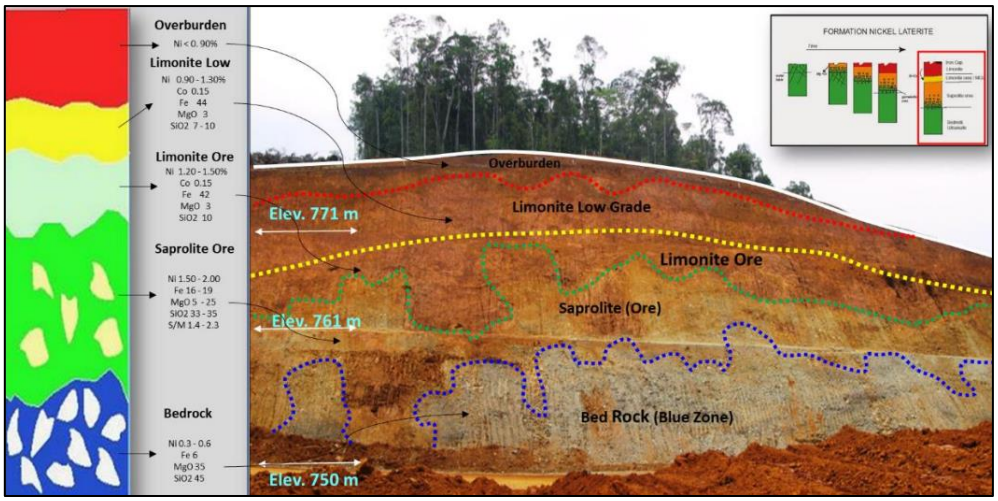
[99] This reserve estimate encompasses limonite ore, low-grade saprolite ore (LGSO), and high-grade saprolite ore (HGSO) based on the reports by holders of mining permits. See Indonesia's first written submission, para. 117.

[100] Clean Technica, Image of Indonesia at "Electric Vehicles: The Dirty Nickel Problem", (Exhibit IDN-66), available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021); Sayoga Gautama Report, (Exhibit IDN-15), pp. 1-2; and NIWA, "Sediment and Mining" (9 March 2021), available at https://niwa.co.nz/our-science/freshwater/tools/kaitiaki_tools/land-use/mining/impacts/sedimentation-and-mining (last accessed 20 August 2021), (Exhibit IDN-65).

[101] UNCTAD, Lessons from Indonesia's ban on nickel exports, Background document, (Exhibit IDN-23), p. 12.

[102] Sayoga Gautama Report, (Exhibit IDN-15), pp. 2-3.

Figure 3: Complete profile of nickel laterite



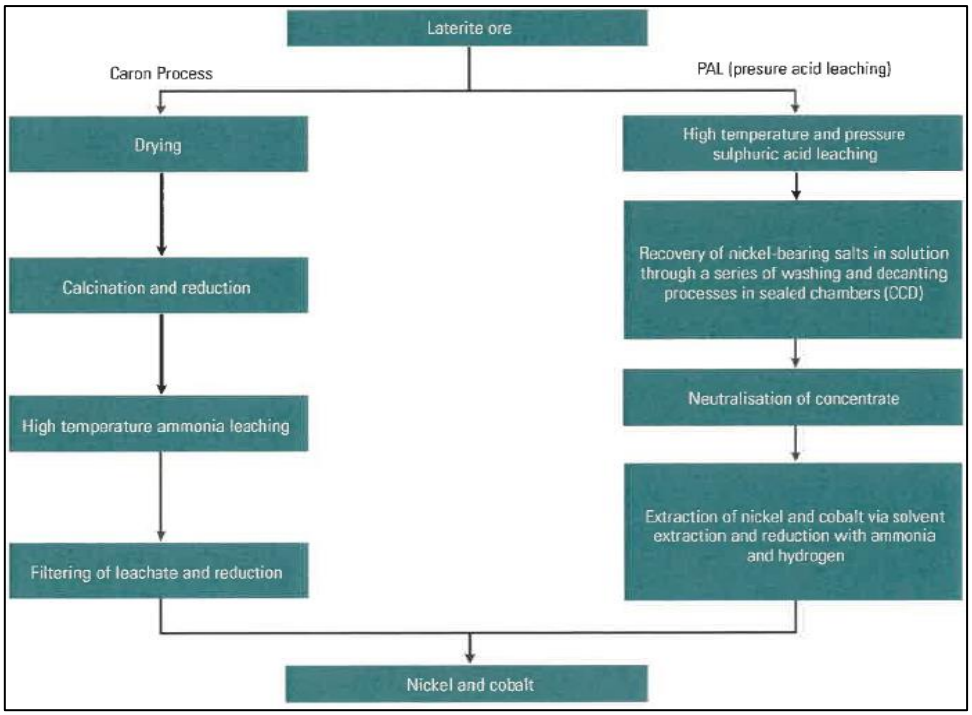
Source: Maryono Report, (Exhibit IDN-18(BCI)), p. 13.

2.46. Because lateritic nickel ore deposits do not produce the same reaction heats as sulfide nickel deposits, pyrometallurgical processing techniques such as rotary kiln electric furnace (RKEF), which are energy intensive, are commonly used, particularly as regards HGSO. In these pyrometallurgical processes, "the dried ore is smelted in an electric furnace with carbon as a reducing agent" and heat is required "to remove free moisture and combined water in addition to calcining and smelting".[103] As regards the processing of LGSO and limonite ore, hydrometallurgical methods such as the Caron process[104] and High Pressure Acid Leaching (HPAL) are normally used. The figure summarizes these two processing techniques.

[103] Minerals UK, "Nickel", *British Geological Survey, Natural Environment Research Council*, (September 2008), (Exhibit IDN-12), p. 8. Pyrometallurgical processes may also involve the use of sulfur, if matte is required. These processes are completed by further refining to produce ferronickel or matte.

[104] The Caron process involves "selective reduction of the ore and ammonia leaching". It is more energy intensive than HPAL "as it includes drying, calcining and reduction stages". HPAL involves "preheating the slurried ore and leaching with concentrated sulfuric acid at high temperature and pressure". The nickel is converted to "soluble sulphate salts which are recovered from the slurry in a counter-current decantation circuit (CCD). CCD involves several stages of washing the residue and recovering soluble nickel … in the liquid. The remaining acid in this liquid is neutralized using a limestone slurry, producing a gypsum precipitate. Nickel and other sulfides are precipitated in the next stage, through a reaction with injected hydrogen sulfide. This mixed metal sulfide is refined through re-leaching with oxygen at high pressure, then removing iron and copper using chemical reactions with ammonia and air, and sulfide, respectively. Anhydrious ammonia and ammonium sulphate are added to the preheated nickel solution, hydrogen is introduced under high pressure and nickel is precipitated. See Minerals UK, "Nickel", British Geological Survey, Natural Environment Research Council, (September 2008), (Exhibit IDN-12), pp. 8-9.

Figure 4: Caron and HPAL smelter processes



Source: Minerals UK, "Nickel", *British Geological Survey, Natural Environment Research Council*, (September 2008), (Exhibit IDN-12, p. 9)

2.47. At the time of the Panel's establishment, all smelter facilities in Indonesia used pyrometallurgical processes, namely RKEF. Indonesia has confirmed that the first HPAL plants in Indonesia were not yet operational at the time of this Panel's analysis. Although different sources provide different estimates on when HPAL plants would become operational, Indonesia tells the Panel that [[***]] plants will be operational starting in [[***]].[105] Indonesia expects a significant increase in the number of operational RKEF facilities in the coming years.[106] This will result in a significant increase in the number of refining facilities in the next few years.[107]

2.2.2.4 Environmental impact of nickel mining

2.48. Mining activities, in general, and nickel mining, more particularly, have an impact on the environment. As mentioned above, nickel deposits in Indonesia are mostly lateritic in nature, which requires open-cast or strip mining to extract the nickel ore.[108] This type of mining entails extensive land clearing, stripping of topsoil and overburden (rock or soil layer covering the mineral resources, which must be stockpiled) and stripping of saprolite ore, the main object of nickel mining. This results in a negative environmental impact on landscape, water resources, air quality, and emissions. Waste management is also a challenge for all the players involved in the mining business, including governments.

2.49. The main environmental impact of laterite nickel mining is land disturbance because extraction of this type of nickel requires clearing trees, plants and topsoil from the mining area. This

[105] Indonesia's response to Panel question No. 100.
[106] Indonesia's response to Panel question No. 100 (an increase of [[***]] by [[***]]).
[107] Indonesia's first written submission, para. 42. The Panel notes, nonetheless, that some exhibits on the record indicate that there may be 30 smelters in 2024 or [[***]] smelters by 2023. See MEMR, Indonesian Mining Guidance (2020), (Exhibit IDN-1), p. 143; and the Maryono Report, (Exhibit IDN-18(BCI)), p. 30, respectively.
[108] See para. 2.40 above. See also A. van der Ent, A.J.M. Baker, M.M.J. van Balgooy, A. Tjoa, "Ultramafic nickel laterites in Indonesia (Sulawesi, Halmahera): Mining, nickel hyperaccumulators and opportunities for phytomining", *Journal of Geochemical Exploration*, Vol. 128 (2013), (Exhibit IDN-4); and Clean Technica, Image of Indonesia at "Electric Vehicles: The Dirty Nickel Problem", (Exhibit IDN-66), available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021).

results in deforestation, loss of biodiversity, soil erosion and contamination, destruction of agricultural land and water pollution through sediments that are washed from the loosened topsoil when it rains.[109]

2.50. Water resources are also severely affected by nickel mining activities, both as regards its intensive use and the risk of pollution. Mineral processing requires large volumes of water from exploration to processing, which reduces water availability for other purposes.[110] Further, nickel mining can also be a source of water contamination, e.g. through acid mine drainage[111] or wastewater discharge.[112] Water pollution is particularly relevant at the processing stage, where grinding, milling and concentration methods generate toxic effluents rich in heavy metals and chemicals.[113] The marine environment is also negatively affected by mining activities because of sedimentation, wastewater discharge, and deep-sea facilities to store tailings.[114]

2.51. Waste management remains a challenge in the field of mining. Waste includes overburden, waste rock (uneconomic materials removed in ore extraction) and tailings (fine-grained materials left after separating the valuable fraction of the ore).[115] The declining quality of ore causes a considerable increase in mining waste.[116] Due to the low-nickel ore grade, almost 700 tonnes of waste rock and tailings were generated to produce one tonne of nickel in 2017, which is 30% more than in 2010.[117] Tailings storage facilities may pollute soil and waterbodies due e.g. to the leaching of waste piles.[118]

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[109] Clean Technica, Image of Indonesia at "Electric Vehicles: The Dirty Nickel Problem", (Exhibit IDN-66); available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021); Sayoga Gautama Report, (Exhibit IDN-15), p. 3; IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), pp. 209 and 211; UNESCAP, *1992 Environmental Impact Assessment, Guidelines for Mining Development*, (Exhibit IDN-62); G. Bridge, "Contested Terrain: Mining and the Environment", *Annual Review of Environment and Resource* (2004), Vol. 29, (Exhibit IDN-63), p. 5; NIWA, "Sediment and Mining" (9 March 2021), (Exhibit IDN-65); Agricultural and Environmental Policy Minutes, Formulating Policies in Addressing the Environmental Damage Due to Nickel Mine Activities in Tinanggea Sub-District, South Konawe Regency, Vol. 4 No. 2, August 2017, (Exhibit IDN-67), pp. 6-7 and 21; and Sayoga Gautama Supplemental Expert Report (17 March 2022), (Exhibit IDN-109), p. 4.

[110] Water consumption levels for nickel production are more than double in hydrometallurgy than using the pyrometallurgical method. See IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 215.

[111] Acid mine drainage results from oxygen and water coming into contact with sulfide-rich materials. These materials undergo a chemical reaction called "oxidation" that can inhibit plant growth at the surface of a waste pile. If water infiltrates into waste rock containing sulfide, water become acidified and it is a source of contamination of streams. It remains long time after the mine is closed. See IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 215; UNESCAP, *1992 Environmental Impact Assessment, Guidelines for Mining Development*, (Exhibit IDN-62); and G. Bridge, "Contested Terrain: Mining and the Environment", *Annual Review of Environment and Resource* (2004), Vol. 29, (Exhibit IDN-63), p. 213.

[112] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 209.

[113] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 215.

[114] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), pp. 40, 146, 215-216. Deep-sea tailings placement has been considered an option for Indonesia due to its high precipitation and seismic activity.; and Clean Technica, Image of Indonesia at "Electric Vehicles: The Dirty Nickel Problem", (Exhibit IDN-66), available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021). See also AEER, *Supply of Nickel Battery Industry from Indonesia and Ecological Social Issues, Action for Ecology and Emancipation of People* (December 2020), (Exhibit IDN-64) for further information on the potential environmental impact of tailings disposal into the deep sea.

[115] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 220.

[116] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 40. See also A. Dalvi, W. Bacon, R. Osborne, "The Past and the Future of Nickel Laterites", PDAC 2004 International Convention, Trade Show & Investor Exchange, 7-10 March 2004, (Exhibit IDN-19), p. 17; and UNCTAD, Lessons from Indonesia's ban on nickel exports, Background document, (Exhibit IDN-23), pp. 28-29.

[117] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 220.

[118] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), pp. 215 and 220.

2.52. Air quality is also negatively affected by particles mobilized during excavations, blasting, and ore crushing and by gaseous emissions from fuel combustion in e.g. drying and smelting operations.[119] Sulfur dioxide emissions resulting from smelting operations react with atmospheric water vapour to form sulfuric acid or "acid rain", which could harm vegetation.[120]

2.53. Another growing environmental concern related to nickel mining is the increase in carbon dioxide (CO_2) emissions.[121] Laterite nickel ore has lower concentrations of nickel than sulfide ore. Lower-grade ores require more energy to extract the valuable fraction, and to move and treat the waste fraction.[122] This energy mainly comes from burning coal. Smelting and refining laterite nickel ore releases nearly 90 tons of CO_2 for every tonne of nickel produced.[123]

3 PARTIES' REQUESTS FOR FINDINGS AND RECOMMENDATIONS

3.1. The European Union requests the Panel to find that the export prohibition of nickel ore and the DPR are inconsistent with Indonesia's obligations under Article XI:1 of the GATT 1994. The European Union further requests, pursuant to Article 19.1 of the DSU, that the Panel recommend that Indonesia bring its measures into conformity with the GATT 1994.[124]

3.2. Indonesia requests the Panel to find that (i) the European Union has failed to establish a *prima facie* case that the DPR is inconsistent with Article XI:1 of the GATT 1994, (ii) the measures at issue constitute export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of a product essential to Indonesia, within the meaning of Article XI:2(a) of the GATT 1994, and (iii) alternatively, should the Panel find that the measures at issue do not fall within the scope of Article XI:2(a) and are inconsistent with Article XI:1 of the GATT 1994, these measures are justified under Article XX(d) of the GATT 1994.[125]

4 ARGUMENTS OF THE PARTIES

4.1. The arguments of the parties are reflected in their executive summaries, provided to the Panel in accordance with paragraph 25 of the Working Procedures of the Panel (see Annexes B-1 and B-2).

5 ARGUMENTS OF THE THIRD PARTIES

5.1. The arguments of Brazil, Canada, India, Japan, Korea, Ukraine, the United Kingdom, and the United States are reflected in their executive summaries, provided in accordance with paragraph 27 of the Working Procedures of the Panel (see Annexes C-1, C-2, C-3, C-4, C-5, C-6, C-7, and C-8). China, the Russian Federation, the Kingdom of Saudi Arabia, Singapore, Chinese Taipei, Türkiye, and the United Arab Emirates did not submit written or oral arguments to the Panel.

6 INTERIM REVIEW

6.1 Introduction

6.1. The Panel issued its Interim Report to the parties on 29 August 2022. Indonesia submitted its written request to review precise aspects of the Interim Report on 12 September 2022. The

[119] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 224. See also UNCTAD, Lessons from Indonesia's ban on nickel exports, Background document, (Exhibit IDN-23), pp. 28-29.
[120] UNESCAP, *1992 Environmental Impact Assessment, Guidelines for Mining Development*, (Exhibit-IDN-62). It should be noted that modern smelters have drastically reduced particulate and sulfur dioxide emissions.
[121] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 133.
[122] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 197.
[123] Clean Technica, Image of Indonesia at "Electric Vehicles: The Dirty Nickel Problem", (Exhibit IDN-66), available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021).
[124] European Union's first written submission, para. 53.
[125] Indonesia's first written submission, paras. 230-232; second written submission, paras. 202-204.

European Union informed the Panel that it had no comments on the Interim Report. On 26 September 2022, the European Union submitted comments on Indonesia's request for review.

6.2. In addition to its written request to review precise aspects of the Interim Report, Indonesia made general comments expressing disappointment with the panel's analysis and approach to the evidence in its cover letter addressed to the Panel. The Panel declines to address these comments in the interim review as they do not pertain to precise aspects of the Interim Report as required under Article 15.2 of the DSU, but rather to Indonesia's view of the broader geopolitical context in which the dispute sits. The Panel recalls that its duty under Article 11 of the DSU is to make an objective assessment of the matter before it, and assist the DSB in making recommendations and rulings provided for in the covered agreements.[126] The Panel's assessment was based on the facts and legal argument presented to the Panel as well as an interpretation of the covered agreements consistent with customary rules of interpretation of public international law, also in light of the role of WTO dispute settlement as a central element in "providing security and predictability to the multilateral trading system".[127] The Panel is also mindful that any of the Panel's recommendations that the DSB may adopt "cannot add to or diminish the rights and obligations provided in the covered agreements".[128] To the extent that the Panel's understanding of the relevant WTO rules, reached pursuant to its obligations under the DSU, needs to be revised to take into account the concerns Indonesia has raised, the appropriate vehicle for pursuing that is negotiations. Revising the Interim Report in response to Indonesia's general comments would therefore not accord with the Panel's duties under the DSU.[129]

6.3. In accordance with Article 15.3 of the DSU, this section of the Report sets out the Panel's response to the parties' requests made at the interim review stage. In addition to the parties' requests for substantive modifications, the Panel also made minor editorial changes in the following paragraphs: 7.6, 7.10, 7.11, 7.12, 7.14, 7.22, 7.28, 7.31, 7.52, 7.54, 7.58, 7.59, 7.60, 7.62, 7.63, 7.65, 7.67, 7.74, 7.81, 7.85, 7.88, 7.89, 7.90, 7.97, 7.99, 7.101, 7.106, 7.108, 7.109, 7.118, 7.124, 7.125, 7.137, 7.138, 7.153, 7.158, 7.166, 7.168, 7.186, 7.231, 7.262 and Figures 5 and 6. The numbering of some of the paragraphs and footnotes in the Final Report has changed from the numbering in the Interim Report. If one of the paragraphs or footnotes referred to in section 6.2 below has changed, the Panel indicates the paragraph or footnote number in the Final Report as well as the original numbering in the Interim Report.

6.2 Indonesia's specific requests for review

6.2.1 Paragraph 7.17

6.4. Indonesia requests that the Panel revise paragraph 7.17 to reflect its position as summarized in paragraph 3.2 of the Panel Report, which it considers to be a more accurate and complete representation of its position.[130]

6.5. The Panel notes that paragraph 7.17 is intended to provide a brief broad summary of the parties' positions in relation to Article XI of the GATT. Nevertheless, the Panel accepts Indonesia's request and has reformulated the paragraph accordingly.

6.2.2 Paragraph 7.48

6.6. Indonesia argues that the use of the term "therefore" in the third sentence of paragraph 7.48 could lead to a misapprehension that its two separate arguments on the internal nature of the DPR and whether it has a limiting effect on exports are dependent on each other. Indonesia requests the Panel to revise paragraph 7.48 to reflect the separate nature of the two arguments.

[126] Specifically, Article 11 of the DSU provides that a panel should "make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements, and make such other findings as will assist the DSB in making the recommendations or in giving the rulings provided for in the covered agreements".
[127] Article 3.2 of the DSU.
[128] Article 3.2 of the DSU.
[129] See Panel Report, *Korea – Stainless Steel Bars*, Annex A-3, para. 1.3.
[130] Indonesia's comments on the Interim Report, paras. 3-5.

6.7. In response to Indonesia's request the Panel has re-ordered the sentences in paragraph 7.48 to start with Indonesia's argument that the DPR is an internal measure and then to note Indonesia's argument that the DPR was rendered inoperative with respect to exports by the export ban.

6.2.3 Paragraph 7.70

6.8. Indonesia requests the Panel to revise paragraph 7.70 to note that the export data referred to in paragraph 7.69 confirm its arguments that the DPR does not govern whether nickel ore can be exported rather than to be considered a separate argument.[131]

6.9. The Panel notes that Indonesia referred to the export data in response to Panel question No. 13, which asked Indonesia what would happen if the export ban were lifted and the DPR remained in force. The Panel, for this reason treated the export data as separate from Indonesia's main argument on the DPR's status in Indonesia's legal system. Indonesia called to the Panel's attention its comments on the European Union's response to Panel question No. 77 where it argues that the exports occurred because specific legal instruments, which are *lex specialis*, allowed the exports despite the DPR. In light of this, the Panel has removed the phrase "separate from the export data" from the first sentence of paragraph 7.70 and added a reference to Indonesia's comments to the European Union's response to Panel question No. 77.

6.2.4 Paragraph 7.87

6.10. Indonesia requests the Panel to better reflect its arguments on why nickel is essential to Indonesia in paragraph 7.87 while acknowledging that the paragraph is meant to provide a brief summary of its arguments.[132] In this regard, Indonesia refers to paragraphs 109-115 of its second written submission where it presented its data and arguments on why nickel was "essential" to Indonesia within the meaning of Article XI:2(a) of the GATT.[133]

6.11. The Panel accepts Indonesia's request and has modified paragraph 7.87 to elaborate Indonesia's arguments and include a reference to paragraphs 109-115 of its second written submission, in addition to paragraph 136 of its first written submission. Because these arguments were repetitive of those summarized in paragraph 7.89, the Panel has removed the references from that paragraph.

6.2.5 Paragraph 7.111

6.12. In paragraph 7.111 the Panel concludes that Indonesia does not cite any text in the current regulations that demonstrates the temporary nature or a specific timeframe of application of the measures. Indonesia argues that this is an inaccurate description of Indonesia's arguments and requests the Panel to modify the paragraph. Indonesia maintains that it has argued that it was facially evident from its regulations that Indonesia only applies export prohibitions on nickel ore for limited time periods. With respect to the DPR, Indonesia comments that it had pointed to specific provisions demonstrating that the DPR has been applied to restrict exports of nickel ore for only limited time-periods.[134]

6.13. The Panel notes that the paragraph Indonesia requests be modified occurs in the section for the analysis of the Panel and not the summary of Indonesia's arguments. In this paragraph, the Panel is not describing Indonesia's arguments but reaching a conclusion. The Panel has reviewed paragraphs 100 and 102 of Indonesia's first written submission, which Indonesia refers to in its request. The Panel does not find in these paragraphs a referral to a specific *textual* basis in current regulations that explicitly states that they are meant to be temporary, or sets out a specific timeframe in which they will be lifted, or triggering criteria for lifting them. The Panel, therefore, sees no reason to make the changes requested by Indonesia.

[131] Indonesia's comments on the Interim Report, para. 10.
[132] Indonesia's comments on the Interim Report, para. 15.
[133] Indonesia's comments on the Interim Report, para. 14.
[134] Indonesia's comments on the Interim Report, paras. 16-17.

6.2.6 Paragraphs 7.228, 7.243, 7.277 and 7.278

6.14. With respect to the reference to the National Industry Development Master Plan 2015-2035 (RIPIN), Indonesia requests the Panel not to base its finding on the RIPIN as it is not properly before the Panel. Indonesia argues that European Union's submission of the exhibit does not comport with the Panel's Working Procedures and reflects extensive paraphrasing of the original text. Alternatively, Indonesia requests that the Panel clarify the status of the RIPIN as not forming a part of the legal and policy framework of mining activities in Indonesia, but merely acting as a guideline for long-term economic development.[135]

6.15. In the European Union's view, Indonesia's argument that there were no grounds to contest the accuracy of the translation on the basis that the European Union had not submitted a complete translation is "entirely circular". The European Union requests the Panel to reject Indonesia's arguments as neither the factual accuracy of the statement in paragraph 7.228 nor the accuracy of the translation has been challenged.[136]

6.16. As noted in footnote 78, the European Union initially submitted this exhibit (Exhibit EU-17(rev)) as well as exhibits EU-16 and EU-18 in a non-official WTO language accompanied by a separate exhibit, EU-19, which contained a summary in English of the relevant provisions of all three documents. In response to the Panel's questions following the second meeting, the European Union filed a revised version of the exhibit highlighting the relevant portions of the text and including the corresponding English translations.[137] Paragraph 6(1) of the Working Procedures, contemplates the submission of translation of only relevant portions of an exhibit, rather than the entire document, into a WTO official working language if the original language of the exhibit is not a WTO official working language. The Panel, therefore, considered the issue it raised with the European Union on this exhibit resolved with the submission of the revised exhibit. Moreover, Indonesia has access to and the ability to read the full Indonesian original of the documents and decide whether the translated portions are, in its view, inaccurate or incomplete (in that other portions should have been translated as well). Per the Working Procedures, Indonesia was, therefore, required to raise its objection along with the submission of an alternative translation.[138] It did not do so. The Panel, therefore, maintains that the RIPIN contained in Exhibit EU-17(rev) is properly before it.

6.17. On the status of the RIPIN, the Panel accepts Indonesia's request to clarify that the RIPIN acts as a statement of overall goals of the Indonesian government and is not a legally binding instrument. The Panel has modified the description of the RIPIN in paragraph 2.37 to reflect this.

6.18. The Panel notes that it does not rely on the RIPIN for its findings on any issue. In paragraph 7.228 the Panel refers to the RIPIN's prediction that increasing domestic demand will require an expansion in nickel ore extraction as part of its overall analysis of whether the export ban and DPR secure compliance with Article 96(c). In paragraph 7.243, the Panel refers to the RIPIN to find additional support for its observation that the legal instruments implementing the DPR prioritize the development of industries based on natural resources and generating added value in Indonesia rather than on the objectives of Article 96(c).

6.19. In paragraphs 7.277 and 7.278, in the context of analyzing the contribution of the measures at issue towards achieving the objective within the meaning of Article XX(d), the Panel refers to the RIPIN to highlight the projection of natural resources needed for the Indonesian industry and the expected increase in demand for nickel every five years from 2015 to 2035. In this regard, the Panel notes it has not referred to the RIPIN as the sole basis for supporting its analysis but only to provide additional context. The Panel therefore declines Indonesia's request in this respect.

6.2.7 Footnote 466 (previously 448) to paragraph 7.228

6.20. Indonesia requests the Panel to delete footnote 466 (previously 448) to paragraph 7.228 where the Panel refers to Indonesia's response to the Panel's questions during the second meeting. Indonesia submits that its argument was in response to the European Union's argument that demand

[135] Indonesia's comments on the Interim Report, paras. 20-21.
[136] European Union's comments on Indonesia's comments on the Interim Report, paras. 4-7.
[137] European Union's response to Panel Question No. 125; Exhibit EU-17(rev).
[138] Working Procedures of the Panel, para. 6(2).

for stainless steel and EV batteries could be met through imports. Further, Indonesia argues that its comments were made in response to questions by the Panel on Indonesia's affirmative defence under Article XX(d) of the GATT 1994. Indonesia notes that its defence under Article XX(d) of the GATT 1994 was put forward in the alternative to its justification under Article XI:2(a) and, therefore, is premised on the assumption that the Panel had rejected its argument that there is an imminent critical shortage of nickel in Indonesia.[139] Relying on the panel report in *Dominican Republic – Import and Sale of Cigarettes*, Indonesia argues that the legal arguments presented by a party in support of a particular claim or defence should not be invoked against it in the assessment of an alternative claim or defence.

6.21. In response, the European Union observes that the Panel's citation to Indonesia's response in footnote 466 forms a part of the analysis under Article XX(d) of the GATT 1994 and that Indonesia itself acknowledges that its response was in the context of the same provision. The European Union therefore requests the Panel to reject Indonesia's request to delete the footnote.[140]

6.22. The Panel has reviewed the statements made at the second meeting. The response by Indonesia was made in the context of questions regarding Article XI:2(a) and not Article XX(d) of the GATT 1994. Moreover, the statement relates to a factual matter not one of legal argumentation. The Panel is, therefore, of the view that the reasoning of the panel in *Dominican Republic – Import and Sale of Cigarettes* is inapposite. The factual matter at issue was whether Indonesia imported nickel ore or sought to satisfy increasing demand through expansion of domestic nickel extraction. In the interest of avoiding confusion, the Panel has modified the footnote to refer to INSG, *Report on Nickel Production and Usage in Indonesia*, February 2020 (Exhibit IDN-13) with respect to the factual matter of Indonesia's imports of nickel products. The Panel has removed the quotation but maintains that Indonesia confirmed the lack of imports at the second meeting.

6.2.8 BCI issues raised by the Panel

6.23. At the same time it issued the Interim Report, the Panel noted that the parties' executive summaries of their submissions contained BCI and requested the parties to submit non-confidential versions of the same. Both parties submitted the requested non-confidential versions of their executive summaries (see Annexes B-1 and B-2).

6.24. With respect to titles of exhibits, the Panel noted that Indonesia had not specifically indicated that the titles of exhibits contained BCI and, therefore, the Panel did not intend to redact any of the exhibit titles even if the content of an exhibit might be redacted. Indonesia responded by requesting the Panel to treat the titles of two exhibits as BCI: Exhibits IDN-111 and IDN-113. Both of these exhibits contain affidavits from individuals with direct knowledge of mining activities in Indonesia. Indonesia has asked the Panel to protect the names of those individuals and maintains that the titles fulfil the definition of BCI as provided under the Additional Working Procedures concerning BCI.[141] The Panel will treat as BCI the names of the affiants in the titles of Exhibits IDN-111 and IDN-113 in the list of exhibits. The Panel will also redact the names and identifying characteristics of the affiants wherever referenced in the Panel Report (see paragraphs 7.246, 7.282, 7.284).

6.25. Indonesia agreed with the Panel that although Figure 3 of the Interim Report was taken from the Maryono Report (Exhibit IDN-18 (BCI)), it did not contain BCI and could be included in the Final Report without redaction.[142] The Panel, therefore, makes no change to the Interim Report with respect to Figure 3.

7 FINDINGS

7.1 Preliminary issue

7.1. In its first written submission, Indonesia raises a preliminary objection to the inclusion in the European Union's request for establishment of a panel the following regulations: MEMR Regulation

[139] Indonesia's comments on the Interim Report, paras. 23-26 (referring to Panel Report, *Dominican Republic – Import and Sale of Cigarettes*, paras. 7.275 and 7.277).
[140] European Union's comments on Indonesia's comments on the Interim Report, para. 9.
[141] Indonesia's comments on the Interim Report, para. 29.
[142] Indonesia's comments on the Interim Report, para. 30.

Nos. 7/2012, 11/2012, 20/2013, and 1/2014, and MOT Regulation No. 96/2019.[143] Indonesia argued that the Panel should find that MEMR Regulation Nos. 7/2012, 11/2012, 20/2013 and 1/2014 are outside its terms of reference because they were not the subject of consultations and expanded the scope and changed the essence of the dispute.[144] Indonesia requests that the Panel address its jurisdictional challenge, either as a preliminary ruling or in its report.[145] Additionally, as noted in paragraph 2.24 above, the Panel observed that the European Union mentions in its first written submission two measures adopted in 2020 – Law No. 3/2020 amending Law No. 4/2009 and MEMR Regulation No. 7/2020. Neither of these measures appears in the consultations request, which dates from 2019[146] nor in the request for establishment of a panel, which dates from early 2021.[147]

7.2. Article 7.1 of the DSU sets the parameters of the Panel's terms of reference (or jurisdiction) as being limited to the matter referred to in the request for establishment of a panel.[148] The terms of reference have two essential purposes: first, to give the parties and third parties sufficient information concerning the claims at issue in the dispute to allow them an opportunity to respond to the complainant's case; and second, to establish the jurisdiction of the panel by defining the precise claims at issue in the dispute.[149]

7.3. The requirements for the request for establishment of a panel are set out in Article 6.2 of the DSU, which requires that complaining Members note whether consultations were held and, in relevant part, identify the specific measures at issue. Article 4.4 of the DSU sets out the provisions relating to requests for consultations, and it also requires that complaining Members identify the measures at issue. A panel analyses a request for establishment of a panel for consistency with Article 6 of the DSU on a case-by-case basis looking at the request on its face and in light of the attendant circumstances.[150] Although subsequent events in panel proceedings, including submissions by a party, may assist a panel in confirming the meaning of the wording in a panel request, those events do not have the effect of curing a deficient panel request.[151]

7.4. The Appellate Body has clarified, and this Panel agrees, "that the vesting of jurisdiction in a panel is a fundamental prerequisite for a lawful panel proceeding".[152] A panel must therefore scrutinize the parties' requests for findings in their submissions and the request for establishment of a panel to ensure compliance with both the letter and spirit of the DSU.[153] In light of the fundamental requirement that a panel not exceed its mandate, the Appellate Body has confirmed that:

> [P]anels cannot simply ignore issues which go to the root of their jurisdiction – that is, to their authority to deal with and dispose of matters. Rather, panels must deal with such issues – if necessary, on their own motion – in order to satisfy themselves that they have authority to proceed.[154]

7.5. The Panel, therefore, in addition to querying the European Union about the regulations Indonesia raised in its preliminary objection, brought to the parties' attention that the

[143] Indonesia's first written submission, para. 71.
[144] Indonesia's first written submission, para. 72.
Indonesia's response to Panel question No. 21. With respect to MOT Regulation No. 96/2019 Indonesia acknowledged that it fell within the Panel's terms of reference under Articles 6.2 and 7.1 of the DSU.
[145] Indonesia's first written submission, para. 76.
[146] WT/DS592/1.
[147] WT/DS592/3.
[148] Specifically, Article 7.1 of the DSU provides that a panel's standard terms of reference shall be:
To examine, in the light of the relevant provisions in (name of the covered agreement(s) cited by the parties to the dispute), the matter referred to the DSB by (name of party) in document … and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in that/those agreement(s).
[149] Panel Report, *China – Publications and Audiovisual Products,* para. 7.27 (referring to Appellate Body Report, *Brazil – Desiccated Coconut*, p. 22, DSR 1997:I, 167 at 186).
[150] Appellate Body Report, *US – Carbon Steel*, para. 127. See also Appellate Body Report, *Korea – Dairy*, paras. 124-127.
[151] Appellate Body Report, *EC and certain member States – Large Civil Aircraft*, para. 642 (referring to Appellate Body Reports, *EC – Bananas III*, para. 143; and *US – Carbon Steel*, para. 127).
[152] Appellate Body Report, *Mexico – Corn Syrup (Article 21.5 – US)*, para. 36 (quoting Appellate Body Report, *United States – 1916 Act*, fn 32, para. 54).
[153] Appellate Body Report, *EC – Bananas III*, para. 142.
[154] Appellate Body Report, *Mexico – Corn Syrup (Article 21.5 – US)*, para. 36. See also para. 53.

European Union had referred to MEMR Regulation No. 7/2020 as a measure that implemented the DPR[155] and asked the European Union to clarify whether it sought findings with respect to this regulation in its claim against the DPR.[156] The regulation post-dates the consultations request (2019), but not the request for establishment of a panel (2021).

7.1.1 Main arguments of the parties

7.6. The European Union clarifies that its request for findings on the export prohibition is limited to the legal instruments that currently implement the measure.[157] The European Union states that it only mentioned any previously applicable instruments of Indonesia through which the export prohibition was implemented "to give the proper framework of the instruments currently in force".[158] The European Union referred to Article 66 of MEMR Regulation No. 7/2020 in its first written submission as one of the legal instruments by which the DPR is implemented.[159] In response to a request for clarification from the Panel, the European Union explained that it requests the Panel to make findings on this regulation.[160]

7.7. The Panel subsequently asked the European Union to specifically address the issue of whether MEMR Regulation No. 7/2020 was within the Panel's terms of reference even though it was not listed in either the consultations or panel request.[161] In response, the European Union noted that the regulation was not in force at the time of the consultations request.[162] The European Union contends that the DPR is described clearly in both the consultations request and the request for establishment of a panel and that the list of legal instruments implementing the DPR contained in those requests makes clear that it is not exhaustive.[163]

7.8. The European Union notes that the recitals in MEMR Regulation No. 7/2020 indicate that it is meant to adjust MEMR Regulation No. 11/2018 and serves to implement Law No. 4/2009. MEMR Regulation No. 11/2018 and Law No. 4/2009 were both listed in the consultations request while Law No. 4/2009 was listed in the request for establishment of a panel. The European Union explains, in this respect, that its request for establishment of a panel covers amendments and implementing measures or any other related measures to those contained in the request. The European Union also notes that the express language of Article 66 of MEMR Regulation No. 7/2020 is directly linked to and reinforces the DPR.[164]

7.9. Indonesia maintains that MEMR Regulations 7/2012, 11/2012, and 20/2013 clearly do not fall within the Panel's terms of reference because they expanded the temporal scope of the dispute to include measures that pre-date those that were referred to in the consultations request and changed the essence of the dispute to include measures that permitted the export of nickel ore.[165] Indonesia argues that the purpose of MEMR Regulation No. 7/2020 is not to implement any of the legal instruments the European Union identified as a specific measure at issue in its request for establishment of a panel. According to Indonesia, MEMR Regulation No. 7/2020 is not aimed at adjusting the DPR, but rather at regulating the provisions on the procedures for the granting of areas, licensing, and reporting for mineral and coal-mining business activities and is expressly linked

[155] With respect to Law No. 3/2020, the Panel notes that the law expressly amends Law No. 4/2009. Both the European Union's requests for consultations and establishment of a panel state that the requests cover the listed legal instruments as well as "any annexes thereto, notices, preliminary findings, reviews, amendments, supplements, replacements, renewals, extensions, implementing measures or any other related measures". The Appellate Body and prior panels have accepted the use of such language as an appropriate mechanism for including legal instruments that are not expressly listed within a panel's terms of reference. See Appellate Body Report, *European Communities – Bananas III*, para. 140. See also, Panel Reports, *EC – IT Products*, para. 7.140; *Japan – Film*, para. 10.8; and *China – Publications and Audiovisual Products*, para. 7.20. The Panel, therefore, saw no reason to doubt that Law No. 3/2020 is included within the Panel's terms of reference.

[156] Panel question Nos. 20 and 22.

[157] European Union's opening statement at the first meeting of the Panel, para. 6.

[158] European Union's opening statement at the first meeting of the Panel, para. 8.

[159] European Union's first written submission, para. 36.

[160] European Union's response to Panel question No. 22.

[161] Panel question No. 72.

[162] European Union's response to Panel question No. 72.

[163] European Union's response to Panel question No. 72.

[164] European Union's response to Panel question No. 72.

[165] Indonesia's response to Panel question No. 21 (referring to Appellate Body Report, *Argentina – Import Measures*, para. 5.3).

to Articles 124-126 of Law No. 4/2009, which relate to mining services efforts. Indonesia also notes that MEMR Regulation No. 11/2018, which MEMR Regulation No. 7/2020 amends, was not identified by the European Union in its request for establishment of a panel as one of the specific measures at issue that purportedly implement the DPR.[166] In Indonesia's view, the inclusion of MEMR Regulation No. 7/2020 in these proceedings would impermissibly expand the scope and change the essence of this dispute.[167]

7.1.2 Analysis by the Panel

7.10. Articles 4 and 6 of the DSU require that complaining Members identify the measures at issue in both the consultations request and request for establishment of a panel and that such measures be the subject of consultations before they can be included in a panel's terms of reference. If the European Union requests findings on a measure that was neither consulted upon nor mentioned in its request for establishment of a panel, that measure could be outside the Panel's terms of reference. At the same time panels and the Appellate Body have recognized that the situation of a dispute may change over time as a complaining Member learns more through the course of consultations or as a responding Member updates or changes its measures. Complainants are, therefore, given some flexibility with respect to their manner of compliance with the obligations in Articles 4 and 6 of the DSU so long as the respondent's due process rights are not prejudiced. Panels and the Appellate Body have recognized that respondents must receive adequate notice of the case before them and that additions to the legal instruments considered under a panel's jurisdiction should not change the essence of the nature of a dispute or expand its scope.[168]

7.11. Although identification of a measure by reference to the name and number of a particular legal instrument is the easiest way for a Member to comply with Articles 4 and 6 of the DSU, it is not required. A complainant may substantively identify a measure, e.g. by providing a narrative description of the nature of the measure so that a panel and the responding party may discern the measure from the consultations or panel request.[169] This is especially important as the concept of a measure as contained in Article 3.3 of the DSU is not to be equated with the concept of a particular legal instrument (e.g. laws or regulations). A measure for the purposes of WTO dispute settlement encompasses any act or omission attributable to a Member and may, therefore, be inclusive not only of individual legal instruments but also of actions, unwritten practices, or several instruments or actions operating together.[170]

7.12. With respect to the additional regulations Indonesia refers to, the Panel notes the European Union's clarification that it is only seeking findings and recommendations with respect to the export prohibition that was imposed in January 2014 as it is currently legally enforced – i.e. via MOT Regulation No. 96/2019 and MEMR Regulation No. 11/2019. There is no debate that these instruments are within the Panel's terms of reference. The Panel takes note of the European Union's clarification that any reference to prior instruments, including those that pre-date 2014, was to provide context for understanding the current situation and that it did not seek findings or recommendations on those legal instruments. This clarification is sufficient to ensure that the European Union's claims have not prejudiced Indonesia's due process rights, nor have they exceeded the Panel's terms of reference. The inclusion of legal instruments in the request for establishment of a panel or in written submissions that did not appear in the consultations request is not ideal. The European Union, however, is not seeking findings on these regulations. The Panel, therefore, sees no need to make a specific ruling with respect to whether they might be included in its terms of reference under the standard discussed above.

7.13. Turning to MEMR Regulation No. 7/2020, in light of the guidance from the Appellate Body and of previous panels, the Panel is of the view that it would be within the Panel's terms of reference if its content is covered by the narrative description of the DPR in the requests for consultations and establishment of a panel.

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[166] Indonesia's comments on the European Union's response to Panel question No. 72.
[167] Indonesia's comments on the European Union's response to Panel question No. 72.
[168] Panel Report, *China – Publications and Audiovisual Products*, para. 7.20 (referring to Panel Report, *EC – Bananas III*, para. 7.27; also Panel Report, *US – Carbon Steel*, para. 8.41).
[169] Appellate Body Report, *US – Continued Zeroing*, para. 168.
[170] Appellate Body Report, US – Corrosion-Resistant Steel Sunset Review, para. 81. See also Appellate Body Report, US – Softwood Lumber IV (Article 21.5 – Canada), para. 67.

7.14. In this case, the European Union identified the specific measure at issue as the DPR and provided a narrative description of the DPR in both its requests for consultations and establishment of a panel. In its consultations request, the European Union noted that exports of certain mining products, including nickel had to undergo processing and/or purification activities in Indonesia as determined by the MEMR and that minerals that have not undergone such processing and/or purification operations may not be exported.[171] In its request for establishment of a panel, the European Union noted that the DPR obliges mining companies to enhance the value of the relevant raw materials through the conduct of certain processing and/or purification operations in Indonesia before exporting them, which has "the consequence of preventing exports of the raw materials concerned unless they have been duly processed and/or purified".[172] Although the European Union provided an illustrative list of legal instruments that implement the challenged measures in both its requests for consultations and establishment of a panel, the narrative description of the measure serves to notify Indonesia of the essence and scope of the dispute irrespective of what legal instruments within Indonesia's system create the situation identified. Indonesia was adequately notified that the European Union was concerned with the Indonesian government's efforts to prohibit the exportation of nickel ore and require, instead, that it be processed or refined domestically with only the subsequent downstream products permitted to be exported.

7.15. The Panel compares the European Union's description of the DPR to the wording in Article 66 of MEMR Regulation No. 7/2020. Article 66 prohibits holders of IUP and IUPK from "sell[ing] products resulting from Mining abroad before carrying out processing and/or refineries domestically in accordance with provisions of laws and regulations…".[173] The Panel finds striking identity between the wording of Article 66 and the European Union's description of the DPR. Article 66 operates precisely as the European Union alleges the measure it refers to as the DPR operates. In the Panel's view, the European Union's requests for consultations and establishment of a panel adequately described the substantive nature of Article 66 of MEMR Regulation No. 7/2020 such that the European Union has complied with both Articles 4 and 6 of the DSU.

7.16. In light of the above, the Panel finds that Article 66 of MEMR Regulation No. 7/2020 is, therefore, within its terms of reference.

7.2 Article XI of the GATT 1994

7.17. The European Union challenges both the export ban and the DPR as being inconsistent with Article XI:1 of the GATT 1994. Indonesia, for its part, requests the Panel to find that (i) the European Union has failed to establish a *prima facie* case that the DPR is inconsistent with Article XI:1 of the GATT 1994, (ii) the measures at issue constitute export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of a product essential to Indonesia, within the meaning of Article XI:2(a) of the GATT 1994, and (iii) alternatively, should the Panel find that the measures at issue do not fall within the scope of Article XI:2(a) and are inconsistent with Article XI:1 of the GATT 1994, these measures are justified under Article XX(d) of the GATT 1994.

7.18. Article XI:1 of the GATT 1994 states:

> No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.

7.19. Article XI:1 does not permit the maintenance or imposition of prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, export licences or other measures, on the exportation or sale for export of any product destined for the territory of any other Member. Thus, to prove an inconsistency with Article XI:1, the European Union must demonstrate two elements: (i) that Indonesia's measures are a prohibition or restriction on the exportation or

[171] WT/DS592/1.
[172] WT/DS592/3.
[173] MEMR Regulation No. 7/2020 (Exhibit EU-12(b)).

sale for export of products from Indonesia, and (ii) that the prohibition is made effective through "quotas, import or export licences or other measures".[174]

7.20. Article XI:2 of the GATT 1994 excludes certain types of restrictions or prohibitions on importation and exportation from the general obligation to eliminate quantitative restrictions under Article XI:1. In particular, subparagraph (a) of Article XI:2 provides that the provisions of paragraph 1 shall not extend to:

> Export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party; …

7.21. Unlike with an affirmative defence, a respondent invoking Article XI:2(a) is not admitting to an inconsistency with Article XI:1 that is nevertheless justified, but rather maintaining that there is no obligation under Article XI:1 of the GATT 1994.[175] Although Article XI:2(a) is not an affirmative defence, prior panels have found that the burden of proof still rests on the respondent to demonstrate that the conditions of Article XI:2(a) are satisfied.[176]

7.22. To demonstrate that a measure satisfies the conditions of Article XI:2(a), Indonesia must show that its measures are export prohibitions or restrictions on foodstuffs or products that are essential to it and that are temporarily applied to prevent or relieve critical shortages. These requirements are cumulative. If a respondent fails to demonstrate one of them then exclusion from the obligations in Article XI:1 of the GATT 1994 would not apply.[177]

7.23. The Appellate Body has explained that Article XI:2(a) of the GATT 1994 "must be interpreted so as to give meaning to each of the concepts contained in that provision. At the same time, the Panel must take into account that these different concepts impart meaning to each other".[178] "For example, whether a shortage is 'critical' may be informed by how 'essential' a particular product is. In addition, the characteristics of the product as well as factors pertaining to a critical situation, may inform the duration that a measure can be maintained."[179]

7.24. The Panel notes that Indonesia formulates its arguments in a manner that treats Article XI:2(a) of the GATT 1994 more as an affirmative defence rather than an exclusion from application of Article XI:1 of the GATT 1994. Specifically, Indonesia only argues that the measures are within the scope of Article XI:2(a) of the GATT 1994 in the event that the Panel finds that the measures at issue are inconsistent with Article XI:1 of the GATT 1994.[180]

7.25. Article 12.7 of the DSU requires that the report of a panel "set out the findings of fact, *the applicability of relevant provisions* and the basic rationale behind any findings and recommendations that it makes".[181] Given the nature of Article XI:2(a) of the GATT 1994 as an exclusion from applicability of the obligations in Article XI:1 of the GATT 1994, the Panel will first determine whether Indonesia's measures satisfy all the elements of Article XI:2(a) of the GATT 1994. If the Panel finds that Article XI:1 is applicable to the measures at issue, the Panel will move on to an analysis of the European Union's claims under Article XI:1 of the GATT 1994.

7.2.1 Whether Indonesia's measures constitute prohibitions or restrictions on the export or sale for export of nickel ore

7.26. The Appellate Body explained in *China – Raw Materials* that the exemption from application of Article XI:1 of the GATT 1994 contained in Article XI:2(a) of the GATT 1994 necessarily applies

[174] Panel Report, EU – Energy Package, para. 7.243; and India – Quantitative Restrictions, para. 5.129.
[175] Appellate Body Reports, *China – Raw Materials*, para. 334.
[176] Panel Reports, *China – Raw Materials,* para. 7.213.
[177] Appellate Body Report, *Japan – Apples*, para. 176, referring to Appellate Body Report, *Japan – Agricultural Products II*, para. 89 (explaining that when requirements are clearly cumulative in nature whenever one of them is not met the measure at issue does not satisfy that provision).
[178] Appellate Body Reports, *China – Raw Materials*, para. 328.
[179] Appellate Body Reports, *China – Raw Materials*, para. 328.
[180] Indonesia's first written submission, para. 231.
[181] Article 12.7 of the DSU (emphasis added).

to the same types of measures as Article XI:1 of the GATT 1994 namely any measure prohibiting or restricting the exportation of certain goods.[182]

7.27. The term "prohibition" within the meaning of Article XI of the GATT 1994 is a "legal ban on the trade or importation of a specified commodity", whereas the term "restriction", which is broader than prohibition[183], is defined as a "thing which restricts someone or something, a limitation on action, a limiting condition or regulation".[184] The Appellate Body has considered that these terms are informed by the notion of "quantitative" in the title of Article XI:1 of the GATT 1994.[185] Accordingly, this provision "covers those prohibitions and restrictions that have a limiting effect on the quantity or amount of a product being imported or exported".[186] Thus, only those prohibitions or restrictions limiting importation or exportation fall within the scope of Article XI:1 of the GATT 1994. The complaining Member must specify how it believes a challenged measure is inconsistent with Article XI:1 of the GATT 1994 and thus must explain whether it believes the measure restricts or prohibits exportation and how it does so.

7.28. A party demonstrates whether a restriction or prohibition exists through the design, architecture and revealing structure of the measure considered in its relevant context, and not by quantifying its effects through examining trade flows.[187] While numerical or statistical data on the actual effects of a measure on trade flows is not essential to establishing an inconsistency, it may be used as evidence to inform the overall examination of whether a measure has a limiting effect within the meaning of Article XI:1 of the GATT 1994.[188] Although intent is not an element specifically referred to or required in WTO dispute settlement, evidence of an intended outcome of a policy may, similarly, be part of the relevant context a panel examines when evaluating a measure.[189]

7.29. The phrase "made effective through", which precedes the terms "quotas, import or export licences or other measures" in the provision is understood to mean that "the scope of Article XI:1 covers measures through which a prohibition or restriction is produced or becomes operative".[190] The Appellate Body has also referred to the concept of effectiveness when relating to a legal instrument or governmental measure, as "in operation at a given time" or "being 'operative', 'in force', or as having 'come into effect'".[191]

7.30. With respect to the type of measure the prohibition or restriction must be made effective through, in this dispute the European Union has referenced an export prohibition and a requirement to process or purify ore before the resulting product can be exported. Both of these measures fall within the broad category of "other measures".[192] Although the concept of "other measures" is broad, the scope of Article XI:1 is not unfettered. Article XI:2 restricts the scope of application of Article XI:1 by providing that the provisions of Article XI:1 shall not extend to the areas listed therein.[193] Similarly, certain provisions of the GATT 1994, such as Articles XII, XIV, XV, XVIII, XX,

[182] See Appellate Body Reports, *China – Raw Materials,* paras. 319-321.
[183] Panel Report, *India – Autos*, para. 7.270.
[184] Appellate Body Reports, *Argentina – Import Measures*, para. 5.217 (quoting Appellate Body Reports, *China – Raw Materials*, para. 319).
[185] Appellate Body Reports, *China – Raw Materials,* para. 320.
[186] Appellate Body Reports, *China – Raw Materials,* para. 320.
[187] Appellate Body Reports, *Argentina – Import Measures*, para. 5.217.
[188] Panel Report, Indonesia – Import Licensing Regimes, para. 7.50.
[189] Panel Report, *Mexico – Taxes on Soft Drinks*, para. 8.91. See also Appellate Body Report, *Japan – Alcoholic Beverages II*, pp. 27-28, DSR 1996:I, p. 97, at pp. 119 and Appellate Body Report, *Canada – Periodicals*, pp. 30-32, DSR 1997:1, p. 449, at pp. 475-476.
[190] Appellate Body Reports, *Argentina – Import Measures*, para. 5.218.
[191] Appellate Body Report, *US – Gasoline*, p. 20, DSR 1996:I, p. 19 (quoting The New Shorter Oxford English Dictionary on Historical Principles, L. Brown (ed.) (Clarendon Press, 1993), Vol. I, p. 786). See also Appellate Body Reports, *Argentina – Import Measures*, para. 5.218.
[192] Panel Report, *Argentina – Hides and Leather*, para. 11.17 (noting that this category includes *de facto* measures); and Panel Report, *Japan – Film*, para. 10.56; and *China – Raw Materials*, paras. 7.1005, 7.1026, and 7.1036. (other measures include those implemented or enforced by non-government actors if there is sufficient governmental involvement).
[193] Appellate Body Reports*, Argentina – Import Measures*, para. 5.219.

and XXI, permit a Member, to justify an inconsistency with the obligations under Article XI:1 if all of the conditions for that justification are satisfied.[194]

7.31. Indonesia argues that both the export prohibition and the DPR fall within the scope of Article XI:2(a) of the GATT 1994 because "[b]y its express terms, Article XI:2(a) applies in respect of 'export prohibitions or restrictions'"[195], that is, it applies to "measures which either 'legally ban' or have a 'limiting effect' on exports".[196] Indonesia submits that because both sides agree that the measures at issue restrict or limit exports that it is undisputed that they fall within the purview of Article XI:2(a).[197] At the same time, Indonesia also argues that to the extent the DPR remained in place while exports were entirely prohibited, it would be a measure affecting internal sale of nickel to be assessed under Article III:4 rather than Article XI:1.[198] Indonesia explains that its invocation of Article XI:2(a) of the GATT 1994 with respect to the DPR is contingent upon this Panel concluding that the DPR entails an export restriction under Article XI:1 of the GATT 1994. Should the Panel agree with the European Union that the DPR entails a "restriction" on the exportation of nickel ore, then Indonesia posits that this measure falls within the scope and meets the requirements of Article XI:2(a) of the GATT 1994.[199]

7.32. The Panel will, therefore, begin its analysis under Article XI of the GATT 1994 with the element in common between both Article XI:1 and Article XI:2(a) – whether the measures at issue are prohibitions or restrictions. The Panel will address each measure in turn.

7.2.1.1 The export ban

7.2.1.1.1 Main arguments of the parties and third parties

7.33. The European Union argues that Indonesia has prohibited or restricted the export of nickel ore intermittently since January 2014 and presents a selection of Indonesia's various regulations in a chronological progression since 2014 ending with MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019 that were promulgated in 2019 and entered into force on 1 January 2020. As noted in section 2.1.1 above, the European Union has clarified that its references to the various regulations prior to 2019 provide context on the export prohibition currently implemented through MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019, but it does not seek specific findings or recommendations on those legal instruments that did implement the export ban, but are no longer in force.

7.34. The European Union explains the timeline and scope of the various restrictions and prohibitions thus[200]:

[194] Appellate Body Reports, *Argentina – Import Measures*, paras. 5.220-5.221 (referring to Appellate Body Report, *Argentina – Textiles and Apparel*, para. 73). The Panel notes Indonesia has raised a defence under Article XX(d) of the GATT 1994 if the Panel were to find Indonesia's measures not within the scope of Article XI:2(a) and inconsistent with Article XI:1. The Panel will discuss this in section 7.3 below.
[195] Indonesia's first written submission, para. 89.
[196] Indonesia's first written submission, para. 90.
[197] Indonesia's first written submission, para. 91.
[198] Indonesia's first written submission, paras. 102-103.
[199] Indonesia's response to Panel question No. 14.
[200] European Union's first written submission, paras. 23-26.

Table 2: European Union's timeline of Indonesia's restrictions and prohibitions

Regulation	Provision	Scope of the restriction
MEMR Regulation No. 7/2012	Article 1 No. 6, and Article 21	Prohibition on the export of unprocessed and unrefined minerals.
MEMR Regulation No. 11/2012	Article 1 No. 1, amending MEMR Regulation No. 7/2012 by inserting a new Article 21A into MEMR Regulation No. 7/2012	Allows for the export of mineral ore subject to a "recommendation" by the minister.
MEMR Regulation No. 20/2013	Article I, amending Article 21A of MEMR Regulation No. 7/2012	Allows for the export of mineral ore until 12 January 2014, subject to obtaining an approval by the minister of trade. Approval granted if the mining permit holders submitted a plan concerning the domestic processing and/or refining of minerals. Complete prohibition on export of mineral ore as of 13 January 2014.
MEMR Regulation No. 1/2014	Article 12(1), (3) and (4)[201]	Allows for the export of certain minerals subject to compliance with DPR and approval by the minister. Any export of nickel was however specifically excluded from this possibility.
MOT Regulation No. 1/2017	Article 3, 4(a)(2), and Appendices III and IV	Unprocessed and unrefined mining products were subject to an export prohibition, unless they were mentioned in Appendix III to the Regulation. Appendix III mentions ore with a concentration of less than 1.7 % Nickel. Such ore could therefore be exported, subject to several strict conditions and notably to the condition that the exporter had built (or was building) a purifying facility. Ore with a nickel content above 1.7 % (high-value ore) however could not be exported.
MEMR Regulation No. 25/2018	Article 46(1), (2) and 50(1)	Export of ore with a nickel content of less than 1.7 % could only occur until 11 January 2022. Such exports were furthermore subject to the condition that the exporters had built (or was building) a purification facility and to approval by the minister.
MEMR Regulation No. 11/2019	Article I(1), amending MEMR Regulation No. 25/2018 by deleting the relevant reference in Article 46(1) of MEMR Regulation No. 25/2018, and Articles I(2) and II	Revokes the possibility to export low-quality ore (with a nickel content of less than 1.7%) As from the entry into force of this regulation, prior ministerial approvals for export of ore with nickel content of less than 1.7 % became invalid. It results in a total prohibition of exports of nickel ore as of 1 January 2020.
MOT Regulation No. 96/2019	Articles 3 and 27(1)	Exports of raw material or ore mentioned in Appendix IV to the Regulation is prohibited. Nickel ore is specifically mentioned in this appendix. Export approvals issued on the basis of Regulation 1/2017 become invalid.

7.35. In its substantive arguments, the European Union focuses on the plain meaning of MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019 and argues that the two measures expressly prohibit the export of nickel ore.

7.36. MEMR Regulation No. 11/2019 does not itself expressly prohibit all nickel exports, but rather amends an earlier regulation to remove an exemption from previous prohibitions that allowed for a limited possibility to export low-quality nickel ore (with content of less than 1.7%) and invalidated any pre-existing export approvals as of 1 January 2020. The European Union argues that this was

[201] Article 13 revokes MEMR Regulation No. 7/2012 as amended by MEMR Regulation No. 20/2013.

accomplished by Article 1 of MEMR Regulation No. 11/2019 deleting the relevant reference in Article 46(1) of MEMR Regulation No. 25/2018. The European Union argues, therefore, that MEMR Regulation No. 11/2019 resulted in a total prohibition on exports of nickel ore starting from 1 January 2020.[202]

7.37. The earlier-in-time regulations the European Union describes as implementing the export ban in the past are not, therefore, completely irrelevant to an understanding of the current situation. The 2019 regulations cannot be read in isolation from the 2017 and 2018 regulations as the 2019 regulations simply remove exemptions that had been granted and thus return to the *status quo ante* of a complete prohibition. Those regulations also relate back to the initial ban in January 2014. As noted in paragraph 2.12, the Panel is therefore of the view that the measure before it is the export ban. That ban is currently being implemented via MOT Regulation No. 96/2019 and MEMR Regulation No. 11/2019.[203] The Panel will, therefore, consider in its analysis of the export ban the prior legal instruments that implemented it[204], but will limit any recommendations the Panel makes to those legal instruments currently in force.[205]

7.38. Indonesia does not dispute that it currently prohibits the export of nickel ore[206] or that it has done so in some form or another since January 2014.[207] Indeed, Indonesia acknowledges that demonstrating that the measure is a prohibition or restriction within the meaning of Article XI of the GATT 1994 is a necessary element of its case that the measure is excluded from the application of Article XI:1 by virtue of its falling within the scope of Article XI:2(a).[208]

7.2.1.1.2 Analysis by the Panel

7.39. The European Union argues that the specific wording of the relevant regulations clearly and unequivocally spells out an export prohibition on nickel ore. The two regulations, MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019 contain, according to the European Union, by their very terms, a prohibition of exports. The European Union contends that by making exports illegal, the two regulations have the inherent effect of limiting exports and therefore constitute an export prohibition within the meaning of Article XI:1 of the GATT 1994.[209] As noted above, Indonesia does not dispute this.

7.40. The explicit language of the two regulations shows their design, architecture and revealing structure to be that of a prohibition on exports of nickel ore. The Panel finds relevant context in Law No. 4/2009 that created the framework for the MEMR and MOT to regulate mining in Indonesia, including nickel ore. The Panel also considers the succession of regulations limiting or prohibiting the export of nickel ore, all adopted pursuant to Law No. 4/2009, dating back to at least January 2014 as relevant context for understanding the impact of the two regulations (MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019) that are currently in force.

7.41. Considering all these elements, the Panel finds that the European Union has demonstrated, and Indonesia has admitted, that Indonesia imposes a prohibition on exports of nickel ore that is currently implemented through the operation of MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019.

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[202] European Union's first written submission, para. 24 referring to MEMR Regulation No. 11/2019 (Exhibit EU-10(b)).

[203] As noted above, if those measures were to be amended or superseded by new ones, they may well fall within the Panel's terms of reference without expanding the essence or scope of the dispute in light of how the European Union has identified the challenged measure and formulated its claim.

[204] The Panel notes, in this respect, that Indonesia itself argues that the prior instances of the imposition of the export ban are relevant to evaluating the present situation in its defence under Article XI:2(a) with respect to the temporary nature of the ban. See Indonesia's first written submission, paras. 58-59.

[205] Panel Report, *Chile – Price Band System*, para. 7.112. See also Appellate Body Report, *US – Certain EC Products*, para. 81 ("the panel erred in recommending that the DSB request the US to bring into conformity … a measure which the panel has found no longer exists").

[206] Indonesia's first written submission, paras. 56-57.

[207] See e.g. Indonesia's response to Panel question No. 13 ("This corroborates Indonesia's position that export prohibitions introduced by MEMR Regulation 1/2014 had a limiting effect on international trade in nickel ore.").

[208] Indonesia's first written submission, para. 91.

[209] European Union's first written submission, para. 47.

7.2.1.2 Domestic processing requirement

7.42. Unlike with the export ban, Indonesia disputes the European Union's assertion that the DPR is a restriction within the meaning of Article XI of the GATT 1994. Indonesia maintains that the DPR does not fall within the scope of Article XI of the GATT 1994.[210] Indonesia first argues that the scope of Article XI only extends to border measures and that the DPR is an internal measure. Indonesia next argues that the DPR does not have a limiting effect and thus cannot be a restriction within the meaning of Article XI of the GATT 1994.

7.2.1.2.1 Whether Article XI of the GATT 1994 applies to a measure such as the DPR

7.2.1.2.2 Main arguments of the parties and third parties

7.43. The European Union argues that the DPR, made effective via Law No. 4/2009 together with the implementing regulations, i.e. MEMR Regulation No. 25/2018 (and its amendments in MEMR Regulation Nos. 50/2018 and 11/2019) as well as MEMR Regulation No. 7/2020, is a restriction on the export of nickel ore from Indonesia within the meaning of Article XI:1 of the GATT 1994.[211]

7.44. The European Union identifies, in particular, Articles 102 and 103 that require holders of IUP and IUPK permits to increase the added value of mineral in mining business activities through processing and refinery for metal mineral mining commodity (Article 102)[212] and to conduct mineral processing and/or refinery of mining products domestically (Article 103).[213]

7.45. With respect to MEMR Regulation No. 25/2018, the European Union points to the following provisions as creating a restriction on the export of nickel ore from Indonesia.[214]

Table 3: Provisions of MEMR Regulation No. 25/2018 identified by the European Union

Provision	Substance
Article 1 (paras. 19-21)	19. Processing and/or refining shall mean mining business activities to improve the quality of mineral and/or coal, utilize and obtain its derived minerals. 20. Mineral processing shall mean an effort to improve the quality of mineral that produces products with the same physical and chemical characteristics as the origin mineral 21. Mineral refining shall mean an effort to improve the quality of metal minerals through an extraction process and an additional purity enhancement process resulting in products with different physical and chemical properties from the origin minerals.
Article 16	Obligation for the holders of a mining business licence to engage in processing and purification of coal and of minerals which they mine.
Article 17	Requires IUP and IUPK for operation holders and IUP for processing holders to first carry out the value added enhancement through processing and/or refining activities in accordance with the minimum thresholds of processing and/or refining as listed in Appendix I, Appendix II, and Appendix III before conducting export activities. Those minerals not listed in the Appendices may only be sold to overseas after the Minister stipulates the minimum thresholds for processing and/or refining.
Appendices I, II, III	Contain detailed descriptions for the kind of processing or purification required for different types of minerals.
Article 19	Confirms that minerals can only be sold abroad once they have been subject to the "minimum limits of processing/purification" fixed by the Regulation. These obligations exist for holders of mining business permits (Article 19(1)) as well as for "other parties" (Article 19(3)).
Chapter XV	Contains more obligations concerning purification and/or processing before minerals or coal can be exported.

Source: MEMR Regulation No. 25/2018 (Exhibit EU-9(b)).

[210] Indonesia's first written submission, para. 12. See also Indonesia's first written submission, paras. 80 and 84.
[211] European Union's first written submission, paras. 50-51.
[212] European Union's first written submission, para. 28, quoting Law No. 4/2009, as amended by Law No. 3/2020 (Exhibit EU-2(b)).
[213] European Union's first written submission, para. 29, quoting Law No. 4/2009 (Exhibit EU-1(b)).
[214] European Union's first written submission, paras. 30-35, referring to MEMR Regulation No. 25/2018 (Exhibit EU-9(b)).

7.46. With respect to MEMR Regulation No. 7/2020 the European Union argues that Article 66 of that Regulation prohibits IUP and IUPK holders from "selling products resulting from Mining abroad before carrying out processing and/or refineries domestically in accordance with provisions of laws and regulations".[215]

7.47. The European Union notes that it is only the permit holders subject to the processing obligations that can conduct mining business activities in Indonesia. Insofar as these companies are under a legal obligation to purify or process raw mining products in Indonesia prior to exporting the relevant goods, these legal obligations are, according to the European Union, designed and operate to restrict the possibility to export the unpurified and unprocessed raw mineral products and, therefore, have an inherent direct limiting effect on exports.[216]

7.48. Indonesia argues that the DPR is an internal requirement regulating the sale and processing of nickel ore, rather than a border measure regulating the "exportation …of [a] product", within the meaning of Article XI:1. Indonesia submits that, properly interpreted, Article XI:1 applies strictly to border measures that have a direct limiting effect on importation or exportation, and does not apply to internal measures.[217] Moreover, Indonesia argues that since the adoption of the export ban on 1 January 2020, the DPR requirement in MEMR Regulation No. 25/2018 neither operates as a pre-condition for the exportation of nickel ore nor restricts these exports because the exportation of nickel ore, regardless of concentration, is legally prohibited in the first place.[218] According to Indonesia, the export ban renders the DPR entirely inoperative with respect to exports.[219]

7.49. Indonesia notes that the measures in the illustrative list in Article XI:1 of the GATT 1994 – quotas, import or export licences – are all border measures in that they are triggered by, or apply by virtue of, importation or exportation rather than an internal factor behind the border – such as mining, processing, sale, or distribution.[220] Indonesia argues that this delineation is not unfamiliar and has been endorsed by the Appellate Body when seeking to define the scope of application of legal disciplines under the GATT 1994.[221] In Indonesia's view, border measures apply by virtue of the event of importation (or exportation), while internal measures apply because of an internal factor. Indonesia's position is that as Article XI:1 of the GATT 1994 only applies to border measures, the DPR, as an internal measure, is not subject to the obligations in Article XI:1 of the GATT 1994.[222]

7.50. Indonesia argues that the DPR imposes processing obligations on all mining companies regardless of whether sales are being conducted in the domestic or foreign market.[223] Indonesia acknowledges that Article 17 of MEMR Regulation No. 25/2018 proscribes the exportation of nickel ore that has not undergone processing in accordance with the DPR. Indonesia, however, takes the position that this merely enforces the DPR in respect of exports and does not transform the DPR – an internal measure regulating the sale and processing of nickel ore – into a border measure.[224]

7.51. Indonesia relies on the Appellate Body's reasoning in *China – Auto Parts* to argue that the Panel must scrutinize the design, architecture, and revealing structure of the measure as a whole to determine whether it applies by virtue of exportation or, instead, by virtue of an internal factor.[225] Indonesia argues that a proper analysis of the DPR will show that its centre of gravity is not

[215] European Union's first written submission, para. 36, quoting MEMR Regulation No. 7/2020 (Exhibit EU-12(b)).
[216] European Union's first written submission, para. 50.
[217] Indonesia's second written submission, paras. 26 and 35.
[218] Indonesia's first written submission, para. 83.
[219] Indonesia's second written submission, para. 51.
[220] Indonesia's second written submission, para. 34.
[221] Indonesia's second written submission, para. 37 (referring to Appellate Body Reports, *China – Auto Parts*, paras. 158 and 167.
[222] Indonesia's second written submission, paras. 38-39.
[223] Indonesia's second written submission, paras. 41-42 (referring to Article 102 of Law No. 4/2009 and Article 16 of MEMR Regulation No. 25/2018). See also Indonesia's opening statement at the second meeting of the panel, para. 17.
[224] Indonesia's second written submission, para. 43.
[225] Indonesia's second written submission, paras. 43 and 44 (quoting Appellate Body Reports, *China – Auto Parts*, para. 171 – where the Appellate Body stated that:

> [A] panel must identify *all* relevant characteristics of the measure, and recognize which features are the most central to that measure itself, and which are to be accorded the most significance, for purposes of …determining the discipline(s) to which it is subject under the covered agreements. (emphasis original))

exportation, but that it is an internal measure triggered by an internal factor, namely the production, sale and use of nickel ore.[226] In Indonesia's view the European Union is seeking to radically expand Article XI:1 of the GATT 1994 to prohibit non-discriminatory internal measures that are fully consistent with Article III:4 of the GATT 1994, which would be manifestly absurd and unreasonable.[227]

7.52. The European Union responds to Indonesia's arguments on the scope of Article XI:1 of the GATT 1994 by noting three relevant aspects of Article XI:1 of the GATT 1994. First, that the provision's wording is broad with no express limitation to border measures. The European Union contrasts this with other provisions of the GATT 1994 that make specific reference to *where* they apply – noting for example, that Article III:2 refers to internal taxes or internal charges. Second, that the provision refers to "sale for export", which in the European Union's view is by its very definition a business activity that will regularly occur not on the occasion of a border crossing, but before such a border crossing, i.e. internally. Third, that Article XI:1 of the GATT 1994 would not specifically exclude taxes or other charges (which can be applied internally) from its scope if it were exclusively addressing border measures.[228]

7.53. Japan disagrees with Indonesia that the DPR is subject to Article III:4 of the GATT 1994 noting that the European Union does not allege differential treatment between products imported into Indonesia and those of national origin. Furthermore, the text of the underlying measure makes clear that the DPR applies on the exportation of unprocessed nickel ore rather than on the internal sale of the product.[229]

7.54. Canada comments that the Panel should focus on the "nature of the measure" rather than on whether the measure is an internal one or one that is applied at the border. In Canada's view the DPR operates to limit the quantity or amount of product that may be exported and therefore properly falls under Article XI:1 of the GATT 1994 rather than a case covered by Article III:4 of the GATT 1994.[230] Similarly, the United Kingdom states that the analysis should focus on whether there is sufficient nexus between the relevant measures and the act of importing and exporting the relevant product and that this requirement does not mean that a measure has to be applied at the time of import (or export). [231]

7.2.1.2.3 Analysis by the Panel

7.55. Indonesia's arguments in this respect raise an interpretative question about the scope of Article XI:1 of the GATT 1994 and then a factual contention with respect to the operation of the DPR itself. Indonesia's factual contention is only relevant if the Panel accepts Indonesia's interpretation that there are strict delineations in the GATT 1994 with respect to the scope of obligations whereby some apply to internal measures and others to border measures.

7.56. In Indonesia's view, Article XI:1 of the GATT 1994 only applies to so-called border measures and the DPR is not a border measure. In Indonesia's view this means that the DPR is outside the scope of Article XI:1 of the GATT 1994.

7.57. The Panel notes that the term "border measure" appears nowhere in the GATT 1994. Members, panels, and the Appellate Body have used the parlance of internal and border measures as a technique to distinguish between the types of measures that are covered by the basic obligations in the GATT 1994 – most-favoured nation (MFN), tariff bindings, quantitative restrictions, and national treatment. In the past, a delineation between what a border measure is and what an internal measure is has been used to determine which of the obligations in the GATT 1994 would be applicable to particular measures.[232]

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[226] Indonesia's opening statement at the second meeting of the panel, para. 19.
[227] Indonesia's opening statement at the second meeting of the panel, para. 3.
[228] European Union's response to Panel question No. 78.
[229] Japan's third-party submission, paras. 13-14.
[230] Canada's third-party response to Panel question No. 1 (referring to Panel Report, *Brazil – Retreaded Tyres*, para. 7.372).
[231] United Kingdom's third-party response to Panel question No. 1.
[232] See Panel Report, *India – Autos,* paras. 7.217-7.224 (quoting GATT Panel Report, *Canada – FIRA,* para. 5.14).

7.58. Although such a technique is useful when there is potential for more than one obligation to be applicable to a particular measure, this is more likely to be the situation for measures that affect imports as Articles I, II, III, and XI of the GATT 1994 all regulate the treatment of imports from different perspectives. The GATT 1994 does not, however, require a strict separation of the concepts permitting no overlap. Article I states that the MFN obligation applies not only at the border, but also to measures covered under Article III of the GATT 1994. Moreover, the *Ad Note* to Article III of the GATT 1994 clarifies that measures may fall within the ambit of Article III, which is typically seen as being triggered by an internal event, even if they are applied at the border.

7.59. With respect to Article XI itself, there are several important elements to consider. First, Article XI:1 is an obligation to refrain from imposing quantitative restrictions, it is not a non-discrimination provision, such as Article III:4. Its coverage is not limited to imports, but also applies to measures on exportation or sale for export. The Panel also notes that the provision distinguishes between the way it refers to the obligation with respect to imports and exports. Article XI:1 of the GATT 1994 refers to measures on the importation of any product when referring to imports. When referring to exports the provision uses a similar phrase: "on the exportation" but it also adds the additional clause "or sale for export". This must be given meaning. The use of the disjunctive "or" indicates that the two concepts exportation and sale for export are not to be conflated with each other. The similarity in the term "on the exportation" with "on the importation" indicates that it is this phrase that refers to border measures while sale for export refers to something else. As the European Union notes, sales for export will often take place entirely within the territory of the exporting Member. Accepting Indonesia's reading that Article XI:1 of the GATT 1994 only applies to measures that regulate action at the border would, therefore, render the term "or sale for export" inutile.[233]

7.60. The Panel agrees with Indonesia that the panel and Appellate Body reports in *China – Auto Parts* provide useful guidance in this respect. That panel examined the underlying purpose and centre of gravity of the measures rather than how the respondent classified or fashioned the challenged measure. In that case, the panel and Appellate Body found that a measure that purported to be a customs duty was really an internal measure subject to Article III:4 of the GATT 1994 (and not Article II:1) because the additional duties charged were triggered by the internal use of the imported auto parts. In the instant case the Panel has the converse situation – the measure applies to domestic actors but operates to prevent the sale of nickel ore for export.

7.61. By their very nature measures governing exports will be addressed to domestic actors and not to foreign actors or products. Indeed, Indonesia has cited its inability to exercise jurisdiction over foreign purchasers as one of the reasons why the export prohibition is necessary to secure compliance with Indonesia's sustainable mining and mineral resource management requirements.[234] Measures on exportation or the sale for export may be addressed to the producers of a product that only that Member produces or that faces no import competition.[235] Indonesia's argument that the measure applies to all domestic producers regardless of whether they intend to sell on the domestic or foreign market is, however, tautological as what the measure does is require sales in the domestic market. The fact, therefore, that the measure addresses domestic actors does not remove it from the scope of Article XI:1 of the GATT 1994. If this alone were sufficient to make a measure fall outside the scope of Article XI:1 of the GATT 1994 the entire obligation to avoid export restraints could be rendered inutile. This is so, particularly in the case of products where a country exports but does not import, which could often be the case with natural resources.

7.62. Indonesia acknowledges that the DPR is "triggered" by the production and sale of nickel ore.[236] Indonesia also acknowledges that miners of raw unprocessed nickel ore are not permitted to sell

[233] Panel Report, *India – Autos*, para. 7.222 (noting that the principle of effective treaty interpretation applies to prevent reducing any provision to inutility).

[234] Indonesia's second written submission, paras. 174-175.

[235] The Panel recalls that Indonesia initially argued that the DPR would fall to be assessed under Article III:4 of the GATT 1994. This, however, would be impossible as Article III:4 applies to situations of competition between imports and a domestic like product. As Indonesia itself noted during the second meeting of the Panel it would be absurd to expect that Indonesia would be importing nickel ore. In essence, therefore, the present case is not like the ones in *India – Autos* or *China – Auto Parts* where a panel is faced with the question of whether one or the other provision of the GATT 1994 regulates a measure. The question is whether the measure is covered by Article XI:1 of the GATT 1994 or not at all.

[236] Indonesia's response to Panel question No. 78.

their ore for export, turning domestic refineries into the only potential buyers.[237] Indonesia also acknowledges that the refining process, which must take place domestically, transforms the nickel ore into another product and it is only these products that can be exported.[238] This means that, if miners and producers fully adhere to the DPR, no nickel ore exists in Indonesia to be exported. The DPR thus prevents sale for export of raw unrefined nickel ore. The centre of gravity of the measure is precisely who the ore can be sold to. This is confirmed by Indonesia's response to the Panel's question as to how the DPR contributes to preventing the depletion of nickel ore reserves. Indonesia explains that one way the DPR prevents depletion of nickel ore reserves is by limiting extraction to the installed capacity of domestic smelters and "entirely eliminat[ing] from the market extraction that is not in conformity with Indonesia's sustainable mining and mineral resource management requirements".[239] Indonesia goes on to explain that mines that cannot comply with the requirements to sell to domestic smelters and were previously export-oriented are giving up their licences.[240]

7.63. Indonesia urges the Panel to find that the export ban renders the DPR irrelevant with respect to exports. If the Panel agreed with Indonesia in this regard and, at the same time, also found that the export ban is (a) not covered by Article XI:2(a) of the GATT 1994, (b) inconsistent with Article XI:1 of the GATT 1994, and (c) not justified under Article XX(d) of the GATT 1994, the Panel would recommend that Indonesia remove the export ban. Indonesia could comply. In such a scenario the DPR would then spring back into effect. The European Union would have undertaken lengthy dispute settlement proceedings yet still be left with the DPR in place and needing to once again pursue dispute settlement to obtain findings with respect to the consistency of a measure it had sought consultations on in 2019. The Panel does not believe such a situation would constitute prompt settlement of the dispute. The Panel agrees, therefore, with the United States and the United Kingdom that for the European Union to seek a ruling on the DPR, the DPR does not have to *currently* be creating a limiting effect.

7.64. The Panel notes that the DPR was first referred to in Law No. 4/2009 and the European Union requested consultations on this measure in 2019 before the new export bans took effect on 1 January 2020. Nevertheless, with respect to Indonesia's arguments it is important to recall that Members may bring to WTO dispute settlement measures that have not yet been implemented as well as those that have expired or are no longer in force.[241] Indonesia's argument that the DPR neither operates as a pre-condition for the exportation of nickel ore nor restricts exports because the exportation of nickel ore is prohibited contradicts these well-understood principles of WTO law. Accepting Indonesia's argument would mean that a Member could avoid a finding of non-compliance with respect to one measure by adopting another measure that it freely admits is inconsistent with Article XI:1, to pre-empt the effects of the first measure. Such an approach could thwart the principle of prompt settlement of disputes between Members set out in Article 3.3 of the DSU.

[237] Indonesia's second written submission, paras, 174-175 and Indonesia's response to Panel question No. 45(c). See also Indonesia's response to Panel question No. 79 ("The domestic processing requirement simply imposes processing obligations on all mining companies in Indonesia, regardless of whether sales are being conducted in the domestic or foreign market.").

[238] Indonesia's response to Panel question No. 66(c).

[239] Indonesia's response to Panel question No. 75(b).

[240] Indonesia's response to Panel question No. 75(b).

[241] If the Panel were to find that the DPR is no longer in force it might be limited in the recommendation it could make pursuant to Article 19 of the DSU with respect to compliance, but it would not be precluded from making findings as to the consistency of the DPR with Indonesia's WTO obligations. See e.g. Panel Report, *Chile – Price Band System*, paras. 7.112 and 7.124 where the panel refrained from making a recommendation to the respondent under Article 19 of the DSU to bring into conformity a measure that was no longer in existence but concluded that nothing precluded it from making *findings* on such a measure. See also GATT Panel Report, *US — Superfund*, para. 5.2.2; Panel Report, *US — Poultry (China)*, para. 7.56; and Appellate Body Reports, *EC – Bananas III (Article 21.5 – Ecuador II) / EC – Bananas III (Article 21.5 – US)*, para. 270. In *US — Superfund,* the GATT panel found that Articles III and XI of the GATT 1947 also purport to create the predictability needed to plan future trade. The panel noted that the coming into force of the tax at issue at the beginning of the second year following that of the dispute was a timeframe within which the trade and investment decisions that could be influenced by the tax would be taken. The panel in *US — Poultry (China)* proceeded to make findings on the WTO consistency of an expired measure while also recognizing that it would not be appropriate to make recommendations with respect such measures. In *EC – Bananas III (Article 21.5 – Ecuador II)) / EC – Bananas III (Article 21.5 – US)*, the Appellate Body considered that it is "within the discretion of the panel to decide how it takes into account subsequent modifications or a repeal of the measure at issue… depending on the particularities of the disputes before them".

7.65. As noted in section 2.1.2 above, the DPR requires the IUP and IUPK permit holders to purify (i.e. refine) nickel ore domestically. Indonesia has explained that the Appendix I to MEMR Regulation No. 25/2018 only contains information with respect to purification of nickel ore, rather than processing, because nickel ore cannot undergo minimal processing and must be purified or refined.[242] Indonesia also clarified that the products that result after the required purification or refining are no longer nickel ore, but would be such products as nickel mate, ferro nickel, nickel pig iron, or mix hydroxide precipitate, or mix sulfide precipitate, which fall under different HS codes than nickel ore.[243] Although the DPR does not explicitly prohibit export of nickel ore in the same manner as the regulations that implement the export ban, it creates a situation whereby only refined nickel products will be available for export. By its very nature, such a measure limits exports on nickel ore.

7.66. The DPR regulates the sale of nickel ore and operates to create a situation where there is no nickel ore available for exporters to sell abroad. The only products available for export are downstream ones such as ferro nickel, nickel pig iron and nickel matte.[244] The Panel concludes, therefore, that the DPR is a measure on the sale for export within the meaning of Article XI:1 of the GATT 1994 and is subject to the obligations therein.

7.2.1.3 Whether the DPR has a limiting effect on exports

7.2.1.3.1 Main arguments of the parties and third parties

7.67. As noted above, the European Union argues that the DPR is designed and operates so as to restrict the possibility to export the unpurified and unprocessed raw mineral products and, therefore, has an inherent direct limiting effect on exports.[245]

7.68. Indonesia argues that even if the Panel were to consider that the DPR falls within the scope of Article XI:1 of the GATT 1994, the European Union failed to make a *prima facie* case of inconsistency with Article XI:1 of the GATT 1994 because it did not demonstrate that the DPR has a limiting effect on nickel ore trade that is fully attributable to that measure separate and apart from the limiting effect of the export ban.[246] Indonesia contends that because the export prohibition in MEMR Regulation No. 11/2019 totally prohibits exports of nickel ore as of 1 January 2020, there is simply no circumstance in which the DPR can currently have any limiting effect on nickel ore exports.[247]

7.69. Indonesia argues that the facts demonstrate that even without the export ban, the DPR would have no limiting effect on exports of nickel ore.[248] Indonesia supports its argument by pointing to evidence from when the export ban was not in place (first from 12 January 2009 to 12 January 2014 and second from 11 January 2017 to 31 December 2019).[249] According to Indonesia, in the first period of suspension of the export ban exports of unprocessed nickel ore increased five-fold from 10 million wet metric tonnes in 2009 to 52 million tonnes in 2013, and in the second period more than six times from 4.9 million wet metric tonnes in 2017 to 30.2 million wet metric tonnes in 2019.[250] In Indonesia's view, while trade effects are not required to demonstrate a limiting effect they cannot be ignored when they disprove one. According to Indonesia, the European Union is effectively asking the Panel "to set aside empirical export data in favour of conjecture to conclude that a non-discriminatory internal regulation is a prohibited quantitative restriction under Article XI:1".[251]

7.70. Indonesia argues that the DPR cannot directly restrict exports, because it does not govern whether nickel ore can be exported. Under Indonesian law, the authorization or prohibition to export nickel ore or any other raw minerals is implemented through specific legal provisions that are distinct

[242] Indonesia's response to Panel question No. 66(a).
[243] Indonesia's response to Panel question Nos. 12 and 66.
[244] Indonesia's response to Panel question No. 66.
[245] European Union's first written submission, para. 50. (fns omitted)
[246] Indonesia's first written submission, para. 12. See also Indonesia's first written submission, paras. 80 and 84 and Indonesia's second written submission, para. 27.
[247] Indonesia's second written submission, para. 52.
[248] Indonesia's response to Panel question No. 13.
[249] Indonesia's second written submission, paras. 52-54; and response to Panel question No. 13.
[250] Indonesia's response to Panel question No. 13 referring to MEMR, Excel of "Production and Sales of Nickel Ore from 2010-2020", (Exhibit IDN-24).
[251] Indonesia's opening statement at the second meeting of the Panel, para. 4.

from, and apply regardless of, any DPR. Indonesia argues that the legal provisions specifically governing the exportation of nickel ore are *lex specialis* to the general requirement to conduct minimum processing activities in Indonesia.[252] Indonesia points to the export data as confirming that Indonesia's legal regime permits exports separately from the DPR.[253] The European Union, for its part, argues that "[i]t is immaterial for the application of Art. XI:1 of the GATT 1994 how the national law in question calls and categorizes the national measure in question" what matters is whether an objective assessment of the matter revealed that the measure prohibited or restricted exports.[254] The European Union compares the relevant provisions in MEMR Regulation No. 25/2018 (Articles 16, 17, and 46) and concludes that Indonesia's argument that the DPR does not regulate exports at all cannot be sustained.[255]

7.71. Japan, Korea, the United Kingdom, and the United States contend that it is not necessary for a complainant to demonstrate that an export restriction or prohibition has actual trade effects. The Panel could find a violation of Article XI:1 if the DPR were to constitute a limitation on action or exports without the need to show that it has caused an actual decrease in exports.[256] Ukraine, for its part, argues that a complainant cannot simply state its claims; it should demonstrate what the measures do in terms of their effect on trade.[257]

7.72. The United States notes that the Panel is not prevented from finding that a measure breaches Article XI:1 simply because there exists another measure that may also prohibit or restrict exportation and submits that Indonesia's export ban does not prevent the Panel from evaluating the domestic processing requirement under Article XI:1.[258] The United Kingdom notes that, although the export ban deprived the DPR of practical effect, it does not appear to have changed the nature of the DPR or its nexus with the exportation of the product at issue.[259]

7.73. Canada and the United Kingdom contend that the issue is the nexus between the relevant measure and its effect on the quantity of exports of a particular product. In times when exports are permitted, they nevertheless cannot take place unless the DPR has been satisfied. This means that the act of exportation is dependent on compliance with the DPR.

7.2.1.3.2 Analysis by the Panel

7.74. As noted above[260], not all restrictions on exportation or sale for export would be inconsistent with Article XI:1 of the GATT 1994. Rather, it would only be those that have a limiting effect on the quantity of exports. Panels determine consistency with Article XI:1 based on the design, architecture and revealing structure of the measure considered in its relevant context.[261] Data on trade flows may serve to illustrate or confirm a conclusion on the limiting effect or lack thereof of a particular measure[262] but is not dispositive of whether a measure is a restriction on export or sale for export within the meaning of Article XI:1 of the GATT 1994. In this context, it is important to recall that a measure may be challenged based on its *de jure* nature and its past or potential limiting effect, even if it is not currently having an effect.

7.75. The DPR by its very nature requires nickel ore to be sold to domestic processors who then transform it into something other than nickel ore. This necessarily means that if mines and refineries comply with the DPR there will be no nickel ore available to be sold for export. The European Union has presented a *prima facie* case that the DPR creates a *de jure* restriction on the export of nickel ore even in times when there is no export ban in effect.

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[252] Indonesia's opening statement at the second meeting of the Panel, para. 29; and response to Panel questions No. 73; No. 74(c).
[253] Indonesia's comments on European Union's reply to Panel question No. 77.
[254] European Union's comments on Indonesia's reply to Panel question No. 74.
[255] European Union's comments on Indonesia's reply to Panel question No. 74.
[256] Japan's third-party submission, para. 10; Korea's third-party submission, para. 12; United Kingdom's third-party submission, paras. 4-6; United States' third-party submission, paras. 12-13.
[257] Ukraine's third-party submission, para. 9.
[258] United States' third-party response to Panel question No. 1.
[259] United Kingdom's third-party response to Panel question No. 1.
[260] See para. 7.27 above.
[261] Appellate Body Reports, *Argentina – Import Measures*, para. 5.217.
[262] Panel Report, Indonesia – Import Licensing Regimes, para. 7.132.

7.76. In seeking to rebut the European Union's *prima facie* case, Indonesia argues that the entirety of the limiting effect is attributable to the export ban and not the DPR. In support of its argument Indonesia points to export data for periods when Indonesia claims export was permitted, but the DPR was nevertheless in effect. Indonesia also argues that the DPR cannot have a limiting effect on exports because in Indonesia's legal system it is the MOT, not the MEMR, that can authorize or prohibit exportation.

7.77. Indonesia provides data that shows increasing exports of nickel ore in the periods when it claims the export ban was "lifted" and the DPR remained in force to argue that the DPR has no limiting effect on exports separate and apart from the export ban itself. The Panel notes, however, that the relaxation of the ban in the relevant periods only related to low-grade ore.[263] The prohibition on export of high-grade ore remained throughout. The data, therefore, does not demonstrate what would happen if the two measures – the export ban and the DPR – were not in place simultaneously.

7.78. With respect to the data itself, the Panel notes that it is presented as absolute volumes of export data. Limiting effects can be demonstrated not only by a reduction in absolute numbers, but also through suppression of increases or reduction in market share.[264] The Panel also notes that Indonesia itself reports a current imbalance between supply and demand as well as predicting an exploding demand for nickel ore.[265]

7.79. The Panel notes that these exports would have been taking place pursuant to separate regulatory provisions (MEMR Regulation Nos. 20/2013, then 1/2014, then 25/2018 and MOT Regulation No. 1/2017), which allowed exportation of low-grade ore upon approval by the Minister of Trade if certain conditions were met – most notably the building of refining facilities.[266] The creation of limited opportunities to export through special application to the Minister of Trade does not cancel out the overall design, architecture, revealing structure, and effect of the DPR.

7.80. In light of the above, the Panel concludes that Indonesia's export data has not rebutted the *prima facie* case that the DPR has a limiting effect by its very nature.

7.81. Indonesia also argues that the DPR cannot have a limiting effect on exports because of where it is situated within the domestic legal regime of Indonesia. Indonesia explains that the DPR was issued by the MEMR and only the MOT has the authority to permit or prohibit exports. The Panel notes that how a measure is characterized by the respondent within its own legal regime is not dispositive on how that measure will be considered by a panel or the Appellate Body.[267] The Panel also notes that measures can have the effect of restricting exports without taking the form of an express export prohibition. Nothing in the WTO agreements states that government measures that restrict exportation are limited to only those that do so explicitly and pursuant to a specific governmental authority.

7.82. The DPR is set out in Article 103 of Law No. 4/2009 and has been implemented over time through a variety of regulations, most recently MEMR Regulation No. 25/2018, which explicitly restricts the ability of holders of IUP/IUPK for Production Operation and IUP for Production Operation specifically for the processing and/or purification of metallic Mineral, nonmetallic Mineral, or rocks to sell nickel ore abroad.[268] Other MEMR regulations state that they permit or prohibit exports or provide an exception to an existing prohibition if the exporter gets permission from the minister of

[263] The Panel asked Indonesia to provide export data for both low-grade and high-grade ore (see Panel question No. 17(a)). Indonesia's reply did not make such a distinction. When asked whether the data represented only low-grade ore, Indonesia indicated that not all of the exports were of low-grade ore, but also noted that "[u]pon the relaxation of the export prohibition, a large amount of low-grade ore was exported." See Indonesia's response to Panel question No. 76. Indonesia also noted in its first written submission that the purity of the nickel exported by one major Indonesian concern to China in 2019 averaged [[***]]. See Indonesia's first written submission, para. 48.

[264] Appellate Body Report, US – Large Civil Aircraft (2nd complaint) para. 1006.

[265] Indonesia's second written submission, para. 88.

[266] Indonesia's response to Panel question No. 74(c), referring to MOT, Excel of "Approved Export Applications", Exhibit IDN-123 (BCI). [[***]] "Between 2017-2019, MOT did not reject any export approval application, which fulfilled all statutory requirements".

[267] Appellate Body Report, US – Large Civil Aircraft (2nd complaint), para. 593.

[268] Article 19 of MEMR Regulation No. 25/2018 also refers to holders of IUP for Production Operation specifically for transportation and sales.

trade and demonstrates that they are building refining facilities.[269] The MEMR has issued multiple regulations referring to and regulating the sales abroad of nickel ore, the Panel therefore must presume it has the competence to do so. The Panel also notes that, in the context of the export ban, Indonesia has not argued that MEMR Regulation No. 11/2019 cannot serve as the basis of a claim for violation of Article XI:1 because it was issued by the MEMR and not the MOT.

7.83. The Panel finds, therefore, that the fact that DPR is administered by the MEMR and not the MOT and is addressed to mining companies and refineries and not to exporters is not enough to conclude that it does not have a limiting effect on exports.

7.84. In sum, the European Union has demonstrated that the design, architecture, and revealing structure of the DPR establish that by its very nature it has a limiting effect on exports. As such, the European Union has established a *prima facie* case that the DPR is inconsistent with Article XI:1 of the GATT 1994, which Indonesia has not rebutted.

7.2.1.4 Conclusion on whether the DPR is a restriction within the meaning of Article XI:1 of the GATT 1994

7.85. The Panel finds that the text of Article XI:1 of the GATT 1994 plainly includes measures relating to the "sale for export". The Panel finds that the DPR falls within the scope of Article XI:1 of the GATT 1994 because it is a restriction on the sale for export of nickel ore, which has a limiting effect on exports by its very nature. The Panel, therefore, finds that the DPR is subject to the obligation in Article XI:1 of the GATT 1994 and eligible for the exclusion from that obligation contained in Article XI:2(a) of the GATT 1994 if the other elements of that provision are satisfied.

7.2.2 Whether nickel ore is essential to Indonesia within the meaning of Article XI:2(a) of the GATT 1994

7.86. As noted above, to fall within the scope of Article XI:2(a) and thus not fall within the obligation in Article XI:1 the prohibitions or restrictions must be on foodstuffs or other essential products to the responding Member. The Panel will, therefore, now move to a determination of whether nickel ore is essential to Indonesia.[270]

7.2.2.1 Main arguments of the parties and third parties

7.87. Indonesia identifies three main reasons why nickel is essential to it. First, the importance of mining for the Indonesian economy, accounting for a substantial portion of its GDP. In this regard, Indonesia notes that Indonesia is a top nickel producer in the world accounting for 7% of global output, and nickel mining contributes significantly to government revenue and to employment[271] while being of particular economic and strategic significance in the impoverished regions where it is produced, such as Sulawesi and Maluku.[272] Second, Indonesia argues that nickel is an indispensable input for the steel industry which accounts for 3.94% of total industrial GDP. Indonesia notes that the domestic steel industry is not able to meet demand and that nearly half of Indonesia's demand for steel is supplied from abroad.[273] Third, Indonesia points to the implementation of a strategic plan

[269] MEMR Regulation Nos. 20/2013, 1/2014, and 11/2019. The Panel is not finding that these regulations are part of the current iteration of the DPR nor is the Panel making findings on their consistency with Indonesia's obligations under the GATT 1994, the Panel is simply noting a factual pattern in Indonesian regulations issued by the MEMR and governing nickel ore (among other minerals).

[270] The Panel notes that the panel in *China – Raw Materials*, followed a similar order of analysis first determining whether the measures were prohibitions or restrictions, then whether they related to an essential product, and then moving on to the other elements of Article XI:2(a). See Panel Reports, *China – Raw Materials,* section D.1.b.

[271] Indonesia's first written submission, para. 136; Indonesia's second written submission, paras. 109-115.

[272] Indonesia's second written submission, para. 100.

[273] Indonesia's first written submission, para. 137 referring to (Bank Indonesia, "Gross Domestic Product by Industrial Origin at Current Prices", Indonesian Economic and Financial Statistics (2021), 226-227, Exhibit IDN-50.) The Panel notes that Indonesia refers here to the share of *industrial* GDP and not total GDP represented by the steel industry.

to expand EV battery production in Indonesia in the short term, which results in a need to secure a critical input for such production, i.e. nickel.[274]

7.88. In support of its argument, Indonesia notes that the panel in *China – Raw Materials* recognized refractory-grade bauxite as "essential" to China because it was an input into steel making and the relevant importance of that sector to China's economy.[275]

7.89. Indonesia argues that its case that nickel is "essential" to Indonesia within the meaning of Article XI:2(a) of the GATT 1994 has not been successfully rebutted by the European Union.

7.90. The European Union argues that merely being the source of primary economic activity in a region or a Member is not enough to qualify a product as essential within the meaning of Article XI:2(a) of the GATT 1994. The European Union contends that one must interpret the types of products covered by the provision by reference to the express inclusion of "foodstuffs" in Article XI:2(a). In the European Union's view, which it argues the Appellate Body agrees with, "other products essential to the contracting party" must be similar in kind to foodstuffs and thus must address the essential needs of the population.[276] According to the European Union, a product that has great economic importance in terms of providing employment or government revenue may not be "essential" if it does not address a particular vital need of the population.[277] In the European Union's view these types of products would be more or less the same across all Members, with some differentiation for local dietary customs or climate differences.[278] The European Union argues that accepting Indonesia's interpretation would lead to an overly broad interpretation of Article XI:2(a) of the GATT 1994, which would have the consequence of eviscerating the obligation in Article XI:1 of the GATT 1994.

7.91. Canada suggests that the Panel's consideration of whether nickel production is essential requires it to examine data regarding nickel production capacity in recent years and compare that data with data regarding domestic demand over the same period, as well as assessing the contribution of nickel ore as a sector of production to the Indonesian economy.[279]

7.92. With respect to whether Article XI:2(a) of the GATT 1994 is available for the imposition of measures to ensure supply for a domestic industry, Korea, refers to a GATT Working Party report in which the Working Party confirmed that the GATT 1994 "does not permit the imposition of restriction upon the export of a raw material in order to protect or promote a domestic industry".[280] The United Kingdom comments that "access to domestic supplies of input products is not, in and of itself, 'essential' to the development of a domestic industry"[281] and that one should look at whether imported inputs could satisfy the need of the domestic industry without requiring an export restraint. Japan and the United States accept the possibility that securing inputs for a domestic industry could be allowed under Article XI:2(a). Japan, argues that a Member using this line of argument would be required to explain why the development of that particular industry is absolutely necessary or indispensable to meet the basic needs of the population of that Member, and thus why an input product in that particular industry is "essential" to the Member.[282] For its part, the United States argues that a product that is an input product for an industry that a Member wishes to develop "can be a supporting factor for the product's 'essentialness' to the Member".[283]

7.2.2.2 Analysis by the Panel

7.93. The term "essential" is defined as "[a]bsolutely indispensable or necessary".[284] Accordingly, Article XI:2(a) refers to critical shortages of foodstuffs or otherwise absolutely indispensable or necessary products. By including, in particular, the word "foodstuffs", Article XI:2(a) provides a

[274] Indonesia's first written submission, para. 138; Indonesia's second written submission, para. 100.
[275] Indonesia's first written submission, para. 135.
[276] European Union's second written submission, paras. 129-131; European Union's response to Panel question No. 29.
[277] European Union's second written submission, para. 132.
[278] European Union's response to Panel question Nos. 29 and 31.
[279] Canada's third-party response to Panel question No. 4.
[280] Korea's third-party response to Panel question, No. 4.
[281] United Kingdom's third-party response to Panel question No. 4.
[282] Japan's third-party response to Panel question No. 4.
[283] United States' third-party response to Panel question No. 4.
[284] Appellate Body Reports, *China – Raw Materials,* para. 326.

measure of what might be considered a product essential to the contracting party, but it does not limit the scope of other essential products to only foodstuffs.

7.94. This Panel agrees with the panel in *China – Raw Materials* that "[t]he phrase 'to the exporting' Member appears to have been added to the initial draft of Article XI:2(a) to clarify that 'the importance of any product should be judged in relation to the particular country concerned'".[285] This does not mean that a Member may simply assert that a product is essential to it.[286] It does mean, however, that the types of products that are essential may vary from Member to Member. A determination whether a product is essential should thus be focused on the particular circumstances faced by the responding Member at a time when that Member applies a restriction or prohibition under Article XI:2(a) of the GATT 1994.[287]

7.95. The Panel also agrees with the panel in *China – Raw Materials* that the definition of essential product within the meaning of Article XI:2(a) of the GATT 1994 "may include a product that is an 'input' to an important product or industry".[288] Like the Appellate Body, the Panel does not exclude that a measure falling within the ambit of Article XI:2(a) could relate to an exhaustible natural resource.[289]

7.96. Applying this understanding to the facts of this case, the Panel recalls that Indonesia has described low-grade nickel ore as waste and over burden and not economically viable. The Panel, therefore, concludes that Indonesia has not demonstrated that low-grade nickel ore is currently an essential product to Indonesia.

7.97. With respect to high-grade ore, Indonesia has based its argumentation on the fact that the product is essential to the economies of two regions – Maluku and Sulawesi – and in three industries: nickel mining, stainless steel, and EV batteries.[290] Indonesia indicates that in 2020, nickel mining accounted for 27% of the Gross Regional Domestic Product (GRDP) in Southeast Sulawesi, 41% of the GRDP in Central Sulawesi, and 23% of the GRDP in North Maluku.[291]

7.98. The Panel asked Indonesia to provide information on employment and revenue in the three areas Indonesia identified that nickel ore was essential to: nickel mining, stainless steel, and EV batteries. Indonesia submitted the following data with respect to the nickel mining and stainless steel industries[292]:

[285] Panel Reports, *China – Raw Materials*, para. 7.275 (quoting UN Economic and Social Council, Second Session of the Preparatory Committee of the United Nations Conference on Trade and Employment. Commission A: Report of Sub-Committee on Articles 25 and 27 E/PC/T/141 (1 August 1947)).

[286] Panel Reports, *China – Raw Materials*, para. 7.345.

[287] Panel Reports, *China – Raw Materials*, para. 7.276.

[288] Panel Reports, *China – Raw Materials,* para. 7.282.

[289] Appellate Body Reports, *China – Raw Materials*, para. 337.

[290] Indonesia's second written submission, para. 100, referring to Indonesia's response to Panel question No. 39(a); B. Devi, D. Prayogo, "Mining and Development in Indonesia: An Overview of the Regulatory Framework and Policies", International Mining for Development Centre: Action Research Report, (March 2013), (Exhibit IDN-5), p. 11; and Nikkei Asia, Automobiles "Indonesia's electric car dreams at odds with deforestation pledge", available at: https://asia.nikkei.com/Business/Automobiles/Indonesia-s-electric-car-dreams-at-odds-with-deforestation-pledge (last accessed 21 January 2022), (Exhibit IDN-99).

[291] BPS, Excel of "GRDP of South Sulawesi, Central Sulawesi and North Maluku" (Exhibit IDN-100).

[292] Indonesia's response to Panel question No. 101 (contains BCI). The Panel notes that Indonesia provided the data with respect to nickel mining in percentages whereas it presented the data on the stainless steel industry in decimals. The Panel has adjusted the data on the stainless steel industry so that they are comparable with that for nickel mining.

NICKEL MINING INDUSTRY (NICKEL MINING + SMELTER)				
Year	**% of Indonesia's GDP**	**Total # of employees**	**% of total employment**	**% of government revenue**
2012	[[***	***	***	***
2013	***	***	***	***
2014	***	***	***	***
2015	***	***	***	***
2016	***	***	***	***
2017	***	***	***	***
2018	***	***	***	***
2019	***	***	***	***
2020	***	***	***	***
2021	***	***	***	***]]

STAINLESS STEEL INDUSTRY				
Year	**% of Indonesia's GDP**	**Total # of employees**	**% of total employment**	**% of government revenue**
2012	[[***	***	***	***
2013	***	***	***	***
2014	***	***	***	***
2015	***	***	***	***
2016	***	***	***	***
2017	***	***	***	***
2018	***	***	***	***
2019	***	***	***	***
2020	***	***	***	***
2021	***	***	***	***]]

7.99. The data shows that nickel mining has represented a significant share of Indonesia's GDP (above 10%) at a steady level from 2012-2021. Likewise nickel mining was an important share of government revenue in 2012/2013 and declined thereafter although still remaining significant. The number of employees in nickel mining was small in the years 2012-2105 and increased significantly from 2016 to 2017 and continued to grow thereafter until beginning to decline in 2021. As a share of total employment, nickel mining has represented a substantial share of total employment since 2017. By contrast, stainless steel represents a minor percentage of Indonesia's GDP and represents a very small percentage of total employment and government revenue. As regards the EV battery industry, Indonesia acknowledges that when the measures were adopted, there was no employment in the EV battery industry, but there were estimates that building an EV ecosystem would contribute significantly to GDP and result in the creation of thousands of direct jobs, generate state revenue, as well as create thousands of additional downstream jobs, and increase Indonesia's trade balance.[293]

7.100. The Panel recalls the guidance from the Appellate Body that the various elements of Article XI:2(a) inform one another, and one element can impart meaning to the other. The Panel will discuss further in section 7.2.3 below the element of the temporary application of measures under Article XI:2(a) that they must be to bridge a passing need and not to be permanent or maintained until a natural resource is completely depleted. As will be discussed further in section 7.2.4 below with respect to critical shortage, the Panel also understand that the flexibility in Article XI:2(a) is not meant to enable Members to impose restrictions upon the export of a raw material *in order to protect or promote a domestic industry*.[294] Bearing that in mind, it is the Panel's view that an industrial input product can be essential and within the category of "absolutely indispensable or necessary" if it is needed to maintain an industry through a passing need, but not to protect it from the vagaries of competition or ordinary market conditions with respect to access to inputs, or to create an industry that did not yet exist. In that sense, the Panel is of the view that it may be difficult to prove that an input product is essential within the meaning of Article XI:2(a) of the GATT 1994 if it is not yet actually being used by a domestic industry in the responding Member. The implication of Indonesia's arguments is that if the panel in *China – Raw Materials* was correct that bauxite was

[293] Indonesia's response to Panel question No. 101, referring to MEMR, Presentation on "The Role of Minerals in the Development of Indonesia's Battery Industry" (10 September 2021), (Exhibit IDN-127 (BCI)).

[294] GATT/CP.4/33, Report of the Working Party "D" on Quantitative Restrictions of 28 March 1950 republished as "The Use of Quantitative Restrictions for Protective and Commercial Purposes," Sales No. GATT/1950-3, para. 12.

"essential" to an economy as diverse as China's then this Panel must necessarily conclude that nickel ore is essential to Indonesia. The Panel, however, does not see an exact parallel between the situation of bauxite in China and nickel in Indonesia. In this respect, the Panel recalls the factors that the panel in *China – Raw Materials* found relevant when determining that bauxite was an essential product to China. That panel noted that refractory-grade bauxite was used in the production of iron, steel, and other important products to China's domestic and export markets. That China was the leading producer of steel – the downstream product – in the world and that its steel industry was a primary consumer of the input product (refractory-grade bauxite) and represented a significant source of employment. It was also the case that the downstream products were themselves important products in the manufacturing and construction industries, two fundamental sectors that drive China's industry and development.[295]

7.101. Nickel mining is an important source of employment and government revenue for Indonesia, particularly if one looks at the regions of Maluku and Sulawesi. The measures, however, are not designed to address a critical shortage of nickel ore to the mining industry. Rather, as Indonesia explains, the measures address the availability of nickel ore as an input product to downstream industries.[296] Unlike the situation of bauxite in China, however, nickel ore is not already an input to important downstream industries in Indonesia. Indonesia acknowledges that as at the time of establishment of the Panel, EV battery production had not yet started in Indonesia and was only projected to become a source of employment and government revenue in the future.[297] Likewise, stainless steel production is currently a minor part of Indonesia's economy, representing a low share of employment and government revenue over the period 2012-2020. Moreover, Indonesia has not presented evidence on how stainless steel and EV batteries are important products to other manufacturing industries in Indonesia.

7.102. The Panel finds, therefore, that based on the argumentation and evidence Indonesia provided, Indonesia has not satisfied its burden to demonstrate that nickel ore is essential to Indonesia within the meaning of Article XI:2(a).

7.103. As the Panel will discuss further in paragraph 7.137 below, the principle of permanent sovereignty over natural resources is relevant to an interpretation of GATT obligations. The Panel's finding here does not contradict that understanding.

7.2.3 Whether the export ban and the DPR are temporarily applied

7.2.3.1 Main arguments of the parties and third parties

7.104. Indonesia relies on its application of export prohibitions and restrictions on nickel ore in the past for what it calls "only for limited time-periods"[298] as proof that the current implementing regulations are also only temporarily applied. Specifically, Indonesia refers to two export prohibitions that were implemented through MEMR Regulations No. 7/2012 (which was in force for 15 days)[299] and No. 1/2014 (which Indonesia submits was in force from 11 January 2014 until it was revoked in January 2017).[300]

7.105. Similarly, in relation to the DPR, Indonesia argues that these requirements "only operated to restrict exports of unprocessed or unrefined nickel for limited time-periods".[301] Further, Indonesia submits that to the extent domestic producers were subject to these requirements, they affected the internal sale of nickel and, therefore, fell under Article III:4 of the GATT 1994.[302]

7.106. Indonesia asserts that it has a consistent practice of applying export prohibitions and restrictions on nickel ore exclusively on a temporary basis.[303] Indonesia also argues that it has

[295] Panel Reports, *China – Raw Materials,* para. 7.340.
[296] Indonesia's first written submission, paras. 137-138; and second written submission, para. 116.
[297] Indonesia's response to Panel question Nos. 39(c) and 101.
[298] Indonesia's first written submission, para. 94.
[299] Indonesia's first written submission, paras. 95-96.
[300] Indonesia's first written submission, para. 99.
[301] Indonesia's first written submission, para. 103.
[302] Indonesia's first written submission, para. 103.
[303] Indonesia's second written submission, para. 78 referring to Indonesia's first written submission, paras. 94-103.

produced contemporaneous evidence that the rationale for the adoption of the export prohibition on nickel ore was to secure the immediate supply needs of the domestic processing industry and that its application is, therefore, to bridge a passing need.[304] Finally, Indonesia argues that the European Union appears to agree that, in the past, export prohibitions on low-grade nickel ore have been in place only for a limited time, such that the only remaining disagreement between the parties appears to relate exclusively to grades of nickel ore above 1.7%.[305] Indonesia notes that at the time the European Union requested consultations in 2019, MEMR Regulation 25/2018 had been in place for less than 1 year and 7 months, while the export prohibitions in MEMR Regulation 11/2019 and MOT Regulation 96/2019 were not in effect at all. Indonesia notes that while the Panel proceedings were ongoing, MEMR Regulation 25/2018 had been in effect for 3 years and 8 months, while MEMR Regulation 11/2019 and MOT Regulation 96/2019 had been in effect for 2 years.[306] In Indonesia's view, in light of exploration to production timetables for nickel ore, less than four years of application is a very short period of time in the mining industry.[307]

7.107. The European Union submits that it is unpersuasive to refer to the way in which export prohibitions were applied in the past to argue that a current export prohibition is also only applied temporarily.[308] The European Union also notes that the arguments of historical temporary application can only be said to be valid for low-grade ore because the export of high-grade ore has been continuously prohibited since January 2014.[309] The European Union argues that the length of time the 2019 regulations were in force before consultations were requested cannot be dispositive because it implies that a Member must wait for a prolonged period of time before bringing a claim and therefore accept the nullification or impairment of its benefits under the WTO agreements.[310]

7.108. Brazil and Japan query whether the motivation behind the adoption of the measure – which seems to be, in their view, the depletion of nickel ore reserves – can be considered a passing need.[311] The United States comments that as Indonesia considers its processing capacity will continue to expand, which will result in increased demand, it is unclear and unlikely that the export restriction would be applied for a limited time.[312] The United Kingdom references the Appellate Body finding in *China – Raw Materials* that an export restriction applied to an exhaustible resource that is intended to be maintained until the remaining reserves have been depleted, or until new technology or conditions lessen the demand for that product, cannot be said to be "temporarily applied".[313]

7.109. Canada is of the view that even though Indonesia's export prohibition has not been consistently applied, the Panel should consider whether the ban is more in the nature of a long-term conservation measure that is applied to an exhaustible mineral resource and whether it is possible that the expected shortage would ever cease to exist. Canada submits that "a restriction that is imposed almost all the time until reserves are depleted would not meet the 'temporarily applied' requirement".[314] Further, Canada submits that the Panel should also consider whether there are indications that the ban would be effectively applied permanently, or whether it will be lifted, at a time when the critical shortage has been resolved.[315] Korea considers that a measure may fall short of being temporary if one cannot reasonably anticipate that the measure would be lifted in due time or under certain non-temporary conditions.[316]

7.110. Japan, Korea, the United States, and the United Kingdom all express concern that a series of measures with some breaks in application or a single measure that is frequently paused and reinitiated, may indicate that the measure is in fact intended to be permanent, subject to periodic

[304] Indonesia's second written submission, paras. 75-76 referring to Press Release from the MEMR, 2 September 2019 (Exhibit IDN-92), p.2.
[305] Indonesia's second written submission, para. 79.
[306] Indonesia's second written submission, para. 81.
[307] Indonesia's second written submission, para. 82.
[308] European Union's second written submission, para. 149.
[309] European Union's second written submission, para. 151.
[310] European Union's second written submission, para. 156.
[311] Brazil's third-party submission, para. 16; and Japan's third-party submission, paras. 25-26.
[312] United States' third-party submission, para. 22 and United States' third-party response to Panel question No. 2.
[313] United Kingdom's third-party submission, para. 12 (referring to Appellate Body Reports, *China – Raw Materials*, para. 340).
[314] Canada's third-party statement, para.11, and third-party response to Panel question No. 2.
[315] Canada's third-party response to Panel question No. 5.
[316] Korea's third-party response to Panel question No. 2; United States' third-party response to Panel question No. 5.

exceptions. Considering such a measure(s) to be temporarily applied within the meaning of Article XI:2(a) could create the possibility for Members to circumvent that narrow exception thereby rendering the substantive obligation meaningless.[317]

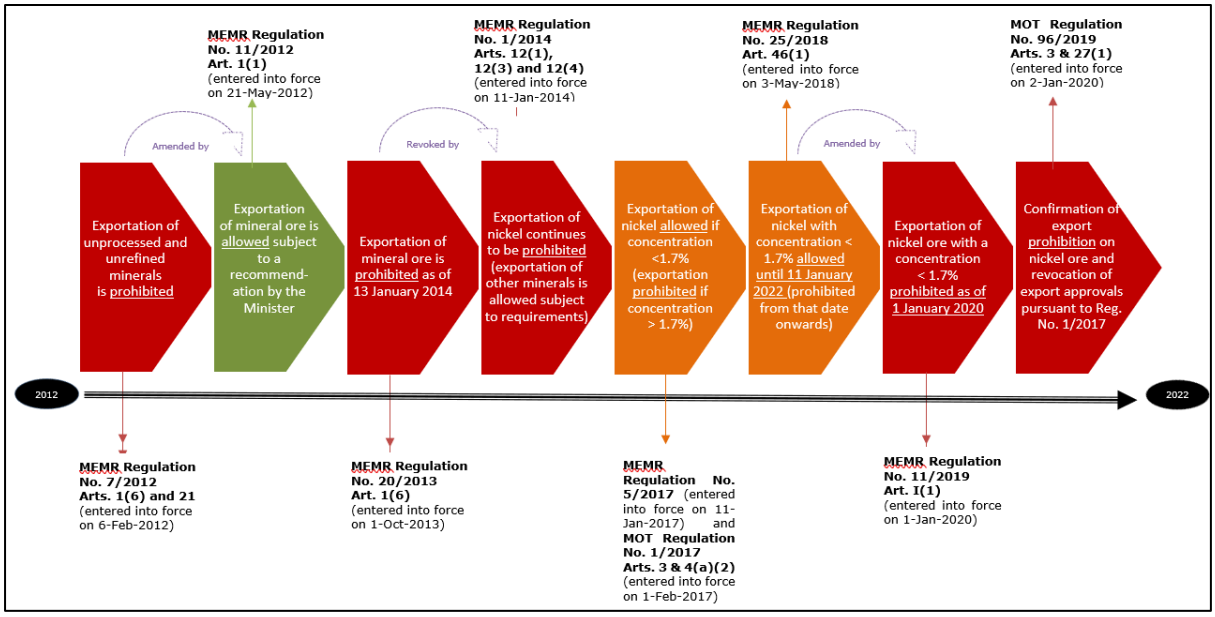
7.2.3.2 Analysis by the Panel

7.111. Indonesia does not cite any text in the current regulations that indicates explicitly that they are meant to be temporary or if there is a specific timeframe in which it is envisaged that they will be lifted or triggering criteria for lifting them.

7.112. The Appellate Body has noted that the setting forth of a specific timeframe in advance is not required for a measure to be considered "temporarily applied" within the meaning of Article XI:2(a). At the same time, the Appellate Body agreed with the panel in *China – Raw Materials* that a measure "applied 'temporarily' in the sense of Article XI:2(a) is a measure applied in the interim, to provide relief in extraordinary conditions to bridge a passing need. It must be finite, that is, applied for a limited time" and not indefinitely.[318]

7.113. With respect to Indonesia's arguments about the limited time periods in which the measures were in force, the Panel presents the table below to reflect its understanding of the application of the two measures – export ban and DPR – over time.

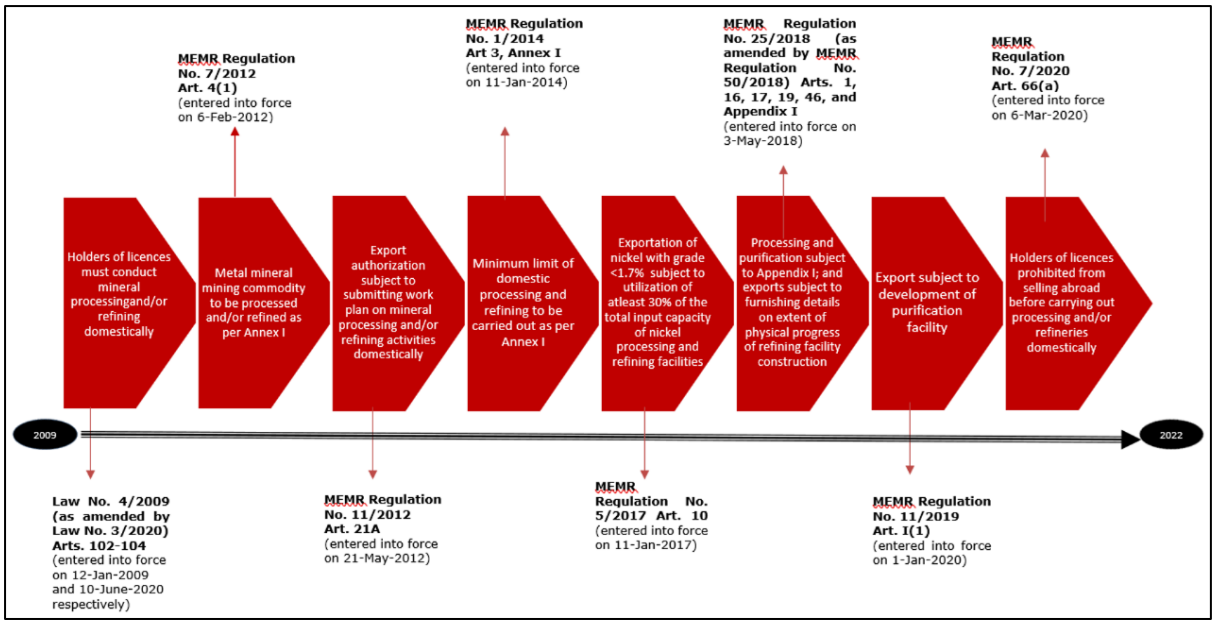
Figure 5: Timeline of application of the export ban



[317] Japan's third-party response to Panel question No. 2; Korea's third-party response to Panel question No. 5; United States' third-party response to Panel question No. 5, and United Kingdom's third-party response to Panel question No. 2.

[318] Appellate Body Reports, *China – Raw Materials*, para. 330.

Figure 6: Timeline of application of the DPR



7.114. Although the length of time a series of similar measures has been imposed could indicate a pattern of short-term measures it could also indicate a long-term measure that was simply being updated by different legal instruments. The Panel notes in this regard that there were no breaks in the application of the DPR and any breaks in the application of the export ban were limited to low-grade ore.

7.115. Indonesia argues that because an initial ban in 2012 only lasted 15 days and the 2019 regulations had only been in place for two weeks when the European Union requested consultations that the ban on high-grade ore also has a history of only being applied temporarily.[319] Indonesia overlooks the fact that export of high-grade ore has remained prohibited continuously since 1 January 2014 and that Indonesia itself has averred to this when asserting that the export ban has a limiting effect.[320] The Panel notes that at the time of panel establishment export of high-grade nickel ore had been continuously prohibited for seven years and the DPR had been in place for nine years.[321]

7.116. The Panel, therefore, does not find the history of various sequential measures governing nickel ore to support Indonesia's argument that the export ban and DPR are temporarily applied.

7.117. The Panel next looks to whether there is any indication when Indonesia might lift the measures, such as criteria for lifting the measures either in the regulations themselves or in contemporaneous government documents.

7.118. Indonesia cites a press release announcing the 2019 regulations that removed the permission to export low-grade nickel ore and returned Indonesia to a state of a total export ban. In that press release while there are indications of the length of proven reserves (7.3 years) and the hope that reserves could fulfil demand for 42.67 years there is no indication that the measure is meant to be lifted before the depletion of reserves.[322] There is a reference in the press release to the technology development of low-grade nickel ore so that existing reserves can be processed

[319] Indonesia's response to Panel question No. 25(b).
[320] See Indonesia's response to Panel question No. 13.
[321] The Panel notes in this regard that Indonesia repeatedly compared its situation to that of China in *China – Raw Materials* where China's export ban on bauxite, which the panel found was inconsistent with Article XI:1 of the GATT 1994, had been in place uninterrupted for nearly 11 years. The Panel does not believe that the panel in *China – Raw Materials* made any type of declaration that such a length of time of continued application was necessary for a measure not to be considered temporarily applied within the meaning of Article XI:2(a) of the GATT 1994. That simply happened to be the factual situation that panel was presented with.
[322] Press Release from the MEMR, 2 September 2019 (Exhibit IDN-92).

domestically with no need to export. But there is no indication of when that technology will be available.[323]

7.119. Indonesia has told the Panel that it cannot currently process low-grade ore. It has also told the Panel that Indonesia expects to nearly double its refining capacity in the next five years. It intends, however, to mostly rely on the existing predominant method of refining – pyrometallurgical – with less than 20% of smelters expected to use HPAL technology.[324] It is not evident, therefore, that these technological developments are expected to be available sufficiently soon to consider that the measures bridge a passing need.

7.120. Indonesia argues that it does not intend to maintain the measures until the reserves of nickel ore are depleted, but rather constantly reassesses the measures as well as the level of reserves.[325] Indonesia is in the process of increasing domestic refining capacity as well as the downstream industries that would use nickel products. Indonesia tells the Panel that increasing domestic processing capacity is not equivalent to a perennial state of critical shortage that would require the permanent imposition of the measures.[326] At the same time Indonesia states that the measures will remain in place until "economically useful nickel reserves are sufficient to meet demand of the domestic processing industry, estimated at 292.4 million wmt by 2026".[327]

7.121. The Panel finds that the measures had been in place, albeit with short breaks that allowed the exportation of low-grade ore[328], for seven (export ban) and nine (DPR) years when the Panel was established and remain in place to date. Indonesia has presented no direct, contemporaneous evidence in the measures themselves or the circumstances around their adoption to indicate a timeframe or even specific achievable criteria for when the measures would be lifted.

7.122. The Panel does not find that Indonesia intends to keep the measures in place until all reserves are depleted. Indonesia itself informed the Panel that it intends to keep the measures in place until supply meets demand or new technology allows.[329] Given the projected rates of increasing demand Indonesia has placed on the record as well the limited potential HPAL capacity in the near future, the Panel finds that the measures would be expected to last an indefinite period.[330] The Panel notes that the panel in *China – Raw Materials* reached a similar conclusion when it found that China's export restraints on bauxite were not temporarily applied despite China's argument that they would be maintained "until new technology or conditions lessen demand".[331]

7.123. In light of the above, the Panel finds that neither the export ban nor the DPR are temporarily applied within the meaning of Article XI:2(a) of the GATT 1994.

7.2.4 Whether the export ban and the DPR applied to prevent a critical shortage of nickel ore in Indonesia

7.124. Article XI:2(a) allows Members to apply prohibitions or restrictions temporarily to either prevent or relieve critical shortages. The Appellate Body has concluded that Article XI:2(a) provides a basis for measures "adopted to alleviate or reduce an existing critical shortage, as well as for preventive or anticipatory measures adopted to pre-empt an imminent critical shortage".[332] As the

[323] Press Release from the MEMR, 2 September 2019 (Exhibit IDN-92). The press release also states that the policy is "merely to increase value added for nickel to process minerals all over Indonesia".
[324] Indonesia's response to Panel question No. 9(c). See also, Maryono Report (Exhibit IDN-18 (BCI)), p. 30.
[325] Indonesia's response to Panel question No. 26.
[326] Indonesia's opening statement at the first meeting of the Panel, para. 53.
[327] Indonesia's response to Panel question No. 26.
[328] As will be discussed further below in section 7.2.4.2.2, Indonesia has not provided any evidence on the reserve levels of low-grade ore.
[329] Indonesia's second written submission, para. 77 ("… The MEMR press release also buttresses the temporary nature of such measures by evidencing MEMR's intent to remove the measures once technological developments enable the expansion of proven reserves and the processing of lower grades of nickel, thus alleviating the supply deficiency that justifies the measures."). See also Indonesia's response to Panel question No. 25(a).
[330] Indonesia argues that demand for nickel is expected to grow 20-25 times by 2040. See IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 8.
[331] See e.g. Panel Reports, *China – Raw Materials,* paras. 7.348 and 7.350.
[332] Appellate Body Reports, *China – Raw Materials*, para. 326.

Appellate Body stated, "inherent in the notion of criticality is the expectation of reaching a point in time at which conditions are no longer 'critical', such that measures will no longer fulfil the requirement of addressing a critical shortage".[333]

7.2.4.1 Main arguments of the parties and third parties

7.125. Indonesia explains that the increase in demand for nickel ore has resulted in higher (and unsustainable) levels of extraction and production in Indonesia. It is Indonesia's view that failure to act preventively would have resulted in an imminent crucial deficiency of nickel ore. Indonesia argues that the temporary restrictions it imposed between 2014 and 2017 were successful because production diminished to sustainable levels. It further states that the current demand for nickel ore in Indonesia and the corresponding extraction and production levels may indicate that "a crucial deficiency in quantities of HGSO is likely to ensue if export restrictions on nickel ore were no longer in place".[334]

7.126. Indonesia argues that the measures are applied to prevent critical shortages of nickel ore in its territory. Indonesia submits that "[f]aced with a surge in nickel ore production and consumption and anticipating even greater demand for its nickel in the short term as a critical input into EV batteries, Indonesia acted *preventively* to mitigate the risk that its nickel reserves would be depleted at unsustainable rates"[335] by adopting temporary export restrictions.

7.127. Indonesia presents three main types of evidence in support of its argument that there is a risk of a critical shortage of nickel ore that it needs to prevent. Indonesia focuses on estimates of its nickel reserves, ore production, and projections for consumption that it argues demonstrate the risk of crucial deficiencies.

7.128. Based on a variety of methodologies, including reporting from mining permit holders, Indonesia provided the following estimate of the evolution of its reserves from 2012-2020:

Table 4: Evolution of Indonesia's nickel ore reserves

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Probable Reserves of Nickel metal (tons)	19,154,662	18,916,367	18,915,262	46,931,459	44,287,596	39,786,145	39,700,090	54,273,601	48,444,790
Proved Reserves of Nickel metal (tons)	2,548,956	2,631,146	2,463,051	3,940,845	4,277,095	22,563,738	37,021,667	17,716,023	20,949,290

Source: MEMR, Excel of "Nickel Data 2012-2020", (Exhibit IDN-48).

7.129. As discussed in paragraph 2.41 above, Indonesia argues that only "proved", rather than "probable" reserves can be considered when estimating Indonesia's nickel ore reserves for the purpose of determining whether there is an imminent critical shortage. Moreover, Indonesia argues that only the proportion of its "proved" reserves that can be mined economically can be considered "reserves".[336] Relying on this definition Indonesia posits that its actual reserves are lower than estimates from various sources such as the USGS and the MEMR, because only HGSO is economically viable given the methodology used in Indonesian smelters. Indonesia notes that "[a]verage costs of production for Indonesian smelters render it uneconomic to process nickel ores at lower grades, including low-grade saprolite ores and all types of limonite ores. For this reason, while HGSO is used as an input for further processing downstream, low-grade nickel ore stockpiles below 1.7% purity are considered waste and over burden, or inventory that might have economic value in the future.[337]

[333] Appellate Body Reports, *China – Raw Materials,* para. 328.
[334] Indonesia's first written submission, paras. 130-131.
[335] Indonesia's first written submission, para. 107. (emphasis added)
[336] Indonesia's first written submission, para. 118 (referring to CRIRSCO, Standard Definitions, October 2012, (Exhibit IDN-42)).
[337] Indonesia's first written submission, para. 118.

7.130. According to Indonesia, evidence on the record shows that the current level of reserves of HGSO have "a total lifespan of merely 6 years at current production and consumption levels"[338], even without considering the future surge in demand resulting from EV battery production. Indonesia considers that "[t]he potential removal of the measures at issue would exacerbate the critical shortage of Indonesia's nickel ore even further by adding foreign demand for HGSO, particularly from China, to current domestic demand for HGSO in Indonesia."[339]

7.131. With respect to nickel production, Indonesia provides several data points referring to production, number of processing facilities, *domestic* consumption, and *domestic* processing capacity. Again, Indonesia's argument focuses primarily on nickel ore being consumed domestically for stainless steel production.[340] Indeed, its forecasts for nickel ore consumption based on historical data are "according to nickel input processing capacity".[341]

7.132. The European Union seeks to rebut Indonesia's contention that the measures are designed to prevent a critical shortage by arguing that they are designed to promote Indonesia's domestic downstream processing industries.[342] The European Union also provides a detailed challenge to Indonesia's data used to support its argument that a critical shortage is imminent.[343] In particular, the European Union maintains that the alleged risk of shortage is too remote[344], not temporary[345], self-created by Indonesia through the application of the measures[346], and that the alleged deficiency in quantity is neither likely nor serious.[347]

7.133. Canada submits that if Indonesia's measures were designed to prevent long-term depletion of nickel reserves, and therefore was not responding to a "critical shortage" then the Article XI:2(a) requirement would likely not be met.[348] Korea, likewise argues that as nickel ore is not a regenerating resource that can recover over time it would seem that only "a measure with perpetual effect, instead of a 'temporary measure', would be apt to relieve the ongoing shortage".[349] Japan and the United Kingdom consider that where the depletion of ore reserves is caused or exacerbated by continued mining it will be difficult to demonstrate that this is a critical shortage within the meaning of the provision.[350] Japan also notes that if a shortage is permanent, then a measure could not be applied to prevent a critical shortage.[351]

7.2.4.2 Analysis by the Panel

7.134. The Panel is presented with several questions in determining whether Indonesia's measures satisfy this element of Article XI:2(a) of the GATT 1994. The first is an interpretative question with respect to what types of situations may be considered a critical shortage within the meaning of Article XI:2(a) that is eligible to be prevented or relieved. In particular, the parties differ on whether such measures can be taken to address the normal depletion of natural resources and also whether they can be used to satisfy expanding domestic demand related to the development of downstream processing industries for the input product. The second question relates to a factual determination on the level of reserves of nickel ore in Indonesia. The Panel must then apply the law to the facts and determine whether there is an imminent critical shortage in nickel ore in Indonesia that could be prevented.

[338] Indonesia's first written submission, para. 131.
[339] Indonesia's first written submission, para. 131.
[340] Indonesia's first written submission, paras. 124-127.
[341] Indonesia's first written submission, para. 126, Table 3 (referring to the Maryono Report, (Exhibit IDN-18 (BCI)), p. 19).
[342] European Union's second written submission, paras. 26-62.
[343] European Union's second written submission, paras. 73-127.
[344] European Union's second written submission, paras. 73-80.
[345] European Union's second written submission, paras. 81-87.
[346] European Union's second written submission, paras. 88-90.
[347] European Union's second written submission, paras. 91-127.
[348] Canada's third-party response to Panel question No. 3.
[349] Korea's third-party statement, para. 7.
[350] Japan's third-party response to Panel question No. 3; and United Kingdom's third-party response to Panel question No. 3.
[351] Japan's third-party submission, para. 29.

7.2.4.2.1 Critical shortage within the meaning of Article XI:2(a) of the GATT 1994

7.135. The term "critical shortage" was first interpreted by the Appellate Body in the *China – Raw Materials* dispute. In that case, the Appellate Body looked to the dictionary definitions of shortage and critical as well as the context supplied by other provisions of the GATT 1994 that refer to shortages – notably the reference to "short supply" in Article XX(j) – to determine that a "critical shortage" within the meaning of Article XI:2(a) refers to "those deficiencies in quantity that are crucial, that amount to a situation of decisive importance, or that reach a vitally important or decisive stage, or a turning point", which is more narrowly circumscribed than the type of shortage that would fall within the scope of Article XX(j).[352] Addressing a mere shortage or a situation of short supply will not be enough to bring a measure within the scope of Article XI:2(a), the shortage must be critical.

7.136. Similarly, Article XI:2(a) and Article XX(i) must address separate circumstances. Essential quantities of materials necessary to a domestic industry must mean something different than a critical shortage of an essential product.[353] A need to secure essential quantities for the domestic industry cannot be considered equivalent to a critical shortage. As noted above, a critical shortage has to be of decisive importance and capable of reaching a turning point. The Panel is of the view, therefore, that securing enough of a particular input to meet potential increases in demand brought about by normal market forces that are expected to continue for some time is not responding to a critical shortage.

7.137. The Panel understands that the GATT 1994 must be interpreted in a manner consistent with general principles of customary international law, including the principle of permanent sovereignty over natural resources.[354] The Panel agrees with the panel in *China – Raw Materials* that the ability to enter into international agreements such as the WTO Agreement is a quintessential example of the exercise of sovereignty. The Panel also notes that the principle of harmonious interpretation requires that Members must exercise their sovereignty over natural resources consistently with their WTO obligations.[355] At the same time, the flexibilities built in the GATT 1994 and the other covered agreements must be interpreted in a way that respects this principle as well as the goals of the Preamble of the WTO Agreement with respect to sustainable development. For this reason, like the Appellate Body, the Panel does not exclude the possibility that a measure falling within the ambit of Article XI:2(a) of the GATT 1994 could relate to an exhaustible natural resource. Nevertheless, Indonesia would still have to demonstrate that all of the component elements of Article XI:2(a) are satisfied.

7.138. With respect to the availability of Article XI:2(a) measures to address critical shortages of exhaustible natural resources, the Appellate Body has explained that they could be imposed, "for example, if a natural disaster caused a 'critical shortage' of an exhaustible natural resource, which, at the same time, constituted a foodstuff or other essential product".[356] The Panel does not read the Appellate Body's statement as limiting the types of critical shortages of exhaustible natural resources to natural disasters. The Panel does not find support in the Appellate Body's statement, however, for the notion that the concept of a critical shortage of an exhaustible natural resource can simply be that under ordinary market conditions supply cannot currently meet demand or that it is projected to be unable to meet demand in the future.

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[352] Appellate Body Reports, *China – Raw Materials,* paras. 324-325.

[353] That difference is reflected in the criteria for the application of Article XX(i), which require Members to hold the domestic price of such materials below the world price as part of a governmental stabilization plan and that any restrictions applied shall not operate to increase the exports of or the protection afforded to such domestic industry and shall not depart from the provisions of this agreement relating to non-discrimination. The Panel notes that there is evidence on the record that in conjunction with the export ban and DPR, Indonesia applies a reference price to nickel ore, which is held below the world market price to "create a balance or fair pricing between profits for the smelters while at the same time ensuring the nickel mining activities can provide sufficient margin for the miners". See Ministry of Energy and Mineral resources, Government of Indonesia, Press Release No 253.Pers./04/SJI/2020 "Pushing Domestic Nickel Market Growth, Government Sets Reference Prices of Minerals (RPM) Regulations", (Exhibit EU–28).

[354] Article 3.2 of the DSU. See also Panel Reports, *China – Raw Materials*, paras. 7.377–7.383.

[355] Panel Reports, *China – Raw Materials*, paras. 7.381-7.382.

[356] Appellate Body Reports, *China – Raw Materials*, para. 337.

7.139. In sum, the Panel is of the view that, Article XI:2(a) can be utilized by Members to address a critical shortage of industrial inputs, including exhaustible natural resources, but the shortage has to be critical and capable of being resolved.[357]

7.2.4.2.2 The level of nickel ore reserves in Indonesia

7.140. To demonstrate that there is an imminent critical shortage of nickel ore, Indonesia must provide evidence to the Panel on the level of reserves. In that respect, Indonesia provides an expert report – the Maryono Report – as well as other relevant data on the level of Indonesia's nickel reserves. The European Union raises two major issues with respect to the reserve calculations put forward by Indonesia. Specifically, the European Union takes issue with the fact that Indonesia excludes low-grade ore from the calculation of reserves and that Indonesia also excluded any data on nickel reserves not verified by a "competent person".[358]

7.141. With respect to the low-grade ore, Indonesia acknowledges that it has excluded low-grade ore from its calculations. Indonesia relies on an industry standard definition of reserves to include only economically viable product. In Indonesia's view low-grade ore is properly excluded from reserve calculations because its smelters cannot currently process it and, therefore, this ore is not economically viable.[359]

7.142. Indonesia's regulations (particularly the two from 2017) specifically require the use of low-grade ore in domestic facilities (and the construction of such facilities) before the product can be exported.[360] Indonesia has acknowledged to the Panel that some of its facilities use low-grade ore for "blending".[361] Moreover, Indonesia does not take into account that the miners may economically exploit this low-grade ore by selling it to foreign purchasers.[362] This appears inconsistent with Indonesia's arguments on why nickel ore is essential to Indonesia, which highlight the importance of the nickel ore industry in certain Indonesian regions such as Sulawesi and Maluku.[363]

7.143. With respect to high-grade ore there are several estimates on the record. The estimates from the Maryono Report, dated September 2021, indicate between [[***-***]] years of remaining reserves.[364] This calculation is based on the proven reserves calculated with respect to high-grade ore reported by competent persons[365] as well as recent production data and capacity of existing smelters. At the same time, Indonesia's Mining Guidance which is provided to potential investors to encourage them to build refining facilities and downstream manufacturing facilities (stainless steel and EV battery) in Indonesia indicates that "the mineral mining production is very high and the reserves availability is still abundant for a long term".[366]

7.144. Indonesia also notes that reserves may be calculated upwards if new HPAL refineries that can refine low-grade nickel ore come online.[367] Indonesia notes that the first of these plants is intended to start production in 2026 with more soon to follow.[368] This potential upward trend is also addressed in Indonesia's Mining Guidance which indicates that the proven reserves security of nickel – hydrometallurgy from 2020 should last until 2030, or 2029 in case of nickel – pyrometallurgy

[357] Hence the requirement that measures under Article XI:2(a) of the GATT 1994 be temporarily applied.
[358] European Union's second written submission, paras. 95 – 104.
[359] Indonesia's response to Panel question No. 27(b).
[360] See e.g. MOT Regulation No. 1/2017, (Exhibit EU-8(b)), Article 4.
[361] Indonesia's response to Panel question No. 76(b).
[362] Indonesia's response to Panel question No. 9(a).
[363] Indonesia's second written submission, paras. 100, 109, and 112. See also, Indonesia's response to Panel question No. 97 ("Between 2017 and 2019, Indonesia has decided to permit the exportation of lower grades of nickel ore. At the time, Indonesia attempted to respond to pleas by mining companies that they would not remain economically viable if deprived of the opportunity to export nickel ore, while at the same time ensuring the continuity of supply of higher grades of nickel ore for Indonesia's expanding processing capacity.")
[364] The Maryono Report, (Exhibit IDN-18 (BCI)), p. 31.
[365] The European Union objects to the exclusion of potential reserve data that were not reported by a competent person – indicating that leaving out this information depresses the overall calculation of reserves. The Panel notes that reliance on competent persons is industry standard (See Exhibits IDN-37, IDN-42, and IDN-45) and that the total volume of remaining nickel ore estimated in the Maryono Report is larger than those estimated generated using alternate methodologies that did not require a competent person.
[366] MEMR, Indonesian Mining Guidance (2020), (Exhibit IDN-1), p. 142.
[367] Indonesia's response to Panel question No. 9(b).
[368] Indonesia's response to Panel question No. 100(a).

commodity. According to the Mining Guidance, these time periods are significantly longer when the reference is to total reserves instead of proven reserves: the total nickel reserves security would cover until 2052 for nickel – pyrometallurgy and 2091 for nickel – hydrometallurgy.[369] It should be recalled that Indonesia currently only has smelters that refine through pyrometallurgical processes but expects to bring hydrometallurgical (HPAL) smelters on-line in the coming years. The Mining Guidance recognizes that adding the use of HPAL facilities would extend the life of reserves as would including probable rather than proven reserves in the estimates.

7.2.4.2.3 Whether there is an imminent critical shortage of nickel ore in Indonesia

7.145. In analysing this question, the Panel will apply its understanding of the type of situation that qualifies as a critical shortage for the purposes of Article XI:2(a) of the GATT 1994 to the factual situation in Indonesia. In this respect, the Panel recalls that Indonesia has made a distinction in its calculation of reserves between low-grade ore (with a nickel content of <1.7%) and high-grade ore (with a nickel content of >1.7%).

7.146. The Panel notes that, despite Indonesia's position regarding the value of low-grade ore, the measures also apply to low-grade ore. Indonesia has periodically lifted the export ban on low-grade ore. With respect to the DPR the Panel notes that it applies to both low-grade and high-grade ore. Permission to export unrefined ore only applies to low-grade ore and is specifically conditioned upon a commitment to domestic refining.[370]

7.147. Without any data on the level of reserves of low-grade ore in Indonesia, the Panel does not see how Indonesia can demonstrate that its measures are temporarily applied to prevent a critical shortage of that very product. Indonesia itself acknowledges that the export ban on low-grade nickel ore is not related to preventing a critical shortage of that product, but rather to prevent environmental degradation such as deforestation, land disturbance, and water contamination typically associated with export-oriented shallow strip mines.[371] Indonesia also argues that the ban on low-grade ore is necessary to prevent exporters from using the ability to export low-grade ore to present fraudulent customs declarations and actually export high-grade ore and that the surge in exports of nickel ore between 2017 and 2019 had the effect of reducing Indonesia's economic reserves of higher grades of nickel ore, even though exports of high-grade ore were not legally permitted.[372] Yet at the same time Indonesia has repeatedly noted that in 2018 the amount of reserves was revised upward significantly.[373] In any event, this does not demonstrate that the measure was applied to prevent a critical shortage of *low-grade* nickel ore.

7.148. Indonesia also refers to the potential uses of low-grade ore once HPAL capacity becomes operational but cannot point to any imminent shortage of low-grade ore at the time the measures were adopted.

7.149. With respect to high-grade ore, the Panel first notes that, as discussed above, a critical shortage within the meaning of Article XI:2(a) cannot simply be a situation of short supply. It cannot also merely be a situation of needing to secure essential quantities for a domestic industry to meet demand. A critical shortage must be of decisive importance or at a turning point and capable of being resolved.

7.150. The data provided by Indonesia refer to projections for demand in areas of production that are currently not yet fully developed in Indonesia.[374] Indonesia's estimates on the ability of HPAL technology to enable broader use of low-grade ore and thus obviate the need for an export restraint

[369] MEMR, Indonesian Mining Guidance (2020), (Exhibit IDN-1), p. 142, Table 9.3.
[370] MEMR Regulation No. 25/2018, Article 46 (Exhibit EU-9(b)). See MEMR Regulation No. 5/2017, Article 10 (Exhibit IDN-33), MOT Regulation No. 1/2017, Article 4 (Exhibit EU-8(b)) and MEMR Regulation No. 11/2012, Article 21A (Exhibit EU-5(b)) for prior formulations of this requirement.
[371] Indonesia's response to Panel question No. 27(c).
[372] Indonesia's response to Panel question No. 97. This reasoning sounds closer to that Indonesia used under Article XX(d) of the GATT 1994 than demonstrating that there is a critical shortage of low-grade nickel ore within the meaning of Article XI:2(a) of the GATT 1994.
[373] See e.g., Indonesia's response to Panel question No. 33 ("Indonesia's nickel reserves have been revised more than five-fold in 2018 as a result of improvements in reporting compliance by nickel permit holders.")
[374] Indonesia's response to Panel question No. 101.

have also been continuously revised to be further in the future (from [[***]] to now [[***]]).[375] With respect to EV battery production, Indonesia has acknowledged that there are currently no EV battery production plants in operation in Indonesia and that the first plants would not be expected to be operational until 2024.[376] This would be five years after the adoption of the most recent regulation implementing the export ban in 2019, 10 years from the imposition of the export ban on high-grade nickel ore in 2014, and 12 years from the imposition of the DPR in 2012.[377] Indonesia has also indicated that employment in the stainless steel industry currently only accounts for a small percentage [[***]] of its total workforce.[378]

7.151. The Panel finds that this prospective future demand is too attenuated to be reasonably relied upon as evidence of an imminent critical shortage that can be prevented through the measures at issue.

7.152. In light of the above, the Panel finds that Indonesia has not demonstrated the existence of an imminent critical shortage of nickel ore, either low-grade or high-grade, within the meaning of Article XI:2(a) of the GATT 1994.

7.2.5 Overall conclusion on Article XI:2(a) of the GATT 1994

7.153. It should be recalled that the analysis under Article XI:2(a) of the GATT 1994 is cumulative. All the elements must be demonstrated for a respondent to be able to avail itself of the exemption from the obligation in Article XI:1 of the GATT 1994. In this case the Panel has found that:

a. The export ban is a prohibition and the DPR is a restriction within the meaning of Article XI:1 of the GATT 1994. Both measures, therefore, are eligible for exemption from the application of Article XI:1 contained in Article XI:2(a) of the GATT 1994;

b. Indonesia has not demonstrated that nickel ore is an essential product within the meaning of Article XI:2(a) of the GATT 1994;

c. Neither the export ban nor the DPR are temporarily applied within the meaning of Article XI:2(a) of the GATT 1994; and

d. Indonesia has not satisfied the burden of proof to demonstrate that there is an imminent critical shortage of nickel ore (either low-grade or high-grade) that the measures can prevent.

7.154. Having found that Indonesia has not demonstrated that all of the component elements of Article XI:2(a) of the GATT 1994 are present, the Panel finds that neither the export ban nor the DPR are exempt from the obligations in Article XI:1 of the GATT 1994.

7.155. The Panel, therefore, moves on to address the European Union's claims that the export ban and the DPR are inconsistent with Article XI:1 of the GATT 1994.

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[375] Indonesia's response to Panel question No. 100 (noting that HPAL technology is still experimental in Indonesia and different. sources had different estimates in respect of when HPAL plants would become operational. Indonesia is now in a position to confirm that the first HPAL plants in Indonesia are becoming operational, with eight plants starting until 2026.).

[376] See MEMR, Presentation on "The Role of Minerals in the Development of Indonesia's Battery Industry" (10 September 2021), (Exhibit IDN-127 (BCI)) providing estimates on projected impact of GDP from EV battery production by [[***]]. See also, Media report that in September 2021 Hyundai Motor Group and LG Energy Solution started construction of a 1.1 billion US dollar battery plant near Jakarta, which is scheduled to start production in 2024. See Indonesia's opening statement at the first meeting with the Panel, referring to Financial Times, "Indonesia and Foxconn in talks over electric vehicle investment" (1 November 2021), available at: https://www.ft.com/content/f1a805aa-82ac-4f24-ad22-58e43712091e, (Exhibit IDN-78). See also NIKKEI Asia, "Indonesia teams with LG to build $1.2bn battery plant" (25 May 2021), available at: https://asia.nikkei.com/Business/Automobiles/Indonesia-teams-with-LG-to-build-1.2bn-battery-plant, (Exhibit IDN-51).

[377] Although the content of the DPR is contained in Article 103 of Law No. 4/2009 it was first implemented via regulation in 2012 (see MEMR Regulation No. 7/2012).

[378] Indonesia's response to Panel question No. 101.

7.2.6 Whether Indonesia's measures are inconsistent with Article XI:1 of the GATT 1994

7.2.6.1 The export ban

7.156. As noted above, Indonesia does not dispute that the export ban is a prohibition on exportation within the meaning of Article XI:1 of the GATT 1994. Nor does it dispute that it has a limiting effect.

7.157. Despite Indonesia's admission, the burden remains on the European Union to make a *prima facie* case[379] that the challenged measure – in this case, the alleged export ban on nickel ore as currently implemented via MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019 – is a prohibition within the meaning of Article XI of the GATT 1994.[380]

7.158. The Panel has found in paragraph 7.84 above that the design, architecture, and revealing structure of the export ban, as explained by the European Union and confirmed by Indonesia, demonstrate that the export ban is a prohibition on exportation. The Panel finds, therefore, that the export ban is inconsistent with the obligation in Article XI:1 of the GATT 1994.

7.2.6.2 The DPR

7.159. The Panel has found that the DPR falls within the scope of Article XI:1 of the GATT 1994 because it is a restriction on the sale for export of nickel ore.

7.160. The Panel has also found that the DPR has a limiting effect on exports by its very nature.

7.161. The Panel finds, therefore, that the DPR as set out in Law No. 4/2009 and implemented via MEMR Regulation Nos. 25/2018 and 7/2020, is inconsistent with Article XI:1 of the GATT 1994.

7.162. Indonesia has also raised an affirmative defence that its measures are justified under Article XX(d) of the GATT 1994. The Panel now analyses this defence.

7.3 Whether Indonesia's measures are justified under Article XX(d) of the GATT 1994

7.163. Indonesia submits an alternative affirmative defence under Article XX(d) of the GATT 1994 if the Panel concludes that the measures at issue do not fall within the scope of Article XI:2(a) of the GATT 1994 and are inconsistent with Article XI:1 of the GATT 1994.[381]

7.164. The Panel has found in section 7.2 above that the measures at issue are inconsistent with Article XI:1 of the GATT 1994 and do not fall within the scope Article XI:2(a) of the GATT 1994. The Panel will therefore address Indonesia's alternative affirmative defence under subparagraph (d) of Article XX of the GATT 1994.

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[379] A *prima facie* case is generally understood in WTO law to be one which, in the absence of effective refutation by the defending party, requires a panel, as a matter of law, to rule in favour of the complaining party. See e.g. Appellate Body Report, *EC – Hormones*, para. 104, and *US – Wool Shirts and Blouses*, p. 14, DSR 1997:I, p. 335. The Appellate Body explained in *US – Gambling* that such a *prima facie* case must include evidence and legal argument that "must be sufficient to identify the challenged measure and its basic import, identify the relevant WTO provision and obligation contained therein, and explain the basis for the claimed inconsistency of the measure with that provision" (Appellate Body Report, *US – Gambling*, para. 141).

[380] See Panel Report, *US – Shrimp (Ecuador),* para. 7.9 finding that even though the United States did not contest Ecuador's claims the Panel was obligated under Article 11 of the DSU to determine whether Ecuador had made a *prima facie* case in order to find for Ecuador. See also Appellate Body Report, *US – Gambling,* para. 139 ("[a] panel errs when it rules on a claim for which the complaining party has failed to make a *prima facie* case").

[381] Indonesia's first written submission, para. 14. See also Indonesia's first written submission, para. 232.

7.165. Article XX(d) of the GATT 1994 provides as follows:

> Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:
>
> …
>
> (d) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to customs enforcement, the enforcement of monopolies operated under paragraph 4 of Article II and Article XVII, the protection of patents, trade marks and copyrights, and the prevention of deceptive practices; …

7.166. The Appellate Body explained in *US – Gasoline* that a two-tiered analysis is the proper manner to consider a defence under Article XX of the GATT 1994: a panel is to first determine whether the measure satisfies the conditions set out in the subparagraph being invoked, and second to determine whether the measure complies with the *chapeau* of Article XX.[382] Subsequent panels dealing with defences under Article XX of the GATT 1994 have consistently followed this approach.[383] In *Indonesia – Import Licensing Regimes*, the Appellate Body stated that in particular circumstances a panel may decide to proceed with the analysis under the *chapeau* without committing a reversible error.[384] In its third-party submission, the United States submitted that this might be such a case.[385] The European Union, for its part, did not specifically ask the Panel to begin its analysis with the *chapeau*, but noted that this might be a case where it is appropriate to begin the analysis with the *chapeau*.[386]

7.167. The Panel notes that *Indonesia – Import Licensing Regimes* involved the invocation of multiple subparagraphs of Article XX. The Panel in that case, therefore, had a specific reason for beginning its analysis with the *chapeau*.[387] There are no similar compelling circumstances in this case and the Panel, therefore, sees no reason to depart from the well-established practice of conducting the two-tiered analysis beginning with whether Indonesia's measures satisfy the subparagraph invoked, in this case subparagraph (d) of Article XX of the GATT 1994.

7.168. Indonesia, as the party invoking this defence, bears the burden of proof in this respect. The Panel will therefore determine whether Indonesia has demonstrated that (i) its measures fall under subparagraph (d) of Article XX; and if they do, (ii) whether they are consistent with the *chapeau* of Article XX.

7.3.1 Whether the measures at issue are necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of the GATT 1994

7.169. For the challenged measures – i.e. the export ban and the DPR – to be provisionally justified under subparagraph (d) of Article XX Indonesia must demonstrate that (i) the export ban and the

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[382] Appellate Body Report, *US – Gasoline*, p. 22, DSR 1996:I, p. 20.

[383] Appellate Body Reports, *US – Shrimp*, para. 118; *Dominican Republic – Import and Sale of Cigarettes*, para. 64 (both quoting Appellate Body Report, *US – Gasoline*, p. 22, DSR 1996:I, p. 20); *Brazil – Retreated Tyres*, para. 139 (referring to Appellate Body Reports, *US – Gasoline*, p. 22, DSR 1996:I, p. 20; *Dominican Republic – Import and Sales of Cigarettes*, para. 64; *US – Shrimp*, para. 149); *EC – Seal Products*, para. 5.169 (referring to Appellate Body Reports, *US – Gasoline*, p. 22; *US – Shrimp*, paras. 119 and 120; *US – Gambling*, para. 292); *Colombia – Textiles*, para. 5.67 (referring to Appellate Body Reports, *US – Gasoline*, p. 22; *Dominican Republic – Import and Sale of Cigarettes*, para. 64; *US – Shrimp*, paras. 118-120; *Brazil – Retreaded Tyres*, para. 139).

[384] Appellate Body Report, *Indonesia – Import Licensing Regimes*, para. 5.100.

[385] United States' third-party submission, para. 27 where the United States stated that "[n]othing in the text of Article XX suggests that it is not possible to conduct an appropriate legal analysis beginning with the chapeau" because the chapeau and the subparagraphs are independent requirements.

[386] European Union's second written submission, para. 291; and response to Panel question No. 120.

[387] The Appellate Body stated that "depending on the particular circumstances of the case at hand, including the way in which the defence is presented", a deviation from the sequence of analysis under Article XX may be justified. See Appellate Body Report, *Indonesia – Import Licensing Regimes*, para. 5.100.

DPR are designed to secure compliance with laws or regulations that are themselves not inconsistent with the GATT 1994; and (ii) the export ban and the DPR are necessary to secure such compliance.[388]

7.3.1.1 Whether the measures at issue secure compliance with laws or regulations that are themselves not inconsistent with the GATT 1994

7.170. The Appellate Body explained in *India – Solar Cells* that to demonstrate that a measure falls within the scope of subparagraph (d) of Article XX of the GATT 1994 a responding Member must make three showings that apply cumulatively: (i) that there are laws or regulations for which it seeks to secure compliance; (ii) that such laws and regulations are not themselves inconsistent with the GATT 1994; and (iii) that the challenged measures are designed to secure compliance with those laws and regulations.[389]

7.3.1.1.1 Laws and regulations

7.171. The term "laws and regulations" is broad and can refer to a wide variety of government measures. The term, however, must be read in the context of subparagraph (d) of Article XX. For this reason, panels and the Appellate Body have reasoned that not all laws and regulations fall within the scope of subparagraph (d). In light of the obligation that the measures a respondent seeks to justify must be to secure compliance with those laws and regulations, prior panels and the Appellate Body have, in the Panel's view, correctly reasoned that the types of laws and regulations that can be justified under subparagraph (d) must be those "in respect of which conduct would, or would not, be in 'compliance'".[390]

7.172. The Appellate Body has identified a number of factors for panels to consider when evaluating whether a legal instrument raised by a respondent falls within the scope of laws and regulations within the meaning of Article XX(d). These factors include "(i) the degree of normativity of the instrument and the extent to which the instrument operates to set out a rule of conduct or course of action that is to be observed within the domestic legal system of a Member; (ii) the degree of specificity of the relevant rule; (iii) whether the rule is legally enforceable, including, e.g. before a court of law; (iv) whether the rule has been adopted or recognized by a competent authority possessing the necessary powers under the domestic legal system of a Member; (v) the form and title given to any instrument or instruments containing the rule under the domestic legal system of a Member; and (vi) the penalties or sanctions that may accompany the relevant rule".[391] Further, the assessment of the legal instruments or provisions identified by the respondent must be carried out "in light of the specific characteristics and features of the instruments at issue, the rule alleged to exist, as well as the domestic legal system of the Member concerned".[392] The Panel finds valuable guidance in this approach.

7.3.1.1.1.1 Main arguments of the parties and third parties

7.173. Indonesia's position on what the relevant laws and regulations are for the purposes of Article XX(d) of the GATT 1994 has evolved throughout the proceedings.[393] Ultimately, Indonesia

[388] Appellate Body Report, *Korea – Various Measures on Beef*, para. 157.
[389] Appellate Body Report, *India – Solar Cells*, para. 5.58.
[390] Appellate Body Report, *India – Solar Cells*, para. 5.108.
[391] Appellate Body Report, *India – Solar Cells*, paras. 5.150 and 6.6.
[392] Appellate Body Report, *India – Solar Cells*, paras. 5.114 and 6.6.
[393] Indonesia initially identified in its first written submission Articles 2, 3, 96-98 of Law No. 4/2009, Articles 3, 10, 23(1)(b) and 57 of Law No. 32/2009 and other implementing regulations as the "laws and regulations" within the meaning of Article XX(d) of the GATT 1994. Indonesia subsequently argued in its opening statement at the first meeting with the Panel that the relevant provisions were Articles 2(d), 3(b), and 96 of Law No. 4/2009, Articles 3 and 57 of Law No. 32/2009 and their respective implementing regulations. Then Indonesia further narrowed the scope of its relevant "laws and regulations" in its responses to the Panel's questions following the first meeting with the Panel by deleting the reference to the implementing regulations. In its second written submission, Indonesia first identified Articles 2 and 96 of Law No. 4/2009 and Articles 3 and 57 of Law No. 32/2009 and three paragraphs later it referred to Articles 2(d), 3(b) and 96 of Law No. 4/2009, Articles 3 and 57 of Law No. 32/2009 and the respective implementing regulations. See Indonesia's first written submission, paras. 153-169; opening statement at the first meeting with the Panel, para. 63; response to Panel question No. 10(c); and second written submission, paras. 121 and 124. See also European Union's second written submission, paras. 174, 189-192, and 217.

submits that the export ban and the DPR secure compliance with Articles 96(c) and (d) of Law No. 4/2009 and Article 57 of Law No. 32/2009.[394] Indonesia further submits that these provisions are part of two of the main pillars of its comprehensive policy framework to regulate mining activities, namely the protection of Indonesia's environment through the imposition of sustainable mining requirements, and the conservation of natural resources through the imposition of mineral resource management requirements.[395]

7.174. The European Union argues that the provisions identified by Indonesia do not constitute laws or regulations for the purposes of Article XX(d) because they have an aspirational nature and provide for general objectives.[396]

7.175. The third parties tend to support the European Union's view with Canada, Korea, the United Kingdom, and the United States all arguing that broad policy objectives cannot serve as the laws and regulations referred to under Article XX(d).[397] Japan, for its part, submits that "a law or regulation that lays out broad policy goals without requiring specific actions is not necessarily excluded from the coverage of Article XX(d)".[398] It further clarifies though that although laws and regulations "with a general objective and normative content are not excluded from the coverage of Article XX(d), the assessment of contribution of a measure at issue needs to have a minimum degree of specificity".[399]

7.3.1.1.1.2 Analysis by the Panel

Article 96(c) of Law No. 4/2009

7.176. Article 96(c) of Law No. 4/2009 (Article 96(c)) is one of the 18 provisions included in Part Two (Obligations) of Chapter XIII (Rights and obligations), and reads as follows:

> In applying the principles of good mining technique, the holders of IUP and IUPK shall:
>
> (c) manage and monitor the mining environment, including reclamation and post-mining; …[400]

7.177. Indonesia explains that this provision, which is part of Indonesia's comprehensive framework on sustainable mining and mineral resource management, sets out a sustainable mining binding requirement[401] that imposes specific legally prescribed rules of conduct on Indonesian market operators.[402]

7.178. The European Union argues that Article 96 identifies general categories of rules that mining business licence holders are required to implement.[403] In the European Union's view, this provision

[394] Indonesia's response to Panel question No. 105.
[395] Indonesia's first written submission, paras. 142-143.
[396] European Union's second written submission, paras. 200-201 and 210-211; and opening statement at the first meeting of the Panel, para. 68.
[397] Canada's third-party response to Panel question Nos. 7 and 9; Korea's response to Panel question No. 7 (noting that while broad policy objectives can be used as an interpretative tool to clarify the meaning of other provisions the actual laws and regulations must give rise to specific rules or norms); United Kingdom's response to Panel question Nos. 7 and 9 (arguing that an overly expansive interpretation of laws and regulations would allow GATT-inconsistent measures to be justified by referring to "aspirational objectives or broad policy goals, which would disturb the balance between trade liberalisation and the right to regulate enshrined in Article XX"); and United States' response to Panel question No. 7.
[398] Japan's third-party response to Panel question No. 7.
[399] Japan's third-party response to Panel question No. 7.
[400] Law No. 4/2009, (Exhibit EU-1(b)), Article 96(c). The Panel notes that Law No. 3/2020 amended Law 4/2009 so that what had been Article 96(c) is now Article 96(b); moreover the text was slightly modified in the following manner: "In the application of good mining technique principles, the holder of IUP or IUPK **must** implement…". The Panel does not find these changes material to the analysis and will continue to refer to Article 96(c) of Law No. 4/2009 as the parties do so throughout their argumentation.
[401] Indonesia's response to Panel question No. 105.
[402] Indonesia's second written submission, para. 146.
[403] European Union's second written submission, para. 205.

is insufficiently specific for the purposes of Article XX(d) because it is "framed in general terms and defines a broad task as opposed to specific rules or a course of conduct".[404]

7.179. The obligation imposed on IUP and IUPK holders in Article 96(c) to manage and monitor the mining environment, including reclamation and post-mining, takes places in the context of the application of the principles of good mining techniques. MEMR Regulation No. 26/2018 on the implementation of good mining principles and mineral and coal mining supervision[405] provides guidance for the implementation of good mining technical practices. Good mining principles are divided into those dealing with technical issues and those concerning enterprise management, as shown below:

Table 5: Good mining principles in MEMR Regulation No. 26/2018

Good mining principles	
Good mining technical principles (implementation of the following aspects)[406] ↓	**Mining enterprise management (implementation of the following aspects)[407]** ↓
(a) mining technical matters;	(a) marketing;
(b) mineral and coal conservation;	(b) finance;
(c) mining occupational health and safety;	(c) data management;
(d) mining operation safety;	(d) use of goods, services, and technology;
(e) management of the mining environment, reclamation, post-mining, and post-operation; and	(e) development of mining technical manpower;
(f) use of technology, engineering capability, design, development, and application of the mining technology.	(f) local community development and empowerment;
	(g) other activities in the field of mining business related to public interests;
	(h) implementation of activities pursuant to IUP or IUPK; and
	(i) amount/number, type, and quality of mining business products.

7.180. Both Article 96(c) of Law No. 4/2009 and the good mining technical principle set out in Article 3(3)(e) of MEMR Regulation No. 26/2018 deal with management of the mining environment, including reclamation and post-mining.

7.181. The first relevant factor is the degree of normativity of the relevant provision and the extent to which it sets out a rule of action to be observed within the domestic legal system. As noted above, this has been interpreted as "[t]he 'laws or regulations' … in respect of which conduct would, or would not, be in 'compliance'."[408] The Appellate Body drew a distinction between a legal instrument that "lays down a particular rule of conduct or course of action within the domestic legal system of a Member" and a legal instrument that "simply provid[es] a legal basis for action that may be consistent with certain objectives".[409] The use of coercion or an absolute certainty in the achievement of the stated goal of a measure is not required to find that a provision or a legal instrument constitutes a "law or regulation".[410] Article 96(c) establishes an obligation for IUP and IUPK holders, as denoted by the use of the term "shall" followed by the verbs "manage and monitor". The obligation to manage and monitor the mining environment established in subparagraph (c) entails certain acts or omissions for the IUP and IUPK holders, which may consist, for example, in conducting certain monitoring activities or refraining from remaining passive in certain situations such as environmental degradation beyond what is acceptable according to Indonesia's environmental laws and regulations. For this reason, the Panel considers that it may be possible to determine whether the conduct of an IUP and IUPK holder would be in compliance with the obligation provided in Article 96(c) of Law No. 4/2009.

7.182. The second relevant factor is the degree of specificity of Article 96(c). The Appellate Body considered that "[t]he "'more precisely' a respondent is able to identify specific rules, obligations, or

[404] European Union's second written submission, para. 208.
[405] MEMR Regulation No. 26/2018, (Exhibit IDN-56).
[406] MEMR Regulation No. 26/2018, (Exhibit IDN-56), Article 3(3).
[407] MEMR Regulation No. 26/2018, (Exhibit IDN-56), Article 3(4).
[408] See para. 7.171 above referring to Appellate Body Report, *India – Solar Cells*, para. 5.108.
[409] Appellate Body Report, *India – Solar Cells*, para. 5.110.
[410] Appellate Body Report, *Mexico – Taxes on Soft Drinks*, para. 74. See also Appellate Body Report, *India – Solar Cells*, para. 5.108.

requirements contained in the relevant 'laws or regulations', the 'more likely' it will be able to elucidate how and why the inconsistent measure secures compliance with such 'laws or regulations'".[411] The Panel notes that Article 96(c) touches upon broad areas of mining activities such as the management and monitoring of the mining environment.

7.183. The third relevant factor concerns the enforceability of Article 96(c). Although there is no need for a law or regulation within the meaning of Article XX(d) to be legally enforceable, the Appellate Body has considered that legal enforceability "may demonstrate the extent to which [a law or regulation] sets out a rule of conduct or course of action that is to be observed within the domestic legal system of a Member".[412] The Panel considers Article 96(c) to be an enforceable provision because of the binding nature of the obligation it contains, i.e. "shall manage and monitor the mining environment". Further, the Panel notes that Article 151 of Law No. 4/2009 provides for administrative sanctions for non-compliance with Article 96 that can take the form of a written warning, the suspension of part or all of the exploration or operational production, or the revocation of an IUP/IPR/IUPK. The Panel recalls that the imposition of penalties and sanctions is not required for a provision or legal instrument to qualify as a law or regulation but it is nonetheless relevant to the Panel's analysis.[413]

7.184. The last two relevant factors relate to the authority that has adopted or recognized Article 96(c) and the form and title of the instrument containing Article 96(c), which "may shed light on its legal status and content" but are not determinative of whether it qualifies as a "law or regulation".[414] Article 96(c) is one of the 18 provisions included in Part Two of the Law on Mineral and Coal Mining of Indonesia, i.e. Law No. 4/2009, entitled "Obligations". The Government of Indonesia enacted this Law.[415]

7.185. A careful analysis of the above-mentioned factors leads us to conclude that Article 96(c) is a law or regulation within the meaning of Article XX(d) of the GATT 1994 because it sets out an obligation to be observed by IUP and IUPK holders within the Indonesian legal system that can be enforced, and its degree of normativity is sufficient for the purposes of Article XX(d) of the GATT 1994.

Article 96(d) of Law No. 4/2009

7.186. Article 96(d) of Law No. 4/2009 (Article 96(d)) is one of the 18 provisions included in Part Two (Obligations) of Chapter XIII (Rights and obligations). The Government of Indonesia enacted this Law.[416] The provision reads as follows:

> In applying the principles of good mining technique, the holders of IUP and IUPK shall:
>
> … (d) make mineral and coal resources conservation efforts; …

7.187. Indonesia explains that this provision, which is part of Indonesia's comprehensive framework on sustainable mining and mineral resource management, sets out a resource management requirement[417] that imposes on Indonesian market operators "specific, legally prescribed rules of conduct".[418]

7.188. The European Union argues that Article 96(d) is framed in general terms and is insufficiently specific since it establishes a broad task, and not specific rules or course of conduct as required by Article XX of the GATT 1994.[419]

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[411] Appellate Body Report, *Argentina – Financial Services*, para. 6.203. See also Appellate Body Report, *India – Solar Cells*, para. 5.110.
[412] Appellate Body Report, *India – Solar Cells*, para. 5.109.
[413] Appellate Body Report, *India – Solar Cells*, para. 5.109.
[414] Appellate Body Report, *India – Solar Cells*, para. 5.112.
[415] Indonesia's first written submission, para. 154.
[416] Indonesia's first written submission, para. 154.
[417] Indonesia's response to Panel question No. 105.
[418] Indonesia's response to Panel question No. 105. See more generally Indonesia's second written submission, para. 146.
[419] European Union's second written submission, para. 208.

7.189. Article 96(d) refers to the obligation of IUP and IUPK holders to "make mineral and coal resources conservation *efforts*". (emphasis added) Such vague language about the content of the obligation makes this provision closer to a legal basis for action consistent with good mining principles than to an established rule of conduct or course of action. Even more so as the efforts referred to in Article 96(d) concern a very broad area of mining activities, namely mineral and coal resources conservation. The Panel refers to its analysis above concerning the authority that adopted Article 96(d) and the form and title of the legal instrument in which it is found since both provisions form part of the same legal instrument, i.e. Law No. 4/2009.

7.190. Similar to subparagraph (c), subparagraph (d) also closely resembles the good mining technical principle set out in Article 3(3)(b) of MEMR Regulation No. 26/2018, which concerns mineral and coal conservation.

7.191. The Panel acknowledges that Article 151 of Law No. 4/2009 establishes the ability to impose sanctions for non-compliance with Article 96. The Panel is not convinced, however, that this would disturb its understanding of Article 96(d). Because of the "best efforts" character of the provision it is hard to see how the sanctions under Article 151 could be enforced.

7.192. In light of the above, the Panel considers that Article 96(d) of Law No. 4/2009 does not qualify as a law or regulation for the purposes of Article XX(d) of the GATT 1994 because it is not an enforceable obligation whose compliance can be secured.

Article 57 of Law No. 32/2009

7.193. Finally, the Panel turns to the third provision identified by Indonesia, namely Article 57 of Law No. 32/2009 concerning the protection and management of environment (Article 57). This provision, which is the only provision in Chapter VI of Law No. 32/2009, entitled "Maintenance", reads as follows:

> (1) Maintenance of environment shall be conducted by ways of: a. conservation of natural resources; b. reserves of natural resources; and/or c. preservation of the function of atmosphere.
>
> (2) Conservation of natural resources as cited in paragraph (1) letter a shall cover the activities of: a. protecting the natural resources; b. preserving the natural resources; and c. sustaining the natural resources.
>
> (3) Preserving the natural resources as cited in paragraph (1) letter b shall be of the natural resource that cannot be managed in a certain period of time.
>
> (4) Sustaining the function of atmosphere as cited in paragraph (1) letter c shall include: a. the mitigation and adaptation to climate change; b. the protection of ozone layer; and c. the safeguard against acid rain.
>
> (5) Further provisions on the conservation and reserves of natural resources and the preservation of the function of atmosphere as cited in paragraph (1) shall be regulated under a Government Regulation.[420]

7.194. Indonesia explains that this provision is part of Indonesia's comprehensive framework on sustainable mining and mineral resource management and sets out both sustainable mining and resource management requirements. Indonesia argues that Article 57 imposes "specific legally prescribed rules of conduct" that are not hortatory or vague[421], as can be seen from its language ("shall be conducted").[422]

7.195. The European Union submits that Article 57 is formulated in general terms and, therefore, lacks the required degree of normative content or specificity. In particular, the European Union

[420] Law No. 32/2009, (Exhibit IDN-53).
[421] Indonesia's response to Panel question No. 105.
[422] Indonesia's second written submission, para. 146.

argues that it is unclear how the obligation to ensure the preservation of the function of the atmosphere can constitute a sustainable mining requirement.[423]

7.196. Indonesia refers to the entirety of Article 57 and not to any one particular subparagraph. Paragraph (1) of this provision contains the only obligation, namely that IUP and IUPK holders preserve the environment by three means, i.e. (i) conservation of natural resources; (ii) reserves of natural resources; and/or (iii) preservation of the function of atmosphere. Paragraphs (2) to (4) define the scope of each of these means, and paragraph (5) provides for further regulatory development of this provision through a government regulation.

7.197. The scope of application of this provision is broad, playing an umbrella role on several issues related to the preservation of the environment. Paragraph (5) indicates that Article 57 does not itself set out the specific manner in which IUP and IUPK holders can comply with the obligation in paragraph (1), but rather that the specific provisions are meant to be set down in an implementing regulation. Such implementing regulations should have been enacted or issued within a period of no longer than one year after the enactment of Law No. 32/2009.[424] Indonesia did not argue that Article 57 needed to be read together with a particular implementing regulation in terms of its affirmative defence under Article XX(d) of the GATT 1994. Moreover, nothing in Law No. 32/2009 provides for penalties or sanctions in case of non-compliance. The Panel concludes, therefore, that Article 57 on its own does not contain a legally enforceable obligation.

7.198. Article 57 is the only provision in Chapter VI of Law No. 32/2009 on "Maintenance". The Government of Indonesia enacted this Law.[425]

7.199. The Panel considers that the distinction drawn by the Appellate Body between a legal instrument that "lays down a particular rule of conduct or course of action within the domestic legal system of a Member" and a legal instrument that "simply provid[es] a legal basis for action that may be consistent with certain objectives"[426] is particularly relevant when assessing this provision. The Panel considers that Article 57 falls into the category of provisions that provide a legal basis for action; it does not lay down a sufficiently specific rule of conduct or course of action that can be enforced but rather some broad guidelines that should be translated into specific actions aiming at preserving the environment in the fields of conservation and reserves of natural resources and preservation of the function of atmosphere.

7.200. Based on the above considerations, the Panel concludes that Article 57 of Law No. 32/2009 does not qualify as a law or regulation for the purposes of Article XX(d) of the GATT 1994 because its normative content and specificity are not sufficient to consider that it is an enforceable obligation whose compliance can be secured.

Conclusion

7.201. In sum, the Panel finds that Indonesia has demonstrated that Article 96(c) of Law No. 4/2009 is a law or regulation within the meaning of Article XX(d) of the GATT 1994, but Indonesia has failed to demonstrate that Article 96(d) of Law No. 4/2009 and Article 57 of Law No. 32/2009 fall within the scope of the subparagraph.

7.202. Consequently, the Panel will continue its analysis with respect to Article 96(c) of Law No. 4/2009 only. The Panel now examines whether this provision is "not inconsistent" with the provisions of the GATT 1994.

7.3.1.1.2 Consistency of the laws and regulations with the GATT 1994

7.203. Past panels dealing with defences under Article XX(d) such as *Colombia – Ports of Entry* and *Colombia – Textiles* found that a responding Member's law should be treated as WTO consistent until proven otherwise on the basis of an Appellate Body statement in *US – Carbon Steel*.[427] Even if this

[423] European Union's comments on Indonesia's response to Panel question No. 106.
[424] Law No. 32/2009, (Exhibit IDN-53), Article 126.
[425] Indonesia's first written submission, paras. 154 and 161.
[426] Appellate Body Report, *India – Solar Cells*, para. 5.110.
[427] Panel Reports, *Colombia – Ports of Entry*, para. 7.531; and *Colombia – Textiles*, para. 7.511 (referring to Appellate Body Report, *US – Carbon Steel*, para. 157).

Appellate Body statement concerned the consistency of the challenged measures, and not the consistency of the legal instruments the measures at issue seek to secure compliance with, the Panel considers it also relevant for this element of the legal standard because it reflects the general principle that the party arguing that a measure is WTO inconsistent must prove it.

7.3.1.1.2.1 Main arguments of the parties

7.204. Indonesia argues that the sustainable mining and mineral resource management requirements of Indonesia's comprehensive policy framework on mining activities are consistent with its WTO obligations as well as with other international commitments.[428] In particular, Indonesia submits that "its sustainable mining and mineral resource management requirements pursue, and are fully in line with, a core objective of the WTO covered agreements, namely, the sustainable use of natural resources and the preservation of the environment, which finds explicit expression in the Preamble to the WTO Agreement".[429] Further, Indonesia contends that its "sustainable mining and mineral resource management laws … are non-discriminatory, do not entail quantitative restrictions, are fully transparent and administered in a uniform, reasonable and impartial manner".[430]

7.205. Indonesia further submits that "generally, and in the absence of any indication to the contrary, laws and regulations consistent with the sustainable use of natural resources and the preservation of the environment can properly be characterized as GATT-consistent 'laws or regulations' for the purposes of Article XX(d)".[431]

7.206. The European Union initially did not express its views on the consistency of Indonesia's laws and regulations with the GATT 1994 because it considered Indonesia had not particularized its case. Nonetheless, the European Union states that, in general terms, it is not suggesting that laws or regulations that are designed to ensure environmental protection or sustainable mining are WTO inconsistent.[432] After clarifications by Indonesia at the second substantive meeting regarding the provisions on which it relies for the purpose of its defence under Article XX, the European Union indicates that it does not contest that those specific provisions are WTO consistent.[433]

7.3.1.1.2.2 Analysis by the Panel

7.207. Past panels have presumed the consistency of the relevant laws and regulations under Article XX(d) of the GATT 1994 when the complainant did not contest it.[434]

7.208. Article 96(c) of Law No. 4/2009 reads as follows:

> In applying the principles of good mining technique, the holders of IUP and IUPK shall:
>
> (c) manage and monitor the mining environment, including reclamation and post-mining; …[435]

7.209. The Panel finds nothing in the text of Article 96(c) of Law No 4/2009 that indicates that this provision is inconsistent with the GATT 1994.

7.210. As the European Union does not dispute the GATT-consistency of Article 96(c) and in the absence of any evidence to the contrary, the Panel sees no basis to find that Article 96(c) of Law

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[428] Indonesia's first written submission, para. 143. See also Indonesia's first written submission, para. 152; and second written submission, para. 125. For example, Indonesia claims that its "laws and regulations directly conform with paragraph 46 of the Annex to the Johannesburg Declaration on Sustainable Development, Plan of Implementation of the World Summit on Sustainable Development". See Indonesia's first written submission, para. 173.

[429] Indonesia's second written submission, para. 125.

[430] Indonesia's first written submission, para. 172.

[431] Indonesia's second written submission, para. 125.

[432] European Union's response to Panel question No. 40.

[433] European Union's response to Panel question No. 104.

[434] See e.g. Panel Report, *Indonesia – Chicken*, para. 7.124 (referring to Appellate Body Report, *US – Carbon Steel*, para. 157).

[435] Law No. 4/2009, (Exhibit EU-1(b)), Article 96(c).

No. 4/2009 is inconsistent with the GATT 1994. The Panel will therefore proceed with its analysis on the basis that Article 96(c) of Law 4/2009 is not inconsistent with the GATT 1994.

7.3.1.1.3 Secure compliance with the relevant laws and regulations

7.211. The next element of analysis under Article XX(d) is whether the challenged measures – export ban and the DPR – secure compliance with Article 96(c). The Panel will examine each measure separately.

7.212. To determine whether a measure at issue secures compliance with the relevant laws or regulations a panel must assess whether those measures are *designed* to secure compliance with them[436], that is, whether there is a relationship between the measure at issue and ensuring compliance with those laws or regulations. This initial assessment has been traditionally considered to be "not… particularly demanding"[437] since it requires that an examination of the design of the measure at issue, including its content, structure, and expected operation, reveals that the measure is not incapable of ensuring compliance with the relevant law or regulation.[438]

7.213. Thus, if the Panel were to find that either the export ban or the DPR is capable, even remotely or hypothetically, of securing compliance with Article 96(c), that would be enough to conclude that the measure(s) at issue secure compliance with this provision within the meaning of Article XX(d) of the GATT 1994.

7.3.1.1.3.1 Export ban

Main arguments of the parties

7.214. Indonesia submits that the export ban is "manifestly not 'incapable' of securing compliance with Indonesia's sustainable mining and mineral resource management requirements".[439] Indonesia argues that the export prohibition is a "*preventive* measure[] to secure compliance with its comprehensive policy framework for mining activities, in particular sustainable mining and mineral resource management requirements".[440] In this regard, Indonesia notes that foreign demand presents a greater risk of non-compliance because foreign purchasers of nickel ore do not fall within Indonesia's jurisdiction.[441] Indonesia further argues that remedial measures to address these risks have not worked in the past.[442]

7.215. Indonesia argues that the export prohibition "reduces total Indonesian production and extraction of nickel ore".[443] In this respect Indonesia notes that "export demand was met almost exclusively by illegal or poorly regulated mining activities"[444] and, therefore, an export ban would reduce such mining practices and the adverse environmental and resource conservation effects closely associated with them.[445]

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[436] Appellate Body Report, *Korea – Various Measures on Beef*, para. 157.
[437] Appellate Body Report, *Colombia – Textiles*, para. 5.70.
[438] Appellate Body Report, *Argentina – Financial Services*, para. 6.203. The Appellate Body has warned about an "analysis of the ["design" step] in such a way as to lead [the Panel] to truncate its analysis prematurely and thereby foreclose consideration of crucial aspects of the respondent's defence relating to the 'necessity' analysis". See Appellate Body Report, *Argentina – Financial Services*, para. 6.203.
[439] Indonesia's first written submission, para. 176.
[440] Indonesia's first written submission, para. 145. See also Indonesia's first written submission, para. 144.
[441] Indonesia's second written submission, para. 173.
[442] Indonesia's second written submission, paras. 171-172; and opening statement at the second meeting of the Panel, para. 84.
[443] Indonesia's first written submission, para. 177.
[444] Indonesia's response to Panel question No. 64.
[445] Indonesia's first written submission, para. 177. See also Indonesia's second written submission, para. 128.

7.216. Indonesia contends that the fact that the export ban has an economic objective related to the increase of added value in Indonesia does not detract from the fact that it also has a resource conservation objective, namely, to decrease the extraction rate.[446]

7.217. Indonesia further emphasizes the close relationship between the export ban and Indonesia's sustainable mining and mineral resource management requirements in light of the explicit references to Law Nos. 4/2009 and 32/2009 in MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019.[447]

7.218. The European Union contends that the export ban is not designed to secure compliance with the relevant laws and regulations identified by Indonesia but instead to increase the added value of Indonesia's exports.[448] The European Union argues that Indonesia has not demonstrated a relationship between the export ban and the objective of securing the enforcement of rules requiring permit holders in general terms to adhere to environmental standards for the following reasons.

7.219. First, the European Union contends that the export ban does not prevent or limit ore extraction and that Indonesia has not identified any limitation on domestic consumption or extraction. The European Union explains that, on the contrary, evidence on the record shows that overall domestic extraction and consumption will increase in the coming years. In the European Union's view, this means that the export ban "is plainly not designed to reduce nickel ore production and extraction but solely to modify the destination of the ore once extracted".[449] In this regard, the European Union considers that its approach finds support in the same UNCTAD Report Indonesia relies upon, which "suggests that the primary objective was in fact that of value addition"[450] and not ensuring adherence to environmental standards.

7.220. Second, the European Union is of the view that Indonesia has not demonstrated how the ban on exports of nickel ore incentivizes domestic producers to comply with the relevant domestic regulatory requirements or improves the enforcement issues Indonesia is facing.[451]

7.221. In response to Indonesia's argument that there is a relationship between the export ban and Law No. 4/2009 because the legal instruments that implement the export ban refer to Law No. 4/2009, the European Union notes that the references made in MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019 to Law No. 4/2009 do not indicate that the export ban seeks to secure compliance with Article 96(c). In this respect, the European Union notes that MEMR Regulation No. 11/2019 refers to 11 different legal instruments and does not elaborate on the link between this Regulation and Law No. 4/2009.[452] The European Union notes that MEMR Regulation No. 11/2019 explains in its preamble that the changes it introduces aim at "ensur[ing] the continuity of supply of nickel processing and refining facilities as directed by the President of the Republic of Indonesia on 24 July 2019 and 26 August 2019" in light of the domestic nickel processing and refining facilities that have been built.[453]

7.222. As regards MOT Regulation No. 96/2019, the European Union notes that it was enacted to "provide business certainty, increase the added value of the Export of Mining commodities, and support the effectiveness of the implementation of the Export of Mining commodities as the Processing and refining products through online single licensing service system".[454] The European Union emphasizes that MOT Regulation No. 96/2019 only refers to Article 102 of Law No. 4/2009 in the context of the need for IUP and IUPK holders to increase the added value of the mineral resources. For the European Union, this indicates that the objective of MOT Regulation

[446] Indonesia's second written submission, para. 143 (referring to UNCTAD, Lessons from Indonesia's ban on nickel exports, Background document, (Exhibit IDN-23), p. 3).
[447] Indonesia's first written submission, para. 179.
[448] European Union's second written submission, para. 175. See also European Union's second written submission, para. 219.
[449] European Union's second written submission, paras. 225-226.
[450] European Union's second written submission, para. 230.
[451] European Union's second written submission, paras. 233-234.
[452] European Union's second written submission, para. 245.
[453] European Union's second written submission, para. 245.
[454] European Union's second written submission, para. 245.

No. 96/2019 "is about securing added value and not ensuring that there are high standards of environmental protection or the conservation of natural resources".[455]

Analysis by the Panel

7.223. The question before the Panel is whether the export ban is not incapable of securing compliance with Article 96(c) of the Law No. 4/2009. The Panel agrees with past panels and the Appellate Body that an examination of the design of the export ban, including its content, structure, and expected operation may reveal whether that is indeed the case.

7.224. The export ban is implemented through Article 3 and Appendix IV of MOT Regulation No. 96/2019 and Article 1 paragraph 2 of MEMR Regulation No. 11/2019.[456] The exportation of nickel ore was prohibited as from 1 January 2020, without any indication of a date when the prohibition would end.

7.225. MEMR Regulation No. 11/2019 is the second amendment to MEMR Regulation No. 25/2018, which concerns mineral and coal businesses. The preamble of MEMR Regulation No. 11/2019 refers to the need to amend MEMR Regulation No. 25/2018 to "ensure sustainability of supply for purifying and processing facilities of nickel" and mentions the establishment of several nickel and purifying and processing facilities in Indonesia.[457] MOT Regulation No. 96/2019 deals with exports of processed and purified mining products. The preamble of MOT Regulation No. 96/2019 refers to the need to improve export regulations for processed and purified mining products to "provide business certainty" and "increase the added value of Mining Products".[458] It also refers to the obligation of IUP and IUPK holders to "increase the added value of mineral resources in mining, processing and refining, as well as mineral utilization".[459]

7.226. The legal instruments that implement the export ban do not explicitly pursue an environmental objective, which is, according to Indonesia, the objective of Article 96(c), but rather an economic objective. Yet, the Panel cannot rule out that the export ban may have a positive impact on the environment, as alleged by Indonesia, which considers that the export ban fulfils a resource conservation objective by decreasing the extraction rate.

7.227. In this respect, the Panel observes that there has been a reduction in the total production of nickel ore since the entry into force of the export ban, i.e. 61 million tonnes in 2019 vs 52.7 million tonnes in 2020.[460] The reduction in production (8.3 million tonnes) is lower than the reduction in exports (from 30.2 million tonnes in 2019 to zero in 2020). The Panel further notes that domestic consumption of nickel ore doubled from 2019 (21.6 million tonnes) to 2020 (43.5 million tonnes[461]). Domestic consumption is expected to increase even more significantly with the introduction of a large number of new smelters expected to be operational by 2026[462], which would enable the development in Indonesia of an EV battery industry in the future.[463] This shift aligns with the purpose expressed in the preamble of MEMR Regulation No. 11/2019 of "ensur[ing] sustainability of supply for purifying and processing facilities of nickel … established domestically".[464]

7.228. In light of this evidence, the Panel cannot exclude the possibility that the export ban has had some downward pressure on extraction rates. The Panel notes, however, that Indonesia itself

[455] European Union's second written submission, para. 245.
[456] See section 2.1.1 above and European Union's first written submission, paras. 24-26.
[457] MEMR Regulation No. 11/2019, (Exhibit EU-10(b)), preamble, para. (a).
[458] MOT Regulation No. 96/2019, (Exhibit EU-11(b)), preamble, para. (a).
[459] MOT Regulation No. 96/2019, (Exhibit EU-11(b)), preamble, para. (b).
[460] MEMR, Excel of "Production and Sales of Nickel Ore from 2010-2020", (Exhibit IDN-24).
[461] The Maryono Report indicates that [[***]] (Exhibit IDN-18(BCI)), p. 24.
[462] Maryono Report, (Exhibit IDN-18(BCI)), p. 24 [[***]].
[463] Indonesia's response to Panel question No. 100; MEMR, Presentation on "The Role of Minerals in the Development of Indonesia's Battery Industry", 10 September 2021, (Exhibit IDN-127 (BCI)); NIKKEI Asia, "Indonesia teams with LG to build $1.2bn battery plant", 25 May 2021, (Exhibit IDN-51); Financial Times, "Indonesia and Foxconn in talks over electric vehicle investment", 1 November 2021, (Exhibit IDN-78); The Indonesian Government's Arguments to WTO Regarding the Ban on Nickel Exports, 5 December 2019, (Exhibit EU-20), p. 1; and Remarks of President of the Republic of Indonesia at the Opening Inauguration of the 2021 National Coordination Meeting and Investment Service Award, 24 November 2021, (Exhibit EU-22), p. 5.
[464] MEMR Regulation No. 11/ 2019, (Exhibit 10(b)), preamble, para. (a).

predicts that increased domestic demand will require expansion in nickel ore extraction[465] as Indonesia does not satisfy the domestic demand for nickel ore through imports.[466]

7.229. Indonesia argues that the rate of extraction is not the only relevant factor to consider when looking at the effect of the export ban because the export-oriented mines were operating illegally or under poor regulation and caused more environmental degradation than mines selling to domestic smelters.[467] The Panel does not find evidence on the record that establishes such a causal relationship between the export ban and an improvement in the sustainability of mining practices in Indonesia.[468] The Panel cannot, however, completely dismiss the possibility that the export ban, by removing foreign purchasers from the market, also reduces illegal and poorly regulated mining activity and, consequently, contributes to the sustainability of nickel mining in Indonesia.

7.230. The Panel is of the view that measures can have multiple objectives and effects.[469] Even though the stated objective of the export ban relates to ensuring supply for the domestic industry this does not preclude that it was also intended to address problems related to the sustainability of export-oriented nickel mines. The Panel also cannot exclude that the resulting reduction in exports could have had a positive impact on the sustainability of nickel mining in Indonesia.

7.231. The European Union is correct that the prohibition on nickel ore exports was not done in conjunction with a limitation on domestic consumption of nickel ore. The Panel agrees with Indonesia, however, that such restrictions on domestic consumption do not constitute an integral part of the legal standard under Article XX(d) of the GATT 1994 as they would if Indonesia had invoked Article XX(g). The presence or lack of such restrictions, nonetheless, constitutes a relevant factor in assessing Indonesia's argument that the export ban pursues the conservation objective of decreasing the extraction rate of nickel ore.[470]

7.232. As regards the relationship between the export ban and Article 96(c) of Law No. 4/2009, the Panel does not find anything in the legal instruments that implement the export ban that explicitly refers to Article 96(c). Article 3 and Appendix IV of MOT Regulation No. 96/2019 and Article 1 paragraph 2 of MEMR Regulation No. 11/2019 whereby the export ban is implemented, make no reference to Article 96(c) or any issue related to sustainable mining and resource conservation. The Panel finds, however, a certain degree of connection in the sense that the export ban and Article 96(c) do in fact concern the management of mining activity in Indonesia. In this respect, the Panel notes that MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019 refer to Law No. 4/2009, which is the cornerstone of Indonesia's legal framework governing mining.

7.233. The foregoing does not detract from the fact that an export ban may, to a certain extent, have the effect of securing compliance with Article 96(c) by reducing the total production and extraction of nickel ore. The fact that there is not absolute certainty on what the effects of the export ban currently are or will be does not prevent the Panel from concluding that the export ban is not incapable of securing compliance with Article 96(c). The fact that there is a possibility, even remote, for the export ban to secure compliance with Article 96(c), therefore, leads the Panel to conclude

[465] Government Regulation No. 14 of 2015 on the RIPIN, (Exhibit EU-17(rev)), Table 4.1.

[466] INSG, Report on Nickel Production and Usage in Indonesia, February 2020 (Exhibit IDN-13) shows that for the period 2015-2018 Indonesia did not import significant quantities of nickel ores, nickel concentrates, ferro nickel, or nickel mattes. Indonesia does import nickel hydroxide, nickel sulfate, nickel chloride, and nickel cathode. Indonesia confirmed the Panel's understanding that it does not satisfy demand with imports, at the second meeting with the Panel.

[467] UNCTAD, Lessons from Indonesia's ban on nickel exports, Background document, (Exhibit IDN-23), p. 12. The Panel notes that Exhibits IDN-68, IDN-69, and IDN-70 also report illegal or poorly regulated mining practices, but do not specify whether the nickel ore from those mines is exported.

[468] It could be argued as well that an export ban would have no effect on illegal mining as those willing to operate outside the domestic legal framework would be willing to continue to do so. The Panel notes, in this respect, that despite the export ban, Indonesia remained China's second-biggest nickel ore supplier in 2020 according to Chinese customs data, when the export ban was already in place. See Reuters, "Update 1 – Indonesia Stays China's Second-Biggest Nickel Ore Supplier Despite Export Ban (January 2021)", available at https://www.reuters.com/article/china-economy-trade-nickel-idUSL1N2JV0FP, (Exhibit IDN-106). The Panel further notes, however, that Indonesia's export data shows no exports of nickel ore to China in 2020 and close to zero in 2021. See BPS Export Data Indonesia, (Exhibit IDN-91), p. 1.

[469] See e.g. Appellate Body Report, *US – Clove Cigarettes*, paras. 113 and 115.

[470] Indonesia's first written submission, para. 177; second written submission, para. 128. See also UNCTAD, Lessons from Indonesia's ban on nickel exports, Background document, (Exhibit IDN-23), p. 10.

that Indonesia has demonstrated that the export ban is a measure to secure compliance with Article 96(c) within the meaning of Article XX(d) of the GATT 1994.

7.3.1.1.3.2 DPR

Main arguments of the parties

7.234. Indonesia contends that the DPR is "capable of contributing to securing compliance with Indonesia's sustainable mining and mineral resource management requirements by promoting vertical integration in the supply chain", which in turn "is critical to promoting sustainable mining practices".[471] According to Indonesia, "[t]he domestic processing requirement seeks to induce long-term changes in the behaviour of market operators by fostering long-term supply arrangements between mining companies and smelters".[472] Indonesia explains that "the domestic processing requirement curbs predatory mining practices and ensure[s] that all mining activities are properly regulated both on the supply and on the demand side" because "domestic smelters require that the nickel ore that they purchased be mined in conformity with Indonesia's sustainable mining and mineral resource management requirements".[473]

7.235. Indonesia further argues that the DPR is a preventive measure that was adopted after other past remedial measures, e.g. licensing requirements, environmental management and monitoring measures, increased enforcement through fines and sanctions, and clear and clean (CnC) certification, were unsuccessful at achieving their objective of securing compliance with Indonesia's comprehensive policy framework for mining activities.[474]

7.236. Indonesia points to the explicit references to Law Nos. 4/2009 and 32/2009 in MEMR Regulation No. 25/2018 and MEMR Regulation No. 50/2018 to demonstrate a close relationship between the DPR and sustainable mining and mineral resource management requirements.[475]

7.237. The European Union argues that Indonesia has failed to demonstrate a link between the design of the DPR and securing compliance with Article 96(c).[476] In the European Union's view, the DPR is designed to increase the added value of Indonesia's exports.[477] The European Union further argues that the references made in MEMR Regulation No. 25/2018 to Law Nos. 4/2009 and 32/2009 do not indicate that the measures at issue seek to secure compliance with the environmental provisions in such laws and regulations. In this respect, the European Union notes that the preamble of MEMR Regulation No. 25/2018 states that it is enacted "in order to ensure the legal certainty and business certainty and to increase the effectiveness, efficiency and accountability in the implementation of the mining business activity and to encourage the development of minerals and coal businesses". The European Union further notes that subparagraph (b) of the preamble refers to Article 127 of Law No. 4/2009, which is not one of the provisions relied upon by Indonesia in the context of its defence under Article XX(d).[478]

Analysis by the Panel

7.238. The Panel now examines the design of the DPR, including its content, structure, and expected operation to determine whether the DPR is not incapable of securing compliance with Article 96(c).

7.239. The DPR is set out in Article 103(1) of Law No. 4/2009, and implemented through Article 17 of MEMR Regulation No. 25/2018, and Article 66 of MEMR Regulation No. 7/2020. Article 103(1) of Law No. 4/2009 sets out the general principle that IUP and IUPK holders must conduct mineral processing and refining in Indonesia. This same principle is contained in Article 17 of MEMR Regulation No. 25/2018 and Article 66 of MEMR Regulation No. 7/2020 in the context of sales

[471] Indonesia's first written submission, para. 178.
[472] Indonesia's first written submission, para. 178.
[473] Indonesia's first written submission, para. 178.
[474] Indonesia's first written submission, para. 145. See also Indonesia's first written submission, para. 144; and second written submission, paras. 171-172.
[475] Indonesia's first written submission, para. 179.
[476] European Union's second written submission, para. 243.
[477] European Union's second written submission, para. 175. See also European Union's second written submission, para. 219.
[478] European Union's second written submission, para. 245.

abroad. Article 17 establishes that holders of IUP for Production Operation, IUPK for Production Operation, and IUP for Production Operation specifically for the processing and/or purification of metallic Mineral, nonmetallic Mineral, or rocks must "conduct[] the Enhancement of Added Values through the activities of Processing and/or Purification in accordance with the minimum limits of Processing and/or Purification as included in Appendix I, Appendix II, and Appendix III" before exportation. Similarly, Article 66 of MEMR Regulation No. 7/2020 prohibits IUP and IUPK holders from selling abroad products resulting from mining without having carried out processing and refining in Indonesia first.

7.240. MEMR Regulation No. 25/2018 establishes a two-fold objective in its preamble: (i) "ensure the legal certainty and business certainty and to increase effectiveness, efficiency and accountability in the implementation of the mining business activity and to encourage the development of mineral and coal businesses"[479], and (ii) implement several listed provisions, none of which is Article 96(c).[480] Neither the preamble nor the text of Article 17 nor Appendix I of MEMR Regulation No. 25/2018 establish a connection with sustainable mining or resource conservation principles.

7.241. The preamble of Law No. 4/2009 does refer to the environmental sustainability of mining by stating that creation of businesses to manage and exploit mineral and coal potential must be done in a "self-reliant, reliable, transparent, effective, efficient and environment-oriented way" to "ensure sustainable national development". It also refers to the objective of managing mineral resources to give "real added value" to the national economy.[481]

7.242. As regards MEMR Regulation No. 7/2020 on procedures for the granting of areas, licensing, and reporting in relation to mineral and coal-mining business activities, it shares with MEMR Regulation No. 25/2018 the objective of ensuring legal and business certainty and to increase effectiveness, efficiency and accountability in the implementation of the mining business activity and to encourage the development of mineral and coal businesses. This Regulation amends MEMR Regulation No. 11/2018 and implements several provisions in Law No. 4/2009, Government Regulation No. 22/2010, and Government Regulation No. 23/2010.[482]

7.243. Neither Article 103 of Law No. 4/2009 nor the relevant provisions in MEMR Regulation No. 25/2018 and MEMR Regulation No. 7/2020 show any relevant relationship with Article 96(c) or, more generally, with the sustainability of mining activities. Rather, these legal instruments pursue economic objectives, as mentioned in their respective preambles, such as developing mineral businesses and generating added value in Indonesia. This finds support in public statements by the President of Indonesia and high-level government officials[483], and in national industrial plans such as the Medium-Term National Development Plan (RPJMN) 2020–2024, the National Industry Development Master Plan 2015-2035 (RIPIN), and National Industrial Policy 2015-2019, which prioritize the development of upstream and intermediate industry based on natural resources and the increase of added value of the natural resources in mineral processing based upstream industry.[484]

7.244. This economic dimension can also be deduced from the text of the provisions through which the DPR is developed, more specifically Articles 16(4) and (5) of MEMR Regulation No. 25/2018.

[479] MEMR Regulation No. 25/2018, (Exhibit EU-9(b)), preamble, para. a).

[480] These provisions are Article 127 of Law No. 4/2009, Articles 43, 84(4), 85(4), 88, 91, 92(3), 96, 99, 109, 112C point 5, and 112 of Government Regulation No. 23/2010, and Article 15 of Government Regulation No. 9/2012. See MEMR Regulation No. 25/2018, (Exhibit EU-9(b)), preamble, para. b).

[481] Law No. 4/2009, (Exhibit EU-1(b)), preamble, paras. b) and c).

[482] These provisions are Article 127 of Law No. 4/2009, Articles 21(4) and 38(4) of Government Regulation No. 22/2010, and Articles 19, 27(2), 41, 44(5), 61, 68, 83, and 105 of Government Regulation No. 23/2010.

[483] See e.g. The Indonesian Government's Arguments to WTO Regarding the Ban on Nickel Exports, 5 December 2019, (Exhibit EU-20); Transcript of President Joko Widodoi's Speech (translated) at the groundbreaking ceremony of PT Freeport Indonesia's (PTFI) new copper smelter, at the Gresik Special Economic Zone, East Java, 12 October 2021 (Exhibit EU-21); Remarks of President of the Republic of Indonesia at the Opening Inauguration of the 2021 National Coordination Meeting and Investment Service Award, 24 November 2021, (Exhibit EU-22); President Joko Widodo Inaugurates Nickel Smelter in SE Sulawesi, 27 December 2021, (Exhibit EU-23); and President Joko Widodo openly talks about coal exports and the next targets, 10 January 2022, (Exhibit EU-24).

[484] Medium-Term National Development Plan (RPJMN) 2020–2024, (Exhibit EU-16(rev)); Master Plan of National Industry Development 2015-2035, (Exhibit EU-17(rev)); and Presidential Regulation No. 2/2018 on the National Industry Policy 2015-2019, (Exhibit EU-18(rev)).

These provisions establish that IUP and IUPK holders for Production Operation can comply with the requirement to process and purify nickel and other minerals domestically by cooperating with other mining licence holders. In this respect, the Panel agrees with Indonesia that the DPR may promote vertical integration in the supply chain, as demonstrated by the fact that, as of September 2021, "integrated smelters with the nickel ore mines have developed in [[***]] IUP-KK licenses".[485] The issue is whether such integration between mining companies and smelters "promotes sustainable mining practices", as Indonesia alleges[486] and, more particularly, whether this results in the DPR not being incapable of securing compliance with Article 96(c).

7.245. The Panel noted above that measures can have multiple objectives and effects. The fact that the legal instruments that implement the DPR do not explicitly refer to an environmental element is not a reason to dismiss the possibility that the DPR may have a positive impact on the sustainability of mining activities in Indonesia. In this regard, the Panel refers to Indonesia's argument that the DPR, by generating partnerships between the different actors of the mining supply chain, namely mining businesses and smelters, thereby creating vertical integration, improves mining practices and facilitates enforcement of environmental regulations.[487] The Panel is of the view that vertical integration may indeed facilitate verification and enforcement of mining regulations, including those dealing with sustainability and the environment, because the Indonesian authorities may more easily keep track of the conduct of the operators involved in the supply chain.

7.246. Evidence on the record such as statistics by the Criminal Investigation Agency (Exhibit IDN-110(BCI)), and the sworn expert testimonies of [[***]] (Exhibit IDN-111(BCI)) and of a mining officer at a major Indonesian mining concern (Exhibit IDN-113(BCI)) indicate that regulatory enforcement by Indonesian authorities has improved since the entry into force of the DPR. It is not clear, however, whether such improvement can be attributed to the DPR or to other factors taking place simultaneously, such as the transfer from the regional and provincial governments to the central government of the responsibility for mineral reporting mechanisms pursuant to Law No. 3/2020.[488] The fact that it could be attributed to various factors, including the DPR, leads the Panel to conclude that it cannot be ruled out that the DPR, because of the vertical integration it encourages, facilitates enforcement of environmental regulations and, consequently, promotes sustainable mining practices in line with the principles of good mining techniques.

7.247. In light of the above, the Panel finds that the DPR is not incapable of fostering integration between mining companies and smelters that can improve the ability to enforce environmental mining regulations. Indonesia, therefore, has demonstrated that the DPR is a measure designed to secure compliance with Article 96(c) within the meaning of Article XX(d) of the GATT 1994.

7.3.1.2 Whether the measures at issue are necessary to secure such compliance

7.248. The Panel has found that the export ban and the DPR are measures designed to secure compliance with Article 96(c) of Law No. 4/2009. The Panel will now continue with the analysis under Article XX(d) by assessing whether the measures at issue are necessary to secure such compliance.

7.249. An assessment of necessity under Article XX of the GATT 1994 "involves 'weighing and balancing' a number of distinct factors relating both to the measure sought to be justified as 'necessary' and to possible alternative measures that may be reasonably available to the responding Member to achieve its desired objective".[489] The Panel shall start by assessing the relative importance of the interests or values furthered by the challenged measure. Then the Panel will examine other relevant factors, which will usually include the trade restrictiveness of the challenged measure and the contribution made by the challenged measure to the realization of the end pursued (i.e. securing compliance with specific rules, obligations, or requirements under the relevant

[485] Indonesia's first written submission, para. 178, and the Maryono Report, (Exhibit IDN-18 (BCI)), p. 26.
[486] Indonesia's first written submission, para. 178.
[487] See para. 7.234. above.
[488] Indonesia's first written submission, para. 109. The Panel notes that Indonesia states that "purchasing nickel ore mined in conformity with Indonesia's sustainable mining and mineral resource management requirements is not something that domestic smelters do out of goodwill. Compliance is not optional. It is required under penalty of law". See Indonesia's response to Panel question No. 70(a).
[489] Appellate Body Report, *China – Publications and Audiovisual Products*, para. 239.

provisions of the relevant laws or regulations that are not GATT inconsistent).[490] Once the Panel has identified the factors to be weighed and balanced, the Panel will compare the challenged measures with proposed possible alternatives.[491]

7.3.1.2.1 Relative importance of the common interests or values

7.250. The Panel will start by looking at the values that Article 96(c) is intended to protect. The Panel recalls that panels and the Appellate Body have found in several disputes that the more vital or important those values are, the easier it will be to accept as necessary a measure designed to secure compliance with the laws and regulations intended to protect those values.[492]

7.3.1.2.1.1 Main arguments of the parties

7.251. Indonesia states that "the protection of the environment and the conservation of Indonesia's mineral resources are interests or values of the highest importance".[493] Indonesia submits that sustainable mining requirements such as Article 96(c) ensure that "mining activities in Indonesia are conducted in a manner that preserves and protects the environment because they are designed to mitigate environmental impacts inherent in mining activities, such as deforestation, land disturbance, water pollution and waste management".[494] Indonesia states that these requirements "protect not only native forests and the environment, but also the livelihoods of indigenous people that reside in mining areas".[495]

7.252. The European Union does not address the relative importance of these values; it questions instead whether the challenged measures pursue the objective of securing compliance with rules on environmental protection and the conservation of natural resources. The European Union considers that Indonesia has failed to show that the export ban and the DPR pursue the objective of securing compliance with rules on environmental protection and the conservation of natural resources.[496]

7.3.1.2.1.2 Analysis by the Panel

7.253. Indonesia has addressed in detail in its submissions the environmental impact of mining activities in general as well as in Indonesia in light of its specificities, namely its earthquake-prone territory and high rainfall.[497] As referred to in the descriptive part of this report, the Panel finds evidence on the record reporting, *inter alia*, the loss of forest and biodiversity as a result of strip mining[498]; land disturbance[499]; impact on air quality, vibration and noise[500]; sea shore pollution[501]; and challenges relating to waste management.[502]

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[490] Appellate Body Report, *China – Publications and Audiovisual Products*, para. 240 (referring to Appellate Body Report, *US – Gambling*, paras. 306-308).
[491] Appellate Body Report, China – Publications and Audiovisual Products, para. 240.
[492] Appellate Body Report, *Korea – Various Measures on Beef*, para. 162. See Panel Reports, *EC – Seal Products*, para. 7.632, and Appellate Body Reports, *EC – Seal Products*, para. 5.203.
[493] Indonesia's first written submission, para. 187.
[494] Indonesia's first written submission, para. 185.
[495] Indonesia's first written submission, para. 185.
[496] European Union's second written submission, para. 248.
[497] AEER, Supply of Nickel Battery Industry from Indonesia and Ecological Social Issues, Action for Ecology and Emancipation of People, December 2020, (Exhibit IDN-64), p. 54; and Clean Technica, Image of Indonesia at "Electric Vehicles: The Dirty Nickel Problem", (Exhibit IDN-66), available at: https://cleantechnica.com/2020/09/27/electric-vehicles-the-dirty-nickel-problem/ (last accessed 30 August 2021). See also the following exhibits Indonesia submitted on the environmental impact of mining: IDN-19, IDN-23, IDN-62, IDN-63, IDN-65, IDN-67, IDN-69, and IDN-70.
[498] A. van der Ent, A.J.M. Baker, M.M.J. van Balgooy, A. Tjoa, "Ultramafic nickel laterites in Indonesia (Sulawesi, Halmahera): Mining, nickel hyperaccumulators and opportunities for phytomining", Journal of Geochemical Exploration, Vol. 128 (2013), pp. 72-79, (Exhibit IDN-4), p. 6.
[499] Sayoga Gautama Supplemental Expert Report, 17 March 2022, (Exhibit IDN-109).
[500] Sayoga Gautama Report, (Exhibit IDN-15), p. 3.
[501] WALHI, Study report on Environmental Conditions around Coastal Sea near the Mining Area due to the Nickel Industry in Morowali regency. Central Sulawesi, Kolaka and North Konawe Regencies, Southeast Sulawesi (2021), (Exhibit IDN-68).
[502] IEA, Special Report on the Role of Critical Minerals in Clean Energy Transition (2021), (Exhibit IDN-16), p. 40.

7.254. Given the overall understanding among WTO Members of the importance of the protection of the environment[503] and, more specifically, the environmental impact of mining activities in Indonesia, the Panel concludes that the protection of the environment is a value of high importance for Indonesia.

7.3.1.2.2 Trade restrictiveness of the measures at issue

7.255. Before the Panel turns to the parties' arguments on the trade restrictiveness of the measures at issue, the Panel recalls that "[a] measure with a relatively slight impact upon imported products might more easily be considered as 'necessary' than a measure with intense or broader restrictive effects".[504]

7.3.1.2.2.1 Main arguments of the parties

7.256. Indonesia acknowledges that the export prohibition is highly trade restrictive insofar as it prohibits the exportation of nickel ore.[505] It notes, however, that past panels and the Appellate Body have deemed necessary highly trade-restrictive measures "where they [were] 'apt to make a material contribution' to the achievement of their objective".[506] With respect to the DPR, Indonesia states that "questions still remain as to whether the domestic processing requirement entails limiting effects on trade that are separate and distinct from the export prohibition itself".[507]

7.257. The European Union submits that the export ban reflects the greatest degree of trade restrictiveness, which results in a greater burden on Indonesia to demonstrate that the measure contributes to securing compliance with the relevant laws and regulations.[508] It further states that the DPR "has inherent limiting effects" on nickel ore exports.[509]

7.3.1.2.2.2 Analysis by the Panel

7.258. The Panel has found above that the European Union has demonstrated, and Indonesia has admitted, that Indonesia imposes a prohibition on exports of nickel ore inconsistent with Article XI:1 of the GATT 1994 that is currently implemented through the operation of MEMR Regulation No. 11/2019 and MOT Regulation No. 96/2019. The Panel notes that a total prohibition on trade (whether exports or imports) is the most trade-restrictive measure that could be applied.[510]

7.259. The Panel has also found that the European Union has demonstrated, and Indonesia has not successfully rebutted, that the DPR is a restriction on the sale for export of nickel ore whose design, architecture, and revealing structure establish that by its very nature it has a limiting effect on exports inconsistent with Article XI:1 of the GATT 1994. If the DPR is complied with there will be no nickel ore to export. The Panel, however, does not find that the DPR is as restrictive as a total prohibition on exports because, there were certain periods of time where mines could export low-

[503] This value has been explicitly accepted by WTO Members in the very text of the WTO Agreements. The Preamble of the WTO Agreement notes the goal of protection and preservation of the environment and sustainable development. Article XX(g) of the GATT 1994 provides a justification for GATT-inconsistent measures relating to the conservation of exhaustible natural resources. Article 8.2(c) of the SCM Agreement provides an exception for environmental subsidies. Moreover, in one of its first disputes the Appellate Body stated as follows: "We have not decided [in this appeal] that the protection and preservation of the environment is of no significance to the Members of the WTO. Clearly, it is. … And we have not decided [in this appeal] that sovereign states should not act together bilaterally, plurilaterally or multilaterally, either within the WTO or in other international fora, to protect endangered species or to otherwise protect the environment. Clearly, they should and do." Appellate Body Report, *US – Shrimp*, para. 185.

[504] Appellate Body Report, *Korea – Various Measures on Beef*, para. 163.

[505] Indonesia's first written submission, para. 188.

[506] Indonesia's first written submission, para. 188.

[507] Indonesia's first written submission, para. 222.

[508] European Union's second written submission, para. 253.

[509] European Union's second written submission, para. 254.

[510] See e.g. Appellate Body Report, *US – Shrimp*, para. 171 ("an import prohibition is, ordinarily, the heaviest 'weapon' in a Member's armoury of trade measures".). See also Panel Report, *Brazil – Retreaded Tyres*, para. 7.114 (finding that "Brazil's measure is as trade-restrictive as can be, as far as retreaded tyres from non-MERCOSUR countries are concerned, since it aims to halt completely their entry into Brazil".)

grade ore upon approval of the Minister of Trade if certain conditions were met. The Panel finds, therefore, that the DPR is highly trade restrictive.

7.3.1.2.3 The contribution of the measures at issue

7.260. The concept of necessity under Article XX of the GATT 1994 has evolved over time. In the first Article XX disputes the concept of necessity was "located significantly closer to … 'indispensable' than to … simply 'making a contribution to'".[511] However, the standard applied in more recent disputes has evolved to consider that a measure can be found to be necessary if it is "apt to produce a material contribution to the achievement of its objective".[512] The Appellate Body has also stated that, "[t]he greater the contribution, the more easily a measure might be considered to be 'necessary'".[513]

7.261. A measure contributes to achieving the objective of the Member "when there is a genuine relationship of ends and means between the objective pursued and the measure at issue".[514] The Appellate Body, has explained that the contribution of the measure at issue towards securing compliance with the relevant law or regulation must be "material". The definition of "material" is "[h]aving significance or relevance"[515], "important or having an important effect"[516].[517] Thus, it is not any contribution minimally or marginally relevant that qualifies so as to make the measure at issue necessary within the meaning of Article XX(d). Whether the contribution is sufficient to be considered material within the meaning of Article XX can only be determined on a case-by-case basis, in light of the specific circumstances of each dispute. The methodology used to assess a measure's contribution can be of a quantitative or qualitative nature, depending on "the nature, quantity, and quality of evidence existing at the time the analysis is made".[518]

7.262. A party may make the required demonstration by resorting to evidence pertaining to the past or the present, that establishes that the measure at issue makes a material contribution to the objectives pursued.[519] The Appellate Body clarified, however, that a panel is not bound to find that a measure does not make a contribution to the objective pursued merely because such contribution is not "immediately observable" or because, "[i]n the short-term, it may prove difficult to isolate the contribution [made by] one specific measure from those attributable to the other measures that are part of the same comprehensive policy".[520] The Appellate Body, therefore, noted that a panel may conclude that a measure is necessary if the responding Member demonstrates that it "is apt to produce a material contribution to the achievement of its objective".[521] Although this may seem to be a more relaxed standard than what had been applied in the past, it is not without rigour and a demonstration cannot be made by simple assertions. The Appellate Body clarified that a demonstration that a measure is apt to make a material contribution "could consist of quantitative projections in the future, or qualitative reasoning based on a set of hypotheses that are tested and supported by sufficient evidence".[522] This requires that a respondent provides sufficient evidence that proves the contribution that the measure makes or may be able to make. Mere speculation or logical presumptions would not suffice.

7.263. The Panel's understanding of a measure's ability to make a material contribution implies that the measure at issue must be in a position to contribute to the realization of the objective; the

[511] Appellate Body Report, *Korea – Various Measures on Beef*, para. 161.
[512] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 151.
[513] Appellate Body Report, *Korea – Various Measures on Beef*, para. 163.
[514] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 145.
[515] Online Oxford English Dictionary, Material *available at* https://www.oed.com/view/Entry/114923?rskey=NmRYAB&result=1#eid (last accessed 26 August 2022).
[516] Online Cambridge English Dictionary, Material *available at* https://dictionary.cambridge.org/dictionary/english/material (last accessed 26 August 2022).
[517] As noted by the panel in *Colombia – Textiles*, "[t]he expression 'apt to produce a material contribution' in the original English language text of the Appellate Body report was translated into Spanish as *'adecuada para hacer una contribución importante'*", *Colombia – Textiles,* fn 485. The translation into French also refers to "*à même d'apporter une contribution importante*". See Panel Report.
[518] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 145.
[519] Appellate Body Report, *Brazil – Retreaded Tyres,* para. 151. See also, Appellate Body Report, *China – Publications and Audiovisual Products*, para. 252.
[520] Appellate Body Report, *China – Publications and Audiovisual Products*, paras. 252-253 (referring to Appellate Body Report, *Brazil – Retreaded Tyres*, para. 151).
[521] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 151.
[522] Appellate Body Report, *Brazil – Retreaded Tyres,* para. 151.

contribution of the measure should not be reduced to a hypothetical contribution in implausible or improbable factual scenarios. There should be some certainty in the ability of the measure to contribute towards securing compliance with the relevant law or regulation.

7.264. The Panel further recalls that a measure contributes to the achievement of the objective when there is a genuine relationship of ends and means between the objective pursued and the measure at issue. Past panels and the Appellate Body have emphasized the "latitude" enjoyed by panels "in designing the appropriate methodology to use and deciding how to structure or organize the analysis of the contribution of the measure at issue to the realization of the ends pursued by it".[523]

7.265. The Panel is of the view that an analysis of the design of the measures at issue, including its structure and operation, can shed light on the existence or not of a genuine relationship of ends and means. For that purpose, the Panel will refer to its analysis above on whether the measures at issue are designed to secure compliance with the relevant provisions Indonesia has identified. The Panel notes nonetheless that even if that part of the analysis may prove useful when assessing the contribution of the measures at issue under the necessity test, the "designed to secure compliance" element and the contribution element are conceptually distinct; otherwise, there would not be two separate steps to the analysis. The former element involves an assessment of whether the measure is not incapable of ensuring compliance with the relevant law or regulation whereas the latter element requires that a panel determine whether the measure at issue is "apt to produce a material contribution to the achievement of its objective", i.e. securing compliance with the relevant law or regulation.[524] As noted by the Appellate Body, the element of the test focusing on whether the measures are designed to secure compliance is less demanding than the contribution element. This is so because in the Appellate Body's view "[a] panel must not … structure its analysis of the ['design' step] in such a way as to lead it to truncate its analysis prematurely and thereby foreclose consideration of crucial aspects of the respondent's defence relating to the 'necessity' analysis."[525]

7.266. After having made these clarifications on its understanding of contribution under the necessity test, the Panel now assesses the contribution of each of the measures at issue towards securing compliance with Article 96(c) of Law No. 4/2009.

7.3.1.2.3.1 Export ban

Main arguments of the parties and third parties

7.267. Indonesia argues that the export prohibition is "apt to make a material contribution to securing compliance with" the sustainable mining and mineral resource management requirements[526] because it reduces the amount of nickel extracted. More specifically, it eliminates export-driven nickel extraction and, as a result, it mitigates the negative environmental impact and the risk of nickel resource depletion.[527]

7.268. Indonesia contends that there is no requirement under Article XX(d) to demonstrate that the challenged measures are "the 'sole' or 'most substantial' cause of any observed positive effect in relation to the objective of the challenged measures". This is all the more so in the present case given that the challenged measures form part of a comprehensive policy framework "with multiple elements interacting synergistically to achieve a policy objective".[528]

7.269. The European Union submits that Indonesia has failed to demonstrate that a prohibition on the exportation of nickel ore contributes to securing the enforcement of environmental standards and the rules on conservation of natural resources.[529]

7.270. The European Union argues that Indonesia has not demonstrated that adverse environmental effects result exclusively from nickel mining. Therefore, these adverse effects on

[523] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 145.
[524] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 151.
[525] Appellate Body Report, *Argentina – Financial Services*, para. 6.203.
[526] Indonesia's first written submission, para. 194.
[527] Indonesia's first written submission, paras. 212-213.
[528] Indonesia's response to Panel question No. 122.
[529] European Union's second written submission, paras. 256-257.

Indonesia's environment are not "relevant to determining the potential contribution of the measures at issue" given that Indonesia has submitted an alternative defence under subparagraph (d), and not under subparagraphs (b) or (g), of Article XX.[530]

7.271. The European Union further argues that Indonesia has not substantiated its claim that the extraction of nickel ore for exports, and not the extraction of nickel ore *per se*, results in adverse environmental effects in Indonesia. According to the European Union, Indonesia has not demonstrated that a shift from exports of both nickel ore and processed nickel to just exports of processed nickel has "lead to a rise in environmental standards".[531]

7.272. In the European Union's view, the evidence Indonesia submits makes it clear that the measures at issue are not apt to make a material contribution to "securing the implementation of higher environmental standards or the conservation of nickel reserves".[532] In particular, the European Union notes that Indonesia submits evidence on adverse marine environmental effects that post-dates the adoption of the measures at issue and suggests that environmental problems continue to exist after the adoption of the measures.[533] The European Union also notes that Indonesia does not submit evidence on the number of enforcement proceedings initiated before and after the adoption of the measures at issue to support its argument that the measures contribute to securing compliance because the ultimate purchasers of the ore are necessarily within Indonesia's jurisdiction.[534]

7.273. Canada and Japan note that the empirical demonstration of an actual contribution is not always required to establish justification under Article XX(d) of the GATT 1994. Both note, however, that if such evidence exists this makes it more likely that the measure will satisfy the contribution factor of the necessity analysis. Japan comments that requiring a certain minimum level of specificity in describing the contribution is necessary to avoid circumvention. Both Japan and Canada refer to looking at the design, structure, and operation of the measure and whether the measure is capable of securing compliance.[535] For its part, the United States submits that the Panel should examine whether Indonesia has shown that the challenged measures are indispensable, vital, essential, and requisite for the objective of securing compliance with the underlying laws or regulations.[536]

Analysis by the Panel

7.274. The Panel will conduct its assessment of the contribution of the export ban to securing compliance with Article 96(c) of Law No. 4/2009 by looking at the design of the export ban, including its structure and expected operation. The Panel conducted a similar assessment under the "designed to secure compliance" element to which the Panel will refer in this section. As mentioned above, these two parts of the analysis are distinct and must therefore be conducted in a related but independent manner.

7.275. The Panel found above that the legal instruments that implement the export ban, i.e. Article 3 and Appendix IV of MEMR Regulation No. 96/2019 and Article 1(2) of MEMR Regulation No. 11/2019, do not contain any explicit mention of Article 96(c) or to the accomplishment of sustainable mining objectives. The Panel further acknowledged that measures can have a multiplicity of objectives and that there was a certain degree of connection between the export ban and Article 96(c). The Panel, therefore, found that it could not be ruled out that the export ban had a positive impact on the sustainability of mining activities in Indonesia in that it may result in a decrease in the extraction of nickel ore, including ore from illegal and poorly regulated sources. The Panel noted, however, that evidence on the record showed that the decrease in the extraction rate did not correspond with the level of exports prior to the ban, and that domestic demand for nickel ore was expected to expand as a result of the development of the smelter industry in Indonesia. In this regard the Panel observed that the resource conservation concern expressed by Indonesia did

[530] European Union's second written submission, paras. 262-263.
[531] European Union's second written submission, para. 269.
[532] European Union's second written submission, para. 270.
[533] European Union's second written submission, para. 271 (referring to Exhibit IDN-68).
[534] European Union's second written submission, para. 272.
[535] Canada and Japan's third-party responses to Panel question No. 8.
[536] United States' third-party response to Panel question No. 8.

not seem to be aligned with its plans to expand the smelter industry and develop an EV battery industry in the near future.[537]

7.276. The Panel sees no reason to disagree with Indonesia that Article 96(c) sets out a sustainable mining requirement. This does not mean, however, that the Panel will examine the contribution of the export ban to improving any environmental objective set out in Law No. 4/2009. As the Panel is examining an alternative defence under subparagraph (d) of Article XX and not another of the subparagraphs, what the Panel must determine is whether the export ban is apt to produce a material contribution towards securing compliance with Article 96(c), and not whether it is apt to produce a material contribution towards achieving the objectives pursued by Article 96(c).

7.277. Indonesia argues that the export ban contributes to securing compliance with Article 96(c) by reducing nickel extraction, particularly export-driven extraction from illegal or poorly regulated sources, which results in turn in less damage to the environment and a slower pace of resource depletion. As explained above, the Panel finds data on the record that show that the total nickel production in 2020 decreased by 13.6% whereas exports of nickel ore represented almost 50% of Indonesia's total production.[538] Thus, the Panel observes that nickel resources that in the past would have been exported are being redirected towards domestic consumption, which is in need of more nickel resources due to the increase in the number of nickel smelters in operation.[539] Table 4.1 of Government Regulation No. 14 of 2015 on the RIPIN contains a projection of the natural resources needs for the Indonesian industry. The demand for nickel is expected to increase by over 20% every five years from 2015 to 2035 (11 million tons/year in the 2015-2019 period, 14 million tons/year in the 2020-2024 period; and 17 million tons/year in the 2025-2035 period).[540]

7.278. The RIPIN sets out a clear strategy to develop Indonesia's smelter industry as a first step towards establishing an EV battery industry in the country. Indonesia's strategy is based on an increase in nickel production to feed domestic smelters, which are expected to exponentially increase in the near future. Table 4.1 of Government Regulation No. 14 of 2015 on the RIPIN contains the projection of the needs of natural resources for the Indonesian industry. The raw material needs of nickel are expected to increase by over 20% every five years from 2015 to 2035 (11 million tons/year in the 2015-2019 period, 14 million tons/year in the 2020-2024 period, and 17 million tons/year in the 2025-2035 period).[541]

7.279. This context of an increase in the use of nickel resources domestically to satisfy the increasing needs of Indonesian smelters does not support Indonesia's argument that the export ban will contribute to securing compliance with Article 96(c) by reducing nickel extraction. This is so because, based on the evidence before us, such a reduction will not take place in the near future if the Indonesian authorities' plan to expand the smelter industry develops as expected. Furthermore, the Panel notes that Indonesia relies on the introduction of HPAL processing technology to increase its nickel reserves by taking into account low-grade nickel ore in its reserve estimates. Low-grade nickel ore is currently considered waste or overburden given the lack of adequate processing technology.[542]

7.280. Additionally, Indonesia argues that there has been a reduction in land disturbance in Sulawesi as a result of the export ban, which has improved the environmental situation there. Indonesia provides to the Panel the Gautama Supplemental Expert Report (Exhibit IDN-109). According to the expert Mr Gautama land disturbance decreased between 2017 and 2018 even though nickel production increased during that period. The report concludes that the export ban between 2014 and 2017 "significantly contributed to reducing the non-compliant miners and promoted more sustainable mining practice".[543] The Panel acknowledges that the report indicates there was a decrease in land disturbance in Sulawesi after the imposition of the export ban in 2014.

[537] See paras. 7.223-7.233 above.
[538] See para. 7.227 above.
[539] MEMR, Indonesian Mining Guidance (2020), (Exhibit IDN-1), Picture 9.6: Smelter Growth and Projection in Indonesia.
[540] Government Regulation No. 14 of 2015, Master Plan of National Industry Development 2015-2035, (Exhibit EU-17 (rev)), pp. 52-53.
[541] Government Regulation No. 14 of 2015 on the RIPIN, (Exhibit EU-17(rev)).
[542] Indonesia's first written submission, para. 118 referring to Maryono Report, (Exhibit IDN-18(BCI)), p. 25. See also Indonesia's first written submission, para. 129, Indonesia's second written submission, para. 97, and Indonesia's response to Panel question No. 38.
[543] Sayoga Gautama Supplemental Expert Report, 17 March 2022, (Exhibit IDN-109), p. 3.

This does not necessarily translate into a causal relationship between the former and the latter. Indeed, the report concludes that the data suggests that the export ban resulted in predatory mining practices being replaced by sustainable ones but does not provide analysis of the root causes of the shift in behaviour. For instance, the report does not provide analysis of the years between 2014 and 2017. Nor does the report include data for 2019 and 2020, which would show the potential effects of the re-imposition of a total export ban via the 2019 regulations or projections of what is expected to happen if the export ban remains in place. The Panel acknowledges that causal relationships may not always be easy to prove, especially as regards effects that take time to materialize. While this type of information may be a useful indicator, the Panel considers that a mere correlation without further analysis of the root causes is not sufficient for Indonesia to satisfy its burden.

7.281. Indonesia's arguments revolve around the link between exports of nickel and predatory mining practices. Indonesia argues that poorly regulated and illegal mining is export-oriented because domestic smelters only buy nickel ore that has been extracted in accordance with the relevant laws and regulations.[544] Indonesia states that "the *entirety* of nickel ore exports between 2006 and 2013 was sourced from mining companies which were either subject to limited or no oversight in respect of regulatory compliance (… 'poorly regulated' mining companies), or were exporting nickel ore that was not in conformity with the relevant regulatory requirements (i.e. 'illegal' mining)".[545] When examining whether the export ban was designed to secure compliance with Article 96(c), the Panel did not rule out that an export ban could lead to a reduction of nickel production that may, in turn, result in a reduction in the mining activity, including poorly regulated and illegal activities. However, Indonesia fails to provide the Panel with evidence relating to the magnitude of such predatory mining practices and their share of total exports before and after the entry into force of the export ban.[546] Therefore, the Panel is not in a position to conclude, considered along with additional evidence and arguments, that the export ban is apt to produce a material contribution to securing compliance with Article 96(c) by diminishing predatory mining practices.

7.282. As regards the improvement of regulatory enforcement, Indonesia argues that Exhibits IDN-110(BCI), IDN-111(BCI), and IDN-113(BCI) demonstrate that the export ban contributes to the improvement of regulatory enforcement. These three exhibits each present information on criminal enforcement matters related to nickel mining in recent years. Indonesia asserts that Exhibit IDN-110(BCI) is a summary of nickel criminal cases handled by the regional police in Sulawesi and Maluku between 2017 and 2022. This summary shows a significant increase in criminal cases brought by the government after the introduction of the export prohibition.[547] Indonesia also provides an expert affidavit from [[***]] dated 15 March 2022 that it argues corroborates the data from Sulawesi and Maluku. In this affidavit [[***]], a law enforcement official in the field of natural resources, attests to an increase in criminal enforcement against illegal nickel mining.[548] [[***]] also testifies that in his personal opinion the export prohibition on nickel ore has positively impacted law enforcement efforts insofar as mining is regulated both upstream and downstream.[549] Exhibit IDN-113(BCI) is an affidavit by [[***]], a mining officer at a major Indonesian mining concern between 2011 and 2015. In this affidavit, [[***]] reports on the efforts his and other mining companies undertake to curb export-oriented illegal mining activities in [[***]] concession areas. In particular, he testifies on one internal field investigation in which his company uncovered illegal mining activities in one of its permit areas.[550]

7.283. The exhibits do show an increase in the cases police initiated and the cooperation between a mining company and the Indonesian authorities to address illegal mining practices. Although this

[544] Indonesia's response to Panel question No. 64.
[545] Indonesia's response to Panel question No. 64. (emphasis original)
[546] Indonesia submitted images of environmental damage in Indonesia resulting from mining activities. See e.g. WALHI, Study report on Environmental Conditions around Coastal Sea near the Mining Area due to the Nickel Industry in Morowali regency. Central Sulawesi, Kolaka and North Konawe Regencies, Southeast Sulawesi (2021), (Exhibit IDN-68); Images of Environmental Destruction in Indonesia, (Exhibit IDN-69); and World Bank, "The impact of a nickel mine in Tanjung Buli, Indonesia" (27 March 2009), (Exhibit IDN-70). It is not always clear, though, whether they concern export-oriented mines.
[547] Indonesia's opening statement at the second meeting of the Panel, para. 79 (referring to Exhibit IDN-110 (BCI), which shows an increase from [[***]]).
[548] [[***]] Expert Affidavit of [[***]] (15 March 2022), (Exhibit IDN-111(BCI)), p. 3.
[549] Indonesia's opening statement at the second meeting of the Panel, para. 82 (referring to Exhibit IDN-111(BCI)), p. 3.
[550] Indonesia's opening statement at the second meeting of the Panel, para. 83 (referring to Expert Affidavit of [[***]] (17 March 2022), Exhibit IDN-113 (BCI)).

suggests an improvement in terms of regulatory vigour, there is nothing in the exhibits to demonstrate that the ability to take the enforcement actions or the rigorous adherence to law and regulation by mining companies was a result of the export ban – even partially. The Panel observes that the increase in nickel mining criminal cases coincides in time with the transfer from the regional and provincial governments to the central government of the responsibility for mineral reporting mechanisms pursuant to Law No. 3/2020.[551] Indonesia does not address the relevance of this regulatory change, of notable importance, when explaining the increase in the criminal proceedings.

7.284. Exhibit IDN-111(BCI), for its part, reflects the personal views of a law enforcement officer in the area of natural resources who assumed his position after the measures were imposed. It also contains Attachment B, which lists recent enforcement cases regarding the breach of laws governing the environment and mining.[552] Even accepting [[***]] personal opinion that the regulation of mining both upstream and downstream positively impacted law enforcement efforts, he presents no direct evidence that the export ban contributed to the bringing of the enforcement actions referred to in Exhibit IDN-111 (BCI) or in his own affidavit. More importantly, the Panel does not find in this exhibit anything that demonstrates that the export ban contributes in a material way to securing compliance with Article 96(c).[553] Finally, as regards Exhibit IDN-113(BCI), the Panel notes that the situation described dates back to 2012 and 2013, prior to the entry into force of the export ban. In the Panel's view, therefore, the exhibits do not demonstrate a causal relationship – even partially – between the increased criminal enforcement and the export ban challenged by the European Union.

7.285. Indonesia requests the Panel to take account of Indonesia's comprehensive policy framework on sustainable mining and mineral resource management when assessing the contribution of the measures at issue.[554] The Panel agrees with Indonesia that, as stated by the Appellate Body, in certain circumstances[555] "a panel may be required to examine together the different elements of one or more instruments identified by a respondent" to "understand properly the content, substance, and normativity of a given rule".[556] Indonesia submits that Article 96(c) is part of one of the main pillars of its comprehensive policy framework to regulate mining activities, namely the protection of Indonesia's environment through the imposition of sustainable mining requirements.[557] However, Indonesia has failed to explain how the legal instruments that are part of such a policy framework operate together and, in particular, how they operate *vis-à-vis* Article 96(c) of Law No. 4/2009. Furthermore, Indonesia has not provided the Panel with most of the legal instruments that comprise the policy framework. The Panel does not find on the record anything that explains, nor even refers to, this comprehensive policy framework, other than a figure included in Indonesia's first written submission.[558] Therefore, the Panel is not in a position to assess the contribution of the export ban to securing compliance with Article 96(c) in light of Indonesia's comprehensive policy framework.

7.286. Based on the above, the Panel does not consider that Indonesia has demonstrated that there is a genuine relationship of ends and means between the objective pursued, namely securing compliance with Article 96(c), and the export ban. Although the Panel has found that the export ban is not incapable of resulting in a decrease in the nickel ore extraction rate, Indonesia has not provided sufficient evidence to demonstrate that any change in the behaviour of the mines (i.e., less predatory and more sustainable) would be attributable to the export ban. As such, the Panel finds that Indonesia has failed to demonstrate that the export ban would be apt to make a material contribution to securing compliance with Article 96(c).

[551] Indonesia's first written submission, para. 109.
[552] Exhibit IDN-111 (BCI) [[***]]
[553] The Panel notes that the criminal actions referred to in Exhibit IDN-111 (BCI) were taken with respect to [[***]] and not to enforce Article 96(c).
[554] Indonesia's response to Panel question No. 122 and comment on the European Union's response to Panel question No. 115.
[555] The Appellate Body found that such circumstances concern the respondent's choice "to demonstrate that the measure is designed and necessary to secure compliance with an obligation or obligations arising from several laws or regulations operating together as part of a comprehensive framework". See Appellate Body Report, *Argentina – Financial Services*, fn 505 to para. 6.208. See also Appellate Body Report, *India – Solar Cells*, para. 5.111.
[556] Appellate Body Report, *India – Solar Cells*, para. 5.111.
[557] Indonesia's first written submission, paras. 142-143; and response to Panel question No. 105.
[558] Indonesia's first written submission, Figure 10.

7.3.1.2.3.2 DPR

Main arguments of the parties and third parties

7.287. Indonesia argues that the DPR is "apt to make a material contribution to securing compliance with" the sustainable mining and mineral resource management requirements[559] because it "fosters vertical integration and long-term supply arrangement[s] in the nickel supply chain".[560] Indonesia contends that these requirements lead to long-term supply agreements, joint-ventures, and other forms of association with domestic smelters that "ensure[] that nickel-refining activities are properly regulated within Indonesia" and "force[] changes in the behaviour of market actors".[561]

7.288. Indonesia argues that "the burden of verifying conformity …becomes much easier once all market operators are brought within the enforcement jurisdiction of Indonesia".[562] In this respect, Indonesia contends that Article XX(d) does not require that the changes in enforcement are attributable exclusively to the measure at issue, particularly in cases like this one where the challenged measures form part of "a comprehensive policy framework with multiple elements interacting synergistically to achieve a policy objective".[563]

7.289. The European Union submits that Indonesia has failed to demonstrate that the DPR contributes to securing the enforcement of environmental standards and the rules on conservation of natural resources[564] because Indonesia has not demonstrated that nickel mining is solely responsible for the adverse environmental effects described by Indonesia. The European Union contends that these adverse effects on Indonesia's environment are not "relevant to determining the potential contribution of the measures at issue" given that Indonesia has submitted an alternative defence under subparagraph(d), and not under subparagraphs (b) or (g), of Article XX.[565]

7.290. The European Union further argues that the evidence Indonesia submitted demonstrates that the DPR is not apt to make a material contribution to "securing the implementation of higher environmental standards or the conservation of nickel reserves".[566] In particular, the European Union notes that Indonesia submits evidence on adverse marine environmental effects that post-dates the adoption of the measures at issue and suggests that environmental problems continue to exist after the adoption of the measures.[567] The European Union further notes that Indonesia has not demonstrated that the measures contribute to securing compliance because the ultimate purchasers of the ore are necessarily within Indonesia's jurisdiction.[568] Finally, the European Union submits that Indonesia has also failed to demonstrate that the processing of nickel ore domestically "ensures that illegal strip mines convert to sustainable mines regulated under Indonesian law".[569]

7.291. For the third parties' main arguments, the Panel refers to paragraph 7.273 above.

Analysis by the Panel

7.292. As explained above with regard to the export ban, the Panel will conduct its assessment of the contribution of the DPR to securing compliance with Article 96(c) of Law No. 4/2009 by looking at its design, including its structure and expected operation. The Panel will partially rely on the findings under the "designed to secure compliance" element because Indonesia's arguments are substantially the same and these two parts of the Panel's analysis are related, although distinct.

7.293. The Panel found above that the legal instruments that implement the DPR, i.e. Article 103(1) of Law No. 4/2009, Article 17 of MEMR Regulation No. 25/2018, and Article 66 of MEMR Regulation

[559] Indonesia's first written submission, para. 194.
[560] Indonesia's first written submission, paras. 215-216.
[561] Indonesia's first written submission, paras. 215-216.
[562] Indonesia's comment on the European Union's response to Panel question No. 111.
[563] Indonesia's comment on the European Union's response to Panel question No. 115.
[564] European Union's second written submission, paras. 256-257.
[565] European Union's second written submission, paras. 262-263.
[566] European Union's second written submission, para. 270.
[567] European Union's second written submission, para. 271 (referring to Exhibit IDN-68).
[568] European Union's second written submission, para. 272.
[569] European Union's second written submission, para. 273.

No. 7/2020, do not contain any explicit mention of Article 96(c) or to the accomplishment of sustainable mining objectives. The Panel further acknowledged that although the DPR has a predominantly economic objective, it could not be ruled out that the DPR has a positive impact on the sustainability of mining activities in Indonesia in the sense that the vertical integration resulting from the application of the DPR may be considered to facilitate regulatory enforcement. The Panel noted, however, that Indonesia had not demonstrated that such improvement in regulatory enforcement could be attributed to the DPR.[570]

7.294. Indonesia's main argument as regards the contribution of the DPR to securing compliance with Article 96(c) is the same as under the "designed to secure compliance" analysis, i.e. the DPR leads to long-term supply agreements, joint-ventures, and other forms of association with domestic smelters that "ensure[] that nickel-refining activities are properly regulated within Indonesia".[571] The Panel agrees with Indonesia that the DPR can foster vertical integration between miners and smelters because, as explained above, Articles 16(4) and (5) of MEMR Regulation No. 25/2018 establish that IUP and IUPK holders for Production Operation can comply with their obligation to process and purify nickel and other minerals domestically by cooperating with other mining licence holders.[572]

7.295. Indonesia provides several samples of nickel ore sales contracts to support its contention.[573] The Panel has carefully reviewed these sales contracts and observed that they deal with usual matters covered in this type of contract such as the type of commodity, its price and quality, sampling, *force majeure* or termination. Indonesia has not explained the link between these contracts and the ability of the DPR to make a material contribution to securing compliance with Article 96(c). Nor has the Panel been able to discern that link from the text of the sales contracts. Thus, the Panel does not consider that these sales contracts illustrate how the DPR is apt to make a material contribution to securing compliance with Article 96(c) by fostering vertical integration.

7.296. Indonesia does not distinguish its argumentation between the material contribution made by the export ban from that made by the DPR. It, therefore, relies upon the same increase in enforcement actions in recent years (Exhibits IDN-110, 111, and 113) that it says demonstrates the export ban is apt to make a material contribution to securing compliance with Article 96(c), as evidence that the DPR is apt to make a material contribution to the same objective.[574] The Panel observes that the largest increase in enforcement actions, in 2020, also coincides with the transfer of regulatory authority from the regional and provincial governments to the central government. The Panel has earlier acknowledged that increased vertical integration could facilitate government exercise of regulatory authority. Although the evidence presented by Indonesia does not demonstrate that the increase in the number of investigations is definitely attributable to the implementation of the DPR, it may be.[575] The Panel finds, therefore, that the DPR might make some contribution to increased regulatory enforcement. The Panel, however, does not see evidence of a *material* contribution.

7.297. The Panel further refers to its findings above on public statements by the President of Indonesia and high-level government officials, and in national industrial plans where the development of [down]stream and intermediate industry based on natural resources and the increase of added value of the natural resources appear as the priority. The Panel finds no mention in these statements about the role of the DPR in improving regulatory compliance.[576]

[570] See paras. 7.238-7.247 above.
[571] Indonesia's first written submission, paras. 215-216.
[572] As of September 2021, "integrated smelters with the nickel ore mines have developed in [[***]] IUP-KK licenses". See Indonesia's first written submission, para. 178, and the Maryono Report, (Exhibit IDN-18 (BCI)), p. 26.
[573] See Exhibits IDN-25(BCI), IDN-58(BCI), IDN-71(BCI), IDN-114(BCI), IDN-115(BCI), and IDN-116(BCI).
[574] Indonesia's response to Panel question No. 123 ("Exhibits IDN-110, IDN-111 and IDN-113 constitute evidence on the panel record that the challenged measures make a contribution to their enforcement objective").
[575] Sayoga Gautama Supplemental Expert Report, 17 March 2022, (Exhibit IDN-109), p.5.
[576] See para. 7.243 above.

7.298. As regards Indonesia's request that the Panel assesses the contribution of the DPR in light of Indonesia's comprehensive policy framework on sustainable mining and mineral resource management, the Panel refers to its views expressed in paragraph 7.285 above.

7.299. Based on the above considerations, the Panel does not rule out the possibility that the DPR may improve regulatory enforcement by fostering vertical integration. Whatever the precise level of contribution the DPR makes, Indonesia has not demonstrated that it would be of sufficient importance to be considered a "material contribution", that is, an important or relevant contribution towards securing compliance with Article 96(c).[577]

7.300. The Panel finds, therefore, that Indonesia has failed to demonstrate that the DPR is apt to produce a material contribution to securing compliance with Article 96(c).

7.3.1.2.4 Weighing and balancing

7.301. As noted above[578], the weighing and balancing process concerns several distinct factors relating both to the measures sought to be justified as necessary and to possible alternative measures that may be reasonably available to the responding Member to achieve its desired objective. These factors include the relative importance of the interests or values furthered by the challenged measures as well as the trade restrictiveness and the level of contribution achieved by both the challenged measures and the proposed alternative.

7.302. As noted in paragraph 7.249 above, after having identified the factors to be weighed and balanced, the Panel will now analyse them with respect to the challenged measures and the proposed alternative measure. The Panel will examine these factors in turn.

7.3.1.2.4.1 Weighing and balancing of factors relating to the measure sought to be justified as "necessary"

Main arguments of the parties and third parties

7.303. Indonesia considers it "has demonstrated that its sustainable mining and mineral resource management requirements further interests or values of the highest importance".[579] Indonesia acknowledges that the challenged measures are trade restrictive[580] but emphasizes that they make "a material contribution to securing compliance with Indonesia's sustainable mining and mineral resource management requirements".[581] Consequently, Indonesia submits that "the trade restrictiveness of the measures at issue is outweighed by the contribution they make to securing compliance with its GATT-consistent laws or regulations, in light of the relative importance of the interests or values protected by such laws or regulations".[582]

7.304. The European Union argues that Indonesia has failed to show that the measures at issue, which are particularly trade restrictive, "are necessary to achieve those purported objectives in the sense that they contribute sufficiently to their achievement". Further, the European Union contends that there are less trade-restrictive alternatives reasonably available to Indonesia that would make an equivalent contribution to the objectives allegedly pursued.[583]

7.305. Korea submits that a measure with actual contributing effects should be deemed as more necessary than one that has mere potential to contribute.[584]

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[577] See definitions of "material" in para. 7.261 above.
[578] See para. 7.249 above.
[579] Indonesia's first written submission, para. 222.
[580] Indonesia's first written submission, para. 222. Indonesia notes that "questions still remain as to whether the domestic processing requirement entails limiting effects on trade that are separate and distinct from the export prohibition itself". See Indonesia's first written submission, para. 222.
[581] Indonesia's first written submission, para. 222.
[582] Indonesia's first written submission, para. 223. See also Indonesia's first written submission, para. 14.
[583] European Union's second written submission, para. 248.
[584] Korea's third-party response to Panel question No. 17.

Analysis by the Panel

7.306. The Panel has found above that the protection of the environment is a value of high importance for Indonesia. The European Union does not dispute this but argues that the furtherance of this objective of the challenged measures is minimal and outweighed by their trade restrictiveness

7.307. The Panel has also found that the export ban is the most trade-restrictive measure that could be applied and that the DPR is highly trade restrictive. The Panel also concluded that neither measure is apt to make a material contribution to securing compliance with Article 96(c) of Law No. 4/2009 within the meaning of subparagraph (d) of Article XX of the GATT 1994.

7.308. Based on the above considerations, the Panel concludes that these factors weigh against a finding of necessity despite the importance of the value pursued by Article 96(c).

7.3.1.2.4.2 Weighing and balancing of factors relating to the proposed alternative measure

7.309. As noted in paragraph 7.249 above the Panel will now compare the relevant factors to be weighed with the proposed alternative measure. The European Union submits the same alternative measure for both the export ban and the DPR, which it argues is reasonably available to Indonesia and less trade restrictive than the challenged measures.[585]

7.310. The complaining party bears the burden of identifying any alternative measures that it considers the responding party may have taken.[586] If the complainant submits an alternative measure, the responding party is then required to demonstrate "why its challenged measure nevertheless remains 'necessary' in the light of that alternative or, in other words, why the proposed alternative is not a genuine alternative or is not 'reasonably available'". If the responding party demonstrates that the alternative is not reasonably available, a panel will find that the challenged measure is necessary.[587]

7.311. To determine whether an alternative measure is reasonably available, panels have examined a series of factors such as "(i) the extent to which the alternative measure 'contributes to the realization of the end pursued'; (ii) the difficulty of implementation; and (iii) the trade impact of the alternative measure compared to that of the measure for which justification is claimed under Article XX".[588] Another factor considered has been whether the alternative measure achieves the level of compliance sought.[589] In this regard, the Appellate Body has recognized that "Members of the WTO have the right to determine for themselves the level of enforcement of their WTO-consistent laws and regulations".[590] Measures that were "merely theoretical in nature", or that imposed an undue economic or technical burden, or prevented a Member from achieving its desired level of protection were not found to be "reasonably available".[591]

Main arguments of the parties and third parties

7.312. The European Union submits an alternative measure that consists of "an export authorisation system, whereby exports of nickel ore would be permitted upon production by the exporter of a document attesting that the nickel ore has been mined in compliance with all the environmental requirements that Indonesia purports to enforce".[592] The European Union submits the same alternative measure for both the export ban and the DPR because it "addresses the shared and

[585] European Union's response to Panel question No. 108.
[586] Appellate Body Reports, *EC – Seal Products*, para. 5.169.
[587] Appellate Body Reports, *China – Publications and Audiovisual Products*, para. 319 (referring to Appellate Body Report, *US – Gambling*, paras. 309-311).
[588] Panel Report, Canada – *Wheat Exports and Grain Imports*, para. 6.226.
[589] Panel Report, Canada – Wheat Exports and Grain Imports, para. 6.226. See also Appellate Body Report, Dominican Republic – Import and Sale of Cigarettes, para. 70.
[590] Appellate Body Report, *Korea – Various Measures on Beef*, para. 176.
[591] Appellate Body Report, Dominican Republic – Import and Sale of Cigarettes, para. 70.
[592] European Union's second written submission, para. 279.

single objective (securing compliance with environmental standards), that Indonesia claims is pursued by both of the measures at issue".[593]

7.313. The European Union states that, although the export authorization system it suggests differs from the existing CnC certification, it may be built upon such certification. In this regard, the European Union emphasizes that the alternative measure it is suggesting is not currently being applied in Indonesia.[594]

7.314. The European Union argues that its alternative measure is less trade restrictive because it does not entail a total prohibition on exports[595], and achieves the same level of protection as the export ban because it "would ensure that only nickel ore mined in accordance with all the environmental requirements that Indonesia seeks to enforce could be exported".[596] The European Union comments that the risks of non-compliance that Indonesia raised could also be addressed by the alternative measure since certification of compliance with all relevant environmental standards would be a pre-condition for exportation of nickel ore.[597]

7.315. Indonesia argues that the alternative measure the European Union proposes has evolved throughout the proceedings. At the first meeting with the Panel, the European Union argued that the alternative measure was Indonesia's CnC certification process, whereas in its second written submission the European Union submits that the alternative measure is an export authorization system.[598]

7.316. As regards Indonesia's CnC certification process applied to exports of nickel ore, Indonesia submits that it is not a real alternative because it is an "*existing* element of Indonesia's comprehensive policy".[599] Indonesia refers to the Appellate Body finding that "unchanged elements of a WTO Member's comprehensive policy cannot be deemed reasonably available alternatives".[600]

7.317. As for the export authorization system suggested by the European Union, Indonesia argues that the European Union has failed to explain how this measure would be different from the CnC certification and, therefore, the European Union has not discharged its burden of proof to propose a reasonably available alternative measure.[601] Indonesia contends that the export authorization system "is *not different*, in any material way" from the CnC certification process.[602] It further argues that the alternative measure suggested by the European Union has been applied and has failed to secure compliance with Indonesia's sustainable mining and mineral resource management requirements and, therefore, it does not constitute a less trade-restrictive, reasonably available alternative measure for the purposes of Article XX(d) of the GATT 1994.[603]

7.318. Indonesia submits that the European Union has failed to submit a reasonably available alternative measure because the European Union's proposal is "remedial in character" and, therefore, it cannot secure an equivalent level of compliance with Indonesia's sustainable mining and mineral resource management requirements than that Indonesia achieves with the DPR.[604]

7.319. Indonesia further argues that the alternative measure proposed by the European Union "would entail significant technical, financial and resource obstacles for Indonesia, if it were even

[593] European Union's response to Panel question No. 108.
[594] European Union's second written submission, para. 280.
[595] European Union's second written submission, para. 281.
[596] European Union's second written submission, para. 282.
[597] European Union's response to Panel question No. 108.
[598] Indonesia's second written submission, paras. 184-186.
[599] Indonesia's second written submission, paras. 184-185, referring to the European Union's opening statement at the first meeting of the Panel, para. 75. (emphasis original)
[600] Indonesia's second written submission, para. 185 (referring to Appellate Body Report, *Brazil – Retreaded Tyres*, para. 172).
[601] Indonesia's second written submission, para. 187.
[602] Indonesia's second written submission, para. 188. (emphasis original)
[603] Indonesia's second written submission, para. 189.
[604] Indonesia's first written submission, para. 220; and comments on the European Union's response to Panel question No. 108.

possible at all".[605] In Indonesia's view, the alternative measure is "theoretical in nature and far removed from the facts and circumstances of this case".[606]

7.320. Brazil comments that data Indonesia puts forward seems to demonstrate its ability to control overall nickel exports. In light of this, Brazil suggests that instead of prohibiting the exportation of nickel ore altogether, a less trade-restrictive measure would be to stipulate that only nickel ore that has been extracted in a sustainable manner could be exported or domestically processed.[607] Japan submits that the Panel should consider whether Indonesia's underlying legislative concerns centred on the depletion of its ore reserves or predatory mining, could be addressed more directly and effectively through non-discriminatory measures, rather than export restrictions.[608]

Analysis by the Panel

7.321. As noted above, the Panel will now weigh and balance the same factors with respect to the proposed alternative measure. In particular, the Panel will determine whether the alternative measure proposed by the European Union: (i) makes an equivalent contribution to the objective of securing compliance with Article 96(c); (ii) is reasonably available for Indonesia, and (iii) is less trade restrictive than the export ban and the DPR.

7.322. Before turning to these three elements, the Panel first addresses Indonesia's argument that the European Union's alternative measure has evolved throughout the proceedings. According to Indonesia, the European Union has submitted three different alternative measures: (i) CnC certification; (ii) the export authorization system; and (iii) the designation of a responsible representative within Indonesia by the foreign purchaser.[609]

7.323. The Panel disagrees with Indonesia that the European Union has submitted three alternative measures in these proceedings. Since its opening statement at the first meeting with the Panel, the European Union has consistently advocated for an export authorization system that would allow for the exportation of nickel ore upon verification of compliance with the relevant environmental requirements.[610] The European Union has indicated that this export authorization system could be built upon Indonesia's CnC certification.[611] In the Panel's view, the fact that the export authorization system could be built upon this certification does not mean that the European Union's alternative measure is the CnC certification itself. As far as the designation of a representative is concerned, the Panel notes that the European Union suggested that such a designation may constitute an additional element to its alternative measure to address Indonesia's jurisdictional concerns.[612] In the Panel's view, this would not change the nature of the European Union's alternative measure, which would continue to be a "check of export documentation".[613] Thus, the Panel is of the view that the European Union has submitted a single alternative measure, which is an export authorization system.

7.324. Indonesia argues that the European Union has not discharged its burden of proof because it has not explained how its proposed alternative measure differs from the existing CnC certification[614] or is built upon the CnC certification.[615] The Panel observes that both parties have addressed the similarities and differences between these two measures. The Panel starts by recalling that Indonesia has confirmed that CnC certification is not currently required in order to be granted a nickel mining

[605] Indonesia's comments on the European Union's response to Panel question No. 111.
[606] Indonesia's comments on the European Union's response to Panel question No. 111.
[607] Brazil's third-party submission, para. 28.
[608] Japan's third-party submission, para. 42.
[609] Indonesia's second written submission, paras. 184-186; and comments on the European Union's response to Panel question No. 111.
[610] European Union's opening statement at the first meeting of the Panel, para. 75; response to Panel question No. 49; and second written submission, para. 279.
[611] European Union's response to Panel question No. 49; and second written submission, para. 279.
[612] The European Union states that "there are other less trade-restrictive means to address the so-called jurisdictional concerns and which could be applied in conjunction with the proposed check of export documentation. For example, Indonesia could request the designation of a responsible representative within Indonesia by the foreign purchaser." See European Union's response to Panel question No. 111.
[613] European Union's response to Panel question No. 111.
[614] Indonesia's second written submission, para. 187.
[615] Indonesia's response to Panel question No. 110.

licence.[616] The Panel further observes that the CnC certification was a pre-requisite to be granted a mining licence[617] whereas the proposed export authorization system would apply at the point of exportation to those IUP and IUPK holders exporting nickel ore. The Panel also observes differences as regards their substantive coverage: the CnC certification encompasses administrative, territorial, technical, environmental and financial requirements[618] whereas the proposed export authorization system would encompass "the environmental standards that Indonesia claims it is seeking to secure compliance with".[619] The Panel disagrees, therefore, with Indonesia that the export authorization system "is *not different*, in any material way, from the 'clear and clean' certification process that constitutes an existing element of Indonesia's comprehensive policy".[620]

7.325. Having concluded that the European Union has properly raised one alternative measure that is not the same as an existing measure already applied, the Panel now turns to the three elements of the analysis.

Contribution of the alternative measure

7.326. The Panel has found above that the export ban and the DPR are not apt to make a material contribution to securing compliance with Article 96(c).[621]

7.327. Indonesia contests the ability of the alternative measure to make an equivalent contribution for four reasons: (i) its remedial nature; (ii) its similarity with the CnC certification; (iii) the fact that it poses additional enforcement problems because both the supply and demand ends of the supply chain are not under Indonesia's jurisdiction; and (iv) the fact that it does not remove *ex ante* all foreign demand for nickel ore, unlike the export ban. The Panel will address each of Indonesia's contentions in turn.

7.328. In terms of the remedial nature of the proposed alternative compared to the preventive nature of the measures at issue, Indonesia states that remedial measures cannot make an equivalent contribution to the enforcement of Indonesia's sustainable mining and mineral resource management requirements.[622] Indonesia further argues that this "type of remedial enforcement mechanism at the point of exportation has already been tried, tested and failed to achieve Indonesia's desired level of enforcement protection".[623] More particularly, Indonesia refers to the CnC certification system as a remedial enforcement measure.[624]

7.329. The Panel has described above the differences between the export authorization system proposed by the European Union and the CnC certification system. Therefore, the Panel does not agree with Indonesia that this type of remedial enforcement mechanism has already been tried, tested, and failed simply because the CnC certification was implemented. The Panel does not see a reason to exclude without evaluation an alternative measure using a remedial approach. Such a measure would only be excluded if the respondent demonstrates that it cannot make an equivalent contribution to the objective pursued. In this regard, the Appellate Body has found that a panel should take into account the capacity of a Member to implement remedial measures, particularly if they involved prohibitive costs or substantial technical difficulties.[625]

7.330. The Panel disagrees with Indonesia's argument that the export authorization system is not a valid alternative because the CnC "is already part of Indonesia's currently applicable comprehensive sustainable mining policy".[626] The Panel has already explained the export authorization system the European Union proposes is not the same as the CnC certification. Further,

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[616] Indonesia's response to Panel question No. 107.
[617] The Panel notes that Indonesia has stated that "[p]rior to the enactment of MEMR Regulation No. 11/2012, nickel extraction was not subject to CnC certification". See European Union's response to Panel question No. 107.
[618] European Union's comments on Indonesia's response to Panel question No. 114 (referring to Article 1 of MEMR Regulation No. 43/2015).
[619] European Union's response to Panel question No. 111.
[620] Indonesia's second written submission, para. 188. (emphasis original)
[621] See paras. 7.286 and 7.300 above.
[622] Indonesia's first written submission, para. 220.
[623] Indonesia's opening statement at the second meeting of the Panel, para. 84.
[624] Indonesia's response to Panel question No. 114.
[625] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 171.
[626] Indonesia's second written submission, para. 185.

the Panel notes that that the CnC certification is no longer part of the currently applicable comprehensive sustainable mining policy because this certification is no longer required in order to be granted a nickel mining licence.[627] Moreover, any CnC certifications that remain valid, that is, those issued before the promulgation of MEMR Regulation No. 7/2020, are remnants of an earlier legal regime.[628] Finally, the absence of exports of nickel ore due to the prohibition currently in force means that no measure – be it the CnC or any other – is being applied to check the conformity of exports (which are not occurring) with the relevant environmental regulations. The panel in *Brazil – Retreaded Tyres'* finding that an alternative to the measure at issue that is already part of the responding Member's comprehensive policy should be rejected,[629] is consequently inapposite to the present case.

7.331. Further, Indonesia expresses concern that the CnC would not achieve the same level of contribution as the challenged measures, because foreign purchasers are outside its jurisdiction. Indonesia argues that verification of compliance with the relevant regulations will become easier "once all market operators are brought within the enforcement jurisdiction of Indonesia" because regulators can cross-check production volumes of mining companies based on their RKABs with consumption data of processing companies.[630] Indonesia submits that "[s]uch an enhanced enforcement mechanism is simply *not* available in respect of sales between domestic mining companies and foreign purchasers of nickel ore".[631]

7.332. The European Union argues that Indonesia has not explained "why compliance cannot be checked properly in the case of exported goods, particularly as the relevant legal obligations are incumbent on the mining permit holder who is within the jurisdiction".[632] It further notes that Article 96(c) contains obligations directed at Indonesian IUP and IUPK holders, not purchasers of nickel ore and, consequently, the differences between domestic and foreign demand in terms of their ability to enforce such obligations are not relevant.[633] The European Union suggests that, as part of an export authorization system, Indonesia could require that foreign purchasers designate a responsible representative within Indonesia.[634]

7.333. The Panel agrees with the European Union that the obligation contained in Article 96(c) is on the IUP and IUPK holders and, therefore, the Indonesian authorities should focus on them when verifying their compliance. At the same time, the Panel understands Indonesia's position that having both buyers and sellers of nickel ore within its jurisdiction facilitates the ability of the relevant authorities to verify compliance. The Panel further notes that, on occasion, to verify compliance by an economic actor, the behaviour of other economic actors may also be relevant. In the Panel's view, the focus should be on whether the export authorization system can make an equivalent contribution to securing compliance with Article 96(c) by allowing Indonesian authorities to verify compliance. The Panel is of the view that it is not necessary to have buyers within Indonesia's jurisdiction to verify compliance. Indonesia refers to the possibility to cross-check production volumes of mining companies based on their RKABs with the consumption data of processing companies. However, that is not the only possible data cross-check that would allow Indonesian authorities to verify compliance. Nothing prevents Indonesia from cross-checking the production volumes of mining companies found in their RKABs with their export declarations as well as the consumption data of processing companies in Indonesia. If the sum of the nickel ore sold domestically and abroad by a mining company exceeded the production volume authorized in its RKAB, this could indicate that the mining company has not acted in conformity with the relevant sustainable mining and resource conservation requirements.

[627] Indonesia's response to Panel question No. 107(a) (referring to Article 113(c) of MEMR Regulation No. 7/2020).
[628] Indonesia's response to Panel question No. 107(a).
[629] Appellate Body Report, *Brazil – Retreaded Tyres*, para. 172. The Appellate Body reasoned that "[s]ubstituting one element of this comprehensive policy for another would weaken the policy by reducing the synergies between its components, as well as its total effect."
[630] Indonesia's response to Panel question No. 113; and comments on the European Union's response to Panel question No. 111.
[631] Indonesia's response to Panel question No. 113. (emphasis original)
[632] European Union's response to Panel question No. 111.
[633] European Union's response to Panel question No. 118.
[634] European Union's response to Panel question No. 111.

7.334. As regards Indonesia's claim that remedial measures are not effective and have the added difficulty of having to verify conformity after a transaction has already taken place[635], the Panel refers to the discussion above that a remedial measure can be an alternative measure to a preventive one, if it is reasonably available to the responding Member.[636] The Panel has found that the alternative achieves at least the same level of contribution as the challenged measures. Indonesia has opted for a preventive measure because it considers it easier to enforce. This issue is more properly dealt with under the alternative measure's reasonable availability and will be discussed further below.

7.335. Based on the foregoing, the Panel is of the view that the proposed alternative measure achieves at the very least the same level of contribution in terms of securing compliance with the sustainable mining requirements in Article 96(c) by requiring proof of compliance with the relevant environmental regulations that would be submitted by individuals within Indonesia's jurisdiction before the exportation of nickel ore.

Trade restrictiveness of the alternative measure

7.336. The Panel has found above that the export ban is the most trade-restrictive measure that can be applied and that the DPR is highly trade restrictive. The export ban directly prohibits the exportation of nickel ore whereas the DPR, if complied with, would mean that all nickel ore is consumed domestically and that there is no nickel ore to export. As explained above, such refining necessarily converts nickel ore into a different product, classified under a different HS code.[637]

7.337. The alternative measure proposed by the European Union would allow the exportation of nickel ore subject to compliance with the relevant environmental standards.

7.338. The Panel therefore agrees with the European Union that its alternative measure is less trade restrictive than the export ban and the DPR because it would permit more exports than the challenged measures.

Technical and economic feasibility of the alternative measure

7.339. The Panel notes that Indonesia argues that it "would entail significant technical, financial and resource obstacles for Indonesia, if it were even possible at all".[638] Indonesia explains that border officials would not be able to determine whether the nickel ore to be exported is in compliance with Indonesia's sustainable mining and mineral resource management requirements merely by examining the consignment of nickel ore. This is because this examination does not concern a product characteristic verifiable at the point of exportation but a process and production method that happens prior to the arrival of the product at the point of exportation. It is Indonesia's view that this would make the proposed alternative "simply theoretical in nature and far removed from the facts and circumstances of this case, and the regulatory reality in Indonesia".[639] Indonesia also submits that verifying the conformity of each and every consignment of nickel ore is unreasonable.[640]

7.340. The Panel notes that the implementation of the proposed alternative measure may entail costs and some technical difficulty, as usually happens when a new measure is implemented. In this regard, the Panel recalls that the Appellate Body has found that an alternative measure is not reasonably available "where the responding Member is not capable of taking it, or where the measure imposes an undue burden on that Member, such as *prohibitive* costs or *substantial* technical difficulties".[641] Indonesia states that Indonesian border officials cannot determine at the point of exportation from physical inspection of the nickel ore whether it has been mined in conformity with

[635] Indonesia's response to the European Union's comment on Panel question No. 111.
[636] See paras. 7.328-7.329 above.
[637] See para. 2.23 above.
[638] Indonesia's comment on the European Union's response to Panel question No. 111.
[639] Indonesia's comment on the European Union's response to Panel question No. 111.
[640] Indonesia's comment on the European Union's response to Panel question No. 111.
[641] Appellate Body Report, *US – Gambling*, para. 308. (emphasis added) See also Appellate Body Report, *Brazil – Retreaded Tyres*, para. 156 and Appellate Body Report, *China – Publications and Audiovisual Products,* paras. 327-328 (noting that the respondent "did not provide evidence to the Panel substantiating the likely nature or magnitude of the costs that would be associated with the proposed alternative, as compared to the current system.").

sustainable mining and mineral resource management requirements.[642] In this regard, the Panel notes that the alternative presented by the European Union does not refer to a physical inspection of each consignment upon exportation, but rather a system whereby exporters produce relevant documentation, prior to exportation, to certify compliance with the relevant requirements. These documents could then be verified against the RKABs of the relevant mines. The Panel therefore considers that Indonesia has failed to explain why it is not able to implement the proposed alternative measure or why the costs or technical difficulties associated with its implementation are prohibitive or substantial. Indonesia notes that not having to deal with exports makes enforcement easier. Just because the alternative may not be as easy to implement as the challenged measures does not mean that it is not technically or economically feasible.

Conclusion on the reasonable availability of the alternative measure

7.341. The Panel has found that the proposed alternative measure makes at least the same level of contribution as the challenged measures, is less trade restrictive, and is technically and economically feasible to Indonesia even if its initial implementation might entail some costs and technical difficulty. The Panel, therefore, concludes that the European Union has presented a reasonably available alternative measure and Indonesia has failed to rebut this.

7.3.1.2.5 Conclusion on necessity

7.342. The Panel finds that the trade restrictiveness and limited contribution of the measures to the objectives of Article 96(c) weigh towards a finding that the challenged measures are not necessary. Moreover, the Panel has found that there is an alternative measure that is reasonably available to Indonesia. The Panel, therefore, concludes that the result of the weighing and balancing exercise is that the challenged measures are not necessary within the meaning of subparagraph d of Article XX of the GATT 1994.

7.3.2 Conclusion on Article XX(d) of the GATT 1994

7.343. The Panel recalls that Article XX of the GATT 1994 sets out a two-tier test that involves, first, an assessment of whether the measure falls under at least one of its subparagraphs and, second, an assessment of whether the measure satisfies the requirements of the *chapeau* of that provision.

7.344. The Panel has found that Indonesia has failed to demonstrate that the export ban and the DPR fall within the scope of subparagraph (d) of Article XX of the GATT 1994.

7.345. Based on the foregoing, the Panel does not find it necessary to proceed with an analysis of the export ban and the DPR under the *chapeau* of Article XX of the GATT 1994.

8 CONCLUSIONS AND RECOMMENDATION

8.1. For the reasons set out in this Report, the Panel concludes as follows:

8.2. The prohibition on the export of nickel ore that began in January 2014 and is currently implemented through Law No. 4/2009 (as amended by Law No. 3/2020), MOT Regulation 96/2019 and MEMR Regulation 11/2019 is not excluded from the applicability of Article XI:1 because it is not a prohibition or restriction temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to Indonesia within the meaning of Article XI:2(a) of the GATT 1994. The export prohibition is inconsistent with Article XI:1 of the GATT 1994. The Panel has also concluded that the export prohibition is not justified under Article XX(d) of the GATT 1994 because it is not necessary to secure compliance with laws or regulations that are themselves not inconsistent with the GATT 1994.

8.3. The domestic processing requirement (DPR) that began in 2012 and is currently implemented through Law No. 4/2009 (as amended by Law No. 3/2020), MEMR Regulation Nos. 25/2018 and 7/2020 is not excluded from the applicability of Article XI:1 because it is not a prohibition or restriction temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to Indonesia within the meaning of Article XI:2(a) of the GATT 1994. The DPR is

[642] Indonesia's comments on the European Union's response to Panel question No. 111.

inconsistent with Article XI:1 of the GATT 1994. The Panel has also concluded that the DPR is not justified under Article XX(d) of the GATT 1994 because it is not necessary to secure compliance with laws or regulations that are themselves not inconsistent with the GATT 1994.

8.4. Under Article 3.8 of the DSU, in cases where there is an infringement of the obligations assumed under a covered agreement, the action is considered *prima facie* to constitute a case of nullification or impairment. The Panel concludes that the measures at issue are not excluded from the obligations in Article XI:1 of the GATT 1994 by Article XI:2(a) of the GATT 1994, are inconsistent with Article XI:1 of the GATT 1994, and are not justified under Article XX(d) of the GATT 1994. As such, they have nullified or impaired benefits accruing to the European Union under that agreement.

8.5. Pursuant to Article 19.1 of the DSU, the Panel recommends that Indonesia bring its measures into conformity with its obligations under the GATT 1994.