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ESG - from confusion to action

Summary



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- **ESG is the trend in investing as an ever-increasing portion of portfolios from individual savers to large institutions is directed towards sustainable strategies.** It is poised to become the key market driver over the next few years, with ESG assets set to grow by almost +13% p.a. until 2026, reaching USD34trn, compared to total market growth of only +4.3%.
- **However, the ESG boom has sparked some severe criticism over potential conflicts of interest, financial performance and above all measurability, given the limited amount of available data.** While the first two points seem to be overblown – solving trade-offs is the essence of management, and non-financial factors become financially material in the long-run – the problem of information availability is a valid one. But the situation is bound to improve significantly, not least given the flurry of new disclosure requirements.
- **While it is increasingly possible to evaluate the progress in the “E” in ESG, the situation is more challenging for the “S” and the “G”, as required by the new Corporate Sustainability Reporting Directive (CSRD).** Evaluating impact requires not only knowledge of the current state but also the necessary social transition pathways that are in compliance with societal goals. We introduce a new approach for addressing this challenge by using the United Nations Sustainable Development Goals (SDGs). Evolving from the limited focus on the climate transition to the inclusion of transition goals for all 17 SDGs ultimately provides the full ESG picture, paving the way for a just transition.





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ESG: A growing market...

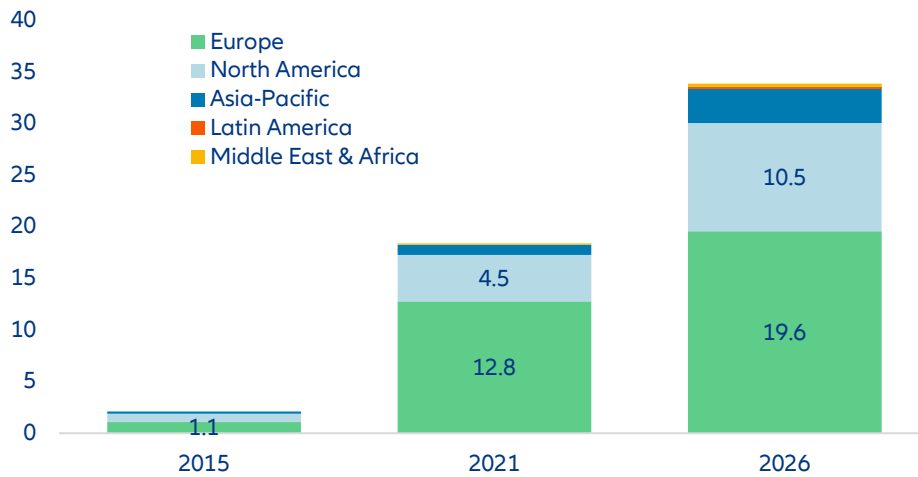
Sustainable finance is booming: From individual savers to large institutions, investors are dedicating an ever-increasing share of their portfolios towards ESG (environment, social, governance) financial products to support the transition to a just, sustainable and low-carbon economy. As traditional sources of growth in the wealth management market are threatened by the economic headwinds, ESG is poised to become a key market driver. In fact, over the next five years, according to PwC, ESG-oriented funds are set to grow much faster

than the market as a whole (+12.9% vs +4.3%). With ESG Assets under Management (AuM) under this scenario set to reach USD34trn by 2026, the ESG share of overall AuM would increase from 14.4% in 2021 to more than one-fifth of all assets (21.5%) by 2026.¹ Other forecasts are even more upbeat: According to Bloomberg Market Intelligence, ESG AuM could reach USD50trn in 2025.²

¹ PwC (2022): "Asset and wealth management revolution 2022: Exponential expectations for ESG"

² Bloomberg (2022): "ESG May Surpass \$41 Trillion Assets in 2022, But Not Without Challenges Finds Bloomberg Intelligence"

Figure 1: Global ESG Assets under Management



Sources: PwC, Allianz Research

Europe is set to remain a driving force in global green finance: It already accounts for more than half of the total ESG AuM, as of 2021 (see Figure 1), helped by regulatory efforts to promote sustainable finance through common standards, and thus more transparency and comparability of ESG products. The green bond market is a good example: 42% of the total green bond market is denominated in EUR³, the result of the EU's standard-setting taxonomy regulation for green bonds. However, US ESG AuM are catching up, expected to more than double until 2026; US investors demand an equally rapid shift towards ESG.

³ Climate Bonds Initiative (2022): "Sustainable Debt Market – Summary Q3 2022"



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...and a growing chorus of criticism

Despite its skyrocketing growth, the ESG boom has raised some important questions.⁴ In fact, ESG approaches have lately faced a wide-ranging backlash, criticized for a lack of proper justification. This is visible in Florida and North Dakota's anti-ESG-investment bills, and in Texas' anti-boycott bill that bars local authorities from doing business with banks that have adopted ESG policies and divested from Texan fossil-fuel-based energy companies. Behind this backlash, three issues related to ESG-driven investments loom: possible conflicts of interest, financial performance, and measurability.

⁴ See, for example, the fundamental criticism of *The Economist* that dismissed ESG as "exaggerated superficial guff" (*The Economist*, July 21st 2022).

Is it even possible to do justice to these three aspects of ESG at the same time? Aren't there conflicts of interest? There are certainly situations in which obligations to the environment (fewer emissions) and to society (more jobs) in particular could get in the way. But that doesn't mean these potential conflicts are intractable. After all, the idea of a "just transition" is just that: Managing the necessary green transformation in a way that no one is left behind; the past mistakes of unchecked globalization should not be repeated. In the end, recognizing conflicts of interest and resolving them is the essence of the task expected of political and economic leaders. In this sense, ESG criteria are nothing more and nothing less than a systematic approach to assessing how this task is fulfilled. By its very nature, this assessment is more difficult than one based on purely financial metrics.

At the end of the day, for asset managers, financial metrics are what counts the most. But the decisive question is what these key figures will look like in 10 or 20 years. To answer this, we need ESG criteria because non-financial factors often become financially material in the long run, reflecting the preservation of natural and social foundations as the basis for successful economic activity. That is why regulatory action is also aimed at increasing requirements for ever more disclosures of sustainability information.

But can ESG impacts be adequately assessed with the available data? The honest answer is that there are still considerable gaps. As a result, ESG ratings still vary substantially from one provider to another, requiring careful scrutiny.⁵ While there is now more information available, it is often concentrated on the E and

⁵ The correlation of ESG ratings is said to be around 0.3 while correlations of credit ratings is around 0.99.

not sufficient in scope and quality to form a conclusive assessment of the current ESG state of a particular asset. Even if such an assessment of the current state is possible, the next hurdle is to formulate an objective and transparent evaluation of how good, or bad, the future ESG performance of the asset will be. And beyond that, some investors will want the methodology and analysis to be science-based and under the supervision of neutral parties such as trusted NGOs or established international organizations. This is rational as it prevents falling – often unintentionally – into the greenwashing or at least the greenwashing² trap.

⁶ Greenwashing refers to pursuing activities and allocating essential amounts of resources to activities that are “green” but have very little effect on solving or treating the actual problem. Typically, the effort and resources could be allocated in a much more effective way. The widespread engagement in greenwashing activities results from various factors, including the tendency to approach ESG from a public relations or communication perspective, which often results in addressing small-scale local issues. The activities of choice are also typically not based on an impact and cost-benefit assessment of a broad and representative set of potential activities.

Table 1: Who performs better for the climate, the “clean” laggard or the “dirty” ambitious

	2020 emission intensity ¹ (tons of CO2 per unit produced)	2030 emission intensity ¹ (tons of CO2 per unit produced)	2020 emissions ² (million tons of CO2)	2030 emissions ² (million tons of CO2)	Emission reduction ³ (million tons of CO2)	Emission reduction	Target compliance
Company "High Emitter"	1.2	0.6	6	3	-3	-50%	1.5°C
Company "Low Emitter"	0.6	0.4	3	2	-1	-33%	2.0°C

Note: (1) tons of CO2 per unit produced, (2) million tons of CO2, (3) million tons of CO2
Source: Allianz Research

Common approaches of evaluating climate performance fundamentally diverge. Table 1 (previous page) illustrates one common difference between “taxonomy” and “science-based targets” approaches for two imaginary companies (e.g. two automobile producers). A taxonomy approach (like the EU-Taxonomy) typically focuses on emission intensities in any given year (shown in Column A and Column B) and relate them to an absolute emission-intensity threshold for that year. Simply put, the related question is: Did our company meet this year’s national regulatory emission intensity target?⁷ Under this framework, the “High Emitter (HE)” company currently has twice the emissions per produced unit (e.g. per automobile) compared to the “Low Emitter (LE)” company. As a result, a taxonomy-motivated approach would favor the LE over the HE in an investment portfolio.

⁷ Taxonomies, and the EU-Taxonomy in particular, can feature a rich and growing set of KPIs that might aim to cover some of the dynamics mentioned for the SBTi approach. Similarly, the SBTi approach allows for the use of metrics that are rather static instead of the dynamic approach highlighted here. For simplification, the two approaches are used here as synonymous for their dominant type of application.

In contrast, an approach based on the Science Based Targets Initiative NGO (SBTi) would focus on the transition aspirations of the company, which can be the change of the emission intensity from Column A to Column B in our example. The question here is: Does our company implement enough emission reductions to contribute our fair share to limit global warming? Looking further in the table, it becomes immediately clear that the allegedly “dirty” producer HE is the one that contributes much more to mitigating climate change if its transition plan is implemented. In the future, HE will still be dirtier measured by emission intensity compared to LE (Column B). But HE will have avoided three times the total emissions (Column E) and will have reduced emissions by -50% compared to the -33% reduction of LE. Consequently, HE’s transition pathway could be compatible with the ambition of limiting global warming to 1.5°C while LE’s effort just complies with limiting global warming to 2.0°C (Column G). Clearly, whether the company will actually achieve the targets it sets for itself is uncertain. In the practical evaluation, some approaches use a combination of the current emission state and the announced transition prospects (sometimes judging the credibility of transition plans by past and current emissions). That way, the final ESG performance score will ultimately depend on choosing the weights for each component.



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What about the S and G? From confusion to action

Despite the described shortcomings, an experienced and “climate-literate” investor can already use existing rating or scoring methods to compare the climate performance of an asset with his own objectives and climate targets. But this cannot be said for the larger scope of other ESG considerations, in particular related to the “S” and “G”.

Due to the new reporting requirements of the **Corporate Sustainability Reporting Directive (CSRD)**, data availability will improve in the coming years, at least for European companies. But it will not make the task of ESG investing any easier — at least not immediately. With the CSRD, disclosure of information is set to become a much more complex and challenging exercise as it extends the reporting scope beyond the current focus on financial risks. Firstly, its double

materiality approach requires assessing both impact directions: the “financial materiality” is concerned with the impact of ESG issues on the financial performance of assets (outside-in perspective), while the “impact materiality” concentrates on the environmental and social impacts that an asset causes (inside-out perspective). Secondly, in addition to the risk assessment, the CSRD requires a reporting of opportunities and impacts related to both sides of materiality. Further, the severity of the material impacts needs to be assessed by likelihood, scope, scale and the irremediable character of the impact. Likelihood (probability) and scope (how widespread or what size) are intuitive. The irremediable character determines whether and to what extent the negative impacts could be remedied, restoring the environment or affected people to their prior state. However, the largest challenge remains to determine the scale. The scale of

impact is a relative measure depending on the context in which the impact takes place. This includes the regional as well as the time perspective for the short, medium and long-term. For example, in the case of impacts on the environment, the condition and fragility of the impacted medium (such as water, soil, air, climate and ecosystems) is an essential input to determine the seriousness of the impact. Last but not least, evaluating impact requires assessing the deviation from the necessary transition pathways that are in compliance with the societal goals. For “S” and “G” related sustainability problems, the transition logic is desirable, but societal transition goals seem even more opaque.

Fortunately, ESG raters, CSRD reporters and investors do not need to develop their own set of transition targets from scratch. The United Nations Sustainable Development Goals (SDGs) provide an established framework that classifies sustainability issues in 17 distinct categories. The SDGs provide an accepted guidance for important societal goals such as closing the gender pay gap, promoting innovation or reducing waste. But deciding how to approach them requires some technical considerations. A recent study by van Vuuren et al. (2022)⁸ gives an overview of key indicators (see column “Macro indicator” in Table 2) for each SDG and links them to scientific evidence on the desired transition targets (columns “Current situation (2015)”, “2030 target”, and “2050 target”). Table 2 goes beyond Vuuren et al. (2022) by matching joint indicators⁹ to the World Bank Group’s (WBG) Sovereign ESG Risk Framework¹⁰ and the WBG ESG Data Framework¹¹, also suggesting a couple of additional

8 D. van Vuuren et al. (2022), “Defining a Sustainable Development Target Space for 2030 and 2050”. One Earth. Also see P Pradhan, D. van Vuuren and B. Wicke (2022), “Methods for Analysing Steering Effects of Global Goals”, in F. Biermann, T. Hickmann, and C. Sénit (eds.), “The Political Impact of the Sustainable Development Goals: Transforming Governance Through Global Goals?”. Cambridge: Cambridge

University Press.

9 Joint indicators are indicators that are present in both, the von Vuuren and the WBG framework.

10 <https://datatopics.worldbank.org/esg/methodology.html>

11 <https://datatopics.worldbank.org/esg/framework.html>.

indicators (including the UN SDG E-Book Indicators and the International Labour Organization STAT SDG as additional sources) to close the gaps in Vuuren et al. (2022) (in the column “Macro indicator” marked as “Suggested Indicator”). The “CSRD” column features the classification of the suitable topic for the indicator within the CSRD structure¹². While the column shows our own assessment with regard to matching a suitable macro indicator, the added SDGs in the brackets provide additional SDG matches from CSRD’s own assessment¹³. The “Macro indicator” is not supposed to provide the information about a specific asset, but rather informs the overarching transition path. This is similar to the climate discussion where the global emission pathway that is in compliance with the 1.5°C target sets the frame for informing the individual transition pathway of a company. While the table already provides a wealth of scientifically informed transition pathways for a multitude of ESG issues, it also identifies as many gaps that yet need to be filled with future research.

Keeping all this in mind, we go back to the question of how to approach closing the gender pay gap, promoting innovation or reducing waste. As shown in Table 2 below, the global SDG perspective is clear: By 2030, the gender pay gap should converge to zero (linked to SDG 5 gender equality), R&D expenditure should rise from 1.7% to 3% of spending (linked to SDG 9 industry, innovation and infrastructure) and food loss and waste should be reduced from 33% to below 10% (linked to SDG 12 Responsible consumption and production). While the concrete translation of these global transition paths into a company-specific action plan is far from trivial, many of the experiences from addressing climate change can be transferred to these fields as well.

12 Other existing frameworks provide mapping in specialized contexts. GISD, for instance, lists SDG reporting focus areas by sector for automobiles, consumer staples, financials, healthcare, IT, real estate, telecommunications and utilities in: GISD Alliance (2021) “Sector-Specific SDG-related Metrics for Corporate Reporting”.

13 See also EFRAG (2022), “Explanatory note of how draft ESRS take account of the initiatives and legislation listed in Article 1 (8) of the CSRD adding article 29 (b) -5 to the Accounting Directive”

The WBG ESG Framework, which has been used as a starting point to structure the table, is attractive as it covers ESG in a broad view. In itself, it does tend to lack depth and perspective (for instance in the form of transition pathways for the used indicators). The lack of depth becomes obvious in comparison to some advanced commercial ESG rating services that only cover a subset of the themes and categories included in the WBG methodology but tend to go into more depth and granularity within the covered subset. So, in practical terms, a clear trade-off between depth and width of the assessment is observable, but this trade-off is probably also desirable in order to limit the complexity of the assessment and thus allow for transparency and reproducibility. The second issue of lack of perspective is addressed here in a pragmatic way by matching the van Vuuren transition pathways to the WBG framework (as summarized in the table). This allows to further segment the ESG components (column “ESG Key sustainability theme (WBG)”) into normative goals and sustainability themes and thus give clear transition targets for all major ESG aspects. The inclusion of both the WBG and the CSRD frameworks highlights each other’s potential blind spots, which also originate from the different intended primary scopes: sovereigns vs. companies.

Thus, this approach can lay the foundation for including ESG considerations in investment decisions in an impact-oriented view. This view addresses the broad agenda of sustainability goals (the “S” and “G”) in a similar and systematic way, just as climate change is already addressed today, paving the way for a just transition. Using the SDGs as a framework for accepted transition goals for the entire ESG scope is a leap forward to solve this problem. This is particularly true for the CSRD itself, which requires targets, but doesn’t provide a framework in terms of which targets to transition to. The SDGs themselves provide the guardrail in which progress should be achieved. The evolution in the climate change assessment illustrates the complexity of breaking down this aspired progress to concrete targets for an individual company. This is a process that needs to be rapidly replicated for the broader ESG agenda. Jump-starting the evolution from the limited focus on the climate transition to the inclusion of transition goals for all 17 SDGs ultimately would allow for all ESG-considerations to be taken into account, paving the way for a just transition.

Table 2: SDG impact targets for ESG (WBG: World Bank ESG Framework , UN: UN SDG Indicators, ILO: International Labour Organization STAT SDG)

SDG	CSRD ESRS Action item	Macro indicator	ESG: Key sustainability theme (WBG)	Current situation	2030 target	2050 target
(1) No poverty	–	Number of people below poverty line (WBG)	S: Poverty & Inequality	13%	0%	0%
	–	Suggested indicator: Poverty headcount ratio at national poverty lines (WBG)	S: Poverty & Inequality	–	–	–
	S4 Own workforce – Other Work-Related Rights Child Labor (ESRS: SDG 8)	Suggested indicator: Children in employment (WBG)	S: Poverty & Inequality	–	–	–
	S6 Affected Communities Impact on Local Adequate Housing (ESRS: SDG 11)	–	–	–	–	–
	S6 Affected Communities Impact on Local Economic Development: Poverty (ESRS: SDG 11)	Poverty headcount ratio at national poverty lines (% of population) (WBG)	–	–	–	–
	S6 Affected Communities Impact on Local Economic Development: Regional Value Added, Regional Employment (ESRS: SDG 11)	Unemployment rate (WBG)	–	–	–	–
(2) Zero hunger	–	Number of people undernourished (WBG)	S: Health & Nutrition	11%	0%	0%
	–	Suggested indicator: Food production index (WBG)	E: Food Security	–	–	–
	–	Number of people with obesity (WBG)	S: Health & Nutrition	9%	0%	0%
	S6 Affected Communities Impact on Local Food, Water (ESRS:)	Suggested indicator: Prevalence of food insecurity based on FIES (UN)	–	–	–	–
(3) Good health and wellbeing	–	Life expectancy at birth (years) (WBG)	S: Demography	63	>65	>70
	–	Under 5 mortality rate (deaths per 1,000 live births) (WBG)	S: Health & Nutrition	43	25	12
	S2 Own workforce – Working Conditions Social Security Coverage (ESRS: SDG 8)	Suggested indicator: Share of population covered by social protection (ILO)	–	–	–	–
	S2 Own workforce – Working Conditions Work Life Balance / Working Hours (ESRS: SDG 8)	–	–	–	–	–
	S7 Consumers/ End-User Personal Security, Health and Safety, and Protection of Children (ESRS: SDG 3)	–	–	–	–	–
	G2 Products and Services, Management and Quality of Relationships with Business Partners Health and Safety Impacts of Products and Services (ESRS: SDG 17)	–	–	–	–	–
(4) Quality education	S6 Affected Communities Impact on Local Opportunities: Local Training and Skill Improvement Impact, High Skilled Labor Share Contribution (ESRS:)	Share of leaving cohort completing lower secondary education (WBG)	S: Education & skills	76.70%	80%	100%
(5) Gender equality	S3 Own workforce – Equal Opportunities Gender Pay-Gap (ESRS: SDG 8 & 10)	Gender gap in mean years of schooling (WBG)	G: Gender	0.79	0	0
	S5 Workers in the Value Chain Gender Pay-Gap, Discrimination, and Workers Representation (Unions, Workers Councils, ...) of Workers in Value Chain (ESRS: SDG 8 & 10)	Female estimated earned income over male (WBG)	G: Gender	52%–87%	100%	100%
(6) Clean water and sanitation	–	Population without access to improved water source piped (WBG)	S: Access to Services	9%	0%	0%
	E3 Water & Marine Resources Water Supply/Access/Sanitation&Hygiene (ESRS: SDG 6)	Population without access to improved sanitation facility (WBG)	S: Access to Services	32%	0%	0%
	–	Area under water stress (WBG)	E: Environment/climate risk & resilience	11%	no increase	no increase
	E3 Water & Marine Resources Water Intensity (ESRS: SDG 6)	–	–	–	–	–
	E3 Water & Marine Resources Water Performance for Operations, Products and Services, Supply Chain (ESRS: SDG 6)	–	–	–	–	–
(7) Affordable and clean energy	–	Population cooking with traditional biomass (WBG)	E: Environment/climate risk & resilience	37%	0%	0%
	–	population without basic electricity access (WBG)	S: Access to Services	13%	0%	0%
	E1 Climate Change Energy Mix (ESRS: SDG 7)	Suggested indicator: Share of renewable energy (WBG)	E: Energy use & security	–	–	–
	E1 Climate Change Energy Intensity (ESRS: SDG 7)	Suggested indicator: Energy use (kg of oil equivalent per capita) (WBG)	E: Energy use & security	–	–	–

SDG	CSRD ESRS Action item	Macro indicator	ESG: Key sustainability theme (WBG)	Current situation (around 2015)	2030 target	2050 target
(8) Decent work and economic growth	–	Unemployment rate (WBG)	S: Employment	6%	6%	6%
	–	Ratio GDP per capita low-income country vs. OECD (WBG)	G: Economic Environment	5%	10%	20%
	–	Ratio GDP per capita lower-middle-income country vs. OECD (WBG)	G: Economic Environment	16.70%	25%	50%
	S2 Own workforce – Working Conditions Remuneration (ESRS: SDG 5 & 8 & 16)	Suggested indicator: Income, total population (%) (WBG)	–	–	–	–
	S1 Own workforce – General Material and Financial Impacts on Workers (except those in	Suggested indicator: Annual growth rate of real GDP per employed person (UN)	–	–	–	–
	S1 Own workforce – General Non-Employee Worker Shares Engaged in Core Business (ESRS:	Suggested indicator: Proportion of informal employment in total employment (UN)	–	–	–	–
	S2 Own workforce – Working Conditions Workplace Health and Safety Conditions (ESRS:	Suggested indicator: Fatal and non-fatal occupational injuries (UN)	–	–	–	–
	S4 Own workforce – Other Work-Related Rights Workers Representation: Collective Bargaining,	Suggested indicator: Union membership (ILO)	–	–	–	–
	S2 Own workforce – Working Conditions Training and Skill Improvement (ESRS: SDG 5 & 8	Share of leaving cohort completing lower secondary education (WBG)	–	–	–	–
S5 Workers in the Value Chain Material Impacts, Remuneration, Workplace Health and	–	–	–	–	–	
(9) Industry, innovation and infrastructure	S6 Affected Communities Impact on Local Opportunities: Innovation (Patents, Research	R&D expenditure in % GDP (WBG)	G: Innovation	1.70%	3%	3%
	–	Population using internet (%) (WBG)	G: Economic Environment	46%	95%	95%
	–	Middle- and high-income countries' population with a bank account (WBG)	G: Economic Environment	69%	90%	95%
	–	Low-income countries' population with a bank account (WBG)	G: Economic Environment	69%	80%	95%
	–	High-income countries: Travel to nearest city with 50,000 inhabitants (WBG)	G: Economic Environment	<1 h for 90% of the population	<1 h for 90% of the	<1 h for 90% of the
	–	Low-income countries: Travel to nearest city with 50,000 inhabitants (WBG)	G: Economic Environment	low-income countries: 20%	<3 h for 90% of the	<1 h for 90% of the
(10) Reduced inequalities	S3 Own workforce – Equal Opportunities Ratio of Worker Basic Salary vs. Executive Total	People below 50% of median national daily income (WBG)	S: Poverty & Inequality	20%	15%	10%
	S3 Own workforce – Equal Opportunities Disability Employment Share and other Inclusion	Suggested indicator: Hourly earnings by sex, age, occupation and persons with disabilities	–	–	–	–
	S3 Own workforce – Equal Opportunities Discrimination/Diversity (ESRS: SDG 8 & 10)	Equal access index (WBG)	–	–	–	–
	S3 Own workforce – Equal Opportunities Paternal Leave Benefits (Duration, Financial)	–	–	–	–	–
	S3 Own workforce – Equal Opportunities Precarious Work (ESRS: SDG 8 & 10)	–	–	–	–	–
	S7 Consumers/ End-User Equal Access to and Non-Discrimination through Products and Service	Equal access index (WBG)	–	–	–	–
(11) Sustainable cities and communities	–	Urban population living in slums (WBG)	S: Access to Services	30%	10%	0%
	–	Population exposed to fine particulate (WBG)	E: Emissions & pollution	65%	20%	10%
(12) Responsible consumption and production	E5 Circular Economy Waste Intensity (ESRS: SDG 12)	Food loss and waste (WBG)	E: Emissions & pollution	33%	<10%	<10%
	–	Municipal material recovery (WBG)	E: Emissions & pollution	34%	59%	–
	E5 Circular Economy Resource Intensity (ESRS: SDG 12)	Suggested indicator: Adjusted savings - natural resources depletion (% of GNI) (WBG)	E: Natural capital endowment and	–	–	–
	E5 Circular Economy Recycling Shares (ESRS: SDG 12)	Suggested indicator: Domestic material consumption per capita or GDP (UN)	–	–	–	–
	G2 Products and Services, Management and Quality of Relationships with Business Partners	–	–	–	–	–
(13) Climate action	E1 Climate Change Emission Intensity (ESRS: SDG 13)	Annual green-house gas emissions (WBG)	E: Emissions & pollution	55 GtCO ₂ -eq	27 GtCO ₂ -eq	7 GtCO ₂ -eq
	E1 Climate Change Climate Mitigation, Adaptation and Loss&Damage Finance (ESRS:	Suggested indicator: Implementation of national disaster risk reduction strategies	–	–	–	–
	E2 Pollution Financing Pollution Control (ESRS: SDG 13)	–	–	–	–	–
(14) Life below water	–	P flow from freshwater systems into the ocean (WBG)	E: Emissions & pollution	~ 22 Tg P y ⁻¹	11 Tg P y ⁻¹	11 Tg P y ⁻¹
	E3 Water & Marine Resources Marine Resources (ESRS: SDG 6)	Fish stocks within biologically sustainable levels (WBG)	E: Natural capital endowment and management	65%	90%	100%

SDG	CSRD ESRS Action item	Macro indicator	ESG: Key sustainability theme (WBG)	Current situation (around 2015)	2030 target	2050 target
(15) Life on land	-	Forested land as % of original forest cover (WBG)	E: Natural capital endowment and management	62%	62%	75%
	E2 Pollution Pollution Intensities for Air (except GHG), Water and Soil (ESRS: SDG 3)	Industrial and intentional biological fixation of N (WBG)	E: Emissions & pollution	~ 150 Tg N y ⁻¹	62 Tg N y ⁻¹	62 Tg N y ⁻¹
	E4 Biodiversity & Ecosystems Biodiversity Mitigation, Adaptation and Loss&Damage Finance (ESRS: SDG 15)	BII (WBG)	E: Natural capital endowment and management	0	no degradation from 2020 onward	no degradation from 2020 onward
	E4 Biodiversity & Ecosystems Biodiversity Pressure and Impact (ESRS: SDG 15)	Suggested indicator: Mammal species, threatened (WBG)	E: Natural capital endowment and management	-	-	-
	E2 Pollution Pollution Damages (ESRS: SDG 3)	Suggested indicator: Red List Index (UN)	-	-	-	-
	-	Suggested indicator: Finance on biodiversity and revenue generated biodiversity instruments (UN)	-	-	-	-
(16) Peace, justice, and strong institutions	S6 Affected Communities Impact on Local Security (ESRS:)	Battle-related deaths and fatalities from one-sided violence (WBG)	G: Stability & Rule of Law	>93,000	0 per country/year	0 per country/year
	G2 Products and Services, Management and Quality of Relationships with Business Partners Lawsuits, Class-Action (ESRS: SDG 16)	Suggested indicator: Strength of legal rights index (WBG)	G: Human Rights	-	-	-
	G2 Products and Services, Management and Quality of Relationships with Business Partners Product Recalls, Service Discontinuance or Amendments (ESRS: SDG 17)	Suggested indicator: Government effectiveness / regulatory quality index (WBG)	G: Government Effectiveness	-	-	-
	S4 Own workforce – Other Work-Related Rights Workers Privacy Protection (ESRS: SDG 16)	Equality before the law and individual liberty index (WBG)	G: Stability & Rule of Law	0.69	>0.9	>0.9
	-	Equal access to property rights index (WBG)	G: Government Effectiveness	0.63	>0.9	>0.9
	G1 Governance, Risk Management & Internal Control Control, Audit, Compliance and Disclosure (ESRS: SDG 16)	Suggested indicator: Ease of doing business index (WBG)	G: Economic Environment	-	-	-
	G3 Business Conduct Corruption, Anti-Trust/Anti-Competitive (ESRS: SDG 16)	Suggested indicator: Control of Corruption (WBG)	G: Stability & Rule of Law	-	-	-
	G1 Governance, Risk Management & Internal Control Business Concentration/Dependency/Exposure to Specific Sovereigns (ESRS: SDG 16)	-	-	-	-	-
	S4 Own workforce – Other Work-Related Rights Forced/Slave Labor, Human Trafficking (ESRS: SDG 5 & 8 & 16)	-	-	-	-	-
	S5 Workers in the Value Chain Forced/Slave Labor, Human Trafficking and Child Labor in Value Chain (ESRS: SDG 5 & 8 & 16))	-	-	-	-	-
S7 Consumers/ End-User Impact on Privacy, Access to Information and Expression of Freedom (ESRS: SDG 3)	Equality before the law and individual liberty index (WBG)	G: Stability & Rule of Law	-	-	-	
(17) Partnerships for the goals	-	WBG statistical capacity score: source data (WBG)	G: Government Effectiveness	62	100	100
	-	Government revenue (WBG)	G: Government Effectiveness	Global average: 24%-28% w/o revenue from exploitation of natural resources	Increase to 20% for countries <threshold, otherwise, maintain	Maintain level of 2030 threshold w/o revenue from exploitation of natural resources
	-	International NGOs of which a country is a member (WBG)	G: Government Effectiveness	Global average: 386	Increase >25th percentile for countries <threshold, otherwise maintain	Increase value >25th percentile based on 2030 for countries <threshold, otherwise maintain
	G3 Business Conduct Political Engagement and Lobbying (ESRS: SDG 16)	Suggested indicator: Voice and Accountability (WBG)	G: Human Rights	-	-	-
	G3 Business Conduct Philanthropy, Donations and Sponsorships (ESRS: SDG 16)	-	-	-	-	-



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