

IVSB-aligned value factors

A second value factor set in impactaccounting.ai, and the choices made to fit it to the software.

INTERMEDIATE SET V3.0 · OCTOBER 2026 · 266 GEOGRAPHIES · USD 2025

What is new

The software now carries a second set of value factors, aligned with the value factors published by the IVSB, the Impact Value Standards Board hosted by the Capitals Coalition and building on the earlier IFVI and VBA work. The set is selected per model, and the valuation logic is unchanged. Pathways, impact drivers, outcomes and the single wellbeing unit all behave exactly as before. What changes is the set of factors that convert physical flows and monetary outcomes into societal value.

This is an intermediate set, and it is versioned. The IVSB has finalised greenhouse gases, water consumption and occupational health and safety, and has interim or draft methodologies for air pollution, water pollution, land use and waste. Wages are being reworked into a Core Working Conditions value factor. Where a published factor exists it is adopted. Where none exists the default set's inputs are kept, revalued on the IVSB basis and labelled as an interim value, so a result stays complete rather than silently dropping impacts the IVSB has simply not reached yet. Each new IVSB publication triggers a new version of the set.

VALUE OF A LIFE YEAR	CARBON	MONEY CONVERSION	IVSB SOURCED
\$95,846	\$0.262	×1	7 of 19
\$62,082 in the default set	per kg CO2e	costs taken at face value	5 adopted, 2 derived, 12 rebased

The value of a life year

The most consequential single number in an impact valuation is the value placed on a year of healthy life, because most health and environmental damages reduce to it in the end. The two sets reach a similar figure by different routes. The default set values a healthy life year at \$62,082, derived from global income per capita on the WHO-CHOICE convention. The IVSB starts instead from a value of a statistical life drawn from an OECD meta-analysis and divides it by the remaining life expectancy of the people in that study.

STEP	VALUE	SOURCE
Value of a statistical life	\$2,895,021	OECD meta-analysis, \$2.7m in 2022 prices, updated to 2024
Remaining life expectancy	31 years	Global life expectancy 72.6 years less mean respondent age 41.6
Value of a life year, 2024	\$93,388	IVSB Water Consumption methodology, Appendix B
Value of a life year, 2025	\$95,846	Adjusted for inflation, used throughout the set

A life year is worth about 54 percent more in the IVSB set than in the default set. Both figures apply equally to every country, on the principle that a life year is worth the same everywhere. The value sits in its own column in the factor file and can be edited. In the IVSB set it is applied to every health effect, including the three health indicators the IVSB has not priced itself.

Money is counted at face value

The default set does something the IVSB approach does not. When an impact first appears as money, such as a damage cost, a wage or a tax payment, the default set converts that money into wellbeing using a country factor that reflects how much a dollar actually achieves at that income level. The IVSB treats a dollar of damage as a dollar of societal cost, with no further conversion.

To reproduce IVSB results faithfully, the software switches this conversion off in the IVSB set, giving it a multiplier of one. This is the single most important compatibility choice in the whole exercise, because leaving the conversion on would produce numbers belonging to neither system. It applies to every factor in the set, including those the IVSB has not priced, and it has a visible consequence for human and social pathways, described further below.

One value of life, or one per country

The June 2026 database publishes two perspectives. The Global perspective applies one worldwide value of a life year to every country, which is what this set uses. The Local perspective scales that value by income, using gross national income per capita at purchasing power parity relative to the United States, so a life year in a lower-income country is valued lower.

The set keeps the Global perspective, for three reasons. It matches the equal-value-of-life principle the software already applies to every other pathway. The IVSB own occupational health and safety methodology argues for it, on the grounds that a single value avoids distortionary results that unintentionally favour one population over another when decisions cross country lines. And the choice is explicitly left to the preparer in the general methodology. The practical effect of the alternative is stark: under the Local perspective the same fatality is valued at 2.6 per cent as much in Afghanistan as in the United States, so a company would report far less harm for identical physical damage simply because the people affected are poorer.

The income ratio behind the Local perspective is carried in the dataset, so a local variant can be produced if a client requires one. Anyone doing so should first note a technical concern recorded with the dataset, namely that the published local values appear to apply the income adjustment twice and therefore understate local values by roughly a factor of three.

How each environmental factor is handled

Every indicator falls into one of four treatments, and the treatment is stored against the factor so it appears in the results annex.

TREATMENT	WHAT IT MEANS	COUNT
Adopted	The IVSB country factor is imported directly, with a unit conversion and an inflation adjustment to 2025 prices.	5
Derived	Built from IVSB substance-level values using the characterisation factors the software already applies.	2
Modelled	No factor is imported. The software models the activity and values the resulting flows with the factors above.	—
Rebased	The IVSB has no factor. The default set's inputs are kept, revalued with the IVSB value of a life year and a money conversion of one, and labelled as an interim value.	12

THE FULL LIST

INDICATOR	UNIT	TREATMENT	SOURCE AND STATUS
Climate change	USD/kg CO ₂ e	Adopted	GHG methodology, final
Water consumption	USD/m ³	Adopted	Water Consumption methodology, final
Freshwater eutrophication	USD/kg P-eq	Adopted	Water Pollution, interim
Particulate matter	USD/kg PM _{2.5} -eq	Adopted	Air Pollution, interim
Land use, occupation	USD/m ² ·a	Adopted	Land Use, interim
Human toxicity, cancer	USD/kg 1,4-DCB	Derived	Water Pollution, interim, mapped via characterisation
Human toxicity, non-cancer	USD/kg 1,4-DCB	Derived	Water Pollution, interim, mapped via characterisation
Marine eutrophication	USD/kg N-eq	Rebased	No IVSB marine nitrogen factor
Terrestrial acidification	USD/kg SO ₂ e	Rebased	No IVSB ecosystem acidification factor
Freshwater ecotoxicity	USD/kg 1,4-DCB	Rebased	No IVSB ecotoxicity endpoint
Marine ecotoxicity	USD/kg 1,4-DCB	Rebased	No IVSB ecotoxicity endpoint
Terrestrial ecotoxicity	USD/kg 1,4-DCB	Rebased	No IVSB ecotoxicity endpoint
Photochemical ozone, health	USD/kg NO _x -eq	Rebased	Superseded by the particulate matter route
Photochemical ozone, ecosystems	USD/kg NO _x -eq	Rebased	No IVSB factor
Ozone depletion	USD/kg CFC-11e	Rebased	No IVSB factor
Ionising radiation	USD/kBq Co-60e	Rebased	No IVSB factor
Marine plastics	USD/kg plastic	Rebased	IVSB covers plastics only inside the waste factor
Metal depletion	USD/kg Cu-eq	Rebased	No IVSB factor
Fossil depletion	USD/kg oil-eq	Rebased	No IVSB factor

Nineteen indicators. Seven take their value from IVSB data, and twelve are rebased from the default set's inputs.

What moves, and by how much

The table compares the two sets for three reference geographies, against version 2.9 of the default set. Water, freshwater eutrophication and land use move the most, and carbon rises by about 45 per cent. Particulate matter goes both ways: the IVSB value is about half the default for the world and the United States, but nearly three times the default for India, because the two sets regionalise the factor differently.

INDICATOR	WORLD DEFAULT	WORLD IVSB	CHANGE	US CHANGE	INDIA CHANGE
Climate change	0.180	0.262	×1.45	×1.45	×1.45
Water consumption	0.122	2.567	×21	×22	×211
Land use	0.091	0.570	×6.3	×22	×4.9
Freshwater eutrophication	7.93	94.5	×12	×56	×67

INDICATOR	WORLD DEFAULT	WORLD IVSB	CHANGE	US CHANGE	INDIA CHANGE
Human toxicity, non-cancer	0.014	0.069	×4.9	×1.4	×16
Human toxicity, cancer	0.206	0.069	×0.33	×0.09	×1.1
Particulate matter	45.1	21.1	×0.47	×0.45	×2.9

Values in USD 2025 per unit of the indicator. A ratio above one means the IVSB factor is higher.

Two of these deserve a word of explanation. Water rises steeply because the default factor counted only the cost of replacing water, while the IVSB factor also counts the ecosystem services lost, the malnutrition caused when agriculture loses water, and the water-borne disease that follows reduced access. The rise is larger still in water-scarce countries, where the cost of securing future supply dominates. Land use rises because the IVSB values the full loss of ecosystem services across the biome, where the default factor covered soil functions alone.

Toxicity behaves differently from everything else. The default factors are global constants, the same everywhere, while the derived factors are country-specific and range from \$0.002 to \$0.45 per unit. That range follows the IVSB exposure model, in which countries with extensive drinking-water treatment and high dilution show much lower values than countries without. Toxicity results therefore vary between geographies in a way they did not before. This is also the factor carrying the most uncertainty, for reasons set out in section C of the appendix.

Indicators the IVSB has not priced

Twelve indicators have no IVSB factor. Copying the default values would bring in the default value of a life year and the default money conversion, so the set instead keeps the default set's physical and price inputs and revalues them on the IVSB basis. The three health indicators, ozone depletion, ionising radiation and photochemical ozone affecting health, keep the same ReCiPe endpoint factor in DALYs per unit, multiplied by the IVSB value of a life year instead of the default one, which raises them by 54 per cent everywhere. The nine economic-cost indicators keep the underlying damage price, from the CE Delft 2024 handbook or, for marine plastics, Beaumont and colleagues, taken at face value with a multiplier of one.

INDICATOR	WORLD DEFAULT	WORLD IVSB	CHANGE	US CHANGE	INDIA CHANGE
Ozone depletion	33.0	50.9	×1.54	×1.54	×1.54
Ionising radiation	0.00053	0.00081	×1.54	×1.54	×1.54
Photochemical ozone, health	0.056	0.087	×1.54	×1.54	×1.54
Marine plastics	12.2	15.9	×1.30	×1.30	×1.30
Marine eutrophication	13.7	18.3	×1.33	×7.1	×0.83
Terrestrial acidification	7.68	6.78	×0.88	×1.16	×0.83
Freshwater ecotoxicity	0.030	0.027	×0.88	×1.16	×0.83
Marine ecotoxicity	0.0031	0.0041	×1.33	×7.1	×0.83
Terrestrial ecotoxicity	0.00093	0.00082	×0.88	×1.16	×0.83
Photochemical ozone, ecosystems	0.61	0.53	×0.88	×1.16	×0.83
Metal depletion	0.080	0.106	×1.33	×7.1	×0.83
Fossil depletion	0.157	0.209	×1.33	×7.1	×0.83

Values in USD 2025 per unit of the indicator, default set version 2.9. A ratio above one means the IVSB-set factor is higher. The change is the same in every country for the four indicators with a single global value in both sets.

Each of these factors is therefore the same in every country, since their country variation in the default set came entirely from the money conversion. Compared with the default set they rise in high-income countries, where a dollar converts into less wellbeing, and fall slightly in lower-income ones. Version 2.0 of the set copied the default values unchanged, which mixed the two values of a life year inside a single result; version 3.0 removes that inconsistency.

Health, wages, taxes and the other pathways

Human and social pathways are handled by the valuation logic rather than a lookup table, and the IVSB covers them unevenly, so each is treated on its own terms.

PATHWAY	DEFAULT TREATMENT	IN THE IVSB SET	STATUS
Occupational health and safety	Health loss valued in wellbeing units, from incident records where available or sector burden data where not.	Incidents valued as fractions of the IVSB value of a statistical life, plus healthcare cost. A lost workday to injury is 0.0334 percent of a life, a long-term incapacity 19 percent, a fatality 100 percent.	IVSB final
Wages and income	Wage change converted to wellbeing with a country factor, with a separate negative term for any gap to a living wage.	Counted at face value, which is the IVSB own current guidance. The earlier wages methodology is being replaced by a Core Working Conditions value factor covering wages.	Being replaced
Taxes and public revenue	Tax paid converted to wellbeing with a country factor reflecting what public spending delivers.	Counted at face value. The IVSB has no tax methodology.	No IVSB factor
Education and training	Earning premium converted to wellbeing with the same country factor as income.	Counted at face value. The IVSB has no methodology here.	No IVSB factor
Health outcomes from risk factors	Burden of disease rates multiplied by the value of a life year.	Identical logic, using the IVSB value of a life year.	Aligned
Waste	Modelled as a treatment process, with the resulting emissions and land use valued by the environmental factors.	Unchanged, and consistent with the IVSB, which builds its per-tonne waste value from the same components.	Draft
Job creation	A baseline probability used in additivity.	Unchanged. Not a value factor.	Not a factor
Wage inequality	Not currently modelled.	On the IVSB workplan for 2026.	Upcoming

TWO CONSEQUENCES WORTH KNOWING

Counting money at face value is a value choice, not a technicality. In the default set a dollar of wage in a low-income country produces more wellbeing than the same dollar in a high-income country, because it buys more health and security. At face value the two count the same. Wage, tax and training results

therefore flatten across geographies in the IVSB set, and the effect is largest for operations in low-income countries.

The IVSB value of a statistical life already includes lost earnings. Where a health and safety result is valued this way, the software does not add an income effect on top, because the earnings loss is already inside the number.

Countries, gaps and prices

The set covers the same 266 geographies as before. Every factor taken from the IVSB comes from its June 2026 country database, which covers all 217 individual countries directly, water included. The twelve rebased factors are the same in every geography. The 49 regional and income aggregates are not published by the IVSB and are built from their member countries instead, using explicit membership for regions, income groups, the European Union, the Euro area, the OECD and the Arab World. Country income groups follow the default set, so Venezuela now counts as lower middle income. Every row records which method produced it, both as a flag in the factor sheet and in full on a separate sheet.

ROWS	HOW THE VALUE IS PRODUCED	COUNT
Individual countries	Published IVSB country values	217
Regions, income groups, EU, Euro area, OECD, Arab World	Median of explicitly defined member countries	24
Lending, fragility, small-state and demographic groupings	Documented income or region proxy, since membership is not in the source data	25

All values are expressed in 2025 US dollars. The June 2026 IVSB database is entirely in 2024 prices and is brought forward with the US consumer price index, with the original year kept alongside each factor. The rebased factors use the default set's own price conversion, so the two sets stay on the same price basis.

Using the set

Selecting the IVSB set changes the factors and nothing else. Every factor carries its source and its status, so a report annex can state, for each number, whether it comes from a final IVSB methodology, an interim or draft one, a value derived from IVSB data, or a default-set input revalued on the IVSB basis. The set is reissued whenever the IVSB publishes a new value factor database or finalises a topic, and each reissue carries a changelog. Waste, land use and the forthcoming Core Working Conditions factor are the next expected changes.

Quality control

Twenty-five checks are recorded alongside the dataset, covering completeness, sign, reproduction of the published anchors, and agreement with the summary statistics the IVSB publishes for its own factors. The water factors reproduce the five highest country values in the published methodology exactly, and the country median sits at \$2.50 against a published \$2.49. Two checks changed the numbers rather than confirming them.

FINDING	CONSEQUENCE
The value factor database still carries exposure-draft water values	Water was rebuilt from the final methodology's national table. Country factors rise materially, so India moves from \$3.11 to \$17.75 per cubic metre and the world figure from \$0.03 to \$2.63.
Toxicity was sensitive to the emission compartment used to derive it	Freshwater and seawater derivations differed by up to a factor of five, so both are pooled. The country range narrows from three orders of magnitude to two.

Both findings, and the checks that confirmed the rest of the build, are recorded in full in the dataset.

The set was subsequently rebuilt on the June 2026 database, which confirmed the corrected water values independently and revised the air pollution values down by around 40 per cent in real terms. The value of a life year was confirmed unchanged in correspondence with the IVSB. Version 3.0, in October 2026, aligns the set with version 2.9 of the default set and rebases the twelve indicators the IVSB has not priced. A further check divides every default-set country value by its money conversion, or by the default value of a life year for the health indicators, and recovers the input used in the IVSB set to within rounding for every country.

Technical detail

A. Unit conversions and aggregation

The IVSB publishes in units that differ from the ones the software reports against. The conversions below are applied once, when the set is built.

INDICATOR	IVSB SOURCE UNIT	SOFTWARE UNIT	CONVERSION APPLIED
Climate change	USD per tonne CO2e	USD/kg CO2e	Divide by 1,000. The published database value is used; alternative emission years are tabulated in the dataset.
Water consumption	USD per m ³ , national table	USD/m ³	The published national value factor is used directly. It is built as access cost plus the largest of ecosystem services, malnutrition and water-borne disease. Taken from the final methodology, not from the value factor database, which still carries exposure-draft water values.
Particulate matter	USD per tonne PM2.5	USD/kg PM2.5-eq	Divide by 1,000. Peri-urban setting, which the IVSB treats as the default where the emission location is unknown. Values were revised down by about 40 per cent in the June 2026 database.
Freshwater eutrophication	USD per kg phosphorus	USD/kg P-eq	Direct, units already equivalent.
Land use	USD per hectare-year, 18 categories	USD/m ² ·a	Median across the 18 categories, divided by 10,000.
Human toxicity	USD per kg of each substance	USD/kg 1,4-DCB	Mapped through characterisation factors and pooled across both water compartments, see section C.
All of the above	Source price year	USD 2025	Multiplied by 1.02631. The June 2026 database is entirely in 2024 prices, so a single inflation factor applies to every value.
Indicators without an IVSB factor	Default-set inputs	Default units	Health: ReCiPe endpoint factor in DALYs per unit × \$95,846. Economic costs: CE Delft 2024 price, EUR 2021 × 1.2846, or Beaumont central estimate of \$15,862 per tonne, with a money conversion of one.

The particulate matter factor is applied to the whole indicator, which already includes precursor gases through characterisation. Since the IVSB value covers primary fine particles, this slightly overstates the precursor contribution, and the alternative was rejected to keep the reporting structure intact.

B. Parameters and constants

PARAMETER	VALUE	NOTE
Value of a statistical life	\$2,895,021	2024 prices, OECD meta-analysis
Value of a life year, IVSB set	\$95,846	2025 prices, \$93,388 in 2024 prices; confirmed by IVSB, August 2026
Value of a life year, default set	\$62,082	For reference
Money conversion multiplier	1.00	IVSB set only
Rebasing ratio, health indicators	1.5438	\$95,846 / \$62,082, indicators the IVSB has not priced
CE Delft price conversion	1.2846	EUR 2021 to USD 2025, as in the default set
Greenhouse gas value factor	\$261.83	Per tonne, 2025 prices, from the published \$255.12 in 2024 prices
Trajectory by emission year	236 / 239 / 244 / 248	2023, 2024, 2025, 2026 emissions, in 2023 prices
Consumer price index 2024	313.689	US CPI-U annual average
Consumer price index 2025	321.943	US CPI-U annual average
Inflation factor applied	1.02631	Single factor, 2024 to 2025 prices
Substance-compartment pairs for toxicity	172	See section C
Discount rate in IVSB methodologies	2%	Applied inside the published factors

C. Mapping toxicity

The IVSB prices individual pollutants one by one, in dollars per kilogram of each substance released to water, while the software reports toxicity as a single indicator in a common reference unit. Bridging the two uses the characterisation factors that already sit behind that indicator.

For each substance the published IVSB value is divided by its characterisation factor, which gives the value implied per unit of the common indicator. Doing this for every substance present in both datasets gives a distribution, and the median of that distribution becomes the country factor. Eighty-six substances matched in each of the two water compartments, giving 172 substance-compartment pairs, covering metals in their speciated forms, pesticides, industrial organics and pharmaceuticals.

Both compartments are pooled deliberately. Deriving the factor from freshwater releases alone and from seawater releases alone produces answers that differ by as much as a factor of five, so neither compartment on its own gives a stable result. Pooling narrows the country range from roughly three orders of magnitude to two.

SENSITIVITY CHECK	RESULT
Substance-compartment pairs per country	172
Freshwater-only median	0.152
Seawater-only median	0.031
Pooled median, adopted	0.068
Disagreement between compartments	0.20x to 5.0x
Country range, pooled	0.002 to 0.45

Default factors for comparison

0.206 / 0.014

Values in USD per kg 1,4-DCB equivalent. The default figures are the cancer and non-cancer constants in the default set.

LIMITATIONS OF THIS FACTOR

This is the one factor in the set that is neither published by the IVSB nor built from the default set's inputs, and it should be read with three qualifications. It is a Valuing Impact derivation that the IVSB has not endorsed. It rests on the IVSB water pollution methodology, which carries interim rather than final status. And the IVSB prices releases to water only, while the indicator the factor is applied to also aggregates releases to air and soil, so the factor is extrapolated beyond the scope the IVSB has actually valued.

The factor is labelled as derived wherever it appears, so any result that depends materially on toxicity can be identified and, if preferred, recalculated with the default constants instead. The construction will be replaced if the IVSB publishes a toxicity endpoint of its own.

D. A worked example

A site in India releasing 1,000 tonnes of CO₂e, consuming 5,000 cubic metres of water, occupying two hectares of land for a year and emitting 50 kilograms of fine particulate matter, valued under both sets.

FLOW	QUANTITY	DEFAULT SET	IVSB SET
Greenhouse gases	1,000 t CO ₂ e	-180,440	-261,833
Water consumption	5,000 m ³	-421	-88,742
Land occupation	20,000 m ² ·a	-1,948	-9,467
Particulate matter	50 kg PM _{2.5} -eq	-1,531	-4,514
Total societal value		-184,340	-364,555

Values in USD 2025, negative because they represent value destroyed, default set version 2.9. The IVSB set gives a result about twice as large here. Water dominates the difference because India is water-scarce and the IVSB prices the cost of securing future supply. Particulate matter runs the other way from the world comparison: for India the IVSB value is about three times the default.

E. Sources

- IVSB topic methodologies for greenhouse gases, water consumption and occupational health and safety, all final, together with the waste exposure draft. OECD (2025), Mortality Risk Valuation in Policy Assessment, for the value of a statistical life.
- IVSB Global Value Factors Database version 4, published 18 June 2026 in 2024 prices, covering greenhouse gases, water consumption, air pollution, water pollution, land use, waste and occupational health and safety at country level.
- ReCiPe 2016 characterisation factors version 1.1, used for the toxicity mapping.
- For the twelve rebased indicators, the inputs of the eQALY natural capital model version 2.6: ReCiPe 2016 endpoint factors (Hierarchist), the CE Delft Environmental Prices Handbook 2024 and Beaumont and colleagues (2019) for marine plastics.
- US Bureau of Labor Statistics consumer price index, for the price year adjustment.
- The default factor set is the eQALY value factor set published by Valuing Impact, version 2.9 of September 2026, which remains the software's default selection.

