THE 2030 PROGRAM BUDGET

Consolidated Capital and Operating Budget for the 17 SDG Breakthrough Blueprints

US$1.70 Trillion Program Envelope • FY2026-FY2031 • Investment-Grade Discipline

Built on Japanese FILP Program-Investment Doctrine and Singapore Reserve-Governance Practice

A Comprehensive Framework for Social Entrepreneurs, Impact Investors, and Purpose-Driven Organizations

2026 Edition • Hard Deadline: 31 December 2030

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Executive Summary

This document consolidates the sixteen capital stacks and one system layer defined in the SDG 1-17 Breakthrough Blueprints into a single, reconciled, investment-grade program budget. Gross instrument demand across the sixteen stacks sums to US$1,915 billion; netting inter-stack double-counts — cross-listed outcome forwards, shared insurance floats, shared node and rail CAPEX — reduces this to US$1,565 billion, to which the SDG-17 system layer adds US$135 billion, for a governed program envelope of US$1,700 billion over FY2026-FY2031 (4.5 years). This equals roughly 0.9% of global assets under management and 1.5% of one year of world GDP.

Two public-finance traditions discipline every number that follows. From Japan: the FILP principle — a program-investment account, financed by repayable instruments and strictly separated from any operating budget, may fund only yield-bearing capital formation (the construction-bond rule), under line-item examiner scrutiny and statutory ex-post policy evaluation. From Singapore: outcome-linked block budgets to executing units, a hard spending rule on endowed reserves (never more than 50% of expected long-run real returns), constitutional-grade two-key protection on reserve draws, and absolute separation between the standards body and asset managers. The result is a budget in which 100% of the envelope is capital formation with identified repayment sources, operating overhead is capped below 0.4% of assets deployed, and no dollar moves without a KPI gate.

Core Thesis

1. Every dollar in this budget is an investment with a repayment source — outcome revenues, tariffs, fees, receivables or asset yields — never a grant; the program's fiscal constitution forbids operating subsidies (Japanese construction-bond rule, applied globally).

2. Executing stacks receive block budgets against verified-outcome KPIs, not line-item approvals — autonomy at the edge, discipline at the gate (Singapore block-budget doctrine fused with the 180-day kill-or-scale cycle).

3. Reserves are sacred: the US$50B Countdown Reserve and all buffer pools sit behind a two-key rule (Authority board plus independent councils) and an NIRC-style spending cap, so the program can never eat its own seed corn.

Key Findings

- Reconciled program envelope: US$1,700B — gross US$1,915B less US$350B inter-stack double-counting plus US$135B system layer
- Uses: 30.6% physical CAPEX, 25.3% outcome forward purchases, 18.2% finance books and working capital, 8.8% insurance and guarantee floats, 5.6% technology platforms and Proof Layer, 4.7% human capital formation, 3.8% first-loss catalytic, 2.9% countdown reserve
- Sources: 35.3% institutional debt, 14.1% securitized receivables, 29.4% outcome buyers (corporate, sovereign, philanthropic), 11.2% equity, 6.2% insurance floats, 3.8% foundation first-loss
- Peak-year deployment US$560B (FY2029) is 0.53% of global gross fixed capital formation — logistically demanding, macro-economically small
- Program-wide blended base-case IRR 11.2% (bear 6.8%, bull 15.9%); operating overhead ratio 0.37% of deployed assets versus 2-7% for comparable development institutions

Document Structure

This blueprint moves from diagnosis to breakthrough portfolio to execution machinery: market architecture, capital stack, technology layer, measurement, and a half-yearly countdown roadmap terminating on 31 December 2030. Each section contains named ventures, quantitative targets, and specific next actions for entrepreneurs and investors.

PART I: CONSOLIDATION AND RECONCILIATION

Chapter 1: From Sixteen Stacks to One Envelope

Each blueprint defined its own capital assembly. Summed gross, they total US$1,915B. Three classes of double-counting must be netted before a consolidated budget is honest. First, cross-listed outcome forwards: climate VTU purchases already fund tonnes minted by energy (SDG 7), farming (SDG 2), land (SDG 15) and ocean (SDG 14) ventures; equality EQUs overlap PXU and WPU events. Second, shared floats: reinsurance capacity backing health micro-premiums, parametric shields and title insurance is one balance sheet serving several stacks. Third, shared rails: the Node Commons, logistics grid and agent platforms appear as CAPEX in multiple stacks but are built once.

Reconciliation Bridge	US$ B
Gross sum of 16 stack assemblies	1,915
Less: cross-listed outcome forwards (VTU/CWU, EQU/PXU/WPU, LDU/BLU overlaps)	(185)
Less: shared insurance and reinsurance floats counted in multiple stacks	(80)
Less: shared node, logistics and platform CAPEX (Node Commons effect)	(85)
Net sixteen-stack requirement	1,565
Add: SDG-17 system layer (GIX and Proof Utility 25; brokers and corridors 60; Countdown Reserve 50)	135
Governed Program Envelope, FY2026-FY2031	**1,700**

All subsequent tables speak in net terms against the US$1,700B envelope. Stack-level budgets remain the operating documents; this consolidation governs inter-stack allocation, phasing and reserves.

Chapter 2: Fiscal Constitution — The Japan-Singapore Synthesis

- **Rule 1 — Capital formation only (Japan, construction-bond principle).** The envelope may fund assets, books and floats that carry repayment sources. Operating costs of the Authority and Proof Utility are funded solely from verification and exchange fees, capped at 0.4% of deployed assets.
- **Rule 2 — Program-investment account separation (Japan, FILP/Zaito doctrine).** The envelope lives in a ring-fenced Program Investment Account (PIA), financed by program bonds, securitizations and forward contracts — never commingled with any operating entity, never available for payroll.
- **Rule 3 — Block budgets against outcomes (Singapore).** Each stack receives half-yearly block tranches contingent on verified-unit KPIs; within a tranche, stack operators allocate freely. Autonomy inside the block; mercy nowhere at the gate.
- **Rule 4 — Reserve protection with two keys (Singapore, past-reserves doctrine).** Countdown Reserve and buffer draws require Authority board approval plus independent council countersignature — the program's Presidential second key.
- **Rule 5 — Endowment spending cap (Singapore, NIRC rule).** Endowed funds (seed endowments, data-dividend floats, Proof Utility endowment) may spend at most 50% of expected

long-run real returns; principal is inviolable.

- **Rule 6 — Examiner scrutiny and ex-post evaluation (Japan).** An independent Budget Examination Office reviews every stack tranche line-by-line pre-release, and a statutory-style policy evaluation publishes cost-per-verified-unit league tables every 180 days.
- **Rule 7 — Managers manage, standards stand (Singapore, GIC/Temasek separation).** The Countdown Authority sets standards and gates; licensed asset managers deploy capital; no person may hold roles in both.

PART II: USES OF FUNDS

Chapter 3: Consolidated Uses — The Eight Budget Lines

Use of Funds	US$ B	% of Envelope	Repayment Source
1. Physical infrastructure CAPEX (nodes, pods, microgrids, gigafactories, fleets, restoration works)	520	30.6%	Tariffs, fees, franchise margins, offtake
2. Outcome forward purchases (PXU, HZU, HLY, LOU, WPU, WSU, CWU, DWU, IXU, EQU, URU, CYU, VTU, BLU, LDU, TRU)	430	25.3%	Delivered verified units (buyer consumption)
3. Finance books and working capital (SME lending, PAYG and housing receivables, learn-to-earn, deposit floats)	310	18.2%	Interest, receivable collection, float yield
4. Insurance and guarantee floats (reinsurance, parametric, title, fairness, peace instruments)	150	8.8%	Premiums and float investment income
5. Technology platforms and Proof Layer (agents, exchanges, registries, satellites, sensors)	95	5.6%	Per-use and per-verification fees
6. Human capital formation (training 25M operators, guides, CHEs, arbiters, rangers, brokers)	80	4.7%	Franchise royalties and placement fees
7. First-loss and catalytic capital	65	3.8%	Recycled as junior tranches season
8. Countdown Reserve (unallocated swing capital)	50	2.9%	Deployed only into proven top-decile uses
Total	**1,700**	**100%**	

Line 6 deserves emphasis: US$80B of explicit human-capital budget — certification academies, guild formation, apprentice stipends — is the line traditional infrastructure budgets forget and this program treats as CAPEX, because trained operators are the asset that makes every other asset cash-flow.

Chapter 4: Uses by Stack and Year

Stack	Net US$ B	FY26	FY27	FY28	FY29	FY30-31
SDG 1 Poverty	132	5	19	36	44	28

SDG 2 Hunger	106	4	15	29	35	23
SDG 3 Health	115	4	16	31	38	26
SDG 4 Education	80	3	11	22	26	18
SDG 5 Gender	97	3	14	26	32	22
SDG 6 Water	84	3	12	23	28	18
SDG 7 Energy	124	5	18	34	41	26
SDG 8 Work	88	3	12	24	29	20
SDG 9 Industry	141	5	20	38	47	31
SDG 10 Inequality	62	2	9	17	20	14
SDG 11 Cities	159	5	22	43	53	36
SDG 12 Circularity	75	3	11	20	25	16
SDG 13 Climate	194	7	28	52	64	43
SDG 14 Ocean	66	2	9	18	22	15
SDG 15 Land	97	3	14	26	32	22
SDG 16 Trust	70	2	10	19	23	16
SDG 17 System	135	4	20	32	41	38
Total	**1,700**	**60**	**240**	**460**	**560**	**380**

Phasing follows the Japanese medium-term expenditure framework practice: a published five-column profile, revised only at half-yearly supplementary windows, with each stack's forward columns contingent on trailing KPI gates. FY2029 is deliberately the peak: mature playbooks, proven operators, maximum absorption capacity.

Chapter 5: Human Resources Budget in Detail

The program's workforce is franchise-employed, not payroll-employed — but its formation is budgeted centrally because no stack succeeds without it.

Workforce Line	Headcount by 2030	Formation Cost US$ B	Notes
Node and franchise operators (all stacks)	1.2M	14	Academies, apprenticeships, starter kits

Community health entrepreneurs (SDG 3)	4.0M	18	12-week certification plus kits
Learning guides (SDG 4)	3.0M	12	Guide academies, paid apprenticeships
Care entrepreneurs (SDG 5)	2.0M	8	Certification, safety telemetry training
Repair, reman, restoration and ranger guilds (SDG 8/12/14/15)	6.0M	16	Guild formation, gear, certification
Arbiters, attesters, auditors (SDG 16 and Proof Layer)	1.5M	5	Legal and verification training
Partnership brokers (SDG 17)	1.0M	4	Certification, agent tooling
Authority, Proof Utility and exchange staff (the only payroll)	9,000	3 (cumulative opex, fee-funded)	Lean core: 0.0004% of program workforce
Total formed workforce	**18.7M**	**80**	

Benchmark: Singapore's public service delivers a nation with 1.5% of its population on government payroll; this program delivers a planetary buildout with 9,000 core staff — 0.05% of its own formed workforce — by pushing everything else into franchise employment with skin in the game.

PART III: SOURCES OF FUNDS

Chapter 6: The Funding Mix

Source	US$ B	% of Envelope	Instruments	Target Return
Institutional debt (pensions, insurers, banks, DFIs, green banks)	600	35.3%	Program bonds (Zaito-style), fleet and build facilities	6-9% nominal
Securitized receivables markets	240	14.1%	PAYG, housing, SME and learn-to-earn ABS	7-11%
Corporate outcome buyers	250	14.7%	Forward purchases across 16 exchanges	Consumption (verified claims)
Sovereign and MDB outcome buyers	180	10.6%	Compliance-linked forwards, IXU/TRU purchases	Policy outcomes
Philanthropic outcome buyers	70	4.1%	Forwards in frontier vintages	Impact-first
Equity (impact VC, PE, diaspora guilds, communities)	190	11.2%	Platform, factory, studio and co-op equity	12-20%
Insurance and reinsurance floats	105	6.2%	Premium floats backing program covers	Underwriting plus float
Foundation first-loss	65	3.8%	Junior tranches, guarantee layers	Capital preservation
Total	**1,700**	**100%**		

The mix is deliberately debt-heavy relative to development-sector norms because the uses are cash-flowing assets — the Japanese FILP insight that repayable finance disciplines project selection better than grants ever did. Every source column has a named repayment path in Part II.

Chapter 7: Program Bond Architecture

- **2030 Program Bonds (Zaito-style):** senior paper issued by the PIA in US$, EUR, JPY, SGD and INR tranches against the diversified asset pool; target US$400B outstanding by FY2029; JPY and SGD tranches priced for Japanese and Singaporean institutional demand explicitly courted for doctrine familiarity.
- **Stack revenue bonds:** ring-fenced issues against single-stack cash flows (energy tariffs, housing receivables, water fees) for investors wanting sector exposure.
- **Outcome-linked notes:** coupons step up when stack KPIs beat plan — aligning bondholders with the countdown itself.
- **Sukuk and Islamic-compliant sleeves:** asset-backed structures for Gulf and Southeast Asian pools, matching the program's heavy Global-South deployment.
- **Retail participation notes:** US$100-minimum notes distributed through the Node Commons and diaspora channels — the program's citizens as its bondholders, Japan Post Bank style.

PART IV: OPERATING BUDGET AND COST DISCIPLINE

Chapter 8: The Thin Core

Operating expenditure is the program's smallest and most scrutinized number. The Authority, Proof Utility, GIX core and Budget Examination Office run on verification and exchange fees under a hard cap: cumulative opex may never exceed 0.4% of cumulative deployed capital.

Operating Line (annual, steady-state FY2029)	US$ M
Proof Layer operations (satellites, sensors, audit corps, bounties)	1,450
Exchange and registry operations (GIX federation)	520
Countdown Authority (standards, dashboards, reviews)	180
Budget Examination Office and ex-post evaluation	95
Councils, ombudsman and liberties board	60
Security, legal and audit	240
Contingency (capped)	155
Total annual opex	**2,700**
Memo: opex as % of assets deployed at FY2029	0.24%
Memo: comparable MDB and development-agency admin ratios	2-7%

Cost discipline practices imported directly: Japanese examiner culture (every line defended annually from zero), Singaporean shared-services consolidation, published cost-per-verified-unit league tables, and automatic sunset of any core function two consecutive reviews below benchmark.

Chapter 9: Working Capital and Treasury Policy

- Treasury managed by licensed external managers under GIC/Temasek-style separation; the Authority holds standards, never assets.
- Liquidity ladder: 8% of undeployed envelope in T+2 instruments, 15% in T+30, remainder matched to deployment calendar — no reaching for yield with mission capital.
- FX doctrine: local-currency deployment matched with local-currency liabilities wherever markets allow (target 55%); residual hedged; unhedgeable frontier exposure capped at 7% of envelope and priced into first-loss.
- Float income (insurance, deposits, escrows) accrues to buffer pools first, NIRC-capped distributions thereafter.
- Inflation treatment: all multi-year tables in constant FY2026 dollars; tranches indexed at disbursement.

PART V: RISK, RESERVES AND SUSTAINABILITY

Chapter 10: Reserve Architecture and Scenario Discipline

Reserve / Buffer	US$ B	Governance
Countdown Reserve (performance swing)	50	Two-key release, top-decile allocation only
Outcome buffer pools (reversal, verification failure)	38	Utility-held, actuarial rules
First-loss tranches (frontier risk)	65	Foundation-funded, recycling
Treasury liquidity buffer	independent of envelope	Ladder policy, examiner oversight

Scenario Table (program-wide, FY2031 position)

Scenario	Deployment Achieved	Blended IRR	Verified-Outcome Attainment	Response Protocol
Bull (probability-weighted 25%)	US$1.70T	15.9%	105-115% of targets	Accelerate FY30; expand reserve recycling
Base (50%)	US$1.55-1.70T	11.2%	90-100%	Standard gates; reserve to laggards
Bear (20%)	US$1.15-1.40T	6.8%	70-85%	Tranche compression; corridor prioritization; extend tail to FY2032 for bottom-quartile geographies only
Stress (5%)	under US$1.0T	2-4%	50-65%	Constitutional pause: reserves frozen, examiner re-baseline, council-supervised restructuring

The stress protocol is written now, in peacetime — the Singaporean habit that distinguishes reserve stewards from reserve spenders. Under no scenario do operating costs breach the cap, and under no scenario are buffer principals invaded without two keys and publication.

Chapter 11: Ex-Post Evaluation and the Public Ledger

- Every 180 days: audited cost-per-verified-unit by stack, published against budget, with variance decomposition (volume, price, FX, execution) in McKinsey-standard waterfall format.
- Annual: full program financial statements, IFRS-audited, plus a Citizens' Budget in 40 languages — Singapore's budget-communication practice at planetary scale.
- Terminal (FY2031): statutory-style evaluation of every stack against this document, archived permanently beside the dashboards — the program grades itself in public, forever.

PART VI: COUNTDOWN BUDGET CALENDAR

Chapter 12: The Fiscal Countdown to 31.12.2030

Fiscal Window	Budget Actions	Envelope Cumulative Deployed
H2 FY2026	PIA constituted; fiscal constitution ratified; first program-bond benchmark (US$8B); examiner office seated	US$60B
FY2027	First full block-budget cycle; ABS programs launched; JPY and SGD tranches; first league tables	US$300B
FY2028	Peak issuance ramp; retail notes via Node Commons; first reserve deployment to top decile	US$760B
FY2029	Peak deployment year (US$560B); mid-program statutory evaluation; buffer adequacy re-test	US$1,320B
FY2030	Final-mile surges; reserve fully committed by Q3; pre-terminal audit	US$1,660B
H1 FY2031	Tail completions; terminal evaluation; conversion of PIA into permanent revolving fund under NIRC rule	US$1,700B

On 31 December 2030 the budget question will be answerable in one line, because it was designed to be: how many verified units did each dollar buy, versus this document's promise — stack by stack, tranche by tranche, in public. That is what Goldman-grade rigor and Japanese-Singaporean fiscal doctrine were borrowed to guarantee: not elegance, but answerability.

- **Institutional investors:** the program-bond curve and ABS shelf are your entry; examiner-audited, KPI-gated, constitutionally reserved.
- **Sovereigns:** your forwards buy outcomes at league-table prices; your citizens can read the same dashboard you do.
- **The Authority:** spend nothing you cannot defend line-by-line; the cap is the culture.
- **Everyone:** the budget is public. Hold it to itself.