

#	NASA-Unsolved Challenge	A.D.A. Project Solution
1	Roof protection against massive volcanic ash	Pyramidal + switchable roofs (Chapter 4.6.1)
2	NEO deflection with < 5 years lead time	High-power lasers + gravity tractors (Chapter 42)
3	Sealed cities with >90-day autonomy	Microgrids + COI + indoor farming (Chapter 4)
4	Urban thermal control in lethal wet-bulb heat	Albedo roofs 0.20–0.85 + interior atmosphere (Chapter 4.7)
5	Megacity evacuation in <48h	MicroEV mobility + smart lanes (Chapter 4.14)
6	Agriculture during global dimming	Nuclear waste heat + LED greenhouses (Chapter 4.9)
7	Megatsunami protection	≥600 m altitude + 30× river corridors (Chapters 4.2, 4.11)
8	Supervolcano resistance	Anti-collapse geometry + sealed mode (Chapter 4.6)
9	Gamma-ray burst (GRB) shielding	L1 observatories + shielding (Chapter 42)
10	Post-nuclear winter recovery	Seed banks + aquaponics (Chapter 4.13)
11	Waste management in sealed cities	Circular economy + WtE backup (Chapter 4.15)
12	Health in long-term isolation	Negative-pressure hospitals + telemedicine (Chapter 4.16)
13	Education during global crisis	A.D.A. Year + digital twin (Chapter 4.18)
14	Governance during collapse	COI + participatory budgets (Chapter 4.24)
15	Inclusion in refuges	Universal design + 20×5 cooperatives (Chapters 4.22, 4.17)
16	Cybersecurity in microgrids	OT/IT segmentation + immutable logs (Chapter 4.25)
17	Drainage for extreme rainfall	30× channels + buffer ponds (Chapters 4.35, 4.36)

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18 Evaporation minimization in droughts

Floating covers + recirculation (Chapter 4.37)

19 Ecosystem protection in cities

Green corridors + eco-dams (Chapters 4.33, 4.34)

20 Global urban transition without panic

UN moratorium + phased rollout (Chapters 4.3, 4.28)