Building An Automated Survival Infrastructure: ASI 1.0

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Abstract

This standard defines the minimum technical and operational requirements for an automated survival infrastructure capable of providing universal access to life's essentials. It establishes the conditions under which food, water, shelter, energy, healthcare, and information are provisioned reliably through systems that detect shortages and expand capacity autonomously.

The purpose of this standard is narrow and practical. It defines the threshold at which failure of survival provisioning becomes a systems failure rather than a social, economic, or political one. Any system operating below this baseline is considered non-compliant.

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1. Scope and Purpose

This standard applies to any society, region, or system claiming to provide continued access to basic human survival needs under conditions of advanced automation.

The scope of this document is limited to **survival provisioning only**. It does not define economic systems, cultural norms, governance models beyond infrastructure protection, or individual lifestyle outcomes.

The purpose of the standard is to:

- Define a **Universal Human Baseline** grounded in biology and systems engineering
- Specify **system behaviors** required to maintain survival
- Establish **objective failure conditions** for survival infrastructure
- Enable interoperable, auditable implementations across regions

This standard SHALL not define fixed numerical thresholds. Instead, it SHALL require compliance with the most current authoritative baselines published by recognized global health and survival organizations (e.g., WHO, FAO, UNHCR, ISO).

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2. Definitions

Automated Survival Infrastructure (ASI):
A network of physical and digital systems that provision essential survival resources without requiring individual qualification, payment, or labor.

Universal Human Baseline (UHB):
The minimum measurable conditions required to sustain healthy human life.

Shortage:
Any condition in which demand for a baseline resource exceeds available supply.

Capacity Expansion:
The act of increasing production, storage, distribution, or redundancy to eliminate a shortage.

Compliance:
Continuous operation above the Universal Human Baseline across all defined domains.

Baseline Thresholds:
Quantitative values defined by authoritative organizations that specify minimum survival requirements. These values are external to this standard and SHALL be updated dynamically.

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3. Core Principles

An ASI-compliant system SHALL adhere to the following principles:

1. **Survival is Provided**
   Access to baseline resources SHALL NOT be conditional on income, employment, status, or behavior.
2. **Shortages Are System Failures**
   Any sustained shortage SHALL be treated as a fault condition requiring corrective action.

3. **Response Is Capacity Expansion**
   Systems SHALL respond to shortages by increasing capacity, not by restricting access.
4. **Measurement Over Assumption**
   Needs SHALL be continuously measured against current authoritative baselines, not inferred or rationed.
5. **Automation Over Delay**
   Detection and response SHALL prioritize speed and reliability over human-mediated processes.

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4. Rationale

4.1 Physical Reality

Tasks that can be performed with less energy, fewer errors, and greater reliability are inevitably automated. Survival provisioning is fundamentally an energy and logistics problem and therefore converges toward automation.

4.2 Economic Reality

As automation scales, the marginal cost of producing essential goods approaches zero. When basic resources become inexpensive to produce, rationing transitions from necessity to system inefficiency.

4.3 Systems Reality

Feedback-driven systems that sense failures and correct them outperform systems based on debate, delay, or discretionary allocation. Survival requires fast feedback loops. Automated systems meet this requirement more reliably than human-managed ones.

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5. Universal Human Baseline

The Universal Human Baseline defines the minimum requirements for healthy human life. These requirements are biological, measurable, and bounded.

Provisioning SHALL meet or exceed the latest authoritative thresholds for water, nutrition, shelter, energy, healthcare, and information. Systems SHALL demonstrate compliance by referencing the current published values at the time of audit.

5.1 Baseline Domains

An ASI-compliant system SHALL provide continuous access to the following domains:

- **Water:** Safe drinking water, sanitation, and hygiene
- **Nutrition:** Complete and sufficient food intake
- **Shelter:** Safe, weather-resistant living space
- **Energy:** Reliable household energy sufficient for baseline needs
- **Healthcare:** Preventive, diagnostic, and emergency care
- **Information:** Access to communication networks and knowledge resources

Baseline thresholds SHALL be expressed in quantitative ranges with defined confidence intervals, update cadence, and data sources at time of implementation.

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6. System Operation Model

All baseline domains SHALL operate under the same control loop:

1. Sense current and projected needs
2. Evaluate gaps between supply and demand
3. Act to supply resources
4. Monitor outcomes and system health
5. Expand capacity when gaps persist
6. Baseline references SHALL be updated annually or upon revision by authoritative bodies. Systems SHALL integrate updated thresholds within 90 days of publication.

Persistent shortages SHALL trigger automatic escalation until compliance is restored.

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7. Domain Example: Water

An ASI-compliant water system SHALL:

- Measure population, consumption, climate, and infrastructure status
- Calculate required potable and non-potable water volumes
- Produce, treat, recycle, and distribute water automatically

If supply falls below baseline:

- Capacity SHALL be expanded through treatment, recycling, capture, or transport
- Temporary backup systems SHALL activate during expansion

Access SHALL NOT be restricted as a primary corrective mechanism.

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8. Transitional Use of Money

During partial automation, monetary mechanisms MAY be used solely as a temporary fallback when baseline needs cannot yet be met through infrastructure.

Any such fallback SHALL be:

- Automatic
- Limited strictly to unmet baseline needs
- Non-transferable
- Actively tracked
- Eliminated as systems improve

Money SHALL NOT be used to gate access once a domain reaches full baseline compliance.

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9. Governance and Control

ASI systems are infrastructure, not governments.

Governance SHALL be limited to protecting system integrity and compliance:

- Baselines are set by science
- System operation is open and auditable
- No authority may block access to baseline resources

No single entity SHALL possess unilateral control over multiple baseline domains.

Governance councils SHALL not set numerical baselines. Their role is limited to ensuring systems adopt and comply with the latest authoritative thresholds.

Failures SHALL trigger repair and expansion, not punishment or exclusion.

This standard may be revised through open, auditable processes informed by empirical system performance and scientific consensus.

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10. Deployment Path

10.1 Single Domain Pilot

- Deploy one baseline domain (typically water or nutrition)
- Operate within a limited geographic region
- Demonstrate near-perfect reliability **as measured against the Universal Human Baseline**.

10.2 Stable Local Baseline

- Remove all monetary fallback for that domain
- Maintain continuous supply for a minimum of one year

10.3 Domain Expansion

- Add additional domains sequentially
- Each domain MUST reach full compliance before the next is added

10.4 Regional Scaling

- Replicate compliant systems across regions
- Maintain local autonomy with interoperable data and capacity sharing

10.5 Global Federation

- Connect regions into a distributed global network
- No central authority controls supply
- Shared data prevents and mitigates shortages

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11. Post-Baseline Conditions

Once access to survival is baseline:

- Participation in work becomes voluntary
- Contribution shifts toward creativity, care, research, and building
- Cooperation is guided by trust and reputation, not survival access

Survival SHALL remain unconditional.

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12. Compliance Statement

Any system claiming to meet the requirements of a technologically capable society MUST demonstrate continuous operation above the Universal Human Baseline.

Compliance SHALL be demonstrated through published uptime, coverage, and shortage metrics, benchmarked against current authoritative baselines. If individuals lack access to survival essentials as defined by these baselines, the system is non-compliant.

Individuals may not lack the standard baseline of provided food, water, shelter, energy, healthcare, or information. If so, the system is non-compliant.

This standard defines the minimum acceptable performance for automated survival infrastructure in technologically capable societies.