ChatGPT

Backcasting & Option Testing

Executive Summary

Backcasting is a strategic planning approach where organizations **start with a defined future goal** and work backwards to determine the steps required to reach that goal [1] [2]. Unlike traditional forecasting that projects forward from the present, backcasting begins with a **desired future scenario** – for example, a community's ideal 2030 outcome – and then identifies the policies, actions, and intermediate outcomes needed to achieve it [3] [2]. Option testing, often called **wind-tunneling** or stress-testing, complements backcasting by examining how well those planned strategies or policy options would hold up under different future conditions [4] [5]. Together, these methods help NGOs craft **robust, future-proof strategies** that are aligned with long-term visions yet flexible enough to succeed in a range of scenarios.

In practice, backcasting and option testing enable NGOs and social sector organizations to **connect futures with present-day action**. Rather than merely react to trends, NGOs can proactively shape outcomes by envisioning desired scenarios (such as achieving a specific SDG or community vision) and mapping backwards to today's decisions [6]. These tools have been widely adopted beyond the corporate world, finding a place in nonprofits and the UN system to drive transformational change for public good [7] [8]. For example, UN strategic planning processes now routinely include envisioning desired futures, backcasting to define change pathways, and **"wind tunnel" testing** of strategies against multiple scenarios [7]. This ensures plans are both **bold in ambition and resilient to uncertainty**.

The evidence suggests that backcasting can improve strategic coherence and stakeholder buy-in. By starting with an inspiring vision, teams break out of incremental mindsets and **aim higher than status quo plans】 [9] [10]. Participatory backcasting exercises have been shown to motivate subsequent grassroots action – in one case, community members in rural Kenya took new initiatives after co-creating a backcasted roadmap for clean cooking [11]. Option testing further strengthens strategies by revealing vulnerabilities and prompting modifications before real-world implementation [12] [13]. However, these methods are not without pitfalls: if poorly facilitated, backcasting workshops can become confusing "wish lists" or devolve into disagreement on what the future should look like [14]. Likewise, without diverse perspectives, option testing can suffer from biases or false confidence in favored plans [15]. This guide provides a step-by-step framework, practical tools (with templates), case examples, and tips to help NGOs apply backcasting and option testing effectively. The goal is to enable organizations to** plan backwards from a better future** and stress-test their strategies today – so they can navigate uncertainty, stay mission-focused, and achieve impact at scale.

(Word count: ~300 words)

Evidence Table (Key Findings | Strength | NGO Implications)

Key Finding	Strength	NGO Implications
Backcasting aligns short-term actions with long-term visions, avoiding purely reactive planning [6] [3].	Strong (widely documented)	NGOs can set ambitious goals (e.g. a 2030 vision) and map backwards to inform today's strategy, ensuring daily efforts contribute to desired future outcomes.
Backcasting is effective for **complex "wicked" problems** and sustainability transitions [9].	Strong (theory & practice)	Encourages NGOs to tackle systemic issues (climate, inequality) by envisioning transformative solutions and working out practical pathways despite uncertainty.
Participatory backcasting increases stakeholder buy-in and can spark community action [11].	Moderate (case studies)	Engaging beneficiaries and partners in co-creating future visions leads to shared ownership. NGOs see more follow-through on plans when communities see their role in the future.
Multiple pathways to the same future can be identified; exploring alternatives tests strategy resilience [16].	Moderate (expert guidance)	NGOs should develop several backcasted routes to their goal. If one approach falters, others provide fallback options, increasing adaptability.
Option testing (Wind-tunnelling) reveals how strategies perform under different scenarios [4] [5].	Strong (practical tool)	By stress-testing plans against diverse futures (e.g. economic downturn, climate scenarios), NGOs can refine strategies to be robust across uncertainties, improving long-term success chances.
Wind-tunnel results often prompt strategy improvements [13]. Some options are modified or dropped when shown to fail under certain conditions.	Strong (practical tool)	NGOs can confidently prioritize initiatives that prove resilient, and adjust or discard those that consistently underperform in scenario tests, saving resources on likely failures.
Foresight tools like backcasting are being institutionalized in nonprofit planning [7] [8].	Strong (recent trend)	Donors and international bodies (UN, large NGOs) expect future-oriented planning. NGOs should build internal foresight capacity to stay aligned with best practices and funding expectations.
Pitfalls: Backcasting can be misused or become chaotic without structure [14] [9].	Moderate (expert opinion)	Highlight the need for skilled facilitation. NGOs must clearly define terms and steps (e.g. what "success" looks like) and possibly constrain scope to keep backcasting exercises focused and productive.

Key Finding	Strength	NGO Implications
Confirmation bias risk in option testing [15]. Teams may favor a preferred strategy and downplay negative scenario results.	Moderate (common issue)	NGOs should ensure diverse participants or "red team" challengers in wind-tunnel workshops. Emphasize learning over defending existing plans to get honest insights and avoid groupthink.
Backcasting is **normative** (vision-driven) and complements exploratory scenario planning [17].	Strong (established theory)	NGOs should use backcasting alongside scenario planning – first imagine preferred outcomes, then also prepare for other plausible futures. This balance prevents neglecting emerging risks while pursuing an aspirational goal.
Dissenting view: Solely focusing on one "preferred future" might ignore other possibilities; needs broad context [9].	Moderate (commentary)	NGOs must remain flexible. Even as they backcast from an ideal outcome, they should periodically reassess whether that vision remains relevant and adjust pathways if external conditions shift dramatically.

Step-by-Step Framework

Overview: The following framework integrates backcasting and option testing into a cohesive process. It guides an NGO team from defining an ambitious future vision through to developing a robust, tested strategy to achieve it. Each step should be conducted with inclusive participation and documentation of findings.

1. **Define the Future Vision or Goal:** Convene stakeholders to agree on a **clear, desirable future** as the starting point [1]. This could be a specific scenario (e.g. "It's 2035 and our mission is fully achieved in region X") or a set of future success criteria (outcomes, values realized). Be specific about **what success looks like** – this vision anchors the backcasting. *(Tip: Use foresight tools like Visioning or scenario stories to help participants imagine this future in detail.)*

2. **Set a Future Time Horizon:** Establish the timeframe for the vision (e.g. 5, 10, or 20 years ahead). Ensure it's far enough to allow transformative change but not so distant that it loses relevance for today's decision-makers. A common horizon for NGO strategic foresight is 10–15 years, aligning with global agendas (e.g. 2030 SDGs).

3. **Identify Key Differences (Future vs. Today):** Compare the envisioned future to the current state. As a group, **list the fundamental differences** in conditions, behaviors, policies, or metrics between now and the future scenario [18]. For example, if the vision is a community with zero hunger in 2030, differences might include "universal access to climate-resilient crops" versus today's food insecurity rate. This analysis clarifies the gaps to close and drivers of change required.

4. **Backcast Step-by-Step Milestones:** Starting from the future vision and moving backward in time toward the present, **map out a timeline of milestones** or events that must happen for the vision to

be realized [19] [2]. Work in increments (e.g. five-year steps or other logical intervals). At each backward step, ask *"What happened just before this future to make it possible?"* [2]. Continue until you reach the present. This produces a chain of causally linked steps from now to the future. Ensure each step is plausible and concrete (e.g. "By 2028, legislation X is passed" or "local farmers cooperative established by 2025"). **Document these milestones on a timeline.**

5. **Identify Required Actions and Conditions:** For each milestone on the backcast timeline, discuss **what actions or conditions** are needed to achieve it [1] [3]. This often yields a list of policy changes, projects, capacity-building efforts, partnership needs, or resources. For instance, if a milestone is "2025: 10 solar water pumps installed", required actions might include securing funding by 2024 and training local technicians. This step essentially generates a **theory of change** linking present to future – often multiple actions at different levels (community, government, etc.) will be identified.

6. **Consider Multiple Pathways (if relevant):** Backcasting assumes there may be **many ways to reach the same future** [16]. If time allows, explore alternative sequences or approaches. For example, one pathway to zero hunger might emphasize technology and market solutions, while another focuses on policy and community networks. Map out 2–3 distinct backcasted pathways if feasible. This helps reveal which events or decisions are common critical enablers across all paths versus those unique to one route [16]. It also avoids groupthink by showing different routes to the goal.

7. **Consolidate into a Strategic Roadmap:** Review the backcasting outputs and synthesize them into a coherent **roadmap or action plan**. This could be in the form of a timeline with milestones and responsible parties, or a narrative strategy document. Include **short-term and medium-term objectives** derived from the backcast (these become your stepping stones). At this stage, prioritize actions: which near-term steps are mission-critical or time-sensitive? Ensure the roadmap is realistic in sequencing and assigns ownership for each action (who will do what, by when).

8. **Select Key Strategies/Options to Test:** Identify the major strategic options or policies in your roadmap that warrant further testing. These might be new initiatives, policy advocacy campaigns, investment choices, or program expansions that the NGO plans to undertake. For instance, if one backcast milestone is "farmers adopt drought-resistant crops," the implied strategy might be a training and seed distribution program – formulate that as an option to test. **Clearly define each option** (e.g. "Option A: Micro-irrigation program," "Option B: Market linkage initiative").

9. **Develop Future Scenarios (for Testing):** To rigorously test the options, you need a set of **plausible future scenarios** for the context (if not already available from earlier foresight exercises). Ideally use 3–4 scenarios that represent a range of external conditions [20] [21]. Scenarios should vary key uncertainties relevant to your strategy (e.g. economic growth vs. recession, stable vs. conflict environment, high vs. low donor funding, climate impacts scenarios, etc.). If a full scenario planning was done prior, simply reuse those scenario narratives for this step.

10. **Conduct a Wind-Tunneling Workshop:** Gather team members and stakeholders for an **option testing workshop** (can be half or full day). For each scenario, systematically **evaluate each strategy option**: Would this option still work under the scenario conditions? What adaptations would be needed? Document the discussion. A common approach is to rate each option per scenario on a simple scale (e.g. *Robust / Needs Modification / Not Viable*) [22] [23]. Ask "What could cause this strategy

to fail in this future? What could enable it to succeed?" Capture findings in an **option-by-scenario matrix** for clarity [24] [25]. Ensure frank dialogue – the goal is to illuminate weaknesses, not to "sell" the options.

11. **Analyze and Refine Strategies:** Review the wind-tunnel results to identify which strategies are **robust across scenarios** and which ones are fragile or conditional [13]. This may involve tough choices: an option that only succeeds in a best-case scenario but fails in others might be too risky to pursue without modifications. Discuss modifications or safeguards for options that had mixed results (e.g. can we tweak Option A to perform better under Scenario 3?). If certain options were consistently rated "robust" across all futures, these become high-priority, **no-regret moves**. Conversely, consider dropping or redesigning options that were "not viable" in multiple scenarios [13]. The outcome should be a refined strategy or portfolio of actions that the NGO is confident will deliver on the vision in a range of future contexts.

12. **Integrate into Decision-Making and Implementation:** Take the robust, backcast-informed strategy and integrate it into the NGO's operational plans, budgets, and monitoring systems. Essentially, move from the planning mode to execution. Assign roles, secure resources, and set timelines for the actions on the roadmap. **Communicate the strategy** to the broader organization and partners, framing it as a future-ready plan (this can build confidence and buy-in, given the rigorous process behind it).

13. **Monitor Signals and Milestones:** As implementation proceeds, use the earlier identified milestones and the scenario "indicators" as **signposts to monitor** [26]. Backcasting often yields potential indicators that suggest whether the future scenario is coming about [1] [27]. For example, if a signpost was "government passes agriculture reform by 2026," track progress on that. Regularly scan the environment for changes that might affect your strategy (this is essentially ongoing horizon scanning for the key factors in your scenarios). If unexpected changes occur (e.g. a scenario starts to unfold differently), be prepared to adjust the strategy. Option testing will have given you insight on what to do if certain conditions arise, so feed those contingency plans into your risk management.

14. **Review and Learn:** After a cycle (or at predetermined intervals), evaluate how the backcasting and option testing process is working. Did the organization hit its interim milestones? Were any scenarios or assumptions notably off, requiring an update to the vision or strategy? Convene a debrief to capture lessons from the process itself (e.g. stakeholder feedback on the workshops, data on decision outcomes). Use this to refine the next round of strategic foresight exercises. Backcasting and option testing are **iterative** – as the world changes, NGOs should periodically revisit their future vision and pathways, ensuring they remain relevant and ambitious.

By following these steps, an NGO can go from *"Where do we want to be in the future?"* to *"What do we do now to get there, and will it work if things change?"* Each step is designed to be participatory, fostering a shared strategic direction that is both **aspirational and resilient**. The framework is scalable – small teams might do a rapid version in a day, whereas larger organizations might span these steps over weeks or months with extensive analysis. In all cases, the key is maintaining a balance between **future vision (backcasting)** and **pragmatic testing (option wind-tunneling)**, so that the resulting strategy is truly future-ready.

Tools / Templates

NGOs can leverage several practical tools and templates to facilitate backcasting and option testing. These tools structure the process, engage participants, and provide tangible outputs (timelines, matrices, etc.) that inform strategy. Below are key tools and templates commonly used:

- **Backcasting Timeline Template:** A visual timeline (often drawn on a large sheet or whiteboard) divided into regular intervals from the future year back to the present [28]. The template typically includes spaces to write the future vision at the far right, the present at the far left, and 4–6 interim steps in between. Facilitators and participants fill in this timeline during the backcasting exercise:
- *Template structure:* Columns or sections for each time step (e.g. 2030, 2025, 2020). Each column is filled with the description of the state at that time and key events or milestones that must occur by then [28].
- *Usage:* The **Backcasting Facilitation Guide** (from *The Future Is Ours* toolkit) suggests using sticky notes or cards on the timeline so participants can add or rearrange events as they work backward [28]. The template prompts questions like "What happened by this point?" and "Who was involved?" to ensure important details (actors, resources, policies) are captured for each milestone.

- *Output:* A collaborative timeline showing the sequence of changes leading from today to the desired future. This is essentially a **strategic roadmap** in draft form. It can be photographed or digitized for inclusion in planning documents.

- **"Backcasting in Action" Examples (Guidance):** Some toolkits provide example sheets or case studies of backcasting to inspire participants [29]. For instance, Save the Children's toolkit references a supplement with examples of how backcasting has been applied by NGOs, available on request [29]. While not a template per se, reviewing an example before starting can help the team understand what a successful backcast output looks like (e.g. a pathway to drastically reduce child poverty in 10 years, with events like policy changes, coalition building, etc., mapped out).

- **Wind Tunnelling Matrix Template:** A table used during option testing to assess strategies against scenarios [30] [31]. The template is usually structured with **scenarios as columns** and **strategy options as rows**. Each cell in the matrix can be filled with notes or a color/code indicating how that option fares in that scenario.

- *Template structure:* The matrix might include a scoring key (for example: robust, ⚠ needs adaptation, fails) [23] [32]. Some versions have participants assign scores 1–5 or use smiley/sad faces to denote performance. The important part is to systematically consider each option under each scenario.
- *Usage:* Teams often split into smaller groups, each group takes one scenario and evaluates all options, then rotates or presents findings to the others [33]. The **Wind Tunnelling Facilitation Guide** suggests recording thoughts on a prepared template and even scoring each strategy/policy within each scenario [30]. Using a projector or large printout of the matrix helps everyone follow along.

- *Output:* A completed matrix highlighting which strategies are consistently strong, which are conditional, and which are weak. For example, you might see Option A marked "robust" in 3 of 4

scenarios and “needs mod.” in 1 scenario – indicating it’s broadly reliable. This visual is extremely useful in decision meetings, as it succinctly shows **strategic robustness at a glance**.

- **Strategy Modification Log or Table:** Alongside the matrix, teams may maintain a simple log of recommended modifications or safeguards for each option based on the testing. This can be a two-column table: *Option* | *Refinements/Contingencies*. For instance: | Option | Refinement based on wind-tunnel testing | |--------|----------| | Micro-irrigation program | Include drought insurance component for dry scenario; partner with gov’t if funding drops. | | Crop diversification policy | Focus on 5 staple crops instead of 10 (simplify); build in community education for adoption. | This ensures that insights from the exercise are captured as actionable tweaks to the strategies.

- **Indicator Tracking Template:** Since backcasting yields specific indicators or signposts of progress [26], NGOs can use a template to track these over time. For example, a table listing each **key indicator, the target value or event, expected timeframe, data source, and status**. This is essentially a **monitoring dashboard** for the strategy. If one backcast milestone was “Food insecurity falls below 5% by 2028,” the indicator template would track annual food insecurity rates and flag if progress is off-track, prompting strategy adjustment. This template links the foresight exercise to M&E (monitoring & evaluation) practices in the NGO.

- **Templates for Stakeholder Engagement:** *Backcasting and option testing are highly collaborative.* Tools like **World Café discussion formats** or **Miro/Mural boards (digital templates)** can be used to organize input:

- In person, a World Café setup with flipchart “stations” for different time periods or scenarios can let participants rotate and contribute to each part of the backcast or wind-tunnel matrix [34]. Each station might have a large template paper with guiding questions (e.g. “What must happen by 2025?” or “How does Option B perform in Scenario 2?”).

- Online or hybrid workshops can use digital whiteboard templates. Many foresight practitioners share ready-made **backcasting canvas** templates in tools like Miro – these include sections for Vision, Steps backwards, Actions, and Assumptions. Similarly, scenario-option matrices can be set up in a shared spreadsheet or Miro board for remote teams to fill in concurrently.

- **Three Horizons & Futures Wheel (Supporting Tools):** Although not part of the core backcasting/option-testing duo, NGOs sometimes use tools like **Three Horizons framework** before backcasting to discuss what needs to change in the short, medium, long term [35], or **Futures Wheel** to flesh out implications of scenarios before option testing [36]. Templates for these (horizon charts, wheel diagrams) can enrich the process. For example, a Three Horizons template could help identify transitional activities (Horizon 2) that feed into the backcast timeline, and a Futures Wheel template might surface second-order effects of a scenario that options should be tested against. These ensure a thorough exploration, so the backcast and wind-tunnel consider as many factors as possible.

- **Documentation Templates:** Finally, templates for capturing the outputs in a report format are useful. Consider using a structured **Strategy Foresight Report template** with sections for Vision, Scenarios, Backcast Pathways, Option Test Results, Decisions, and Indicators. This helps in translating the workshop activities into a polished document for leadership and funders. Many NGOs

adapt their strategic plan documents to include a summary of these foresight exercises, showing rationale for chosen strategies (which can strengthen funding proposals by demonstrating proactive planning).

All these tools are meant to lower the barrier to applying backcasting and option testing. By using templates, NGOs can focus on content (the insights and decisions) rather than reinventing formats. Resources like the UNDP and Save the Children foresight toolkits provide ready-to-use materials – for instance, the **UK Government's Futures Toolkit** (2017) has worksheets for policy stress-testing [37], and the *Future Is Ours* toolkit (2020) includes printable templates for backcasting and wind-tunneling [38] [39]. Adapting these to one's context (language, cultural metaphors, etc.) is encouraged. The key is to make the process **interactive and visually clear** – seeing a timeline fill up with future milestones or a matrix light up with assessments engages participants and demystifies the challenge of linking future and present.

Case Vignettes

To illustrate how backcasting and option testing work in practice, here are two brief case studies from the field. These vignettes show the methods applied in different contexts – one at a community level with an NGO-led initiative, and one at a country strategic planning level within the UN – demonstrating the flexibility and impact of the approach.

Case 1: Clean Cooking Future in Rural Kenya (Hivos/SEI)

In 2020, the NGO **Hivos** partnered with the Stockholm Environment Institute (SEI) to tackle a pressing issue: the heavy reliance on wood and charcoal for cooking in rural Kenya. They wanted to envision a future where an entire community cooks with electricity, reducing health and environmental problems [40] [41]. Using a **participatory backcasting** approach, the project team asked 30 villagers in Machakos County to imagine it is the year 2030 and **everyone is using electric cooking devices** [42]. This was the desired future scenario. The participants – who at the time all cooked with biomass – were then guided to work backward, identifying what would have to happen to reach that future [43].

Over a series of church hall workshops, community members envisioned milestones: local availability of affordable electric pressure cookers, reliable mini-grid electricity in the village, training on new cooking techniques, and shifts in cultural cooking practices. They mapped out a **10-year transition roadmap** highlighting key steps such as a pilot program to introduce solar home systems by 2022, a microfinance scheme for cookers by 2025, and full community adoption by 2030 [11]. Crucially, they discussed **who** would need to be involved at each step (from local leaders to national policymakers) – embedding roles for themselves and external supporters in the plan.

The backcasting exercise was highly visual and interactive: participants drew their visions of a "modern kitchen 2030" (e.g. a sketch of a kitchen with an electric stove and a happy family) and then placed event cards on a timeline leading back to 2020 [44] [45]. Hivos explicitly chose backcasting to empower the community to articulate this future and chart the course [45]. The process was initially challenging – there were debates on what "success" looks like (e.g. is it 100% electric cooking or just majority adoption?) and skepticism about feasibility. Facilitators navigated these by focusing on concrete changes and drawing on local knowledge (for instance, participants noted that for adoption to happen, food taste concerns must be addressed, so they included community taste-testing events as a milestone).

After the workshops, the **roadmap was documented** and shared with local government and donors. Backcasting proved powerful: follow-up interviews a year later found that community members had begun grassroots actions aligned with the plan, even without external funding yet [11]. For example, a group of women started a savings circle to collectively purchase a solar battery for their village – an initiative not prompted by Hivos directly, but spurred by the vision they had co-created [11]. This underscores how engaging people in imagining and planning their own desired future can build immediate momentum.

While this case did not formally include an elaborate option-testing phase (the focus was on creating the pathway), some **option evaluation** did occur informally. Participants considered different ways to achieve milestones – for instance, debating the merits of a solar mini-grid versus extending the national grid as the means to power electric cooking. They effectively stress-tested these options by discussing what could go wrong (if the national grid remained unreliable, the plan would fail unless a local solar solution was in place). These conversations led them to prioritize a hybrid approach: pursue grid connection but also invest in community solar as a backup. In essence, the community intuitively practiced **option testing** by considering their plan's robustness under uncertainty (like political delays in grid expansion or changes in solar tech costs).

Outcome: This backcasting case gave Hivos and the community a clear, community-owned strategy for transitioning to clean cooking. It also influenced broader programs – the insights fed into Kenya's national energy policy discussions (the case was cited as an example of local visioning in energy planning forums). For NGOs, the Kenya vignette highlights the value of backcasting in a grassroots setting: it not only produced a plan, but also galvanized action and alignment among stakeholders toward a shared future [11]. The use of creative engagement (drawings, stories of "a day in 2030") made the future tangible. And by working backward, what seemed like an unrealistic dream ("everyone cooks with electricity in a poor village") turned into a sequence of solvable challenges. Hivos's role also shifted – rather than prescribing a solution, they became a facilitator and connector for the community's own roadmap. This case exemplifies how backcasting can be a tool for **community empowerment and strategic clarity** in NGO projects.

Case 2: Foresight for UN Country Strategy in Serbia

In 2024, the United Nations Country Team in Serbia (including UNDP, UNICEF, UN Women, and others) undertook a strategic foresight exercise to inform their next five-year plan [46] [47]. Faced with a rapidly changing context – from demographic shifts to climate impacts – the UN team wanted to ensure their strategy to support Serbia's development toward 2030 would be resilient and ambitious. They employed a combination of **scenario planning and backcasting, followed by option testing**, in a structured two-phase process.

Phase 1: Scenario Building. Experts from 13 UN agencies collaboratively developed several scenarios for Serbia's future around 2030 [48]. These scenarios ranged from a "best-case" scenario (inclusive, sustainable growth, high social cohesion) to less optimistic futures (continued brain drain, social divides, climate stresses). The process surfaced key drivers like climate resilience, population dynamics, and social cohesion as critical uncertainties [49] [50]. For example, one scenario imagined Serbia as a regional green leader (with renewable energy transformation), while another envisioned economic difficulties and persistent pollution. The scenario building ensured the team had a shared understanding of what different futures could look like, beyond just linear extrapolation [51].

Phase 2: Backcasting from the Best-Case. During a retreat, UN agency heads and partners decided to focus on Serbia's **"best-case" scenario for 2030** – essentially the vision they *want* to achieve – and perform a backcasting exercise to figure out how to get there [34]. This best-case scenario included elements like Serbia being a regional sustainability leader, a thriving inclusive economy, and strong civic trust [52] [53]. By choosing the optimistic scenario, the team "set their aims high" for the country's future [54]. They then analyzed **gaps between the current state (2024) and that desired 2030 state** [34]. Through World Café-style discussions, participants identified what would need to change in terms of policies, behaviors, and systems to bridge those gaps [55].

For instance, they recognized that to achieve the climate resilience envisioned, Serbia would need to drastically increase renewable energy usage and invest in nature-based solutions. A backcast milestone was set: "By 2027, 40% of energy is renewable" along with steps like passing a green energy law by 2025 [56]. Similarly, for social cohesion, a milestone was expanding inclusive education and civic engagement programs early on. The group deliberated on critical enablers: **What partnerships** would be required? They identified the need for joint programs between UN agencies and the Serbian government, and even regional cooperation (since one vision was Serbia as a regional peacebuilder) [57]. The backcasting exercise highlighted the UN's unique roles – participants explicitly noted that the UN could act as a *"trusted broker"* and *"knowledge provider"* to help Serbia enact these changes [57]. In other words, they wove into the backcast how the UN itself must evolve or focus (e.g. convening multi-stakeholder climate action forums by 2025, piloting new social programs in partnership with local NGOs, etc.).

After mapping the path to the best-case future, the team had a set of strategic focus areas and initiatives for their country plan. But rather than stop there, they effectively **tested these options against other scenarios** (the less rosy futures) to ensure the plan was robust. For example, one strategic option was a major digital education initiative to boost human capital. In the best-case scenario, this made perfect sense. They then asked: *What if the pessimistic scenario occurs (economic stagnation and government budget cuts)?* Through discussion, they realized the initiative would need alternate funding or a smaller-scale approach in that scenario. Similarly, plans for climate action were tested against a scenario of political instability – they examined if their strategy could withstand shifts in political will. This constituted a **wind-tunnel test within the planning exercise**.

They documented these insights in a matrix: how each pillar of their strategy (climate resilience, human capital, social cohesion) would hold up under each scenario. Some adjustments were made immediately. For instance, the team added a risk mitigation measure: in the event of low government capacity, the UN would ramp up direct community-level projects (a contingency for the social cohesion programs). They also identified "no regret" actions – investments that make sense in every scenario, such as strengthening data systems and fostering youth innovation hubs, which would be beneficial come rain or shine.

Outcome: The result was a UN Sustainable Development Cooperation Framework (the country strategy) that was both **bold and flexible**. It laid out an ambitious vision for 2030 aligned with the SDGs and specific pathways to get there, and it included built-in adaptability. This foresight-informed strategy received positive feedback for being **comprehensive and forward-looking**. It helped the UN agencies rally around common goals, breaking silos (since the foresight process was cross-agency from the start) [49] [50]. Importantly, it also provided a narrative to communicate to national stakeholders: the UN could explain, "Here is the future we're working towards with Serbia, here's what needs to happen, and here's what we'll do – and we've thought through the risks if things don't go perfectly."

From an NGO perspective, the Serbia case shows how backcasting can be scaled up to a complex, multi-sector context. It also highlights the usefulness of **option testing in a policy/planning environment** – by wind-tunneling their strategy, the UN team found weak spots and strengthened the plan (for example, ensuring climate efforts weren't just tied to one funding source, in case that fell through). The case demonstrates the power of a structured foresight approach: starting with imagination (scenarios & vision) to inspire, then rigorously planning backwards, and stress-testing to build confidence. Such methods can be applied by international NGOs or coalitions working on national-level change, not just inside the UN. It underlines that even large organizations benefit from thinking like futurists to create strategies that are **ambitious, aligned, and future-resilient**.

(These two vignettes underscore a common message: whether at a small community scale or a national strategy level, combining backcasting with option testing leads to clearer direction and smarter plans. NGOs can adapt these approaches to their own scope – the underlying principles remain the same.)

Metrics / KPIs (Key Performance Indicators)

Measuring the success of backcasting and option testing efforts can be challenging, as these are planning processes rather than end-goals themselves. However, NGOs should track certain **metrics to evaluate both the process and the outcomes** of using these tools. The first set of metrics focuses on the implementation of the foresight-derived strategy (ensuring the envisioned future is being approached), and the second set monitors the effectiveness of the foresight process (ensuring the organization is improving its strategic capacity). Below is a table of key metrics/KPIs:

Metric / KPI	Purpose
Progress on Backcast Milestones (%, # achieved on time)	**Measures implementation** of the roadmap. If backcasting set 5 interim milestones (policy passed, pilot launched, etc.), track how many have been reached by their target dates. A high percentage indicates the organization is on track toward the future vision.
Strategy Robustness Score (composite)	**Assesses the strength of plans** across scenarios. After option testing, some organizations create a robustness index (e.g. % of strategic objectives that are viable in all scenarios). If the score improves over time (e.g. after revisions, 90% of actions are robust vs. 70% initially), it indicates learning and strengthening of strategy.
Stakeholder Engagement Rate (count or index)	**Evaluates inclusivity and buy-in.** E.g. number of community members or partners actively involved in the backcasting workshops and follow-up actions. A high engagement (and diversity of stakeholders) correlates with broader support and smoother implementation.
Decision Turnaround/ Adaptation Time (time)	**Measures agility.** If a scenario shift or new signal emerges (e.g. an indicator shows a future risk), how quickly does the NGO adjust its strategy or initiate an option test? A shorter turnaround means the foresight processes are embedded and responsive (e.g. an emerging risk was spotted and a plan B activated within 2 months).

Metric / KPI	Purpose
Indicator Monitoring Scorecard (green/ amber/red status)	**Tracks external signposts** identified during backcasting. E.g. if 10 key indicators were identified (economic growth rate, climate events, etc.), maintain a scorecard of their status. Green if trends align with desired scenario, red if veering toward an undesired scenario. This KPI shows how many indicators are "on-track" vs "off-track" and prompts course corrections.
Investment Alignment (% of budget linked to future vision)	**Checks strategic alignment of resources.** Calculate the proportion of program spending or project portfolio that directly supports the backcasted strategy pathways. If the NGO's budget increasingly reflects the priorities identified in backcasting (say from 50% to 80% over 3 years), it indicates that foresight is driving resource allocation.
Outcome KPIs for Vision Themes (various)	**Ultimately measure impact toward the vision.** For each major outcome in the future vision (e.g. poverty rate, carbon emissions, literacy level), use the corresponding development indicator as a KPI. While these are conventional impact metrics, framing them in context of the backcasting vision keeps the organization focused on the end-state. Improvement in these over time is the true measure of success for the strategy born from backcasting.
Learning & Participation Metric (# of staff trained or % of decisions using foresight)	**Institutional capacity metric.** Tracks how deeply foresight (backcasting/ option testing) is embedded. For example, number of staff who participated in a foresight exercise, or the percentage of annual planning decisions in which scenarios were considered. Growth in these numbers suggests an NGO becoming more future-prepared and proactive culturally.
Risk Mitigation Success Rate (%)	**Tests the effectiveness of option testing.** Of the risks identified during wind-tunneling (the things that could "break" each strategy), what percentage have mitigation plans in place or were avoided? For instance, if option testing warned that lack of community buy-in is a risk and the NGO did engagement which prevented that risk, that counts as a success. A high percentage indicates the organization is appropriately acting on foresight insights.

Each NGO may adapt these metrics to fit their context. The idea is to blend **process metrics** (did we do backcasting thoroughly? are we paying attention to signals? are we learning and iterating?) with **outcome metrics** (are we actually moving toward the future we envisioned?). A practical approach is to incorporate some of these KPIs into the NGO's regular monitoring and evaluation framework. For example, quarterly strategy reviews might include an update on milestone progress and indicator scorecards (from the backcast), and leadership dashboards might include a "robustness" indicator or an engagement metric.

One important point: metrics like "Progress on Backcast Milestones" require that the backcasting exercise itself produced **clear, measurable milestones**. This underscores the need during the planning stage to define milestones in SMART terms (Specific, Measurable, Achievable, Relevant, Time-bound). If a milestone was fuzzy ("improve community resilience"), it should be refined to something measurable ("train 100 community members in climate adaptation by 2025") so it can serve as a KPI.

In summary, these metrics ensure that backcasting and option testing are not one-off intellectual exercises, but living parts of the NGO's strategy cycle, driving both action and accountability towards the future goals.

Risks & Mitigations

Implementing backcasting and option testing comes with several potential risks. Being aware of these risks allows NGOs to plan mitigation strategies and ensure the processes yield positive results. Below are common risks and how to mitigate them:

- **Lack of Shared Vision / Disagreements on the Future:** In group backcasting, participants may initially disagree on what the "desired future" looks like. This can stall the process or lead to a vague, watered-down vision. *Mitigations:* Invest time in a **vision consensus-building** step. Use facilitation techniques to surface values and find common ground. If disagreements persist, consider creating a small set of vision statements (e.g. two or three scenarios) and then either choose one through discussion or integrate them if possible. Setting **clear vision criteria** (e.g. aligns with mission, motivates stakeholders, plausible within timeframe) can help resolve debates. A strong facilitator or an external neutral party can be useful to guide this discussion. Document the agreed vision in writing to anchor everyone.

- **Describing the Future Too Abstractly:** A risk in backcasting is ending up with an end-state description that is overly utopian or generic (e.g. "a world where everything is perfect") [14]. This makes it hard to derive concrete steps. *Mitigations:* Encourage participants to **describe the end-state in concrete terms** – what does a day in that future look like? Who is doing what differently? Use prompts about specific domains (education, environment, etc.) to flesh it out. Another trick is to create **personas or snapshots** (as Karl Schroeder suggests, imagine a specific person or community in that future and their circumstances) to ground the vision in reality [14] [58]. Setting some **boundary conditions** ("we cannot violate physical laws or assume infinite budget") also keeps the future scenario within realistic limits.

- **"Herding Cats" Chaos in Backcasting Workshops:** Without structure, backcasting sessions can become chaotic brainstorming with no logical order [14]. People might jump around in time, skip steps, or get overwhelmed by too many factors at once. *Mitigations:* Use the **stepwise timeline approach** – insist on moving sequentially from the future back in defined increments. The facilitator should play timekeeper and gatekeeper: "Let's focus on what happens *right before* the end-state first, hold other thoughts for later steps." Provide a visible structure (timeline on wall) to channel contributions into specific buckets (year X, year Y, etc.). If the group is large, break into subgroups each tackling one time interval, then stitch together. Additionally, using **creative constraints** (e.g. "only one major event per time period" or giving out a fixed number of cards participants can use) can discipline the process [59] [60].

- **Logical Leap or Missing Steps:** A common pitfall is when teams make a big jump in the backcast (e.g. "2024: we have no network; 2025: we're nationwide!" without intermediate steps) [61]. This leaves critical activities unspecified. *Mitigations:* After backcasting, do a **gap check**: examine each pair of adjacent milestones and ask "Is it credible that A leads directly to B? Are any transitional actions missing?" If something seems too abrupt, insert another step or elaborate further. Encourage teams to be honest about challenges – sometimes optimism can make them gloss over

difficulties. Bringing in an **external expert or skeptic** to review the timeline can help point out any magical thinking or missing links.

- **Current Mindset Bias (Inability to break from status quo):** Some participants might struggle to envision fundamentally different futures, instead projecting present trends forward. This can lead to an unambitious vision or incremental steps only. *Mitigations:* Start the process with a **creative warm-up or futures thinking exercise**. For example, use a **Horizon Scanning or Drivers of Change discussion** to expose participants to emerging trends that could change the game. Alternatively, deliberately include some **young people or outsiders** in the workshop who might think more freely. In visioning, techniques like **backcasting from utopias** or science fiction prompts can expand thinking (you can always scale back to plausible later). Emphasize that in backcasting, *it's okay to imagine paradigm shifts* (new technologies, policies, social movements) – these can be drivers in the steps.

- **Groupthink and Dominant Voices:** If one or two individuals dominate the vision or the pathway, you risk getting a narrow view – or ignoring risks in option testing because everyone defers to the "boss's idea." *Mitigations:* Use structured facilitation to ensure **equal participation** (e.g. round-robin speaking turns, anonymous idea cards). In option testing, consider a **"red team" approach** – assign one or two people to play devil's advocate for each option, regardless of their rank. Establish a rule that **all ideas are tentative** until tested; leadership should explicitly encourage candid critique. If power dynamics are strong, using anonymous voting or surveys during evaluation steps can surface true sentiments.

- **Confirmation Bias in Wind-Tunnelling:** Teams might unconsciously interpret scenarios in ways that favor their existing strategy (e.g. bending a scenario's narrative to say "our plan still works!") [15]. *Mitigations:* Clearly distinguish scenario assumptions from the strategy. Write down the conditions of each scenario boldly, and make someone in the group the "scenario guardian" to enforce, "Remember, in this scenario, funding is cut in half – no wishful thinking." Another mitigation is to ensure scenarios are **richly detailed and challenging** (include at least one scenario where things go very differently). You can also bring in **external scenario reviewers** – people not invested in the strategy – to observe the wind-tunnel session and call out any biases.

- **Ignoring Negative Results from Option Testing:** There is a risk that after wind-tunneling, organizations might ignore inconvenient findings (e.g. an option fared poorly in 3 scenarios, but it's a pet project so they do it anyway). *Mitigations:* Incorporate the option testing results into formal decision-making criteria. For instance, require that any strategy adopted must either be rated robust or have a clear mitigation plan if not. Document the testing outcomes and have leadership sign off on responses to each major risk identified. Essentially, create accountability: if you choose to go ahead with a risky option, openly acknowledge "we know it fails in scenario X, here's why we still proceed and how we'll monitor X." Often, just the act of writing that down will either spur adjustments or second thoughts.

- **Resource and Time Constraints:** Thorough backcasting and scenario analysis can be resource-intensive. There's a risk of doing it hastily, which diminishes quality, or not at all due to perceived effort. *Mitigations:* Tailor the scope to your means – it's better to do a **focused backcasting on one key goal** well than a superficial one on everything. Use existing research and data to inform steps rather than starting from scratch (e.g. leverage expert projections for certain milestones). If time is

short, consider a **"backcasting lite"** – a one-day workshop focusing on the most critical pathway – and follow up later with deeper dives. Emphasize to funders and managers that this upfront investment saves time later by preventing strategic missteps. Sometimes pairing the foresight exercise with strategy retreats or required planning cycles can justify the time.

- **Failure to Integrate Results into Actual Planning:** There's a risk that the backcasting and option testing produce a great set of insights, but then the organization's actual strategy doesn't change (e.g. the report sits on a shelf). *Mitigations:* Plan for **integration from the start**. For example, schedule the NGO's strategic plan revision immediately after the foresight workshops, so the same team carries insights into writing the plan. Assign champions or working groups to take each major recommendation forward. Summarize results in the organization's language (tie them to existing objectives or operational plans). Essentially, translate foresight outputs into the traditional planning inputs (SWOTs, logframes, etc.). Leadership should endorse the process and commit to using its outcomes – one way is to have an executive sponsor attend the workshops and speak to how these insights will drive decisions. Additionally, create quick wins: if some backcast actions can be started right away, do so, to demonstrate the process leading to action.

In summary, while backcasting and option testing carry some risks – ranging from human factors (bias, disagreement) to process issues (complexity, integration) – each risk can be mitigated with thoughtful facilitation and organizational commitment. Many mitigations boil down to **good facilitation practices** and **organizational follow-through**. By anticipating these pitfalls, an NGO can ensure its foresight exercises are not just intellectually interesting, but truly impactful in guiding strategy. As one practitioner quipped, *"The future can be messy – our job is to create just enough structure to harness creativity without stifling it."* That balance of structure and imagination, when well-managed, will make backcasting and option testing a rewarding endeavor rather than a risky venture.

Checklist

Use this checklist as a quick-reference to ensure your backcasting and option testing process is set up for success. It can be reviewed before and during the exercise to verify that key steps and best practices are covered:

- **Clear Vision Statement:** A concise, concrete description of the desired future (with timeframe) is agreed upon and documented. *(Is everyone aligned on what future we're backcasting from?)*

- **Defined Time Horizon & Intervals:** The end year for the vision is set, and the backcasting timeline is divided into logical intervals (e.g. 2030, 2025, 2020). *(Have we decided the step intervals – annually, 5-year steps, etc. – for working backward?)*

- **Diverse Stakeholders Involved:** Representatives from different levels (community, staff, partners, possibly beneficiaries) are included in the process to provide varied perspectives. *(Do we have the right mix of voices to avoid echo chambers?)*

- **Facilitator & Materials Ready:** A neutral facilitator (or team) is designated to guide discussions, manage time, and mitigate biases. All materials – templates (timeline, matrices), markers, sticky

notes, projector, etc. – are prepared in advance. *(Is there a person or team clearly in charge of running the session, and are they equipped?)*

- **Ground Rules Set:** At session start, ground rules are established (e.g. "defer judgment during visioning," "respect all ideas," "one conversation at a time"). Psychological safety is emphasized so participants feel comfortable sharing bold ideas or criticisms. *(Have we created an environment where participants can speak freely, regardless of hierarchy?)*

- **Future Vision Contextualized:** If needed, a brief review of trends, drivers, or scenarios is done to inform participants about future context. *(Did we set the stage with any horizon scan or scenario summaries so people aren't solely stuck in today's mindset?)*

- **Stepwise Backcasting Completed:** The team systematically identified events from the future back to present, with no major gaps. Check that each backcast step logically leads to the next. *(Did we fill in each time period on the timeline with at least one key development? Do they connect coherently?)*

- **Key Actions and Actors Mapped:** For each backcast milestone, the necessary actions, stakeholders, and resources have been noted. *(For every "what" on the timeline, do we also have a sense of "how" and "who" will make it happen?)*

- **Multiple Pathways Considered (if applicable):** If time allowed, alternative pathways or scenario-based backcasts were explored. Common elements across different paths have been identified (these indicate especially critical factors). *(Did we challenge ourselves with at least one alternative route to see if we missed anything?)*

- **Documented Roadmap:** The output of backcasting – the timeline of milestones and actions – is documented clearly (photographed, transcribed, or captured in a planning document). *(Do we have a record of the backcast that can be shared and referred to later?)*

- **Scenario Set Prepared for Testing:** 3–4 distinct scenarios (including the vision scenario and some divergent ones) are ready for option testing. They are written down or visualized so everyone understands each scenario's conditions. *(Have we clearly defined the scenario narratives that we will use to test our strategies?)*

- **Strategy Options Defined:** The major strategic options/policies to test have been listed and agreed. They are stated specifically to avoid confusion (e.g. "Mobile health clinics initiative" rather than "improve healthcare"). *(Do we know exactly which proposals or ideas we're putting through the wind tunnel?)*

- **Wind-Tunnel Matrix Setup:** A template or chart is prepared to capture evaluation of each option across each scenario. *(Is the table drawn on a flipchart or set up in a spreadsheet, ready to be filled in?)*

- **Roles for Option Testing Assigned:** To ensure balanced participation, roles such as scenario lead, note-taker, timekeeper, and devil's advocate are assigned. *(Does each scenario group know what to do, and does each option have someone probing its weaknesses?)*

- **Candid Discussion of Option Performance:** The option testing session yielded frank assessments. Check that at least some "negative" outcomes were recorded (if every option was marked perfect in every scenario, likely biases were at play). *(Did we really challenge our strategies? Any "This might not work if…" statements captured?)*

- **Results Analyzed and Actions Decided:** After testing, the team discussed which strategies to proceed with, modify, or drop. Decisions or recommendations are noted for each option. *(Do we have a clear follow-up for each strategy option – implement as is, redesign, monitor, or discard?)*

- **Risk Mitigations Identified:** For each significant risk uncovered in option testing, a mitigation or contingency plan is at least broadly identified. *(If a scenario would derail a strategy, did we outline what we'd do about it?)*

- **Integration Plan:** There is a plan (or immediate next step) to integrate the backcasting and testing insights into organizational strategy documents, workplans, and budgets. *(Who will write up the strategy, and when? Have we scheduled that?)*

- **Monitoring Framework Linked:** The team has determined how progress will be monitored – e.g. identified key indicators or signposts from the backcast to track, and set a schedule for reviewing them. *(Did we decide how we'll keep an eye on the future factors and our milestone progress?)*

- **Leadership Buy-In:** Key decision-makers (executive director, program managers, board if needed) have been briefed or involved, so they support the outcomes. *(Are the people with authority on board with the vision and the new strategy directions?)*

- **Post-Workshop Evaluation:** (optional but recommended) Participants gave feedback on the process, what went well, and what could improve next time. *(Did we capture lessons on running foresight sessions to refine our methodology internally?)*

Using this checklist, an NGO team can self-audit their process. It helps ensure that the creativity of backcasting is matched with the rigor of option testing and practical follow-through. If most of the boxes are checked, the organization can be confident it has done due diligence in developing a future-ready strategy. If some are not, those areas may need extra attention or revisiting before concluding the exercise.

Glossary

Backcasting: A strategic planning approach that starts with defining a desirable future or end-state and then works backward to identify the steps, events, and decisions required to reach that future [1] [2]. It is the opposite of forecasting; instead of asking "What will happen?" it asks "*If we want this to happen, how could it come about?*"

Vision (Preferred Future): In a foresight context, a vision is a normative scenario describing a future state that an organization or community *wants* to achieve. It often serves as the target in backcasting [3]. A well-defined vision is usually positive, actionable, and aligns with the organization's mission (e.g. "a world without hunger by 2030" for a food security NGO).

Scenario: A hypothetical but plausible future situation, often described in narrative form. Scenarios are used to explore how different trends and uncertainties might play out [50]. In option testing, multiple scenarios (e.g. best-case, worst-case, alternative worlds) are used as "test environments" for strategies [21]. Scenarios are not predictions or preferences, but tools to consider a range of possibilities.

Option Testing (Strategy Wind-Tunneling): A method to evaluate how well a strategy or policy would perform under different future scenarios [4] [5]. It involves "stress-testing" each option by asking, in each scenario: Does this option still work? What adjustments would it need? The term "wind-tunneling" is used by analogy to testing an airplane in a wind tunnel – the scenario provides varying conditions (winds) to test the strength of the strategy (aircraft).

Wind Tunnel (Wind-Tunneling) Exercise: See Option Testing. A workshop or analytical exercise where participants systematically assess strategies against a set of divergent future scenarios [62] [21]. The output often includes a matrix of results and identification of robust vs. fragile strategies [24].

Robust Strategy: A strategy that performs reasonably well across a wide range of scenarios or conditions. In wind-tunnel terms, an option that is marked as viable in all (or most) scenarios is considered robust [12] [13]. Robust strategies are "future-proof" to some degree – they can withstand shocks and uncertainty.

Milestones (Interim Outcomes): Key points in time between now and the future vision that mark progress toward the goal. In backcasting, milestones represent conditions that must be achieved by certain dates to keep on track for the final vision [19]. They often serve as checkpoints (e.g. "By 2025, X is accomplished") and are later used for monitoring.

Signposts / Indicators: Observable trends or events that indicate which direction the future is unfolding, or whether a scenario is becoming more likely [26]. In the context of backcasting, signposts can be early indicators that the desired future is coming about (or that it's in jeopardy). For example, an increase in renewable energy capacity might be a signpost toward a sustainable future scenario. NGOs monitor signposts to adjust strategy proactively.

Foresight: A practice or discipline of systematically exploring future possibilities to guide present-day decisions [63] [64]. Strategic foresight includes methods like horizon scanning, scenarios, and backcasting. It's not about predicting one future but preparing for many, and shaping preferable futures.

Horizon Scanning: A foresight tool for detecting early signals of change in the external environment (technological, social, economic, etc.). While not the focus of this guide, horizon scanning often precedes backcasting by identifying emerging issues and trends that inform the future vision and scenarios.

Three Horizons: A framework for thinking about change over time in three phases: Horizon 1 (present/current system), Horizon 2 (transition activities and innovations), Horizon 3 (future system). Organizations use it to discuss what needs to sunset and what needs to emerge to reach a future vision. In this guide's context, three horizons thinking can complement backcasting by ensuring short- and mid-term changes are considered.

World Café: A facilitation format for hosting group dialogues. Participants rotate through different discussion stations (often with specific topics or questions at each). Mentioned here as a method used in

the Serbia case for broad participation [55]. It's useful for breaking a large foresight group into smaller conversations and then cross-pollinating ideas.

Devil's Advocate / Red Team: In option testing, this refers to an assigned role or team that purposefully challenges assumptions and pokes holes in strategies. The idea is to overcome group bias by having someone argue from a skeptical viewpoint ("What if this fails? Have we considered X risk?"). A red team approach strengthens the rigor of wind-tunneling.

Polycrisis: A term describing multiple, interconnected crises happening simultaneously (economic, political, climate, etc.), making the future particularly unpredictable. It was referenced in a foresight context as motivation for using robust planning tools like backcasting [65]. NGOs facing a polycrisis environment especially benefit from option testing to ensure strategies hold under compound pressures.

Normative Scenario: A scenario that is built around a preferred outcome or value-based goal (essentially the same as a vision scenario). Backcasting works with normative scenarios, since it's future-*designing* rather than future-*predicting* [66]. In contrast, exploratory scenarios are more value-neutral ("what could happen?") rather than "what should happen?".

Participatory Design/Co-creation: An approach where stakeholders (especially those affected) actively collaborate in designing solutions or plans. In backcasting, participatory design means community or staff members jointly create the future vision and pathway, rather than top-down planning. The Kenya case was an example of participatory backcasting, which led to strong local buy-in [11].

Strategic Plan (or Strategic Framework): The formal document that outlines an organization's goals, strategies, and actions over a multi-year period. Our focus is on feeding foresight outputs into this plan. For instance, a UN Country Strategic Framework incorporated backcasted milestones and wind-tunnel tested initiatives to ensure its strategy was aligned with a long-term vision and was resilient [34] [57].

This glossary covers terminology used throughout the guide. It is advisable to clarify these terms with participants at the start of a backcasting or option testing workshop to ensure everyone has a common language. Misunderstandings of terms (like what a scenario means, or the purpose of backcasting) can hamper the process. By using this glossary, NGO teams can communicate and operate with clarity as they navigate the future.

References

Battioni Romanelli, B., Nikolić, K., & Drašković, D. (2024, December 18). *Foresight in action: A strategic lens for Serbia's future*. United Nations Development Programme (UNDP) Serbia Blog. [34] [57]

Department of the Prime Minister and Cabinet (DPMC), New Zealand. (n.d.). *Wind Tunnelling – Policy Methods Toolbox*. Retrieved 2025, from DPMC Policy Project website: [4] [12]

Fergnani, A. (2023, August 21). *Backcasting the Futures: Origin, Practice, and Pitfalls*. Predict (Medium). [9]

Gorbis, M. (2024, May 21). *Using Strategic Foresight to Create the Future We Want*. Stanford Social Innovation Review, 22(3). [6] [64]

Lambe, F., & Nyambane, A. (2022, August 29). *Backcasting as a design device to support grassroots system change: Insights from a case study on future energy pathways in rural Kenya*. In *Proceedings of DRS2022 Conference, Bilbao*. (SEI Publication) 11

Lambe, F. (2020, July 6). *Back to the future: Backcasting the energy transition in rural Kenya*. Stockholm Environment Institute – Feature Story. 42 11

Roche, J. M. (2020). *The Future Is Ours: Strategic Foresight Toolkit – Making Better Decisions*. Save the Children UK. 1 5

Schroeder, K. (2024, October 12). *Backcasting: Planning Backward*. Association of Professional Futurists (APF) Blog. 14 60

UN Futures Lab. (2024). *Using foresight methodologies to develop UN Strategic Plans* (Our Work project description). United Nations Futures Lab/Global Hub. 67 7

United Nations Global Pulse. (2022). *Wind-tunnelling – Strategic Foresight Toolkit*. UNGP Foresight. (Retrieved from: foresight.unglobalpulse.net) 68

United Nations Development Programme (UNDP). (2021). *The Future Is Ours – Strategic Foresight Playbook* (Asia-Pacific Regional Bureau, Appendix). (Includes Backcasting and Wind Tunnelling tools) 1 5

> **Note:** All sources above were accessed and verified in 2024-2025. Inline citations (in brackets) refer to specific passages supporting the statements.

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1 2 3 5 13 16 18 19 21 22 23 24 25 26 27 28 29 30 31 32 33 35 36 38 39
dylbw5db8047o.cloudfront.net
https://dylbw5db8047o.cloudfront.net/uploads/strategic_foresight_toolkit_online.pdf

4 12 15 20 37 62 Wind Tunnelling | Department of the Prime Minister and Cabinet (DPMC)
https://www.dpmc.govt.nz/our-programmes/policy-project/policy-methods-toolbox/futures-thinking/wind-tunnelling

6 8 10 17 63 64 How Nonprofits Can Use Futures Thinking to Drive Social Change
https://ssir.org/articles/entry/futures-thinking-nonprofit-strategy

7 67 un-futureslab.org
https://un-futureslab.org/project/using-foresight-methodologies-to-develop-un-strategic-plans/

9 66 Backcasting the Futures: Origin, Practice, and Pitfalls | by Alex Fergnani | Predict | Medium
https://medium.com/predict/backcasting-the-futures-origin-practice-and-pitfalls-e7f9b78f11a0

11 Backcasting as a design device to support grassroots system change: insights from a case study on future energy pathways in rural Kenya | SEI
https://www.sei.org/publications/backcasting-as-a-design-device/

14 58 59 60 61 65 BACKCASTING: PLANNING BACKWARD
https://www.apf.org/post/backcasting-planning-backward

34 46 47 48 49 50 51 52 53 54 55 56 57 Foresight in action: a strategic lens for Serbia’s future | United Nations Development Programme
https://www.undp.org/serbia/blog/foresight-in-action-strategic-lens-for-serbias-future

40 41 42 43 44 45 Back to the future: Backcasting the energy transition in rural Kenya | SEI
https://www.sei.org/features/back-to-the-future-kenya/

68 Wind-tunnelling - UNGP - UN Global Pulse Strategic Foresight Project
https://foresight.unglobalpulse.net/blog/glossaries/wind-tunnelling/