**Heat Action Platform - Solutions Input Form**

This document provides a template for collecting heat resilience solutions to include in the [Heat Action Platform](https://onebillionresilient.org/heat-action-platform/), an online resource launched in May 2022 by the Adrienne Arsht-Rockefeller Foundation Resilience Center, UNEP-led Cool Coalition, Global Covenant of Mayors for Climate and Energy, Mission Innovation, and RMI, in collaboration with the World Economic Forum’s Global Commission on BiodiverCities by 2030.

The Heat Action Platform’s [policy tool](https://onebillionresilient.org/heat-action-platform/policy-tool-table/) offers a repository of heat resilience “solutions cards” which users can filter according to their own climate, development, and governance context and priorities.The Heat Action Platform is a living tool and is meant to continue being updated and enhanced to reflect new innovations, approaches, and policies that keep people safe from the heat using sustainable approaches.

General guidance on the target audience, purpose, scope and coverage of the policy tool is provided below:

* **Purpose**: To provide both seasoned users working on heat resilience and users who are new to the topic with a diverse set of policy and intervention options that are applicable and feasible to implement in their context.
* **Scope**: Heat resilience solutions that reduce the risks and impact of heat to human health. Each “solutions card” consists of a policy paired with an intervention type (e.g., a tax incentive for green building and energy efficiency standards).This might include policies and interventions related to buildings and built infrastructure, planning processes, communications/outreach, and green/natural infrastructure. Both active and passive cooling measures are welcome additions to the tool.
* **Target audience:** The main audiences for the policy tool and the Heat Action Platform more broadly are government practitioners (e.g., urban planners, Chief Sustainability Officers, Chief Heat Officers), development finance institutions, and policy makers.

Please send your completed forms to [unep-coolcoalition@un.org](mailto:unep-coolcoalition@un.org) by October 7, 2022. If you have any questions, please contact Irene Fagotto at UNEP [irene.fagotto@un.org](mailto:irene.fagotto@un.org).

**Heat Resilience Policies and Urban Cooling Solutions**

***Please fill in the information as completely as you can. For each row in the table, you will be asked in Column 1 to either 1) select either one or multiple entries from a list that are most applicable to your solution, or 2) provide a short-written answer.***

***If you have any questions regarding the requested input areas, please reach out to Irene Fagotto*** [***irene.fagotto@un.org***](mailto:irene.fagotto@un.org)***.***

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| **Part 1: Tool Filters** | | | |
| *Filter and description* | *Selection options* | *Selection/short answer* | *example for cool roofs* |
| Density of development (select all that apply) | * **High density**: Urban center * **Medium density**: Suburban * **Low density**: Rural |  | * **High density**: Urban center |
| Climate (select all that apply)  *Applicable climates for interventions based on climate zones* | * Hot/Dry * Hot/Humid * Temperate * Cold |  | * Hot/Dry * Hot/Humid * Temperate |
| Trigger points (select all that apply)  *Opportunities for municipalities to implement risk reduction and preparedness interventions based on the policy lever, building on the United Nations Environment Programme triggers used in the Beating the Heat handbook (2021)* | * **Preparatory measures (actions to establish authority to act)**: Actions to establish/ensure the authority to act when appropriate trigger-points occur. * **No-regrets actions (low cost/low effort but substantial benefit)**: Interventions that are relatively low-cost and low effort (in terms of requisite dependencies) but have substantial environmental and/or social benefits. * **Planned new development**: Includes greenfield or brownfield development or new construction * **Substantial rehabilitation**: Includes the re-development or major renovation projects * **City planning processes**: Includes city initiatives such as the development of climate action plan, pathway to zero-energy, master plan, transit plan, energy mapping etc. * **Evaluating or initiating major city infrastructure projects**: Includes projects such as city transit, street or utilities construction / re-construction etc. * **Evaluating city land acquisition/sale**: Includes efforts and to set aside land suitable for urban cooling efforts like blue or green infrastructure or district cooling. * **Introducing new or updated zoning/codes**: Includes codes, zoning requirements or by-laws pertaining to urban planning and building construction activity. |  | * No-regrets actions (low cost/low effort but substantial benefit): Interventions that are relatively low-cost and low effort (in terms of requisite dependencies) but have substantial environmental and/or social benefits. * Introducing new or updated zoning/codes: Includes codes, zoning requirements or by-laws pertaining to urban planning and building construction activity. |
| Policy lever (select only one option)  *The mechanism municipalities can use to actualize the intervention. These policy levers will likely be used in combination with each other.* | * ***Lead by Example***: Governments have ownership and jurisdiction over a range of assets (e.g. buildings and streets) and also serve as a direct employer, and contractor. This allows them to promote heat risk reduction and preparedness solutions and demonstrate their impact through leading by example with proactive interventions to make their assets, employment opportunities, and contracts heat-resilient. * ***Mandate:*** Mandates are government regulations that require stakeholders to meet standards through building codes, ordinances, zoning policies, or other regulatory tools. * ***Funding & Financing:*** The allocation of public or philanthropic funding or private financing to implement projects, including risk transfer mechanisms. * ***Incentive:*** Financial and non-financial incentives to encourage stakeholders to implement heat risk reduction and preparedness solutions, including rebates, tax credits, expedited permitting, development/zoning bonuses, and more. * ***Awareness & Engagement:*** Governments may design and operate programs with the goal of increasing awareness and engagement among constituents or stakeholder groups about the risks and opportunities of extreme heat. * ***Commitment***: Governments set ambitious goals or targets to guide prioritization and investment. * ***Workforce Development:*** Programs and investments that grow a workforce and support skill growth, training, and education. * ***Other***: Any policy levers that do not fall in the above categories. |  | * ***Incentive:*** Financial and non-financial incentives to encourage stakeholders to implement heat risk reduction and preparedness solutions, including rebates, tax credits, expedited permitting, development/zoning bonuses, and more. |
| Intervention type (select only one option)  *Category of intervention* | * Green/Natural Infrastructure * Buildings and Built Form * Communications/Outreach * Planning/Policy |  | * Buildings and Built Form |
| Sector (select all that apply)  *Policy sector for the intervention* | * Housing * Transportation * Buildings * Disaster Risk Management * Public Health * Public Works * Education * Arts & Culture * Parks * Information & Technology * Economic Development * City Administration * Informal Settlements |  | * Buildings |

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| **Part 2: Solutions Cards** | | | |
| *Input type and description* | *Selection options* | *Selection/written input* | Cool roofs example |
| Name of policy/intervention (short answer, 0-10 words) | N/A – short answer |  | * ***Incentive:*** Financial and non-financial incentives to encourage stakeholders to implement heat risk reduction and preparedness solutions, including rebates, tax credits, expedited permitting, development/zoning bonuses, and more. |
| Policy lever (select only one option)  *The mechanism municipalities can use to actualize the intervention. These policy levers will likely be used in combination with each other.* | * ***Lead by Example***: Governments have ownership and jurisdiction over a range of assets (e.g. buildings and streets) and also serve as a direct employer, and contractor. This allows them to promote heat risk reduction and preparedness solutions and demonstrate their impact through leading by example with proactive interventions to make their assets, employment opportunities, and contracts heat-resilient. * ***Mandate:*** Mandates are government regulations that require stakeholders to meet standards through building codes, ordinances, zoning policies, or other regulatory tools. * ***Funding & Financing:*** The allocation of public or philanthropic funding or private financing to implement projects, including risk transfer mechanisms. * ***Incentive:*** Financial and non-financial incentives to encourage stakeholders to implement heat risk reduction and preparedness solutions, including rebates, tax credits, expedited permitting, development/zoning bonuses, and more. * ***Awareness & Engagement:*** Governments may design and operate programs with the goal of increasing awareness and engagement among constituents or stakeholder groups about the risks and opportunities of extreme heat. * ***Commitment***: Governments set ambitious goals or targets to guide prioritization and investment. * ***Workforce Development:*** Programs and investments that grow a workforce and support skill growth, training, and education. * ***Other***: Any policy levers that do not fall in the above categories |  | Cool roofs are designed with materials that reflect more sunlight than conventional roofs, reduce building heat retention, and in turn reduce the urban heat island effect. Cool roofs can reduce internal building temperatures by up to 30%. |
| Summary (short answer, 25-75 words)  *An overview of the heat risk reduction and preparedness intervention.* | N/A – short answer |  | Incentivize property owners to modify their roofs through tax credits, utility rebates, and cooperative or volume purchasing. Non-financial incentives can include zoning incentives (e.g. Floor Area Ratio (FAR) bonuses) for new developments or substantial rehabilitations. |
| Implementation (short answer, 25-75 words)  *An overview of how the policy lever is used to advance the intervention.* | N/A – short answer |  | Areas with cold winters will trade-off reduced heat retention during warmer months with increased heating needs and moisture buildup during colder months. Cool roofs work best in areas with uniform building heights. Shorter buildings may cause glare on taller buildings. Depending on the treatment applied, cool roofs lose some surface reflectivity over time. The cost of coating materials will vary based on selected coating and local availability. Integrating cool roofs in new construction is more cost effective than a retrofit, but cool roofs are still one of the most affordable and approachable retrofit measures. |
| Considerations for use (short answer, 25-75 words)  *Additional considerations for the intervention such as maintenance, trade- offs, variance in effectiveness by geographic context, and more.* | N/A – short answer |  | * Building |
| Intervention scale (select all that apply) | * Region * State/Province * City * District * Neighborhood * Site * Building * Individual |  | * State/provincial government * City government |
| Authority and governance (select all that apply)  *Level of government that typically has jurisdiction over the intervention.* | * National government * State/provincial government * City government |  | * Short-term (1-3 Years) |
| Implementation timeline (select only one option)  *Approximates the ease or difficulty of implementation using length of time.* | * Short-term (1-3 Years) * Medium-term (3-9 Years) * Long-term (9+ Years) |  | * City government * Private developers * Property owners & managers |
| Implementation stakeholders (select that all apply)  *Relevant stakeholders required for implementation.* | * CBOs * National government * State/provincial government * City government * Private developers * Property owners & managers * Industry * Public |  | * Private investment * Public investment |
| Funding source (select all that apply)  *Types of funding that can be used or leveraged to implement.* | * Grants and philanthropy * Value capture mechanism * Private investment * Public investment |  | * **High**: Tax base, institutional capacity, and policy frameworks are in place to facilitate implementation * **Medium**: Some combination of tax base, institutional capacity and policy frameworks are in place; but some are in development * **Low**: Tax base, institutional capacity and policy framework are not in place to facilitate implementation |
| Capacity to act (select all that apply) | * **High**: Tax base, institutional capacity, and policy frameworks are in place to facilitate implementation * **Medium**: Some combination of tax base, institutional capacity and policy frameworks are in place; but some are in development * **Low**: Tax base, institutional capacity and policy framework are not in place to facilitate implementation |  | * Residents * Heat-vulnerable communities |
| Target beneficiaries (select all that apply)  *Groups who will be served by the intervention* | * Property owners * Renters * Business owners * Residents * Heat-vulnerable communities |  | * Risk reduction and mitigation |
| Phase of impact (select all that apply)  *Indicates whether the impacts of the intervention are ongoing or realized during emergencies.* | * Emergency response and management * Risk reduction and mitigation |  | - Number of buildings compliant with provision  - Energy savings by building  - Indoor air temperature reductions  - Outdoor ambient air temperature |
| Metric (short answer, 10-25 words)  *Suggested metrics to measure the impact and effectiveness of the intervention, which vary by solution.* | N/A – short answer |  | * **Low:** Low-cost relative to the heat risk reduction impact |
| Cost-benefit (select only one option)  *The upfront cost of implementation relative to the return (e.g. reduced heat risk or increased preparedness).* | * **High:** High-cost relative to the heat risk reduction impact * **Medium:** Moderate cost relative to the heat risk reduction impact * **Low:** Low-cost relative to the heat risk reduction impact |  | * **Low:** Low potential benefits |
| Public good (select only one option)  *The scale of potential public good or enhanced livability delivered by the intervention and policy lever.* | * **High:** High potential benefits * **Medium:** Medium potential benefits * **Low:** Low potential benefits |  | * **Medium:** Medium potential benefits |
| Greenhouse gas reduction (select all that apply)  *The scale of potential GHG reduction delivered by the intervention and policy lever.* | * **High:** High potential benefits * **Medium:** Medium potential benefits * **Low:** Low potential benefits |  | * Reduce greenhouse gas emissions |
| Co-benefits (climate/environmental) (select all that apply)  *Additional climate or environmental benefits of the intervention.* | * Provide flood protection * Improve stormwater management o Mitigate risk of drought * Mitigate risk of wildfires * Preserve biodiversity * Reduce air and water pollution |  | * Improve the public realm * Save on utilities |
| Co-benefits (social/economic) (select all that apply)  *Social and economic benefits of the intervention.* | * Improve human health * Increase property values * Build social cohesion * Reduce poverty * Reduce energy costs * Create jobs * Improve the public realm * Build community capacity |  | Cool roofs |

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| **Part 3: Case Studies** | |
| Case Study #1 - Name |  |
| Case Study #1 - Hyperlink |  |
| Case Study #2 - Name |  |
| Case Study #2 - Hyperlink |  |
| Case Study #3 - Name |  |
| Case Study #3 - Hyperlink |  |

*Please insert images of the intervention/project/program here if you have them.*

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