Legitimacy in Planetary Defense:
Effective or inclusive decision-making to deflect an asteroid?

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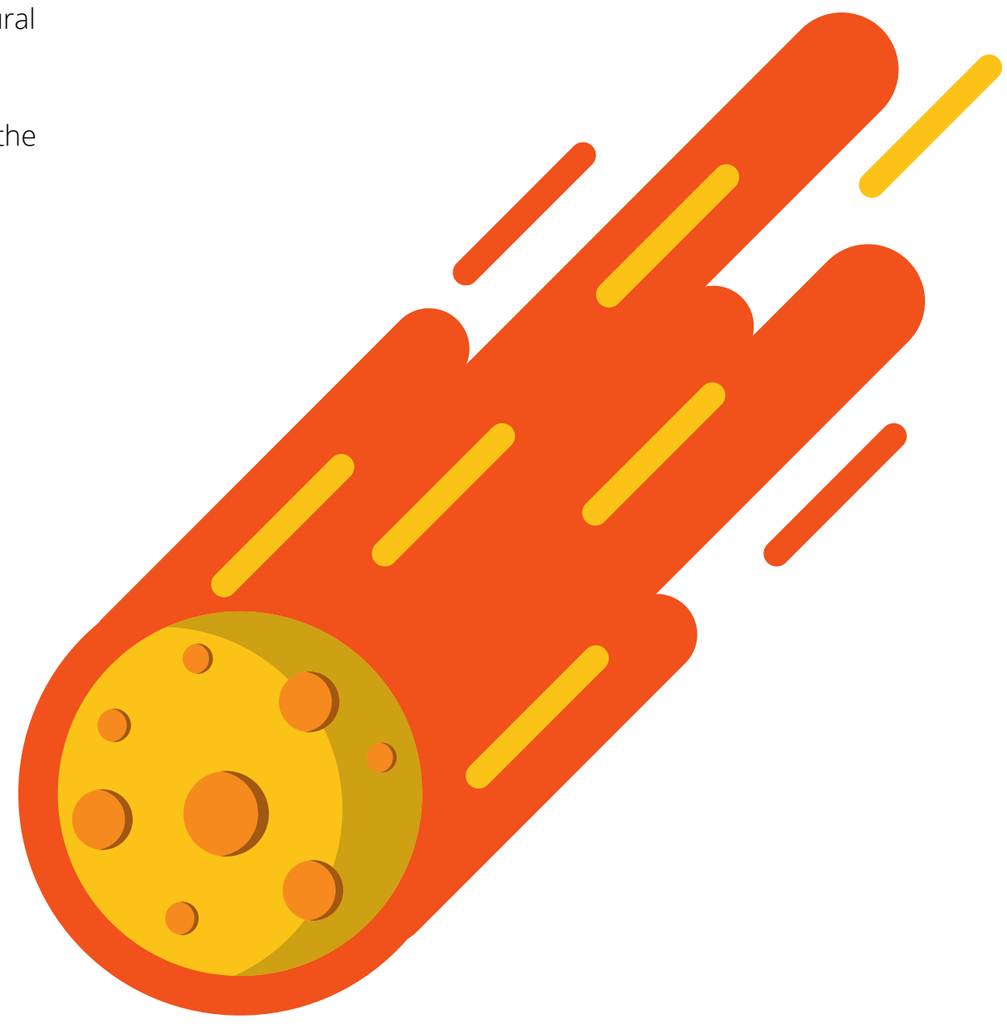
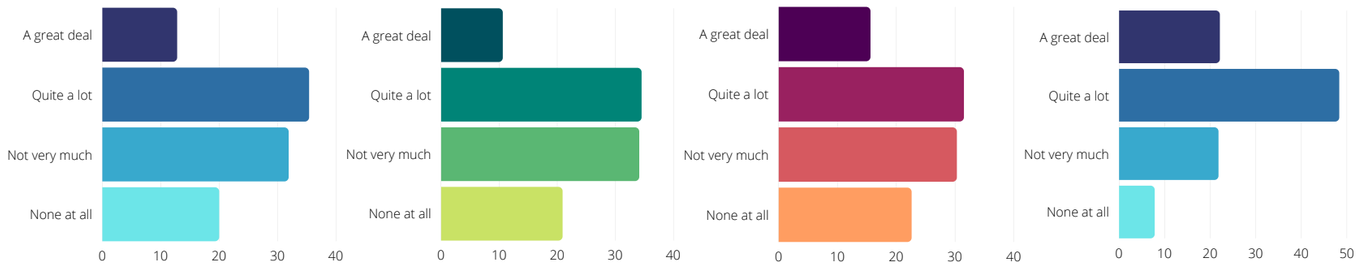
Sustainable decision-making requires legitimacy. Legitimacy can be viewed either from empirical (sociological) or normative (philosophical) perspectives. While the empirical view judges legitimacy purely based on whether the authority is in fact accepted by subjects or not, the normative view considers moral principles, values or procedural criteria that grant legitimacy to an authority.

Across both empirical and normative perspectives cuts the dimension of input and output legitimacy, or the distinctions between effective vs. inclusive decision-making.



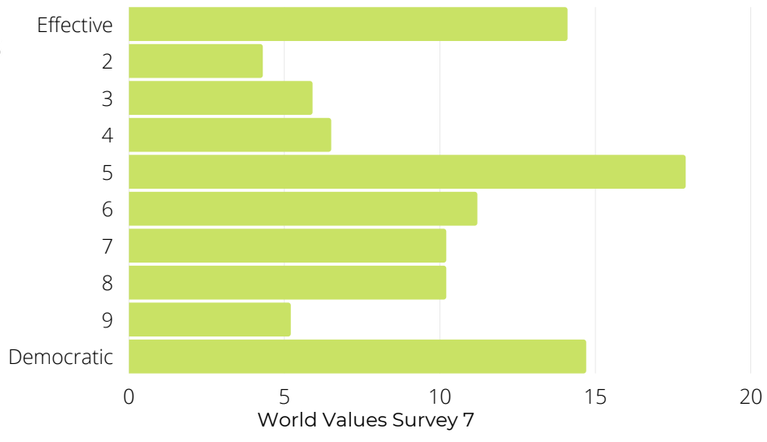
EMPIRICAL PERSPECTIVE

What institutions do people have confidence in?



The United Nations, regional organizations, national governments and universities (World Values Survey 7)

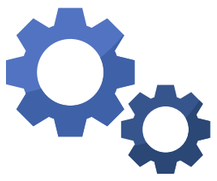
Should international organizations be effective or democratic, or somewhere between?



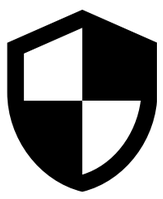
NORMATIVE PERSPECTIVE

INCLUSIVITY

The exclusion of actors (citizens, nation-states, key actors) from decision-making can provoke parallel and rival deflection missions and cause significant global instability. The only way to ensure acceptance of planetary defense decisions is to include all in their making.



Science is not value-free and reflects particular interests of the social environment in which it emerges. Technocracy or expertocracy leads to abuse of power and suboptimal regard for the needs of those not included. Inclusivity ensures interests of all are not omitted.



More diverse opinions lead to better problem-solving, and competition of ideas leads to better results.

Shared threat perception emerges from a shared social environment, unlike rival national security perceptions.

Good intentions are not a source of legitimacy. Only inclusive representation can prevent the hijacking of global interests by powerful actors.

EFFECTIVITY

The international community does not have a good track record in acting decisively and together in face of global threats (COVID19, climate change). Quick action by the capable space-faring nations, or the United Nations Security Council, could be the only way to deflect a threatening NEO.

Few decisions are choice-sensitive, in other words, preferences and opinions do not matter for technical and scientific questions.

Technical questions require qualified and educated decisions, which not all possess. Just because one wants to decide in their best interests does not mean they have the knowledge and capability to do so.

Securitization can mobilize key resources and technologies in the hands of militaries.

Short-notice threats will require quick decision-making. The threat justifies lower inclusivity.

EXISTING INTERNATIONAL DECISION-MAKING MECHANISMS

United Nations Security Council:
Only five countries, representing about 25% of the world population, have a permanent status and veto powers.
United Nations General Assembly:
Countries representing only 3.5% of world population can form a simple majority, while two-thirds majority, required for voting on security issues, can be formed by countries representing only 8.6% of the world population.

United Nations Security Council:
Resolutions of the United Nations Security Council are binding and can be reached quicker with less voice but consensus on security matters rarely occurs between rival global powers.
United Nations General Assembly:
Lenghty process of finding consensus and United Nations General Assembly resolutions are non-binding.

CONTEXT-BASED TRADE-OFFS BETWEN EFFECTIVITY AND INCLUSIVITY

Inclusivity and effectivity are not mutually exclusive but can be balanced in a way that ensures one is not abandoned for the other. This trade-off should be based on the specific context of planetary defense. When can inclusivity be sacrificed at the expense of effectivity and vice-versa? What type of criteria will trigger what type of trade-offs?

Issue criticality:
Short-notice threats will require quick action and less deliberation. What will be the threshold? Higher probability and large impact will also warrant different decision-making mechanisms. What decision-making mechanisms will trigger different Palermo/Torino categories?

Choice-sensitivity:
What questions will be choice-sensitive and thus subject to the preferences of global populations? What things will be decided purely on observations? How to communicated expert decisions to compensate for weak inclusivity? How to ensure expertise and well-informed decision-making in an inclusive format?

Example: engineering aspects of deflection techniques vs. choice of deflection method considering it geopolitical, social or legal implications.

What constituency will decide on what?
All-affected by the asteroid threat based on size (global impact vs. regional impact vs. city killers), location (relevant to impact corridor), consequences of the impact (tsunami waves) or consequences of the deflection missions?
-or-
All-involved in carrying out the deflection missions, observations and spending their resources?