SMART GAMING FOR INFORMING POLICY

Policy gaming uses gaming-simulation to assist organizations in policy exploration, decision making and strategic change. The process combines the rigor of systems analysis and simulation techniques with the creativity of scenario building and the communicative power of role-play and structured group techniques. Reality is simulated through the interaction of role players using non-formal symbols as well as formal, computerized sub-models where necessary. The technique allows a group of participants to engage in collective action in a safe environment to create and analyze the futures they want to explore. It enables the players to pre-test strategic initiatives in a realistic environment. Gaming/simulation proves an appropriate process for dealing with the increasing complexity of organizational environments and the problems of communication within complex organizations and their networks.


For systems analysis to offer actionable policy insights to the complex challenges of sustainability transitions it is evident that our methods and tools must better incorporate the complexity of human decision-making. Policy gaming can be used to examine stakeholder cognition and interaction, and through empirical observations can be incorporated into different system analysis modeling approaches. Simulation games have unique potential to expand the understanding of stakeholder dynamics, teasing out behavioral pitfalls that may prevent effective collaboration, coordination, and collective action necessary to foster transition towards sustainability.

Policy exercises using simulation games are designed to include diverse viewpoints as one of the critical factors determining the policy process outcome; thus, it is anticipated that role-playing stakeholders will argue for potentially conflicting policy options trying to push their favorite options. The gaming is organized in a way to enable these different views, or cultural discourses, to be represented. These contending stakeholder views affect the negotiation process, together with policy feedback generated from system models shapes decisions and outcomes in a dynamic policy exercise.

The Water-Energy Nexus Game gives participants a unique opportunity to get an insight into managing the water needs of energy production. Such insight can lead to improvements in water management leading to improved water systems’ resilience. It was developed as a training tool to be used in workshops in Southern African Development Community (SADC) countries.

Participants have to respond to the problem of addressing water needs of population, industry, and agriculture, at the same time facing challenges of climate change. The lessons of the game apply broadly to many interconnected Water-Food-Energy Nexus challenges. Players take up roles of policy makers in two countries that have access to the same river. They have to match the increasing water demand in a different way. Achieving this requires establishing effective collaboration and information exchange between stakeholders both within and between both countries. Since the outcomes of both countries are interconnected, the game provides an opportunity for practicing conflict resolution and cooperation at the international level.

Water-Energy Nexus Game gives players a strategic overview of interconnections between water and energy in the context of security and sustainability at the trans-boundary level.

Applications

The game was developed in collaboration with the International Institute for Applied Systems Analysis in cooperation with UNDP Cap-Net, SEAM, Water-Net, South Africa Water Research Commission. It is designed as a part of the capacity development program for energy sector professionals (ministries, power plants, capacity building institutions, etc.) in SADC countries.

The Flood Resilience Game is an educational game that allows players to experience, explore, and learn about the flood risk and resilience of communities in river valleys.

The game is set in a community living in an area exposed to floods, occurring with different severity. Players take on the roles of members of different citizen groups (workers, farmers, entrepreneur, financial services agent, local government, and water board officials).

The direct interactions between players create a rich experience that can be discussed, analysed, and lead to concrete conclusions and actions. This allows players to explore vulnerabilities and capacities leading to an advanced understanding of interdependencies and the potential for working together.

Benefits

- Experience the effects of resilience in different types of “capital” – such as financial, human, social, built, and natural
- Improve understanding of the influence of preparedness, response, reconstruction on flood resilience
- Demonstrate the benefits of investment in risk reduction before the flood strikes
- Explore the complex outcomes on the economy, society and the environment from long-term development pathways
- Discover the types of decisions needed to avoid creating more flood risk in the future, incentivizing action before a flood through enhancing participatory decision-making
- Experience all the complex ideas with a simple and concrete game element so that participants can connect with their daily realities.