

Comparative Analysis of Stakeholder Engagement in Policy Development

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Abstract

Policy choices reflect the interplay of social, economic, cultural, and political considerations. Policy making processes can take many forms that vary in accessibility to outsiders and that give different advantages to the input of experts and other interests. A wide variety of tools and techniques are available for policymaking. These include traditional forms of review and public comment as well as newer approaches that use electronic communication and advanced analytical, modelling, and simulation techniques. Policy effectiveness can be judged from multiple perspectives, such as the extent to which policy goals are achieved, the cost and efficiency of the implementation process, the trade-offs made between costs and benefits, or the acceptance of the policy and the policy-making process by those it affects. All of these demand consideration of stakeholders. Stakeholder engagement has come to be seen as an important factor in the policy process. Stakeholders can be involved at any point in the policy cycle from framing issues to evaluating results.

This comparative analysis work focuses mainly on stakeholder engagement during problem definition and policy formulation. We begin with a review of the basic elements of stakeholder theory and then follow with discussions of the main purposes served by stakeholder engagement and ways to identify relevant stakeholders for a given purpose. We then discuss the main methods of stakeholder engagement along with their strengths and weaknesses. We offer brief examples of stakeholder engagement and conclude with implications for future research and practice.

1. Introduction

Public policies are governmental responses to the interplay of social, economic, cultural, and political factors within a problem domain. Consider the array of concerns associated with improving air quality or assuring the safety of food products. Should these policies rest on a framework of active government regulation or rely on self-regulation by industry? Which locations, processes, or products are of concern? How will they be defined, observed, and assessed? Individuals, families, communities, industry, and government are all impacted by policy decisions and all have interests in the final decisions.

In the simplest of terms, the individuals or groups who affect or are affected by a policy are stakeholders. Research on stakeholder engagement in both the public and private sectors has identified a number of

benefits to policy makers. Stakeholder engagement illuminates the multiplicity of factors that underlie policy problems, decisions, and implementation. Direct engagement of stakeholders is generally believed to offer important benefits to the processes of policy formulation and implementation. For example, stakeholder engagement increases public understanding of the issues and consequences of different choices. Consequently, it generates more options for policies or actions. Engagement brings more information into the deliberation process from different kinds of stakeholders so that decisions are more likely to avoid unintended consequences and fit better into existing contexts. Engagement also reveals both conflicts and agreements among different stakeholder groups. Open and even-handed stakeholder engagement, especially among those with conflicting viewpoints, can sometimes resolve differences and build trust in the policy making process and therefore help secure public acceptance of decisions (e.g., Kleivink, et al, 2012).

Policy planners and analysts at each stage of the policy process need to decide when and how to involve stakeholders as well as which mechanisms to use for managing the relationships (Steinicke et al., 2012). Policy development has tended to include both powerful and powerless stakeholders in the analytical process (Bryson, 2004). Some interested stakeholders have the power to affect the policy content. While others are relatively powerless but nevertheless are affected, sometimes in dramatic ways (Brugha & Varvasovszky, 2000). Thus, good policy development demands that all stakeholders, not just 'key' stakeholders (Freeman, 1999), whether powerful, knowledgeable, resourceful, or deeply affected by the problem or its alternative solutions (e.g., NCJP, undated) be considered during every stage of the policy cycle from framing issues to evaluating results.

A variety of tools and techniques are available for information gathering at each stage of the policy cycle. During policy formulation and evaluation stages traditional consultation activities and public comment

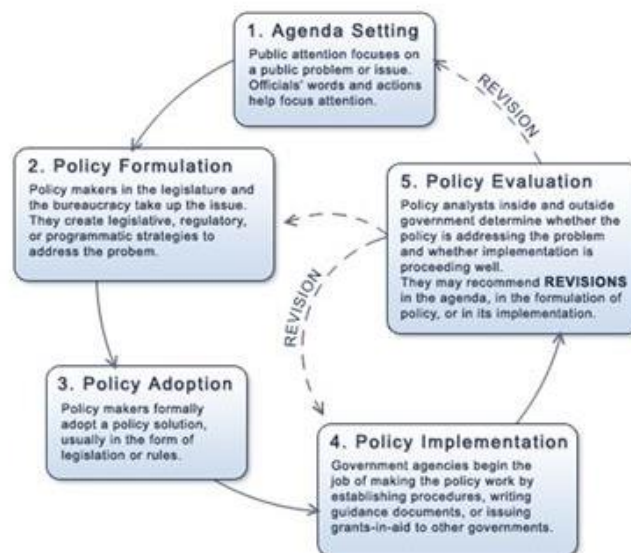


Figure 1. Policy cycle

strategies are often used. In the last 20 years, newer electronic communication and advanced analytical, modeling, and simulation techniques have been used as well (e.g., Andersen, et al., 2006; Voinov and Bousquet, 2010). The resulting information assists policy makers in understanding complex problems and

to be able to consider alternative policy choices. Each approach uses different tools and processes that vary in their accessibility to outsiders and that give differential advantages to the input of experts or other interests.

Once policies are implemented, their effectiveness are also judged from multiple perspectives. For example, effectiveness may be assessed by the extent to which the stated policy goals are achieved, the cost and efficiency of the implementation process, the trade-offs made between costs and benefits, and the acceptance of the policy and the policy-making process by those it affects. These activities are usually led by policy makers in government organizations, but they necessarily involve others who have salient information or competing views.

This chapter focuses mainly on stakeholder engagement during the problem definition and policy formulation phases of the policy cycle. We begin with a review of the basic elements of stakeholder theory and then follow with discussions on ways to identify relevant stakeholders and the main methods of stakeholder engagement. We then offer five case stories of stakeholder engagement that address e-government planning, energy policy, urban transportation, global trade, and connecting policy makers and modelers in assessing early childhood programs. The cases vary both in policy content and in the extent of technology use in the engagement process. We then compare the cases according to a standard framework and then discuss the strengths and weaknesses of different approaches under different conditions. We conclude with implications for future research and practice.

2. Foundations of stakeholder engagement

The concept of stakeholder engagement and its importance to aspects of the policymaking process has evolved over time. Originating in the organizational literature as a “stakeholder approach” to managing corporations (Freeman 2010; Bingham, Nabatchi, and O’Leary 2005; Donaldson and Preston 1995; Mitchell, Agle, and Wood 1997), the approach has also been adapted for use by the public sector organizations (Bingham, Nabatchi, and O’Leary 2005). Bingham et al emphasize that government ought to involve citizens as stakeholders in decision making so as to explore the significance of “new governance”.

The term “stakeholder” is defined in literature differently based on disciplinary home. Most definitions mention similar categories of stakeholders such as companies and their employees and external entities such as suppliers, customers, government and creditors. Stakeholders, defined within the public sector, emphasize engagement of citizens in decision making processes (Bingham, Nabatchi, and O’Leary 2005; Ackerman 2004; Yetano, Royo, and Acerete 2010). The definition used in this chapter is that of Freeman who defines, in a broader sense, a stakeholder as “any group or individual who can affect or is affected by the achievement of the organisation's objectives”. Organisations in this study are understood as particularly government entities.

Donaldson and Preston provide a wide understanding of stakeholder theory where they define four aspects of the theory (Donaldson and Preston 1995). The first aspect is descriptive which is used to describe the nature of a corporation. The second aspect is instrumental which investigate the relation between stakeholder management and achievement of objectives of a corporation. The third aspect is normative which argues that interests of different stakeholder groups are legitimate and of “intrinsic value”. The fourth aspect is managerial which examines how stakeholders are managed in firms. For a better understanding of other various dimensions of the stakeholder theory, distinction made by Heath

and Norman is also significant in this study. Heath and Norman distinguish the stakeholder theory in 9 interrelated theories from aspects presented by Donaldson and Preston are used as basis (Heath and Norman 2004). The first theory emerging from the stakeholder theory is the “Ontological stakeholder theory” which describes a corporate as an entity comprising of different individuals with specific interests and a purpose of coordinating the interests. The second theory is “Explanatory theory” which investigates behavioural nature of managers in a corporation. The “Strategic stakeholder theory” describes the importance of managing stakeholder relations with resources to achieve objectives of a corporation. The “Stakeholder theory of Branding and Corporate Culture”, similar to strategic stakeholder theory emphasizes the importance of managing stakeholder interests. The “Deontic Stakeholder Theory” examines the legitimate interests of stakeholders and their importance to define corporate duties. The “Managerial Stakeholder Theory” examines, as managerial aspect discussed by Donaldson and Preston, management of stakeholders and their particular interests. The “Stakeholder Theory of Governance” which investigates other entities among identified stakeholders should be represented in management activities. The eighth theory, “Regulatory Stakeholder Theory” examines interests and rights of stakeholders protected by government regulations. And the ninth theory, “Stakeholder theory of Corporate Law” describes the importance of changing corporate laws in favour of other stakeholder theories.

Following the different dimensions of stakeholder theory discussed above, the theory argues therefore, the importance of engaging other entities in decision making processes of organisations therefore creating better social responsibility (Andriof and Waddock 2002), improve achievement of organisations’ goals and enhance its relations with the stakeholders (Freeman 2010). The importance of stakeholder engagement including citizens in government processes is reported in literature as a tool to enhance achievement of accountability, efficiency in decision making processes and good governance (Ackerman 2004; Flak and Rose 2005; Yetano, Royo, and Acerete 2010). Bingham et al argue that stakeholders are important to achieve objectives of “new governance” in which governments engage stakeholders in activities such as deliberative democracy, participatory budgeting and collaborative policy making.

Stakeholder identification and salience theory specifically focuses on manager-stakeholder relationships and defines three major stakeholder attributes such as power, legitimacy, and urgency (Mitchell, Agle, & Wood, 1997). The stakeholder salience is “the degree to which managers give priority to competing stakeholder”, which is low if only one attribute is present, moderate if two attributes are present and high if all three attributes are present. The stakeholder typology of eight classes is based on whether or not a stakeholder has power, legitimacy, and/or urgency and helps managers to prioritize stakeholders according to their salience and dynamism. Stakeholders classes suggested by (Mitchell et al., 1997) include: 1) Dormant stakeholders - with power but without a legitimate relationship or an urgent claim; 2) Discretionary stakeholders - with legitimacy but no power to influence the organization and no urgent claims; 3) Demanding stakeholders - with urgent claims but having neither power nor legitimacy; 4) Dominant stakeholders - both powerful and legitimate and have influence in the organization; 5) Dangerous stakeholders - with urgency and power but with lack of legitimacy; 6) Dependent stakeholders –with lack of power but urgent legitimate and depend upon others for the power necessary to carry out their will, 7) Definitive stakeholders – with power, legitimacy and urgent claim, and 8) Non stakeholder. In manager-stakeholder relationships, not only stakeholder attributes play an important role but also managerial characteristics. The manager's perception of a stakeholder's attributes is critical to the manager's view of stakeholder salience (Mitchell et al., 1997). It was found from empirical research that

the manager's role and hierarchical level could influence identification and prioritization of stakeholders (Parent & Deephouse, 2007).

Stakeholder identification and salience theory emphasizes the dynamic nature of stakeholder attributes and proposes to take into consideration dynamism in the systematic identification of stakeholders. Over time, the mix of stakeholders may change when new stakeholders may join and wish to be included in any considerations, while others may drop out (Elias, Cavana, & Jackson, 2002). The dynamism could be explained by the fact that the attributes of stakeholders were changeable over time or due to some organizational changes. Accordingly, stakeholders could move among different types. Stakeholder attributes have some features that are important for understanding the stakeholder dynamism and how stakeholders can gain or lose salience.

3. Identification and analysis

The growing popularity of stakeholder analysis reflects an increasing recognition of how stakeholders influence decision-making processes (Brugha & Varvasovszky, 2000). Stakeholder identification and analysis is an important first step in stakeholder engagement processes (Freeman, 2001). It helps to distinguish stakeholders from non-stakeholders and to identify key stakeholders that need to be engaged in different parts of the policy cycle. Stakeholder analysis helps to generate knowledge about actors for understanding their behavior, intentions, inter- relations and interests; and for assessing the influence and resources they bring for decision-making or implementation processes (Varvasovszky & Brugha, 2000). Stakeholder analysis typically involves five major steps (Kennon, Howden, & Hartley, 2009):

- 1) *Identifying stakeholders* involves describing, categorizing, and listing stakeholders and discussing why and how they are critical for the policy being developed;
- 2) *Prioritizing stakeholders* is based on discussing their attributes and deciding how critical they are in policy development process. This process will help to define communication and engagement activities with the people most likely to affect policy processes and outcomes;
- 3) *Understanding and managing stakeholders* requires an assessment of stakeholders' attitudes and risk factors associated with their engagement in the process. It also requires the development of a communication plan that ensures engagement will minimize any risks and will increase their appreciation and commitment in the process;
- 4) *Setting goals and identifying costs of stakeholder engagement* involves designating responsibilities for each communication task and setting appropriate timelines;
- 5) *Evaluating and revising* requires regular updates in order to explore potential new stakeholders, changes in current stakeholder importance or influence, or changes in perceptions.

Various techniques for stakeholder identification and analysis are reviewed in the literature. These techniques focus attention on the interrelations of groups or organizations with respect to their interests in, or impacts on, policies within a broader political, economic and cultural context. They also provide a way for analysts to understand stakeholder power, influence, needs and conflicts of interest. Bryson (2004) groups the most well-known in four categories: 1) Organizing participation; 2) Creating ideas for strategic interventions; 3) Building a winning coalition around proposal development, review, and adoption; and 4) Implementing, monitoring, and evaluating strategic interventions.

3.1. Techniques for organising participation

Stakeholder identification and analysis techniques in this category help to organize participation. They include the following:

- *The Process for Choosing Stakeholder Analysis Participants* - embodies a kind of technical, political, and ethical rationality. This staged process is designed to gather needed information, build political acceptance, and address some important questions about legitimacy, representation, and credibility.
- *Basic Analysis Technique* - offers a quick and useful way of identifying stakeholders and their interests, clarifying stakeholders' views of a focal organization, identifying some key strategic issues, and beginning the process of identifying coalitions of support and opposition. The technique involves several steps undertaken in a sequence beginning with small-group exercises followed by large-group plenary discussions. Such steps include: 1) brainstorm the list of potential stakeholders; 2) prepare a separate flipchart sheet for each stakeholder; 3) place a stakeholder's name at the top of each sheet; 4) create a narrow column down the right side of each sheet and leave the column blank; 5) for each stakeholder, in the area to the left of the narrow column, list the criteria the stakeholder would use to judge the organization's performance (or list what the stakeholder's expectations are of the organization); 6) decide how well you think the stakeholder thinks the organization is doing from the stakeholder's point of view; 7) identify and record what can be done quickly to satisfy each stakeholder ; 8) identify and record longer term issues with individual stakeholders and with stakeholders as a group. Additional steps might be included such as: 1) specify how each stakeholder influences the organization; 2) decide what the organization needs from each stakeholder; 3) rank the stakeholders according to their importance to the organization.
- *Power Versus Interest Grids* - array stakeholders on a two-by-two matrix where the dimensions are the stakeholder's interest in the organization or issue at hand, and the stakeholder's power to affect the organization's or issue's future. Four categories of stakeholders result: 1) players who have both an interest and significant power; 2) subjects who have an interest but little power; 3) context setters who have power but little direct interest; and 4) the crowd that consists of stakeholders with little interest or power.
- *Stakeholder Influence Diagrams* -indicates how the stakeholders on a power versus interest grid influence one another.
- *Participation Planning Matrix* - defines the levels of participation ranging from a minimum of simply informing stakeholders through to empowerment in which the stakeholders are given final decision-making authority. The matrix helps planners to find proper ways for responding to or engaging different stakeholders in different ways through a policy or strategy process.

3.2. Techniques for creating ideas for strategic interventions

This category of stakeholder identification and analysis techniques involves problem formulation and solution search, but also depends on understanding political feasibility. Indeed, effective problem formulation depends on clearly understanding stakeholders and their interests, both separately and in relation to each other.

- *Bases of Power – Directions of Interest Diagrams* - builds on the power versus interest grid and a stakeholder influence diagram and involves looking more closely at each of the stakeholder groups, including the most influential or central stakeholders.
- *Finding the Common Good and the Structure of a Winning Argument* - builds on the bases of power–directions of interest diagrams and helps to determine which interests or themes appear to garner support from a significant number of stakeholders.
- *Tapping Individual Stakeholder Interests to Pursue the Common Good* - helps public leaders, managers, staff and their collaborators understand how they might “pursue significance” for themselves and their organizations.
- *Stakeholder-issue interrelationship diagrams* - helps to understand which stakeholders have an interest in different issues, and how the stakeholders might be related to other stakeholders through their relationships with the issues.
- *Problem-frame stakeholder mapping technique* – helps to develop problem definitions likely to lead to a winning coalition.
- *Ethical Analysis Grids* – helps to clarify and prompt a dialogue about who and what counts ethically and assure the ethical appropriateness of whatever actions are taken.

3.3. Techniques for Proposal Development Review and Adoption

This category of techniques help to develop proposals for gaining adequate support from identified stakeholders once their interests have been identified and understood.

- *Stakeholder Support Versus Opposition Grid*- build on problem-frame stakeholder maps by using the same grid and basic process and help to assess stakeholder support opposition and importance.
- *Stakeholder Role Play* - can be used to develop proposals that are likely to address stakeholder interests, effectively build a supportive coalition, and ensure effective implementation.
- *Policy Attractiveness Versus Stakeholder Capability Grid* - involves assessing the attractiveness of policies, plans, proposals, or options in general against stakeholder capacities to implement them.

3.4. Techniques for Policy Implementation

Techniques in this category focuses directly on stakeholders during implementation. The technique for developing a policy implementation strategy development grid can help planners and decision makers to develop action plans that will consider stakeholder interests and resources (Bryson, 2004). The technique builds on information revealed by previously created bases of power–directions of interest diagrams, stakeholder support versus opposition grids, stakeholder role plays, and policy attractiveness versus stakeholder capability grids.

4. Methods of stakeholder engagement

Stakeholder engagement methods are the means by which stakeholder views, information and opinions are elicited, or by which stakeholders are involved in decision-making. Engagement can take various forms. The International Association for Public Participation identified five levels of stakeholder engagement: inform, consult, involve, collaborate and empower (IAP2, 2007). All these levels focus on the

flow of information between actors, but the directions and intensity varies. In the simplest form, *inform*, stakeholders are merely informed, for example via websites, fact sheets, newsletters, or allowing visitors to policy discussions (State Government Victoria, 2011). The level of engagement in this form is very low, and suitable only to engage those stakeholders with low urgency, influence, importance or interest (cf Bryson, 2004).

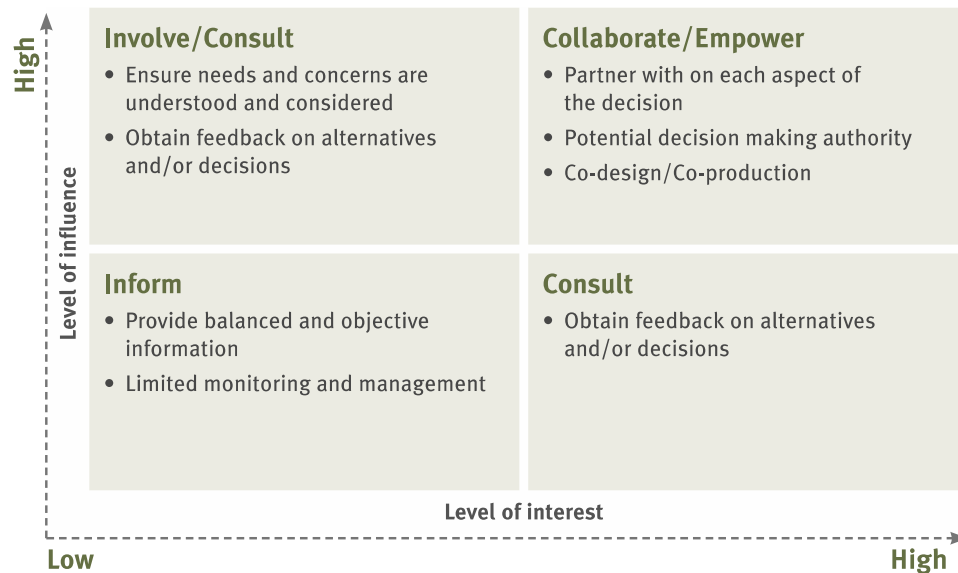


Figure 2: State Government Victoria (2011)

In our study, the minimum level of what we consider engagement is *consulting* stakeholders. For consultation, various methods are available, including conducting interviews in various forms, conducting surveys, opening up draft policy for public comment, and using web 2.0 tools to gather ideas from various stakeholder groups. The main goal of this form of engagement is to elicit the views and interests that stakeholders have, as well as salient information that stakeholders have with regard to the policy domain. This can either be done in the problem definition phase (e.g. listen to ideas, analysis, and concerns of stakeholder groups in order to find and formulate a problem that needs to be addressed through policy) or in the policy formation phase, for example by collecting feedback and alternatives.

Whereas consulting stakeholders is an activity that is performed one or multiple times in a policy development process, *involving* stakeholders goes further by meaning that stakeholders are involved during the policy development process. For this, tools are required to ensure that stakeholders' ideas, interests and concerns are consistently understood and addressed (IAP2, 2007). There are many tools available to this end, including involving stakeholders in scenario building (OCOPOMO), establishing a panel of experts. These experts can come from various stakeholder groups to ensure that these groups are represented. E.g. Smith et al. (2007) identify methods for engaging key stakeholder groups or communities.

An alternative way of involving stakeholders is by analyzing and understanding their positions and based on that build a model (e.g. group model, simulation model, game) in which these positions are reflected (Andersen et al., 2006; Vennix, 1996). The model can be a realistic representation of the (external) policy environment and can be used in simulations to estimate the effects of policy choices, or in a (role playing)

game in which policy makers can estimate the effects of policy choices on specific stakeholders. These models can also support open games, which imply that the participants are, or represent, the real stakeholders and face actual problems, and that the outcome or message of the game is not predefined but discovered during social interactions (Mayer et al., 2004). If real stakeholders are involved, group decision support tools can be employed, like group decision rooms or group decision support systems.

The models can themselves also be used as boundary objects, i.e. to use it to get people to learn and/or to create a common understanding. Stakeholders can also be involved in choosing among or prioritizing various policy options. This can be done via techniques like the Delphi method (Linstone and Turoff, 2002), or via deliberative approaches such as deliberative polling (Fishkin, 1995).

Finally, the highest public impact can be realized through full *collaboration* with or even *empowerment* of stakeholders. In the IAP2 spectrum of public participation, empowerment means that the final decision-making is in the hands of the public. Collaboration in this setting means that stakeholders advise and recommendation of stakeholders will be incorporated in the final decisions to a maximum extent (IAP2, 2007). As the policy making body (often a government agency) will necessarily put some constraints or boundaries on the policy options (e.g. budget, legal constraints), the distinction between collaboration and empowerment is more in the domain of framing the initiative than that it makes a difference in actual tools available. For both, consensus building approaches are essential. This can be done via citizens juries (Smith and Wales, 2000), the enactment of a stakeholder board (urbanAPI; Klievink et al., 2012), or by setting-up Living Labs, in which stakeholders collaboratively develop and implement solutions, within a certain context. All of these approaches do not only assist in getting stakeholders' views incorporated in the policy, but also enhance acceptance of the policy by the stakeholders because they were part of the process of making it so (e.g. see Klievink and Lucassen, 2013, but there are probably more applicable references).

In this, process management is important. Process management takes a different strategy by focusing on defining rules for realizing and maintaining such a process of interaction (see De Bruijn, Ten Heuvelhof, & In 't Veld, 2010). The process management approach acknowledges the role of power, urgency and legitimacy, but does not neglect the importance of information in decision-making (De Bruijn et al., 2010). Process management operates in a continuum between open and closed refereeing to the relevant parties to be involved in the decision-making and they must be certain that their interests will be addressed where possible. The process management approach aims to incorporate the diverging perceptions of participating actors and the relevant (types of) knowledge in decision-making. The approach aims at achieving negotiated solutions, on which the participants agree after exchanging the pros and cons.

5. Case Examples

The following five case examples provide examples of ways to manage stakeholder engagement during policy development. Particularly the five cases illustrate examples from developing and developed countries, as well as different levels of technological involvement. The type of project and the type of stakeholders, as well as the different tools are discussed.

	Case 1	Case 2	Case 3
Policy area	E-government	International trade	Renewable energy
Length of project	2 years	3 years	2 years

Level of government	Developing	Developed	Transition
Primary country (ies)	Afghanistan	European Union	Slovakia
Engagement tools	Workshops & emails	Living lab with simulation models	Online engagement platform with simulation models

6. Cases

We offer five case stories of stakeholder engagement that address e-government strategic planning, energy policy, urban transportation, global trade, and connecting policy makers and modelers in assessing early childhood programs. Each describes how to manage stakeholders in situations where stakeholders are dispersed, interact with augmented realities such as simulations, and build trust in the information and sharing of knowledge are discussed. The cases vary both in policy content and in the extent of technology use in the engagement process.

6.1. E-government Strategic Planning

A typical failure for many developing countries when designing electronic government strategies is benchmarking services in developed countries and then recommending those same services for their country. However, services from developed countries may not be the ones needed or demanded by the citizens in developing countries. Likewise, in politically unstable countries, where resources are limited and time is scarce, and where government often does not have money to host or conduct extensive stakeholder engagement activities, it constrains the kinds of engagement. Our first case focuses on a project from the UNU on how a government agency in a developing country engaged stakeholders in a setting where stakeholders are often not consulted. In 2011, the Afghanistan Ministry of Community and Technology (MCT) attempted to reach out to stakeholders in a systematic way before putting together a national electronic government plan. The goal was to ensure a feasible and workable policy for improving public administration and services provided to people, a long-term vision and high-level strategy for Egovernment. One major activity focused on identifying important stakeholders and understanding the interests, expectations, capacity and influence of important. The project initially used an online survey to reach potential stakeholders far and wide, and to see what kinds of groups had an interest in egovernment. This also helped to ensure that international organizations were not over represented and leveled the playing field so that weaker stakeholders could be heard over the powerful stakeholders. The survey allowed to find out who were really interested. Thinking about “inclusion”, it was very important to know about different needs and conditions of all the different actors in different areas.

The initial set of stakeholders ranged from citizens, central government, local government, private sector, NGOs, academia, banks, providers of services, international organizations and experts working in governance area or capacity building or service delivery. The invitation to participate in the survey was sent to all of them to know about their interests, activities, and capability for being engaged in the strategy implementation. It was important to know how close they were to the topic and what they could contribute. We also collected information from websites and used our own government org contacts, and NGOs/USAID, UNDP, Asian Development Bank, World Bank. The goal was to engage people outside of government, because these other actors are very active in advocacy for transparency, and donors organizations have influence, special programs and providing funding, important to engage them. The

NGOs who were working in the provinces closely with the citizens could be engage in raising awareness for e-government or ICTs. In developing countries there is big gap between cities and rural areas including igital divide. That's why we were engaging the government and non-government stakeholders from different provinces.

The UNU acted as a mentor while Ministry of Communication Technologies (MCT) was the owner of the project. Based on the survey results, a communication plan was developed and stakeholders with strong interest in e-government were invited to participate in the workshops for visioning and strategy development.

During vision and strategy development workshops, we provided stakeholders with general knowledge about approaches and methodologies on how strategies should be developed and gave them examples from other countries. So that they could figure out how to do It in local Afghanistan context. We were facilitating and guiding focus group discussions during the workshops helping stakeholders to share their ideas, discuss and prioritize strategic goals and tasks for e-government based on the mutual consensus among them. We used a series of face-to-face meetings and e-mails to collect suggestions on strategic actions and e-forum through the government website to collect feedback and comments on draft strategy.

The distinctive natures of this project are having a “neutral” body, moderator that can bring together Govt, NGOs, and others, and can build the capability for them through learning by doing, so that they could do that in the future themselves without moderation. This is closely related to the specific feature for developing countries –to have a “somewhat trusted” moderator that is seen as “independent”. Facilitating stakeholder discussions during workshops was a tenuous process. The moderator had to be cognisaint of powerful actors that dominated the discussions. The group tried to tell stakeholders to be more proactive in the meetings, but the result was that the less powerful stakeholders told their views to “us” as moderators. The third party moderator had to manage the engagement and to facilitate listening among stakeholder groups.

Outcomes of engaging stakeholders in this project include increased commitment and consensus built among major stakeholders, and increased transparency and openness of the strategic planning process. The key result of the challenging project in developing country with multi-stakeholder engagement was the nationally owned EGOV vision and strategy agreed among most important stakeholders.

6.2. Redesigning Government's Inspection Capability for International Trade

Government's inspection capability at the border is an important regulatory activity to protect citizens and ensure secure and stable international trade. Our third case highlights experiences from an international research and technical development project focused on redesigning the way data on internationally shipped cargo is exchanged between supply chain organizations and government. This approach enhances government supervisory activities such as custom inspections, and food and product safety inspections.

An international consortium of government bodies including multiple European customs organizations, universities, IT providers, logistics operators and standardization bodies were involved in the project directly. The overall number of organizations involved in international supply chains is so large, that the only way to actually try to engage stakeholders is through some type of selection or representation scheme.

A Living Lab approach was used to help deal with the sheer size and complexity of the stakeholder group. For example, we involved a couple very large and a couple of medium sized freight forwarders to ensure we had the perspective and involvement of this stakeholder group without having to involve the thousands of parties that can be involved with the cargo on a single ship. This approach limits the diversity of actors for trade lanes, but when you do it for 10 global trade lanes, you can see the common themes that are important for each of the key stakeholder groups across.

The group used real trade lanes, including the physical flow of data, information system landscape, and administrative burden, as a model to configure, demonstrate and refine the entire system with and to the stakeholders. We created visual models and data-flow diagrams of the existing and to-be situation to enable the stakeholders sort out the policy and data sharing issues amongst themselves and for them to come to common understanding of each stakeholders situation. We ultimately joined up different systems of different stakeholders in order to capture the data that the stakeholders needed. The overall dataset that was available was visualized in a dashboard with role-based access. This enabled a discussion of how the system would impact the day-to-day process of the various businesses and inspection authorities.

Involving stakeholders early helped increase commitment and consensus. Involving a large number of stakeholders is challenging, and this is solved in this case by involving at least one in each type of stakeholder groups. However, decision-making is relatively slow as the designs of the technical artefacts have to be adapted in order to fit the interests and feedback of stakeholders. We are now finding that this approach worked well as some key stakeholders that expected higher vulnerability due to this approach, found ways to deal with this and make it acceptable to their group as well. Still, it was also found that not all of the answers that the Living Lab groups provided are also enabled by European legislation. The alignment between the business stakeholder groups, national governments and European bodies is still needed. For this, the project yielded a consensus-based agenda for further policy development.

6.3. Renewable energy

Presenting complex information on policy choices is not easy, particularly in the area of renewable energy that mixes technical expertise with individual beliefs. Kosice Self-Governing Region (Slovakia) Strategy for the use of renewable energy sources was a pilot application of the OCOPOMO (Open Collaboration for Policy Modeling) project in the Kosice self-governing region (KSR). The main objective of the OCOPOMO project was to develop an environment, using ICT tools, for policy modelling in a collaborative approach among stakeholders. The pilot project in Kosice focused on capturing stakeholders views on different alternatives of renewable sources of energy versus traditional energy production and consumption. The other goal was to understand these choices in relation to different policies for promoting the use of renewable energy, the perceived market potential of each specific kind of energy, the barriers hindering a specific kind of energy use for energy generation in the region, and the motivating factors leading citizens and companies towards renewable energy sources. From the project reports, it was their first time to use ICT in policymaking and to collaborate with stakeholders other than policy makers, experts and key representatives from private heat producers and distribution companies.

The engagement of stakeholders was invitation-only. That is, the project team and the local authorities identified stakeholders to be engaged in the process. Not everyone was involved at this point. Stakeholders were invited. The project met with regional government committee and identified relevant stakeholders that ranged from heating producers, to distribution companies, building construction

experts to technology experts, to household associations, to citizens, to the city employees, to the regional government.

The stakeholders first met with the project team, and were given an explanation of how the OCOPOMO platform is used. Once they were given the tutorial, they were free to use the platform for about 1 month. The platform was already provided with background and supporting documents. The background documents were necessary to inform stakeholders of the different policy options already available. Then stakeholders could propose several scenarios – propose a kind of renewable energy and discuss should be done, from his or her own perspective. These scenarios were later turned into model simulation models using Consistent Conceptual Description (CCD) tool.

The next phase began almost a year later with another face to face meeting to inform again the stakeholders of the purpose of the second iteration. Given the distance between the first exercise and the second, some stakeholders were involved in first face to face but not second, and some started in the second. In the second iteration, stakeholders were presented with simulation results of their policy choices in model-based scenarios of narrated texts. More background documents were also provided such as Return of Investment (ROI) of energy sources proposed. Therefore stakeholders and policy owners provided comments on the model-based scenarios and published one new evidence-based scenario. The topics which were most discussed in this regard leading to the new scenario are: Detailed technical pros and cons of local vs. central heat system, ROIs, Legislation applied by heat producers to customers who decided to disconnect from the central heating system and Financial tools for the investment to the building renovation or installation of new heat sources.

First, the OCOPOMO project was successful in highlighting the need for more innovative approaches to policy development processes. These innovative approaches have proven to be particularly important when there are diverse stakeholders with different interests in existing problem and most importantly expected solution. The added value of OCOPOMO to traditional approaches is how policy makers can be more certain of proposed policy with consideration of expected outcomes of the policy in respect to stakeholders involved. Second, even more particularly, the stakeholder engagement process in Kosice received positive review among the stakeholders involved as a useful and an important process in policy analysis. Further to enabling an improved understanding of the policy case among the stakeholders through background documents provided in the platform, it also provided a tool where different views and expectations of stakeholders could be captured and hence increasing possibilities for a successful policy.

7. Comparative analysis

{in progress}

8. Strengths and weaknesses of different methods of stakeholder engagement in policy modeling

{in progress}

9. Research and practice implications

{in progress}

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