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REPORT

INTRODUCING INSTITUTIONAL MAPPING: A GUIDE FOR SPICOSA SCIENTISTS

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1 Introduction: institutions and governance

Institutions are broadly defined as systems of rules, either formal or informal, and those rules define the boundaries of any institution. Institutions are also likely to be organisations: the physical embodiment of an institution, that is, people who carry out a particular set of activities. Such organisations will have a recognised service or regulatory role in coastal management or are able to clearly articulate their interest in coastal management (such as coastal user associations). These named entities are recognised to have authority, power and influence in relation to coastal management.

The concept of governance encompasses institutions. The IHDP core project 'Institutional Dimensions of Global Environmental Change' (IDGEC) define institutions as clusters of rights, rules and decision-making procedures that give rise to social practices, assign roles to participants in these practices and govern interactions among players of these roles (IDGEC, 1999; Young, 2002). Governance adds to the concept of institutions a dynamic perspective that looks at processes of governing; that focuses on governance systems and integrates research on interlinkages of single institutions; and that brings a stronger emphasis on actors (persons involved in a social action; in a SAF process most stakeholders are actors) and especially on non-state actors. Governance thus covers a wider area of phenomena that are crucial for understanding and steering systems in the field of human dimensions, which are not completely addressed through the notion of institutions (Biermann *et al.*, 2009). Hence the two concepts are closely interlinked.

Governance is a:

- process that brings together actors
- from the public and the private sphere
- to steer(parts of) societies
- by a variety of mechanisms
- that include institutions, but also, e.g., partnerships, networks, belief systems, etc.

(Biermann *et al.*, 2009)

2 What is institutional mapping?

Institutional mapping is concerned with understanding the existing distribution of power. Multiple forms of power might be employed by a stakeholder to influence the outcome of a decision-making process, including for example; threat, information, emotional claims and political influence. However, the power to influence the success or otherwise of the take-up of any particular management choice or innovation is largely held in institutions. Institutional mapping can be considered a narrower subset of stakeholder mapping and engagement. It focuses on the key actors, their interactions, where power is located, who has the ability to influence decisions, and who makes decisions and also examines their source of funding. Such maps show who has the right, by virtue of their office in an organization or participation in an institution, to tell who to do what. In reality, stakeholder mapping and institutional mapping should not be considered as two separate processes but faces of the same coin; two dimensions of the same analytical framework (Aligica, 2006). See Vanderlinden *et al.*, 2011, the [SPICOSA Stakeholder-Policy Mapping Users' Manual](#) for a discussion and worked out examples of stakeholder mapping.

'Mapping' presents a good metaphor for the exercise of exploring institutional links because there are a number of parallels between this exercise and geographical mapping (Green, 2007):

- It is necessary to identify important features; here, the organisations who are players.
- It is necessary to show the relationships between those organisations: the rules, power and social relationships, and thus the location of each organisation with respect to the others.
- Functional and geographical boundaries are critical in both institutional and geographical mapping.

Another important feature of mapping as a process is that it may take place from different perspectives, inspired by different objectives and employing different techniques. Likewise, the idea that there is one privileged way of mapping a social space or phenomenon-that there is one privileged conceptual structure that gives a comprehensive account of a phenomenon, is naïve (Aligica, 2006).

Institutional mapping is an empirical and practical exercise; undertaken with a particular purpose in mind. This is a very important point in using stakeholder mapping effectively within the application of a SAF. Institutional mapping must be purpose-driven: the aim is to explore functional relationships and powers that are relevant to decision-making regarding the specific policy issue identified. An institutional map focuses on actions and is a guide to action. It is used as a prediction tool; telling an individual that certain features of social space or territory will be encountered at one point or another in an impact-response chain of actions and/or a decision-making process (Aligica, 2006).

3 Why institutional mapping for ICZM?

Institutional mapping is needed to give insight into institutional and governance structures for integrated coastal zone management. While more integrated management may require new technologies including planning and management tools and models, it can only be delivered through the relevant institutions who will almost certainly be required to make changes in the way they work, and how they perceive each other. Institutional Mapping can therefore be an important step in exploring space for institutional reform, and organisational change (da Silva *et al.*, 2008). Institutional mapping is also a tool for achieving an understanding of potential roles of the stakeholders and institutions involved, for identifying potential coalitions of

support for the project, for scenario and strategy building and for assessing the relative risks entailed (Aligica, 2006).

Institutional mapping can be a time and labour intensive exercise, which requires proficiency in the local language and an awareness of local cultural and operating practices. A mapping study should involve key local stakeholders, such as those involved in multi-stakeholder bodies. Although time intensive, if the process is carried out with the participation of stakeholders, the procedure can also be essential for building legitimacy and policy ownership.

Institutional mapping is a very important tool in the tool bag of the policy practitioner. Any social change initiative or any policy project needs for strategic and tactical reasons to get an inventory of institutions involved, identify the key players, assess potential support or opposition among them and to highlight the relevant institutions' roles and the inter institutional linkages (Aligica, 2006).

Institutional mapping and governance assessment is also an important approach for exploring linkages in theory and practice, analysis and policy for improving integrated coastal zone management. For example, it can contribute to increasing understanding of what are 'just' relationships between individuals and between individuals and organisation. This understanding can be used to design appropriate systems of power relationships between organisations as well incentives for those organisations to act in particular ways. The analysis is also very appropriate to current emphasis on the adaptability of systems, contributing to exploring and developing guidelines for managing the balance between accountability and adaptability. The clearer a rule, for example, the easier it is to establish whether or not there has been compliance and hence the greater the accountability. Conversely, the clearer a rule, the less scope there is for innovation and adaptation (Green, 2009). These are difficult but important research questions that remain to be addressed and to which institutional mapping can be a useful exploratory aid.

4 What is the process of institutional mapping?

As highlighted previously, as a mapping exercise, there a number of difference approaches that can be adopted for institutional mapping. Table 1 outlines a series of twelve steps developed in the EU-SWITCH Project (<http://www.switchurbanwater.eu/>) for developing an institutional map.

Table 1 A Protocol for Institutional Mapping (Green, 2007)

This protocol was developed within the EU-SWITCH Project as a beginners' guide to making institutional maps. The steps are in logical order, but this does not need to be followed exactly. Nor need all steps be taken - how far to go depends on time available as well as on the purpose for which the map is required. Steps may be repeated at a later time, to include more detail in the map.
1. Who are the creators of the map, and who are the users? The first step is to identify the makers of the institutional map and the subsequent users thereof. During the creation of a map, SSA teams and stakeholder partners need to ensure, jointly, that the institutional map is sufficiently focused on the 'problem'.
2. What is the purpose of the mapping? The purpose of institutional mapping is to identify who has the power to influence the likelihood of the adoption of management options and the changes in behaviour which may be required of the successful adoption of a strategy. The purpose is not to describe all institutional relationships in the geographical region.
3. What are the 'action spaces' for the mapping? These spaces must be relevant to the

map's purpose. Within a SAF implementation, the primary action space is Integrated Coastal Zone Management. The secondary and further actions spaces need to be identified, for example, land use planning, regional economic planning. Preliminary identification of how these action spaces currently interact should lead to curiosity about their potential for greater interaction in pursuit of the objectives being sought.

4. Who are the players? This step is a first look at the institutional landscape at different scales of governance, so that the most important scales and their relative power can be identified. States differ greatly in the structure of their institutional arrangements. Start by identifying the degree of centralisation of national and regional (provincial) and local institutional arrangements. In strongly central systems, institutions are similar on each scale. Where power is devolved, arrangements differ between scales and within scales.

5. Describe relationships between scales in the map. This step involves choosing the sequence in which institutional scales are shown in the map. You can:

- a) Begin at international and then national levels and progress downwards to the local and operational level; or
- b) Begin at the operational or local level and progress upwards to the national and then international level.

6. What are the formal 'rules of the game'? This is a central task and one which will usually consume a significant proportion of the time allocated to the mapping. Describe the legislative and regulatory environment relevant to the Policy Issue, focusing upon statutory instruments (including international treaties as well as primary and secondary national and provincial legislation). List also regulations, guidance, guidelines, codes, administrative procedures, financial arrangements (including incentives, disincentives and sanctions) and administrative procedures. Distinguish mandatory and non-mandatory regulations. Specify dates when laws, regulations and other arrangements became operational. A key part of this process is identifying both a) functional and b) geographic boundaries. Functional boundaries relate to the responsibilities given to various agencies in the law. Geographic boundaries relate to the geographic jurisdictions of the laws, regulations and procedures. Institutional history may be important and should be explained where believed to be relevant.

7. What are the informal 'rules of the game'? Explanation of underlying social norms and conditions should be made where considered to be relevant to an understanding of the legislations and regulatory environment. For example, the policies and plans followed by Regional Development Agencies in England can only be properly understood by knowing about the context of social disadvantage and inequity in the areas concerned.

8. Compliance: how well do the formal rules operate in practice? Rules are sometimes not effective for a variety of reasons, which need to be understood.

9. Rules of Organizations. Most large organizations, including those responsible to the public for decision making and environmental management, have internal rules. These refer to what they must, may and cannot do; the procedures they must adopt; and the objectives they are to pursue. The map should show how processes of public decision-making operate and the role of the actors in these processes. These processes may be evolving, and the direction of their change is pertinent. The jurisdictions of each public-policy organization, and the time scales of its planning cycles should be identified.

10. Glossary. Definitions are required to lend clarity and precision to the institutional analysis and mapping, and so a glossary of terms should be provided. This will include any formal definitions that are used by relevant organisations or embodied in institutions. Other definitions can be added for clarity of exposition. This second category of definitions should be kept loose, to avoid unintended exclusion of meanings.

11. Other data. The mapping should include other relevant data and information. The form of an area's institutions is determined both by the cultural and political history of that area and by the physical and other characteristics of that area. Other data could include information such as population size, agency or organisation ownership (whether private, state or publicly owned), and economic growth rates. Judgement will need to be exercised about how much, and which, data and information to include.

12. What should the map look like? As can be gathered from the above, the process of institutional mapping is multi-faceted and potentially very complex. A variety of methods of presentation will be needed to report the results of the exercise. Types of presentation will include: narrative, tables, graphs, and maps, both showing geographical jurisdictions or boundaries on accurate spatial co-ordinates, and showing relationships or power flows.

Another framework, commonly used within political science, is the Institutional Analysis and Development Framework (IAD) (Ostrom, 1990, McGinnis, 2000). Within IAD the social space where individuals 'interact, exchange goods and services, engage in appropriation and provision activities, solve problems, or fight' (Ostrom et al., 1994, p28) is characterised by several key parameters, box 1. Four key elements are mapped out: (1) actor's preferences regarding certain actions and outcomes, (2) the way actors acquire, process, and use information, (3) the decision criteria actors use regarding a particular course of action, and (4) the resources that an actor brings to a situation (Ostrom et al., 1994).

Another way of approaching institutional mapping is to begin by identifying the 'rules' in use at various analytical levels of power and influence: operational, collective and constitutional levels, as these are discussed in the introductory chapter on system design. This can be an entry-point to the more detailed analysis as suggested in the previous examples.

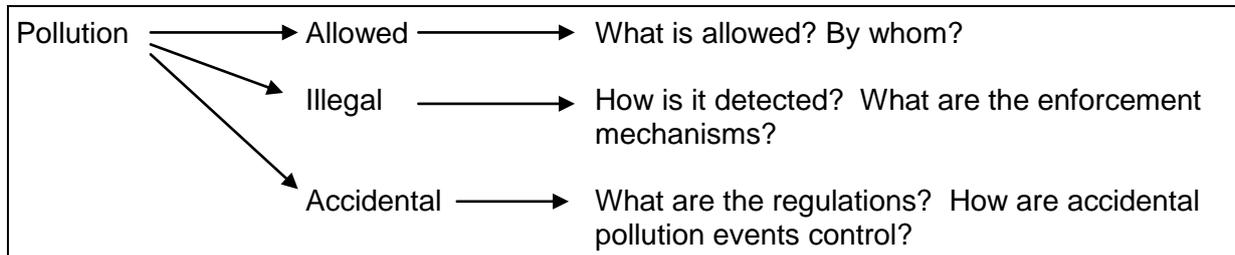
- 1) Participants: the actors who are involved in a situation,
- 2) Positions: place holders that associate participants with a set of authorized actions (employee, voter, judge, monitor),
- 3) Actions: 'nodes in a decision tree' - particular positions taken at different stages of a process identify actions that make an essential difference for the entire process in their consequences,
- 4) Potential outcomes: the results of individuals interacting with one another in a regularized setting (quantities of output, interpersonal relations, changes in rules, externalities etc.),
- 5) A function that links inputs to output—in the case of voting for instance, 'the transformation function takes the symbolic actions of individuals and produces a collective decision',
- 6) Information: the data about an action situation and its implications, and finally
- 7) Payoffs, positive and negative weights assigned to the outcomes and the actions leading to outcomes.

Box 1

Regardless of the process used to build an institutional map, it is critical to consider two simple points before any attempt at building an institutional map for a study site. The first, which we have already mentioned, is the importance of purpose. The basic premise of institutional mapping is to understand and explore networks of organisations and institutions by identifying both the 'players' and the rules that govern the interactions between them (e.g. laws, social relationships). Identifying both the organisations (players) and rules depends very strongly on the purpose of the map. An important question for the SAF implementation team to ask of themselves and of the stakeholder group is what do we need to know about the Policy Issue? This question provides boundaries for the institutional analysis, or in other words, highlights the areas most important to exploring and understanding the distribution of power. To facilitate this option, a helpful aid may be to draw a series of simple diagrams for the Policy Issue that has been identified within the issue resolution process. These

diagrams highlight important questions for mapping power and provide signposts to the sections within the broader institutional base relevant to the study area of the SAF which should be examined in more detail.

For example, for water pollution a simple diagram may be:



The second critical point is the need to identify rules that link the key organisations. This is important because a key aim of institutional mapping is to explore functional relationships. Rules can be about actions or behaviours, procedures to be adopted, and/or objectives to be pursued. Rules are seen as ‘prescriptions that define what actions (or outcomes) are required, prohibited, or permitted’ (Ostrom, 1999). These rules can be seen as providing the environment in which stakeholder individuals, institutions, or groups, interact with each other and the physical world. For institutional mapping we are concerned with:

- The rules governing relationships *between* organisations, individuals, and groups
- The rules governing the behaviour *of* those organisations, individual or groups - those rules also specify the boundaries of the individual organisations and groups.

Some examples of rules or relationships which may be useful in detangling the institutional links are: who connects to it in adjacent geographical space (downstream, up or down drift)? Who authorises it? Who can use it? Who can inspect it? Who can open it up? Who owns it? Who operates it? Who pays for it? (Green, 2007).

By focusing on these two points: purpose and relationships, it becomes clear that a simple list of relevant stakeholder organisations and relevant laws or policy guidance does not serve the aim of institutional mapping. Earlier guidelines on institutional mapping issued within the SPICOSA scientific community gave an example list of stakeholder organisations, categorised by sector and human activity. This is a useful and important first step towards identifying which organisations or groups are responsible for particular human activities in the coastal zone and those organisations and groups that may be affected by management options. An institutional map will not emerge until the power relationships – in SAF terms cause-and-effect relationships - between organisations and institutions begin to be explored.

A further way of exploring the power relationship would be to develop a series of ‘relationship maps’, an example of which is given in Figure 1 and where each of the linkages between the organisations signifies a particular relationship. Diagrams from this stage of an institutional analysis have the potential to become very complex very quickly, so it may be useful to focus on a few of the important purposeful questions (e.g. how is water pollution detected?) and build a series of maps (e.g. scale-based, geography-based) that explores rules for each of the questions identified. An important message is that an institutional map is arrived at by a process of iterative refinement, so that components are often best worked upon and then returned to in the light of work on other components, and so on.

Finally, when building knowledge on purpose and relationships within the exercise, it is important to be careful to give balanced attention to both formal and informal rules and institutions. It is much easier to identify the formal systems of rules, expressed in laws and regulations, than the informal systems of rule. Informal rules' may arise in different ways through processes of socialisation. Because they are acquired through socialisation, these informal rule systems are taken as givens and consequently, internally, less open to scrutiny. Informal rules include ways of thought, including what is understood, for example, to be 'good practice'. Informal rules are also set by cultural practices, including customs and taboos, and the moral, religious or ethical practices within a society or part of that society: the social norms. They include what are understood to be the principles of justice or equity (as opposed to the formal rules of law). A successful informal rule system is one which achieves ruling or supreme status and is not open to debate or question. As such it becomes invisible to insiders. However, everyone who participates in the life of any social grouping acquires a sense of what you have to do to influence people, to cause things to happen, to stop possible courses of action to significantly affect the actions the group or members of the group take. Understanding informal rules helps identify what you have to possess to be powerful in this group or organisation: knowledge, a particular role, skills, experience, charisma (Checkland, 2000)? As well as informal rules there are informal institutions and there is an increasing use of partnerships and informal arrangements. Such partnerships may be a means of legitimising action which a key player already intends to undertake on the one hand; or formed to create power to influence a key player (e.g. the conventional NGO); or a means of coalition building to deliver action; or as a means of attitude formation (Green, 2007). It can be difficult to disentangle the functionality of such groups however they can play an important role in policy-making.

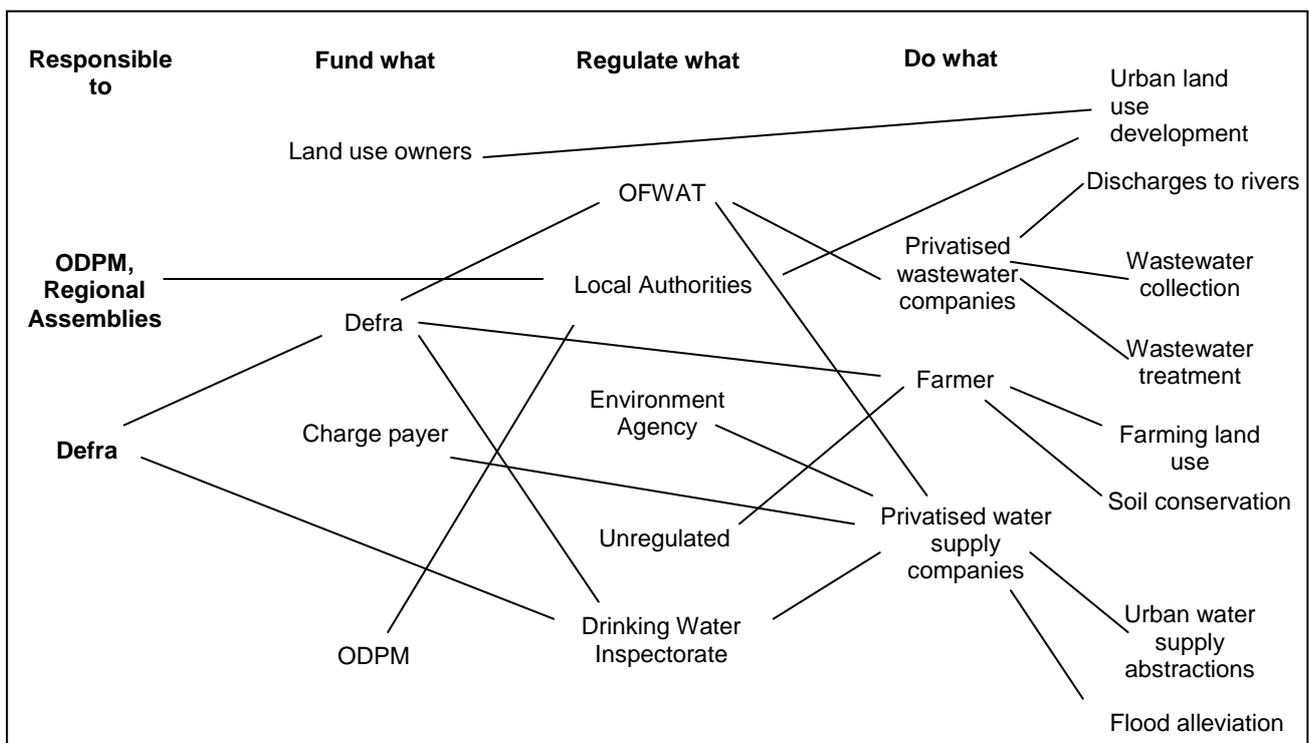


Figure 1 Green (2007)

5 Making links between institutional mapping and other aspects of the SAF?

Institutional mapping is an important component of the system approach and provides critical information for a range of stages of the SAF process. Table 2 suggests some possible roles of institutional mapping within the systems approach; from design through to systems output. Ultimately the goal of the scientific and policy-making deliberations, such as that facilitated within a SAF process, is to promote changes (political, social, and scientific) towards more sustainable coastal management. Institutional mapping is central to successfully achieving this goal. It is important not only to think about the substance of the intended change itself (i.e. what form of change in the use of the physical environment is required) but also about the additional things you normally have to do in human situations to *enable* change to occur. This is in essence the key value of institutional mapping. By finding out as deeply as possible how this particular 'culture' works, feasible change can be more easily identified and difficulties that would attend that change identified (Checkland, 2000). Institutional mapping contributes significantly to understanding opportunities and barriers toward identifying and enabling change.

Stage of the SAF	Role of Institutional mapping	An example of an advantages/value
Design Step	<ul style="list-style-type: none"> Provides the basis for understanding the roles, functional relationships and powers within the social system Linking with DPSIR¹ 	<ul style="list-style-type: none"> Where pressures, forcing or impacts occur at a discrete place in the system - there will most likely be a series of formal and informal rules which guide what can and cannot be done at these interfaces.
Formulation Step	<ul style="list-style-type: none"> Assists in identifying functional relationships between organisations Frames all of the legal responsibilities/requirements 	<ul style="list-style-type: none"> Can provide a link with quantitative modelling e.g. thresholds based on legal limits Contribute to identifying appropriate indicators – reflection on what is 'success' criteria
Appraisal Step	<ul style="list-style-type: none"> Identification and selection of scenarios and management options that are feasible within the existing institutional context 	<ul style="list-style-type: none"> Increased efficiency later on in process as infeasible scenarios are discounted early
Output Step	<ul style="list-style-type: none"> Understanding the responsibilities of the stakeholders plus the power relationships between them. 	<ul style="list-style-type: none"> Better appreciate the constraints and opportunities for management Differences can be concealed which are important in the political process of policy-making

Table 2

¹ Driver-Pressure-State-Impact-Response Model

A range of links with other aspects of the systems approach framework are identified below.

5.1 Stakeholder and issue mapping and institutional mapping

The systems approaches requires implementers of the SAF to identify and then involve actors in building a perspective of the desired and feasible change and institutional mapping plays a useful contribution to these activities. As previously stated stakeholder mapping and institutional mapping should not be considered as two separate processes but faces of the same coin. The links between institutional mapping and an analysis of governance are also strong. Stakeholder mapping and institutional mapping can be conducted simultaneously and one can be used to inform the other. Combined, stakeholder mapping and institutional mapping build critical insights and understanding regarding the process of governance within the study area.

5.2 DPSIR and institutional mapping

Ecology-Societal-Economic (ESE) interfaces are the key places where the human - non-human ecosystem – human interactions occur. The DPSIR model can aid identification of the interfaces that are associated with pressure or forcing and with impact. In cases where these pressures, forcings or impacts occur at a discrete place in the real-world ecosystem, the interfaces can be shown on the geographical map of the system. There will most likely be a series of formal and informal rules which guide what can and cannot be done at these interfaces, these can be explored through the institutional mapping exercise and directly form a component of the ESE linkages in conceptual and potentially numerical models.

5.3 CATWOE and institutional mapping

CATWOE, as a tool from soft systems modelling can help provide an understanding of the human actions relevant to the policy issue. In turn this can be used in a debate about possible changes that may be introduced into the problem situation (see the discussion document providing guidance on about identifying the policy issue and a short overview of CATWOE, ([McFadden and Priest, 2011](#))). The Owner(s) in CATWOE are the persons or organizations with the power to cause the system to cease to exist in a functioning state, by stopping the Transformation process, the process of change in the state of the system (T). The power to stop T is sometimes not localizable to individuals but exists in emergent properties of human systems, such as the judicial system, the legislative and regulatory environment and in such cases we refer to Ownership. Thus, identifying Ownership forms a link between institutional mapping and stakeholder roles for each of the possible perspectives (or worldviews) relating to the policy issue. This link highlights the importance of 'purpose' within Institutional Mapping. A 'general' institutional map of all rules and organisations related to ICZM within the study area is of less use in understanding the organisation of human activity, than one which links to the particular change in state of the system being explored. The two exercises compliment each other. An institutional map will help SAF implementation teams explore the 'O' in CATWOE, whilst the CATWOE exercise will provide a systems framework (i.e. sub-system, system, wider system) for arranging the broader range of stakeholder groups around the organisations and institutions which currently hold ownership power in relation to the Policy Issue.

5.4 Indicators and institutional mapping

The process of building an institutional map can also prove useful in beginning to think through and identify possible indicators for the analysis of policy issue. It is important that indicators and indicator sets are not considered for use 'off the shelf' (see [McFadden et al., 2008](#)). It is critical that implementers of the SAF, through a participatory process, allow stakeholders to identify and define criteria for measuring the success (or failure) of a social system - or an element of a social system - before beginning the search for appropriate indicators. There needs to be a clear rationale and justification for the adoption of an indicator and scientists need to ensure that what is chosen clearly represents the aspect that they are trying to measure. Institutional mapping should contribute to identifying the criteria success or failure.

5.5 Deliberative forum and institutional mapping

Institutional mapping is critical ground-work in preparation for the output step of the SAF process. Differences can be concealed in stakeholder platforms (e.g. a deliberation forum) that are important in political processes of policy-making. The institutional mapping exercise gives those convening the deliberation process important context information regarding stakeholders' and organisations' relationships to each other. Discussion on the role of institutional mapping in the Output Step of a SAF process can be found within [McFadden and Priest \(2010\)](#).

6 Examples of institutional mapping from within the design step reports

This section briefly reviews the range of approaches to exploring institutional design within the SPICOSA scientific community, as these have been reported within the system design manual reports. It then focuses on an institutional map prepared by Himmerfjärden as a case example of a institutional map.

In total there were five broad approaches adopted when exploring the institutional component of the governance framework of the study sites. These approaches are given below, the comprehensiveness of the approach increasing from 1) through to 5).

- 1) No institutional map developed: a basic statement of national/regional governance
- 2) A list of management plans, institutions, and regulations presented not in the form of a map so little attempt at defining relationships. Critically, no functional connections and no discussion of roles and responsibilities
- 3) A map of local-regional-national organisations was developed usually accompanied a list of regulations. The maps were developed on basis of different geographic scales but no real functionality as no discussions on roles and responsibilities Although a list of management plans, institutions, regulations with no map, there was some discussion of legal responsibilities and basic roles. This gave some overview of functionality
- 4) An institutional map which included some functionality: responsibilities and rules in use

The key emerging challenge for the SPICOSA scientific community was recognising the centrality of focusing on purpose and including relationships between the institutions and rules identified. As discussed previously, an institutional map will not emerge until the power relationships among organisation and institutions begin to be explored.

SPICOSA study site scientists had been advised in early system design guidance that institutional mapping should be carried out to an extent, and amount of detail, that is possible with the resources available at the time. These guidelines continue to recognise such limitations which are indeed representative of the reality of ICZM processes in organisational and policy-making processes. However, given the critical role which institutional mapping play within a systems approach to ICZM, we seek to underscore the need for as comprehensive, as possible, attempts at understanding the institutional difficulties and opportunities for improved ICZM.

6.1 Institutional mapping for Himmerfjärden

Boxes 2 and 3 outline institutional maps developed for the Himmerfjärden SSA within the design step stage of the SAF process. The institutional maps are based on each of the human activities as identified within the study site causing coastal algal blooms which reduce Secchi depth e.g. agriculture, private sewers and Himmerfjärden STP (sewage treatment plant). The institutional maps include stakeholder groups, institutions and legislation that are linked to the specific human activity. At the time of this analysis, the study site scientific team stated that governance mapping will continue to be built upon within the study site by investigating other social dimensions including collaboration and trust between and among stakeholder groups and institutions. The overall conceptual model of the Himmerfjärden SSA, focusing on the social and economic perspective is given in box 3. The shaded boxes in the conceptual model highlight those components, as suggested by the study site scientists, which can be informed by institutional mapping.

A number of characteristics of the institutional map can be highlighted as important to the SAF process:

- Different institutional maps have been developed for each of the key human activities which link to the policy issue i.e. three different maps. This identifies different 'action spaces' for Integrated Coastal Zone Management. It also identifies the key players regarding the policy issue.
- Key formal rules, the legislative and regulatory environment relative to the policy issue have been identified.
- Geographic scales have been implicitly identified within the institutional maps.
- The institutional map identifies functional boundaries, those which relate to the responsibilities given to various organisations and agencies in the law e.g. supervisory agency, interpreters of the legislation: this is a key part of the institutional mapping process.

Some further issues that could be explored:

- Some identification of how the different action spaces currently interact: this gives an interesting and helpful platform for exploring the potential for greater interaction in pursuit of the objectives being sought by the management options.
- It is useful to distinguish between formal rules which are mandatory and non-mandatory regulations.
- Institutional history could be important and this should be explained where it is believed to be relevant.
- Can the most important scales and their relative power be identified?
- The informal rules can be identified and added to the institutional map. Explanation of underlying social norms and conditions should be made where considered to be

relevant to understanding the legislations and regulatory environment and how well the formal rules operate in practice.

7 What are some lessons from doing institutional mapping?

Experiences from institutional mapping has revealed that while there are a series of tools and protocols, there is no cook book or standard approach which will guarantee an adequate institutional map (da Silva *et al.*, 2008). The EU SWITCH Project has identified a number of lessons from attempts at institutional mapping which are highly relevant to using this tool within a SAF process. These lessons are given below:

- Institutional Mapping is a skilled exercise that requires insight into the local context.
- Policy and practice are constantly in a state of change so it is necessary to see what changes are being contemplated and update the map when appropriate.
- Intra-organisational rules partition what an organisation can do into three sets: what it must do, what it may do, and what it must not do. However, that there are rules does not mean that they actually operate.
- Institutional mapping is dependent upon the availability of and access to documents
- History is important. Prevailing concerns and technologies from the past are reflected in definitions of terms, in laws, regulations and institutions.

8 Conclusion

This short guide provides key reasons why institutional mapping needs to be undertaken as part of the SAF and highlights the advantages that are gained in doing so. Green (2007) has argued that a great deal of writing on Governance is either vague, providing little in the way of recommendations on what to do and how to do it. Or it is fluffy; that if we simply come together we will find consensus and happiness. The task is to provide something which gives practical and comprehensive guidance on how to deliver good governance. It is in this context, that this discussion document has been produced. It attempts to provide some basic practical guidelines, not on good governance but on increasing our understanding of the complexity within institutional frameworks, that is the complexity of formal and informal patterns of social relationships within coastal management. This knowledge is only one specific but important component in moving towards better governance of coastal environments and communities.

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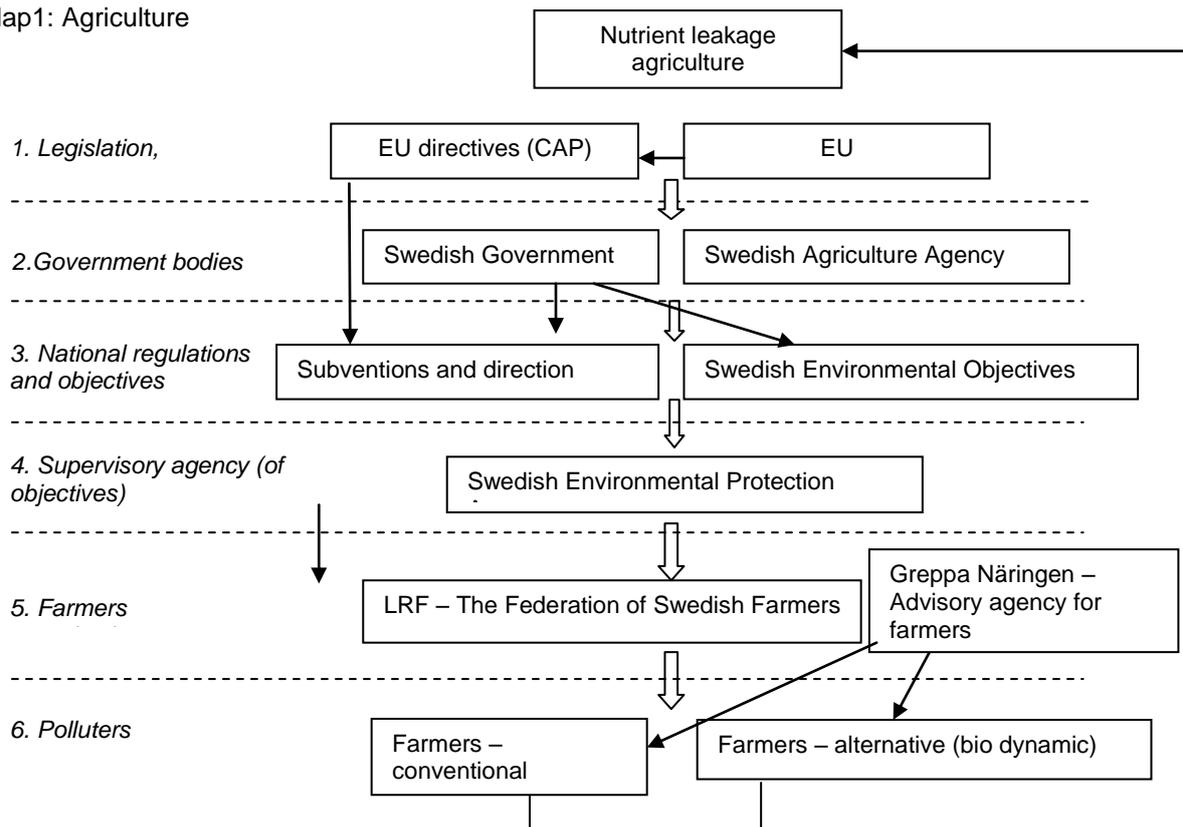
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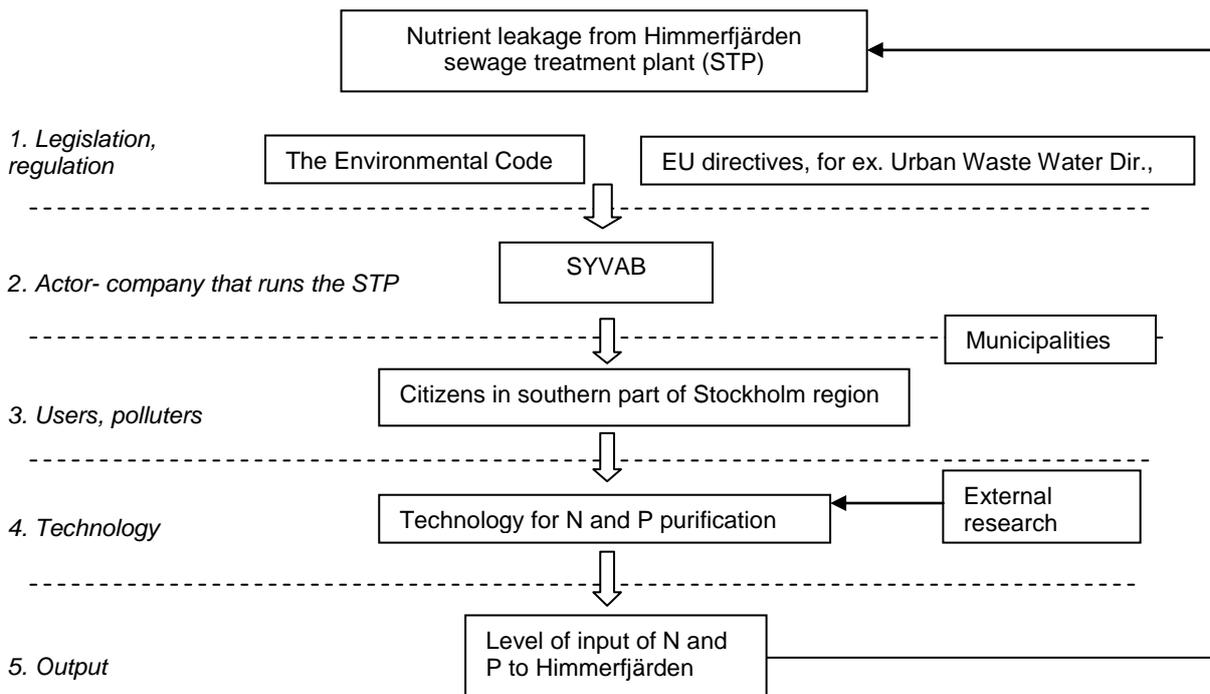
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Institutional mapping for Himmerfjärden

Map1: Agriculture

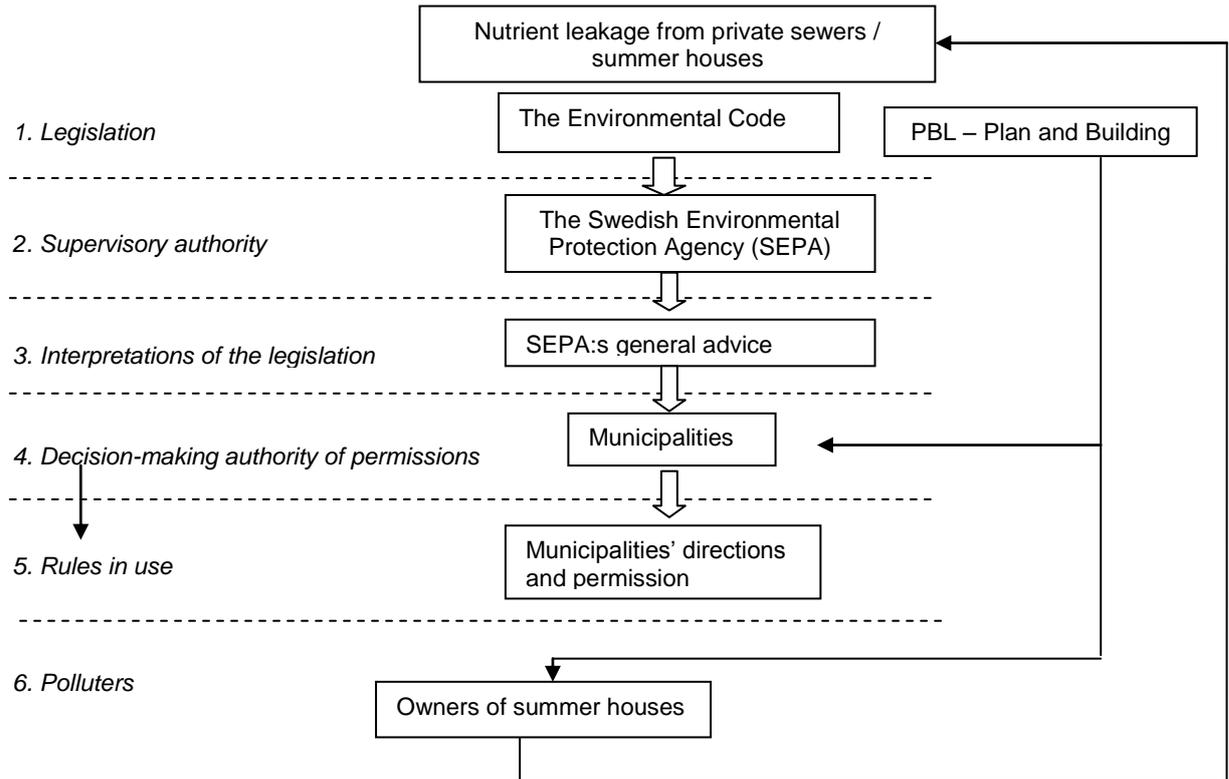


Map 2: Sewerage Treatment Plant

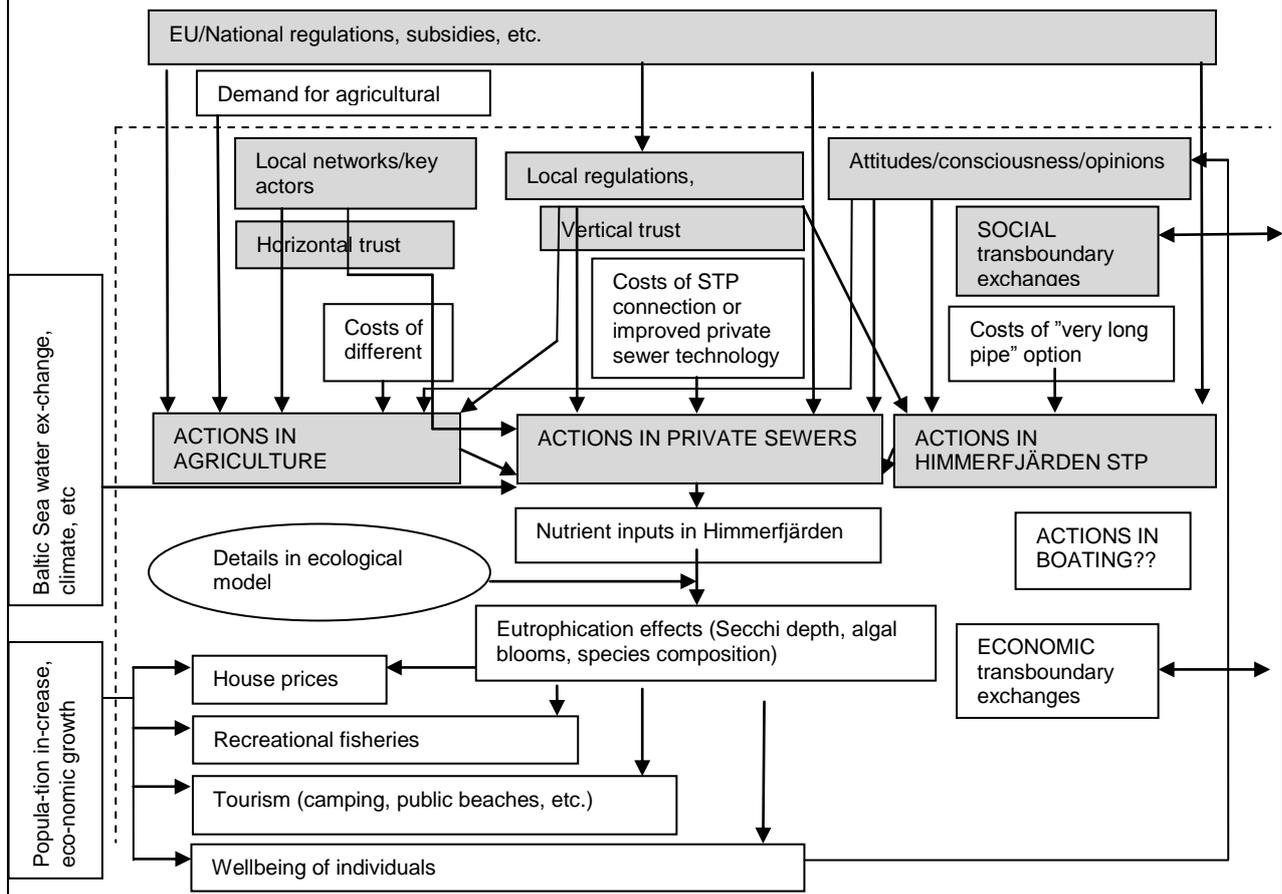


Box 2

Map 3: Private Sewers



Map 4: The overall conceptual model of the Himmerfjärden SSA, focusing on the social and economic perspective



Box 3