

Institutional Stability and Change. A Logic Sequence for Studying Institutional Dynamics¹.

Meritxell Costejà Florensa²

¹ Paper to be presented at the Tenth Biennial Conference of the International Association for the Study of Common Property (IASCP). “The Commons in an Age of Global Transition: Challenges, Risks and Opportunities”. Oaxaca, México, 9-13 August, 2004.

² Institut de Govern i Polítiques Públiques (IGOP), Facultat de Ciències Polítiques i Sociologia, Universitat Autònoma de Barcelona (UAB). Edifici B – Campus UAB, 08193 Bellaterra (Cerdanyola del Vallès), Barcelona, Spain.

Institutions as dynamic entities

If institutions adjusted relatively quickly to developments in social, political and economic environments, and if the institutions in which individuals operate did not shape their behavior by providing incentives and guiding collective behavior, there would be little point in studying the processes of institutional change. Attention could be focused either on the motivations of individuals or groups or in the external and contextual factors. But if both formal and informal institutions matter as determinants of the context in which human action and decision-making takes place, then the study of institutional dynamics plays an important role in the agenda of social sciences research.

Institutions, once created, tend towards stability. However, institutions do follow certain dynamic processes which account for their evolution in time and their influence in shaping human interactions. Institutional change, though, is neither spontaneous nor simple. The large numbers of cases of repetitive failed attempts to bring about institutional change that have been observed in the field suggest that the patterns of change may not be as simple as a ‘trial and error’ process. Institutional changes take place on the basis of combinations of the values of various endogenous and exogenous factors can involve different levels of the institutional arrangement. Institutions are, thus, dynamic entities that are subject to change. But, why can changing existing institutions be so difficult? What explains the persistence of institutions over time?

This paper focuses on the dynamics of institutions in an attempt to identify some of the main variables that affect institutional stability and change³. I will begin by introducing some of the main processes contributing to institutional stability, opposed to the factors that can introduce change at a particular level of the institutional structure. A description of the main patterns of change will follow. I will then propose a framework to study institutional change which identifies a dynamic sequence of stages driven by multi-actor

³ I will use the term ‘institutional change’ to refer to any shift in the formal and/or informal institutions and the enforcement procedures that operate in a certain recurrent situation (institutional *status quo*) so that different individual and collective behaviors are constrained or encouraged (Ostrom, 1990; Levi, 1990).

interaction processes. The last section will conclude with some questions for future research.

Institutional stability

‘Institutional structures do not respond in any rapid and fluid way to alterations in the domestic or international environment. Change is difficult’ (Krasner, 1984). Institutions once established tend to reproduce themselves in a stationary way. In a given environment (of endogenous and exogenous factors), the institutions and the patterns of behavior they generate create an equilibrium. This behavior will replicate as long as the this context remains the same (Greif, 2003).

Two main reasons account for such tendency to stability: (i) the influence of past institutions, (ii) and the mechanisms by which institutions are reinforced.:

(i) Institutions inherited from the past (consisting of rules, regulations, shared beliefs, social norms, political and economic organizations) are part of the initial conditions when individuals are faced with the choice of selecting alternative institutional forms. So, part of the *status quo*⁴ is ‘institutional heritage’. Past institutions are ‘*what members of a society bring with them to a new situation and provide them with the motivation to bring about new situations through technological, organizational and institutional inventions*’ (Greif, 2003). They do not vanish when individuals face changing situations but provide the basis from which changes will be built upon. So there is ‘path dependence’ in the sense that past institutions do not determines but influence the direction of change. Past institutions, as well as the evolution they have followed in time, constrain the subsequent choices that individuals will consider (Levi, 1990).

⁴ I will refer to the status quo *ex ante* as the existing (or past) institutional arrangement before any attempt to bring about change takes place, and to the status quo *ex post* as the situation after any process of change.

(ii) Long established institutions create structures and develop mechanisms that encourage institutional stability by reproducing the *status quo*. Some of these mechanisms are the following:

- *The 'informal constraints'*⁵ associated with existing institutions. The overall stability of an institutional framework is accomplished by a complex set of formal and informal institutions. This particular combination is context-specific and increases the variety of tools that individuals in a particular setting can use when facing different kind of situations⁶. Informal institutions provide continuity and stability to the institutional complex as (a) they become internalized norms and shared beliefs and understandings among the individuals, shaping individuals' identity (as part of a group or organization)⁷; (b) provide a framework for organizing action and creating social bonds (Swidler, 1986). The longer survival rate of informal institutions⁸ is explained because they get rooted as part of the habitual behavior of actors and

⁵ (North, 1990). Other actors have used alternative concepts to explain the stability of informal institutions: (social) 'embeddedness' (Granovetter, 1985, Williamson, 2000), culture (Powell and DiMaggio, 1991).

⁶ In this sense, formal and informal institutions must be seen as complementary in creating specific outcomes (Eggertsson, 1996). Informal institutions can develop in response to different situations:

- (i) *As a means to 'internalise' the formal rules.* According to this process of internalization, participants may interpret the prescribed rules and develop informal channels that take the form of informal agreements, patterns of behavior and activity to adapt the rules to their operational environment;
- (ii) *(ii) As a means to ensure 'compliance' with the existing institutions.* Informal constraints may develop as a mechanism to enforce formal rules and solve conflicts. Informal institutions such as social norms, 'especially in a setting where there is communication between the parties, can work as well or nearly as well, at generating cooperation as an externally imposed set of rules and system of monitoring and sanctioning' (Ostrom, 2000). On the other hand, they can also develop when individuals do not rely upon existing authorities or compliance mechanisms and structures to enforce the rules;
- (iii) *(iii) As a means to regulate unexpected or 'non-regulated' situations.* Informal rules may develop as well when the existing formal institutions do not cover all the situations actors face, or when the existing institutions are not known or properly understood by all.

⁷ Some authors utilize the concept of 'interpretative frameworks' to explain the way these informal constraints shape individual mental constructs in different ways: (i) *Perception*. They define the ways in which individuals process and utilize information, and thus the perception they have of real phenomena; (ii) *Rationality*: they define individuals' interests and preferences, and what they can expect from the behavior of others; (iii) *Morality*: they shape individuals' evaluations of reality, what they think it is right and wrong; (iv) *Prescription*: they define specific claims and obligations (what will be the appropriate way to behave in a certain situation)

⁸ Williamson (2000) argues that changes at this institutional level usually take place on the order of centuries.

become ‘prepared strategies’ that are activated when individuals face similar situations.

- *Experience of success in the past.* When a past institution has proved to be successful in generating the expected outcomes (or behavior from the actors), it generates information and knowledge that will become part of the experience that individuals within that institutional arrangement share. This experience will reinforce the belief that the particular institution will have a similar effect in the future. The formal or informal solutions to problems in the past carries over into the present and make past institutions an important source of continuity in the long-run change (North, 1990)
- *Limited cognitive ability of individuals.* Taking past institutions as given reduces for each individual the complexity and uncertainty of the environment in which they operate, making it more ‘manageable’. There is more information, and less uncertainty about existing institutions than in possible alternative ones. Uncertainty provides a good reason for imitation of observed behaviors that have been successful in achieving the desired outcomes (Alchian, 1965). Once actors have identified a good pattern of behavior, when facing a new situation, they will first choose an element from their past repertoire of success. And once this has been identified as a good pattern of behavior it may be followed unconsciously and become a *habit*.
- *‘Sunk Costs’⁹.* Institutions are not completely destroyed to be rebuilt again from scratch. Once a given set of institutional structures is in place, it embodies ‘capital stock’ (information trust, shared expectations) that cannot be recovered (Greif, 2003). Long established institutions facilitate the creation of mechanisms for aggregating and exchanging information, and tacitly coordinate behavior. If institutions are changed, these mechanisms also have to be recreated. But doing so may imply losing the value of the knowledge acquired in the past and having to go through the learning process once again’ (Greif, 2003), what would make the costs of changing and maintaining the new institutions very high.

⁹ (Krasner, 1984)

- *Vested interests*. Individuals will try to perpetuate (or even expand) the existing institutions and the political and economic organizations that favor their particular interests. Once a particular institution has been established, and individuals have gained the ability to change beliefs and have created mechanisms to exchange information and coordinate behavior, they will try to ensure that subsequent institutions reflect this coordination ability as well as the interests of those with power to influence decision-making.
- *'Institutional externalities'*¹⁰. Institutions developed in a particular context may be linked with other (complementary) institutions in other settings, becoming also relevant for the patterns of interaction of individuals involved in those settings.

Then, if institutions will tend to reproduce themselves, what can threaten this stability?

Institutional dynamics are not only explained by the influence of knowledge inherited from the past, the effects of both exogenous and endogenous factors (to the institutional structure) also shape the direction of change.

Change Agents and Patterns of Institutional Change

The processes of institutional change can be externally or internally driven. Both endogenous and exogenous factors play an important role in explaining the dynamics of institutional change. Institutions, as well as the individuals that create them, are constantly adjusting to their external and internal environment (Jones, 2001; Powell & Di Maggio, 1991). These 'environments', however, are far from fixed or stable but many times constitute a set of changing 'elements' interacting in complex and uncertain ways.

Two types of change agents can, thus, be identified according to their origin:

¹⁰ (Greif, 2003)

Exogenous. Changes in the political, economic and social context in which institutions are embedded can induce a transformation or redefinition of the existing institutional arrangements. The following are some examples of the change agents from the ‘external environment’:

- changes in the physical conditions (changes in the attributes of natural resources, extreme climatic events, natural disasters)
- Changes in the attributes of the actors (i.e. new members)
- Changes in markets (i.e. affecting the relative value of factors of production and/or consumption, changes in relative prices of production factors, changes in the cost of information, changes in the force of competition among actors)
- Technological innovations (i.e. New available technologies)
- legislative change (passage of a new statute, a new regulation at the international/national level, constitutional rule changes, court decisions)
- Changes in the broad social, political and economic context (social developments, i.e. social movements; developments in the political systems; changes in the policy-making processes)

Endogenous. Individuals can also react to the constraints imposed by their ‘internal environment’ by interpreting the rules, norms and practices included in the institutional context in which they are embedded (Salvador, 2000), and by trying to redefine them in a way that best fits their interests and worldviews. On the other hand, individuals have also the capacity of imagining themselves operating in different institutional environments and can show their willingness to experiment and innovate, deviating from the past. In this case, change may be driven by:

- Learning processes by acquisition of knowledge and new skills,
- Ideological change and innovation,
- Changes in tastes or preferences of the actors

However, in most cases it 'is usually a mixture of external change and internal learning and skills that triggers the choices that lead to institutional change' (North, 1990). Both external sources of change and unanticipated consequences of the existing institutional arrangement may lead to a situation in which the existing institutions and the patterns of behavior associated are inconsistent. Individuals realize that there is a tension between their expectations and the conditions (of the internal and external environment) they face, and the operating rules.

These asymmetries can lead to a situation where:

- the existing institutional arrangement is not providing the expected (individual and/or collective) outcomes or is not solving the problems they face,
- actors perceive that their future expectations and interests could not be fulfilled from the existing rules,
- the costs (or risk) associated to the maintenance of the operating rules are too high,
- the enforcement of the existing rules results in high levels of social conflicts (i.e. distributional asymmetries),
- the maintenance of the existing rules is threatening the sustainability of key resources to the activity of the community,
- new ideologies proposing new ways of evaluating reality and organizing action may be conflicting with the existing ones

These factors may weaken the prevalence of existing institutions leading to an erosion or a breakdown in the factors on which compliance with existing institutions rely upon (Levi, 1990). As a result, institutions are likely to change. We can identify different patterns of change:

(a) *Evolution*. Learning processes, by the acquisition of new skills, information and knowledge by the actors involved lead to readjustments in the institutional structure. As a result, institutions evolve to ‘adapt’ to the new conditions. As North (1994) suggests, changes in informal constraints occur sometimes quite subconsciously as individuals evolve alternative patterns of behavior.

(b) *Redefinition*. Changes in the surrounding social, economic or political context (introduced by external factors) may lead to a change in the formal institutions (i.e.: legal change). New rules or additional enforcement mechanisms will then be established to achieve more favorable outcomes. Formal rules will then be redefined. This renegotiation of the existing rules of the game may take place within the same set of rules but sometimes may also require restructuring higher levels of the institutional structure. In this case, the process of change is likely to be overwhelmingly incremental. Institutional change will occur at those margins considered most pliable in the context of the bargaining power of interested parties (North, 1990). Individuals will start by introducing change in those institutional elements that can more easily (or less costly) be altered.

However, as we have stated before, informal institutions change at a slower rate than formal institutions do. Thus, the persistence of informal constraints in the face of a change in formal rules (political, economic environment) may lead to an inconsistency between the new formal rules and the existing informal constraints. As a response to this tension, there will be some restructuring of the overall constraints-in both formal and informal institutions-to adjust the level of consistency between them, leading to a new formal-informal equilibrium.

(c) *Crisis*: Although institutional change typically consists of marginal changes of the institutional structure, crises are also an important source of institutional change. A situation of (institutional) crisis may be generated internally or externally. Crisis will come about when the outcomes associated with past institutions are perceived to be so

dismal that there is a willingness to forgo this knowledge and despite the asymmetry initiate relatively comprehensive institutional change¹¹.

In sum, and as some authors have suggested¹² institutions follow a *'life-cycle'* characterized by periods of stability and change. Previous to change institutions find themselves naturally in a situation of equilibrium (relatively stable complex of both formal and informal institutions, and the enforcement mechanisms associated to them). Such stability will be disturbed by exogenous and/or endogenous factors. These factors lead to a tension between past regularities of behavior and the institutional context that support them. This tension will either result in the erosion of the existing institutions or precipitate into a crisis. The former case, will give rise to the evolution of the existing institutions or their intentional redefinition to adjust them to the new conditions. In the case of a crisis, such a breakdown would produce a 'wave' of conflict leading to a series of change in the institutional structure. The tension between the 'new' conditions and the existing institutions would thus be reduced. Once change has taken place and crises are past, institutions are likely to tend towards stability again through self-reproduction and reinforcement. However, these are not stable equilibriums. The situation of constant change that characterizes the internal and external environment is likely to lead to increased tensions which would eventually precipitate subsequent crisis or redefinitions of the institutional context¹³.

Levels and scales of Change

Institutional change has also a multilevel nature. Change can take place at different levels of the institutional structure. Thus, a change in one level can lead to changes at deeper

¹¹ According to Krasner (1984) during periods of crisis politics becomes a struggle over the basic rules of the game rather than allocation within a given set of rules. 'The outcome of institution-building during any particular period of crisis is a function of both contemporaneous (*external*) environmental factors, (...) and the existing institutional structures that are a product of the past'.

¹² (See for example Greif (2003), North (1990; 1994) and Krasner's model of 'punctuated equilibrium' (1984).

¹³ Institutions can act not only as independent variables that shape individual action but also as dependent variables being influenced by structural and contextual factors.

levels of the institutional structure or the reverse¹⁴. In this sense, we can distinguish between patterns of change which are ‘bottom-up’ driven from ‘top-down’ driven ones. In the former case, processes of change at the operational level can also induce changes at deeper levels when a larger enough number of participants in a group (or organization) support it or when enough pressure for change is exerted by agents and conditions favoring change.(i.e. clear indicators of degradation of a key resource). If participants perceive that the cause of the problems at the operational level are the existing rules at deeper levels, then, individuals can consider the possibility of a change in the set of assumptions on which operational rules and practices have been based and start a process of changing rules at the collective choice level. Shifting to the constitutional level, however, is also possible but are more difficult and more costly to occur, increasing the stability of mutual expectations among the actors (Ostrom et al., 1994) In the latter (top-down processes), changes at the constitutional level can also lead to changes at lower levels of the rule configuration (collective choice and operational levels). However, this can also be a slow and troublesome process.

Thus, there is a complex interaction among the variables influencing institutional stability and change that can operate at different levels of the institutional structure and that would be induced by exogenous and endogenous factors of change (change agents). But, how do these change agents operate in practice? How do processes of change develop?

A Logic Sequence of Institutional change

Processes of institutional change are difficult and costly. The influence of past institutions as well as the complex interaction among the various factors that explain

¹⁴ I adopt here the distinction proposed by (Ostrom et. al., 1994) of three levels of institutional analysis: operational (affect day to day decisions made by actors in any local/community setting); collective choice (affect operational activities and results through their effects in determining who is eligible and the rules to be used in changing operational rules); constitutional choice (affect collective choice level and results through their effects in determining who is eligible and the rules to be used in changing collective choice rules). Rules are, thus, nested in another set of rules that define how the first set of rules can be changed.

institutional stability and change can have unintended effects and affect multiple levels and scales. But precisely because the reality of processes of institutional change is complex and their evolution cannot be easily predicted (Hall & Taylor, 1996) we need the help of general organizing tools that help identify the key variables (and the relationships among them) in those situations faced by individuals that are affected by a combination of factors from the physical, social and institutional environment (Ostrom et al., 1994). In this section I propose a framework for studying institutional change that includes the main variables that I have introduced in the previous sections. The basic idea is that we can see the processes of institutional change as a logical sequence, which:

(i) Discerns different stages that follow a time sequence. Individuals will first be faced with the consideration of changing the existing institutions (*considering change*), then select what forms of change they will aim at (*selection of change*), invest time and resources in the implementation those changes (*implementing change*), and try to ensure the sustainability of these changes in (*sustaining change*);

(ii) Uses a set of 3 main variables (information, motivation and resources) to explain the interactions among the actors involved in each stage of the process¹⁵;

(iii) Identifies intermediate steps corresponding to evaluation processes carried out at the end of each stage;

(iv) Considers the possibility that the process of change can either fail or be ‘stuck at a particular stage of the process, leading to a suboptimal outcome.

The starting point of the Logical Chain would be the situation of ‘unstable equilibrium’ we described in the previous section. At a particular time (t), the existing set of formal

¹⁵ This classification draws on the basic assumption of the Contextual Interaction Theory that the ‘course and outcomes of the policy process depend not only on inputs (the characteristics of the policy instruments) but more crucially on the characteristics of the actors involved, particularly the *information* available to them, their *motivation* (including values, preferences and incentives), and *resources* (capacity, power, bargaining strength, available resources) (Bressers, 2004). As social-interaction processes, the patterns of institutional change, and

and informal institutions constitute the (*ex ante*) Status Quo. To draw a complete picture of the key variables that create the structure of the situation that the actors face and how the existing institutional structure, the physical and material conditions they face and the attributes of the actors involved affect this situation over time we propose to use a (revised) version of the Institutional Analysis and Development framework¹⁶.

(See **Figure 1** in page 21. Three of the elements of the IAD framework: the patterns of interaction, the evaluation process and the outcomes (in a different color in Figure 1.) will change at each stage of the Logic Sequence: the patterns of interaction would correspond to the input stage of the logic chain (i.e.: *considering change*); the evaluation would correspond to the intermediate steps of the logic; and the outcomes would correspond to the next step in the sequence of change (i.e.: *selecting change*). See also **Figure 2** in page 22. for a complete view of the Logic Sequence)

The primary inputs for the process of change are the exogenous and endogenous factors of change. The effect of such factors will lead to the first stage we identified in the Logic Sequence:

(1) When ***Considering*** the possibility of changing the possibility of changing the existing institutional arrangement at a particular level, individuals face a main choice; whether to support a change in the status quo rules or not (that is, keep the situation as it is) (Ostrom, 1990). In this stage individuals' perceptions and the information available to them about the potential effects of such changes will inform their choice. Actors will carry out a (pre) assessment of the expected costs and benefits associated with such changes and to consider the anticipated consequences of alternative choices¹⁷. Their discount rates will also shape the evaluation of costs and benefits associated to a possible change. However,

specially the role of the actors involved in such processes can be explained on the basis of combinations of the values of these three factors.

¹⁶ (see Ostrom, 1990; Ostrom et al 1994; Ostrom, 1999 for a detailed presentation of this analytical framework for the study of institutions).

¹⁷ The way individuals evaluate costs and benefits associated with institutional change depend, on the one hand, on the information available to participants about the benefits that would result from adopting an alternative set of rules and, on the other hand, on the information about the expected costs of transforming the *status quo* rules and the costs of monitoring and enforcing the 'new' ones (Ostrom, 1990).

as individuals' information processing capabilities are limited they may try to compensate these limits, either with the feedback they receive from the 'outside world'—that is by using some forms of communication (and other means to receive information)—or by recalling on their experience¹⁸ or others'. Cultural elements and informal constraints (beliefs, worldviews, and social norms) will also shape the choice of adopting new strategies of action or shaping the existing ones.

If the result of this assessment is negative (expected costs of change exceeds the expected benefits), that is if the actors involved do not expect to gain from the process of change, then their likely choice would be to maintain the (*ex ante*) status quo. On the contrary, if the result is expected to be positive (that is the expected benefits of devoting resources to altering the existing institutions is higher compared to the perceived costs of keep interacting within the existing institutional framework) then the actors may decide to invest in institutional change and start thinking about which forms of institutional change will be proposed and strived for.

(2) **Selecting change.** What the actors will select for a change will depend on 3 main variables that define multi-action interaction processes (Bressers, 2004):

- **Information** available to the actors involved about: (a) *institutional structure*: existing rules-in-use to change the rules; potential alternative rules; rules likely to be enforced by external authorities, (b) *Experience*: Past experience of participants in changing the rules (I.e. memories of failures or successes of past attempts to bring about change; ongoing results of past changes), Information about successful institutional changes occurred in other (similar) settings, (c) Information on *potential costs and benefits* of the alternatives considered (the characteristics of the transaction, the anticipated costs of enforcing the new rules, expected benefits, feasibility of the alternatives considered)

¹⁸ The recent findings of the indirect evolutionary approach consider individuals' experience as one of the situational variables which influence decision making. According to this theory, experience about others' behavior, as well as about own's prior action and the received payoffs is likely to shift initial behavior of individuals in a collective action situation (Güth and Kliemt, 1998).

- **Motivation** of actors: (a) Collective and individual interests, (b) Shared cognitions/understandings, values, beliefs, (c) Expected mutual gains from a change, (d) problem pressure (perception of a shared problem)

- **Resources:** Capacity and power of the actors involved, (a) Skills of leaders in proposing (or not missing possible) paths of improvement, (b) available resources to invest in changing the Status Quo, (c) Capacity to influence and get the support of external key actors (and their resources)

The intermediate result of the selection process would be the rise of a proposed change that will have both proponents and detractors among the actors involved. If any relevant path of improvement is not missed by the actors and if a large enough number of them (depending on the rule used for collective decision-making) support the proposed change, then a (collective) effort is likely to be made to bring about the proposed change.

(3) **Implementing change.** Again, the information, motivation and resources of the actors involved will determine whether the implementation of the proposed alternatives will succeed or fail. A different combination of factors though will act as ‘favorable conditions’ for the realizing of the proposed changes.

- **Information** about (a) Credible threats from an (external) dominant actor(s) accumulating power and altering the situation if no change is undertaken, (b) the existence of well functioning institutions at deeper levels of the institutional structure that can provide fertile ground for implementing change, (c) Realized positive outcomes occurred in other (similar) settings, (d) Feasibility of implementation

- **Motivation:** (a) low discount rates (the possibility of sharing a future is highly valued by the actors), (b) Shared interests, values, level of trust and reciprocity among actors involved, (c) mutual gains expected by the actors from the process.
- **Resources:** (a) Level of autonomy of the actors to change the rules, (b) Skills of leaders in collecting and distributing information to others; (c) power and influence of actors to mobilize support and resources from other actors to implement change (establishing networks), (d) bargaining skills and position of the actors in the policy processes

However, if these conditions are not met actors may fail to grasp opportunities to bring about change, feel discouraged and abandon the attempt to change or fail into the trap of ‘accommodation’ (Maarleveld & Dangbegnon, 1998). On the one hand, change can only take place only at the formal level. If formal rules are changed but existing/past informal constraints are deeply rooted among participants, then, individuals will keep showing compliance to the norms that regulate their daily activities despite the changes in the formal arrangements. This ‘mismatch’ between formal and informal institutions may lead to a situation in which no ‘real’ change occurs. On the other hand, change can be ‘stuck’ at the operational or collective –choice level and rules at deeper level will not be questioned. The main danger is that if rules at deeper levels were the cause of the problems that participants were facing at the operational level, then these problems will remain ‘unsolved’

(4) ***Sustaining change.*** But if changes are actually implemented, the last stage of the process would be the sustainability of change. Changes can ‘get rooted’, become the ‘new’ status quo and prevail or fail and erode again. Information on the enforcement and monitoring mechanisms, the level of compliance with the new rules and the political, social and economic environment are the main variables that would be used to assess sustainability of change.

- **Information** about (a) Enforcement and monitoring costs, (b) degree of compliance with the ‘new’ rules, (c) strategies adopted by actors at other levels (i.e.: larger units of government-national, international) that could challenge the process of change, (d) Changes in physical conditions, economic and technological developments.

- **Motivation:** (a) Degree of understanding and acceptance of the new rules (legitimacy), (b) the degree to which the new institutions are perceived to provide the expected outcomes, (c) low discount rates

- **Resources:** (a) available resources to enforce and monitor the new rules, (b) Effectiveness of enforcement and monitoring mechanisms, (c) bargaining skills of the actors and their position in the political process.

Changes, though, may not sustain if actors do not have enough resources and power to effectively enforce the new rules and ensure compliance with them. (See summary of the stages below)

CONSIDERING CHANGE

The consideration of choice can be influenced by the effects of both *exogenous* and *endogenous* triggers of change:

Exogenous:

- changes in the physical conditions (changes in the attributes of natural resources, extreme climatic events, natural disasters)
- changes in the attributes of the actors (i.e. new members)
- changes in markets (i.e. affecting the relative value of factors of production and/or consumption, changes in relative prices of production factors, changes in the cost of information,..)
- technological innovations (i.e. New available technologies)
- legislative change (passage of a new statute, a new regulation at the international/national level, constitutional rule changes, court decisions)
- Changes in the broad social, political and economic context (social developments/social movements, developments in the political systems, changes in the policy-making processes,...)

Endogenous:

- Ideological innovation (new ideologies, cultural frameworks)
- Learning processes (by acquisition of knowledge and skills),
- Changes in tastes or preferences of the actors

⇒ Assessment of the **expected** Costs and Benefits associated with change (expected B of 'new rules > expected C of changing existing institutions, enforcing and monitoring 'new' rules



SELECTING THE TYPE OF CHANGE

Information available to the actors involved about:

- *institutional structure*: existing rules-in-use to change the rules; potential alternative rules; rules likely to be enforced by external authorities,
- *Experience*: Past experience of participants in changing the rules (I.e. memories of failures or successes of past attempts to bring about change; ongoing results of past changes), Information about successful institutional changes occurred in other (similar) settings,
- Information on *potential costs and benefits* of the alternatives considered (the characteristics of the transaction, the anticipated costs of enforcing the new rules, expected benefits, feasibility of the alternatives considered)

Motivation of actors:

- Collective and individual interests,
- Shared cognitions/understandings, values, beliefs,
- Expected mutual gains from a change,
- Problem pressure (perception of a shared problem)

Resources: Capacity and power of the actors involved, (a) Skills of leaders in proposing (or not missing possible) paths of improvement, (b) available resources to invest in changing the Status Quo, (c) Capacity to influence and get the support of external key actors (and their resources)

⇒ Type of change proposed: proponents > detractors?



IMPLEMENTING CHANGE

Favorable conditions providing 'fertile ground' for change:

Information about:

- Credible threats from an (external) dominant actor(s) accumulating power and altering the situation if no change is undertaken,
- The existence of well functioning institutions at deeper levels of the institutional structure that can provide fertile ground for implementing change;
- Realized positive outcomes occurred in other (similar) settings
- Feasibility of implementation

Motivation/incentive:

- low discount rates (the possibility of sharing a future is highly valued by the actors),
- shared values, level of trust and reciprocity among actors involved.
- Mutual gains expected by the actors from the process

Resources:

- Level of autonomy of the actors to change the rules,
- Skills of leaders in collecting and distributing information to others;
- power and influence of actors to mobilize support and resources from other actors to implement change (establishing networks)
- bargaining skills and position of the actors in the policy processes

⇒ Changes succeed or fail?



'SUSTAINING' CHANGE

Information about:

- Enforcement and monitoring costs,
- degree of compliance with the 'new' rules,
- Strategies adopted by actors at other levels (i.e.: larger units of government-national, international,..) that could challenge the process of change,
- Changes in physical conditions; Economic and technological developments.

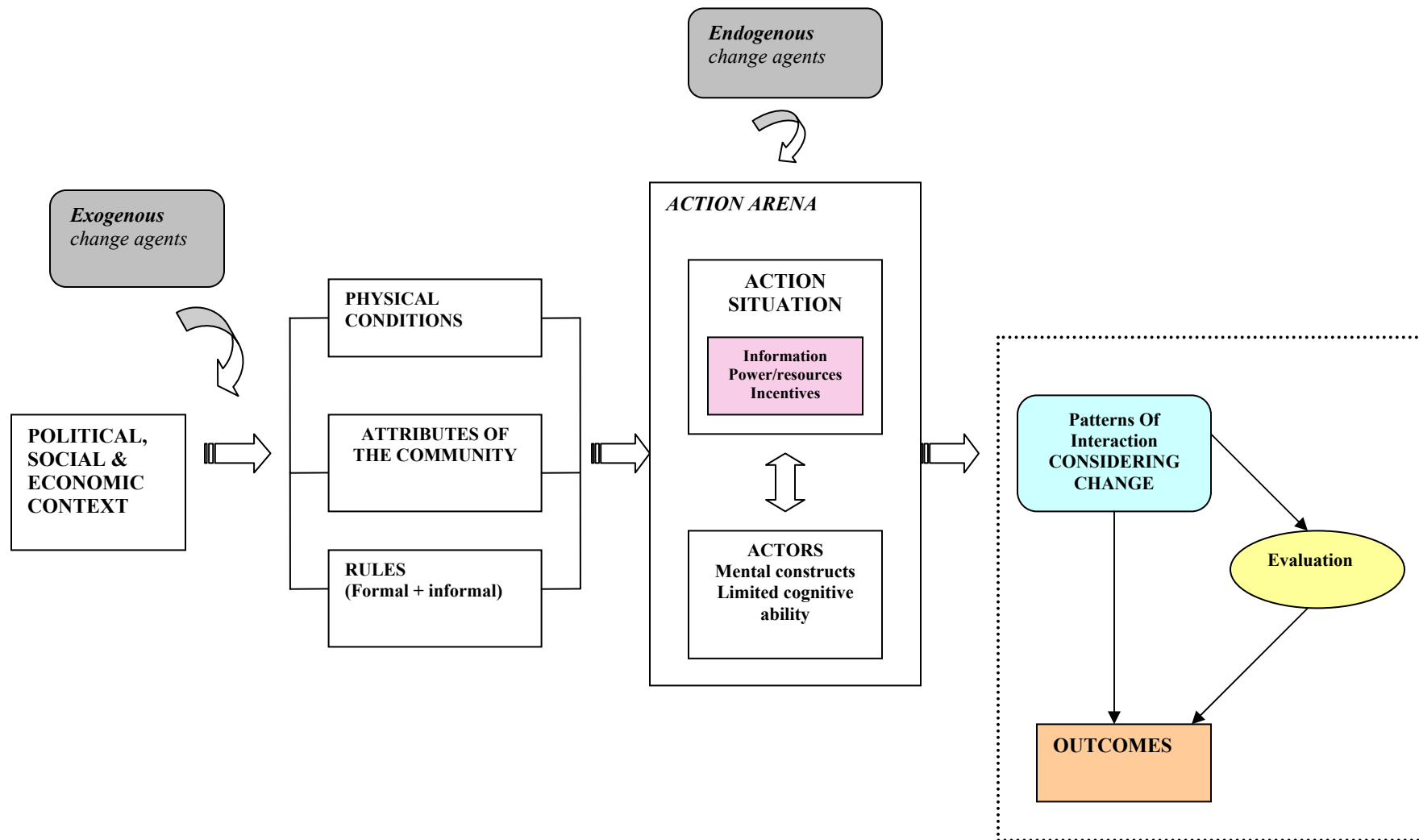
Motivation:

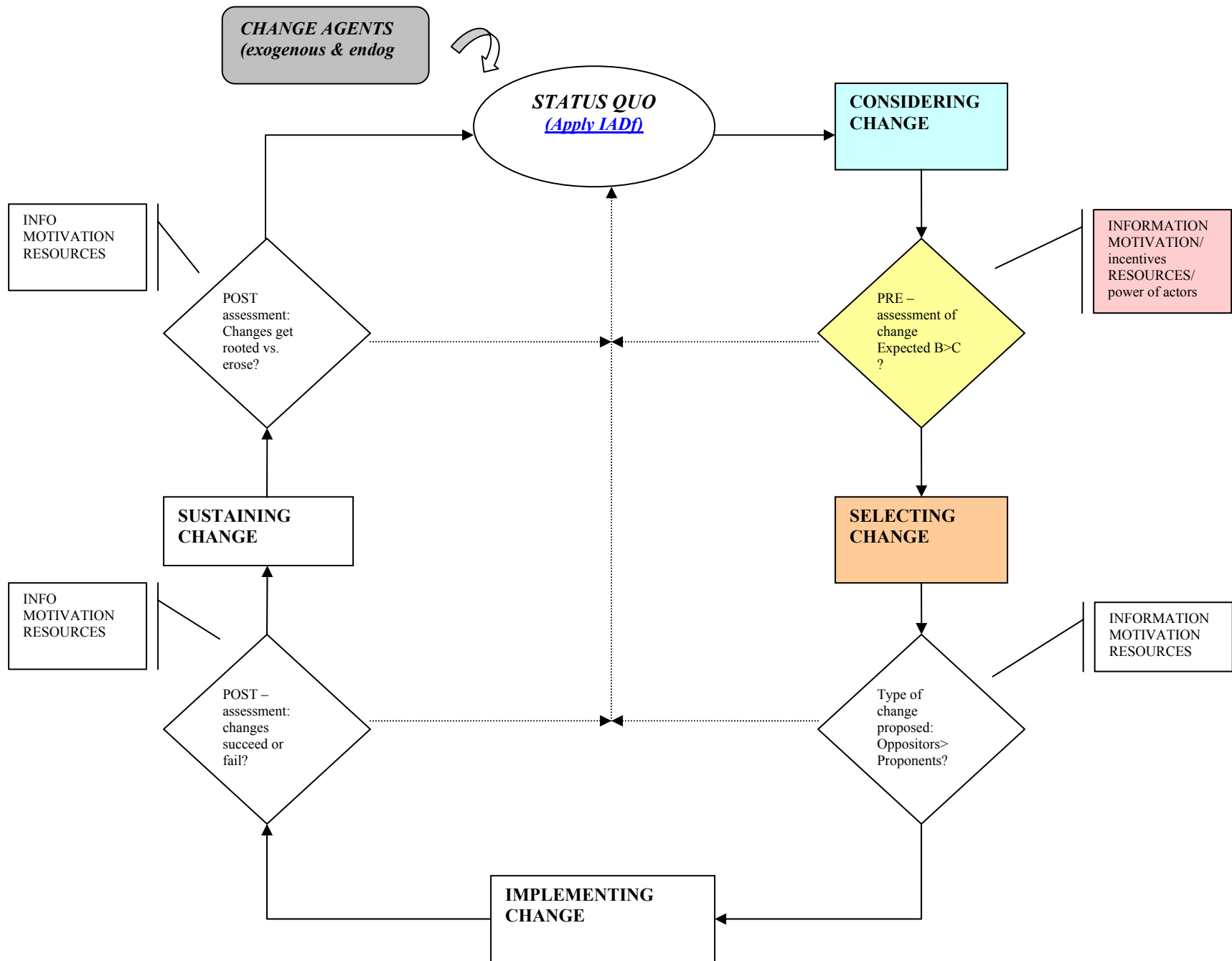
- Degree of understanding and acceptance of the new rules (legitimacy),
- Degree to which the new institutions are perceived to provide the expected outcomes

Resources: - available resources to enforce and monitor the new rules, - Effectiveness of enforcement and monitoring mechanisms, - bargaining skills of participants and position

⇒ POST-Assessment: Changes 'get rooted' or erode again

In sum, the changes introduced to the institutional structure, together with the past institutions still prevailing, will constitute the ‘new’ status quo (at time, $t+1$). Thus, the final outcome of the process will be a new complex set of formal and informal institutions. However, the new status quo will constitute an ‘unstable equilibrium’ as the changes in the environment may lead to a re-start of the process of change. Processes of change develop in time in a spiral-like manner (Greif, 2003) since the status quo at time $t+1$ (*ex post* status quo) would never be the same as the status quo before changes took place (*ex ante* status quo, t). (See Figure 2. in page 22 for a complete view of the Logic Sequence).





Concluding remarks

Studying institutional dynamics is not an easy task. The analysis of processes of institutional change requires taking into account the multiple features of such processes. First, we cannot explain change without an understanding of the factors that contribute to institutional stability. An analysis of institutional dynamics should take into account that different kinds of variables are appropriated for explaining institutional change opposed to the survival of institutions over time.

Second, institutions in the society are nested vertically (creating hierarchies) and horizontally (in multiple interdependencies and overlapping). The study of institutions in a particular setting should then include a multilevel approach and consider the institutional structure as an interrelated system.

Third, history has a very important role in explaining the processes of institutional change. The existing institutional arrangements at a particular point in time are a function of the evolution that past institutions have followed over time.

Fourth, institutions are not isolated. Institutions interact with their internal and external environment. A different combination of factors will explain change in different kinds of environments. Institutional analysis should, thus, be context specific and treat institutions not only as independent variables that shape individual action but also as dependent variables being influenced by structural and contextual factors.

Fifth, institutional change is costly and it may not always succeed. Processes of change can fail or erode. Unexpected contingencies, the implications of asymmetries of information, power and resources can undermine the motivation of actors for change. Errors can be repeated and paths of improvement can be missed. A better understanding of such processes is also needed.

References

- Alchian, A.A. (1950). "Uncertainty, Evolution, and Economic Theory". *Journal of Political Economy* 58(3):211-21
- Alston, L.J.; Eggertsson, T. and D.C. North (1996). *Empirical Studies in Institutional Change*. Cambridge: Cambridge University Press
- Bates, R.H.; A. Greif; M. Levi; J-L. Rosenthal and B.R. Weingast (1998). *Analytical Narratives*. Princeton University Press.
- Binger, B.R. and E. Hoffman (1989). "Institutional Persistence and Change: The Question of Efficiency". *Journal of Institutional and Theoretical Economics*. 145:67-84
- Bressers, Th. A. (2004). "Implementing Sustainable Development: How to know what works, where, when and how". Chapter 10, *in*: William M. Lafferty (Editor), *Governance for Sustainable Development: The Challenge of Adapting Form to Function*, Edward Elgar publishing, in press, forthcoming 2004.
- Denzau, A.T. and D.C. North (2000). "Shared Mental Models: Ideologies and Institutions". In *Elements of Reason: Cognition, Choice and the Bounds of Rationality*, ed. A.Lupia et al. Cambridge: Cambridge University Press.
- Eggertsson, T. (1996). "A Note on Economics of Institutions". In *Empirical Studies in Institutional Change*. Alston, L.J. et al. (eds).
- Entman, R.M. (1993). "Framing: Toward Clarification of a Fractured Paradigm". *Journal of Institute on International Environmental Governance*, Dartmouth College. Hanover, EUA.
- Goffman, E. (1974). *Frame Analysis: An Essay on the Organisation of Experience*. New York: Harper & Row.

- Greif, A. (2003). *Institutions. Theory and History*. Forthcoming Cambridge University Press. Chapter 1, 5 and 9.
- Guth, W. and H. Kliemt (1998). "The Indirect Evolutionary Approach: Bridging the Gap Between Rationality and Adaptation". *Journal of Economic Psychology* 18:15-43
- Jones, B.D. (2001). *Politics and the Architecture of choice. Bounded Rationality and Governance*. Chicago: Chicago University Press.
- Knight, J. (1992). *Institutions and Social Conflict*. New York: Cambridge University Press.
- Krasner, S.D. (1984). "Approaches to the State: Alternative Concepts and Historical Dynamics". *Comparative Politics* 16(2): 223-46.
- Levi, M. (1990) "A Logic of Institutional Change". In K.S. Cook and M. Levi, eds. *The Limits of Rationality*. Chicago: Chicago University Press, 402-419.
- March, J.G. i J.P. Olsen (1989). *Rediscovering Institutions*. New York: The Free Press.
- March, J.G. i J.P. Olsen (1996). 'Institutional Perspectives on Political Institutions'. *International Journal of Policy and Administration*. Vol. 9, n°3: 247-264.
- Maarleveld, M. and C. Dangbegnon (1998). Paper presented at "Crossing Boundaries", 7th Conference of the International Association for the Study of Common Property, Vancouve, Canada, June 10-14.
- North, D.G., and B.R. Weingast (1989). "Constitutions and Commitment: Evolution of Institutions Governing Public Choice". *Journal of Economic History* XLIX, 803-32.

- North, D.C. (1990). *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Ostrom, E. (1986). 'An Agenda for the Study of Institutions'. *Public Choice* 48: 3-25.
- Ostrom, E. (1990). *Governing the Commons: the evolution of institutions for collective action*. Cambridge. Cambridge University Press.
- Ostrom, E.; R. Gardner i J. Walker (1994). *Rules, games and common-pool resources*. University of Michigan Press.
- Ostrom, E. (1999) "Institutional Rational choice: An assessment of the Institutional Analysis and Development Framework". In *Theories of the Policy Process*, ed. P.A. Sabatier, 35-71. Boulder, CO: Westview Press.
- Ostrom, E. (2000). "Collective Action and the Evolution of Social Norms". *Journal of Economic Perspectives* 14(3)(summer): 137-58
- Powell, W.W. i P.J. DiMaggio, (1991). *The new Institutionalism in Organisational Analysis*. Chicago: The University of Chicago Press.
- Salvador, M. (2000). 'Procesos de modernización y prestación de servicios públicos: El papel de las instituciones en la gestión de las administraciones públicas'. *Revista del CLAD* Num. 20.
- Scott, W.R. (1995). *Institutions and Organisations*. Thousand Oaks, California: Sage.
- Swidler, A. (1986). "Culture in Action: Symbols and Strategies". *American Sociological Review*. Vol. 51: 273-286
- Tabara, D.; M. Costeja and F. Van Woerden (2002). "Les Cultures de l'Aigua a Espanya. Els marcs culturals del Pla Hidrològic Nacional i el sorgiment del discurs de la Sostenibilitat". *Àmbits*, 11.

- Taylor, M. and , Singleton. (1993). 'The Communal Resource: Transaction Costs and the Solution of Collective Action Problems', *Politics and Society* 21:195-214.
- Tolbert, P.S. and Zucker, L.G. (1996). "The Institutionalisation of Institutional Theory". In Clegg, S.R.; Hardy, C. and W.R. Nord (eds). *Handbook of Organisation Studies*. Sage. London
- Williamson, O. (1985). *The Economic Institutions of Capitalism*. New York: The Free Press.
- Williamson, O. (2000). "The New Institutional Economics: Taking Stock, Looking Ahead". *Journal of Economic literature* 38: 595-613
- Zald, M. and B. Useem (1996). "Culture, Ideology, and Strategic Framing". In D. McAdam et al. (eds). *Comparative Perspectives on Social Movements: Political Opportunities, Mobilising Structures, and Cultural Framing*. New York: Cambridge University Press.

