Adm. Sci. **2013**, *3*, 166–201; doi:10.3390/admsci3040166

OPEN ACCESS

administrative sciences

ISSN 2076-3387

www.mdpi.com/journal/admsci

Article

The Bretton Woods Institutions and the Environment: Organizational Learning within the World Bank and the International Monetary Fund (IMF)

Alexandra Lindenthal [1,*] and Martin Koch [2]

[1] Collaborative Research Center 597, Transformations of the State, Bremen University, P.O. Box 330440, Bremen 28334, Germany

[2] Faculty of Sociology, Bielefeld University, P.O. Box 100131, Bielefeld 33501, Germany; E-Mail: martin.koch@uni-bielefeld.de

[*] Author to whom correspondence should be addressed; E-Mail: lindenthal@uni-bremen.de; Tel.: +49-421-218-56684; Fax: +49-421-218-56633.

Received: 24 July 2013; in revised form: 18 September 2013 / Accepted: 24 September 2013 / Published: 8 October 2013

Abstract: Due to a growing public awareness, in the last 40 years environmental impacts of development projects financed and supported by the World Bank and the International Monetary Fund (IMF) have come into view. Since then, the member states have pressured both organizations to implement environmental concerns. We analyze the reactions of the World Bank and the IMF's bureaucracies towards their principals' demands. To reveal if, and to what extent, the observed reactions of both bureaucracies towards environmental integration can be assessed as organizational learning, we develop in a first step a heuristic model that allows for a distinction between different levels of learning (compliant and non-compliant, single-loop and double-loop). In a second step we describe the efforts of the bureaucracies of the World Bank (from the 1970s until today) and the IMF (from the 1990s until today) to integrate environmental protection into their activities. Due to our interest in the quality of the organizational changes, we finally analyze if and to what extent the bureaucracies' reactions to the new external demand qualify as organizational learning. Furthermore, we discuss which factors helped or hindered organizational learning.

Keywords: organizational learning; environmental integration; World Bank; IMF

---

1. Introduction

International organizations are important actors of global governance. This is especially true for the World Bank and the International Monetary Fund (IMF). Since their foundation at the Bretton Woods conference in 1944, the spheres of competences of these international economic organizations have been growing. Thus, the World Bank and the IMF are today not only influential actors in the fields of economic development but also in adjoining policy fields, such as environmental policy. That the Word Bank and, to a lesser degree, the IMF are also responsible for the issue of environmental protection can be explained with the fact that their structural adjustment programs had—and often still have—severe consequences for the environment. For example, the World Bank was vehemently criticized by environmental non-governmental organizations (NGOs) in the 1980s for having financed projects in Latin America or Southeast Asia, e.g., in Brazil and Indonesia, that had disastrous effects on the environment [1–3]. The member states of the Bretton Woods institutions have reacted to the public pressure and requested the bureaucracies of both international organizations to address environmental issues more adequately.

Subsequently, both international organizations have started to turn towards the issues of environmental protection. In our article, we will analyze if the reactions of the World Bank's and the IMF's bureaucracies to their principals' demands qualify as organizational learning. An organizational learning approach allows us to analyze whether changes occur merely as compliance with external demands or as a result of internal organizational reflection triggered by external demands. Herewith, international organizations can be assessed as superficial or profound learners according to their responses to external demands that can range from pure obedience to conscious implementation. Further, we will ask which factors helped or hindered the organizational learning of international bureaucracies. Thus, we want to contribute to the research strand of organizational learning in two ways:

(1) *theoretically*, we want to introduce a model of organizational learning that allows us to assess whether changes occur on a rather formal institutional level or if external demands to integrate environment requirements change international organizations' guiding assumptions and beliefs. In our model, we distinguish between compliant and non-compliant learning and assume that organizations can learn even if they do not comply with an external demand. We argue that (international) organizations can deliberately decide to resist an external demand and pressure if an (international) organization is convinced that its present organizational beliefs are superior and should not be undermined and weakened. Furthermore, our theoretical framework of organizational learning allows us to assess whether organizational changes are a result of obedience or conviction;

(2) *empirically*, we concentrate on international organizations and their bureaucracies, which most studies on organizational learning seem to have disregarded so far (see for exeptions, [4,5]). Thus, we open the organizational learning debate for international organizations which—despite sharing some similarities—differ in many ways from individual-based organizations as their members are both individuals in international bureaucracies and states as formal members according to international law [6]. This distinction allows us to show how organizational learning takes place within international organizations, namely at the level of international bureaucracies.

Our argument is divided into four parts. First, we lay the ground for our analysis by developing a model on organizational learning (Section 2). Therefore, we introduce international organizations as organizations from a sociological perspective, which serves as the conceptual basis for our theoretical framework. Then, we describe the environmental protection efforts of the World Bank's bureaucracy from the 1970s until today (Section 3) and the efforts of the IMF's bureaucracy from the 1990s until today (Section 4). The World Bank's efforts to integrate environmental concerns into its activities can be divided into four periods whereas the activities of the IMF on environmental protection can be differentiated in three periods. We examine each period using our theoretical model and analyzing if and how the reactions of the World Bank and IMF qualify as organizational learning according to external demands to implement environmental concerns. Finally, we summarize our findings and shed some light on factors and conditions that hinder or foster learning in international organizations.

2. Theoretical Framework—How to Study Organizational Learning?

Organizations usually emphasize their capacities of knowledge management and learning to underpin their ability to react promptly and appropriately to changes in their surrounding environments. This is thoroughly studied when it comes to companies operating at the national and international level as well as national administrative organizations or schools [7–9]. The same is true for international organizations—e.g., the World Bank claims to be a knowledge bank and a learning organization [10]—however, they are neither prominent in organizational studies nor in organizational learning literature; except for the European Union and its institutions (see below). The gap, as Ness and Brechin ([11], p. 245) have stated, between "the study on international organizations and the sociology of organizations" is deep and persistent. Following Ness and Brechin, we first describe international organizations as organizations and, second, introduce a concept of organizational learning applicable to international organizations. Developing our concept of organizational learning, we pay attention to the evolutionary character of organizational learning by emphasizing linkage between organizational knowledge and organizational learning [12,13]. Thus, we can explain how international organizations can learn even if they do not implement external demands.

2.1. International Organizations as Organizations

Classical research on organizations and organizational learning typically argues from an open-system perspective that combines an inner-organizational view with the embeddedness of organizations in their environment [14,15]. In this view organizations are shaped, supported and infiltrated by their environment, which is the basic source for organizational survival because it consists of the necessary resources and elements the organization needs to exist. This includes the function of legitimization. In some theoretical approaches, the environment legitimates the organization; therefore, the organization has to adjust to environmental demands in order to survive [16]. The organization is not conceived as a monolithic entity, but it is seen as "a coalition of groups and interests, each attempting to obtain something from the collectivity by interacting with others" ([17], p. 36). Participants join and leave the organization or engage in ongoing exchanges with the organization depending on the bargain they can strike. From this perspective, organizations and their participants cannot be assumed to hold common goals or even to routinely seek the survival of the organization;

rather, organizations are systems of independent activities; "[s]ome of these activities are tightly connected; others are loosely coupled" ([14], p. 25).

To fully appreciate these theoretical considerations, international organizations have to be conceptualized as organizations that differ in many ways from individual-based organizations concerning their inner-organizational structure and the relations with their environment [6]. Most obviously, the membership in international organizations is different from that in formal organizations like corporations or national administrations. In terms of formal definitions, states are the only members of international organizations and most studies tend to emphasize the role of member states [18]. Besides formal members, international organizations consist of secretariats and individuals in independent organs that are members, too. In particular, since the 1990s, empirical as well as theoretical studies in the realm of International Relations pay more attention to secretariats and international organization's bureaucracies and examine how they exert influence on member states [19–21]. The distinguishing character of bureaucracies and its members is their formally defined independence. Their loyalty does not belong to a state (although every administrative member is also a citizen of a member state) but to the rules and norms of their international organization. They are—contrary to states' delegates or ambassadors—exclusively bound to their job description and not to an instruction of a political member. How bureaucracies can use their legal independency to generate authority and power has been analyzed by Michael Barnett and Martha Finnemore [20,22]. On a theoretical level, they focus on Weber and conceive international organizations as bureaucracies. Thus, the authors ask how international organizations gain authority and how they use their power [20]. Barnett and Finnemore highlight four different forms of an international organization's authority (rational-legal, delegated, moral, and expertise) and they illustrate the usefulness of their concept by empirical studies of the IMF, the United Nations (UN), and the United Nations High Commissioner for Refugees. They argue that the power of international organizations derives from their authority, their knowledge, and the rules to regulate international relations, thereby constituting a global regulation structure [22]. Barnett and Finnemore identify three related mechanisms: "IOs (1) classify the world, creating categories of problems, actors, and action; (2) fix meanings in the social world; and (3) articulate and diffuse new norms and rules" ([20], p. 31). Barnett and Finnemore thus offer an innovative approach of a bureaucracy's authority and they explain how international organizations as bureaucracies affect states and policy outputs.

Whereas Barnett and Finnemore [20] conceptualize international organizations as bureaucracies, we perceive *international bureaucracies as organizations within international organizations* that are at least to a certain extent autonomous from member states due to their legal independency. Being interested in the learning of international bureaucracies with regard to external requirements, we will thus concentrate on the management and staff—the civil servants—of the World Bank and the IMF and their reactions to the member states' demand to address environmental issues. Analyzing the World Bank and the IMF we are interested in the quality of the reactions of the bureaucracies. How do their bureaucracies implement external demands? Does the implementation qualify as organizational learning? If so, to what extent did the international bureaucracy learn?

The open-system perspective and the organizational learning approaches build on the assumption that organizations need their environment for their survival for at least two reasons. First, it provides those elements the organization requires to produce any output and, second, it legitimizes international organizations if they reinforce their environmental embeddedness ([14], pp. 77–80). The concept *environment* is somehow vague and unclear. Contrary to membership, belonging to the environment is not clearly defined and depends first and foremost on the observed (international) organization [14,23]. In general, the notion organizational environment means "everything outside the organization" ([24], p. 267), it is an "ocean of events surrounding the organization" ([25], p. 286). The border between an organization and its environment is marked by the organizational membership [26]. From the perspective of an organization, the environment contains plenty of information—more information than the organization can perceive and process. Therefore, organizations make choices and select certain aspects to which they respond [17,27], for example, the World Trade Organization is an important part of the World Bank's environment but it is probably less important for the World Tourism Organization. Furthermore, the environment changes depending on international organizations preferences that can change, for example, since the 1990s the World Bank puts social policy issues onto its agenda, which were formerly covered by the International Labour Organization (ILO). Although the environment is difficult to assess ex-ante as it "includes every event in the world which has any effect on the activities or outcomes of the organization" ([17], p. 12), some potential actors can be identified that are usually relevant for international organizations. It can be assumed that states are part of the environment of international bureaucracies as they are holding particular expectations concerning an international organization/bureaucracy. Beside states and inner-state actors, other international organizations as well as national and international NGOs can be a meaningful part of the organizational environment. They can pose their demands and are (gradually) able to affect international organizations' decisions, e.g., particular decisions of the IMF determine the range of potential decisions in the World Bank [28,29].

The goal of organizations is to make their environment more predictable and thereby reduce equivocality and uncertainty for their members. Weick therefore emphasizes the process of organizing as "the resolving of equivocality in an enacted environment by means of interlocked behaviors embedded in conditionally related process" ([30], p. 91). This description of the organization-environment relations proves perfectly true for international organizations and their environment. It is the general task of international organizations to generate collectively binding decisions for member states. Thus, the environment of a member state becomes organized and ordered, international organizations "replace an 'environmental order' of some kind with an organizational order" ([6], p. 64). To fulfill this task, organizations are dependent on reciprocal interpretation and interaction with their environment. They collect data and interpret information in order to gain a better understanding, improve their organizational knowledge—with respect to future decisions and output—and ensure their survival within the environment [31,32]. "Organizational interpretation is formally defined as the process of translating events and developing shared understanding and conceptual schemes […]" ([32], p. 286). Organizations reflect their understanding of their environment in their decisions and thereby facilitate further decision-making for members. This is exactly what, for example, the World Bank does in alleviating poverty. It generates rules and conditions for financial lending and herewith it reduces equivocality and uncertainty among member states by creating rules that mirror expected behavior among member states [33]. Even if international organizations do not have the capacity to set binding rules for states, they do produce archetypical resolutions—like recommendations and declarations, for example, the ILO, International Atomic Energy Agency, or the World Health Organization.

These recommendations "are often treated by states as important as traditional sources of international law" ([34], p. 106) because they establish a legal ground to refer to, in particular in those realms such as health and employment, where there is little customary law ([34], pp. 103, 106).

The sociological neo-institutionalism of the so-called Stanford School argues that organizations do not just exchange personnel and information but that they adopt their organizational structures to institutionalized elements in their environment. Therewith, they want to increase their legitimacy. "Organizations deal with their environment at their boundaries and imitate environmental elements in their structures" ([16], p. 347) and symbolize their embeddedness. Legitimacy has, in this respect, less legal but cultural implications. "Organizations that incorporate societally legitimated elements in their formal structure maximize their legitimacy and increase their resources and survival capacities" ([16], p. 352). In this respect, organizations are forced to adapt to environmental institutions on a regular basis. However, regular adaption processes are difficult to realize as it hinders organizations to establish routines and standardized procedures in their working activities. In other words, a permanent adaption to environmental institutions to guarantee organizational legitimacy contradicts the establishment of routines and procedures, which are needed to stabilize decision-making processes.

Therefore, neo-institutionalists argue that organizations establish a dual structure to buffer the organization. Referring to Thompson [35], two organizational levels can be differentiated: the formal structure and the actual working activities [16,35]. The level of actual working activities consists of the day-to-day working activities whereas the formal structures comprise "a blueprint for activities which concludes, first of all, the table of organizations" ([16], p. 342). This level can be understood as a representational level that reflects environmental institutions and institutionalized demands in order to be seen as a legitimate organization. Both levels are decoupled, which means that an adaption in the formal structure does not mean a change in the working activities. "To maintain ceremonial conformity, organizations that reflect institutional rules tend to buffer formal structures from the uncertainties of technical activities by becoming loosely coupled, building gaps between their formal structures and actual work activities" ([16], p. 341). Decoupling is needed to allow flexibility or adaption in the formal structures and stability and safety in the working activities simultaneously. "Thus, decoupling enables organizations to maintain standardized, legitimating, formal structures while their activities vary in response to practical considerations" ([16], p. 357). Decoupling describes a flexible mechanism to adapt and implement environmental demands and institutionalized elements on a formal level whereas the day-to-day working activities remain untouched and unchanged. Herewith, decoupling provides organizational autonomy against external demands.

How decoupling actually works can be illustrated by the example of the European Commission. Due to the Maastricht Treaty, the European Commission has to implement the so-called environmental integration principle into its policies. However, the implementation of the principle by different Directorates-General (DGs) of the European Commission was very heterogeneous. Whereas some DGs nearly fully implemented environmental issues into their policy proposals (e.g., in the field of energy policy), other DGs tried to keep environmental issues out of their policy realms, e.g., in industry and enterprise policy. Even though there have been structural changes in every DG, such as the establishment of environmental units, the actual working activities have not always changed accordingly. But over time even those departments with an economic rationale have changed their daily practices to comply with the external demand to integrate environmental concerns into their activities [36]. Thus, the study underpinned that learning of bureaucracies is possible and required to respond effectively to global problems such as environmental degradation and climate change. Learning bureaucracies are able to contribute to a productive governance that is likely to benefit the international community (cf., [37]).

2.2. Introducing Organizational Learning

Our analysis refers to the argument that organizational changes in international bureaucracies have an impact on policy-making in international organizations and thus on world politics [38,39]. We are interested in whether or not these changes occur purely on a structural level and have little, if any effects on the policy-making of international organizations, or if the organizational knowledge of international organizations and their bureaucracies has changed in a way that influences its policy-making. Both types of changes have been examined in different learning approaches that are rooted in political and social science, e.g., governance learning, policy learning, social learning, institutional change, organizational learning, *etc.* [40–45]. These approaches share the assumption that learning leads to change, but there is no conceptual clarity about how learning takes place and who learns what ([42], p. 1104). In a first step, we explain our concept of learning, which is based on organization studies. We then show how this approach can be distinguished from other well-established learning approaches.

An open-system perspective emphasizes the embeddedness of organizations in their environment; the permanent interplay between the two is the basic mainspring for organizational learning. As the organizational environment is seen as complex, equivocal, unstable, and uncertain [25,46], organizations increase or modify their understanding of their environment by observing the results of their actions. According to Argyris (1976), organizational learning can be defined as "the detection and correction of errors, and error as any feature of knowledge or of knowing that makes action ineffective" ([47], p. 365). Thus, organizations have to observe their environment permanently to generate a match between environmental demands and organizational outputs [47]. However, learning does neither always increase the effectiveness of an organization nor does it lead to "veridical knowledge" ([48], p. 89). Organizations can learn even if they do not obey external demands and expectations and they can learn in a compliant manner what later turns out to be a mistake as it harmed the organization. Learning, therefore, is a cognitive process that can potentially change the behavior—"[a]n entity learns if, through its processing of information, the range of its potential behavior is changed" ([48], p. 89). But learning does not necessarily lead to observable changes in organizational behavior. Whereas the above is true for any entity—be it an individual or an organization—"an organization learns if any of its units acquire knowledge that it recognizes as potentially useful to the organization" ([48], p. 89). Thus, analyzing organizational learning of international organization bureaucracies has consequences for the international organization.

The incentives for learning result from a perceived "misfit" between organizational expectations and the *real* environment organizations observe ([30]; [49], p. 91). However, this should not lead to the assumption that learning is merely a reaction to a problem, a stimulus that leads to response. Organizational learning can be anticipative to expected future challenges, too ([50], p. 25). In both cases organizational learning is triggered by a perceived gap between the organizational expectation and the observed environment. Thus, organizations must be able to change their underlying assumptions and beliefs about adequate ways of interacting with a changing environment in order to survive. Specifically, this is done by learning new problem solutions, new strategies and designing better responses [41,46,51]. Organizational knowledge encompasses "that knowledge which is available to organizational decision makers and which is relevant to organizational activities (…) that can be used to determine organizational actions (at any level from tasks to strategy) with respect to a specific outcome" ([46], pp. 85–86). It has to be shared across the organization and contains the "inter-subjective shared constructions of reality" ([8], p. 16); it is an interpersonal and social process [48]. The inter-subjective quality of organizational knowledge presumes that knowledge—acquired by an organization's member—must be communicable, consensual and integrated in order to be accepted, stored and applied within the organization and subsequently available for all organizational members [12,13]. It is a multilevel process that begins at the "individual level of analysis with cognition, affect, and behavior as key elements of individual's intuiting" ([13], p. 457). Cognition, affect, and behavior are the core elements combined at the group level where the elemental content of individuals is combined during interpreting and integrating. Interaction and communication on the group level generates emergence of the phenomena that finally occurs as institutionalizing at the organizational level [13]. In this respect, organizational learning depends upon the permeability within organizations and between the organizational levels, thus communication between members within an organization is a precondition for sharing information and increasing organizational knowledge [52]. Thus, under-developed processes of communication within organizations are central problems for the field of organizational learning as insights from individuals do not automatically become the wisdom of a collective [53].

Organizational learning shows some similarities to governance, policy, and social learning. Governance learning takes place when existing steering modes improve or turn towards another mode ([51], p. 1127). Policy learning is associated with changes in policy outputs, e.g., new legislations, regulations, policy proposals [41,54]; whereas social learning also considers that new ideas and worldviews can trigger radical organizational shifts [40,55]. Similar to organizational learning, these approaches emphasize that organizations perform better when they gather information about their environment and change their behavior accordingly. Contrary to these learning approaches, organizational learning approaches do not focus primarily on outputs and changes, as these are the consequences of learning processes within organizations. Therefore, we rather concentrate on the organization itself and its organizational knowledge, *i.e.*, on international bureaucracies within international organizations and their learning abilities. Even if approaches emphasize the organizational knowledge as the key feature to analyze learning and concentrate on international organizations' bureaucracies, these approaches aim to design international organizations "to ensure that they are able to respond quickly and effectively" ([37], p. 256) to new challenges. Our aim is more modest as we are less interested in improving international organizations or whether they are good or bad learners. Rather, we focus on international organizations' bureaucracies and advance the linkage between organizational knowledge and action in order to assess different modes of response according to external demands. Herewith, we can examine international organizations' responses and can assess whether they follow external demands superficially or whether an international organization profoundly implemented external demands. However, we would not claim that organizational learning leads to a more effective or efficient behavior.

In order to study changes in organizational knowledge, Argyris and Schön ([15], p. 14) assume that all human actions in organizations are based on certain theories of action. These theories of action are related to organizational task knowledge that "may be variously represented as systems of beliefs that underlie action, as prototypes from which actions are derived, or as procedural prescriptions for action" ([56], p. 13). The theories of action can be divided into espoused theory and theory-in-use. Although rooted in another ontological frame, this differentiation resembles the distinction between the formal structure and the actual working activities [35]. The espoused theory represents the official organizational guidelines, strategies, and objectives that "people report as a basis for action" ([47], p. 367). It establishes the official frame in which organizational action occurs and generates a "corporate identity" within the organization and is reflected in organizational structures and procedures. The theory-in-use describes the actual behavior of organizational members and units, which is regularly tacit and undiscussable. The theory-in-use is "the theory of action which is implicit in the performance of that pattern of activity" ([56], p. 13); it is not constructed as a given, but from observations of action and interactions within organizations. Applying these theories, two types of organizational learning can be distinguished: single-loop learning and double-loop learning. Although there is neither a consistent or dominant theory of organizational learning [52], the differentiation between these types of learning gain acceptance and has just been perpetuated. Hedberg [27] makes a similar distinction and differentiates in "adjustment learning", "turnover learning", and "turnaround learning". Fiol and Lyles [57] talk about "lower-level-learning" and "higher-level-learning", and Hall [40] differentiates first order, second order, and third order change.

Single-loop learning is triggered by a perceived mismatch between the consequences of an organizational action and its underlying expectations ([15], p. 19). The central mechanism of this learning process results from a feedback of information gained through environmental observation that functions as a stimuli for organizational adaptation. Objects affected by single-loop learning are rule catalogues that are reflected in work instructions, tasks and role descriptions; while features that are embedded in theory-in-use—like world views, beliefs, and other basic assumptions—remain unchanged ([15], p. 18). Single-loop learning, therefore, can be characterized as an activity that "does not question the fundamental design, goals, and activities" of an organization ([47], p. 367) and takes place on the espoused theory level.

Double-loop learning is induced by the confrontation between the effectiveness and the efficiency of traditional organizational hypotheses, norms, and actions as well as procedural instructions, with perceptions from their environment. It results "in a change in the values of theory-in-use, as well as in its strategies and assumptions" ([56], p. 21). This type of learning challenges organizations because they have to question and modify their deeply rooted assumptions and core beliefs, which in turn may affect their identity ([58], pp. 131–133). Since organizations normally try to protect themselves against this, the acquisition of new knowledge normally depends on how it fits with their existing core beliefs. Double-loop learning, therefore, occurs on the theory-in-use level and then affects the espoused theory level.

The concept of theories of action offers an elaborated tool to distinguish various types of organizational learning. The literature on organizational learning typically distinguishes between organizational learning and non-learning ([42], p. 1110). Here, we propose a second distinction, namely between compliant and non-compliant learning. Hence, we assume that organizational learning can take place when organizations do *not* comply with an external demand ([59], p. 1247). Whereas compliant learning takes place when an organization changes its theories of action according to an environmental demand, non-compliant learning means that an organization does not obey an external demand. Instead, the organization develops strategies to underpin its non-conforming attitude and behavior, as it is convinced that its behavior and guiding assumptions are predominant and should remain untouched. In such cases, organizations state that complying with the demand would jeopardize the organization's core convictions and destroy its identity. Conceptually, it would make sense to differentiate between non-compliant learning in a single- and double-loop learning manner. But it seems empirically unfeasible to assess whether an organization just ignores a demand (non-learning) or whether it enforces its existing activities on the espoused theory level without questioning its theory-in-use (non-compliant single-loop learning). Hence, we understand non-compliant learning always as a conscious questioning of an organization with its core beliefs and basic assumption (theory-in-use), *i.e.*, non-compliant learning is per definition double-loop learning. In contrast to such a reflexive examination of its theories of action and a deliberate refusal of an external demand, non-learning takes place if an organization simply ignores the demand. In this regard, ignoring means either seeing the demand without consequences for the theory-in-use or simply not perceiving it as a demand for the organization. In this case the theories of action remain unchanged.

In accordance with Egan [59], we argue that organizational learning can be decoupled from organizational change, i.e., organizational change does not need to be evident in order to identify learning and vice versa organizational learning does not necessarily lead to change. Organizations learn if, and only if, their knowledge alters, but this does not necessarily impact organizational behavior. This difference is relevant when compared to various learning models or an institutional change approach—even one of gradual transformation [45]—because these approaches assume that a policy or institutional change must be visible to qualify as learning. In contrast, we propose to shift the focus from policy and institutional changes to organizational knowledge in order to analyze learning. In this respect, we do not claim that organizational learning leads to any positive outcomes, but assume that organizational learning is a change of organizational knowledge that is not necessarily linked to functional or organizational improvements.

Taken the above-mentioned differentiations into account, we can distinguish four levels of organizational learning. First, we differentiate between learning and non-learning. Learning can only take place if organizational knowledge alters which can be detected in changing theories of action. Second, we distinguish compliant and non-compliant learning concerning the external demand—be it an explicit or an anticipated demand. Third, compliant learning can be divided in single- and double-loop learning. Non-compliant learning, however, is a conscious scrutinizing of theories of action in which an organization decides not to follow an external demand because it is convinced of its theories of action. Fourth, we detect single- or double-loop learning by analyzing organizations' theories of action. Changes on the level of theory-in-use that are accompanied by changes of the espoused theory signify double-loop learning. Double-loop learning is a cognitive process in which organizations question their core beliefs and underlying assumptions. Single-loop learning is characterized by sole changes on the level of espoused theory without further reflections of an organizations' theory-in-use (see Table 1). Changes of the espoused theory can be detected from structural and procedural changes of international organizations. Compliant organizational learning is observable in organizational changes whereas the absence of organizational changes does not imply non-learning. In this case it has to be scrutinized whether an organization learns in a non-compliant way (i.e., theories of action changed) or does not learn, e.g., when an organization ignores external demands without questioning its theories of action (non-learning). Even though non-compliant learning is difficult to determine it is a conceptual supplement to conventional organizational learning concepts. It unfolds how organizations might learn even if they do not follow external demands, e.g., when an organization internally disputes about an external demand and discusses whether it can and is willing to implement it or not and then opts for non-compliant behavior. In this case, we would identify non-compliant double-loop learning as the organization had questioned its core beliefs and underlying assumptions (theory-in-use) but decided not to change according to an external demand. It deliberately reinforces its existing theory-in-use that is seen to be superior.

Table 1. Levels of Organizational Learning.

<table>
<tr><th>Level</th><th colspan="4">Organizational Learning</th></tr>
<tr><td>1</td><td>Non-learning</td><td colspan="3">Learning</td></tr>
<tr><td>2</td><td></td><td>Non-compliant</td><td colspan="2">Compliant</td></tr>
<tr><td>3</td><td></td><td>Double-loop</td><td>Single-loop</td><td>Double-loop</td></tr>
<tr><td>4</td><td>Theories of action remain unchanged</td><td>Theory-in-use and espoused theory change</td><td>Espoused theory changes whereas theory-in-action remains unchanged</td><td>Theory-in-use and espoused theory change</td></tr>
</table>

2.3. Methodological Remarks

Based on our theoretical framework on organizational learning, we will present in the following sections our illustrative, multiple-case study on environmental integration within the Bretton Woods institutions (cf., [60], pp. 6–10). As described above, international organizations are not unitary actors but composed of intergovernmental bodies and an international bureaucracy. Hence, the requirements to address environmental issues can be defined as external demands for the administrations of the IMF and the World Bank, as these were requests of the intergovernmental bodies. However, organizational learning takes place even if just the administration acquires knowledge that leads to organizational learning.

With the descriptive case studies ([60]; [61], p. 347; [62], p. 49), we want to show in how far the World Bank (Section 3) and the IMF (Section 4), have reacted to the external demand to take environmental protection into account and clarify if and in how far both administrations have learned in this respect. We focus on the World Bank and the IMF because both have some similarities and, as past experience has shown, these are two powerful international economic organizations whose (in-)activities have had a strong influence on the environment. Both institutions share, e.g., a common history of origin and follow closely related mandates. They pursue the goal of rising living standards in their 188 member states. While the World Bank's special task is to promote long-term economic development and poverty reduction, the IMF's mandate is to promote international monetary cooperation. Originally, the Bretton Woods institutions were not in charge of environmental protection. This has changed in recent decades. Due to the growing public interest in environmental protection combined with NGO-led campaigns against controversial projects supported by the World Bank and the IMF, both international organizations have been requested by their member states to address environmental issues. As the World Bank and the IMF are dealing with the issue of environmental protection since the 1970s and the 1990s, both cases could shed light on the dynamic and complex process of organizational learning.

The first case study on the World Bank covers the time period from the 1970s until today. It is based on both a comprehensive secondary literature on the Bank's efforts to integrate environmental protection into its activities and an analysis of official documents published by the Bank (and the OED/IEG, see below) that report in a frank language on the Bank's environmental performance. In addition, we used critical reports from environmental NGOs to bring in a different perspective on the World Bank's efforts.

While environmental protection is one of the World Bank's tasks, the mandate of the IMF was not expanded by environmental protection ([63], p. 1). Even though the IMF member states decided that the Fund should take environmental aspects into account, too, this decision and the resulting process did not seem to have reached scholars' attention. Thus, we have drawn on publications by the IMF and its staff. Especially the staffs' publications [64,65] give instructive insights into the Funds' reactions on the new external demands in the 1990s. To give an overview of its activities on the issue, we also consulted reports from environmental NGOs.

We interpreted the published material to answer our research question if and in how far the administrations of the World Bank and the IMF have learned. The sections on the World Bank and the IMF will illustrate this step. As said above, several documents published by the Bank and the Fund were written in a frankly manner. Thus, they were helpful to also learn something about the administrations' theories-in-use. Herewith, we want to illustrate our theoretical model and explain why it might be useful to focus on organizational learning of international organizations instead of organizational changes solely [61]. Furthermore, we are able to assess whether an international organization might have learned even if it does not change its behavior according to external demands (non-compliant learning).

3. The World Bank

The World Bank's efforts to integrate the environment into its activities can be divided into four time periods. In the first period (1970–1986), the administration's turn to environmental protection has started under Word Bank president Robert McNamara. In the second period (1987–1994), several structural and procedural changes were accomplished to improve the Bank's environmental outcomes that proved rather ineffective. Thus, the Bank renewed its efforts to incorporate the environment under the presidency of James Wolfensohn and beyond (1995–2007). Finally (2008–2012), the example of the Bank's more recent efforts to revise its safeguard policies shows that the Bank tries to take the issue of environmental protection more seriously into account. Before we will describe this development and show that the Bank's reaction towards the external demands qualifies as single-loop learning in the first three phases, while there seem to be some indications of double-loop learning in the final time period (for an overview see Table 2), we will give a short overview of the Bank's governance structure.

Table 2. Organizational Learning within the World Bank.

Period	Type of learning	Changes in theories of action
I 1970–1986	Single-loop learning	Change of espoused theory - *Structural change:* establishment of environmental unit - *Procedural change*: voluntary environmental guidelines for project appraisals
II 1987–1994	Single-loop learning	Change of espoused theory → Official approach of *doing no harm* instead of *business as usual* - *Structural changes*: centralization of environmental department, increase of environmental staff - *Procedural changes*: environmental action plans, increased lending for environmentally beneficial projects, binding environmental safeguards
III 1995–2007	Single-loop learning	Change of espoused theory → Official approach of *promoting the good* instead of *doing no harm* - *Structural changes*: increase of qualified environmental staff, nomination of environmental project managers, establishment of a quality and assurance compliance unit - *Procedural changes*: requirement to take environmental concerns into account in all Bank activities, official strengthening of internal monitoring and evaluation procedures (e.g., inspection panel)
IV 2008–2012	Double-loop learning	Change of espoused theory - *Procedural change*: review of the Bank's safeguard policies Change of theory-in-use - *Cognitive change*: Administration broadly supports objectives of safeguard policies and acknowledges that not only its own expertise but also knowledge and expectations of diverse groups of stakeholders and shareholders is essential to improve safeguard policies and designs consultation process accordingly

3.1. The World Bank's Governance Structure

The World Bank (officially the International Bank for Reconstruction and Development (IBRD)) is part of the World Bank Group. In addition to the IBRD, the World Bank Group is composed of the International Development Association, the International Finance Corporation, the Multilateral Investment Guarantee Agency, and the International Centre for Settlement of Investment Disputes. The member states of the World Bank are represented on the board of governors and the executive board. The board of governors, the plenary organ of the World Bank, is composed of representatives of all member states. The member governments delegated decision-making authority for all decisions over operations and policies to the Bank's board of executive directors. The executive board consists of the president and 25 executive directors acting as a unit. It oversees the Bank's business, including the approval of loans and the supervision of financial decisions. The president of the World Bank, who is responsible for the overall management of the Bank, chairs the meetings of the executive board whose decisions are prepared by the secretariat ([66], p. 228). Within the secretariat, the sustainable development network is today responsible for the environmental sector and for incorporating the concept of sustainability into the Bank's activities.

3.2. The Bank's Turn to the Environment (1970 until 1986)

Since the beginning of the 1970s, the World Bank has been dealing with the external demand to integrate environmental aspects into its activities. Because the Bank has turned to environment protection early on, it was initially regarded as a leading international organization ([67], p. 539). However, the administration's activities of the first time period just qualify as single-loop learning. We will illustrate this in the following.

In line with our theoretical remarks on single-loop learning, the Bank's president Robert McNamara (1968–1981) was prompted by the then forthcoming UN Conference on the Human Environment (1972) to think about what the Bank should do on the issue of environmental protection. Thus, in 1970, McNamara set up a new unit—originally responsible for environmental and health affairs—and established the post of an environmental adviser to guide the Bank's environmental work ([68], p. 72; [69], p. 17). In parallel, the World Bank had begun to develop what is now called "safeguard policies" [70]: in 1971, the Bank required that the impact on the environment had to be considered in its project appraisals. However, no specific mechanisms were stipulated [70]. In 1975, the Bank's secretariat issued voluntary guidelines on environmental developments of projects, but these non-binding recommendations were often ignored ([66], p. 230). In 1984, the Bank issued the *operational manual statement on environment aspects of World Bank work* outlining the Bank's policies and procedures that could have environmental impacts. Later on, the Bank admitted that a clear definition of the term "environment" was lacking ([71], p. 2). In addition, the Bank did not make clear how much weight should be given to this particular aspect relative to all the others ([2], p. 429). Thus, only the Bank's espoused theory had changed, while its theory-in-use had remained intact. Accordingly, a consistent environmental strategy was lacking ([67], p. 539) and the Bank incorporated environmental issues primarily "rhetorical" into its policy decisions" ([1], p. 253).

Until the first environment-related reforms of 1987, the Bank's secretariat had a huge influence of the granting of projects that was running in two phases ([66], p. 228). In the first phase, the secretariat prepared the projects. In the second phase, the executive board decided on financing. It was expected that the delegation of project planning and reporting evaluation to the secretariat would result in economically and technically sound drafts uninfluenced by political considerations. Even though projects came only into effect with the approval of the executive board that could veto the secretariat's proposals, the decision-making process was mainly formed by the secretariat that did not challenge its core beliefs with regard to environmental protection requirements ([66], p. 228).

This seems to be true also for the Bank's decision-making level. Thus, the environment office was under-resourced and powerless ([72], p. 17). Until 1983, the environment office had only three environmental specialists on staff which were integrated into the project-approval process of the World Bank at a later stage, which, however, merely made environmental recommendations ([66], p. 230). Due to the limited resources, the environmental staff could "neither monitor nor enforce compliance with the organization's environmental guidelines" ([1], p. 253). Furthermore, the executive board was unable to evaluate and control the Bank's projects regarding environmental requirements due to lacking human resources and expertise ([66], p. 230).

During this period, the Bank's secretariat even tried to resist the environmental initiatives of its president. In these early years the administration was acting independent from the Bank's member states ([1], p. 242). The donor countries were of the perception that the World Bank performed its tasks and was not engaged in activities that fundamentally conflicted with their interests ([1], p. 253). Thus, the Bank's secretariat was left to its own devices and able to hold the environmental issue at arm's length.

As the World Bank did not really challenge its attitude concerning the requirements of environmental protection and its operational practices thus had not really changed, the criticism on the Bank's projects did not stop. In the early 1980s, the World Bank was blamed for having financed projects that led to environmental disasters in Brazil and Indonesia ([1], p. 241). Environmental NGOs protested against the World Bank's methods and demanded a change in lending practices. Because direct appeals to the Bank failed, critics called on member state's governments—especially the USA—to put pressure on the World Bank. Thereupon, in 1986, the USA rejected a project due to environmental reasons and threatened not to accept the planned capital increase of the Bank unless it modified its behavior ([66], p. 231).

3.3. The Bank's Environmental Reform of 1987 and Its Meager Results

In view of the criticism of some of the member states and of environmental NGOs concerning "World Bank-financed ecological disasters in Brazil, India, and Indonesia" ([73], p. 306), the new president of the World Bank, Barber Conable (1986–1991), admitted in 1987 that the Bank "had been a 'part of the problem in the past'" and announced environmental reforms ([73], p. 306). Thus, the Bank increased its environmental staff and established a central environment department. Further, it announced new environmental policies and launched environmental action plans to review and address environmental problems in the most vulnerable developing countries. Also, the Bank increased lending for environmentally beneficial projects ([73], p. 306; [74], p. 103). At that time, tropical deforestation was the most urgent crisis in the developing world. Hence, Conable committed the Bank to drastically increase its forestry lending ([73], p. 309). Furthermore, Conable championed an independent study that, in 1992, "confirmed earlier criticisms" ([3], p. 30).

In addition, binding environmental safeguards were introduced in 1987 to provide guidance for staff in identifying and preparing projects and to promote sustainable development in client countries ([75], p. 22); see for the establishment of the Bank's safeguard policy [76]). The safeguard policies were put in place "to prevent or mitigate adverse impacts of its projects on people and the environment" ([77], p. xiii). Thus, decisions on granting projects were bound to obligatory environmental guidelines defining a minimum standard of protection for projects financed by the World Bank. Therewith, also environmental impact assessments of projects became mandatory ([66], p. 234, 247; [74], pp. 112–115). Thus, the Bank's official approach shifted from "business as usual" to "do no harm" ([67], p. 539).

However, the adoption of the safeguard policies did not prevent the Bank's involvement in "environmentally controversial projects" ([74], p. 102, see also [76], pp. 64–76). The staff praised the safeguard policies "as a milestone in the World Bank's 'environmental turnaround'", but realized that "more needs to be done to reinforce borrower compliance" ([74], p. 113). Similarly, the Bank's Operations Evaluation Department (OED), an independent unit within the Bank that reports directly to the executive board, detected that safeguard procedures "were not always implemented wholeheartedly by the World Bank project staff" ([74], p. 113). The OED was established in 1973, in 2006 it was renamed Independent Evaluation Group (IEG) ([74], p. 127).

In this time period, from the mid-1980s until the mid-1990s, the Bank's bureaucracy learned from its errors of the past and thus introduced several environmental reforms. Therewith, the official approach shifted from *business as usual* to *do no harm*. However, only the espoused theory changed and we can, again, observe single-loop learning: the reform announced by the Bank president did not alter the daily practices of the administration. Thus, the independent OED had to notice that the environmental safeguards were not implemented wholeheartedly by the staff. This illustrates that the theory-in-use of the administration remained unchanged. That the administration complied only partly with the environmental demands posed by the member states can be explained with its "independent culture and agendas for action" ([22], p. 705).

Even though the environmental reform of 1987 can be regarded as a small step in the right direction, it neither satisfied environmental NGOs nor the executive board ([1], p. 260). According to Nielson and Tierney ([1], p. 259), it "failed to alter core Bank practice". Likewise, Rich ([73], p. 308) observes a "green rhetoric that hides a reality that is largely unchanged." This can be exemplified with the Bank's failed *tropical forestry action plan* that "appeared mainly to be a plan to promote traditional, export-oriented timber industry investment camouflaged by small components for environmental purposes ([73], p. 310). Further, the announced involvement of NGOs was not effectively put in practice ([73], p. 324).

According to Rich ([73], p. 317), there were several institutional considerations that prevented the Bank from implementing the reforms in a meaningful way. For example, the Bank's environmental effectiveness had been undermined by the senior management that at several occasions overruled the demands of the environmental staff. Furthermore, qualified personnel to conduct the environmental assessments was lacking, and the environmental department was not effectively integrated into the administrative level of the Bank ([1], p. 260). In addition to these internal constraints, also the borrowing countries from the developing world like Brazil, India, and Indonesia, and their executive directors opposed the Bank's attempt to incorporate greater environmental conditionality ([73], p. 320).

3.4. Renewed Efforts to Incorporate the Environment under Wolfensohn's Presidency and beyond (1995–2007)

Also in the third time period (1995–2007), only the Bank's espoused theory had changed; thus, single-loop learning is at hand. The Bank's official approach changed from *do no harm* to *promoting the good*, and the bureaucracy of the Bank strengthened its efforts on environmental integration. President Wolfensohn (1995–2005) reacted to the external criticism and started to hire qualified environmental staff. Most importantly, also the internal monitoring and evaluation procedures were strengthened to better control the secretariat and to ensure compliance with the environmental safeguard policies. While the Bank under Wolfensohn's leadership had announced that the integration of the environment is essential to reach the Bank's development goals, the administration regarded this official reorientation towards environmental protection as merely a rhetorical policy statement. The staff's reluctant behavior towards environmental requirements illustrates that the theory-in-use did not change. In the following, we will describe this process in further detail.

Already since the UN Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, the World Bank has strengthened its commitment to the environment ([78], p. 1). In the mid-1990s, the Bank's executive board decided to incorporate the environment into the Bank's sectoral programs (e.g., transport), and the Bank's bureaucracy was required to "ensure that *all* Bank activities take environmental concerns into account" ([78], p. 6). The Bank emphasized that at the beginning of the 1990s its "do no harm" approach of the 1980s has turned into a "proactive agenda aimed at 'promoting good' today" ([78], p. 22). Consequently, the number of staff was increased and the type of staff hired by the Bank changed in so far as more environmental economists and engineers as well as biologists were employed. Hence, the executive board could be more certain that the Bank staff had the ability to analyze environmental impacts of projects ([1], p. 263).

Further, the Bank reacted to the broad and continuous criticism of its activities by improving the monitoring and evaluation procedures ([1], p. 260; [75], p. 13). Most of all, the secretariat's autonomy was seen as problematic ([74], p. 118). To better control the secretariat, the executive board established an independent inspection panel in 1993 to hear complaints from groups that were directly affected by World Bank projects ([66], pp. 233–237). External actors may use the inspection procedure to verify whether a project is in consistency with the binding safeguards of the Bank ([66], p. 235). The inspection panel has a further effect: Because external actors bring "outside information to the inspection panel and thus the executive board […], board members found it much easier to get information about the likely impacts of Bank projects before the projects were implemented" ([1], p. 263). Like the binding environmental safeguards, the inspection panel was initiated to restrain the secretariat's room for maneuver ([66], p. 233) and welcomed by scholars [79].

In addition, it was decided in 1994 that each project with a potential environmental impact was assigned an environmental project manager who assessed the environmental impact and had to send an evaluation report to the executive board ([1], p. 264). In 1997, the Bank regrouped ten operational policies as specific safeguard policies (six environmental, two social, and two legal policies) and put in place administrative procedures to support compliance with the safeguard policies ([71], p. 3). To provide "additional oversight of safeguards quality in Bank projects", the Bank created a separate quality and assurance compliance unit in 1999 ([77], p. xiv). However, a report of several NGOs ([80], p. 1) showed that the Bank's environmental, health and safety guidelines for mining "in some cases […] do not even meet the mining industry's 'best practices' standards."

Besides this restructuring, the Wolfensohn presidency was shaped by a rationalization that has indirectly weakened the implementation of environmental objectives. In 1996, decision powers were transferred to country directors. As a result, environmental safeguards "have been applied with varying vigor across World Bank operations", and it depended on regional teams in the borrowing countries in how far the environmental impacts of Bank projects were monitored ([74], p. 126; cf., [67], p. 540). Not all staff members insisted on strict compliance with the safeguard policies; according to an investigation of the inspection panel some regarded them simply as "idealized policy statements" ([81], p. 23).

Also the Bank's evaluation department complained that environmental protection was not fully institutionalized at the whole administration and detected several institutional problems with the integration of environmental concerns. Therefore, the OED required serious institutional changes from the administration that actually poured into the first environmental strategy of the World Bank published in 2001 [82]. Consequently, the environmental strategy addressed some significant problems the Bank had had with environmental mainstreaming. Central to this environmental strategy is "the understanding that if we want development to succeed environment cannot be afterthought" ([75], p. 7).

First of all, the strategy paper criticized that the environment had only been "the concern of a small, specialized group" ([75], p. 3). In this context, it was queried that Bank professionals often saw environmental issues as a "self-standing agenda and not as an element of their core tasks of supporting development and poverty reduction" ([75], p. 311). The safeguard system was seen as an essential tool for integrating environmental concerns into development policies, programs, and projects. Therefore, it was planned to improve the quality and consistency of the application of safeguard policies ([75], p. 25). To enhance its record on environmental integration, some further institutional changes were seen as essential, like establishing clear lines of responsibility and incentives throughout the organization. In this context, the training of environmental as well as non-environmental staff had been announced and "green awards" were promised as incentives for non-environmental specialists in order to mainstream environment into their operations. In addition, the Bank's incentive system rewarded outputs—the preparation and approval of investment projects—while the supervision and evaluation of projects were disregarded ([74], p. 126).

Even though president Wolfensohn was identified as a "trigger for positives changes" ([74], p. 129) and also Greenpeace [83] admitted that the World Bank under Wolfensohn's leadership has started "to understand environmental issues" the Bank's activities under Wolfensohn's leadership were criticized by environmental NGOs. For example, Greenpeace [83] regretted that "[t]here is a huge gap between the rhetoric and goodwill of current World Bank President James Wolfensohn, and the organisation's Board of Governors where the real power lies with the donor countries' finance ministers." In addition, the WWF [84] in 2004 noticed "that oil and coal projects funded by the Bank were not contributing to the institution's mission of poverty alleviation but were, in fact, creating more environmental, social and economic problems for the countries they are supposed to benefit." The Bank's focus on fossil fuel projects was also criticized by Friends of the Earth in 2006 [85].

Although a number of reforms to green the Bank had been implemented [85], also the Bank's internal evaluation showed that environmental mainstreaming in the World Bank was rather disappointing. Thus, the evaluation department was skeptical on environmental integration at the beginning of the 2000s and reiterated its criticism that environmental concerns were not integrated into the Bank's core objectives and country strategies ([67], p. 542). According to the internal evaluation reports, the slow rate of environmental mainstreaming can be explained with the fact that the Bank's staff did not prioritize environmental sustainability and continued "not to see environmental as integral to their operations" ([67], p. 543). In a similar vein, Weaver argues that while the World Bank was active in trying to "green" its image, changes in the "real operational practices of the Bank" were less visible ([86], p. 504), and also Nielson *et al.* [87] notice that "[c]hanging core values and beliefs about the importance of environmental […] outcomes has been slow." However, even if the observed changes were rather minor and the staffs' views concerning environmental protection did not seem to have changed, we argue that the Bank's efforts at least meet the requirements of single-loop learning.

3.5. The Safeguard Policies as the Bank's Cornerstone to Protect the Environment (2008–2012)

Still today, the evaluations of the World Bank's activities on the issues of environmental protection are rather mixed. Even though some environmental NGOs and Bank's shareholders point to several positive developments (e.g., the Bank's improved engagement concerning the integration of environmental aspects into large infrastructure projects [88], its work on the issue of climate change and climate change adaptation in least developed countries [89–91]), the Bank gets criticized for not meeting all environmental requirements and even for doing severe harm to the environment. For example, the WWF [92] in 2012 criticized the Bank's financing for fossil fuels, the "single biggest source of CO_2 emissions" and Friends of the Earth even argues that the World Bank as "a carbon-intense lender and promoter of deforestation […] has far more experience causing climate change than preventing it" ([93], p. 12). In a similar vein, scholars point out that the Bank's overall environmental record is mixed ([74], p. 131) and that its "sustainable development identity is neither fixed nor stable" ([76], p. 58).

Nevertheless, we argue that the example of the Bank's safeguard policies—that officially have become "the cornerstone of the Bank's efforts to protect people and environment" ([71], p. 2)—shows that there is at least some evidence of double-loop learning within the World Bank. In this case, the changed attitude of the Bank's bureaucracy towards the safeguard policies and its renewed and strengthened activities on the issue—induced by the Independent Evaluation Group (IEG, see above)—seem to qualify as double-loop learning. In the following, we will shed some light on this more recent development that could be decisive for the Bank's future environmental performance.

In 2008, the environmental performance of the World Bank from 1990–2007 was evaluated by the IEG. On the one hand, the evaluation group noted that the Bank "has made progress since 1990 as an advocate for the environment" ([94], p. 1). On the other hand, the IEG remarked that the Bank had not been able to integrate environmental stewardship sufficiently into its operations ([95], p. iii). Consequently, the IEG demanded that "environmental sustainability must become a core part of the World Bank Group's strategic directions" ([95], p. iii).

Beside the "lukewarm interest" from the Bank's borrowing countries ([95], p. iii), the IEG pointed to several internal constraints that prevented an effective environmental mainstreaming. Regarding investment projects, it was criticized that the Bank "lacks an aggregate monitoring and reporting system that would allow it to more systematically assess the environmental aspects and results of the projects it supports" ([95], p. 5). Therefore, the IEG required the Bank to better monitor environmental outcomes and to assess impacts. In addition, the IEG deplored that competing priorities, insufficient staff skills, and an suboptimal use of budgets limited the Bank's environmental performance ([95], p. 1, 7). The management of the World Bank mostly agreed with the recommendations of the IEG ([96], p. 36).

In 2010, the IEG presented an evaluation on the safeguards and the sustainability policies covering the period from 1999 until 2008. The IEG, whose monitoring activities are acknowledged by several environmental NGOs, found that the quality of preparation and appraisal was to be 85 percent satisfactory in Bank projects and admitted that the Bank's administration broadly supported the objectives of the safeguard policies ([77], p. xv). Also NGOs rated the environmental performance of the World Bank better than in the 1990s ([77], p. xv). However, the IEG deplored that more than a third of Bank projects had inadequate environmental supervision and criticized the "poor or absent monitoring and evaluation" ([77], p. xvii). A reason for this was that "too often, safeguard activities are considered an add-on, and left to environmental and social specialists who are underresourced and not well integrated into supervision teams" ([77], p. 31). Also the country directors expressed their concerns about the safeguards and criticized that "safeguards compliance is the responsibility of the client and it is the responsibility of the team to supervise compliance" ([77], p. 53). To manage these problems, the IEG advised the Bank, among others, to assign responsibility and budget for safeguards oversights and to include performance indicators on environmental outcomes ([77], p. xxii).

In 2011, the IEG welcomed the Bank management's commitment to update and consolidate its environmental policies on the basis of the IEG's evaluation of 2010 ([97], p. 23). The administration regarded the review and update of the safeguard policies as an opportunity to deliver better environmental outcomes in the projects and programs which the Bank supports. Thus, the improvement of monitoring and supervision as well as a greater clarity on the responsibilities of the Bank and its clients were seen as vital ([71], p. 1, 8). Also the responsible committee of the Bank's board of executive directors endorsed the update of the safeguard policies ([97], p. 23).

The review process of the safeguard policies is based on a complex two-year consultation process that started in 2012 ([71], p. 14). By consultation, the administration seeks the views and input of its internal and external stakeholders and its shareholders so that the implementation of a new integrated framework will benefit from diverse perspectives. It had been recognized that the experience of its administration in applying and implementing the safeguard policies as well as the views of as wide and diverse groups of stakeholders (civil society organizations, research institutions, UN agencies, representatives of communities affected by Bank operations, *etc.*) as well as the knowledge and expectations of its shareholder governments are essential to improve the design and implementation of the current safeguard policies and to move to an integrated framework ([71], p. 12). Finally, the perception that the safeguard policies are "vitally important in avoiding, mitigating, or managing risks and impacts from operations" has poured into the World Bank's environment strategy from 2012 until 2022 ([98], p. 2).

This recent development concerning the improvement of the safeguard policies seems to indicate that the World Bank's administration, especially the management, has acknowledged the relevance of an effective safeguard policy system. The involvement of stakeholders, especially of environmental NGOs, and shareholder into the consultation process seems to show that the administration is willing to take also critical external positions into account. This seems to be indicative of a change of attitude of the Bank's administration towards the relevance of environmental protection. However, this is a first interpretation of the World Bank's recently published documents. Further empirical research, especially interviews with the Bank's staff and environmental NGOs that—like Greenpeace [99]—, take a critical look at the Bank's safeguard policies, could shed some more light on the ongoing consultation process and show if the administration's core beliefs concerning environmental protection change and if the possible decline of the Bank's safeguard policy norm—feared by Park in 2010 ([76], p. 202)—could have been prevented.

4. The IMF

The activities of the IMF on the issue of environmental protection can be divided into three periods. The IMF's turn to the environment has started at the beginning of the 1990s, after its executive board had decided that the Fund should pay greater attention to environmental issues ([65], p. 3). In the first period (1990–1995), the IMF staff began to turn to the environment and to realize that environmental degradation can threaten economic growth. During the second period (1996–2000), the IMF tried to continue addressing environmental issues within its policy dialogues. However, the negative effects of the Fund's policies on the environment were increasingly criticized by NGOs. Finally, global warming prompted the IMF to enhance its activities with regard to the issue of climate change (2001–2012). However, the results of the IMF's bureaucracy in terms of organizational learning have been rather modest to date; only single-loop learning is observable over the whole time frame (for an overview see Table 3). The theory-in-use of the administration does not seem to have changed as the fact that the IMF is only in favor of environmental protection measures provided that this furthers its own policies goals shows. Before we will describe the environmental integration within the IMF in detail, we will give a short overview of its governance structure.

Table 3. Organizational Learning Within the International Monetary Fund (IMF).

Period	**Type of learning**	**Changes in theories of action**
I 1990–1995	Single-loop learning	Espoused theory changed → Official approach of *high-quality growth* - *Structural changes:* none - *Procedural changes*: starting to consider environmental aspects in its policy dialogue and incorporating environmental measures in some of its stabilization and adjustment programs (looking for win-win situations)
II 1996–2000	Single-loop learning	Espoused theory changed → Official approach of *high-quality growth* - *Structural changes*: none - *Procedural changes*: continuing its efforts of first time period
III 2001–2012	Single-loop learning	Espoused theory changed → Official approach of *low-carbon growth* - *Structural change*: establishment of environmental team - *Procedural changes*: analyzing impact of climate change and evaluating methods to mitigate climate change; starting to contribute to MDGs by its basic activities

4.1. The IMF's Governance Structure

The member countries of the IMF are represented on the board of governors and the executive board. The board of governors is the highest decision-making body of the IMF (see for the governance structure of the IMF, [100]). It consists of one governor and one alternate governor for each member country. Usually, the governor is the minister of finance or the governor of the central bank. While the board of governors has delegated most of its powers to the IMF's executive board, it retains several rights, among others the right to make amendments to the IMF's articles of agreement. In regard to the issue of the environment, the executive board that is responsible for conducting the Fund's day-to-day business was an important actor. The executive board is composed of 24 directors, who are appointed or elected by member countries or by groups of countries, and the managing director, who serves as the board's chairman. In addition, the managing director is the head of the IMF staff. The IMF's administration includes several functional departments. Regarding the issue of the environment, the external relations department and the fiscal affairs department are relevant organizational units.

4.2. The IMF's Turn to the Environment (1990–1995)

During the first period (1990–1995), the espoused theory of the IMF's bureaucracy changed with regard to the member states' demand to address environmental issues. The concept of a "high-quality growth"—that embraces the idea of sustainable development—was developed and gained acceptance at the administrative level as the staff recognized that environmental degradation might threaten economic growth ([65], p. 1; [101], p. 247; [102], p. 1). The staff started to integrate environmental aspects in the policy dialogue with the member countries and also incorporated environmental measures in the IMF's structural adjustment programs. Nevertheless, the staff tried to keep the environmental requirement at arm's length and was only willing to consider environmental aspects when they were consistent with the Fund's basic tasks. It was conducive for integrating the environment when a win-win situation seemed to be in reach as it was the case with the IMF's request to cut subsidies for chemicals that harm the environment ([65], p. 7). Next, we will describe this process in further detail.

In 1991, the demand to address environmental issues was formulated by the IMF's executive board. The executive board decided that the IMF "should pay greater attention to environmental issues that may have an impact on a country's macroeconomic stability over time" ([65], p. 3). Thus, it asked the IMF's staff "to study the interaction between macroeconomics and the environment and […] keep them in mind when conducting policy dialogues with Fund member countries" ([64], p. vii). Therewith, the staff were also recommended to pay attention to major environmental problems of the IMF's member countries [103]. However, the board of governors did not extent the IMF's mandate with regard to environmental protection and warned the IMF not to duplicate the work of the World Bank ([65], p. 18). Hence, the executive board decided that environmental issues should be addressed "in ways consistent with the IMF's mandate and the size and structure of the organization" ([65], p. 5). To nevertheless achieve environmental objectives, the staff were told to draw upon the expertise of other specialized organization, such as the World Bank.

That the executive board got active on the issue of environmental protection can be partly explained with the raising public concern. But most of all, an IMF review from 1990 had shown that national environmental problems could "erode trade and budget balances and retard economic growth" ([65], p. 2). Hence, the executive board wanted to ensure that the IMF promotes sustainable development and avoids recommending policies that could have negative consequences for the environment ([104], p. 23).

Complying with the executive board's demand, the IMF's bureaucracy began to turn towards the issue of environmental protection. This process was fostered by Michel Camdessus, the then managing director of the IMF (1987–2000). At the beginning of the 1990s, the managing director presented the IMF's concept of 'high-quality growth'. High-quality growth is described as "growth that is sustainable […] and that does not wreak havoc with the atmosphere, with the rivers, forests, or oceans, or with any part of mankind's common heritage" ([65], p. 4). At the UNCED in 1992, the managing director referred to high-quality growth as the Fund's "ultimate objective" ([104], p. 24). Accordingly, the staff were instructed to assist member countries with the pursuit of policies oriented towards high-quality growth [103].

The IMF's high-level staff realized that natural resource degradation threatens growth and the staff agreed with the Fund's first deputy managing director that "[t]aking account of such environmental concerns is just good economics" ([101], p. 247). Thus, the staff started to address environmental issues in its policy dialogues with the member countries. Particularly important are the Fund's stabilization and adjustment programs which provide financial support to member countries who address macroeconomic imbalances and implement structural reforms ([65], pp. 10–15). The IMF has started to incorporate environmental policies in some of these programs. For example, the Fund urged the authorities in Ivory Coast to adapt a National Environmental Action Plan and to impose limits on timber exports as an element of a revised forest management ([65], p. 14). The developing countries were advised to use depletable resources at an optimal rate. In this respect, the IMF pointed to the win-win situation for both economy and environment ([102], p. 17; [65], pp. 6–10). Environmental measures were included in these and further programs as "structural benchmarks"; the IMF's financial support did not involve environmental conditionality because this had been opposed by many member countries ([65]; [103], p. 10, 15). The IMF integrated the results of World Bank studies into its policy dialogues with country authorities. In addition, the Fund supported the work on "green accounting" which considers the depletion and depreciation of environmental assets and which is carried out by the World Bank.

Despite these activities, the IMF staff raised several objections against the demand to address environmental issues. Most of all, they argued that "[w]e are a *monetary* institution, not an environmental one" ([104], p. 23). Thus, a main point was that the Fund's basic mandate limited its work on the environment ([105], p. 271). The staff explained that they could integrate the environment into the IMF's policy dialogue "only to the extent that member countries allow it to do so" and that they could only encourage country authorities to adopt appropriate environmental policies ([65], p. 18). The director of the fiscal affairs department pointed to the fact that the countries on the executive board did not wish the staff "to get deeply involved in the environment" ([105], p. 243) and that they opposed an environmental conditionality. Also, the staff emphasized to be "a servant of the member countries" ([106], p. 268). Thus, they were not willing to expand their own competences. This can be illustrated by the staff's resistance to the establishment of new environmental structures [103]. The staff seemed to regard the new demand as an additional burden that could "dilute its efforts in the area of its primary mandate" ([104], p. 24). Particularly, the administration criticized the vague definition of sustainable development and complained that "today you [external observers] come with the environment, tomorrow you might come with the right of women, the next week with the aged […]. In other words, where to draw the line?" ([107], p. 104). Nevertheless, the director of the fiscal affairs department added that "there are certain things in the environment that we can do […] without having to go the IMF board or changing the mandate of the Fund" ([105], p. 271). For example, the IMF thought about suggesting economies in transition to adjust their energy prices; a measure that was expected to reduce atmospheric emissions of sulphur ([101], p. 250).

Furthermore, the staff maintained that environmental objectives were not in line with the Fund's basic mandate because of different timeframes: while the timeframe for the IMF's work is short term, environmental problems tend to be long term ([104], p. 23). Last but not least, the bureaucracy pointed to the authority and expertise of the World Bank and other international organizations. Faced with the complex and multidisciplinary character of the environment, the staff pointed to their lack of expertise. It was invoked that the World Bank was better equipped to deal with such problems and that the IMF should not duplicate the Bank's work on the issue ([101], p. 250; [65], p. 6; [104], p. 24). Even though the US Congress supported the creation of an environmental analysis unit in the IMF ([73], p. 307), structural changes did not take place. Further, it was feared that the reduction of staff could affect the IMF's work on the environment ([105], p. 272).

4.3. Addressing Environmental Issues Within the IMF's Policy Dialogues (1996–2000)

Also in the second period (1996–2000), the reaction of the IMF to the demand to address environmental issues qualifies as single-loop learning. The staff continued to slightly incorporate environmental measures in its policy dialogues. However, they did not regard environmental protection as a value in itself but used environmental arguments as an additional justification to defend the measures the IMF requested from its member countries. Furthermore, several IMF adjustment programs that contained forest sector reforms proved that the Fund's fundamental principals have remained unchanged—the rather vague idea of a 'high-quality growth' has not been implemented. Thus, the Fund's theory-in-use did not seem to have changed. We will shed some more light on this development in the following.

Between 1996 and 2000, the IMF continued to incorporate environmental policies within its policy dialogue with developing countries. The IMF emphasized that its mandate "is limited to situations where environmental problems have a bearing on macroeconomic stability and sustainable growth" ([105], p. 272). Thus, the advice the IMF gave in the context of its stabilization and adjustment programs had been developed in close cooperation with the World Bank [108]. Because the IMF had realized that market prices do not always take adequate account of the environmental impact of an economic activity, the Fund argued for adjustments in its policy dialogues. Hence, many stabilization programs included increases in energy exercises. The IMF admitted that these increases "may not have been motivated primarily by environmental considerations", but "their consistency with environmental objectives has often been seen as an additional important justification" [108].

A better management of the environment was, for example, a part of the IMF's stabilization program in Indonesia. Here, the Fund supported measures to undertake consultation on forestry issues. Throughout the 1990s, the IMF consistently argued that Fund-supported policy reforms benefitted the environment as they had tended to promote a more efficient use of resources in developing countries ([65], p. 2; [108]).

However, critics hold different views. On the one hand, environmental NGOs indeed honored the IMF's acknowledgement of the environmental dimension of its operations as "an important step forward" ([109], p. 6) and praised the IMF for having "paid closer attention to environmental issues, such as deforestation" ([110], p. 26). On the other hand, they accused the IMF of contributing to environmental degradation in the developing world through its unsustainable short-term economic development programs [111]; especially with regard to deforestation. Thus, NGOs claimed that the IMF's loans and policies with their foci on export-oriented growth caused deforestation in member countries like Indonesia ([109–112]; [113], pp. 213–220). The research results published by Vreeland *et al.* ([110], p. 26) indicate that "on average" IMF programs contributed to deforestation. Also with regard to deforestation in developing countries, Mainhardt's study ([109], p. 4) comes to the conclusion that "no matter how eloquently the IMF emphasizes the necessity of 'high-quality growth' and 'policies that protect the environment', the fundamental operating principles and conventional policies of the IMF remain unchained".

Similarly, also the chief of the environmental economics unit of the UN Environmental Programme had criticized the design of the IMF's and the World Bank's structural adjustment programs because it "failed to take account of environmental and social considerations in any meaningful way" ([114], p. 217). In addition, NGOs deplored that funding for environmental programs had been hampered by the cuts in government spending imposed by the IMF. Because of the negative impact on the environment in developing countries, NGOs demanded that IMF initiatives should be coupled with environmental safeguards. Further, the IMF was asked to conduct environmental assessments of all loans, grants, and strategies ([112], p. 19; [109], p. 6).

However, the IMF was still not willing to extend its environmental expertise. Even though external experts had advised the IMF to acquire environmental skills ("It has already happened in the World Bank […]. I see no particular reason why there should be a serious obstacle to the acquisition of environmental skills by the Fund staff" ([106], p. 253), the IMF continued to ignore these demands and pointed to the close cooperation with the World Bank. The IMF's attitude towards NGOs that required the Fund to practice and promote greater participation of civil society at all levels of activity ([112], p. 19) seemed to be ambiguous. On the one hand, the IMF praised the exchange of ideas with environmental NGOs as it had benefitted from their "analytical work" especially with respect to the environmental implications of the IMF's stabilization and adjustment programs ([65]; [103], p. 17). On the other hand, the IMF staff did not seem to regard themselves as the correct addressee for the environmentalists' concerns: "my request to the NGOs is to please go back to the countries you deal with, make sure that the environmental ministers and the economic ministers meet, and ask them to bring the Bretton Woods institutions in the same room while they talk" ([106], p. 268).

4.4. Climate Change as a New Challenge for the IMF (2001–2012)

The third period starts with a structural change that indicates single-loop learning. In 2001, the IMF set up an environmental team—composed of staff from its fiscal affairs department—to "act as a resource for the IMF's area departments" ([115], p. 356). The task of the environmental team is to track the issues that arise in IMF consultations with the member states. Thus, it develops country environmental fact sheets to identify the links between the macroeconomy and the environment in these countries. Therewith, the environmental team wants to make sure that the IMF country desks understand the links between IMF programs and the environmental situation in the particular countries ([115], p. 356). The environmental team also addresses how the IMF seeks to promote sustainable development in its fiscal policy advice. For example, the environmental team argues that "in relation to the environment and natural resources, tax and spending policies have a role in correcting what would otherwise be inappropriate incentives for overconsumption" ([116], p. 6). Thus, the environmental team looks for mechanisms to avoid that the IMF-supported reform programs intensify resource degradation in the member countries. The team endorses the use of environmental taxes ([115], p. 356) and suggests that subsidies and tax policies that "lead to the excessive exploitation of natural resources should be phased out" ([116], p. 27).

In 2001, due to more frequent and more destructive weather events, the environmental team and other IMF area departments have started to focus on the macroeconomic implications of climate change ([115], p. 354). This was justified with the IMF's role in crisis prevention and management. Several IMF departments published policy documents on climate-related public spending and the (dis)-advantages of fiscal instruments like emission taxes and cap-and-trade systems to promote greener growth [117–122]. A recent IMF report on energy subsidy reform was welcomed by the World Wide Fund for Nature [123], because it "shines much light on the dark side of fossil fuel subsidies" that cause carbon pollution. The report shows that global fossil fuel subsidies are much higher than estimated and that almost half of fossil fuel subsidies occur in OECD countries.

In addition, the IMF's efforts on environmental and climate protection were reinforced by the Millennium Development Goals (MDGs) adapted by the international community at the UN Millennium Summit in September 2000. The MDGs are a set of development targets which center on halving poverty and improving the welfare of the world's poorest [120], (see for a critical assessment, [124]). One of the eight goals to be achieved by 2015 is to ensure environmental sustainability by integrating the principles of sustainable development into country policies and programs and reverse the loss of environmental resources. The MDGs—and explicitly the aim of environmental sustainability—were supported by the then managing director of the IMF, Horst Köhler (2000–2004). Köhler [125] declared that the IMF is "committed to playing an active role in this effort, reflecting its specific mandate and expertise." Currently, the IMF wants to contribute to the MDGs by, among others, "its advice, technical assistance and lending to countries" [120].

With regard to the MDGs, both the IMF managing director and World Bank president emphasize the relevance of a sustainable growth and the need to integrate environmental sustainability into core development work. The IMF recognized that climate change is "a major threat to sustainable development" and to the achievement of the MDGs [126]. Thus, both the IMF and the World Bank argue that global warming "necessitates an increased emphasis on integration of climate change prevention in development strategies" ([127], p. 10). To combat climate change effectively, the IMF and the World Bank argue in favor of a low-carbon growth and developed new strategies like the Clean Energy Investment framework ([127], p. 17).

However, the global monitoring report of 2010 published by the IMF and the Word Bank detected that progress on the broader environmental agenda was rather slow ([128], p. 18). Thus, an agenda was set up to accelerating progress towards the MDGs. Since then, a sound resource management is regarded as critical for sustainable growth in natural resource-dependent countries. In view of mitigation of carbon emissions, a financing and technology transfer to developing countries is seen as essential [120]. However, Gutner is skeptical in this regard as she observes that the IMF's response to the MDGs is a "marginal adaptation rather than a significant deviation form its usual approach" ([124], p. 285).

The current IMF managing director Christine Lagarde continues—at least rhetorically—the environmental protection efforts of her predecessors. At the UN Conference on Sustainable Development in 2012 (Rio+20) Lagarde [129] pointed to the fact that "the IMF is not an environmental organization". Nevertheless, she made clear that "the extensive human suffering and the misallocation of resources that leads us down the wrong path" cannot be ignored. To solve the current economic, environmental and social crisis, the managing director recommended "getting the green economy right." This means to use fiscal policy to "make sure that the harm we do is reflected in the prices we pay," with regard to developing countries, Lagarde noted that "a push to greener investment" can lead to "*higher* growth and *greener* growth, the best of both worlds" [129]. Thus, it seems that the IMF's theory-in-use did not change: further on, the IMF seems to be only in favor of environmental protection measures provided that this is a win-win situation for both environment and economy. Otherwise, the IMF tries to keep environmental requirements at arm's length and keeps pointing to the fact that environmental protection is not part of its mandate.

5. Conclusions

In the discipline of International Relations, several studies deal with the World Bank's efforts concerning environmental integration. Some of them come to the conclusion that the World Bank integrates environmental aspects on a mere superficial level which is therefore seen as greenwashing or organizational hypocrisy ([130], pp. 19–43) instead of greening ([67], p. 538; [69], p. 17). We introduced a concept of organizational learning (see Table 1) that is capable of scrutinizing the quality of environmental integration. It differentiates at a first level learning and non-learning according to changes of organizational knowledge and compliant *vs.* non-compliant learning at a second level. Compliant learning, however, can be of different quality; therefore single-loop learning can be separated from double-loop learning at a third level whereas non-compliant learning is conceptualized as double-loop learning. Finally, at the fourth level, the quality of organizational learning (single- *vs.* double-loop learning) can be derived from an organization's theories of action, *i.e.*, its espoused theory and theory-in-use.

Organizational learning is a dynamic process that takes time to develop [12]. Thus, our analysis of environmental integration in the administrations of the World Bank and the IMF covered the timeframes from 1970–2012 and 1990–2012. Due to our interest in the quality of organizational changes, we analyzed on the basis of an illustrative case study if the bureaucracies' reactions towards the external demands to integrate environmental aspects into their activities qualify as single-loop learning or as double-loop learning. While the World Bank's administration implemented environmental protection requirements more seriously in the recent past—the example of the revision of its safeguard policies indicates double-loop learning—the IMF has fallen behind as we only identify single-loop learning in all three time-periods (see for an overview Tables 2 and 3). However, we would not agree that the IMF is only greenwashing whereas the World Bank has greened because *both* organizations have started to implement environmental concerns and therefore learned as their organizational knowledge has changed towards environmental integration. Contrary to the more comprehensive efforts of the World Bank, environmental integration takes place only at the level of the IMF's espoused theory. Nevertheless, the IMF moved towards environmental integration—albeit in a single-loop manner. Furthermore, the case of the World Bank proved that after a long phase of single-loop learning, an organization can even change its underlying assumptions that qualify as double-loop learning.

According to our theoretical model, we would not identify organizational hypocrisy even if both organizations do not fully implement environmental protection requirements. However, we can identify if and to what extent international organizations follow external demands. They can ignore an external demand (non-learning), follow it on a rather superficially level (single-loop learning), they can profoundly implement an external demand (double-loop learning) or they can even refuse to follow an external demand by reinforcing the importance of their existing theories of action (non-compliant double-loop learning). Furthermore, we would not conclude that implementation on a superficial level (that might be seen as organizational hypocrisy) leads to a hypocrisy trap. On the contrary—as the case of the World Bank shows—periods of single-loop learning can be followed by double-loop learning, too. However, even if we identify compliant double-loop learning as in the case of the World Bank, this does not imply that the World Bank is turning into an environmental organization. Rather, it means that the organization is able to question its core beliefs and underlying assumptions concerning challenging external demands.

Discussing the difficulties with reforming the World Bank, scholars detected several important factors that also seem to have influenced the Bank's organizational learning process; especially its organizational culture ([2], p. 427; [74], p. 131; [86], p. 495; [87], p. 122;), bureaucratic resistance and administrative autonomy ([1], p. 242; [2], p. 420; [3], p. 34; [76], p. 237; [131]), lacking interests of member states and, thus, lacking resources to implement reforms ([2], p. 427; [37], p. 267; [86], p. 495). We would like to add that also lacking or ineffective monitoring systems may inhibit organizational learning—as the case of the IMF seems to show—while existing and stringent monitoring systems may positively affect the learning of administrations (cf., [3], p. 29; [37], p, 278). As our case study of the World Bank demonstrates, its monitoring system—induced by the member states—was vital for its increasing learning curve. Especially the establishment of the inspection panel and its complaint mechanism allow detecting whether the Bank's projects in developing countries harm the environment. Furthermore, the fact that the independent evaluation group started to monitor the activities of the administration in terms of environmental protection was essential for a better environmental performance. Thus, the evaluation group can be considered an important trigger for organizational learning of the World Bank's bureaucracy (cf., [74], p. 127). Even though an independent evaluation office (IEO) was set up in 2001 to conduct evaluations of the Fund's policies and activities, the IEO was not made responsible for the environment, which might be one explanation among others for IMF's lesser performance.

Concerning single-loop and double-loop learning within the Bretton Woods institutions, further empirical analysis is necessary to give more insights on the World Bank's efforts to revise its safeguard policies and the IMF's contribution to the implementation of the Millennium Development Goals. Further textual analyses and interviews in the World Bank and the IMF could be carried out to examine how both organizations operate internally, and how they implemented environmental concerns step by step.

A caveat needs to be issued concerning non-compliant learning. Conceptually, we expect that (international) organizations might also learn in a non-compliant fashion. However, both the World Bank and the IMF did not resist the external demands and did not claim that, e.g., their economic orientations and activities should remain untouched, because they are convinced of the relevance of their theories of action and because they regard environmental integration as an obstacle for their organizational goals. We assume that non-compliant learning could be observed in particular in the beginning of a policy implementation process if external pressure is rather low or if principals are unable to force international organizations to implement external demands. In our case studies we might find non-compliant learning if we further differentiate the administration into units and analyze organizational learning at the unit level.

Our contribution aims at narrowing the gap between international organizations and organization studies as it shows how organizational learning can be applied to international organizations. The theoretical and empirical value of this endeavor can be observed from the introduced concept of organizational learning and the two case studies. Further empirical research on organizational learning in international organizations could help to scrutinize the conditions and circumstances for organizational learning in general and the transition between learning types in particular.

Acknowledgements

We would like to thank the anonymous reviewers for their constructive and very helpful comments on the first draft of this article. We would like to thank Christof Dieterle and Dörthe Hauschild for making the text more readable and Eva-Maria Wachter for supporting our empirical research. The authors bear responsibility for any shortcomings. We are especially grateful to the Deutsche Forschungsgemeinschaft and the CRC 597 (University of Bremen) for their financial support.

Conflicts of Interest

The authors declare no conflict of interest.

References and Notes

1. Nielson, D.L.; Tierney, M.J. Delegation to International Organizations: Agency Theory and World Bank Environmental Reform. *Int. Organ.* **2003**, *57*, 241–276.
2. Ascher, W. New Development Approaches and the Adaptability of International Agencies: The Case of the World Bank. *Int. Organ.* **1983**, *37*, 415–439.
3. Gutner, T.L. *Banking on the Environment: Multilateral Development Banks and their Environmental Performance in Central and Eastern Europe*; MIT Press: Cambridge, MA, USA, 2002.
4. Benner, T.; Rotmann, P. Learning to learn: UN Peacebuilding and the Challenges of Building a Learning Organization. *J. Interv. State Build.* **2008**, *2*, 43–62.
5. Biermann, F.; Siebenhüner, B. *Managers of Global Change. The Influence of International Environmental Bureaucracies*; MIT Press: Cambridge, MA, USA, 2009.
6. Ahrne, G.; Brunsson, N. *Meta-Organizations*; Edward Elgar Publishing: Cheltenham, UK, 2008.
7. Crossan, M.M.; Guatto, T. Organizational Learning Research Profile. *J. Organ. Change Manag.* **1996**, *9*, 197–112.
8. Klimecki, R.G.; Laßleben, H.; Riexinger-Li, B. Zur empirischen Analyse organisationaler Lernprozesse im öffentlichen Sektor—Teil 1: Modellbildung und Methodik (in German). *Manag. Forsch. Prax.* **1994**, *8*, 1–33.
9. Fauske, J.R.; Raybould, R. Organizational Learning Theory in Schools. *J. Educ. Adm.* **2005**, *42*, 22–40.
10. Kapur, D. The “Knowledge” Bank. In *Rescuing the World Bank*; Birdsall, N., Ed.; Center for Global Development: Washington, DC, USA, 2006; pp. 159–170.

11. Ness, G.D.; Brechin, S.R. Bridging the Gap: International Organizations as Organizations. *Int. Organ.* **1988**, *42*, 245–273.
12. Crossan, M.M.; Berdrow, I. Organizational Learning and Strategic Renewal. *Strat. Manag. J.* **2003**, *24*, 1087–1105.
13. Crossan, M.M.; Maurer, C.C.; White, R.E. Reflections on the 2009 AMR Decade Award: Do we have a Theory of Organizational Learning? *Acad. Manag. Rev.* **2011**, *36*, 446–460.
14. Scott, W.R. *Organizations: Rational, Natural, and Open Systems*, 3rd ed.; Prentice-Hall: Englewood Cliffs, NJ, USA, 1992.
15. Argyris, C.; Schön, D.A. *Organizational Learning: A Theory of Action Perspective*; Addison-Wesley: Reading, MA, USA, 1978.
16. Meyer, J.W.; Rowan, B. Institutionalized Organizations: Formal Structure as Myth and Ceremony. *Am. J. Soc.* **1977**, *83*, 340–363.
17. Pfeffer, J.; Salancik, G.R. *The External Contral of Organizations: A Resource Dependence Perspective*; Harper&Row: New York, NY, USA, 1978.
18. Rittberger, V.; Zangl, B.; Kruck, A. *International Organization*, 2nd ed.; Palgrave Macmillan: Basingstoke, UK, 2011.
19. Cox, R.W. The Executive Head: An Essay on Leadership in International Organization. In *Approaches to World Order*; Cox, R.W., Sinclair, T.J., Eds.; Cambridge University Press: Cambridge, MA, USA, 1996; pp. 317–348.
20. Barnett, M.; Finnemore, M. *Rules for the World: International Organizations in Global Politics*; Cornell University Press: Ithaca, NY, USA, 2004.
21. Liese, A.; Weinlich, S. Die Rolle von Verwaltungsstäben internationaler Organisationen. Lücken, Tücken und Konturen eines (neuen) Forschungsfeldes. In *Politik und Verwaltung. PVS Sonderheft* (in German); Bogumil, J., Jann, W., Nullmeier, F., Eds.; VS Verlag: Wiesbaden, Germany, 2006; pp. 491–524.
22. Barnett, M.N.; Finnemore, M. The Politics, Power, and Pathologies of International Organizations. *Int. Organ.* **1999**, *53*, 699–732.
23. Scott, W.R. Organizations and the Natural Environment: Evolving Models. In *Organizations, Policy, and the Natural Environment*; Hoffman, A.J., Ventresca, M.J., Eds.; Stanford University: Stanford, CA, 2002; pp. 453–464.
24. Mintzberg, H. *The Structure of Organizations*; Prentice-Hall: Englewood Cliffs, NJ, USA, 1979.
25. March, J.G.; Olsen, J.P. The New Institutionalism: Organizational Factors in Political Life. *Am. Pol. Sci. Rev.* **1984**, *78*, 734–749.
26. March, J.G.; Simon, H.A. *Organizations*, 2nd ed.; Wiley: New York, NY, USA, 1958.
27. Hedberg, B. How Organizations Learn and Unlearn. In *Handbook of Organizational Design*; Nystrom, P.C., Starbuck, W.H., Eds.; Oxford University Press: Oxford, UK, 1981; pp. 3–27.
28. Winters, A.L. Coherence with no "Here": WTO Co-operation with the World Bank and the IMF. In *The Political Economy of Policy Reform: Essays in Honor of J. Michael Finger*; Nelson, D., Finger, J.M., Eds.; Elsevier: Amsterdam, The Netherlands, 2004; pp. 329–351.
29. Head, J.W. *The Future of the Global Economic Organizations: An Evaluation of Criticisms Leveled at the IMF, the Multilateral Development Banks, and the WTO*; Transnational Publishers: Ardsley, NY, USA, 2005.

30. Weick, K.E. *The Social Psychology of Organizing*; 2nd ed.; Addison-Wesley: Reading, MA, USA, 1979.
31. Daft, R.L.; Huber, G.P. How Organizations Learn: A Communication Framework. *Res. Soc. Organ.* **1987**, *5*, 1–36.
32. Daft, R.L.; Weick, K.E. Toward a Model of Organizations as Interpretation Systems. *Acad. Manag. Rev.* **1984**, *9*, 284–295.
33. Gilbert, C.L.; Powell, A.; Vines, D. Positioning the World Bank. In *The World Bank: Structure and Policies*; Gilbert, C.L.; Vines, D., Eds.; Cambridge University Press: Cambridge, UK, 2000; pp. 39–86.
34. White, N.D. *The Law of International Organisations*; Manchester University Press: Manchester, UK, 1996.
35. Thompson, J.D. *Organizations in Action*; McGraw-Hill: New York, NY, USA, 1967.
36. Koch, M.; Lindenthal, A. Learning within the European Commission: The Case of Environmental Integration. *J. Europ. Publ. Pol.* **2011**, *18*, 980–998.
37. Haas, P.M.; Haas, E.B. Learning to Learn: Improving International Governance. *Glob. Govern.* **1995**, *1*, 255–284.
38. Senghaas-Knobloch, E.; Dirks, J.; Liese, A. *Internationale Arbeitsregulierung in Zeiten der Globalisierung* (in German); LIT Verlag: Münster, Germany, 2003.
39. Benner, T.; Mergenthaler, S.; Rotmann, P. Internationale Bürokratien und Organisationslernen (in German). *Z. Int. Bez.* **2009**, *16*, 203–236.
40. Hall, P.A. Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain. *Comp. Pol.* **1993**, *25*, 275–296.
41. Bennett, C.J.; Howlett, M. The Lessons of Learning: Reconciling Theories of Policy Learning and Policy Change. *Pol. Sci.* **1992**, *25*, 275–273.
42. Zito, A.R.; Schout, A. Learning Theory Reconsidered: EU Integration Theories and Learning. *J. Europ. Publ. Pol.* **2009**, *16*, 1103–1123.
43. Haas, E.B. *When Knowledge is Power: Three Models of Change in International Organizations*; University of California Press: Berkely, CA, USA, 1990.
44. Ebbinghaus, B. Can Path Dependency Explain Institutional Change? Two Approaches of Applied Welfare State Reform. Available online: http://edoc.mpg.de/270944 (accessed on 15 September 2013).
45. Streeck, W.; Thelen, K.A. *Beyond Continuity: Institutional Change in Advanced Political Economies*; Oxford University Press: Oxford, UK, 2005.
46. Duncan, R.B. Characteristics of Organizational Environment and Perceived Environmental Uncertainty. *Adm. Sci. Q.* **1972**, *17*, 313–327.
47. Argyris, C. Single-Loop and Double-Loop Models in Research on Decision Making. *Adm. Sci. Q.* **1976**, *21*, 363–375.
48. Huber, G.P. Organizational Learning: The Contributing Processes and the Literature. *Org. Sci.* **1991**, *2*, 88–115.
49. Senge, P.M. *Die fünfte Disziplin: Kunst und Praxis der lernenden Organisation* (in German), 3rd ed.; Klett-Cotta: Stuttgart, Germany, 1996.

50. Kopp-Malek, T.; Koch, M.; Lindenthal, A. *Die Europäische Kommission als Lernende Organisation* (in German)? VS Verlag: Wiesbaden, Germany, 2009.
51. Schout, A. Organizational Learning in the EU's Multi-Level Governance System. *J. Europ. Publ. Pol.* **2009**, *16*, 1124–1144.
52. Easterby-Smith, M. Disciplines of Organizational Learning: Contributions and Critiques. *Human Rel.* **1997**, *50*, 1085–1113.
53. Vince, R. The Impact of Emotion on Organizational Learning. *Human Res. Dev. Int.* **2002**, *5*, 73–85.
54. Bandelow, N.C. Government Learning in German and British European Policies. *J. Common Market Stud.* **2008**, *46*, 743–764.
55. Zito, A.R. European Agencies as Agents of Governance and EU Learning. *J. Europ. Publ. Pol.* **2009**, *16*, 1224–1243.
56. Argyris, C.; Schön, D.A. *Organizational Learning II: Theory, Method, and Practice*; Addison-Wesley: Reading, MA, USA, 1996.
57. Fiol, M.C.; Lyles, M.A. Organizational Learning. *Acad. Manag. Rev.* **1985**, *10*, 803–813.
58. Sabatier, P.A. Advocacy-Koalitionen, Policy-Wandel und Policy-Lernen: Eine Alternative zur Phasenheuristik. In *Policy-Analysen: Kritik und Neuorientierung. PVS-Sonderheft 24* (in German); Héritier, A., Ed.; Westdeutscher Verlag: Opladen, Germany, 1993; pp. 116–148.
59. Egan, M. Governance and Learning in the Post-Maastricht Era? *J. Europ. Publ. Pol.* **2009**, *16*, 1244–1253.
60. Yin, R.K. *Applications of Case Study Research*, 3rd ed.; Sage Publications: Los Angeles, CA, USA, 2012.
61. Davey, L. The Application of Case Study Evaluations. *Prac. Assessm. Res. Eval.* **1991**, *2*, 1–3.
62. Gerring, J. What is a Case Study and What is it Good for? *Am. Pol. Sci. Rev.* **2004**, *98*, 341–354.
63. IMF. Factsheet: The IMF and the World Bank. Available online: http://www.imf.org/external/np/exr/facts/imfwb.htm (accessed on 24 September 2013).
64. Gandhi, V.P. *Macroeconomics and the Environment*; IMF: Washington, DC, USA, 1996.
65. Gandhi, V.P. *The IMF and the Environment*; IMF Publication Services: Washington, DC, USA, 1998.
66. Gehring, T.; Kerler, M.A. Neue Entscheidungsverfahren in der Weltbank. Wie institutionelle Strukturen zu gutem Regieren führen (in German). *Z. Int. Bez.* **2007**, *14*, 217–251.
67. Park, S. The World Bank Group: Championing Sustainable Development Norms? *Glob. Govern.* **2007**, *13*, 535–556.
68. Wade, R. The World Bank and the Environment. In *Global Institutions and Development*; Bøås, M., McNeill, D., Eds.; Routledge: London, UK, 2004; pp. 72–94.
69. Gutner, T. Explaining the Gaps between Mandate and Performance: Agency Theory and World Bank Environmental Reform. *Glob. Env. Pol.* **2005**, *5*, 10–37.
70. World Bank Inspection Panel. Report and Findings on the Qinghai Project. Available online: http://www.jmu.edu/orgs/tibet/qinghai.html (accessed on 20 September 2013).
71. World Bank. The World Bank's Safeguard Policies: Proposed Review and Update. Available online: http://siteresources.worldbank.org/EXTSAFEPOL/Resources/584434-1306431390058/SafeguardsReviewApproachPaper.pdf (accessed on 14 September 2013).

72. Gutner, T. World Bank Environmental Reform: Revisiting Lessons from Agency Theory. *Int. Organ.* **2005**, *59*, 773–783.
73. Rich, B. The Emperor's New Clothes: The World Bank and the Environmental Reform. *World Pol. J.* **1990**, *7*, 305–329.
74. Marschinski, R.; Behrle, S. The World Bank: Making the Business Case for the Environment. In *Managers of Global Change: The Influence of International Environmental Bureaucracies*; Biermann, F., Siebenhüner, B., Eds.; MIT Press: Cambridge, MA, USA, 2009; pp. 101–142.
75. World Bank. Environment Matters. Available online: http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2002/04/26/000094946_02041304004944/additional/000155514_200209294052010.pdf (accessed on 14 September 2013).
76. Park, S. *World Bank Group Interactions with Environmentalists*; Manchester University Press: Manchester, UK, 2010.
77. Independent Evaluation Group. Safeguards and Sustainability Policies in a Changing World. Available online: http://siteresources.worldbank.org/EXTSAFANDSUS/Resources/Safeguards_eval.pdf (accessed on 14 September 2013).
78. World Bank. Environment Matters—The World Bank Group and the Environment Fiscal 1996. Available online: http://213.154.74.164/invenio//record/2856?ln=en (accessed on 14 September 2013).
79. Woods, N.; Narlikar, A. Governance and the Limits of Accountability: The WTO, the IMF, and the World Bank. *Int. Soc. Sci. J.* **2001**, *53*, 569–583.
80. Earthworks. Undermining Communities and the Environment: A Review of the International Finance Corporation's Environmental, Health, and Safety Guidelines for Mining. Available online: http://www.earthworksaction.org/files/publications/IFC%20Mining%20Guidelines_20070904.pdf?pubs/IFC%20Mining%20Guidelines_20070904.pdf (accessed on 14 September 2013).
81. Marschinski, R.; Behrle, S. *The World Bank: Making the Business Case for the Environment*; Global Governance Working Paper No. 21; VU University Amsterdam: Amsterdam, The Netherlands, 2007.
82. World Bank. Making Sustainable Commitments: An Environment Strategy for the World Bank. Available online: http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/0,,contentMDK:20286811~menuPK:281634~pagePK:148956~piPK:216618~theSitePK:244381,00.html (accessed on 14 September 2013).
83. Greenpeace. World Bank. Available online: http://www.greenpeace.org/international/en/campaigns/trade-and-the-environment/world-bank (accessed on 14 September 2013).
84. WWF. WWF Urges World Bank to Take Lead in Promoting Clean and Sustainable Energy Use. Available online: http://worldwildlife.org/press-releases/wwf-urges-world-bank-to-take-lead-in-promoting-clean-and-sustainable-energy-use (accessed on 14 September 2013).
85. Bretton Woods Project Global Energy Solutions Bank on Carbon Trading. Available online: http://www.brettonwoodsproject.org/art-547310 (accessed on 14 September 2013).
86. Weaver, C. The World's Bank and the Bank's World. *Glob. Govern.* **2007**, *13*, 493–512.
87. Nielson, D.L.; Tierney, M.J.; Weaver, C.E. Bridging the Rationalist-Constructivist Divide: Re-Engineering the Culture of the World-Bank. *J. Int. Rel. Dev.* **2006**, *9*, 107–139.

88. WWF. Response to the World Bank's Decision for Funding Large Infrastructure Projects. Available online: http://worldwildlife.org/press-releases/response-to-the-world-bank-s-decision-for-funding-large-infrastructure-projects (accessed on 14 September 2013).
89. Oxfam. Oxfam Response to World Bank's New Estimate of Cost of Adaptation to Climate Change in Developing Countries. Available online: http://www.oxfam.org/en/pressroom/pressrelease/2009-09-30/world-bank-cost-estimate-climate-adaptation (accessed on 14 September 2013).
90. Government of Sweden. Speech held by Finance Minister Anders Borg at the World Bank annual meeting. Avalible online: http://www.government.se/sb/d/9698/a/90688 (accessed on 14 September 2013).
91. UK Department for International Development. UK Engagement with the World Bank Group 2011/2012. Available online: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67472/uk-engage-wrld-bnk-11-12.pdf (accessed on 13 September 2013).
92. WWF. WWF: World Bank underscores Climate Change Threat, but must change Lending Patterns. Available online: http://worldwildlife.org/press-releases/wwf-world-bank-underscores-climate-change-threat-but-must-change-lending-patterns (accessed on 14 September 2013).
93. Orenstein, K. Capitalizing on Climate: The World Bank's Role in Climate Change & International Climate Finance. Available online: http://www.foei.org/en/resources/publications/pdfs/2010/capitalizing-on-climate/view (accessed on 14 September 2013).
94. World Bank. The World Bank Group Environment Strategy. Available online: http://siteresources.worldbank.org/ENVIRONMENT/Resources/244380-1250028593656/6382907-1252510780845/6428643-1256655379723/6510806-1259170156275/ENV-Strategy-2010-CN-EN.pdf (accessed on 14 September 2013).
95. Independent Evaluation Group Environmental Sustainability. An Evaluation of World Bank Group Support. Available online: http://ieg.worldbank.org/environmental-sustainability-evaluation-world-bank-group-support (accessed on 14 September 2013).
96. World Bank Management Response. Home Page. Available online: http://web.worldbank.org/ (accessed on 14 September 2013).
97. Independent Evaluation Group Evaluative Directions for the World Bank Group's Safeguards and Sustainability Policies. Available online: http://web.worldbank.org/ (accessed on 14 September 2013).
98. World Bank Group. Toward a Green, Clean, and Resilient World for All—A World Bank Group Enviornmental Strategy 2012–2022. Available online: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/08/19/000333037_20130819115200/Rendered/PDF/804820WP0ENV0E0Box0379805B00PUBLIC0.pdf (accessed on 13 September 2013).
99. Greenpeace. Forests and People First. Available online: www.greenpeace.org (accessed on 14 September 2013).
100. IMF. Governance Structure. Available online: http://www.imf.org/external/about/govstruct.htm (accessed on 14 September 2013).
101. Fischer, S. What is Reasonable to Expect of the IMF on the Environment? In *Macroeconomics and the Environment*; Gandhi, V.P., Ed.; IMF: Washington, DC, USA, 1996; pp. 247–251.

102. Gandhi, V.P. Macroeconomics and the Environment: Summary and Conclusions. In *Macroeconomics and the Environment*; Gandhi, V.P., Ed.; IMF: Washington, DC, USA, 1996; pp. 1–21.
103. Gandhi, V.P. The International Monetary Fund. Available online: http://www.g8.utoronto.ca/scholar/kirton199503/gandhi/rt95gin.htm (accessed on 12 September 2013).
104. Kelly, M. Welcoming Remarks. In *Macroeconomics and the Environment*; Gandhi, V.P., Ed.; IMF: Washington, DC, USA, 1996; pp. 23–25.
105. Tanzi, V. Concluding Remarks. In *Macroeconomics and the Environment*; Gandhi, V.P., Ed.; IMF: Washington, DC, USA, 1996; pp. 269–272.
106. Pearce, D.; Habito, C.; Steer, A.; Gandhi, V.P. Panel Discussion. In *Macroeconomics and the Environment*; Gandhi, V.P., Ed.; IMF: Washington DC, USA, 1996; pp. 252–268.
107. Parikh, K. Discussion. In *Macroeconomics and the Environment*; Gandhi, V.P., Ed.; IMF: Washington, DC, USA, 1996; pp. 95–104.
108. IMF. The IMF and Environmental Issues. Avaliable online: http://www.imf.org/external/np/exr/ib/2000/041300.htm (accessed on 12 September 2013).
109. Mainhardt, H. IMF Intervention in Indonesia: Undermining Macroeconomic Stability and Sustainable Development by Perpetuating Deforestation. Available online: http://awsassets.panda.org/downloads/IMFIntervention.pdf (accessed on 12 September 2013).
110. Vreeland, J.R.; Sturm, R.K.; Durbin, S.W. The Effect of IMF Programs on Deforestation. Available online: http://www9.georgetown.edu/faculty/jrv24/IMFdefor.PDF (accessed on 12 September 2013).
111. Carrasco, E.R.; Wendt, N.; Weidner, M. 50th Anniversary of the Word Bank and IMF Prompts Criticism. Available online: http://blogs.law.uiowa.edu/ebook/sites/default/files/Part_2_2.pdf (accessed on 30 September 2013).
112. Tockmann, J. The IMF—Funding Deforestation. How International Monetary Fund Loans and Policies are Responsible for Global Forest Loss. Available online: http://www.eldis.org/assets/Docs/27219.html (accessed on 12 September 2013).
113. Hersel, P. Von der Ungleichheit des globalen Naturverbrauchs. Die Rolle des internationalen Finanzsystems bei der Inwertsetzung, Zerstörung und Umverteilung der natürlichen Ressourcen des Südens (in German). *PROKLA* **2005**, *35*, 203–223.
114. Abaza, H. Integration of sustainability objectives in structrual adjustment programmes using strategic environmental assessment. *Proj. Apprais.* **1996**, *11*, 217–228.
115. IMF Survey. *IMF Team Keeps an Eye on Linkages between Environment and Macroeconomic Policies*; IFM: Washington, DC, USA, 2001; pp. 354–356.
116. IMF. Fiscal Dimensions of Sustainable Development. Available online: http://www.imf.org/external/pubs/cat/longres.aspx?sk=15954 (accessed on 12 September 2013).
117. IMF. Climate Policy and the Recovery (staff position note). Available online: http://www.imf.org/external/pubs/cat/longres.aspx?sk=23362 (accessed on 12 September 2013).
118. IMF. Financing the Response to Climate Change (staff position note). Available online: http://www.imf.org/external/pubs/cat/longres.aspx?sk=23725.0 (accessed on 12 September 2013).
119. IMF. IMF Work on Fiscal Policy and Climate Change. Available online: http://www.imf.org/external/np/seminars/eng/2012/rio/pdf/fiscal.pdf (accessed on 12 September 2013).

120. IMF. Fiscal Affairs Department—At a Glance, 2012. Available online: http://www.imf.org/external/np/fad/news/fadbroch.pdf (accessed on 12 September 2013).
121. Jones, B.; Keen, M. Climate Policy in Hard Times. *Fin. Dev.* **2009**, *46*, 6–9.
122. Jones, B.; Keen, M.; Strand, J. Paying for Climate Change. *Fin. Dev.* **2008**, *45*, 1–6.
123. WWF: Maintenance of Fossil Fuel Subsidies is a Global Scandal. Available online: http://wwf.panda.org/?208116/wwf-maintenance-of-fossil-fuel-subsidies-is-a-global-scandal-supporting-imf-findings (accessed on 12 September 2013).
124. Gutner, T. When "Doing Good" does not: The IMF and the Millennium Development Goals. In *Who Governs the Globe?* Avant, D.D., Finnemore, M., Sell, S.K., Eds.; Cambridge University Press: Cambridge, UK, 2010; pp. 266–290.
125. Köhler, H. Views and Commentaries for Breaking the Cycle of World Poverty. http://www.imf.org/external/np/vc/2001/033101.htm (accessed on 12 September 2013).
126. IMF. Joint IMF, Multilateral Development Banks statement ahead of the UN Climate Change Conference in Copenhagen. Available online: http://www.imf.org/external/np/sec/pr/2009/pr09439.htm (accessed on 12 September 2013).
127. IMF and World Bank. Global Monitoring Report—MDGs and the Environment. Available online: http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1327948020811/8401693-1327957281774/8402501-1328643991240/8944_Web_PDF.pdf (accessed on 12 September 2013).
128. IMF and World Bank. Global Monitoring Report—The MDGs after the Crisis. Available online: http://www.imf.org/external/pubs/ft/gmr/2010/eng/gmr.pdf (accessed on 12 September 2013).
129. Lagarde, C. Back to Rio—the Road to a Sustainable Economic Future. Available online: http://www.imf.org/external/np/speeches/2012/061212.htm (accessed on 12 September 2013).
130. Weaver, C.E. *The World Bank and the Poverty of Reform*; Princeton University Press: Princeton, NJ, USA, 2008.
131. Lindenthal, A. Autonomy or Adaptability? Environment Integration in the World Bank. In *Transnational Administrative Rule-Making*; Dilling, O., Herberg, M., Winter, G., Eds.; Hart Publishing: Oxford, UK, 2011; pp. 215–233.