

CHALMERS



ASSESSMENT OF THE PROCEDURE OF RATIFICATION OF THE KYOTO PROTOCOL IN KAZAKHSTAN

Master's Thesis in *Applied Environmental Measurement Techniques*

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Department of Environmental Systems Analysis
CHALMERS UNIVERSITY OF TECHNOLOGY
Göteborg – Sweden
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Abstract

The main subject of this piece of work is the assessment of the behavior of the governmental institutions in Kazakhstan involved in the procedure of ratification of international environmental agreement of the Kyoto Protocol to the United Nations Framework Convention on Climate Change 1992. Due to the reason that this subject is related to the activities of governmental institutions the knowledge from the political science has been applied in this work. Four different institutional theories together with the consideration of environmental and economic aspects of the ratification of the Kyoto Protocol by Kazakhstan were used in order to assess the behavior of governmental institutions. Among four applied theoretical approaches were: Rational Choice Institutionalism, Historical Institutionalism, Empirical Institutionalism and Normative Institutionalism. For each of them one specific hypothesis has been developed for this particular case study of the ratification of the Kyoto Protocol in Kazakhstan, furthermore for each specific hypothesis several relevancy criteria were established in order to evaluate which of the theoretical approaches is the strongest in terms of the explanation of the behavior of the governmental institutions. Then available information has been gathered through observations of available literature, related reports, personal communication and Internet search. After that with the consideration of all found information related to the ratification of the Kyoto Protocol in Kazakhstan has been examined and certain conclusions were drawn. Eventually, the specific hypothesis developed for each of theoretical approaches were tested through the relevancy criteria in order to fulfill the main task of this piece of work and find an explanation for the behavior of the governmental institutions in Kazakhstan in the light of the ratification of the Kyoto Protocol. Based on the major findings of this work assessment of the behavior of governmental institutions has been made; several conclusions made and some recommendations proposed.

Key words: the Kyoto Protocol, the United Nations Framework Convention on Climate Change, Kazakhstan, ratification, governmental institutions, institutional theories

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1. Introduction

The importance of international environmental institutions by no means can be underestimated, since it is the only leverage to solve ecological problems which cover large territories. It is a matter of fact that environmental problems of global scale, e.g. climate change, do not concern about the borders between the different states. Beside it, there are many common things in the world like atmosphere or ocean resources etc., which nowadays urgently need protection. Some decades ago people used to exploit common resources without caring too much about them, considering that the impact on the environment was negligible and the potential of nature to mitigate the impact was enormous. Presumably, the situation used to be like that about a century ago, when there were only about 1.6 billion (Flavin, French and Gardner 2002) inhabitants on the face of the Earth. However, obviously the conditions have changed dramatically over time when demographic “explosion” occurred resulting in growth of the population up to 6.1 billion people in year 2000. Beside the population factor, all kinds of technology became much more developed than ever before in history, bringing more and more intense impact on natural resources of the planet. For instance, nowadays people not only consume more fish than before because there are more people now, but they have learnt how to catch more fish from water resources using more and more effective facilities for this purpose like nets or even dynamite. Broadly speaking, during one century dramatic changes occurred in all fields of activities of human being and the impact on the nature obviously became overwhelming in many cases. One picturesque example of the overwhelming impact of human activities is the alteration of the atmosphere composition due to the pollution by the products of fossil fuels burning for energy production. Natural capacity of the atmosphere is no longer enough to handle air pollution. Incredible changes in the Earth ecosystems warned people to change their attitude to the issue of air pollution, since otherwise the disastrous consequences may occur.

This piece of work consists of two major parts. In the first part the issue of atmosphere pollution and a climate change problem as its consequences will be shortly introduced. In addition, the general observation of the Climate Change regime with its major parts of the United Nations Framework Convention on Climate Change (here and after the UNFCCC or Convention) of 1992 and its Kyoto Protocol (here and after Protocol) issued in 1997 will be implemented.

The second part of this work represents the attempt of interdisciplinary approach towards the understanding of ratification process of an international environmental agreement like the Kyoto Protocol on the level of one particular country with the case study of Former Soviet Union country the Republic of Kazakhstan. This research aims to explain the behavior of governmental institutions involved in the process of the ratification of the Kyoto Protocol with the help of several institutional theories.

2. Background

The United Nations Convention on Climate Change (1992) with its Kyoto Protocol (1997) became the tools to handle climate change issue at international level. For the purposes of this study it was decided to observe how these international agreements are implemented among the Former Soviet Union (FSU) countries. Former Soviet Union countries are 15 countries which together formed the state of the USSR from 1922 until 1991, for some countries year of joining to the USSR may be different (see Appendix A). Preliminary research showed that the

UNFCCC has been ratified by all 15 countries and the Kyoto Protocol has been ratified by 13 countries with two exceptions. These two exceptions in case of the ratification of the Kyoto Protocol are Kazakhstan and Tajikistan which were found to be not yet the Parties of the Kyoto Protocol (see Appendix B). At the same time it was known that Kazakhstan has signed the Protocol in March 1999, meanwhile Tajikistan so far has not signed and has not ratified the Kyoto Protocol and in its turn that forces to conclude that Tajikistan does not demonstrate any concerns regarding the policy of the Kyoto Protocol. Eventually, the particular case of Kazakhstan was chosen as topic of this study due to the factor that it is known that the procedure of the ratification of the Kyoto Protocol in this country is going on these days and this provides a primary basis for investigation, meanwhile absolutely nothing is known regarding the Tajikistan's policy in the frame of the Kyoto Protocol to the UNFCCC. In addition it should be mentioned the circumstance that the author of this piece of work originated from Kazakhstan was also considered, since it might be helpful in terms of acquiring information related to the activities of governmental institutions regarding the ratification of the Kyoto Protocol, which in this case may become a truly crucial factor for the successful implementation of the main task of this work.

Since the procedure of ratification of international agreements in Kazakhstan involves stakeholders of institutional nature (e.g. government), an interaction with the part of political science which deals with institutions was necessary to fulfill the main task of this work and the last one will be clarified in chapter 2.2.

2.1. Institutions: what are they?

Hardly anyone can precisely point out the date when the first institution emerged. At the same time we know that institution appeared at the dawn of mankind civilization, since the existence of institutions was known throughout the history. The emergence of institutions was quite reasonable phenomenon. Thus, since people lived in one community at some certain geographical area, worked together, hunted together, gained some properties, soon they realized that some kind of regulation system was needed to organize their everyday life. Over time it was discovered that beside everyone's own interest there was also a common interest. For example people lived in a small village and over time community has grown and many common problems appeared, like the protection of the community from invaders, property issues inside the community, management of common resources: land, water, etc. So, people have gathered together as members of one community and decided together to create some form of government, i.e. the union of people, who would be respected persons, and who would agree to carry the burden of care about the organizational issues of their community (Rothstein 1996). Over time this institution developed and splitted into different types of sub-institutions. One institution was responsible for the collective creation of the rules for the community. Another one needed for the implementation of the rules. Third type of institution was created for taking care of conflicts and disputes between community members by clarifying the proper interpretation of the rules made by the first institution. And of course the last type of institution existed to take care of rule-breakers. Thus, institutions became a tool of determining, ordering, or modifying individual motives (March and Olsen, 1989).

Over time, the community grew and originally initiated system has been developed. Villages became towns, cities and megapolises. Tribes became folks and nations. Regions and lands became states with borders and governments. Nevertheless, nowadays described type of institutional political system basically does exist in the world.

So, finally what is the institution? There are several definitions of this phenomenon. Here are the most general ones:

1. **Institution** – a large organization that has a particular kind of work or purpose.
2. **Institution** – is an important system of organization in society that has existed for a long time (Longman Dictionary of contemporary English, 2003). Furthermore, it is said that there are several features of institutions exist.

One of the most important elements of institutions is that they are a structural feature of society and/or polity. Two possible ways of this structure do exist. First it can be a formal structure, e.g. legislation or a legal framework or it can be informal which is a network of interacting organizations or a set of shared norms. Thus, institutions in a way represent groups of individuals which interact following rules accepted among the actors.

An institution should also possess some stability. It means that some events with participation of the actors of institution should occur time to time. These kinds of events, e.g. meetings, conferences may be regular with strict schedule or more or less arbitrary, but stable over time in any case.

Another important feature of an institution is its ability to affect the behavior of the actors/members, i.e. groups of people as well as individuals. There is no institution if actors do not have any obligations, whether formal or informal, actor's behavior is in a way constrained by the institution.

Eventually, may be not so important in comparison with characteristics mentioned above, but still valuable is the sense of shared values and meaning among the actors of institution (Peters 1999).

Summarizing two definitions and features described above it is can be inferred that institutions are organizations or mechanisms of social structure, governing the behavior of two or more individuals. Besides, institutions basically do possess a social purpose and permanence, representing the will and intentions of individuals.

One should be noticed, that this piece of work actually deals with institutions which possesses features of both definitions and therefore for the purpose of this work institutions should be distinguished. One type of institutions discussed in this paper, is the type of institutions which are more like "legislations" and "mechanisms", i.e. in this case study this type of institutions are the UNFCCC and the Kyoto Protocol. Another type of institutions is the type of institutions which are more like "organization" which directly represents stakeholders, in this case – governmental institutions. Although, both two types are very closely interrelated, it is necessary to differentiate them in order to be able to distinguish adequately. These two types of institutions will be specified in chapter 2.3.

2.2. The goals and purposes of this study

The main goal of this work is to find out the reasons why Kazakhstan does behave differently from other Former Soviet Union countries and still up to year 2005 has not yet ratified the international environmental agreement of the Kyoto Protocol, although has signed it 6 years ago in 1999. In order to find out the reasons why Kazakhstan does behave in the way it does, different institutional theories will be applied together with the consideration of economical and environmental issues of the ratification of the Kyoto Protocol by Kazakhstan.

Thus, in order to be able to answer the main question of this research it will be necessary to elucidate following points primarily:

- a. What are the most important features of the institutional theories applied in this study?
- b. How can institutional theories be applied in the case study of ratification of the Kyoto Protocol by Kazakhstan?
- c. What is the Climate Change regime?

- d. What is the Kyoto Protocol, its aims and implications for the countries which have ratified e.g. obligations and responsibilities, merits, demerits etc.?
- e. What is the economical and environmental situation in Kazakhstan with respect to ratification of the Kyoto Protocol?
- f. Who are the main stakeholders in Kazakhstan responsible for the ratification of international environmental agreements and what is the process of ratification in Kazakhstan, i.e. main steps and the roles of stakeholders?
- g. Are there any of the steps being implemented so far?
- h. At what step did the process of ratification halt?
- i. What are the possible reasons of this?
- j. What are the involved stakeholders at the step of stoppage? What causes the stakeholders to behave in the way they do?
- k. Which of institutional theories is the most relevant in terms of explanation of the behavior of involved stakeholders?

Thus, broadly speaking the main purpose of this study is to try to understand the behavior of the governmental institutions inside one country in respect to international environmental institution of the Kyoto Protocol. It is a very important issue for the reason that the success of international environmental institutions strictly depends of the number of its Parties, i.e. participating countries and how active they are in the process of fulfillment of the common task. Furthermore, since environmental problems become more and more severe, larger scaled and in general very harmful for the mankind it can be said that the whole future of the planet Earth and its inhabitants is in a way dependent on the behavior of the countries in respect to international environmental institutions.

2.3. Institutional theories, case study hypotheses and relevancy criteria

Since the main goal of the work is closely related to the “organizational” type of institutions, which governmental institutions are, it is necessary to take a step deeper in the political science, which attempts to understand the nature of institutions and how they behave. In this chapter several contemporary institutional theories which try to explain the behavior of institutions will be introduced. Furthermore, for each institutional theory the specific hypothesis will be developed as an application of the institutional theory for the purposes of this particular case study, i.e. application of the institutional theory in order to explain the behavior of governmental institutions in Kazakhstan in respect to the ratification of the Kyoto Protocol. Eventually, in order to assess the actual relevancy of each particular theoretical approach to case study, one or several relevancy criteria will be introduced.

Thus, according to contemporary knowledge in political science there are several theories that try to explain the way governmental institutions work. Nevertheless, different approaches should be observed as a complementary rather than competitive, since none of the theories give explicit explanation of institutional behavior by themselves only (Peters, 1999). There are four institutional theories will be introduced in this research they are: theory of *Rational Choice Institutionalism*, *Historical Institutionalism*, *Empirical Institutionalism* (also known as *Structural Institutionalism*) and *Normative Institutionalism*.

2.3.1. Rational choice Institutionalism

The school of *Rational Choice Institutionalism* explains the behavior of institutions by a framework of behaviors as a function of rules and incentives, i.e. the group of people and individuals which form the institution act in a way which promises the most benefits and

utility, meanwhile benefits can be of economic or other nature. Thus, according to this theoretical approach the possibility to benefit from some certain action lays at the bottom of the behavior of the governmental institutions and their members.

Applying the Rational Choice institutional theory for the purposes of particular case study of the ratification of the Kyoto Protocol in Kazakhstan and assessing the behavior of the institutions involved in the procedure of the ratification the *specific hypothesis* can be developed as follows: governmental institutions involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan behave in a certain way which would bring the most benefits which could be money, materials, technology upgrading, i.e. all possible types of wealth.

In order to assess the degree of relevancy to the particular case of the behavior of the governmental institutions/stakeholders involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan several relevancy criteria should be fulfilled:

- obvious or hidden pathways for the governmental institutions/stakeholders involved in the procedure of the ratification of the Kyoto Protocol to benefit from the their behavior
- governmental institutions/stakeholders involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan openly claim their concern regarding the possible benefits upon the ratification of the Protocol
- governmental institution/stakeholders involved in the process of the ratification of the Kyoto Protocol in Kazakhstan openly behave in a way which leads to gaining benefits for the interested parties

Later these relevancy criteria will be applied to assess whether the approach of *Rational Choice Institutionalism* can serve to explain the behavior of the governmental institutions in Kazakhstan in respect to the ratification of the Kyoto Protocol.

2.3.2. Historical Institutionalism

The concept of *Historical Institutionalism* is a theoretical approach which put historical background as a basis for explanation of institutional behavior. According to this approach, current policy of an institution strictly depends on the decisions and initial choices previously made. In addition this theoretical approach claims that it becomes very difficult to explain institutional behavior without historical pathways of the institution's behavior.

Thus, considering the basic concept of this theoretical approach and applying it to the particular case study of the ratification of the Kyoto Protocol in Kazakhstan the *specific hypothesis* would be the following: actions of the members of governmental institutions/stakeholders involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan reflect the policies conducted in the past and decisions made by the institutions before in respect to the Climate Change regime, i.e. the UNFCCC and the Kyoto Protocol.

Keeping in mind the basic idea of the institutional theory of *Historical Institutionalism* and further developed specific hypothesis for the case study proper relevancy criteria should be established in order to estimate the relevancy of this theoretical approach to the particular case study of the ratification of the Kyoto protocol in Kazakhstan. So, the following relevancy criteria will be applied while assessing whether mentioned theoretical approach is relevant in respect to the behavior of the institutions involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan:

- history of environmental policies related to international Climate Change regime in the past time of the state of Kazakhstan;
- the fact in place that certain decisions made in the past by the governmental institutions/stakeholders which formed current position of Kazakhstan in respect to the international Climate Change regime;

- current actions of the members of the governmental institutions/stakeholders in Kazakhstan in respect to the ratification of the Kyoto Protocol clearly determined by the decisions made in the past;

These criteria will be used later as an attempt to assess whether the theory of Historical *Institutionalism* can be applied in order to explain the behavior of the governmental institutions in Kazakhstan related to the ratification of the Kyoto Protocol.

2.3.3. Empirical Institutionalism

The theory of *Empirical Institutionalism* declares that the structure of the government does make difference in the way which policies proceed as well as the directions governmental institutions choose and decisions they make. Thus, according to this theoretical approach, actions of the governments are conditioned by the structure of the government, e.g. dependently on if there is presidential or parliamentary regime inside the state decisions made by governmental institutions would be different, or whether there federal or unitary system in place, policies and directions will be different. Therefore when applying this theoretical approach it is necessary to consider the structural specifications inside the governmental systems, if any, and the ways how this factor might have an influence on the behavior of the members of the governmental institutions/stakeholders.

Taking into consideration the basic idea of this theoretical approach and applying it to the particular case of the ratification of the Kyoto Protocol in Kazakhstan the *specific hypothesis* will be used as follows: behavior of the governmental institutions/stakeholders involved in the procedure of ratification of the Kyoto Protocol in Kazakhstan can be explained by the governmental structure of Kazakhstan.

For the assessment of the relevancy of this institutional theory to the explanation of the behavior of the governmental institutions involved in the process of the ratification of the Kyoto Protocol in Kazakhstan, the following relevancy criteria should be applied:

- obvious specific structure of the governmental system in Kazakhstan, which significantly different from other the governmental structures of other former Soviet Union Countries and/or other countries in the world;
- actions of governmental institutions in Kazakhstan are defined by the specific structure of the governmental institutions;

By using these relevancy criteria it will be possible to estimate whether the theory of Empirical Institutionalism can be applied for the explanation of behavior of the governmental institutions in Kazakhstan related to the ratification of the Kyoto Protocol.

2.3.4. Normative Institutionalism

Normative Institutionalism is another theoretical approach, however from the view of this concept the most important element which defines the behavior of the institution is the collection of values and moral rules which bear influence on the decisions made by the members of the institution, meanwhile formal structures, rules or procedures do not affect the behavior of the institution. In other words the basic view of this approach is that institutions behave according to the “logic of appropriateness”, that guides the actions of the members of the institution (PETERS G. 1996).

Thus, considering the basic idea of this institutional approach and applying it to the particular case study of the ratification of the Kyoto Protocol by Kazakhstan the *specific hypothesis* would be as follows: governmental institutions/ stakeholders responsible for the procedure of ratification of the Kyoto Protocol behave in a certain way due to values and moral rules of members of these institutions, i.e. in contradiction to Rational Choice theory values which governmental institutions concern of are not countable wealth, e.g. value of life on the Earth. Hence it in order to apply this theoretical approach t to case study it should be necessary to

elucidate as much as possible what are the values of governmental institutions in Kazakhstan and what moral rules do they follow in respect to the ratification of the Kyoto Protocol.

In order to assess whether this theoretical approach is relevant to the case study of the ratification of the Kyoto Protocol in Kazakhstan the relevancy criteria which would prove the of the theoretical approach of *Normative Institutionalism* should be established. So, considering the basic concept of the theoretical approach of *Normative Institutionalism* and developed hypothesis for this case study, *relevancy criteria* would be:

- members of governmental institutions, involved in the procedure of the ratification of the Kyoto Protocol openly declare their values and moral rules which they do follow in respect to the Kyoto Protocol;
- a clear pathway which demonstrates that members of institutions involved in the process of ratification of the Kyoto Protocol in Kazakhstan act with devotion to the their moral rules and values in respect to the Kyoto Protocol, may be even in spite of possible costs;
- members of institutions involved in the process of the ratification of the Kyoto Protocol in Kazakhstan explain their actions by their dedication to their values or moral rules in respect to the Kyoto Protocol;

Similarly to three previous cases, relevancy criteria will be used to assess whether the theory of Normative Institutionalism can serve to explain the behavior of governmental institutions in Kazakhstan involved in the procedure of the ratification of the Kyoto Protocol.

2.3.5. Application of the institutional theories in this research

Further in this work the situation around the ratification of the Kyoto protocol in Kazakhstan will be elucidated as much as it can be possible considering availability of necessary information. The description of the situation will involve economical and environmental aspects of the ratification of the Kyoto Protocol in Kazakhstan, together with the rough estimation of the opportunities and possible costs for the Kazakhstan upon the ratification. Beside mentioned all stakeholders involved in the procedure of the ratification of the Kyoto Protocol will be determined with following determination of the stage where the process of ratification is halt. When available information is gathered it will be possible to find the answers on the questions stated in chapter 2.2. Application of the institutional theories would help to assess the behavior of governmental institutions in Kazakhstan in respect to ratification of the Kyoto Protocol. Initially institutional theories in political science were developed to explain the behaviorism of governmental institutions and in this research these theories called to provide understanding of the behavior of the governmental institutions in Kazakhstan. However as it was mentioned before, it should be kept in mind that solely one of institutional theories hardly would be able to provide the explanation of behavior of governmental institutions and all institutional theories are more complementary rather than competitive. It can be explained by the fact that in general assessment of the behavior of governmental institution is a subject of great complexity, considering the issue that behavior of institution can be influenced by many factors. In addition to mentioned, the lack of information when the assessment of behavior of governmental institution is conducted creates even more difficulties for complete analysis as well as many possibilities for errors. Moreover the issue of information lacking is applicable for such a “closed” type of institution like governmental structures in Kazakhstan, since it is quite difficult to acquire much information related to the activities, motives and ideology in respect to some particular case, e.g. ratification of the Kyoto Protocol. Thus, in this peace of work application of institutional theories of political science will eventually provide the basis for characterization of behavior of governmental institutions in Kazakhstan involved in ratification procedure of the Kyoto Protocol. As a result of application of institutional theories major conclusions will be drawn:

whether governmental institutions behave rationally, looking for certain benefit from ratification of the Kyoto Protocol (Rational Choice Institutionalism), or they follow the pathway of policies determined before in the past (Historical Institutionalism), or the structure of the governmental institutions in Kazakhstan makes impact on the policy in respect to the Kyoto Protocol (Empirical Institutionalism), or probably values of the members of governmental institutions prevail in terms of final decision making concerning the ratification of the Kyoto Protocol by Kazakhstan (Normative Institutionalism). However since there can not be only one explanation for current policy of governmental institutions in respect to the Kyoto Protocol, application of four institutional theories together with their specific hypothesis and relevancy criteria will demonstrate which of the institutional theories appears to be the most relevant in terms of explanation of the behavior of governmental institutions in Kazakhstan in respect to the ratification of the Kyoto Protocol.

2.4. Methodology and data

As it was written before, in order to reach the main goal of this study the interdisciplinary approach was required. It is explained by the fact that the procedure of ratification of environmental international agreements in Kazakhstan is inevitably linked with the activity of stakeholders related to the governmental institutions of the state. Therefore the available knowledge from the political science was involved in this work to clarify the theoretical basis of the institutions themselves and furthermore the institutional theories together with relevancy criteria were used to assess the behavior of institutions dealing with the process of ratification of the Kyoto protocol as an attempt to provide the reasonable explanation based on chosen theoretical approaches.

Information was gathered in the three basic fields. At first, literature observation has been conducted in the branch related to institutions and basic institutional theories in order to have essential background which is essential for the fulfillment of the main task of this piece of work. Secondly, the observation of available reports and World Wide Web recourses has been done in order to have at present reliable latest information concerning the issue of climate change together with the actual situation around the UNFCCC and the Kyoto Protocol at the global scale.

Thirdly, it was gathered as much as it was possible data related to the ratification of the Kyoto Protocol by Kazakhstan. Due to the fact that this work deals with the issue which is actual these days and the procedure of ratification of the Kyoto Protocol is going on, there are no books written related to that issue. Thus, the main sources of information became Internet resources and communication with the stakeholder's representatives together with related reports of different type regarding the problem of ratification of the Kyoto Protocol by Kazakhstan. Then available information was assessed, analyzed and final conclusions corresponding to the raised questions and the main goal of this study were drawn. It should be mentioned that the number of possible sources of information related to the ratification of the Kyoto Protocol in Kazakhstan is indeed very limited; therefore in some parts it was not possible to develop subject properly due to lack of reliable data.

3. Climate Change Regime: the beginning

In the end of the 19th century Swedish chemist Svante Arrhenius firstly claimed that due to the coal burning human were changing the composition of atmosphere because of the large amounts of CO₂ emissions. Besides, he also predicted that as a consequence the temperature of the Earth surface would raise (Axelrod, Downie and Vig 2005). At that time predictions of

Arrhenius were not taken seriously. However, later on in 1950s scientists again raised up the discussion concerning the alteration of atmospheric composition as a reason of CO₂ emissions. In the end of 1950s observations at Mauna Loa, Hawaii gave the results which showed that concentrations of CO₂ in atmosphere were much higher than ever before (Axelrod, Downie and Vig 2005).

Then in 1979 by the World Meteorological Organization the First World Climate Conference was organized. It was the beginning of policy determination towards the mitigation of human induced climate changes. Later in 1988 another significant step was done. Collaboration of World Meteorological Organization and United Nations Environmental Programme resulted into the establishment of Intergovernmental Panel on Climate Change (IPCC). IPCC had a target to gain, synthesize and assess the scientific knowledge concerning the issue of climate change and furthermore to estimate the possible responses to mitigate. Up to date the results of the work of IPCC are three major assessment reports (1990, 1996 and 2001) and numerous amounts of technical reports and summaries for policymakers. The fourth assessment report is planned to be issued in 2007. Nowadays, about 2000 scientists around the world are engaged in the observations and scientific work under the umbrella of IPCC research and analytical work. Thus, according to IPCC report, there is no doubt that the concentration of CO₂ in atmosphere increased during the last century as well as the Earth's surface temperature raised (see Appendix C). Beside mentioned two major indicators there are many others like CH₄ and N₂O concentrations, global sea level, snow cover, El Niño events, continental precipitation and many other indicators linked with atmospheric, marine, climatic and biophysical systems which have changed in the 20th century (IPCC Third Assessment Report 2001). Eventually, it became obvious that urgent action is needed on international level in order to try to mitigate the possible consequences of climate change.

4. The UN Framework Convention on Climate Change

Another important step in formation of Global Climate policy was a United Nations initiative with its Framework Convention on Climate Change (UNFCCC) which was opened for signature in 1992 and entered into force in 1994. Ratified by more than 185 countries, this Convention became one of the most important components of climate change regime establishing basic directions for international attempts to handle the problem of climate change. The main objective of UNFCCC is to achieve the “stabilization of greenhouse gas concentrations in atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system” (Article 2, UNFCCC 1992). Besides, the convention claims some general issues concerning the protection of the climate system, promotion of sustainable ways of living and development for the benefits of present and future generations.

However, specifically should be mentioned the fact that there are two main categories of countries distinguished and listed in the specific Annexes I and II for the purposes of the Convention. Thus, in the Annex I to the UNFCCC are listed 37 countries which take on the commitments to return their anthropogenic emissions to the 1990 levels. Besides, one of the most basic commitments for Annex I countries is an adaptation of national policies, taking measures on mitigation of climate change. Among the countries of Annex I to the Convention are mainly the countries of the Organization for Economic Cooperation and Development (OECD), except Korea, and some countries with economies in transition (See Appendix D). The list of Annex II to the Convention on Climate Change solely consists of the OECD countries. They are obliged to provide “new and additional financial resources to meet the agreed full costs” related to the implementation of the Convention positions. By this developed countries recognize their major responsibility for the problem of climate change

and their readiness to work for and supply financial recourses for developing countries and countries in economic transition. However there were no strict quantified requirements for the Parties stated in the UNFCCC. General description of the problem and call for its understanding, further technical and scientific cooperation between Parties became the main columns of the Convention. Meanwhile the protocol to UNFCCC named by the place of its signing “Kyoto Protocol” caused hot discussions among the Parties.

5. The Kyoto Protocol

The Kyoto Protocol to the UNFCCC was created in 1997 with the main purpose to identify the mechanisms how the global community can achieve the overall objective of the UNFCCC and by this mitigate consequences of climate change. However, in spite of the fact that the future of the Earth is at stake the hottest discussions among the country leaders and governments raised. The block of developing countries reasonably claimed that obligations on cutting the emissions would have negative effect on the economic growth; meanwhile the poverty eradication and economic development are indeed the major concerns of developing countries. Moreover, even among the most developed and prosperous countries some contradictions emerged, e.g. United States of America, the top emitter country in the world, and Australia did refuse to ratify the Protocol due to the same reason which may be caused by taking the obligations under the Protocol: the economic growth decline. At the same time, other OECD countries took their obligations to reduce their greenhouse gas emissions.

According to the Article 25 of the Protocol would entry into force in case if “not less than 55 Parties to the Convention, incorporation Parties included in Annex I (of the UNFCCC) which accounted in total for at least 55% of the total carbon emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession.” (The Kyoto Protocol to the UNFCCC, 1997)

Thus, after the refusal of United States to ratify the Kyoto Protocol, the process of its entering into force was stuck for a while and only eight years later, in 2005, with ratification by Russia, the Protocol entered into force. Eventually, today the Kyoto Protocol counts 84 signatures and has been ratified by 155 countries which cover 61.6% of total emissions in the world.

5.1. General obligations under the Kyoto Protocol

Among the basic obligations under the UNFCCC is reduction of overall emissions of greenhouse gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012 for countries listed in Annex I of the UNFCCC and in general by 2005 demonstrate the progress in achieving the commitments. The Kyoto Protocol established the percentage of emissions reduction for certain countries listed in Annex B to the Protocol (See Appendix D), meanwhile the list of greenhouse gases of concern for the purposes of the Kyoto Protocol was attached to the protocol as Annex A (The Kyoto Protocol to the UNFCCC, 1997).

Thus, among the countries of Annex B to the Protocol are mainly OECD countries which have adopted quantified limitations or reduction commitments, certainly with the exception of the countries which refused to ratify the Protocol. Beside of mentioned Annex B includes also some countries with the process of transition to a market economy, and it should be specifically mentioned that two Former Soviet Union countries, Russia and Ukraine are included in Annex B to the Protocol, however during the first commitment period from 2008 to 2012 there are no obligation on emissions reduction on these countries. Broadly speaking, in addition to mentioned obligations the Kyoto Protocol emphasizes the provision of financial resources including the technology transfer to developing countries; meanwhile the burden of funding should be shared adequately among the developed countries.

Another important requirement under the Kyoto Protocol is a “national system for the estimation of anthropogenic emissions by sources and removals by sinks” to be developed in each country which is the Party to the Kyoto Protocol and guidelines for establishment of such a system planned to be adopted during the first Conference of the Parties/Meeting of the Parties. This is a very crucial issue in terms of the basic idea of the Kyoto Protocol since without an established system of estimation of anthropogenic emissions it would be impossible to use the flexible mechanisms of the Kyoto Protocol, which are the main means of the Protocol in the struggle with growing greenhouse gases emissions.

5.2. Mechanisms of the Kyoto Protocol

Meanwhile the UNFCCC establishes the main objective for parties to achieve; the Kyoto Protocol provides mechanisms as tools which would help to meet the targets of global community. Broadly speaking, if the Convention declares “what is to be done”, the Kyoto Protocol guides “how it is to be done” with help of “flexible mechanisms”. However it should be mentioned that the Conference of the Parties of UNFCCC is currently still carrying out hard work on the mechanisms and all issues related to the implementation of the idea and main objective of the Kyoto Protocol. So far, there was only one Meeting of Parties of the Kyoto Protocol in November-December 2005 and obviously, there is still a lot of work to be done on improvement of the mechanisms and complete clarification of the systems of the Protocol.

There are certain eligibility requirements which are to be fulfilled before the Party will be eligible to participate in these mechanisms. Among the requirements are:

- The Party must have ratified the Kyoto Protocol and to be Party of Annex I (of the UNFCCC)
- The Party must have calculated their assigned amount, according to Articles 3.7 and 3.8 and Annex B of the Protocol in terms of CO₂- equivalent emissions
- The Party must have in place a national system for estimating emissions and removals of greenhouse gases within its own territory
- The Party must have in place a national registry to record and track the creation and movement of greenhouse gases units: emission reduction units (ERUs), certified emission units (CERs), assigned amount unit (AAUs), and removal units (RMUs) and must annually report information on emissions and removals to the secretariat (units meaning will be clarified further in 5.2.3. Emission trading)
- The Party must annually report the information on emissions and removals to the secretariat

Since these eligibility requirements are completely or at least partially implemented the Party gains the access to participation in the Kyoto Protocol mechanisms. There are three main mechanisms under the regulation of the Kyoto Protocol. They are:

- Joint Implementation Mechanism (JI)
- Clean Development Mechanism (CDM)
- Emission trading (ET)

All three mechanisms are defined and shortly described in the Kyoto Protocol in Articles 6, 12 and 17. Using these mechanisms Parties should achieve the compliance with their commitments. All in all, the compliance will be tested by simple comparison of the amount of

greenhouse emissions monitored and the number of greenhouse gases units Party has in the end of commitment period.

5.2.1. Joint Implementation

In the Article 6 of the Protocol it is said that “any Party included in Annex I may transfer to, or acquire from any other Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions” (The Kyoto Protocol, 1997). In other words, *Joint Implementation* provides the opportunities for Annex I Parties to implement projects that eventually will reduce the anthropogenic emissions or remove CO₂ from the atmosphere. In return the Party which implemented the project gains the emission reduction units (ERUs). Basically, there are two procedures for the implementation of JI projects.

The first procedure, so called “track one” is applied in case if the Annex I party hosting the project completely meets all the eligibility requirements to participate in mechanisms Then the Party is eligible to apply its own national regulations and procedures in when selecting the JI project and estimating the emission reduction units (ERUs) gained from the project. Besides, the host Party can issue the emissions reduction units and transfer them to other project participants.

Another way of implementation of JI project, so called “track two” is applied in case if the Party which hosts the project does not meet all eligibility requirements. Then the project itself and the amount of ERUs generated under the project must be verified according to the regulations and procedures supervised by the Supervisory Committee, which is to be established during the first Conference of the Parties/Meeting of the Parties (COP/MOP). Joint Implementation Supervisory Committee (JISC) was eventually established by the decision during the COP/MOP 1 in December 2005 (Earth Negotiations Bulletin, IISD, 2005).

The mechanism of track two allows Parties to participate in JI before it meets all eligibility requirements listed above. Nevertheless, some truly crucial requirements must be achieved, e.g. assigned amount and national registry of emission units. Broadly speaking, the example of JI project could be the substitution of coal fired power plant with another more efficient and environmentally clean source of energy.

5.2.2. Clean Development Mechanism

The clean development mechanism (CDM) described in Article 12 of the Kyoto Protocol. Under this Article Parties included in Annex I to the UNFCCC may implement projects with the purpose to reduce emissions in non-Annex I Parties. Eventually CDM activities called “to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention (The Kyoto Protocol to the UNFCCC, 1997). Besides, through the CDM projects Annex I countries can achieve the compliance with their obligations, i.e. quantified emission limitations and in similar manner to the JI project system, in return for implemented projects Annex I countries acquire emission reduction units (ERUs).

As an example of a CDM projects could be mentioned the activities in the field of afforestation and reforestation, which are the creation of so called “sinks” for removal of carbon dioxide from the atmosphere. Activities related to CDM projects are controlled by CDM Executive Board of the Kyoto Protocol.

5.2.3. Emission trading

The mechanism of emission trading (ET) is claimed in Article 17 of The Kyoto Protocol with a statement that “the Parties included in Annex B (to the UNFCCC) may participate in “emission trading for the purposes of fulfilling their commitments” and “any of such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments”. Generally it means that one Annex I Party is eligible to acquire units (AAUs, CERs, RMUs and ERUs) from another Annex I Party in case if it is needed to fulfill commitments under the protocol.

Each unit is equal to one metric tonne of emissions in equivalent to CO₂. Meanwhile the difference in names of units comes from their origin. Assigned Amount Units (AAUs) are the units which were established initially by the Party.

Certified Emission Units (CERs) are the units which generated through the implementation of CDM projects. Removable Units (RMUs) are the units which associated with “sink credit” and related to the activities linked with land use, land use change and forestry. And eventually, the emission reduction units (ERUs) are the units issued under the implementation of JI projects. (The Institute for Global Environmental Strategies report, 2004)

For example, let us say there are three countries which participate in emission trading mechanisms, for the purposes of this example let us call them country A, B and C. Actual green house gases emissions for the countries are accordingly 150, 100 and 200 units per year (see Table 1.)

Table 1. Example of international emission trading mechanism (adopted from the Coordination Center on Climate Change, Kazakhstan website: www.climate.kz)

	Actual emissions (units)	Units sales (units)	Units purchasing (units)	Emission allowed under the Kyoto Protocol (units)
Country A	150	-	10	140
Country B	100	30		130
Country C	200	-	20	180
Sum	450	30	30	450

Thus, the countries A and C actually emit the amount of green house gases which exceed the limitation under the Kyoto Protocol obligations. In this case countries A and C are able to purchase the exceeding amount from country B, which has some amount of emissions “in reserve” due to, for example, newly developed clean energy sources. The emission trading mechanisms provides the opportunity for redistribution of the emissions among the Parties and eventually, the driving force for the mechanism of Emission Trading is the economic profit which comes from cutting the emissions and selling the emissions which were not produced. Logically, the more expensive it will be to buy carbon units, the more reasonably it will be to consider bringing some changes into the system of emissions production, like energy efficiency, renewable and clean sources of energy etc. Eventually in case if every Party of the Kyoto Protocol will strive to reduce own emissions in order to buy less units to fulfill the commitments or in order to sell more “reserved” units for profit, the more feasible it will be to achieve the overall aim of the UNFCCC and the Kyoto Protocol.

6. Case study: Kazakhstan

6.1. Kazakhstan: history highlights and general information

There is no purpose to observe very ancient history of the Kazakh state in this work; however it would be necessary to mention, that since the 18th century history, development, economical and political system of this land has been affected by its vast neighbor which is Russia. At that time it was the land inhabited by a number of tribes and nomads which were independent or united from time to time. Since that times Russia has been assimilating this region. Later on in the beginning of the 20th century Kazakhstan became one of the Soviet Republics and joined the USSR. Since that time for about seventy years Kazakhstan has been one of the republics of the USSR and with the collapse of the Soviet Union in 1991 Kazakhstan finally gained independence. So, up to date Kazakhstan counts only 14 years of independency.



Figure 1. Map of Kazakhstan (Source: CIA World Factbook, 2005).

Nowadays Kazakhstan represents an independent state with the history of a communist country and about 14 years of recent history under the guidance of the president Nursultan Nazarbaev. The direction that has been chosen by the state of Kazakhstan and its president is the transition to market economy and creation of a democratic society.

Kazakhstan has a very favorable geographic location in the heart of Eurasia, since ancient times being the connection between lands from different parts of the world. Kazakhstan shares its boards with two huge neighbor countries of Russia and China as well as with states of Kyrgyzstan, Uzbekistan, and Turkmenistan which are Former Soviet Union countries as Kazakhstan itself. Some of the most important facts about Kazakhstan are presented in the Table 2.

Table 2. Some facts about Kazakhstan (Source: CIA Factbook, 2005).

Area	total: 2,717,300 sq km (the 9 th largest country in the world, second largest country among former USSR countries) land: 2,669,800 sq km water: 47,500 sq km
Coast line	0 km (landlocked); note - Kazakhstan borders the Aral Sea, now split into two bodies of water (1,070 km), and the Caspian Sea (1,894 km)
Arable land	arable land: 7.98% permanent crops: 0.05% other: 91.97% (2001)
Population	15,185,844 (July 2005 est.)
Natural resources	major deposits of petroleum (one of the four largest NON-OPEC oil exporter together with Russia, Mexico and Norway), natural gas, coal, iron ore, manganese, chrome ore, nickel, cobalt, copper, molybdenum, lead, zinc, bauxite, gold, uranium
Environment international agreements:	- party to: Air Pollution, Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Ozone Layer Protection, Ship Pollution <i>signed, but not ratified:</i> Climate Change-Kyoto Protocol
International organizations participation	AsDB, CIS, EAPC, EBRD, ECO, FAO, IAEA, IBRD, ICAO, IDA, IDB, IFAD, IFC, IFRCs, ILO, IMF, IMO, Interpol, IOC, IOM, ISO, ITU, MIGA, NAM (observer), NSG, OAS (observer), OIC, OPCW, OSCE, PFP, SCO, UN, UNCTAD, UNESCO, UNIDO, UPU, WCL, WCO, WFTU, WHO, WIPO, WMO, WTO, WTO (observer)

From this table and the short introduction given above it can be inferred that Kazakhstan is a young independent state, very large but not heavily populated, provided with an abundance of oil and gas together with other minerals, active on international arena and conscious about environmental concerns. It appears that in the future Kazakhstan expects the further economic growth and development, that can be inferred based on the truly outstanding results shown in the last decade.

6.1.1. Kazakhstan and International Climate Change regime

Being conscious concerning the climate change issues, Kazakhstan has signed the UNFCCC in 1992 and later in 1995 the Convention has been ratified by the president of Kazakhstan. In 1997 representatives of the Republic of Kazakhstan claimed about the readiness to discuss the means of emission reductions based on the 1990 year level. On the 4th Conference of the Parties to the UNFCCC in 1998 Kazakhstan has expressed its intention to take obligations on emission reductions. Besides, the Initial Communication of the Republic of Kazakhstan under the UNFCCC has been issued. In March 1999 Kazakhstan has signed the Kyoto Protocol as a non-Annex I Party to the UNFCCC and a non-Annex B Party to the Kyoto Protocol. In March 2000 Kazakhstan notified the Parties through the Depositary about its intention to become a member of the Annex I to the UNFCCC. In addition Kazakhstan expressed its interest in negotiations with the purpose “to define a quantified emission limitation or reduction commitment” for Kazakhstan under the regulations of Annex B of the Kyoto Protocol. This was announced on the 7th Conference of the Parties to the UNFCCC in 2001 in Marrakesh, with the following decision that “upon ratification of the Kyoto Protocol by Kazakhstan and its entry into force, Kazakhstan becomes a Party included in Annex I for the purposes of this Protocol” (The Marrakesh Accords and the Marrakesh Declaration, 2001). Thus, it was

announced in 2001 that Kazakhstan will be accepted as a Party of Annex I to the UNFCCC and a Party of Annex B to the Kyoto Protocol upon the ratification. Those facts give the reason to infer that Kazakhstan is eager to make step forward in the climate regime structure, however the peculiar thing is that 4 years later, up to the end of 2005 Kazakhstan in fact finds itself in the same position where it was in 2001. Therefore the main subject of this work is to investigate the possible reasons why the procedure of the ratification of the Kyoto Protocol has stopped or moving so slowly, since with the exception of Tajikistan all other 13 Former Soviet Union Countries have already defined their position in respect to the Kyoto Protocol. Reasonably to assume that the governmental institutions in Kazakhstan hesitate to make the final step due to the conditions of the ratification of the Kyoto Protocol and their interactions with economic or some other concerns. In order to clarify this issue it is necessary to look at the situation from the point of view of possible benefits and costs for Kazakhstan upon the ratification of the Kyoto Protocol.

6.2. Analysis of possible merits and demerits for Kazakhstan upon the ratification of the Kyoto Protocol

6.2.1. Economical issues of ratification of the Protocol

Kazakhstan is a developing country with ambitious strategies to increase the GDP by 3.5 times up to 2015 in comparison to year 2000 as it was said by vice-minister of the Ministry of Environmental Protection in his report during the non-official meeting of the Parties in Canada which was the preliminary meeting to the 11th Conference of the parties in Canada, 2005. Therefore, the initiative of Kazakhstan to take the commitments under the Kyoto Protocol might seem to be strange considering the fact that the major part of greenhouse gases emissions in Kazakhstan comes from the activities related to energy production. Thus, in 1990 the energy activities contributed about 98% of all green house gases emissions (See Figure 2.) It is quite reasonable to assume that the situation has not changed dramatically for next 10-15 years since after the Soviet Unions collapse drastic economic decline occurred in Kazakhstan with the stoppage of the most of the industries and even some power plants from place to place.

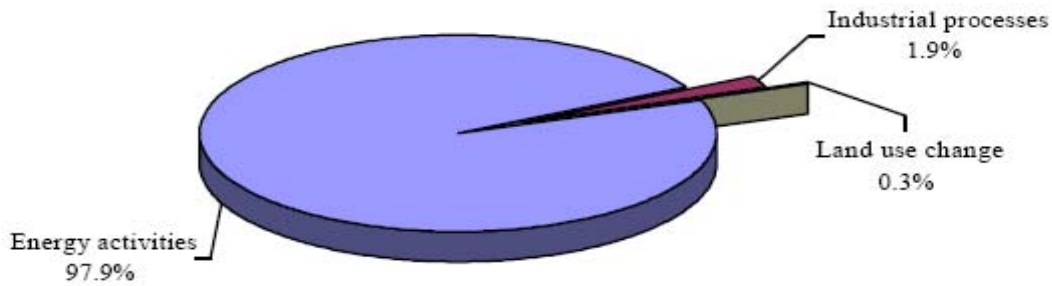


Figure 2. Percentage share of greenhouse gases emissions in Kazakhstan by year 1990
Source: Initial National Communication of the Republic of Kazakhstan under the United Nations Framework Convention on Climate Change, Almaty, 1998.

Nowadays Kazakhstan took the rhythm of development and currently represents one of the most prosperous countries among the former Soviet Union republics, with the fourth level of GDP per capita (after Estonia, Lithuania, Latvia and Russia). However government and the president of Kazakhstan openly declare that more industries should be developed and more energy should be produced, hence still up to date not every house in Kazakhstan is electrified and heated properly. Most of the power plants in Kazakhstan consume coal for energy production, some of the power plants use oil and gas, and there are no nuclear power plants at all. In these terms, more energy production means more emissions. However, in case if Kazakhstan will accept the commitments under the Kyoto Protocol, it will be forced eventually to reduce emissions and consequently to produce less energy, or to find other clean sources to produce energy, which can be difficult due to low level of technology and inevitably high expenses. Thus, from the point of view of economic growth and development the voluntary acceptance of obligations on emission reduction by the developing country like Kazakhstan which occupies only 96th position with \$ 7,800 level of GDP per capita in the world rank does not seem to be rational (CIA World Factbook, 2005). In fact, the priority of economic growth and development became the main argument for other developing countries not to ratify the Kyoto Protocol or at least not to take any obligations concerning the reduction of emissions, claiming that industrialized countries which are mainly responsible for the issue of climate change at first should reduce their emissions (Axelrod, Downie and Vig 2005). Nevertheless, government of Kazakhstan in spite of economic interests showed the intention to become a country of Annex I to the UNFCCC and Annex B to the Kyoto Protocol and take the obligations on the emission reduction. It is not obvious what the reasons to follow this direction are. However the possible way is that Kazakhstan is looking for some benefits from the activities related to the implementation of flexible mechanisms under the Kyoto Protocol, since Kazakhstan will be eligible to participate in those mechanisms in case if it will become a Party included in Annex I to the UNFCCC and Annex B to the Kyoto Protocol. Thus, shortly summarizing this chapter in the light of chosen institutional theories (see chapter 2.3.) it appears that governmental institutions in Kazakhstan demonstrate their concern in respect to the climate change and readiness to take action though being a developing country and this supports the theory of *Normative Institutionalism*. At the same time considering the fact that the Kyoto Protocol still has not been ratified in Kazakhstan forces to suspect that there are some other factors which make impact on the final decision concerning the Protocol.

6.2.2. Issue of emission growth

As it was said above, the situation with percentage share from different types of activities appears to be more or less permanent; meanwhile the amount of emissions is certainly the different case (See Figure 3). As it can be seen from the diagram there the amount of emissions are slowly but constantly growing. This fact is quite explainable: after the post-Soviet recession time economy of the country rises, so the more emissions produced, and furthermore the trend most likely will be kept in next years, i.e. more and more greenhouse gases will be emitted and only their amount matters. The other way is possible in case something truly unpredictable happens. However, Kazakhstan demonstrated stable growth for last decade following the strategic plan of its president Nazarbaev and since he has been elected in December 2005 for another seven years, hardly any serious deviation from the chosen course can be expected. Thus, since obviously the total amount of emissions will grow, it might be not so easy to predict how far and how fast the total amount of emissions will grow and therefore it is tricky to establish assigned amount of the emissions without risk to not meet the compliance requirements under the Kyoto Protocol, because one should keep in mind that the first commitment period starts in 2008 and will last 4 years up to 2012.

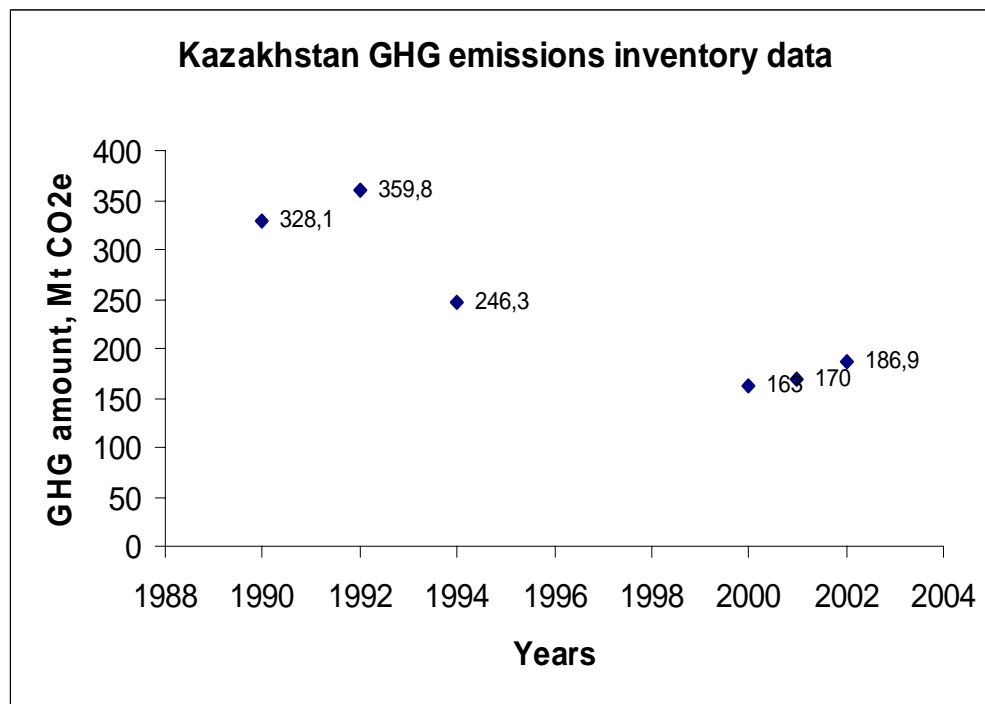


Figure 3. Kazakhstan GHG emissions in last decade based on the Ministry of Natural Resources and Environmental Protection Report (Source: Yamin F., 2005)

Thus, there are 3 more years to go from now to 2008, and then 4 more years during the commitment period. As it can be seen on the diagram, in 2000 the total amount of emissions was about 163 Mt of CO₂; in year 2001 it was seven Mt more and in 2002 it was already about 17 Mt more than previous year 2001. Therefore it is quite reasonably to assume that the level of 1990 can be achieved in some next years. Indeed, this issue might be sticking point on the way to ratification of the Protocol, moreover in addition of all mentioned the international competition should be considered: countries like Russia and Ukraine also have much lower emissions level nowadays than it was in 90-s and it makes them very strong competitors at the international level of carbon units trade. Thus, in case the market of carbon

units becomes saturated, Kazakhstan probably would not benefit too much, and this matter forces to thoroughly consider all factors before the decision will be made. All in all, shortly summarizing this chapter it can be inferred that rapid emissions growth can represent a factor of deep consideration for governmental institutions in Kazakhstan involved in the procedure of ratification of the Kyoto Protocol. Since there is a possibility that in nearest future actual emissions in Kazakhstan would reach or even exceed the level of 90-s taking voluntary obligations on emissions reduction may reveal a problem of fulfillment commitments under the Protocol. Presumably Kazakhstan will be forced to purchase some emissions units to respond the commitment which eventually means additional costs of ratification of the Kyoto Protocol. It is reasonable to assume that the issue of emission growth makes the governmental institutions somewhat insecure in respect to consequences of ratification of the Kyoto Protocol for Kazakhstan and this causes the halt in procedure of ratification of Protocol. This kind of behavior in its turn supports institutional theory of *Rational Choice* since it appears that own interests of governmental institutions prevails in terms of final decision regarding the ratification of the Kyoto Protocol.

6.2.3. Opportunities for Kazakhstan upon ratification

There was an opportunity to participate in clean development mechanism projects and gaining units since the year 2000 up to the date of the entry of the Kyoto Protocol into force (F. Yamin, 2005). Particularly in Kazakhstan there were two related projects approved for implementation as JI/CDM projects. The first project will be conducted by Ministry of Energy in Uralsk City (North-West of Kazakhstan) at local power station in collaboration with Japanese state company "NEDO", the subject of the project is modernization of the station leading to efficiency increase. This project will produce for Japan about 60 000 tonnes of carbon credits during the period of 2008-2012. Another project is related to the utilization of natural by-gas at the Kumkol oilfield and will be performed by national oil-company Hurricane Kumkol Munai (Climate Change Coordination Center, Kazakhstan, 2005). However, since the Kyoto Protocol entered into force in 2004 only the Parties to the Protocol are actually eligible to participate in any of its mechanisms. (Yamin, 2005) In fact it means that currently Kazakhstan is not eligible to participate in any of the flexible mechanisms. Meanwhile, the participation in projects is to be the major priority and beside it Kazakhstan expressed its interest in emission trading (Turmagambetov, Kazakh Delegation Report at COP-7, Marrakesh 2001). Indeed, Kazakhstan possesses a significant potential for the participation in the mechanisms of the Kyoto Protocol.

Firstly, in the similarity with the first pilot project there is an opportunity of the implementation of the projects related to the utilization of the by-gas at the oilfields in Kazakhstan and it should be mentioned that is a great number of oilfields in Kazakhstan.

Another option is that Kazakhstan could benefit from its activities directed on the development of renewable sources of energy. Firstly, due to the specific geographical features Kazakhstan has an enormous potential for the development of energy gained from the wind. The population density in the country is about 5,6 persons per square kilometer and not equally distributed along the country, consequently there are many vast empty areas which are not populated and there are no agricultural activities due to unfavorable conditions. Geographically the type of landscape the Kazakhstan mostly consists of so called steppe, the flat area with low growing plants. Since there are no obstacles the weather is mostly windy around the year and this factor is definitely worth consideration in terms of adaptation of these areas for the purposes of obtaining energy. Certainly, the real benefits from the development of this kind of energy sources should be thoroughly studied and that has never been implemented before.

Third possible branch for the implementation of projects of the Kyoto Protocol in Kazakhstan is the field of solar power systems especially in southern areas of the country. Climatic conditions might be very favorable for this type of renewable energy source. The sun in southern areas is quite intense for about 9 months of the year from the beginning of spring then turns into rather hot summer time with the temperature up to 40 degrees Celsius, and lasts to the middle of autumn with some sunny days in winter as well. Certainly there more studies should be implemented in order to assess the applicability of solar panels as a possible energy source in Kazakhstan, since obviously this option by no means can be expelled.

The projects related to development of hydropower could also be a good option for the clean development and joint implementation projects on the territory of Kazakhstan. It was estimated that it is technically possible to gain about 62 billions kWt-hours of energy per year, meanwhile currently no more than 8 billions kWt-hours per year gained using country water resources (Coordination Center on Climate Change, 2005).

Beside of all mentioned, carbon units could be gained through the implementation of projects related to the modernization and upgrading of power stations, as well as the increasing of the share percentage of fuel type: substitution of coal by natural gas and oil-products, and that issue is very important particularly in case of Kazakhstan where 80% of all emissions come from coal burning as fuel, and the rest 20% come from gas burning and liquid fuel (Bekzhanov, 2005). The last, but not the least, opportunity for generation of carbon units is the presence of huge space for all kind of afforestation and reforestation activities.

Shortly summarizing this chapter in the light of institutional theories it can be inferred that activities in projects under the Kyoto Protocol would bring a great number of opportunities which may become beneficial for Kazakhstan in terms of technological exchange and own new energy systems development together with reforestation and afforestation of territories. Mentioned opportunities indeed may serve as a major reason for governmental institutions in Kazakhstan to initiate the procedure of joining of Kazakhstan to Annex I to the UNFCCC and Annex B to the Kyoto Protocol on the Conference of the Parties. In this case the behavior of governmental institutions supports the *Rational Choice* theory, since actions of governmental institutions conditioned by the possibility of benefit gaining for Kazakhstan upon ratification of the Kyoto Protocol.

6.2.4. Summarizing discussion to chapter 6.2

All in all, as a resume of the chapter 6.2. comes the conclusion that Kazakhstan is truly eager to participate in flexible mechanisms offered by the Kyoto Protocol and governmental institutions consider definite benefits from the participation in those activities. In order to be eligible to participate in all three mechanisms of the Kyoto Protocol Kazakh government wishes Kazakhstan to join the Protocol only and solely in the status of the country of Annex I to the Convention and Annex B to the Protocol, which would allow to participate in all flexible mechanisms of the Kyoto Protocol. However there are some factors which make the process of final decision making stuck. From one side the possible reason is the hesitation of the stakeholder to take on voluntary basis obligations which with might eventually affect the economic growth of the country in exchange for the possibilities offered by the Kyoto Protocol. The point which could cause deep consideration that burden of obligations under the Kyoto Protocol is real and perceptible meanwhile the benefits from the participation in the projects are quite blurred at the current stage, since it is not completely obvious whether Kazakhstan will become an active participant at the international level. Eventually taken obligation under the Kyoto Protocol might lead to some restrictions on energy consumption and hence it will affect the economic growth of the country. Reasonably that it is not an trivial question whether it worth to sacrifice some part of national GDP for the purposes of solution of global warming process, since on the daily basis most of the people in Kazakhstan indeed

do not know about the climate change and in general they would not approve this kind of policy of the government. In addition, the issue of constant and rapid growth of emissions amount warns in long time perspective and it might happen that in some years Kazakhstan will not have in reserve any carbon units to sell, however country might struggle with its own national emissions. In any case, the decision of the ratification of the Kyoto Protocol is the strategic decision which would have a reflection in the future of the state. Finally, it is understood that the issue of the ratification of the Kyoto Protocol is not easy for the government of Kazakhstan to handle. However at the same time the vast majority of other Former Soviet Union countries have already made their choice in respect to the policies of the Kyoto Protocol. The Protocol has been signed by Kazakhstan in 1999 and to the end of 2005 the Kyoto Protocol has not been ratified: neither as a Party of Annex B nor as a non-Annex B Party. At first sight it might appear that the procedure of the ratification of the Kyoto Protocol itself takes very long time and it is the main reason for delay. However, the majority of other Former Soviet Union countries have ratified the Kyoto Protocol and moreover five of them were included in Annex B to the Protocol, which are Estonia, Latvia, Lithuania, Russia and Ukraine (see Appendix E). All those facts force us to look closer at the specific case of Kazakhstan and try to understand why it behaves in that certain way in the light of the ratification of the Kyoto Protocol. It could be an extremely complicated task to get into the undercover struggle that seems to occur inside the structures of governmental institutions involved in the procedure of the ratification of the Kyoto Protocol, since governmental structures in Kazakhstan are quite closed type of organizations. Considering these issues, this situation will be observed from the view of institutional theories which were described above and in order to get closer to the institutions which will be observed, it is important to clarify what is the procedure of ratification of the Kyoto Protocol looks like in Kazakhstan and who are the main stakeholders involved in it. The main discussion concerning the situation of ratification of the Kyoto Protocol in Kazakhstan and assessment of the behavior of governmental institutions in the light of institutional theories will be developed in chapter 6.5.

6.3. The process of ratification of international agreements in Kazakhstan

In this chapter it will be elucidated how the process of ratification of international agreements usually implemented and who are the stakeholders involved in the procedure. Until 1995 the Supreme Soviet of the Republic of Kazakhstan, inherited from the Soviet regime was recognized as the only legislative body in Kazakhstan. By new Constitution of The Republic of Kazakhstan issued in 1995 new parliament system has been established. Contemporary parliament consists of two chambers, which are Mazhilis and Senate. The activities of the parliament are regulated by the Regulation of the parliament of the Republic of Kazakhstan accepted on the 8th of February 1996 (Regulations of the Senate of the Republic of Kazakhstan, 2002).

Thus, according to the Regulations the procedure of ratification and denouncement of international agreements goes through the following stages (See Figure 4.) The President of Kazakhstan or Government recommends international agreements to the parliament for consideration (Regulations of the Parliament of the Republic of Kazakhstan, 1996). The process of ratification and denouncement of international agreements implemented consequently, firstly the problem will be considered in Mazhilis and secondly in Senate which make the final decision regarding the issue. So, the ratification process is the creation of legislative basis for the implementation of international agreement inside the country. The final step of the ratification of international agreement is the signing of the legislation by the

President or the Government of the Republic of Kazakhstan. (Regulations of the Senate of the Republic of Kazakhstan, 2002)

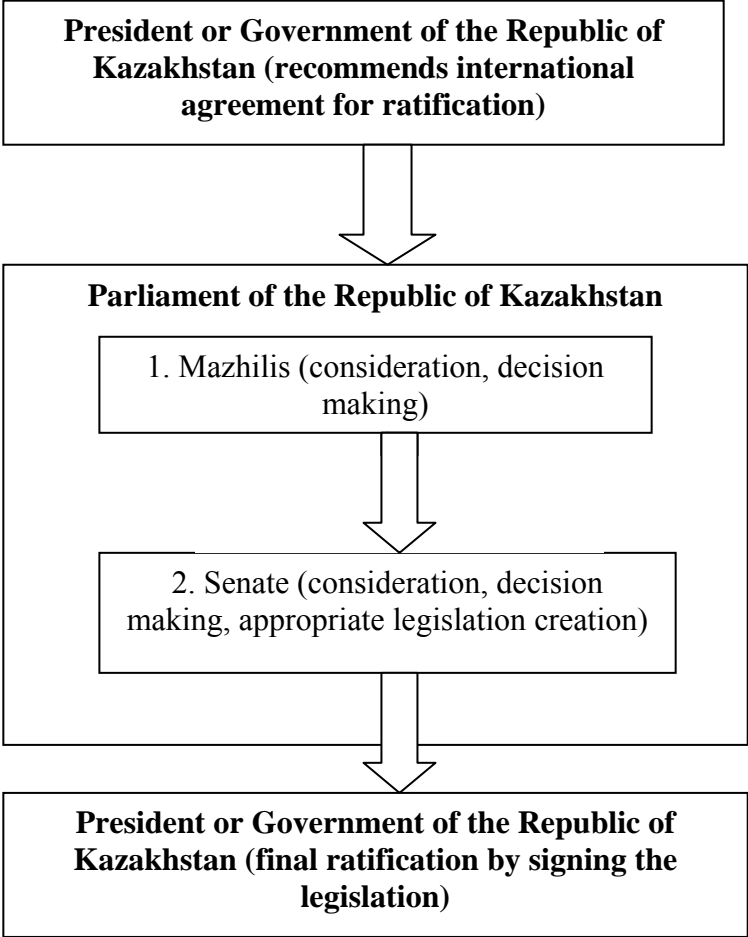


Figure 4. General scheme of the process of ratification of international agreement in the Republic of Kazakhstan.

6.4. Case of ratification of the Kyoto Protocol and active stakeholders

Thus, when the question concerning the ratification of the Kyoto Protocol raised in Kazakhstan, according to the scheme of ratification of international agreements, the first initiative emerged from the side of the Government and by its decree in April 2000 the Interagency Commission on Climate Change (here and after IACCC) was established in order to specifically deal with the issues of the ratification of the Kyoto Protocol. The main objective of IACCC was to provide the interaction between stakeholders on the national level inside the country and also to conduct negotiations on the international level, representing Kazakhstan.

STRUCTURE OF IACCC WORK:

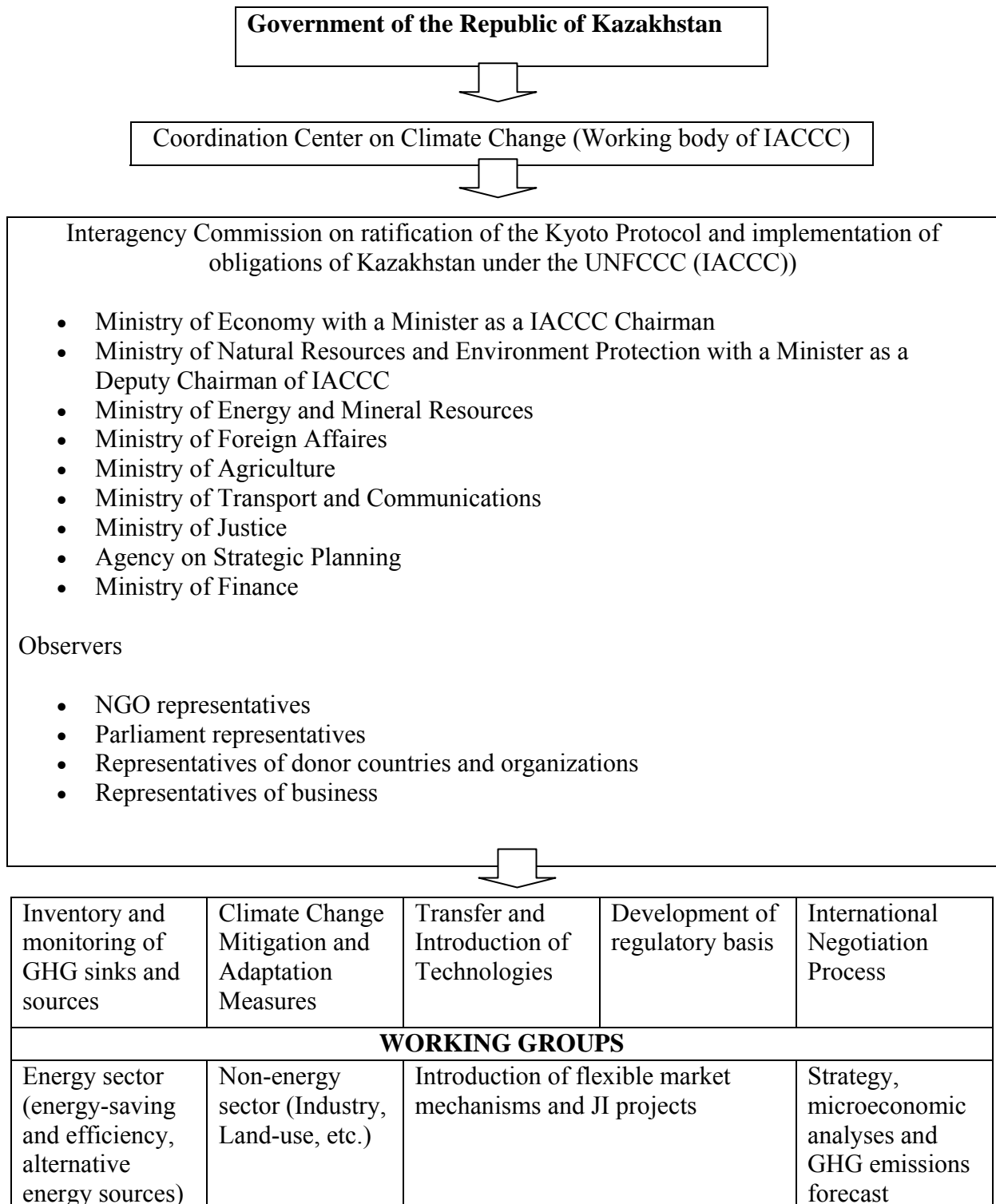


Figure 5. General schematic of operation of IACCC (Adopted from: Coordination Center on Climate Change, Kazakhstan official website)

Interagency Commission works under the approved Regulations on the Interagency Commission on the issues of ratification of the Kyoto Protocol to the United Nations Framework Convention on Climate Change.

Certainly, it will not be possible in this piece of work to describe in details all implemented activities in the frame of IACCC work related to the ratification of the Kyoto Protocol in Kazakhstan. However some most important points should be emphasized. Thus, during 4th session of the IACCC held in Astana, the capital of Kazakhstan, in 2001 it from the side of the IACCC it was decided to recommend the government to start with the process of ratification of the Kyoto Protocol from the year 2002 and to ratify it no later than year 2005” (Protocol of the 4th IACCC session, 2001), which confirms that from the side of the IACCC it appears possible to proceed with the process of ratification and to finish it before the end of the year 2005. Specifically should be mentioned the collaboration of the IACCC with SOFRECO, European private engineering and consultancy company, through the project called “Technical assistance to Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan with respect to their Global Climate Change Commitments” (70242) by European Union. So the IACCC in Kazakhstan has a strong international support and cooperation together with professional consultants. With the help of SOFRECO Company the legislative system was improved after the comparison with the European Union legislation for purposes of the implementation of requirements under the UNFCCC and the Kyoto Protocol. Thus, the improvement recommendations were drafted for following legislations: Law on air protection, Guidelines on the Agreement and Approval of Maximum Limits on Air Emissions and Water Discharges, Calculation Methodology on Payment for Environmental Pollution, Guidelines on Administrative and Criminal Responsibility for Violation of Air Protection Law in the Framework of Civil, Administrative and Criminal Codes of the Republic of Kazakhstan, Emissions Standard Guidelines. Besides, the greenhouse gases inventory system in Kazakhstan was assessed and in order to improve the system the proper software was provided by SOFRECO Company (Progress Report SOFRECO, 2004-2005). In addition to all mentioned activities, several workshops and trainings were conducted under the umbrella of this project specifically to train staff and to teach. A lot of work has been done in development of JI projects infrastructure, with the consideration that decision of the government concerning the ratification of the Kyoto Protocol will be positive. Eventually all legislative preparations together with the technical infrastructure have been implemented and in terms of these conditions Kazakhstan is currently prepared for the ratification of the Kyoto Protocol.

6.5. Analysis from the view of institutional theories and discussion

According to the scheme presented in Figure 4, the next step in ratification process would be the observation of the raised question regarding the ratification of the Kyoto Protocol in Parliament chambers. However, the peculiar thing is that parliament hearings originally scheduled on the 28th of October 2005, were shifted to the 27th of January 2006 (Coordination Center on Climate Change Kazakhstan, 2006). According to the information gained through the personal communication with press service of the Parliament of the Republic of Kazakhstan, newer final date of the hearings to be conducted is the 10th of February 2006. Certainly, there is a probability that the hearings will be shifted more and more times. Thus, obviously something goes wrong in the procedure of ratification of The Kyoto Protocol inside the governmental system. Unfortunately the exact reasons of the stoppage of the process of the ratification lay deep in the political undercover structures of the state and it would be very hard to get clear answers since governmental structures in Kazakhstan are indeed the community of extremely closed type.

Figure 6. Compiled table of specific hypothesis relevancy criteria tests

<i>Rational Choice Institutionalism</i> with a specific hypothesis: Governmental institutions involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan behave in a certain way which would bring the most benefits			
Relevancy criteria	obvious or hidden pathways to benefit from the their behavior: yes	governmental institutions/stakeholders openly claims their concern regarding the possible benefits: yes	governmental institution/stakeholders openly behave in a way to gain benefits: yes
<i>Empirical Institutionalism</i> with a specific hypothesis: Behavior of the governmental institutions/stakeholders involved in the procedure of ratification of the Kyoto Protocol in Kazakhstan can be explained by the governmental structure in Kazakhstan			
Relevancy criteria	obvious specifications in the structure of the governmental system in Kazakhstan: no	actions of governmental institutions in Kazakhstan are defined by the specific structure: no	-
<i>Historical Institutionalism</i> with a specific hypothesis: Actions of the members of governmental institutions/stakeholders involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan reflect the policies conducted in the past and decisions made by the institutions before in respect to the Climate Change regime, i.e. the UNFCCC and the Kyoto Protocol			
Relevancy criteria	history of the environmental policies related to international Climate Change regime in the past time of the state of Kazakhstan: ?*	the fact in place that certain decisions made in the past formed current position of Kazakhstan in respect to the international Climate Change regime: ?	current actions of the governmental institutions/stakeholders clearly determined by the decisions made in the past: ?
<i>Normative Institutionalism</i> with a specific hypothesis: Governmental institutions/ stakeholders responsible for the procedure of ratification of the Kyoto Protocol behave in a certain way due to values and moral rules of the members of these institutions			
Relevancy criteria	members of the governmental institutions openly declare their values and moral rules which they do follow in respect to the Kyoto Protocol: yes	a clear pathway which demonstrates that members of institutions act with devotion to the their moral rules and values in respect to the Kyoto Protocol, may be even in spite of possible costs: no	members of institutions explain their actions by their dedication to their values or moral rules in respect to the Kyoto Protocol: no

?* - criterion is not completely relevant or irrelevant

Therefore, due to the lack of information, at this stage of investigation it is possible only to analyze the whole situation from the point of view of institutional theories as an attempt to explain the actual behavior of the governmental institutions involved in the process of the ratification of the Kyoto Protocol in Kazakhstan. As basis for the analysis and further discussion on the behavior of governmental institutions/stakeholders involved in the process of the ratification of the Kyoto Protocol in Kazakhstan the table presented in Figure 6 will be used.

This table is compiled from the specific hypothesis with relevancy criteria developed in chapter 2.3 and main conclusions based on the findings got from literature and available information sources (See Figure 6.).

Thus, when analyzing the situation around the ratification of the Kyoto Protocol in Kazakhstan by application of the four basic institutional theories and their criteria which were described in chapter 2.3 it appears that at least three of presented theoretical approaches partially or totally work in this case and they are: the theory of Rational Choice Institutionalism, approach of Historical Institutionalism and theory of Normative Institutionalism. Meanwhile, the theoretical approach of *Empirical Institutionalism* which claims that the structure of the government matters in decision making procedure appears very doubtful in this case, and very weak in terms of relevancy since there are no any obvious specifications in the governmental structure of Kazakhstan. Indeed, governmental structure in Kazakhstan would resemble the governmental structure of many other countries among 157 Parties of the Kyoto Protocol (The UNFCCC'1992, official website, 2006). Therefore, it seems that the structure of the government hardly can be a reason of the fact that the Kyoto Protocol has not been ratified so far by Kazakhstan. However what does seem to be really a matter in this particular case are people who represent the main stakeholders rather than the structure they organized, and that leads to the other three institutional theories.

At glance it appears that Kazakhstan is really eager to make the contribution to the solution of climate change problem and desires to reduce its emissions like many other countries do and it proves the approach of *Normative Institutionalism*, which claims that governmental institutions in their actions and decisions are motivated by certain values and moral rules. Government of Kazakhstan realizes the issue of Climate Change and demonstrates its awareness concerning the future of the Earth and its inhabitants. Representatives of the governmental institutions of Kazakhstan openly claim deep concerns regarding to issue of Climate Change on the sessions of Parties to the UNFCCC and that proves the relevance of the approach of Normative Institutionalism to the particular case of the ratification of the Kyoto protocol in Kazakhstan. However, the analysis of the relevancy of two other criteria chosen for the hypothesis of Normative Institutionalism shows that these criteria are not completely applicable. The reason for this is the fact that final decision was not made, although basic infrastructure inside the country seems to be prepared and the Conference of the Parties of the UNFCCC has approved the entry of the Kazakhstan as a Party of Annex I to the UNFCCC and Annex B the Kyoto Protocol in 2001 upon the ratification of the Protocol (The Marrakech Accords, COP-7, 2001). Thus, it seems that Kazakhstan still hesitates and the possible reason for that are the eventual costs of the ratification of the Kyoto Protocol, which may become high enough to not to be covered by the benefits upon the ratification, and at this moment the possible high costs seem to be the only possible reason of the stoppage of the procedure. In this case it is fair to claim that actually at this moment Kazakhstan is not able to follow completely the values and moral rules regarding the climate change issue which were declared previously, and which eventually proves that the theoretical approach of Normative Institutionalism can not be solely and totally applied here as an explanation of the behavior of the governmental institutions involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan.

However, another institutional theory seems to be much more relevant in this case study and it is the theory of *Rational choice* which comes much stronger in terms of criteria relevancy tests for the specific hypothesis developed for this institutional theory. All three relevancy criteria were actually found to be in place. Firstly, there is a very well defined possibility to benefit from the participation in the Kyoto Mechanisms through the international projects in the frame of JI/CDM as well as through the Emissions Trading, due to reserved emission units, and these opportunities have definitely attracted governmental institutions in Kazakhstan. In fact, inclusion of Kazakhstan in the Kyoto Protocol as an Annex B country appears to be only condition for ratification of the Protocol by Kazakhstan, since Kazakhstan is very eager to gain benefits from the JI/CDM/EI activities which Kazakhstan would be eligible to participate in only upon ratification and solely in case if Kazakhstan will be included in Annex B of the Kyoto Protocol. It seems that probably at first it appeared to Government that Kazakhstan possesses huge reserves of emission units since nowadays total amount of emissions much lower than in 1992, which was chosen as a base year (Bekzhanov, 2005). However, when all the factors were taken into account, primarily the rapid growth of emissions, the competition with Ukraine and Russia on the carbon market, actual feasibility of the participation in international projects and other factors described under chapter 6.2, government became somewhat insecure concerning the ratification of the Kyoto Protocol, though Conference of the Parties already has given the permission to join Annex B and infrastructure inside the country appears to be prepared. Another important point in support of Rational choice theory, is the fact that, Kazakhstan could actually ratify the Kyoto Protocol as a Party not included in Annex B of the Protocol, and that option would give the opportunity at least to participate in CDM projects and in that way to make a contribution to the mitigation of the climate change. However this perspective seems to be not very attractive for the government, probably due to the fact that in last case competition for participation in projects will be very high, and it is the factor which would decline possible benefits from participation in CDM projects, meanwhile the list of Annex B Parties is rather short and Kazakhstan with its numerous possibilities for JI/CDM projects implementation would look highly competitive and found itself in a rather convenient position. On the other side government considers the possible negative economic effects which are quite possible considering the circumstance of rapid emission growth, which may lead eventually into the situation that Kazakhstan will have problems with fulfillment of its commitments during the period of 2008-2012, and even might be forced to acquire carbon units rather than sell, in case if national emissions grow over a limit.

So, considering those factors behavior of the institutions accurately follow the Rational Choice theory hypothesis for this case study: governmental institutions of Kazakhstan, involved in the process of ratification of the Kyoto Protocol clearly trying to find a way which would bring the most benefits, whether ratifying the Protocol or not. In this case the Kyoto Protocol comes up for Kazakhstan as an opportunity to gain benefits, rather than the tool of mitigation of global climate change issue, and own interests of the governmental institutions crucially prevail over the interests of international climate change regime. Governmental institutions in Kazakhstan are trying to find the best way to handle the situation which would respond to the government's interests, and it seems that it really takes time to make a choice. All in all, among all other institutional theories presented in this piece of work the approach of Rational Choice comes appears to be the most relevant in terms of this particular case study, explaining the current behavior of the governmental institutions in Kazakhstan in respect to the ratification of the Kyoto Protocol. However, the very exact reason why the procedure of the ratification of the Kyoto Protocol has not culminated so far might be related to interferences inside the structural system of stakeholders, and it seems to be so, but unfortunately at the moment there is no way to prove or disprove this guess. One seems to be

clear that whether government considers positive or negative solution in the case of the ratification of the Kyoto Protocol in Kazakhstan, the solution will be conditioned by own interests rather than any other factors.

The way how the approach of *Historical Institutionalism*, can be applied in this case study requires specification. As it was said, from the point of view of Historical Institutionalism the current decisions made by institutions are depend on the decision made before and furthermore the specific hypothesis for this case study was developed as follows: actions of the members of governmental institutions/stakeholders involved in the procedure of the ratification of the Kyoto Protocol in Kazakhstan reflect the policies conducted in the past and decisions made by the institutions before in respect to the Climate Change regime, i.e. the UNFCCC and the Kyoto Protocol. However, as it is known, Kazakhstan is rather “young” state as an independent unit, and previously for about 70 years it used to be a part of the USSR, where all international political decisions were made in the city of Moscow, which was the capital of the USSR at that time. Thus, it is very complicated matter to find any pathway of resemblance between decisions taken by the USSR and direction that Kazakhstan follow as an independent state. Moreover, one should be considered that the Kyoto Protocol and its mechanisms particularly is a quite new type of International Environmental treaty and came to the stage 5 years after the USSR has actually collapsed. Thus, in these terms there is no obvious pathway that would demonstrate the resemblance between the behavior of the governmental institutions in Kazakhstan nowadays and policies followed by the government of the USSR. The approach of Historical Institutionalism can be considered if virtually we observe last 15 years of Kazakhstan’s history as a period suitable for the analysis from the point of view of this approach. Then we can make a prediction of the future behavior of governmental institutions in Kazakhstan in respect to the Kyoto Protocol. The prediction would be: since Kazakhstan has ratified the UNFCCC in 1995 then it is feasible to assume that Kazakhstan will sooner or later ratify the Kyoto Protocol to the UNFCCC, but it is hard to tell whether Kazakhstan will join as a Party of Annex B or not.

However, one issue is definitely resembles the USSR is the way political institutions work in Kazakhstan. The Kyoto Protocol has been issued in 1997 and Kazakhstan has signed it signed in 2 years later in 1999 and up to February 2006 i.e. 7 years later, Kazakhstan has not made the final decision regarding the Kyoto Protocol. Thus, after 7 years of work on the procedure of the ratification there was no even parliament hearings conducted yet. The logical question raises: how long more it will take before any final decision concerning the Kyoto Protocol will be taken? Will be the Kyoto Protocol ratified at all before the first commitment period will start? The bureaucracy is with no doubts the heavy heritage gained from the past the USSR times. There is no surprise at all, since, on the contrary to many other former Soviet Union countries (Georgia, Russia, Ukraine, Kyrgyzstan, Azerbaijan, Estonia etc.) Kazakhstan did not experience that much changes in political system and, what is the most important, no significant changes among the people who represents political institutions. Kazakhstan has the same president for 14 years already, since 1991, and before he became a president of independent Kazakhstan he used to be for some years a head of Communist Party of the Republic of Kazakhstan. As well as the majority of the people who currently work in political organizations in Kazakhstan they were originally involved in different kind of Soviet political organizations and it appears that they can not easily change the way they used to work in the past. Hopefully, when new generation of politicians will substitute their colleagues the new impetus will come and decision making process will accelerate. Thus, the concept of Historical Institutionalism clearly works here, however not in terms of dependence on the pathways of decisions previously made, but more in terms of the manner decisions were made in the past and the way they made nowadays.

7. Conclusions and recommendations

The whole situation around the ratification of the Kyoto Protocol by Kazakhstan unfortunately remains somewhat blurred. The process of ratification of the Kyoto Protocol halts at the stage of observation of the ratification proposal in Parliament and date of Parliament hearings all the time shifted for some reasons hidden in undercover political structures. Actually, it is not obvious whether Kazakhstan will ratify Protocol at all and moreover whether Kazakhstan will eventually decide to become a Party of Annex B to the Protocol since there are factors which might force Kazakhstan to withdraw. However, it can be quite explainable since after all it is a developing country and its initiative is completely voluntary. Besides, though looking for own benefits from activities under the Kyoto Protocol eventually it would make a contribution to a common aim claimed in the UNFCCC – reduce the concentration of greenhouse gases in the atmosphere (UNFCCC, 1992). Therefore by no means Kazakhstan can be accused or blamed for its behavior in this case. How it is possible to demand to sacrifice a developing country, while the wealthiest countries in the world like United States or Australia refuse to take action and to make their contribution to solving the common problem, even being actually the main emitters on the face of the Earth (Seitz, 2002).

In any case, hopefully the question of ratification of the Kyoto Protocol in Kazakhstan will be solved positively and Protocol will be eventually ratified in any case, since otherwise Kazakhstan might stay out of the game at all, for the reason that only Parties to the Protocol are eligible to participate in the projects under it. It recommended in a preliminary order to ratify the Protocol as a non-Annex B Party, participate in CDM projects and try to control emission growth by means of modernizations in the energy sector. If it will appear feasible to handle with total emissions growth, then Kazakhstan could try to take commitments under the next period which most likely will follow after year 2012. Thus, step by step Kazakhstan could without specific risks finally join the army of “global warming fighters” and make its contribution to the fulfilling of the common task. However nowadays governmental institutions in Kazakhstan behave primarily according to the pathway of Rational Choice theory, demonstrating the most concern about the economical issues of ratification of the Kyoto Protocol in Kazakhstan. Although it seems that indeed it could be more rationally to demonstrate devotion to the value of prosperous life of future generations on the Earth, but unfortunately theory of Normative Institutionalism come up weak in fact.

Studies like this one could actually be of great importance. Scientific research particularly directed to one country or several countries in one region with similar features may reveal some specific economic, political and environmental conditions peculiar to only this specific region. All in all, countries are different and moreover from continent to continent difference between legislative, economical, governmental etc. systems can be huge and some global international conventions are not completely acceptable for every country in the world and it results in less effectiveness of the convention in the end. Therefore in case of global warming regime it could be an idea to develop specific “regional” conventions on climate change instead of one “global” convention, considering the regional specifications and adopting the convention in with the purpose to involve as many Parties as possible. Moreover, still could be an option to make conventions more flexible. For example, the base year for some countries could be not 1990, but let us assume it would be 1995. In first case it might appear for the government of the country that it not feasible to fulfill the commitment and it refuses to take obligations and after all no urgent action done on emission reduction at all and that declines the efficiency of the convention. Meanwhile in second case commitment conditions would be softer, and eventually country would join the convention taking feasible

obligations and making changes to achieve at least some emissions reduction. There are could be more examples of that kind. However, the main idea is that conventions of smaller scale which would work regionally could be more effective way to reach the main purpose. Therefore, regional studies and studies of each particular state are very important in that case.

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Appendix A

The list of Former Soviet Union Republics and their current names (1922- 1991)

Soviet Republics Name	Current name of the states
Armenian SSR*	Armenia
Azerbaijan SSR	Azerbaijan
Belarusian SSR	Belarus
Estonian SSR	Estonia (European Union member since 2004)
Georgian SSR	Georgia
Kazakh SSR	Kazakhstan, the Republic of
Kirghiz SSR	Kyrgyzstan
Latvian SSR	Latvia (European Union member since 2004)
Lithuanian SSR	Lithuania(European Union member since 2004)
Moldavian SSR	Moldova, the Republic of
Russian SFSR**	Russian Federation, Russia
Tajik SSR	Tajikistan
Turkmen SSR	Turkmenistan
Ukrainian SSR	Ukraine
Uzbek SSR	Uzbekistan

*SSR - Soviet Socialist Republic

**SFSR -Soviet Federated Socialist Republic

Appendix B

Table 1. Ratification status of the UNFCCC '92 and the Kyoto Protocol '97 among the former Soviet Union countries

	The UNFCCC (1992) ratification status by 24 may 2004		The Kyoto Protocol (1997) ratification status, by November 24, 2005	
Armenia	13/06/1992 s.,14/05/93 ratif.,	21/03/94e.i.f.	25/04/03 access.,	16/02/05 e.i.f.
Azerbaijan	12/06/92 s.,16/05/95 ratif.,	14/08/95 e.i.f.	28/09/00 access.,	16/02/05 e.i.f.
Belarus	11/06/92 s.,11/05/00 approv.,	09/08/00e.i.f.	26/08/05 access.,	24/11/05 e.i.f.
Estonia	12/06/92 s.,27/07/94 ratif.,	25/10/94 e.i.f.	03.12.1998 s.,14/10/02 ratif.,	16/02/05 e.i.f.
Georgia	29/07/94 access.,	27/10/94 e.i.f.	16/06/99 access.,	16/02/05 e.i.f.
Kazakhstan	08/06/92 s.,17/05/95 ratif.,	15/08/95 e.i.f.	12/03/99s.(planned to be ratified in 2005)	
Kyrgyzstan	25/05/00 access.,	23/08/00 e.i.f.	13/05/03 access.,	16/02/05 e.i.f.
Latvia	11/06/92 s.,23/03/95 ratif.,	21/06/95 e.i.f.	14/12/98 s.,05/07/02 ratif.,	16/02/05 e.i.f.
Lithuania	11/06/92 s., 24/03/95 ratif.,	22/06/95 e.i.f.	21/09/98 s.,03/01/03 ratif.,	16/02/05 e.i.f.
Moldova, Republic of	12/06/92 s., 09/06/95 ratif.,	07/09/95 e.i.f.	22/04/03 access.,	16/02/05 e.i.f.
Russian Federation	13/06/92 s.,28/12/94 ratif.,	28/03/95 e.i.f.	11/03/99 s.,18/11/04 ratif.,	16/02/05 e.i.f.
Tadjikistan	07/01/98 access.,	07/04/98 e.i.f.	no info	
Turkmenistan	05/06/95 access.,	03/09/95 e.i.f.	28/09/98 s.,11/01/99 ratif.,	16/02/05 e.i.f.
Ukraine	11/06/92 s.,13/05/97 ratif.,	11/08/97 e.i.f.	15/03/99 s.,12/04/04 ratif.,	16/02/05 e.i.f.
Uzbekistan	20/06/93 access.,	21/03/94 e.i.f.	20/11/98 s.,12/10/99 ratif.,	16/02/05 e.i.f.

Note:

s. = signature

access. = accession

approv. = approval

ratif. = ratification

e.i.f. = entry into force

Sources:

The United Nations Convention on Climate Change official website, Convention Ratification Status and the Kyoto Protocol Ratification Status, 2005

Appendix C

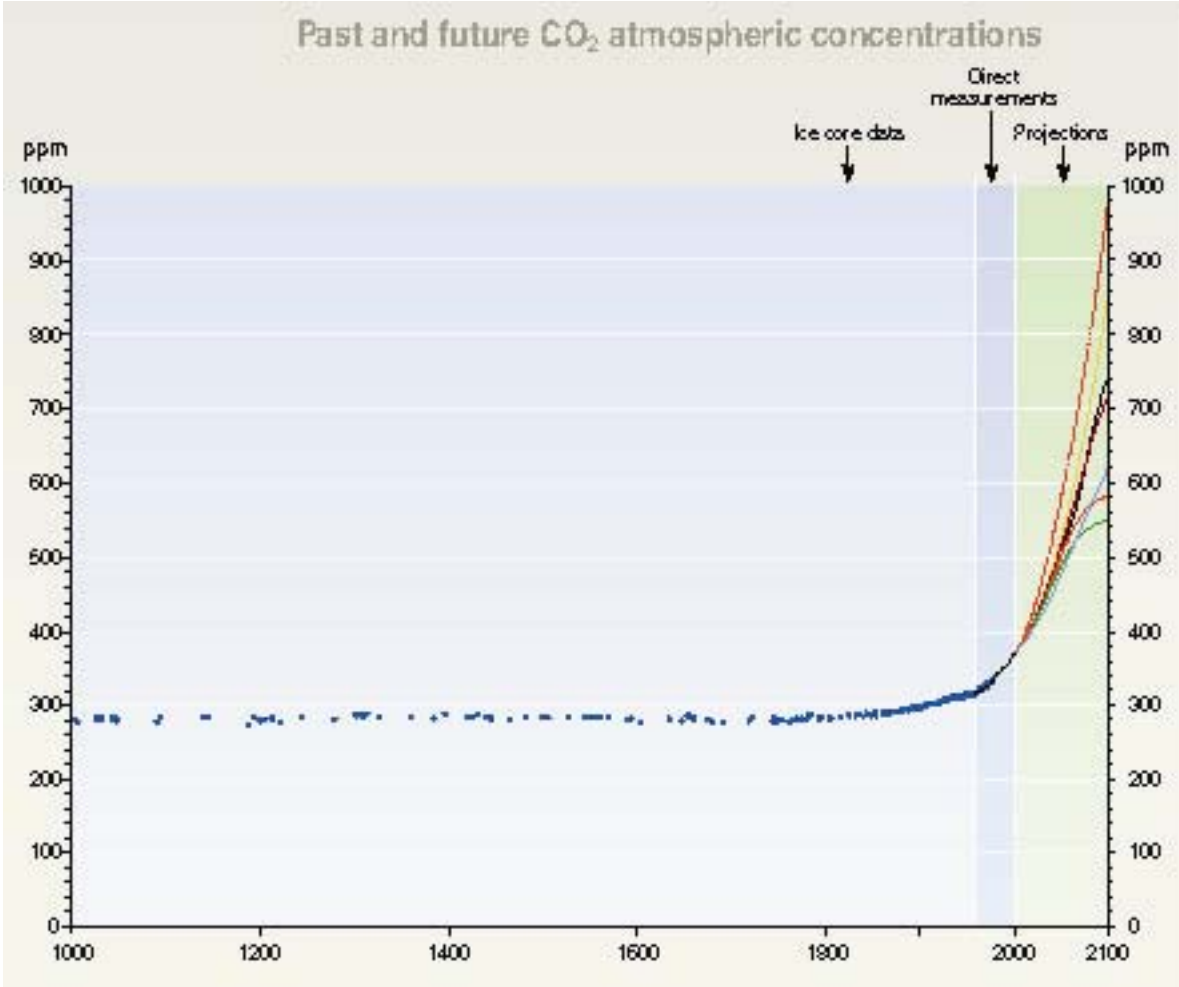


Figure 1. Atmospheric CO₂ concentration from year 1000 to year 2000 from ice core data and from direct atmospheric measurements over past few decades and projections for next hundred years. *Source: International Panel on Climate Change Third Assessment Report - Climate Change 2001: Summary for Policy Makers*

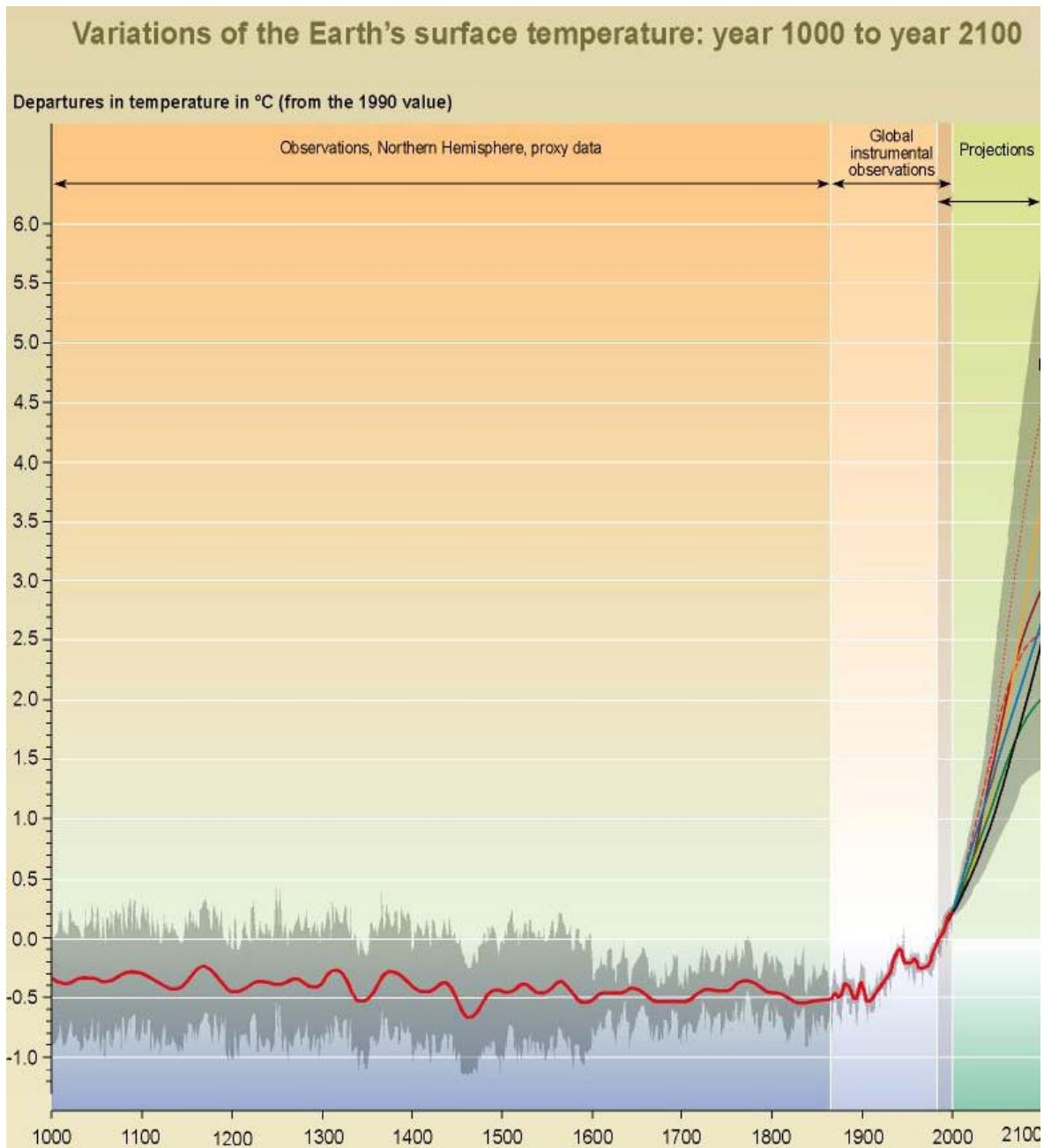


Figure 2. Variations of the Earth's surface temperature: years 1000 to 2100 with several projections. *Source: International Panel on Climate Change Third Assessment Report - Climate Change 2001: Summary for Policy Makers*

Appendix D

List of the countries listed in the Annex I to UNFCCC 1992:

Australia
Austria
Belarus*
Belgium
Bulgaria*
Canada
Czechoslovakia*
Denmark
European Economic Community
Estonia*
Finland
France
Germany
Greece
Hungary*
Iceland
Ireland
Italy
Japan
Latvia*
Lithuania*
Luxembourg
Netherlands
New Zealand
Norway
Poland*
Portugal
Romania*
Russian Federation *
Spain
Sweden
Switzerland
Turkey
Ukraine*
United Kingdom of Great
Britain and Northern Ireland
United States of America

* Countries that are undergoing the process of transition to a market economy.

List of the countries listed in Annex II to UNFCCC 1992

Australia
Austria

Belgium
Canada
Denmark
European Economic Community
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Japan
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great
Britain and Northern Ireland
United States of America

Appendix E

Quantified emission limitation or reduction commitments for the Parties included in Annex B to the Kyoto Protocol.

Party	Quantified emission limitation or reduction commitment (percentage of base year or period)
Australia	108
Austria	92
Belgium	92
Bulgaria*	92
Canada	94
Croatia*	95
Czech Republic*	92
Denmark	92
Estonia*	92
European Community	92
Finland	92
France	92
Germany	92
Greece	92
Hungary*	94
Iceland	110
Ireland	92
Italy	92
Japan	94
Latvia*	92
Liechtenstein	92
Lithuania*	92
Luxembourg	92
Monaco	92
Netherlands	92
New Zealand	100
Norway	101
Poland*	94
Portugal	92
Romania*	92
Russian Federation*	100
Slovakia*	92
Slovenia*	92
Spain	92
Sweden	92
Switzerland	92
Ukraine*	100
United Kingdom of Great Britain and Northern Ireland	92
United States of America	93

* Countries that are undergoing the process of transition to a market economy.

Source: The Kyoto Protocol to United Nations Convention on Climate Change, 1997