

# POSSIBLE EFFECTS OF KYOTO PROTOCOL ON TURKISH ENERGY SECTOR

## 1. What is Kyoto Protocol?

Kyoto Protocol ('Protocol'), is an international agreement that was accepted as an annex to United Nations Framework Convention on Climate Change ('UNFCCC') accepted at Earth Summit which was held in Rio de Janeiro (Brazil) in 1992. The main purpose of the Protocol is to make sure the greenhouse gas<sup>1</sup> concentrations in the atmosphere are stabilized at levels that would not create hazardous effects to the climate. The Protocol has stipulated several binding targets for industrialized countries in order to reduce greenhouse gas emissions<sup>2</sup>. While UNFCCC foresees 'encouraging implementations', the Protocol stipulates 'mandatory sanctions' for reducing emissions.

## 2. How did the historical process develop?

The Protocol, of which the framework was established in Kyoto in December 1997, was available for ratification in March 1998 and the set of detailed rules was adopted in Marrakesh (Morocco) in 2001. Two conditions were stipulated for the Protocol to enter into force:

- at least 55 countries should be a party to the Protocol
- party states should account for 55% of the world total emission

Both conditions were fulfilled after Russian Federation became a party to the Protocol in February 2005 and the Protocol officially entered into force.<sup>3</sup>

## 3. Which countries are parties to the Protocol?

UNFCCC member states can be a party to the Protocol and non-members can not be a party to the Protocol. UNFCCC observer countries do not have an obligation to be a party to the Protocol. As of August 2009 a total of 184 countries is party to the Protocol.

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<sup>1</sup> According to the Protocol greenhouse gases are as follows:

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O)
- Hydrofluorocarbon (HFC)
- Perfluorocarbons (PFC)
- Sulfur hexafluoride (SF<sub>6</sub>)

<sup>2</sup> Emission show the carbon amount released into atmosphere.

<sup>3</sup> With Russian Federation becoming a party to the Protocol the total emission rates have increased to 61.6%.

There is only one country which expressly announces that it does not intend to ratify the Protocol even though it is a member of UNFCCC: USA. Additionally, the following 11 countries have not made any announcement or commitment for being a party to the Protocol:

- Afghanistan
- Andorra
- Brunei
- Chad
- Iraq
- Palestine
- Sahrawi Arab Democratic Rep.
- San Marino
- Somali
- Taiwan
- Vatican



- Countries that are both member of UNFCCC and a party to the Protocol (184)
- Countries that are members of UNFCCC but announce that they do not intend to be a party to the Protocol (1)
- Countries that are UNFCCC members or observers but have not made any announcement on being a party to the Protocol (11)

#### 4. What do the lists included in the Protocol mean?

Different obligations for different country groups have been stipulated in the Protocol by adopting 'common but differentiated responsibilities' principle. Thus different lists have been created in parallel with these different obligations:

- [Annex-A List](#) : Includes the list of greenhouse gases that cause global warming and of which the emission rates are trying to be reduced and descriptions regarding the sectors that cause these gas emissions.
- [Annex-B List](#) : Includes the emission rates that the countries included in Annex-I list should achieve between 2008–2012.



- Annex-I List : Includes OECD<sup>4</sup>-member industrialized countries in 1992 and the countries in the transforming process to market economy<sup>5</sup>, Russian Federation, Baltic States and some of Central and Eastern European Countries.

Reducing greenhouse gas emission in 2008-2012 by at least 5% according to the level in 1990 is stipulated to the countries in this list. Annex-I countries which fail to comply with the targets which are set forth in the Protocol shall be punished with decreasing the reducing target by 30% in the next period. The countries in the list are:

- |                      |               |                  |
|----------------------|---------------|------------------|
| - Australia          | - Austria     | - Belarus        |
| - Belgium            | - Bulgaria    | - Canada         |
| - Czech Republic     | - Croatia     | - Denmark        |
| - Estonia            | - Finland     | - France         |
| - Germany            | - Greece      | - Hungary        |
| - Iceland            | - Ireland     | - Italy          |
| - Japan              | - Latvia      | - Liechtenstein  |
| - Lithuania          | - Luxembourg  | - Monaco         |
| - Netherlands        | - New Zealand | - Norway         |
| - Poland             | - Portugal    | - Romania        |
| - Russian Federation | - Slovakia    | - Slovenia       |
| - Spain              | - Sweden      | - Switzerland    |
| - Turkey             | - Ukraine     | - United Kingdom |
| - USA                |               |                  |

Developing countries which are not in Annex-I list had become a party to the Protocol within the scope of a different list. These countries have no obligation - except informing Greenhouse Gas Inventory Submission that shows emission rate of these countries for a year.

- Annex-II List : This list includes the developed countries which are obligated to fulfill technology transfer and financial sanctions:

- |                  |              |               |
|------------------|--------------|---------------|
| - Australia      | - Austria    | - Belgium     |
| - Canada         | - Denmark    | - Finland     |
| - France         | - Germany    | - Greece      |
| - Iceland        | - Ireland    | - Italy       |
| - Japan          | - Luxembourg | - Netherlands |
| - New Zealand    | - Norway     | - Portugal    |
| - Spain          | - Sweden     | - Switzerland |
| - United Kingdom | - USA        |               |

<sup>4</sup> Organization for Economic Cooperation and Development

<sup>5</sup> The countries which were members of Eastern Block previously and now in the process of transforming to capitalist economy order

## 5. Which mechanisms are set forth in the Protocol?

- a) **Clean Development Mechanism:** The purpose of this mechanism is to support the countries in Annex-I list in fulfilling their obligations and to support the countries which are not in the list in relation to clean development. This mechanism is administered by “Executive Board of the Clean Development Mechanism”<sup>6</sup>. In the scope of the mechanism, the parties offer an idea for clean development project to “Designated National Authorities (DNA)” which is determined by the state. DNA sends a “Letter of Objection” to the party who offered the project after checking the feasibility of the project. At this point, the project owner may undertake project expenses itself or may find different investors. The project owner submits a “Project Design Document (PDD)”<sup>7</sup> to DNA. DNA examines the PDD and gives a “Letter of Approval” if the document is deemed appropriate. Following the letter, “Designated Operational Entities (DOE)” examines the project and decides that whether it is valid or not. If it is decided as valid, Executive Board registers the project and “Carbon Credit / Certified Emission Reduction (CER)” which is the value of the project is given.
- b) **Joint Implementation Mechanism:** The states which are a party to the protocol and are under enforcement of emission reduction, may participate to an emission reduction project that takes place in another country to gain “Emission Reduction Units (ERU)”. The investment and technology transfer carried out are checked by “Joint Implementation Supervisory Committee (JISC)” and if it is approved, ERU is given to related party country by JISC. Gained ERU is added to “Assigned Amount Units (AAU)”<sup>8</sup> that is stipulated for related party country. 32 party countries<sup>9</sup> already take a part in Joint Implementation Mechanism projects.
- c) **Emission Trading Mechanism:** According to Article 17 of the Protocol the parties can participate to Emission Trade in order to fulfill the obligations included in Annex-B list. For this purpose the parties can sell three units they have acquired within the scope of the Protocol in their Emission Trading System:<sup>10</sup>
- Units unused by AAU
  - CER they have gained from Clean Development Mechanism
  - ERU they have gained from Joint Implementation Mechanism

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<sup>6</sup> Executive Board of the Clean Development Mechanism is an administration and control unit consisting of 10 people assigned by UN.

<sup>7</sup> Project Design Document is the document that all the details of the project which is submitted to DNA are explained. PDD cost increases in parallel with the complexity level of the project.

<sup>8</sup> Assigned Amount Units show the rates that are included in Annex-B list which is determined for the countries included in Annex-I list.

<sup>9</sup> Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Netherlands, Liechtenstein, Lithuania, Luxembourg, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom.

<sup>10</sup> Examples: EU ETS in European Union, UK ETS in United Kingdom.

## 6. What is the place of Turkey in the Protocol process?

Turkey which is one of the party states to UNFCCC was included in both Annex-I and Annex-II lists by being considered among the developed countries due to being a member of OECD during the preparation of the Protocol stage in December 1997. Turkey which did not want to undertake the obligations created by being included in Annex-II has rejected becoming a party to the Protocol by claiming its development level until it was extracted from Annex-II list. Turkey which has continued its demands to be extracted from Annex-II list since 1st Conference of the Parties which was held in Berlin (Germany) in 1995 up to now, agreed to ratify the Protocol after the conditions were tailored for Turkey and it was extracted from Annex-II list in the 7th Conference of the Parties which was held in Marrakesh in 2001.

Protocol was ratified by TBMM (Turkish Grand National Assembly) on 5 February 2009 by law no. 5835. The law which was approved by President Abdullah Gül on 16 February 2009 entered into force by being published in the Official Gazette no 27144 and dated 17 February 2009.

The obligations which are already set forth to be realized between 2008-2012 in the Protocol are not binding for Turkey in any way. The obligations which shall be stipulated for after 2012 shall be determined as a result of the negotiations of all party countries at the 15th Conference of the Parties which shall be held in Copenhagen (Denmark) in December 2009 and shall also be binding for Turkey after 2012.

## 7. What would be the advantages and disadvantages of the Protocol for Turkey?

### Possible Advantages:

- With the ratification of the Protocol, Turkey has completed an important step regarding its expected implementations under the heading of environment at European Union negotiations.
- Turkey which is a founding member of United Nations has materially placed its solution focused and cooperation based insight regarding climate change which is one of the most important titles in international arena by being a party to the Protocol.
- The opportunity to participate as a party that has a right to speak and vote in the 15th Conference of the Parties in which the obligations after 2012 shall be determined and to make instructions that pursue national interests in negotiations has been gained.
- If the right policies are implemented, the mechanisms set forth in the Protocol can greatly accelerate direct capital investments, technology transfer and therefore employment. As a result of Carbon Credits to be acquired from sustainable energy investments a significant amount of income can be provided from Carbon Trade.

Possible Disadvantages:

- According to Greenhouse Gas Inventory Submissions which are submitted to the UN the greenhouse gas emission rate of Turkey has increased by 83.6% between 1990 and 2005. For Turkey which is making a development move, this fast increase rate bears the risk of not fulfilling the obligations that shall be set forth for after 2012 in the Protocol and therefore being exposed to heavy sanctions.

**8. What the possible effects of the Protocol to the Turkish energy sector and the measures to be taken can be?**

A long term “National Climate Change Policy” and legal infrastructure required for – especially Emission Trading Systems - the implementation of the Protocol in Turkey in parallel with this policy should be established immediately. Turkey does not have an obligation yet. The obligations to be undertaken after 2012 shall be determined as a result of negotiations to be held in December 2009. If Turkey manages to put forward its own conditions reasonably and undertake obligations which are parallel to its own conditions an excessive loss shall not be incurred by any sector, including energy sector in particular. Turkey even has an opportunity to gain great revenue from Emission Trade due to its sustainable energy potential.

However in case the Carbon Tax imposed in some of the countries party to the Protocol such as Germany, France and Sweden in particular in order to fulfill the obligations stipulated in the Protocol is also imposed in Turkey an additional cost for all sectors including the ones that have production based on fossil fuels seem possible. There are not yet any actions regarding Carbon Tax implementation in Turkey.