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## Article

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## Effect of Economic Growth and Foreign Direct Investment on Carbon emission in the Asian States

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### ABSTRACT

This research article analyzes the relationship between carbon dioxide gas emission, economic development, energy consumption and FDI in Asian states. The Autoregressive Distribution of Lag bounds tests has been applied for co-integration from 1970 to 2014. According to the results, there is a direct relationship between energy consumption and carbon dioxide gas emission. Moreover, there is no existence of a significant relationship between FDI and gas emission of carbon dioxide. In the long run, the coefficient value of FDI is insignificant and hence it shows confusion about the decision whether FDI will be a cause to increase the carbon dioxide gas emission or not. These results are suitable for the Asian countries that they should focus on the energy consumption that produce the carbon emission and damaged the environment severely and also put their intension on the growth part of this aspect. This study also provided the insight to the regulation making authorities while formulating policies on environmental condition of the country.

**Keywords:** Carbon Dioxide Emissions, Foreign Direct Investment, Economic Development, Energy Consumption

**JEL Classifications:** P18, F63

### 1. INTRODUCTION

In 1987 a report was composed of environment and development by World Commission (WC) and it is also famous by name of Brundtland report where a term of “Sustainable growth” was initially used. This kind of growth gives emphasize on optimum utilization of all present resources that do not hurt remaining resources and control problems in the environment and focus on environmental growth (Omri et al., 2014). This study requires a vast discussion on the environment but the growth rate of a state increases with the increase in the economy.

Several issues are resulting from greenhouse gas emission climate change problem is common enough out of several greenhouse gases. Several states are finding the way out to reduce the impact of carbon dioxide gas emission on seasonal influence. In Rio, a conference was held in 1992 on notice of destroyed layer of ozone and climate influence named as the United Nations Environmental

and Development Conference. Annexe-I states confessed to control at the Kyoto Protocol to decrease the emission of carbon dioxide gas from 2008 to 2012 (Zhu et al., 2016). According to the reports of IPCC, developing nations must take such step that could be helpful to limit the global temperature at <2 centigrade. This line is leading towards other topics of discussion on global warming at specified centigrade. In 2009, the Copenhagen Climate Summit reported as the unsuccessful summit in all the negotiations and clarifications.

In Paris, 21<sup>st</sup> conference was held called as Conference of Parties (COP21) on 03 November 2015-11 December 2015. In term to reduce the influence of climate from all over the world, one hundred and ninety-six nations were agreed and here a new stage of development begins with the help of Paris Confession to control the climate influence. The framework of the Paris Union was based to suppose scientifically, movable, dynamic and union of a long procedure. However, it was considered to have under

control environmental circumstance with the Paris Agreement (Tang and Tan, 2015).

Climate change issues were introduced for solution and awareness. Its awareness got popularity at vast scale even debates started on the topic of carbon dioxide gas emission. And such nations should decrease the emission which produces a higher level of emission of carbon dioxide gas, for quality environment and health.

The margin is equivalent to 28.03% China covers for emission and at the top first rank in sharing of gas emission of carbon dioxide. Different states like the United States, India, Russia and Brazil have different participation in the share of carbon dioxide gas emission that is equivalent to 15.09%, 5.81%, 4.87% and 4.17% in a sequence. While the participation of carbon dioxide gas emission of Asian state is 1.04% globally that is referred by Global Carbon (Chen and Huang, 2013). In 2015 some other findings also showed that more than half of the global emission of carbon dioxide was due to Brazilian, Russian, Indian and Chinese (BIRC) states. It is needed to control the climate influence not only developed states but underdeveloped states too. States should negotiate on the reduction of climate change.

According to other findings such states that have emitted a very large amount of carbon dioxide gas per capita including United States, Canada, Russia and Germany, sequentially. According to Behera and Dash (2017), Global Carbon means the value of emission of carbon dioxide gas in all over the world is 4.1 tons. In 2014, the emission rate of Asian states is 4.8 tons. Hence, in the case of emission of carbon dioxide gas, Asian states have shown much better role rather than developed states.

In any way, more finance, higher and greater use of advance technology and technical equipment often used by organizations, industries and corporations became a reason for climate change and leave an adverse impact on the environment. On the other side of this case, FDI influences directly on economical development and it may have an indirect effect on nature (Abdouli and Hammami, 2017). For more growth and higher development, under developing states attract more FDI and neglect the problem created in the environment (Salahuddin et al., 2018). This way is widely explained in "Pollution Haven Hypothesis." In 1980's more FDI was attracted by developed states and in the 1990s higher FDI was attracted by developing economies.

In contrast to the discussion by "Pollution Haven Hypothesis," a point conflicts in some states that FDI decreases the pollution in the environment. In related to this idea recipient states have greater potential and energy to make FDI with advance technological and technical equipment and machinery and better supervising and administration skill. Hence it is clear from the discussion that FDI will participate and more attractive towards a pure environmental situation in emerging states (Hanif et al., 2019). That's why the increase in the level of output, higher potential and more administrative skills bring out a reduction in gas emission of carbon dioxide.

Several researches have been done on environmental pollution under same circumstances like the Environmental Kuznets Curve

(EKC). In 1955, Simon Kuznets held research where findings depicted an inverse U-structured relationship within income per capita and income equality. According to Gökmenoğlu and Taspınar (2016), improper distribution of income rises at the initial stage of growth and then begins to reduce to some extent. Hence it can be clearly said that initial stages lead to pollution in the environment. Afterwards, the procedure will start again and continues and lead to better environmental circumstances.

The interrogations that have aroused in this paper are how climate influences by the impact of economical development and FDI on the emission of carbon dioxide gas in Asian states? In related to consequences what kind of policies would be more efficient and fruitful in the reduction of gas emission of carbon dioxide? The study has also a motive for determination of relationship among economical development, FDI and emission of carbon dioxide. Strategies and suggestions will be explained keeping consequences and findings in view.

The paper related to the findings of relationship from 1970 to 2014 among carbon dioxide gas releasing, FDI and consumption of energy. The second portion of this research constitutes the literature review, third on methodology. The fourth portion deals with the interpretation and justification of finding and consequences and then finally the last portion discusses the suggestions and give recommendations of policy.

## 2. LITERATURE REVIEW

This literature emphasizes on the association among economical development, FDI and emission of carbon dioxide gas and justifies the existence and reliability of "Pollution Haven and Pollution Halo Hypothesis" and Environmental Kuznets Curve (EKC). This paper based on the analysis of assurance of hypothesis for various groups of states or nations.

This research deals with a hypothesis related to EKC lied on researches done by (Gökmenoğlu and Taspınar, 2016). The paper depicted an inverted U-structured association by the mean of cross-sectional approach among indicators of income per capita and pollution in the environment for forty-two NAFTA states. Zhang (2001) such consequences are referred to as EKC hypothesis. Tang and Tan (2015) examined the existence of EKC hypothesis from 1976 to 2009 through the application of co-integration. In terms of Vietnam, the hypothesis of EKC was reliable whereas there was a two-sided causality association within two indicators like income and FDI. Azam (2016) analyzed the variables from 1970 to 2009 by application of Auto-Regressive Distribution of Lag bound tests approach for six Asian countries and got results for variables that in the long period carbon dioxide gas, consumption of energy and economic development mobile collectively. Moreover, the EKC hypothesis was reliable for Kenya, the Democratic Republic of Congo (DRC) and Zimbabwe. Lee (2013) conducted a study through the type of panel data approach from 1980 to 2000 for BRIC states to check either the variables are valid or not in such states. It was depicted that from GDP to FDI there was a single-sided causality connection and a keen relationship lied within carbon dioxide gas emission and FDI. Saidi and Hammami (2015) analyzed from 1960 to

2007 for Asian states to find the relationship among growth in finance, economical development, emission of carbon dioxide gas and foreign trade. In a long period, carbon dioxide gas emission and growth in finance rise but results had shown it meaningless and insignificant in the case of statistics. It was justified related to prior studies in 2010 that the EKC hypothesis is in the support of Asian states. Kiviyiro and Arminen (2014) conducted a study to identify the relationship from 1960 to 2005 through applying Auto-Regressive Distribution of Lag bound tests method among the income, carbon dioxide gas release, international trade and energy utilization. In consequences, it showed two co-integrated models. The first model is showing refers to the emission of carbon dioxide gas determination constitute on income, foreign trade and energy utilization while second model deals with the determination of carbon dioxide gas emission consisting on foreign trade and energy utilization. Hence income is major independent variable in term of emission of carbon dioxide gas.

Naz et al. (2019) have the same views for the validity of the EKC hypothesis in terms of states that had been under research in a specific period. In Khobai and Le Roux (2017) point of opinion assurance of EKC hypothesis in the study he did was not much stronger. He depicted no existence of the EKC hypothesis. Kiviyiro and Arminen (2014) examined the relationship from 1968 to 2005 through the ARDL approach for Asian states among carbon dioxide gas releasing, energy utilization, rate of employment and economic development. In findings, it was indicated that income rises by consumption of energy and income reduces by releasing of carbon dioxide gas. And the paper does not in favor of EKC hypothesis. Liu et al. (2017) examined the evidence of EKC hypothesis in term of Asian states from 1960 to 2010 through the application of bounds tests method and the findings showed no evidence for Asian states in favor of EKC hypothesis.

Some ways possibly take “Pollution halo Hypothesis” and deny for “Pollution Haven Hypothesis.” In a comparison of Pollution Haven Hypothesis with Pollution, Halo Hypothesis postulates that FDI proves more efficient through mean of advance technical and technological equipment in an environment in emerging states to have a greater output and effectual administrative skills. Kais and Sami (2016) enquired from 1970 to 2010 both kinds of hypothesis Pollution haven Hypothesis and Pollution Halo Hypothesis through applying panel CCR and FMOLS co-integration variables to be estimated. As in consequences the results have depicted that Pollution Haven Hypothesis gave evidence of the certainty of EKC hypothesis in terms of Canada and Pollution Halo Hypothesis was certain for states of France, England and the United States. Saidi and Hammami (2015) conducted a study for twelve higher income groups of states through the mean of panel data approach from 1970 to 2012. As consequences had shown that there was an inverse relationship within the emission of carbon dioxide gas and FDI. Talukdar and Meisner (2001) tested eighteen states of Latin America and get results between the emission of carbon dioxide gas and FDI there was singly sided causality inter-connection in intensive production industries. Hence, more FDI brings out more emission of carbon dioxide gas. Zaman and Abd-el Moemen (2017) investigated Asian states with a time-series data method that pay significant intends towards FDI for rising carbon dioxide gas release. Abdouli and Hammami (2017) get the same consequences

through applying panel data and VAR approach for Asian states, sequentially. Mert and Bölük (2016) examined the study from 1980 to 2003 and get the results that the Pollution Haven Hypothesis is not enough to predicate FDI.

Lo et al. (2005) inquired a study from 1970 to 2007 through the application of ARDL method of bounds tests for five Asian states and bring out results that carbon dioxide gas rise by more FDI in Asian states like Philippines, Malaysia and Thailand. Hence there was no significant effectuality on discharging of carbon dioxide gas in terms of Singapore and Indonesia.

Table 1 given below depicts the results of different studies with different methodologies adapted for various states. Actually, Table 1 is showing a summary of literature review summing up with results and approach to understand study more in a better way. The sign “ $\leftrightarrow$ ” is showing increase and decrease of one variable with another variable to show the direct or indirect relationship and sign “ $\rightarrow$ ” is showing an increase and “ $\leftarrow$ ” is representing decrease where SR and LR are showing short run and long run.

### 3. MODULATION AND EMPIRICAL ESTIMATION

There are two models introduced in the long run in this study where model one depict different variables in the unit of per capita and representing like per capita energy consumption, per capita GDP, per capita CO<sub>2</sub> and error term such variables can be shown in terms of econometrics like EC, GDP, CO<sub>2</sub> and e respectively and model also include t for some time.

$$CO_{2t} = \alpha_0 + \alpha_1 EC_t + \alpha_2 GDP_t + \alpha_3 FDI_t + e_t \quad (1)$$

This paper prefers bounds tests in the autoregressive distribution for lag model approach. This approach is used to apply because of its convenience for analysis in both short and long run simultaneously and can be applied when data is below from its stationary level compared to 1(1). Lacheheb et al. (2015) enquired that consequences and findings achieved from the bound test using ARDL approach with small-sized samples has fewer deviations. Equation 1 is composed for the model in the short-run can be recognized in equation 2.

$$\begin{aligned} \Delta CO_{2t} = & \alpha_0 + \sum_{j=0}^{p_1} \alpha_{1j} \Delta EC_{t-j} + \sum_{j=0}^{p_2} \alpha_{1j} \Delta GDP_{t-j} \\ & + \sum_{j=0}^{p_3} \alpha_{1j} \Delta FDI_{t-j} + \sum_{j=0}^{p_4} \alpha_{3j} \Delta CO_{2t-j} + \alpha_5 \text{Pattern} \\ & + \alpha_6 EC_{t-1} + \alpha_7 GDP_{t-1} + \alpha_8 FDI_{t-1} + \alpha_9 CO_{2t-1} + \varepsilon_t \end{aligned} \quad (2)$$

The error correction model of equation 2 can be expressed in equation 3 as follows

$$\begin{aligned} \Delta CO_{2t} = & \alpha_0 + \sum_{j=0}^{p_1} \alpha_{1j} \Delta EC_{t-j} + \sum_{j=0}^{p_2} \alpha_{1j} \Delta GDP_{t-j} \\ & + \sum_{j=0}^{p_3} \alpha_{1j} \Delta FDI_{t-j} + \sum_{j=0}^{p_4} \alpha_{3j} \Delta CO_{2t-j} \\ & + \alpha_5 \text{Pattern} + \mu EC_{t-1} + \varepsilon_t \end{aligned} \quad (3)$$



**Table 1: Summary of literature review**

States	Consequences/Results	Approach
12 Asian states	$CO_2 \leftrightarrow EC$ and $Y \leftrightarrow FDI(SR)$ $CO_2 \rightarrow EC$ , $FDI$ , $Y$ (LR) $FDI \rightarrow EC$ (LR)	Panel data
Vietnam	$CO_2 \leftrightarrow Y$ , $FDI$ and $EC \leftrightarrow CO_2$	Co-integration and causality
Asian state	In favor of EKC hypothesis	ARDL
Six African states	Variables collectively mobility	ARDL
Asian state	In favor of Pollution Haven Hypothesis	OLS
12 higher	Inverse relation of $FDI$ and $CO_2$ , direct	Panel data
Income states	Relation of $EC$ and $CO_2$ , per capita $\rightarrow Y$	
UAE	$FDI \rightarrow CO_2$ , $ED \rightarrow EC$	ARDL
Malaysia	$CO_2$ causality $Y$ , $EC$ and reutilized	Co-integration and causality
54 states except	$FDI \leftrightarrow GDP$ , $CO_2 \leftrightarrow FDI$	Panel Veri
North Asia and Europe Gulf cooperation Council states	Valid Pollution Haven Hypothesis	Panel data
5 Asian states	$CO_2$ indicators are $EC$ and $Y$ not $FDI$ .	Co-integration
Asian state	Valid EKC hypothesis	Co-integration
Pakistan	$CO_2$ rises by $FDI$ and pollution intensive companies	ARDL
12 Mid	$GDP \leftrightarrow CO_2$ , $FDI \leftrightarrow CO_2$ , $EC \leftrightarrow$	Panel data
East states	$CO_2$ , trade $\leftrightarrow CO_2$	
15 Mid East states	Link among $EC$ , $CO_2$ , $GDP$ (SR)	Panel data
And North Africa states	$CO_2$ , $GDP \rightarrow EC$	
12 Mid East states and North Africa states	$EC \rightarrow CO_2$	Panel data
63 States	Negative link between $GDP$ and $CO_2$ (SR)	Panel data
28 China states	$CO_2 \leftrightarrow EC$ , $EC \leftrightarrow GDP$ ( $GDP$ , $EC$ and $CO_2$ are interlinked)	Panel data
EU states	Regulatory environment rise In investment	Panel data
BRIC states	$GDP \rightarrow FDI$ , Powerful relation $FDI$ and $CO_2$	Panel data
China, Japan	U-structured for Korea,	VAR, VEC
Korea	Inversed N-Structure for Japan and China	
Asian state	Valid EKC hypothesis	ARDL
Asian state	$CO_2$ determined by $Y$ and $Y$ trade	ARDL
China	$Y$ and $EC \rightarrow CO_2$ , $GDP \rightarrow CO_2$	ARDL
Italy	$CO_2 \leftrightarrow GDP$	Co-integration VEC
100 states 5 Asian	Direct relation between $ED$ and $CO_2$ . No effect of $FDI$ in Singapore and Indonesia and $FDI$ raise $CO_2$ emission in Thailand, Malaysia and The Philippines	Panel data non-parametric
Asian state Hypothesis	Invalid Pollution Haven	Time series
Germany	Valid EKC like between $NH_4$ and $NOX$	Causality
44 Developed and Developing states	Less developed states are not good to reduce $CO_2$ emission	Panel data
42 NAFTA states	Inversed U structured EKC the hypothesis is valid	Cross section

In equation 3 the model error reforming variable is “ $\mu EC$ .” The value of the coefficient of error reforming model could be considered within between  $-1$  and  $0$ . If the value of the coefficient of error reforming model is meaningful and statistically proved significant then there will be the equilibrium of a long period.

Ahmed (2012) investigated the econometrics consequences in terms of dynamic sequence with imitational regression. The sequence that can be implied in analyzing meaningful and significant connection among variables should be static in terms of econometrics (Aung et al., 2017). In general terms, such procedure would be called static or stationary if the value of variance and mean is constant and co-variance between two different periods and not the real period when the value of co-variance was evaluated constitutes on lag and detachment or space (Rahman, 2017). The chain of sequences that will be stationary at some level and value at first disparity can be expressed as  $I(0)$  and  $I(1)$ , orderly.

It is assumed in 1981 in Augmented Dickey-Fuller test that error terms are free of effect from each other while constant

variance brings out issues in case of average elements and autoregressive estimates. Ozturk and Acaravci (2013) employed a unit root test where it was assumed that between errors terms it is might be possible that there is the existence of an issue of heteroscedasticity and autocorrelation. To get more accuracy and reliability in consequences and issues of the heteroscedasticity and autocorrelation, ADP test with the test of unit root is applied in this paper.

#### 4. METHODOLOGY AND OUTCOMES

The type of data is used in this paper is time-series to seek out the relationship among consumption of energy, GDP, FDI and carbon dioxide gas emission. The data has been taken from the era of 1970 to 2014, annually. Table 2 depicts the data given in the analysis.

Table 3 is representing the findings derived from the statistical approach by employing Unit root and ADF tests.

In the methods at 1% selected level of significance, both ADF and unit root tests the values are stationary at first disparity but except the value for FDI. All the variables have the same results of a similar degree of co-integration (1) with the inclusion of trend and intercept. Equation 2 and 3 are particular to determine the possibly best lag length for models. To derive the best possible lag length AIC, SBC and Hannan Quin (HQ) have taken in the process. The smallest value of the length of lag will be taken and it is considered that at lag length model is free from the issue of autocorrelation.

Value 4 is the highest length for lag and 3 is the decision for the possible length of lag. There is no presence of a problem of autocorrelation at the chosen lag length of 4 and 3 concerning the test of Akaike Information Criterion and Schwarz-Bayesian information criterion. To inquire for connection of co-integration among variables, we use F statistics in terms of lower and upper limit values. This study determines the critical values to find the co-integration relation. If the value of estimation analysis lies within the lower and upper limit off statistics then we could not derive the exact relationship whether the relation among series is co-integrated or not. If the value is less than the value of f statistics then there will be the existence of co-integration relation among variables. And it is observed to have a greater value of estimation than the value given in f statistics then it shows the presence of co-integration relation among sequential term.

No co-integration connection has found among between sequential terms that are indicated in the second equation. Null hypothesis told that either the value of pattern and level equivalent to zero or not. If in terms of bound test that lie a co-integrated relation then ARDL implemented to find the long and run connection among variables. It has shown a co-integrated relationship among sequence by implementing bound test in Table 5.

There is the existence of co-integration among variables because of the upper limits of statistical value in Table 5. In this study, the outcome has been derived from the implementation of a diagnostic

test in Table 6 where the estimation took place collectively long short run.

Table 6 is representing the significance of energy consumption (EC) and Gross Domestic Product (GDP) coefficient in the long run statistical estimation. Thus from 1970 to 2014 in Asian states, the economical development and consumption of energy both have a direct effect on the emission of carbon dioxide gas. And the effect of FDI on emission has no confirmation yet. Model is free from the issue of autocorrelation and heteroscedasticity estimated from the implementation of diagnostic test and terms of errors are normally diffused. Results or outcomes are important to inquire about the estimation whether it is reliable or not.

The outcome for the model of error correction is representing in Table 7 given below.

Table 7 is indicating resemblance of variables coefficients in the long run. Hence it can be observed that the coefficient of FDI is not significant statistically but EC and GDP are meaningful in terms of statistics. -0.43 is the value of error correction coefficient representing it as opposite in the direction but significant and representing the divergence of 43% in the short-run and attain to equilibrium in the long run.

Waqih et al. (2019) conducted some tests to inquire about the stability of the coefficient of the ARDL approach that is CUSUM and CUSUM. These tests are implemented to the term of errors shown in the third equation. If the value of term of error lies within the level of significance of 5% represent its stability of the model.

## 5. CONCLUSION

The target of the study is to find out interlinks among FDI, consumption of energy, GDP and emission of carbon dioxide gas. The tests were applied to diagnose the issues and to get the outcome from 1970 to 2014 taking data on an annual basis. At this stage test of ARDL method was applied. In the short-run, EC coefficient is inverse and meaningful in case of statistical data. Such circumstances depict that in short-run forty per cent of variation and fluctuations will get better in the coming phase of time and equilibrium, in the long run, will get its destination quickly. Concerning long-run analysis the outcome that utilization of energy and GDP will bring out to an increase in emission of carbon dioxide gas. There is the meaningless and insignificant value of the coefficient for FDI. Hence it is not confirmed for the outcome of the impact of FDI bringing out on pollution on the environment in Asian states.

**Table 2: Introduction of variables in data analysis**

Variables (per capita)	Abbreviation	Units	Data basis
Carbon dioxide emission	CO <sub>2</sub>	Metric tons	BP statistical book(2015)
Foreign direct investment	FDI	US dollar	UNCTAD
Gross domestic product	GDP	US dollar	World Bank
Energy consumption	EC	Kilograms	World Bank

**Table 3: Unit root and ADF tests consequences**

Variables	Unit root (Stage) (First disparity)	Unit root (Stage) (First disparity)	ADFADF	First disparity	Outcome
CO <sub>2</sub>	-1.2	-6.5	-1.4	-6.5	I(1)
GDP	-2.2	-6.7	3.2	3.3	I(1)
FDI	-1.6	-6.4	-1.6	-6.4	I(1)
EC	-3.3	-6.6	-3.0	-6.5	I(1)
Critical value is 1%			-4.1	3.5	

With respect to SIC criteria the value given brackets are representing the lag length or prior values for ADF test at a stage and first disparity or difference. While applying trend test with intercept at a stage value is formatted and at first disparity equations for the test are composed for regression analysis

**Table 4: Determine possible lag length**

p	AIC	SBC	B-G testy
1	6.2	6.5	0.05
2	6.2	6.7	0.02
3	5.9	6.5	0.01

"p" is representing possible value of lag length where SBC full form is Schwarz-Bayesian information criterion, AIC is actually criterion and its full form is Akaike Information Criterion. B-G test indicates the probability value of Breusch-Godfrey Autocorrelation test

**Table 5: Bounds test consequences**

X	F stat.	Upper limit	Lower limit
3	8.7	6.4	4.9

Here "X" is indicating explanatory variables and the values has been taken from the table of CI (iii) in the prior study

**Table 6: Auto-regressive distribution of lag model consequences**

Short run				
Variables	Coefficient	S.E	T-rasyo	Probability value
CO <sub>2</sub> (-1)	0.6	0.07	8.4	0.00
GDP	0.02	0.00	5.7	0.00
FDI	0.01	0.02	0.5	0.62
EC	2.9	0.7	4.4	0.00
e(-1)	-1.9	0.7	-2.8	0.01
Long run				
GDP	0.05	0.00	11.1	0.00
FDI	0.02	0.04	0.5	0.62
EC	2.4	0.8	2.9	0.00
Diagnostic test consequences				
R <sup>2</sup>	0.99	Autocorrelation	0.70 <sup>X</sup>	
Hetero	0.66 <sup>X</sup>	Normal	2.73 <sup>Y</sup>	
scedasticity		distribution		

Following the LM test of Jarque- Bera Normality Test and Breusch Godfrey X and Y are indicating variables to diagnose the problem in the model. Level of significance used in this model is 5%

**Table 7: Outcome by using ARDL error correction model**

Variables	Coefficient	S.E	T-rasyo	Probability value
Δ GDP	0.03	0.00	6.9	0.00
Δ FDI	-0.03	0.02	-1.4	0.17
Δ EC	3.01	0.60	5.1	0.00
EC(-1)	-0.43	0.08	-5.55	0.00

The statistical data source of UNCTAD (2015) it is clear that in 2014 the participation of FDI in GDP is 1% in the Asian state. It can be seen that FDI participation is enough low in GDP. Hence this is one of the major reasons why FDI could not confirm the impact of the outcome on pollution in the environment.

With time as the economy is getting more developed and the consumption of energy is increasing, it will together bring out the emission of carbon dioxide gas that is agreed by the outcome of estimation. Due to the demand for energy depends on the combustion process of fossil fuels to uphold the economical development. In 2014 the demand for energy on an annual basis is equal to roundabout one hundred and twenty-five million tons equivalent to oil, it is reported in the Ministry of Foreign Affairs of Republic of Asian states. It is expected that in 2023 it will become equal to two hundred and eighteen million. Natural gas,

coal, oil, hydro and other reutilizing sources are covering the demand for energy at an initial stage about 35%, 28.5%, 27%, 7% and 2.5% respectively. Hence it can be said that Asian states demand for energy is depending on the combustion of fossil fuels. That's why to decrease the emission of greenhouse gas Asian state should take steps and go forward for the solution and to protect the environment from climate influence. This reduction in emission rate and protection of climate influence need such a strategy that transforms the dependence of energy on clean energy policy instead of fossil fuels. In this case, Asian states should use less carbon forming strategies by promoting reusable and proficient energy. In this concern hydro, solar and wind sources should be used to get possibly maximum profit from these renewable sources. It was a plan to establish a nuclear centre which reduces the dependence of energy and produces a range of energy and control the emission of carbon dioxide gas because of having the least carbon property.

Thus, in these terms security measures must be taken as an obligatory component in the discussion of nuclear energy. To uphold the development or sustainable growth of economy results are estimated and came to a point that Asian states should follow such strategies that must be efficient and effective in every way for development. The strategies and policies obligated by Asian states should support political, environmentally friendly and socially active in real and it must not only follow micro but also macro policies.

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