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# **The Impact of Gender Inequality and Environmental Degradation on Human Well-Being in The Case of Pakistan: A Time Series Analysis**

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## **Abstract**

This study has investigated the impact of gender inequality and environmental degradation on human well-being in the case of Pakistan from 1980 to 2014. Augmented Dickey-Fuller unit root test is used for stationarity of the variables. Autoregressive Distributed Lag model (ARDL) is used for co-integration among the variables of the model. The results show that gender inequality has a negative and significant impact on human well-being in Pakistan, while gender equality encourages human well-being. The calculated results show that there is positive but insignificant relationship with environmental degradation and human well-being in case of Pakistan. The estimated results show that economic misery has a negative and significant impact on human well-being in case of Pakistan. The estimated results show that economic growth has a positive and significant relationship with human well-being in Pakistan. On the basis of estimated results, it is concluded that gender equality, economic misery and economic growth are playing an important role in determining human well-being in Pakistan. Therefore, in order to improve human well-being, government must reduce gender inequality and economic misery while enhancing in parallel the economic growth.

## **1-Introduction**

Nowadays the socio-economic policies of developed and developing countries have given much concern to human well-being, as it has a very influential role in the socio-economic development process and it decides the level of investment in human capital and workforce. Conservative and traditional societies treat the human as a mean and not enough attention is given to human well-being or to a better standard of living. Kant (1785) mentions that humans should be treated as end not as means and therefore human well-being is considered the main goal of advance societies. But the question lying here is: In what ways should human well-being be the central requirement of social scientists and policymakers? McGillivray (2007) points out

that well-being overviews the state of people's life. After the emergence of Millennium Development Goals (MDGs), human well-being became the subject of a special attention among civil societies, international institutions and national governments. The United Nations Millennium Development Program enables to raise the slogan "health for all and education for all" among all its member countries. Moreover, it became a common practice for the World Bank and the United Nations Development Program (UNDP) to publish reports and rank countries on the basis of human well-being.

Following a long human history, the definitions and measurements of human well-being remain a topic of discussion. The general understanding about the human well-being is unable to distinguish between individual well-being and social group well-being. The reason behind it is that measuring human well-being has some technical issues covering subjective and objective aspects of human well-being like personal well-being and life satisfaction (McGillivray and Clarke 2006). Therefore, it is necessary to choose the key indicators and attach different weights for measuring the human well-being. The conventional social scientists used two measures for human well-being: aggregate income at macro level and per capita income at micro level. Nordhaus and Tobin (1972) consider the net economic welfare as a criterion of human well-being that's based on aggregate consumption. The other most important criteria for measuring human well-being are the basic needs approach of International Labor Organization (ILO) (1976), the Physical Quality of Life Index (PQLI) of Morris (1979) and the Human Development Index (HDI) by United Nations Development Program (UNDP, 1990). Sen (1992) mentions human well-being or better living standard is not related to household consumption but to the ability to consume and the capability to participate in the society. More simply, we can say that human well-being means better education, better health care and a reasonable amount of resources that can improve the quality of human being for achieving the desired level of economic development. Human Development Index (HDI) of UNDP (1990) is considered the most advanced and comprehensive approach to measure human well-being, covering three main aspects of human life: health, education and access to resources.

Human well-being is circled around three interrelated dimensions: agency, resources and achievements. Women represent half of the world's population and have significant share in the overall human well-being ranking of a country. Therefore, pushing them back means snatching the well-being of half the population. A large number of national and international organizations are working for the promotion of gender equality. Gender equality has contained dual arguments: first it promotes social justice and social justice has intrinsic value for human well-being (Kabeer, 2005). Second, gender equality is considered a mean to other ends. Gender equality reduces the imbalanced power between male and female and works as key root to human well-being. Moreover, gender equality provides new energy, leadership qualities, new visions

and a helping hand to women for improving quality of life for their families. The relationship between gender inequality and human well-being is widely discussed in existing literature. Gender equality may increase health outcomes because it enables the poor part of population getting a larger share in profits leading to its consumption on food and health cares (Preston, 1975; Deaton, 2003; Babones, 2008). Environmental quality is an important factor affecting human well-being of present and forthcoming generations. The way people value the future is crucially affected by others. Moreover, the present human well-being encourages people to become sympathetic to forthcoming generations. Therefore, if people expect to live longer, they would care more for the environment. Environmental degradation increases morbidity through natural resources depletion, water and air pollution and soils deterioration (Elo and Preston, 1992; Pope et al. 2004). Ali and Khalil (2014) and Ali and Audi (2016) conclude that environmental degradation has a negative impact on life expectancy. The findings of these studies also highlight the importance to study the link between environmental degradation and human well-being. This study has investigated the impact of gender inequality and environmental degradation on human well-being in the case of Pakistan. This type of study is hardly available in existing literature.

## **2-Literature Review**

Nowadays a vast body of literature is available describing different methods, determinants and consequences of human well-being. Some of the most relevant studies are presented here: Sen (1999) examines the determinants of life expectancy in case of Indian State Kerala. The study explores the direct and indirect influence of education on the health status. Sen (1999) mentions that higher education improves productivity of labor and an improved labor productivity has an increasing relationship with a child's health. Hence, education indirectly improves the health status. The findings of this study reveal that education is positively related to the life expectancy of a female. Cemieux et al., (1999) investigates the relationship of health status and health spending in Canada. The results of the study show that health spending has a direct positive and significant relationship with the health status in Canada.

Kalediene and Petrauskiene (2000) investigate the socio-economic determinants of life expectancy. The results reveal that there is positive and significant relationship between urbanization and life expectancy, mentioning that urban people have better education and health care. The study concludes that socio-economic factors have both a direct and indirect relationship with life expectancy. Macfarlane et al. (2000) examine the health status of some selected countries of Africa and Asia. The study shows that the availability of food and the access to safe drinking water has a significant impact on life expectancy in both Asia and Africa. Veugelers et al. (2001) examine the determinants of life expectancy in Canada. For empirical analysis, they use multi-logistic regression analysis. The results of the study reveal that socio-

economic factors have a deep rooted impact on life expectancy in Canada. Hussain (2002) examines the determinants of life expectancy in 91 developing countries. Fertility rate, per capita calories, and adult literacy rate are taken as independent variables and multiple OLS regression analysis is used for empirical estimations. The results of the study reveal that the selected variables have a deep rooted impact on life expectancy in the case of all the selected developing countries. Hence, for improving the living standard, the developing countries must provide the basic necessities to its massive population.

Sathar et al., (2000) examines the main features on which the women's dependency has been based in rural Pakistan. The authors investigate that the Northern women has less self-dependency when it comes to economic matters but has more power in the control over the household decision making compared to women in southern Punjab. Gender inequality is also an indicator showing women's autonomy on a rural level. Moreover, women aren't getting any separate reward for their engagement in household farms.

Mayoux (2009) investigates that women empowerment plays an important role in enterprise development, gender equality, gender equity and to remove the gender inequality. Women's empowerment plays an important role not only when it comes to increases in earnings but also in showing their qualities in the household decisions making and having good suggestions for their own country and international economies. Moreover, the targets of development and economic programs can be achieved through the elimination of gender inequality and through women's empowerment.

Amin et al., (1995) highlight the socio-economic conditions of women having an impact on the poverty rate and the gender inequality when it comes to the availing of resources. The result shows that the credit based income generating programs help women overcome poverty and gender inequality in the case of Bangladesh. Nongovernmental Organizations (NGOs) are providing sound resources to help poor women improve their earnings and overcome their economic problems. Through these projects, women will be able to face the traditional domestic atmosphere and will be able to demand their empowerment in household decisions and economic resources. It is being argued that, by these projects, not only the empowerment of poor women status in society and reducing gender inequality will be achieved, but also they will help in improving women's well-being.

Sharma (2007) investigates the impact of micro-credit projects for women in Nepal. These projects are helpful when it comes to removing gender inequality in household decisions and in increasing the self-dependence of women. Through these projects, women will be having an important part in resolving their financial, economic and social issues.

Mumtaz et al., (2009) examine that the non-dependence in household decisions making in developing countries is the main obstacle to women's reproductive health. For this purpose, the study considered the freedom of decision making, gender inequality on the level of society, culture, politics and economics obstacles that are being faced by the rural women in Punjab, Pakistan. This work also highlights the insufficiency of self-dependency for considering the gender inequality impact on women's reproductive health and on suggestions and recommendations of health projects in Pakistan and South Asia.

Varghese (2011) concludes that women empowerment can be obtained through household decision making and participation in economic activities. However, women empowerment in Oman is continuously under process because of the low domestic status of women. If the domestic status is improved in Oman, then women will be able to get more empowerment. Moreover, societal behavior plays an important role for gender inequality. Women's empowerment has to face many challenges because of the societal behavior. Women become more capable to get their right and more dependable upon their capabilities to clinch with the opportunities which end their under level position through women's empowerment means. Women in Oman are in a strong position for making household and economic decisions but in a weaker position of social empowerment.

Suguna (2011) highlights the high rate of illiteracy among Indian women and the problems they're facing. He believes that the Indian government and society are perfectly aware of the need for education to reach the empowerment of women in the Indian society, leading to the progress of the country. Therefore, he considers that education is the only key in the hands of Indian women through which they can face the challenges of their lives. In rural India, the rate of education among women is very low. Moreover, the author mentions that education for women is the only key for women through which we can open the empowerment for women and give them a strong position in household and economic decisions.

### **3-Theoretical Discussions and Model for Empirical Analysis**

Human well-being is considered an important indicator of social progress as its main targets are required resources, health and education for all. Smeeding and Rainwat (2004) claim that sound living standard is the central concern of all economies, while traditional economists use income for well-being and they ignore health and education (Sumner 2006, McGillivray and Clarke 2006). Thus, for better representation of human well-being, this study has used Human Development Index (HDI) of United Nations of Development Program (UNDP) as proxy of human well-being in Pakistan. Human well-being also focuses on the capability of participation and the ability of resources consumption (Sen, 1992). The ability to

consume and the capability to participate decide on the level of human well-being since these activities allow the society to invest in education and health care (Coleman and Rainwater, 1978 and Rainwater, 1990). Living standard or well-being has a positive correlation with education, health cares, preschool day cares and subsidies to housing but a negative relation with poverty (Smeeding et al., 1993 and Smeeding et al., 2001). Kabeer (1999) mentions that resources like social, material and human are largely affected by gender equality. When women have a greater control over economic resources, better education and social rights, they can easily derive the individual and overall well-being. As educated and empowered women give better education and health facilities to their families, it will further enhance the overall well-being of nation. Batliawala (1994) uses Conscious Raising Approach and Economic Empowerment Approach for measuring gender equality. Garikipati (2008) measures Indian women's empowerment in terms of household decision making and ownership of assets and income. This study uses UNPD index for measuring gender equality in the case of Pakistan. There is a negative link between environmental degradation and health outcome. CO2 emissions are used for measuring environmental degradation.

Following the methodologies of Coleman and Rainwater (1978), Rainwater (1990), Batliawala (1994), Garikipati (2008), Ali and Khalil (2014), Ali (2015), Ali (2016), Ali and Audi (2016), Audi and Ali (2016), Ali and Bibi (2016) and Audi and Ali (2017) the model of this study is presented as:

$$HDI_t = f(GII_t, CO2_t, MI_t, ECO_t) \quad (1)$$

HDI= Human Well-being

GII= Gender Inequality Index

CO2= Environmental Degradation

MI= Economic Misery

ECO= Economic Growth

t= Time period

For finding the responsiveness of dependent variable to independent variable, the equation can be written in the following form:

$$HDI_t = \alpha GII_t^{\beta_1} CO2_t^{\beta_2} MI_t^{\beta_3} ECO_t^{\beta_4} e^{t+\mu_t} \quad (2)$$

here

$e$  is the base of natural logarithm and  $u$  is the white noise error term taking the natural log of both sides of equation (2).

$$\ln HDI_t = \alpha + \beta_1 \ln GII_t + \beta_2 \ln CO2_t + \beta_3 \ln MI_t + \beta_4 \ln ECO_t + u_t \quad (3)$$

$u$ =error term

### 3.1-Definitions of Variables and Data Sources

Human Development Index is a composite index of per capita income, education and life expectancy. This index is constructed by United Nations Development Program (UNDP) for measuring human well-being of all United Nations member countries. The data for HDI is taken from various reports of UNDP.

Gender Inequality Index (GII) is composite index of the economic participation of female, political participation of female, decision making of female, and social participation of female. Gender inequality index is estimated by using the methodology of UNDP (1995) through Gender inequality Measure (GII).

$$GII = [(EP_f/EP_m) \times (PP_f/PP_m) \times (SP_f/SP_m)]^{1/3} \quad (4)$$

Where  $EP_f$  and  $EP_m$  represents the Economic Participation of female and male respectively,  $PP_f$  and  $PP_m$  represents the Political Participation and Decision Making of female and male while  $SP_f$  and  $SP_m$  represents Social participation of female and male respectively. The data of these indicators is collected from 50 years statistics of Pakistan, Economic survey of Pakistan (various issues), PSLM (various issues), National Assembly of Pakistan database and Pakistan civil services website. Geometric mean has been used to calculate the index.

Economic Misery (MI) is composite index of inflation rate and unemployment rate with the help of Principle Component Analysis (PCA). The data of inflation rate and unemployment rate is taken from various issues of Economic Survey of Pakistan. The data of CO2 emissions and economic growth (ECO) is taken from World Development Indicator (WDI) data bases maintained by the World Bank.

### 3.2-Econometric Methodology

This study has investigated the impact of gender equality, CO2 emissions, economic misery and economic growth on human well-being over the period covering 1980 to 2014. Time series data has a unit root problem and the estimated regression line of this data gives spurious results (Nelson and Ploser, 1982). The

well know are Dickey-Fuller (DF) (1979), Augmented Dickey-Fuller (ADF) (1981), Perron (1989) and Phillips Perron (PP) (1988). This study uses ADF unit root test to remove the non-stationarity data. After removing the unit root problem, co-integration among the variables of the model are examined. Engle-Granger (1987), Johansen (1991/1992), Johansen-Juselious (1990), Perron (1989, 1997) and Leybourne and Newbold (2003) are well known co-integration tests. In this study, Autoregressive Distributive Lag (ARDL) bound testing approach developed by Pesaran et al., (2001) is used for empirical analysis. It is the most advance method of co-integration and has a number of theoretical and technical advantages over the traditional methods.

#### 4-Empirical Results and Discussions

Descriptive statistics give Mean, Median, Maximum, Minimum, Standard Deviation, Skewness, Kurtosis, Jarque-Bera and Probability values of the estimated model. Skewness and Kurtosis help analyze the volatilities of data. Descriptive statistics also help checking the normality of the selected data set. The results of the descriptive statistics are presented in table-1. The study uses human well-being as a dependent variable whereas gender inequality, environmental degradation, economic misery and economic growth are selected as independent variables. The results show that human well-being, gender inequality, environmental degradation and economic growth are positively skewed whereas economic misery is negatively skewed. All selected variables of the model have positive Kurtosis values. Skewness and Kurtosis are insignificant and different from zero which shows that data is normally distributed. The estimated Jarque-Bera shows that selected variables have finite covariance and zero mean, this also confirms that selected data is normally distributed.

**Table-1**

<b>Descriptive Statistics</b>					
	HDI	GII	CO2	MI	GDPG
Mean	0.411678	0.664690	98894.90	0.391951	5.000630
Median	0.389491	0.671845	94711.28	0.445834	4.959769
Maximum	0.517833	0.854855	165433.0	0.730843	10.21570
Minimum	0.319307	0.534409	32067.92	0.050860	1.014396
Std. Dev.	0.066314	0.099499	45514.63	0.176702	2.092043
Skewness	0.345600	0.236027	0.164289	-0.413284	0.208209
Kurtosis	1.693795	1.784686	1.672377	2.109636	2.721288

Jarque-Bera	3.184897	2.478907	2.727880	2.152446	0.366165
Probability	0.203427	0.289542	0.255651	0.340881	0.832700
Sum	14.40871	23.26416	3461322.	13.71830	175.0221
Sum Sq. Dev.	0.149518	0.336605	7.04E+10	1.061603	148.8059
Observations	35	35	35	35	35

Table-2 presents the correlation matrix among variables. The estimated results show that human well-being has a positive and significant correlation with economic misery and environmental degradation in the case of Pakistan. But human well-being has a negative and significant correction with gender inequality and economic growth in Pakistan. Gender inequality has a negative and significant correlation with environmental degradation and economic misery. There is a positive and significant correlation between gender inequality and economic growth. Economic growth has a negative and significant correlation with environmental degradation and economic misery in Pakistan. Environmental degradation has a positive and significant correlation with economic misery. Overall results show that independent variables have a strong correlation with human well-being in the case of Pakistan.

**Table-2**

Correlation Matrix					
Variables	HDI	GII	CO2	MI	GDPG
HDI	1.000000 -----				
GII	-0.961645 0.0000	1.000000 -----			
CO2	0.987622 0.0000	-0.981223 0.0000	1.000000 -----		
MI	0.716162 0.0000	-0.768769 0.0000	0.747438 0.0000	1.000000 -----	
GDPG	-0.351459 0.0384	0.499709 0.0022	-0.435661 0.0089	-0.384802 0.0225	1.000000 -----

Table-3 presents ADF unit root test results. The results show that human well-being, gender inequality and

economic misery are not stationary at level. The results show that environmental degradation and economic growth are stationary at level. The estimated results show that, at first difference, all variables of the model become stationary. The overall results show that the selected variables of the model have mixed order of integration which is a suitable condition for applying ARDL co-integration approach.

**Table-3**

<b>Augmented Dickey-Fuller Test</b>				
	<b>I(0)</b>		<b>I(1)</b>	
Variables	T-Statistic	Prob.	T-Statistic	Prob.
LHDI	0.099853	0.9611	-7.976576	0.0000
LGII	-1.359778	0.5901	-5.493197	0.0001
LCO2	-3.640479	0.0100	-5.361642	0.0001
LMI	-1.528868	0.5068	-6.257469	0.0000
LGDP	-3.302260	0.0229	-6.144516	0.0000

The calculated ARDL results are reported in table-4. W-statistic and F-statistic are used for testing the null hypothesis of the no co-integration among the variables of the model. F-statistic (7.5972) is greater than the upper bound (4.7035) value of Pesaran, Shin and Smith (2001) at 5 percent and the calculated W-statistic (37.9860) is greater than the upper bound (23.5175) value of Pesaran, Shin and Smith (2001) at 5 percent. So null hypothesis of no co-integration is rejected and alternative hypothesis is accepted which confirms the co-integration among the variables of the model.

**Table-4**

<b>ARDL Bound Testing</b>				
Dependent variable is LHDI (1,1,0,1,1)				
	95% Lower Bound	95% Upper Bound	90% Lower Bound	90% Upper Bound
F-statistic <b>7.5972</b>	3.3388	4.7035	2.7397	3.9425
W-statistic <b>37.9860</b>	16.6941	23.5175	13.6986	19.7126

The long run results of the model are presented in table-5. The results show that gender inequality has a negative and significant impact on human well-being in Pakistan. The results show a 1% increase in gender inequality. A (-1.0064%) decrease is occurred in human well-being. This shows that gender equality

encourages human well-being. The calculated results show that there is a positive but insignificant relationship with environmental degradation and human well-being in the case of Pakistan. The estimated results show that economic misery has a negative and significant impact on human well-being in the case of Pakistan. The results show that a 1% increase in economic misery brings a (-.038577%) decrease in human well-being in Pakistan. The estimated results show that the economic growth has a positive and significant relationship with human well-being in Pakistan. The results reveal that a 1% increase in economic growth brings a (.036122%) increase in human well-being in Pakistan. Overall estimated long run results reveal that the selected variables play a significant role in determining human well-being in Pakistan.

**Table-5**

<b>Estimated Long Run Coefficients using the ARDL Approach</b>			
Dependent variable is LHDI			
ARDL (1,1,0,1,1) 1981 to 2014			
Regressor	Coefficient	Standard Error	T-Ratio[Prob]
LGII	-1.0064	.25247	-3.9863[.001]
LCO	.081323	.081716	.99518[.329]
LMI	-.038577	.016320	-2.3638[.026]
LGDPG	.036122	.015280	2.3640[.026]
C	-2.3434	.84526	-2.7724[.010]

Vector Error-correction Model (VECM) is used to examine the short run relationship among the variables of the model. The short run dynamics are given in table-6. The results show that gender inequality has a negative and significant impact on human well-being in Pakistan. This shows that gender equality encourages human well-being. The calculated results show that there is a positive but insignificant relationship with environmental degradation and human well-being in the case of Pakistan. The estimated results show that economic misery has a negative and significant impact on human well-being in the case of Pakistan. The estimated results show that economic growth has a positive and significant relationship with human well-being in Pakistan. All independent variables have the same type of relationship with the dependent variable for the long run. The negative and significant value of ECM shows the speed of adjustment from short run to long run equilibrium. The estimates of ECM reveal that short run needs one year and more than seven months to converge in the long run equilibrium. Moreover short run deviations in the present period are corrected by (67.258) percent in the future in the case of Pakistan.

**Table-6**

<b>Error Correction Representation for the Selected ARDL Model</b>			
ARDL(1,1,0,1,1)			
Dependent variable is dLHDI			
Regressor	Coefficient	Standard Error	T-Ratio[Prob]
dLGII	-.77812	.21548	-3.6111[.001]
dLCO	.045572	.042470	1.0730[.292]
dLMI	-.018374	.0086241	-2.1305[.042]
dLGDPG	.013674	.0068921	1.9840[.057]
ecm(-1)	-.56038	.12182	-4.6000[.000]
R-Squared .65297 R-Bar-Squared .54192 S.E. of Regression .016449 F-Stat. F(5,28) 9.4080[.000] Mean of Dependent Variable .012634 S.D. of Dependent Variable .024303 Residual Sum of Squares .0067641 Equation Log-likelihood 96.6385 Akaike Info. Criterion 87.6385 Schwarz Bayesian Criterion 80.7698 DW-statistic 2.2832			

In the diagnostic tests we check the serial correlation, functional form, normality and Heteroscedasticity among the variables of the model. The results of diagnostic tests are reported in table-7. The results of Lagrange multiplier test of residual serial correlation show that there is no serial correlation among the variables of the model. Ramsey's RESET test using the square of the fitted values show that the model has a correct functional form. Normality based on Skewness and Kurtosis explains that the time series data of all variables is normally distributed. The results show that there is no heteroscedasticity in data.

**Table-7**

<b>Diagnostic Test</b>			
Test Statistics	LM Version	F Version	
A:Serial Correlation	*CHSQ(1) = 1.0904[.296]*	F(1,24) = .79516[.381]*	
B:Functional Form	*CHSQ(1) = 2.4743[.116]*	F(1,24)= 1.8836[.183]*	
C:Normality	*CHSQ(2) = 2.5537[.279]*	Not applicable	*
D:Heteroscedasticity	*CHSQ(1) = 1.1217[.290]*	F(1,32 = 1.0918[.304]*	

The stability of model is very important. The stability tests enables us to see whether the estimated model shifts or not over the selected time period. Hansen (1996) argued that misspecification of the model may provide biased results that influence the explanatory power of the results. The Cumulative Sum (CUSUM) and the Cumulative Sum of the Squares (CUSUM sq) tests are used to examine the stability of short run and long run coefficients of the model (Brown, Durbin and Evans, 1975). The results of Cumulative Sum (CUSUM) and the Cumulative Sum of the Squares (CUSUM sq) tests are reported in figure-1 and figure-2. The figures show that Cumulative Sum (CUSUM) and the Cumulative Sum of the Squares (CUSUM sq) are between the two critical lines and do not go outside the critical boundaries. The figures of Cumulative Sum (CUSUM) and the Cumulative Sum of the Squares (CUSUM sq) confirm that our model is correctly specified.

Figure-1

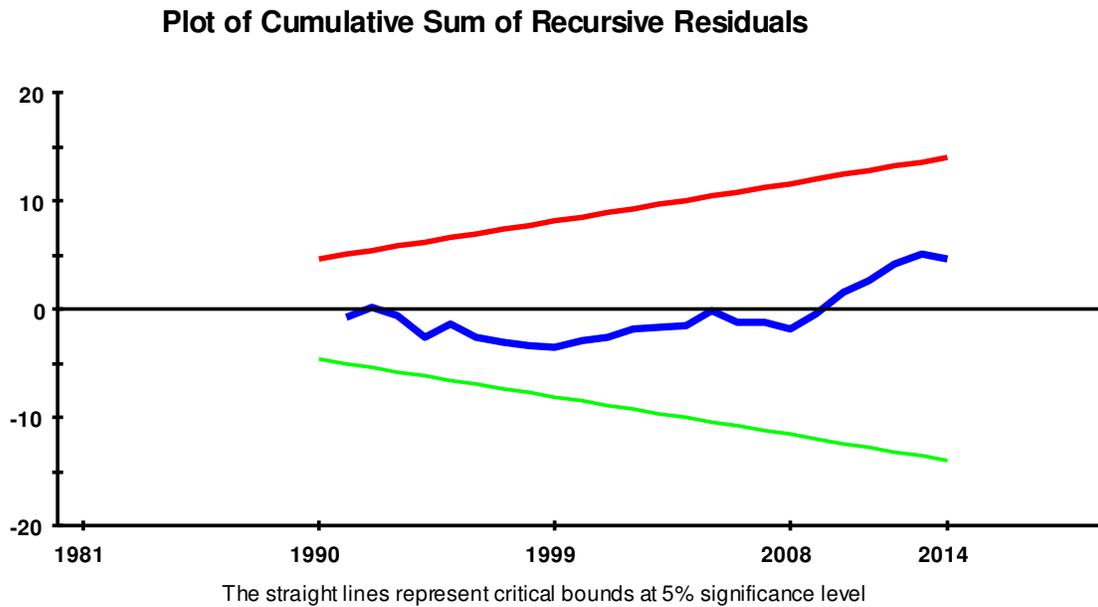
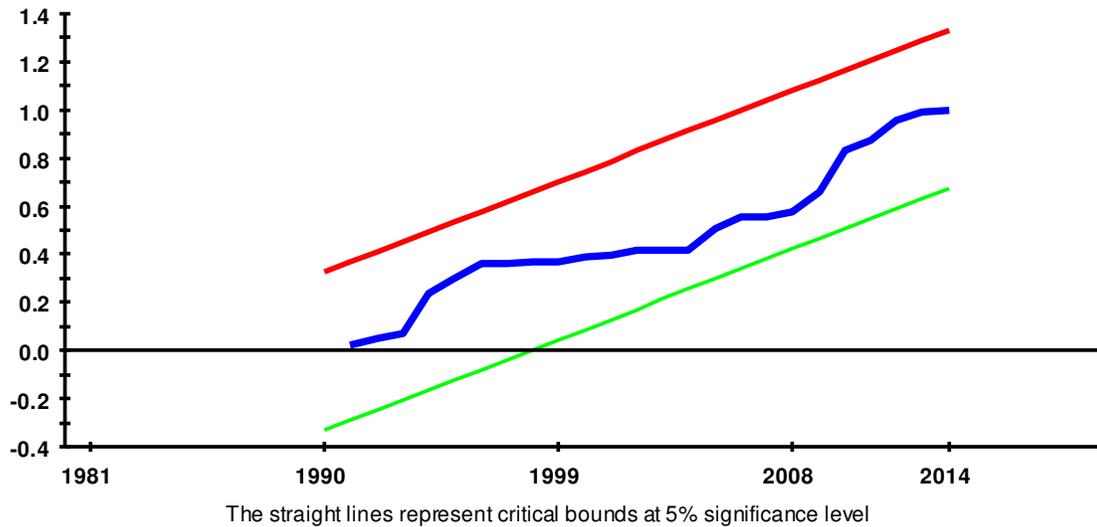


Figure-2

**Plot of Cumulative Sum of Squares of Recursive Residuals**



## **5-Conclusions and Policy Suggestions**

This study has investigated the impact of gender equality and environmental degradation on human well-being in the case of Pakistan. Time series data from 1980 to 2014 is used for empirical analysis. Augmented Dickey-Fuller unit root test is used for stationarity of the variables. Autoregressive Distributed Lag model (ARDL) is used for co-integration among the variables of the model. The results of unit root test show that there is a mixed order of integration among the selected variables of the model. The results show that gender inequality has a negative and significant impact on human well-being in Pakistan. This shows that gender equality encourages human well-being. The calculated results show that there is a positive but insignificant relationship with environmental degradation and human well-being in the case of Pakistan. The estimated results show that economic misery has a negative and significant impact on human well-being in the case of Pakistan. The estimated results show that economic growth has a positive and significant relationship with human well-being in Pakistan. Based on the estimated results, it is concluded that gender equality, economic misery and economic growth are playing an important role in determining human well-being in Pakistan. Although following previous literature, environmental degradation has a negative impact on human well-being. But the results show that environmental degradation is not playing a significant role in determining human well-being in Pakistan. Based on these conclusions there are some policy suggestions. If the government of Pakistan wants to increase human well-being, it has to give equal rights to women as ignoring half part of the population mean lower human well-being. Gender equality encourages better health, education and sufficient resources for better living standard. In one hand, the government takes

serious steps for reducing the economic misery, and on the other hand higher economic growth are necessary for better human well-being in Pakistan.

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