

Environmental Fiscal Reforms through Decentralisation for Sustainable Development and Poverty Eradication

USMAN MUSTAFA

1. INTRODUCTION

Markets and government planning are providing alternative systems for coordinating people's consumption of resources. The effectiveness of coordination depends on the capability of each system to signify accurate information about people's wants and available supplies of resources. And on the incentives each provides for individuals to react to the desire of others [Hayek (1945) and Wills (2007)]. Natural resources generate public revenues and benefits. Its equitable distribution and sustainable production leads to real development and ultimately helped to poverty reduction and alleviation. Therefore, natural resource revenues necessitate distributions that favour the needs of the indigenous poor people and local sustainable development.

Productive and high-value natural resources are seldom accessible to all citizens and their benefits are rarely evenly dispersed crosswise peoples and geographically across nations. It is worth mentioning that revenues collected from natural resources have a long history of being mismanaged and misappropriated—with political and economic elite often capturing a large share of the benefits while the nations disenfranchised must often absorb inexplicably large share of the associated social and environmental expenses. These are highly interdependence; a sound environment is crucial to poverty reduction and sustainable growth, particularly in low-income countries [IBRD/World Bank (2005); World Bank (2006a) and Mustafa (2008)].

A clear difference exists between the role of the natural system as a supplier of raw material inputs for the economy and a receptor for production and consumption residuals. The economy has been divided into two broad segments, producer and consumers. There is a need to develop balance between these two segments i.e. in the long run all materials taken by human beings out of natural system must eventually end up back in that system. This means that to reduce residuals flows into environment we must also effectively and efficiently produce and utilise materials taken from the ecosystem.

Usman Mustafa <usman@pide.org.pk> is Chief, Project Evaluation and Training Division, Pakistan Institute of Development Economics, Islamabad.

Author's Note: This study is mainly drawn from the Environmental Fiscal Reform (EFR) Project, IUCN/PIDE.

Unfortunately, over the time there is over exploitation of nature resources and imbalance of producers and consumer segments. This resulted in ambient environmental quality degradation, damages, and unbridled growth and development all over the world. It has laid a heavy burden of sustainability on the present and foreseeable future on our planet. The consequences are in the form of environmental degradation, social inequity, and poverty. These are highly interdependence; a sound environment is crucial to poverty reduction and sustainable growth, particularly in low-income countries [IBRD/World Bank (2005)].

Sustainable development is, therefore, the cumbersome of all considerations by international community as well national governments. There has been a commitment to the Millennium Development Goals (MDGs) including integration the principles of sustainable development into country policies and programs and reverse the loss of environmental course, also, including the overarching target of halving extreme poverty by the year 2015 from the level of 1990. The World Summit on Sustainable Development (WSSD) on South Africa in 2002 affirmed the MDGs, but also stressed the way that improved environmental management could help to reduce poverty.

The government of Pakistan is committed to pursue MDGs targets, well aware of the consequences of the environment degradation and has made diligent progress in the institutional strengthening and capacity building of policy and planning institutions, environmental awareness, and the promulgation of environmental legislation, National Environment Quality Standards (NEQS), and establishment of environmental tribunals. The National Conservation Strategy in 1992 and National Environment Policy were prepared during 2005. The Poverty Reduction Strategy Paper (PRSP) was also prepared. The Medium Term Development Framework 2005-10 (MTDF) carries these assurances forward [Pakistan (2005)]. The vision 2030 is also drafted where the vision for environment conservation and management aims for equitable sharing of environmental benefits, increasing community management of national resources, and integrating environmental issues into socio-economic planning to achieve sustainable development. The action agenda would cover both the brown and the green environment, range management, desertification, and marine pollution [Pakistan (2007)].

Despite government efforts in environment planning and policy-making, the issue of environment degradation is not managed. The urgency of addressing Pakistan's environmental problems has never been greater, not just because of the intrinsic virtues of promoting responsible environmental stewardship, but also because of economic consequences of environmental degradation. Conservative estimates revealed that the annual cost of environmental degradation is approximately six percent of Gross Domestic Product (GDP), the costs are of a similar magnitude to the 2006 growth performance recorded in the National Account [World Bank (2006a) and Pakistan (2006)].

In the aggravated, aggregated, alarming environmental and natural resource degradation situation and its soaring cost to the society as well on national exchequer. It is vital to generate and utilise the scare available budget wisely at all tiers of government. The budget should be the financial mirror of society's economic, social, and political wills and choices. The government is a representative of people and in order to execute its role, state needs to collect revenue from the economy in sufficient and appropriate manner and distribute and utilise those resources responsively, efficiently and effectively.

The collection as well distribution of resources is the key instrument of government policy. Which have the integral relationship between revenue and expenditure i.e. money collected (taxes) directly or indirectly from the public and the use of that money for sustainable development, prosperity, poverty alleviation and well being of its people at all regional, provincial, and districts levels.

Therefore, it is pivotal to understand fiscal collection particularly from natural resources, its distribution and effects on sustainable development and poverty eradication. The objectives of the study are to highlight and analysed the environmental situation, environmental fiscal reforms, decentralisation and their relationship between sustainable development and poverty. The study also described the situation of environment, decentralisations and poverty in district Abbottabad of NWFP as a case study.

The study is divided into four sections. After the first introduction “The economy and environment” links is described in the second one. The economy is mainly divided in to consumers and producers both get the inputs from natural environment and discharge residuals. The excess non-decomposed residual creates environmental problems. These residuals disturbed the natural balance in the inputs and residuals discharged back into the environment. In the third section Environmental Fiscal Reforms (EFR), decentralisation for sustainability and poverty alleviation are discussed. There is a close relation ship between environment degradation; sustainability and poverty, which is discussed in section three. In order to cope with the situation EFR can play positive role, this is also highlighted in this section. The last section covered the summary and conclusion.

2. THE ECONOMY AND THE ENVIRONMENT

The economy is a set of technological, legal, and social arrangements through which group of people seek to enhance their material and spiritual standards of life. Encompassing the natural environment, any economic system as discussed in basic economic literature has the elementary functions of production, distribution, and consumption. We can broadly divide the economy in to “Producers” and “Consumers” segments. The “Producer” category includes all the firms, public as well private organisations and services that use inputs and convert them into outputs. All good and services are derived from inputs includes raw material drawn from the natural resources i.e. fuels, minerals, wood, petroleum, water, gases, etc. There are also materials utilised by consumers directly from the nature i.e. pumping of water, fuel wood, etc.

Production and consumption process generate “residuals” which are leftover. It includes all type of materials residuals which is omitted into air or water or disposed on land i.e. SO_2 , CO_2 , volatile organic compounds, toxic solvents, pesticides, toxic chemicals, solid and liquid waste, heavy metals, waste energy in the form of heat and noise, and radioactivity, etc. Some of the residuals are recycled while a large amount of residuals due to mismanagement creates pollution and environmental degradation. Material and energy being extracted from the natural environment and residuals are discharged back into the environment (Figure 1). For sustainability in the long run, these two flows (producers and consumers) must be equal which the first law of thermodynamics illustrates. This is expressed in symbolic form as:

$$M = R_p^d + R_c^d \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (1)$$

Where:

M = Raw material

R_p^d = Residual discharge from production

R_c^d = Residual discharge from consumption

The fundamental material balance equation must hold in the long run. If we desire to reduce the mass of residuals disposed of in the natural environment, we must reduce the quantity of raw materials taken into the system and increase recycle material for producers and consumers. In Equation (1) we substitute for M (Figure 1):

$$R_p^d + R_c^d = M + G + R_p + R_c - R_p^r - R_c^r \quad \dots \quad \dots \quad \dots \quad \dots \quad (2)$$

Where:

G = Output (Good)

R_p = Production residuals

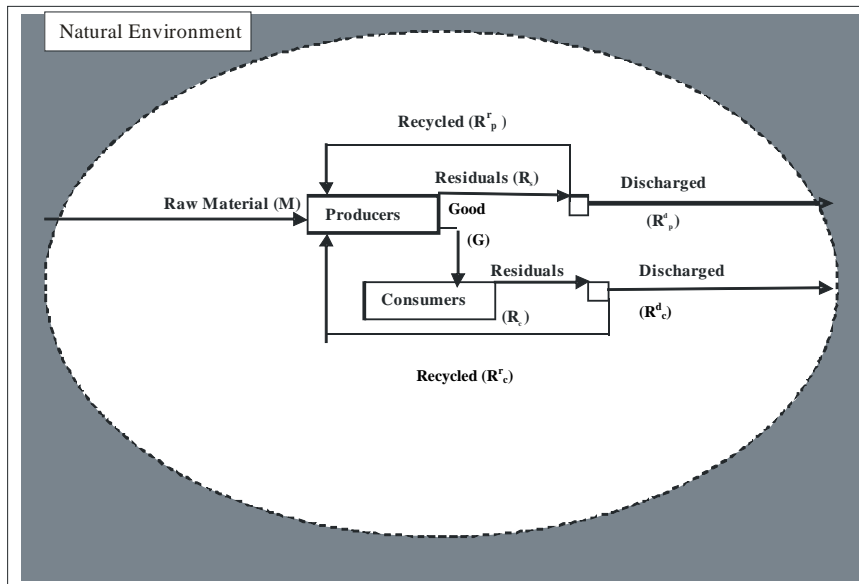
R_c = Consumption residuals

R_p^r = Recycle from producers

R_c^r = Recycle from consumers

There is need to reduce M , R_c and R_p while increasing R_p^r and R_c^r in the Equation (2) for sustainability.

Fig. 1. The Environment and the Economy



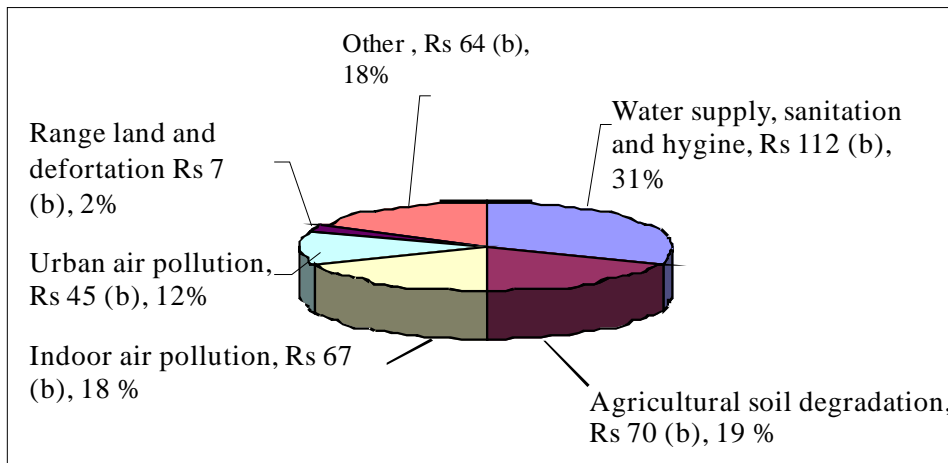
Source: Field (1994).

The material we extracted from the natural environment should be equal to the goods and services produced and recycled residuals. These environmental goods and services have a limit to their bearing capacity, beyond which they cannot sustain their use.

Crowding on their use can decrease users utility and generate more leftover residuals that are not recycled and reused generate environment pollution and degradation. Over the time there is increase in the residuals and pollution, which creates serious environmental problems. It is worth wise to mention that each user values but none of them has an incentive to pay to sustain them. The unconsumed residual creates externalities, which badly affect living thing including human being, nature and real growth of the economy. The present market mechanism often failed to regulate their production, consumption, and allocation. In order to understand the situation it is imperative to estimate their opportunity costs. The cost to the society can then be forced to the polluters. The polluter must bear the price. This will helped to evaluate and regulate environmental impacts and ensured environmentally sustainable economic growth. There is a trade-off between environmental quality and economic goods. An increase of 0.3 percent investment in household access to safe drinking water generates one percent increase in GDP. Whereas, provision of safe drinking water supply is an effective health intervention reduces the morality caused by water-borne diseases by an average 70 percent. Inadequate drinking water not only resulted in more sickness and deaths, but also augments health costs, lower worker productivity and school enrolment [World Bank (1994)]. In Pakistan the highest annual losses reported is due to water supply, sanitation and hygiene amounting Rs 112 billion amounting 31percent of the loss due to environment degradation [World Bank (2006a)].

The World Health Organisation (WHO) estimate 1.8 million people in developing countries die every year from diarrhea and cholera, Out of these 90 percent are children under the age of five years. While 88 percent of diarrhoeal diseases are attributed to unsafe water supply, inadequate sanitation and hygiene [WHO (2004)]. The situation is not very different in Pakistan; the access to safe drinking water is estimated to be available to 23.5 percent of population in rural areas and 30 percent in urban areas. While every year 0.2 million children die due to diarrheal diseases [Rosemann (2005)].

The annual presage estimated cost of environmental and natural resource degradation and damage is about Rs 365 billion which is one billion rupees per day or six percent of GDP. These estimated are based on those parameters for which reasonable estimates are available. The highest cost is from inadequate water supply, sanitation, and hygiene (Rs 112 billion) followed by agricultural soil degradation (Rs 70 billion), and indoor air pollution (Rs 67 billion). Urban air pollution (particular matter) adds another Rs 65 billion. The estimated cost of lead exposure is about Rs 45 billion. Rangeland degradation and deforestation cost are the lowest at about Rs 7 billion in total (Figure 2). Due to the lack of available data, estimates are on lower sides and even misleading. A number of categories i.e. fisheries and coastal zone degradation were not included in these estimates, as a consequences calculations of the relative share of damage must be interpreted with the utmost caution since the magnitude of total damages is unknown since the impacts of natural resource degradation have been underestimated [World Bank (2006a)].

Fig. 2. Annual Losses Due to Environmental Degradation

Source: World Bank (2006a).

3. ENVIRONMENTAL FISCAL REFORMS, DECENTRALISATION, SUSTAINABILITY, AND POVERTY

As discussed earlier the present market mechanism cannot often make fundamental material balance in Equation 2 (Section 2) which must hold in the long run, otherwise grave environmental problem arises. It is pivotal to take a collective action for their upkeep, which incurs considerable public cost.

It is well documented and argued that there is a close relationship between poverty and environment. Natural resources are the important component of livelihood for the poor people. Over the time due to mismanagement natural resources are in declining trend and are very much degraded and polluted. It resulted dual problem firstly their availability is declined, secondly due to degradation and pollution, some basic amenities such as safe drinking water and clean air is not available. This created serious socio, economics and health problems especially for the poor segment of the population. It increases expenditure and decreases the efficiency of a person. All these resulted in increasing the poverty. These issues can be tackled by improved pricing of environmental goods and services in such a way that these become poor friendly. The polluter must pay the price and the affected must be compensated.

3.1. Environmental Fiscal Reforms

There is no free lunch. Polluters are creating negative externalities which are not born by them while the society is paying this cost. The cost of these measures should be reflected in the cost of goods and services, which causes pollution in production and or consumption. Polluter should bear the expenses of carrying out those measures decided by public authorities to ensure that the environment is in adequate state. The resources generated should be used to facilitate or support the environmentally friendly measures.

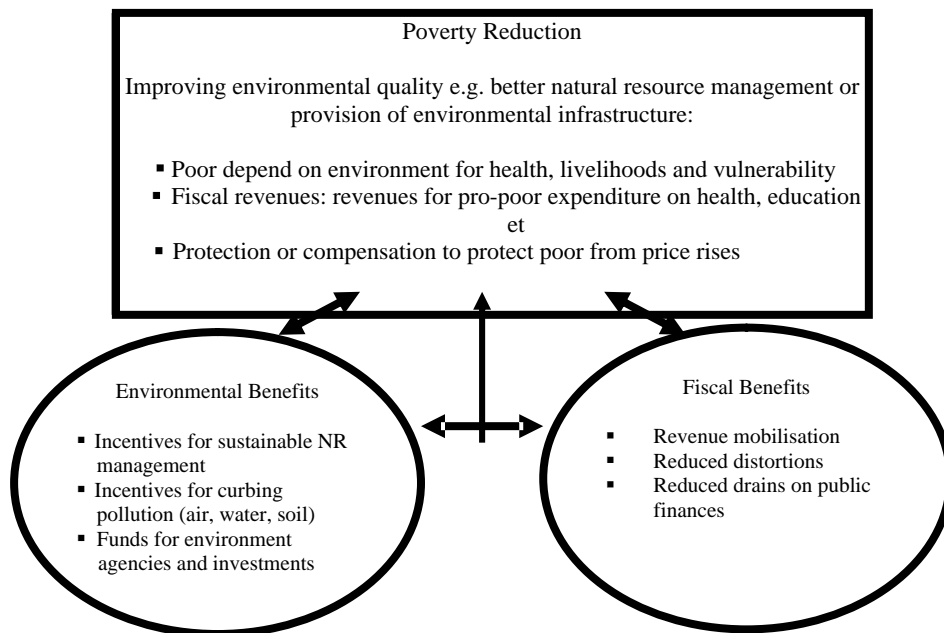
EFR refer measures that rationalise tax arrangement in such a way so that it establish linkages between an effective and efficient fiscal and decentralisation system,

resulting in decrease of natural resource degradation, pollution and ultimately environmental improvement and sustainable development. A sympathetically designed and implemented EFR can also reduce poverty, improve poor people's access to environmental services, liberate finances for poor friendly investments and address environmental problems that affect the poor e.g. subsidy reforms and taxes that change the prices of natural resources (e.g. water, forests, and fisheries) or of products with high environmental externalities (e.g. fuel and electricity) would help in raising the sustainable growth rate and the incomes of the poor (Figure 3).

The context for EFR is at the line between fiscal issues, decentralisations, poverty and environmental challenges facing the country. The essence is efficient utilisation of natural resources. The natural resources exploiter and polluter should be taxed, fined and discouraged [OECD (2005); IBRD/World Bank (2006a); IUCN/PIDE (2006)].

It is essential to ascertain effective and efficient revenue system, which faces some alarming challenges. In Pakistan, there is a large share of indirect taxes (about 70 percent) mainly from custom sale and central excise duties. Pakistan over the last decade has made some significant strides in fiscal reforms with positive environmental impact, primarily motivated by the fiscal crisis of financially unsustainable subsidies. Recent reforms include changes in electricity tariff rates and improved collection, pilot examples of more effective collection of irrigation costs and more market based fuel prices. These form an important basis for further reform [Pakistan (2006)].

Fig. 3. EFR Benefits



Carefully planned, designed and implemented EFR can play very significant and important role in poverty reduction through improving access to environmental services for the poor segment of the population in such a way that addressing environmental issues that create negative influence on them. EFR action will free resources that can be used for pro-poor investment. Adopting EFR ensured achieving multiple fiscal, poverty and environmental objectives, there are potential trade-offs. These objectives can be addressed by appropriate design of the fiscal measure including the correct price level, rationalisation of subsidies and the tax structures, and the distribution and quality of public expenditure. It has the potential to be pro-poor, if the poor who depend on natural resources for survival have access to better facilities as the resources are generated. If the incidence of user fees and product charges are regressive, i.e. an increase in the price of goods that account for a higher percentage of poor people's expenditure, or environmental improvements benefit mainly the rich, the tax structure and incidence of public expenditure need be made progressive [IUCN/PIDE (2006) and Rao (1996)].

The important of EFR in the decentralisation perspective is further highlighted because by involving local communities and stakeholders, would pay more attention and involvement for the effective and efficient fiscal policies in the district. The addition funds generated could be used for improving access to safe water, sanitation and other basic and civic amenities for the poor, which can be used for poverty reduction. Some of the EFR options that have been identified during a background study conducted for IUCN/PIDE research proposal are presented in Table 1. These options have been chosen to maximise positive outcomes, and to lead to win-win situations across the board. They reflect the impacts of EFR in terms of high fiscal benefits, high poverty reduction benefits, high environmental benefits and high political viability [IUCN/PIDE (2006)].

3.2. Fiscal Decentralisation

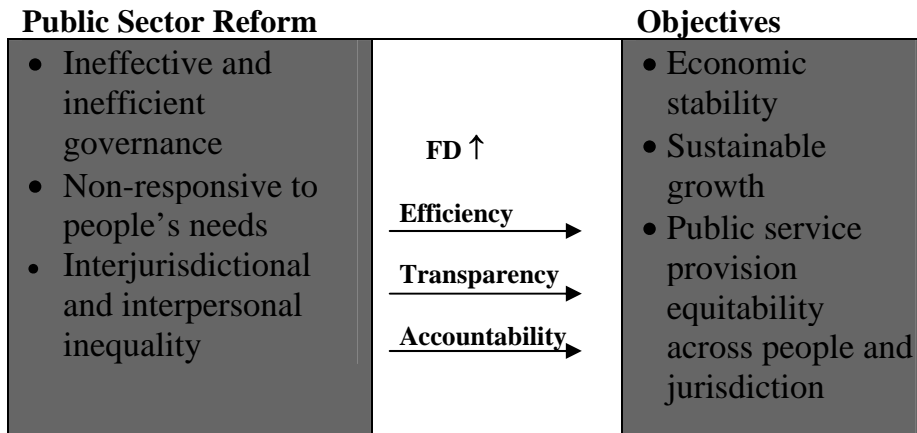
Fiscal Decentralisation comprises the financial aspects of devolution to regional and local government. Decentralisation can introduce a sense of popular ownership of government and bring about direct benefits like to enhanced efficiency of public goods provision, quality of government through democratic accountability and economic growth [Oates (1993) and WBI (2007)]. The pursuit of decentralisation is widespread in all part of the world for developed countries it is reorganisation of the government in order to provide public goods and services cost effectively in the "post-welfare state" era. For developing countries is to escape from the traps of ineffective and inefficient governance, macroeconomic instability, and inadequate economic growth. In the developing countries political pressure is also emerging from the people for democratisation. While for transitional countries it is a transition from system to market economy and democracy.

There is a continuous debate in the literature of fiscal decentralisation about its desirability, the positive side revelled that in general the public sector reforms are ineffective and inefficient governance. There is irresponsive to the people needs and it has inter-jurisdictional and interpersonal inequality. While fiscal decentralisation increases efficiency, transparency and accountability, which bring economic stability, sustainable growth and better public service provision with equitability across people and jurisdiction [Akai and Sakata (2002); Brueckner (2006) and WBI (2007)]. This is illustrated at Figure 4.

Table 1
*Summary of Benefits and Political Viability of Different
 Environmental Fiscal Instruments*

Fiscal Instruments	Fiscal benefits	Poverty Reduction Benefits	Environmental Benefits	Political Viability
Reform of abiana charges	High – huge cost of irrigation will be financed	Mixed – but can be high if leads to greater water reliability	Medium – depending on impact on water use	Medium – more likely if linked to strong farmers organisations
Reduction of tubewell electricity subsidies, particularly in Balochistan	High – huge cost to Provincial governments would be saved	Mixed in short term, but high in medium term if slows fall in water tables	High – if slows fall in water tables	Medium – crisis situation in Balochistan has created climate for change
Reform of License fees and catch levies for foreign vessels	Mixed – rise in fees could increase revenues, but ban on foreign vessels could end revenue	High – poor enforcement has led to clashes with poor fishers	High – reduction in licensed foreign vessels may be needed to allow fish stocks to recovery	High – pressure from small fishers has led Provinces to oppose current federal license policy
Fiscal measures for Pakistani vessels	Low – little revenue generated	Low – conflicts over fish access between Sindh and Balochistan	Medium – aim to reduce over-fishing in Balochistan	Medium – problem of enforcement
Reform of proposed shrimp farming subsidies	Low – subsidies not significant	High – unplanned shrimp development had negatively impacted the poor in many Asian countries	High – unplanned shrimp farming has negatively impacted environment in many Asian countries	Medium – as yet no industry to push for subsidies
Improved collection and distribution of timber concessions fees	High in NWFP, where forests are located	High - current evasion deprives rural households of revenue	High – if leads to reduced logging	Low/Medium – as timber mafia is entrenched
National park entrance fees with higher charges for foreigners	Low – as visitation, especially by foreigners is low	Medium – if funds properly used for poverty alleviation	High – if funds used for biodiversity management	High – not controversial
Trophy hunting fees	Low – but can be important to certain households	Medium – if funds properly used for poverty alleviation	High – schemes have increased wild populations	High – not controversial
Water user charges	Medium – can be costly for local govt and non-payment by some households	Mixed –requires careful design to ensure better access by poor households	Low – impacts on water scarcity low	Mixed – requires careful design
Fuel pricing	Low – fuel is already heavily taxed, except CNG which is subsidised	Mixed – high prices can generate inflation	High – fuel use linked to indoor and outdoor air pollution	Low – prices already high
Motor vehicles – vehicle excise duty	Low – but could be useful for local govt	Medium – poor do not own vehicles	High – motor vehicles are rising fast	High – reforming excise to reflect environment not controversial
Electricity – improved collection of rates	High – major non-payment of electricity	Mixed – requires careful design to improve access by poor households	Medium – linked to air pollution	Medium – requires willingness to take action against non payment
Solid waste user charges	Low – but could be useful for local govt	Medium – if improves service	High – major source of urban pollution	Medium
Industrial treatment user charges	Low – as currently very little is spent	High – poor suffer from dirty water	High – major source of pollution	Medium – requires industry to pay

Source: IUCN/PIDE (2006).

Fig. 4. Fiscal Decentralisation (FD)

While the other group disputed on it and argue that it inherently destabilise the economy, there is no significant relationship between fiscal decentralisation and public sector size. Even it associated with slower growth [Oates (1993); Thornton (2007); Xie, Zou, and Davoodi (1999); Zhang and Zou (1998)]. The definition and implementation of fiscal decentralisation vary greatly across developing countries due to different in economic and political composition.

3.3. Sustainability and Poverty

In Pakistan the macroeconomic results of the country over the last five years are very impressive. The average growth rate was accelerated from 3.3 percent in 1997-2002 to over 6.5 percent during 2002-06. Despite these attainments, social and natural resource indicators continue to exhibit the discouraging developing challenges face the country. The trickle down theory has been badly failed. There is an importance to strengthen environmental management, to reduce risks to health and natural resource productivity, and to sustain economic growth [Pakistan (2006) and World Bank (2006)].

A range of mechanisms has been used to promote distributional equity of natural resource benefits. These include inexplicably taxing regions and people with natural resource affluence (e.g., progressively structured taxation policies) and distributing state natural resource revenues in ways that favour the poor (e.g., equalisation grants that recognise various human development and social well-being measures). Like Pakistan in many countries in Africa, Asia, and Latin America, the rural poor are more directly dependent on natural resources than rich people for their livelihood. Without distributional equity, regions and people with access to productive natural resources may flourish while those with no or limited access to such natural resources or with access to only low-value natural resources will remain worse off. There is a necessary need to

harness environmental management, to reduce risks to health and natural resource productivity, dismantle poverty, and to sustain economic growth [Pakistan (2006) and World Bank (2006, 2007)].

There is a positive relationship between poverty and environmental degradation as already discussed earlier, often in a self-perpetuating negative spiral in which poverty accelerates environmental degradation and degradation results in or exacerbates poverty. In Pakistan as of other countries environment degradation is both a cause and consequence of poverty. A fragile and poor resource base is one of the major reason of poverty because it resulted in poor agricultural yield/productivity, forest are depleted decreased livelihood opportunities. Food requirements are always stood first as of environment issues. Poor people have to fill their belly in order to survive. The environment concerns are ignored resulting in further degradation of resources. The vicious circle of poverty and environment degradation emerged. For example water and air pollution causes illness and premature mortality. Which resulted resources for treatment, also reduces working efficiencies, and lead to higher poverty [World Bank (2006, 2007)]. United Nations Summits on Financing for Development and on Sustainability Development in March and September 2002 respectively, recognised the potential contribution of EFR related approach. The latter stressed that poverty reduction and improved environmental management go hand-in-hand [IBRD/World Bank (2006)].

There are two type of distributional equity of natural resource benefits, which includes inter-jurisdictional equity (equity across districts within a nation) and intra-jurisdictional equity (equity across peoples and communities within levels of public administration below the central government). In this connection, additional research is required, policy analysts and development professionals argue that inter-jurisdictional equity (for broad national development) can be consummate only by central government and, therefore, is a function of the compliance of the central state to employ in redistribution among regions. It require central government providing public revenues, goods, and services directly to the poor, or allocating revenues and other goods and services to local governments with poor constituents and poor natural resource endowments.

While the intra-jurisdictional distribution of government goods and services and the equity of local government decisions is often a function of decentralisation. Decentralisation provides more equitable distribution in local districts, greater opportunities for empowering and serving the poorest people, and, as a result, better supports poverty reduction. There is some evidence that local authorities are better than central authorities at identifying and reaching the poor and that they incorporate distributional preferences into choices on spending decisions. It is unclear whether this is common practice.

It is well recognised and advocated that without community involvement and participation, development initiatives either in economic or social sector, have little change of success, especially at the grassroots level [Mustafa (1998, 2000); Mustafa and Mir (1999) and UNDP (2005)]. With the concept of “conservation”, especially in the government circle, now also take into account “community participation” and poverty alleviation. Recent research concludes that responsiveness to the poor is, in fact, a rare

outcome of decentralisation, dogged mainly by local-central government relations. Strong commitments by national governments or ruling parties to promote the interests of the poor at the local level resulted in positive outcomes.

The vital role of national governments in both inter-jurisdictional and intra-jurisdictional equity is obvious. It required a pragmatic approach to embark upon the challenges. It is imperative to extend fiscal policy in such a manner, which mobilises revenue to basic amenities of life, infrastructure, and environment. This is the area where EFR can play an essential role. Fiscal policy encompasses various elementary strategic issues; including the proper role and size of the state, the role of the Government in promoting growth, creating jobs, social development and redistribution of benefits of economic growth, the nature and extent of public services and fairness between the present and future generation.

3.4. Fiscal Decentralisation Issues, Constraints, and Opportunities:

A Scenario Analysis of Abbottabad, NWFP

For the scenario analysis of decentralisation Abbottabad district of NWFP has been selected. The district has prepared “State of the Environment and Development” and “An Integrated Development Vision” during 2004 [IUCN (2004a, 2004b)]. Pakistan is a federation comprising four provinces, Federal Administrated Tribal Areas (FATA) and Federal Capital Areas. Most of the revenue is collected by centre and it is distributed vertically and horizontally to provinces and districts through systematic and random formula base. National Finance Commission (NFC), Provincial Finance Commission (PFC), Federal to Local and Local-to-Local distribution resources are based on systematic formula. While the development/special grants, executives discretionary, parliamentary funds, etc. falls under random transaction.

Federal government provides resources to provinces and other areas in the form of revenue shares, grants, straight transfers and loans, while it collect revenues in the form of income tax, sales tax, custom duties, and excise duties. Whereas, the provinces collect their revenues in the form of minor tax assignments i.e. agriculture tax, stamp duties, motor vehicle tax, etc. and others which are levied and retained by them. The district government has the responsibilities for the construction and running/maintenance of district roads, education, water supply and health services, while sewers/sanitation and fire services are managed by Tehsil level. Parks/play grounds, animals, cultural and support activities and street lights are administered by Union Councils.

The federal government (FG) generates about 91 percent resources, whereas, the rest is produced by provinces and local governments. The expenditure share is 67.1, 28.8 and 4.1 percent amongst the federal, provincial and local government level in the overall national exchequer, respectively. The FG is in surplus of around 24 while the provincial governments are in deficit of 23.3 percent. While, local governments were unable to utilised 0.3 percent of revenue share and returned it due to administrative and other issues (Table 2).

Table 2

Percentage Share of Public Finance Layout across the Tiers of the Government

Tier of Government	Revenue Share	Expenditure Share	Surplus/Deficit
National	90.7	67.1	23.6
Provincial	4.9	28.8	-23.9
Local	4.4	4.1	0.3

Source: Ministry of Finance, Government of Pakistan.

With the passage of time, FG has overstressed itself into several matters that are purely the subject of lower tiers mainly due to political reasons. The sole criterion for NFC award is population. Allocations of the awards are based on politics. There is an increase in the overall pie of resources because there is an augment in the generation of resources but its overtime-proportional distribution remains the same. The provincial proportional share of NWFP awards is even decreased. The NWFP government complains getting fewer shares of royalties from the FG, mainly because the provincial government has different political background. The special development funds/grants, random transfers are under the direct control of Prime Minister, President, Chief Minister, and or Governor and they disbursed resources on political basis. Some times a particular district gets even much higher resources than the allotted one.

The NWFP Finance Commission is based on weight of 50, 25 and 25 percent on population, backwardness (based on multiple indicator cluster survey i.e. income, drinking water, education and literacy, child survival and nutrition, immunisation and EPI with equal weight), and lag in infrastructure (LII). In the provincial financial award there is astounding distribution of resources. NWFP has 24 districts amongst these Peshawar district is getting the highest share (2.10 percent) of LII while 0.5 and 0.94 percent share were allocated to “Tank” and “Abbottabad” districts, respectively. In case of backwardness and LII still “Peshawar” district got the highest share (2.78 percent), while “Chitral” had the lowest (1.27 percent) and “Abbottabad” had 1.5 percent.

Fiscal decentralisation has brought into sharp focus the inequitable geographical distribution of funds. The financial position of every District is although clearly indicated, and this will allow the Nazims to politically defend the interests of their Districts at a time when the Provincial Finance Commission determines allocations. This was supposed to makes transparent the Provincial share of the total budget as compared to the Districts but in a political system it becomes very difficult to Nazims from same as well from different political parties to differ and stand for the district cause.

Public finances in Pakistan have been characterised by high fiscal deficits, poor revenue mobilisation, a persistent trend of centralisation, massive vertical imbalances between federal and provincial governments (i.e. very large gaps between provincial governments’ expenditures and own revenues, which have to be made up by means of fiscal transfers from the FG), weak financial management and lack of accountability of the public sector. The federal government has better sources of taxes as of provincial and local governments (Table 3).

Local governments (LG) have not been recognised by the constitution as a separate tier of government and existed only as extensions of the provinces with some functions delegated to them by the provinces. This has seriously affected the fiscal

Table 3

Revenue Assignments among Federal and Provincial Government

Governments	Direct Taxes	Indirect Taxes
Federal Government	Income Tax	Sales Tax
	Corporation Tax	Excise Duty
		Custom duty
	Wealth Tax	Import Duty
	Property Tax	Export Duty
		Gas and Petroleum Surcharge
		Foreign Travel Tax
Provincial Government	Land Revenue	Stamp duty
	Urban Immovable property tax	Motor vehicle tax
	Tax on transfer of property	Entertainment tax
	Agricultural income tax	Electricity duty
	Tax on professions and trades	

Source: World Bank (2006b).

structure and related distribution of authority for revenue mobilisation and expenditure obligations among different levels of government. The LG Plan 2000 recognises the problems associated with the system by stating that “the transfer and grant system has been weak. There is no formula for distribution of funds to districts and provincial budgets do not specify district expenditures. Districts do not know, with certainty, what they will expect from the provincial departments, which affects planning negatively. This results in political machinations, ad-hocism, and lack of transparency.

Along with the fiscal decentralisation issues, Pakistan is facing numerous challenges in the area of halting and reversing the environment degradation. There are efficiency related issues, which are about capacity and knowledge, equity related concerns, which relate with distribution of resources, while effectiveness problems, which relate with the direction and guidance. These limit the rate of success of initiatives for pollution control and environmental protection and management.

The general view of the people is that TMA is unable to tap additional sources of revenue because the tax base is small and taxpayers are not willing to pay more (Table 3). It needs further investigation. The amount released by NWFP Government to district Abbottabad during 2005-06 is presented at Table 4. The major heads are salary and non salary (other and electricity), development funds and Zila tax. The Abbottabad cantonment budget is released by the Provincial Government but managed and regulated by Cantonment. It is worth mentioning that it is three times as of rest of the district. More than 91 percent of the district budget is for salary purposes while little more than two percent of district budget is allocated as development fund (Rs 27 million).

Abbottabad administration attempted to increase tax base but could not make it. Only Rs 25, 42,000 fund were generated from local resources i.e. health, education, C&T, and mutation during 2005-06 by the Abbottabad District revenue department, while one MNA has 10 millions funds for his constituency. In general, establishment costs (expenditures on salaries and overheads) have increased faster than provincial government transfer to LG through provincial Finance Commission awards. This resulted in lower allocation of resources to development projects than the overall increase in the revenue.

Table 4

Amount Released by Finance Department to District Abbottabad 2005-06 (Rs Million)

Months	Salary	Non-Salary (Other)	Non-Salary (Electricity)	Develop Funds	Zila Tax	Cantonment Board
July	90.652	11.468*	6.192*	6.798*	0.552	334.1
August	90.652				0.552	334.1
Sept.	90.652				0.552	334.1
October	90.652	11.468*	6.192*	6.798*	0.552	334.1
November.	90.652				0.552	334.1
December.	90.652				0.552	334.1
January	90.652	11.468*	6.192*	6.798*	0.552	334.1
February	90.652				0.552	334.1
March	90.652				0.552	334.1
April	90.652	11.468*	6.192*	6.798*	0.552	334.1
May	90.652				0.552	334.1
June	90.652				0.552	334.1
Total	1087.820	45.873	24.768	27.192	6.948	4009.1

Source: NWFP Finance Department.

* Quarter.

4. SUMMARY AND CONCLUSION

Poverty and environment degradation are the serious peril in the country. Its causes and affects are highly dependent upon the distribution of resources. Public revenue and benefits are primarily generated through natural resources and their equitable distribution can promote sustainable development and fairness in the country. The benefits from the production of high value natural resources are generally mismanaged and seldom accessible to the indigenous and all citizens; their payback is rarely dispersed evenly among people and geographically across nations, resulting in environmental degradation. The major causes of most of the wars are the control and exploitation of natural resources (NR). There is a vicious cycle of poverty and environment degradation. Environment degradation is a cause as well as a consequence of poverty and walks off hand-in-hands.

'Environment Fiscal Reforms' (EFR) refers to fiscal measures that rationalise tax arrangement, resulting in reduction of NR degradation, pollution and ultimately environmental improvement and sustainable development. EFR can generate benefits in terms of fiscal revenue, environmental outcomes and poverty reduction. Decentralisation of resources provides an equitable distribution in local districts, greater opportunities for empowering and serving the poorest people, and, as a result, better supports the poverty reduction. The study undertakes the preliminary collation of research on fiscal decentralisation issues, constraints and opportunities. And its links to EFR initiative for district Abbottabad, NWFP, Pakistan.

Fiscal Decentralisation comprises the financial aspects of devolution to regional and local government. Decentralisation can introduce a sense of popular ownership of government and bring about direct benefits like to enhanced efficiency of public goods provision, quality of government through democratic accountability and economic growth.

EFR and Fiscal decentralisation can lay down the structure of expenditures, revenues and legal discretion within which provincial and local governments can operate

in an effective, efficient, accountable, equitable, and transparent way. People are demanding greater self-determination and influence in the decisions of their governments. Fiscal decentralisation is inevitably a dynamic process. The devolution of power and decentralisation of resources offers many opportunities in the shape of hopes for empowerment of people and resolution of their local problems at local levels. The system is receiving unprecedented support from international partners and other stakeholders as well. But at the same time, the system is at risk due to political reasons and troublesome constitutional position.

REFERENCES

- Akai, N. and M. Sakata (2002) Fiscal Decentralisation Contributes to Economic Growth: Evidence from State-level Cross-section Data for the United States. *Journal of Urban Economics* 57, 93–108.
- Brueckner, J. K. (2006) Fiscal Federalisation and Economic Growth. (Mimeographed). March 2006. Available at: <<http://www.socsci.uci.edu/~jkbrueck/growth.pdf>>
- Field, Barry C. (1994) *Environmental Economics: An Introduction*. New York: McGRAW-Hill, INC.
- Hayek F. A. (1945) The Use of Knowledge in Society. *American Economic Review*. September.
- IBRD/World Bank (2005) Environmental Fiscal Reform: What Should be Done and How to Achieve it? The International Bank for Reconstruction and Development/ World Bank, Washington, DC.
- IUCN (2004a) Abbottabad: State of the Environment and Development. International Union for the Conservation of Natural Resources (IUCN), Pakistan Sarhad Programme, Government of the North-West Province (NWFP), Planning and Development Department, Peshawar.
- IUCN (2004b) Abbottabad: An integrated Development Vision. International Union for the Conservation of Natural Resources (IUCN), Pakistan Sarhad Program, Government of the North-West Province (NWFP), Planning and Development Department, Peshawar.
- IUCN/PIDE (2006) Building Coalitions for Change to Implement Pro-poor Environmental Fiscal Reforms. International Union for the Conservation of Natural Resources (IUCN) and Pakistan Institute of Development Economics (PIDE).
- Mustaf, U. (2008) Preliminary Collation of Research on Fiscal Decentralisation Issues, Constraints and Opportunities and its Links to EFR Initiative for District Abbottabad: A Scenario Analysis. IUCN/PIDE. Islamabad
- Mustaf, U. and M. Afzal Mir (1999) Sustaining Economic Development by Reforming Basic Institution through Community Participation. *The Pakistan Development Review* 38:4, 1233–1246.
- Mustafa, U. (1998) Monitoring and Evaluation Training Manual. Area Development Programme—AJK, UNDP, ESMA, Garhi Dopatta, AJK.
- Mustafa, U. (2000) Strengthening Grassroots Institutions for Poverty Alleviation in AJK. Proceeding of the 32nd All Pakistan Science Conference June 12-15, 1999. ESMA, Garhi Dopatta, AJK. Pakistan Association for the Advancement of Science, Lahore.

- Oates, W. E. (1993) Fiscal Decentralisation and Economic Development. University of Maryland (Working Paper No. 93-4).
- OECD (2005) Environmental Fiscal Reform for Poverty Reduction. DAC Guidelines and Reference Series. Organisation for Economic Co-operation and Development (OECD). Paris, France.
- Pakistan, Government of (2005) *The Medium Term Development Framework 2005-10*. Islamabad: Planning and Development Division.
- Pakistan, Government of (2006) *Pakistan Economic Survey: 2005-06*. Islamabad: Finance Division.
- Pakistan, Government of (2007) *Vision 2030. Pakistan in the 21st Century: Vision 2030*. Islamabad: Planning Commission.
- Peter, Schemmel J. (2004) Environmental Fiscal Reform for Sustainable Development and Poverty Reduction. Workshop Proceedings and Country Case Studies. Deutsche Gesellschaft fur, GTZ, Germany.
- Peter, Veit (2007) Poverty, Environment, and Distributional Equity. WRI. peter@wri.org. <http://partners.wri.org/partners.cfm>.
- Rao, A. L. (2006) Environmental Sustainability Research Study Report for PRSP 2. Rao Sustainable Development Consulting and Services (SMC-Private) Limited.
- Rosemann, Nils (2005) Drinking Water Crises in Pakistan and the Issue of Bottled Water: The Case of Nestlé's Pure Life. Actionaid Pakistan.
- Thornton, John (2007) Fiscal Decentralisation and Economic Growth Reconsideration. *Journal of Urban Economics* 61, 64–70.
- UNDP (2005) *Annual Report 2005*. New York: UNDP.
- Wills Ian (2007) *Economics and the Environment: A Signaling and Incentives Approach*. (2nd edition). Alexander Street, Crows New NSW 2065, Australia.
- World Bank (1994) Infrastructure for Development at Target. Viewed March 2008 at <http://target.com/World-Development-Report-1994-Infrastructure/ap/0821325353>.
- World Bank (2006a) Pakistan: Strategic Country Environmental Assessment. South Asia Environment and Social Unit. World Bank, Islamabad, Pakistan.
- World Bank (2006b) Rural Service Delivery in Pakistan. World Bank, Islamabad, Pakistan.
- World Bank (2007) Pakistan Promoting Rural Growth and Poverty Reduction. Sustainable Development Unit. World Bank, Islamabad, Pakistan. (South Asia Region. Report No.39303-PK).
- World Bank Institute (WBI) (2007) Intergovernmental Fiscal Relations and Local Financial Management Programme. The Political Economy of Fiscal Decentralisation. Topic 2.
- World Health Organisation (2004) *The World Health Report 2002*. Geneva: WHO Switzerland.
- Xie, D., H. Zou, and H. Davoodi (1999) Fiscal Decentralisation and Economic Growth in the United States. *Journal of Urban Economics* 45, 228–239.
- Zhang, T. and H. Zou (1998) Fiscal Decentralisation, Public Spending, and Economic Growths in China. *Journal of Public Economics* 67, 244–257.