

Report of Interactive Discussion Session on Integrated Energy Policy Formulation with Emphasis on Social Dimensions



SOCIAL POLICY AND DEVELOPMENT CENTRE

A Talk Given By Mr. Ziad Alahdad

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Integrated Energy Policy Formulation with Emphasis on Social Dimensions

INTRODUCTION

In contemporary times, the importance of interaction among relevant stakeholders on issues of socio-economic development has gained prominence both internationally and regionally. The impact of dialogue on policy formulation processes, however, is yet to be fully recognized at the societal level. The discussion seen on the electronic media is often politicized and influenced by the tagline of the day. Realizing the existing vacuum and the nature of the divide between stakeholders, Social Policy and Development Centre (SPDC) has initiated a series of discussions on some of the core issues being faced by society, particularly, on social progress and human development.

SPDC is of the opinion that these issues should be depoliticized and discussed using a futuristic approach. Some of the themes identified for the next six months are implementation issues of the 18th Amendment; women's economic empowerment; impact of the security crisis on human development; and the future of think tanks in Pakistan. These discussions will be held every two months and a select group of relevant individuals will participate. The process will help initiate informed debate and remove knowledge imbalances prevalent in the country. The proceedings will be published in the form of policy papers and disseminated among policy makers, both at the federal and provincial levels.

In pursuance of this objective, SPDC organized an interactive talk on November 28, 2012 at Hotel Marriot, Karachi. The chosen topic was 'Integrated Energy Formulation with Emphasis on Social Dimensions' by Mr. Ziad Alahdad¹.

A group of distinguished guests consisting of parliamentarians, academicians, economists, members of the business community and other professionals were invited to the discussion. Mr. Javed Jabbar, former federal minister, senator and currently member of SPDC's Board of Directors, presided over the event.

Integrated Energy Policy Formulation with Emphasis on Social Dimensions

¹ Mr. Ziad Alahdad is a development consultant and a former Director of Operations of the World Bank, USA. He has also served as the representative of the World Bank in various European countries including Romania and Turkey. His latest writings on the issues of energy consist of a chapter entitled 'Tuming Energy Around' in a book *Pakistan: Beyond the Crisis State*, and a monograph on Pakistan's Energy Sector, *From Crisis to Crisis – Breaking the Chain.*

WELCOME ADDRESS BY PROF. DR. KHALIDA GHAUS

Ladies and Gentlemen, it is a pleasure and an honor to welcome you all to this interactive discussion on an issue/crisis which is affecting the development and growth of both the country and society. Your presence is extremely encouraging. I also welcome Mr. Ziad Alahdad and I do hope that his talk would help initiate an interesting discussion on an issue which not only has grave consequences for the economy of the country but is affecting people's lives and welfare. The points which I would like to emphasize on, and hopefully will be touched / discussed by Mr. Ziad Alahdad, are:

The correlation that exists between the energy consumption and economic growth – it is a well accepted fact that greater economic activity leads to more employment and thus contributes to reducing poverty. Equally important is to understand the implications of the energy crisis for the poverty crisis or the challenges that it is posing to poverty reduction efforts. Clearly, it is further increasing inequality; and its direct impact on the social sector needs to be recognized and addressed. For example, with 16 hours of load-shedding in rural areas, the education and health sectors suffer.

With the energy crisis being a crisis of human development there is a need to understand the correlation that exists between the availability of electricity and the level of human or social development. This crisis clearly continues to impinge on human development and in some ways is affecting the psychological health of the people. The prevalence of anger, agony, and intolerance at the societal level amply demonstrates the spill-over effects of load-shedding on people's mental health.

We grew up hearing that Pakistan's economy is agriculture based. In the previous years, some 25.3 percent of GDP was based on agriculture which today is 21 percent. Seemingly, with more focus on industrialization, the country has gradually moved away from being agrarian based to industrial based or in some ways even service based.

It has been well recognized that ensuring the supply of electricity or investment in the sector brings and ensures social benefits above and beyond economic growth. For example, according to a World Bank study, families in non-electrified homes in South Africa spend more than one hour per day collecting firewood – with the majority of the burden falling on the women in these families. Ensuring electrification will allow time to be put to more productive use such as for education.

The non-availability of electric supply for six-18 hours is a major setback. Electricity improves people's perception of safety and discourages crime; enables refrigeration

(from medicines to food) and medical equipment; and helps minimize indoor pollution caused by coal burning.

In Pakistan, the inflationary impact of oil prices (\$ 25 per barrel to around \$ 100 per barrel) is unprecedented. At the societal level, it has caused further sufferings. The regression being seen at the societal level can clearly be attributed to the ongoing energy crisis (besides multiple other factors contributing to this deterioration).

With these effects on people's living standards and quality of life, it is not surprising that the issue identified for discussion is directly causing human suffering, affecting human development besides impeding the overall development and growth of the country.

INTEGRATED ENERGY POLICY FORMULATION AND ITS SOCIAL DIMENSIONS BY MR. ZIAD ALAHDAD²

Thank you, Dr. Ghaus for your gracious introduction and your most insightful remarks on the energy-related social issues confronting our nation. Glancing at the list of participants in today's event, I mentioned to Javed how humbled I was to see the illustrious names which were included. So, let me express my appreciation to you for sharing this evening with me. Thank you. My thanks are due also to SPDC for arranging the event. From what I have learned about the impressive work of SPDC, both in terms of its extensive coverage as well as its well-designed and soundly implemented social interventions, I am convinced that it is organizations like SPDC that are contributing to real social development in Pakistan. Their role as catalysts for social reform is so vital for the country. So, congratulations and please keep up the exemplary work.

Dr. Ghaus, you touched upon some very crucial areas in your introductory remarks. Your views could very well form the kernel of a social reform agenda and a pro-poor energy policy for our country. And if the agenda is implemented, Pakistan could, in a matter of a few years, join the ranks of socially-inclusive upper-middle income countries. I do hope that my talk and the discussion that follows will build upon the issues that you have raised. With this in mind, I would like to approach the topic in such a way as to emphasize the nexus between your remarks and my own views on the subject.

It is somewhat enigmatic why Pakistan, traditionally a nation which was always quick within the developing world to initiate and adopt innovative reform measures, has fallen so far behind, in relation to its potential, not only in terms of economic performance but also, more importantly, in its social indicators.

² The talk given has been reproduced on 'as it is basis'. However, minor language editing has been done.

During my tenure at the World Bank, in addition to South Asia, I covered many parts of the world from Sub-Saharan Africa (both East and West) to Russia, Central Asia, Turkey, East Europe and others. In my experience, I encountered two types of attitude among policy-makers which pose the most serious risk to national development. The first is the lack of political will and the second is outright denial. Unchecked deterioration caused by a persistent lack of political will, eventually leads to a state of denial. The latter state is extremely serious. When denial sets in, reform is completely stymied and deterioration accelerates even more rapidly. Tragically, I see signs of this denial creeping into our policy circles. More often than not, our policy-makers showcase development successes which are confined to the privileged upper-income segments of society and conceal or deny the deterioration in the rest of country, especially among the poor. Here is where I see civil society organizations such as SPDC playing the role of the conscience of the country to raise awareness and introduce equitability into our development objectives.

And speaking of hope, I see great potential in our youth. In saying this I am not minimizing the inherent problems in what is termed the 'youth bulge". Very recently, I was asked to chair a session of the annual conference of the Pakistan Institute of Development Economics (PIDE), in which selected doctoral candidates presented their research findings. The quality of the subject matter, the analysis and recommendations proposed to deal with contemporary socio-economic issues, was outstanding – far better that it has ever been in our history. Moreover, some of the most innovative ideas and analysis, contrary to conventional assumptions, came from women students from Balochistan and FATA. Sadly these ideas do not reach our policy-makers, at which level politics rules and the ones that shout the loudest receive the attention. Recognizing this, PIDE's President Nadeem-ul-Haq, remarked that the "conduit" between our premier economic research institutions and the Planning Commission is "fractured or broken". My contention is different: the conduit is blocked, the blockage being the result of a poor policy environment.

Turning to energy: by now it is an established fact, nationally and internationally, that Pakistan's energy sector is in a state of crisis. Virtually everyone in our country, in one way or other, has been affected. Acute shortages are a primary constraint to Pakistan's economic development. The most starkly visible effects during peak demand seasons are power shortages of up to 18 hours a day, a fact that you, Dr. Ghaus, also alluded to. As you also rightly mentioned, the situation is not getting any better. And this is only the visible tip of the iceberg. The energy sector encompasses much more than simply the power sub-sector. Energy is now front and center in our national narrative. The recent D-8 Summit provided additional validation by according top priority to regional energy security.

Pakistan's policy makers have done an excellent job of articulating policy objectives for the energy sector to support the economy. And this has been done repeatedly through several five-year planning cycles. Despite this, the sector is in a dire state. *The problem, to my mind, is not lack of clarity on <u>what</u> needs to be done but <u>how</u> it is to be done. No amount of planning will substitute for lack of implementation. I will be critical in my presentation, in a constructive way, and I sincerely hope it will be taken in that spirit. I fully recognize and appreciate that many in Pakistan have made concerted efforts to address the issues. In fact, the synthesis and analysis I present here is drawn in part from the work done by such Pakistanis.*

I will also be the first to admit that the quality of information I am presenting today can be improved and updated, e.g. the new Energy Yearbook has been issued and we therefore have new demand and supply figures. My figures for non-commercial energy are very approximate and in need of considerable refinement for which the requisite research has yet to be done by our scientific institutions. Despite the challenges faced, many policy initiatives have been undertaken. What is more important is the relevance of the message I am trying to convey and that remains valid across a wide range of assumptions and through what many of you will call switching value analysis.

We must accept that, overall, the results show that our efforts have not worked. Denial of this fact is the surest way to impede progress. Some have referred to the confluence of so many issues as the "perfect storm". There are many who would say that Pakistan's energy sector, and by extension, its economy, is beyond redemption. I do not believe that for one moment. In fact, if we believe that in every crisis there is opportunity, *Pakistan, with its many crises, should also have many opportunities.* The resilience of our population in riding out the storm is testimony to its resolve under the most adverse conditions.

Having said this, all analysts agree that the absence of coordinated policy formulation is a key shortcoming in our country. But, in general, they do not go beyond this, i.e., to show *how* this shortcoming must be dealt with. I intend to pick up where contemporary writings leave off. I will focus on a fundamental and crucial missing element which I believe should be the starting point of energy sector reform – and that is Integrated Energy Planning and Policy Formulation, IEP for short, a mechanism tried and tested the world over, without which decision-making is reduced to shooting in the dark. The acronyms do not matter. The concept is known by many names; it is the principles which count.

My own association with the integrated approach in Pakistan started in the early 70s, when, working for the Sui Gas Transmission Company, we were involved in analyzing natural gas demand and inter-fuel allocation options. The efficacy of an integrated approach seemed eminently logical to me although IEP had not been introduced as a

recognized concept. Then, I re-visited IEP in the early 80s when I was the World Bank's energy adviser in Pakistan and had the privilege of initiating IEP in the country. Much later, in my capacity as the Bank's Director of Operations and member of its Operations Committee, I re-engaged with the policy aspects of Pakistan's energy sector. After my retirement, I have been speaking about it at think tanks such as the Woodrow Wilson Center and the Atlantic Council. I wrote about it in the recently published book edited by Maleeha Lodhi. Just yesterday, I launched a monograph on the subject at the Pakistan Institute of Development Economics (PIDE) entitled "Pakistan's Energy Sector: From Crisis to Crisis – Breaking the Chain". I am now before you addressing the same issue, based largely on the monograph. And I will continue my efforts, till policy makers in our country decide in earnest to revitalize IEP and to take steps towards its implementation.

When I speak of integrated policy formulation, I am reminded of the oft-quoted parable of the elephant in the village of the blind – a parable popularized by Idrees Shah and attributed to Imam Ghazzali and sometimes to Shaikh Sa'adi. The villagers describe the elephant by touching different parts of it. They are all correct in their descriptions but no one has the complete integrated picture. That only comes from seeing the elephant as a whole – analogous, in our context, to viewing the energy sector with all its components, both on the supply and demand side. And, emphasizing the social dimension, the demand side *must* include the needs of the poor.

I will not propose prescriptive solutions, but rather will suggest what *capacity* needs to be built up for IEP to take root and what *institutional structures* are essential for its sustained implementation – and Pakistan's implementation performance is a well-known Achilles heel. The objective of my approach is to help Pakistanis make their own informed decisions.

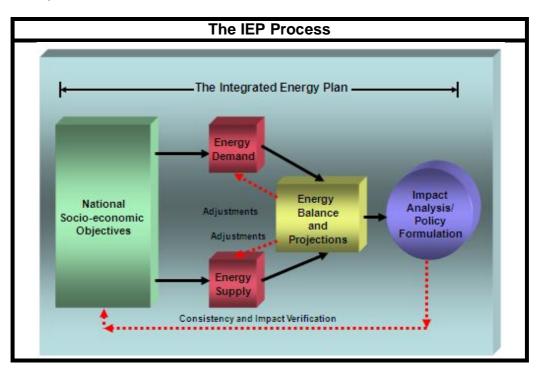
And speaking of capacity, let me present a few underlying considerations: The building of capacity is the core function of the development process and the *raison d'etre* of the international development community. Traditionally, efforts were focused on the individual, with an emphasis on training. This was clearly insufficient and development remained elusive, lack of capacity being the main constraint. Experts were forced to return to the drawing board. Today, state of the art analysis by key development institutions such as the World Bank Institute, which I had the privilege of managing, indicates that in order to be effective, capacity must be built concurrently at three levels.

The most disaggregate level is the development of the relevant skills and knowledge base of the individual. However, once trained, the individual can only be of benefit if she or he works in an appropriately run organization or institutional structure that directs the use of the skills towards the attainment of specified goals. Otherwise the trained individual will revert to business as usual or will move on to where his or her talents are better utilized. Hence the second level is the institutional level.

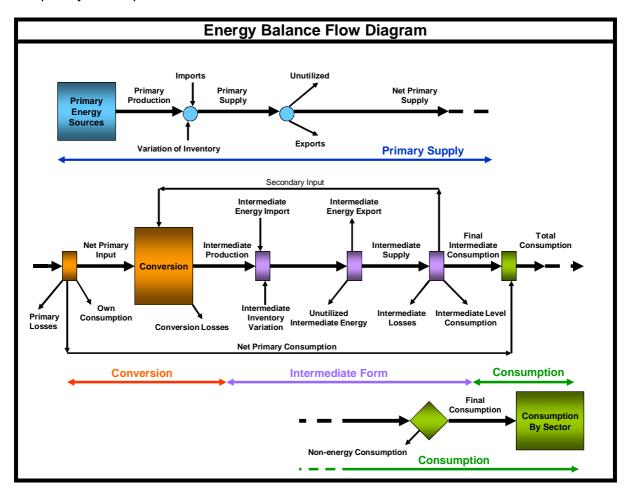
The third level is the policy environment in which the institutions function, which in turn provides the requisite incentive structure and governance for the efficient running of institutions. The *combination and mutual compatibility of the three levels* are essential prerequisites for building capacity for sustainable development. If even one of the three is missing, success will be elusive. Again, civil society organizations such as SPDC can do much to project the importance of this message. I will examine the extent to which capacity building in Pakistan's energy sector deviates from these principles, and the implications of this deviation.

I will focus on four key sets of issues. There are, of course, very many more, and in discussing these issues, many others will become manifest. The objective is to demonstrate how the mechanism of IEP can address these issues to enable sound decision-making for short-, medium- and long-term policy formulation. I stress the short-term aspect here as many consider IEP as a long-term instrument and Pakistan's energy sector also needs immediate support. In other words, we can have good long-term prospects but the problem is how to get there. Pakistan *has* the wherewithal to implement IEP – what is needed is *political will* which has proved to be elusive so far.

A few words on IEP itself – I will be brief here as many of you may be familiar with the principles involved. As chart shows, IEP is a **5-stage process**. It is simply an analytical mechanism which integrates energy sub-sector plans and policies to support national objectives and arrives at a range of policy scenarios which are then tested for impact on the economy.



The sophisticated part – at heart of process – is the construction of an *Energy Balance*. The next chart shows how the energy balance is constructed and illustrates the complexity of the process.

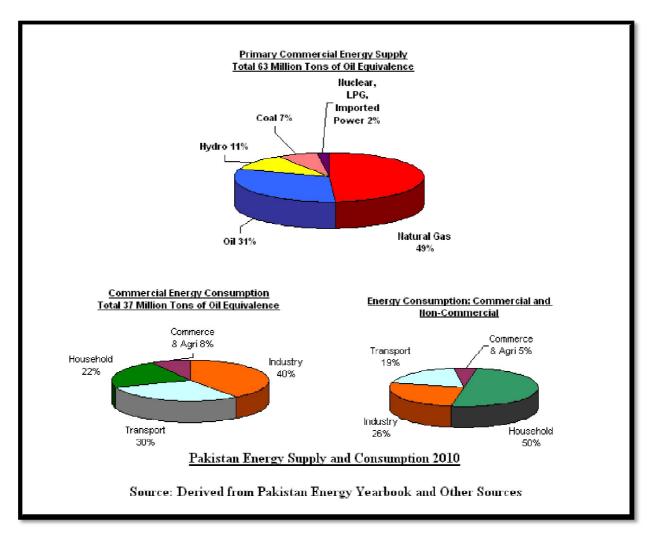


Here's the *good* news. The Hydrocarbon Development Institute of Pakistan produces an impressive document, the Energy Yearbook which includes comprehensive energy balances – *testimony to the fact that, despite the serious brain drain from Pakistan, islands of excellence remain.* This offers hope for the future and gives pause to those who maintain that the situation is beyond redemption.

Now the more challenging aspect: The successful *implementation* of IEP, however, depends on establishing a *separate ministry or department of energy with overarching responsibility for the sector and with access to top policy levels.* Energy fuels the country's economy. The energy sector pervades the whole economy and in this way is similar to the financial sector. Economists often refer to energy as the currency of the economy. Hence access of energy policy-makers to the highest policy levels is itself a policy imperative.

I understand that some positive changes are under consideration towards forming a Ministry of Energy by merging the Ministry of Petroleum and Natural Resources with the Ministry of Water and Power. However, at the same time, there is also mention of the possible creation of a separate ministry for irrigation, agriculture and hydropower. This would be a retrograde measure. Not only will it split the commercial sub-sectors of energy by separating out hydropower but would also keep fuelwood and bio-mass subsectors separate from the proposed Ministry of Energy. As far as integrating the plans and policies of the energy sector, the separation of hydropower would clearly undo the benefits of the initial merger. This traditional chain of events, "one step forward, two steps back", must be broken – hence, the sub-title of my monograph, "Breaking the Chain".

Now, let me proceed to the first set of issues which highlights our persistent neglect of the poor and violates the basic principles of social equitability, as articulated by Dr. Ghaus.



Integrated Energy Policy Formulation with Emphasis on Social Dimensions

Analysis of the pie-charts on the screen which are based on data from the Energy Yearbook, illustrates my point. Start with the top-center chart. Total primary energy supply in Pakistan is 63 MTOE (million tons of oil equivalence) of which natural gas accounts for 49%, oil 31%, hydroelectricity 11%.

Dr. Ghaus touched upon the high and growing cost of oil import. Let me elaborate with figures. Pakistan imports a third of its energy requirements, mostly in the form of crude oil and products at a prohibitive cost of \$12 billion a year. With rising oil prices, *this figure is projected to increase 300% to \$38 billion by as early as 2015.* If our energy policy continues in the same vein, the situation will become even worse. If this comes as a shock to you, I am getting the message right.

The chart on the bottom-left shows energy consumption as 37 MTOE. The industrial sector is the dominant consumer with over 40% of the market. The transport sector consumes 30% and households around 22%.

There is, however, a *glaring omission* which reflects the preoccupation of our policymakers. The data pertains only to commercial energy, i.e., energy for consumers connected to national grids and billed for services. *Estimates of non-commercial or traditional forms of energy are missing.* If non-commercial energy is integrated, the picture changes dramatically. I have tried to show this in the third pie-chart. Traditional biofuels head the list by a large margin and households become the primary consumer using 50% of the mix. The most egregious aspect of the omission is that *noncommercial energy use accounts for nearly half of the overall demand for energy in Pakistan, mainly attributable to the poor of the country.* By integrating non-commercial energy into the calculations, policy makers will be forced to consider *major shifts in emphasis.* More efficient household cook-stoves will have greater impact than industrial energy conservation and use. Neglecting non-commercial energy is tantamount to forgetting the poor half of the country. To address the fundamental questions of social equitability raised by Dr. Ghaus, we need to begin by including the poor in our national analysis.

Here we must temper our judgment with a modicum of understanding. The historical neglect of non-commercial energy is understandable. Commercial energy is a key ingredient for national growth and *prima facie* warrants the lion's share of attention, particularly if there is pressure on policy makers to jump-start the economy. There is an *inherent fallacy* in this approach. While commercial energy consumers do contribute significantly to GDP growth, at the same time, neglected non-commercial consumers (mainly the poor) drag down national output over the longer-term by unregulated and unchecked practices and technologies which waste energy and denude forestry resources. We only need to look around us to see the disastrous effects on the degradation of forests and eco-systems, and the **poverty** that this approach has

engendered over the past 64 years. This is the story of Pakistan – short-term, crisis response rather than a coordinated longer-term vision based on sound analysis. IEP can prevent this. IEP can break the chain. On an even more serious note: we must ask ourselves to what extent has the neglect of non-commercial energy (and the consequent denudation of forests) contributed to the damage in the disastrous floods in Pakistan – to what extent is the damage caused by this Act of God attributable to the hand of man. Given SPDC's commendable involvement and influence in this area, I hope it can promote the necessary analysis to answer the question I have raised.

Some may argue that national growth eventually helps alleviate poverty through a trickle-down effect and early empirical data supports this hypothesis. Subsequent work, however, showed that growth alone is not sufficient to reduce poverty. Adequate distribution measures are equally essential – an approach now labeled *inclusive* growth.

The current working model for poverty alleviation supports economic growth with two important provisos. Adequate incentives are required to deploy the growth in productive channels and also there must be appropriate social protection measures for equitable distribution of wealth. Both these conditions, which require a longer-term vision, are not given due emphasis in Pakistan. *Immediate pressures seem to drown out any serious long-term vision, let alone putting the vision into practice. Pakistan seems to live from crisis to crisis,* again emphasizing the need to break the chain. The disparity between rich and poor continues to increase as does the incidence of poverty. The shortage of energy and insufficient regard for the poor contribute substantially to this decline. This chain must be broken.

I come to the second set of issues. I want to take three characteristics of Pakistan's energy sector together: a substantial resource potential, a large and expanding deficit (a disquieting 20 MTOE today increasing to over 120 MTOE by the year 2025); and reliance on non-commercial energy for nearly half the population.

As for the resource potential, many here would be familiar. For others, here are a few basic facts. We have exploited only 16% of our proven large hydro potential of 41,700 MW and less than 4% of our small hydro potential of 1,500 MW. We have the world's fifth largest coal deposits, arguably requiring costly environmental treatment, and yet we import coal. We have barely touched our solar and wind potential. We have a prohibitive and growing oil import bill and are now experiencing natural gas shortages. Yet, in terms of oil and gas exploration, we have a drilling density a fifth of the world average, a success rate seven times the world average, and a very large sedimentary basin – factors which strongly indicate that increased exploration will most likely result in more discoveries and, with increased transmission and distribution investments, a significant increase in production. The dwindling woodfuel resources, if managed, can be regenerated and converted into a sustainable energy resource. In my experience across

the world, it is never the availability of resources that counts but the management of resources that makes the difference between success and failure of economies. With poor management, abundance of resources is a curse rather than a blessing.

The combination of the three factors I mentioned earlier tempts policy makers to promote the harnessing of all forms of energy available. This is a common trap, particularly in a severely cash-strapped environment such as Pakistan. Energy investment is highly capital-intensive. A wrong decision therefore carries a severe penalty or opportunity cost, as economists call it. A mechanism needs to be in place to strike an affordable balance. No country is able to adhere to the optimum model but, with clear analysis, it is possible to quantify the effect of potential deviations and thereby facilitate informed decision-making. Only with an integrated approach, can this be achieved. *The degree of departure from the optimum can make the difference between success and failure of energy policy.* In Pakistan we do not have a clear picture of what the optimum mix looks like and therefore are in no position to speak about the impact of departures from the optimum.

The third set of issues: One of the most significant benefits of IEP is the ability to quantify the cost penalty of pursuing sub-optimal plans – vital for a country confronted with poverty and inequitable income distribution, where access to and affordability of energy is a critical concern among the urban and rural poor. This inevitably leads in the shorter term to subsidies and cross-subsidization. Subsidies are usually frowned at, often for good reasons, by financial rating agencies and international development institutions. In my view, subsidies are fine as long as four pre-conditions are met:

- Subsidies must be affordable. No country can give what it does not have. Sooner rather than later, such subsidies will inevitably be withdrawn with disastrous effects on those who the subsidies were meant to benefit – a sure way of aggravating poverty. If subsidies are maintained, the resultant pressure on the economy will lead to deficit financing and higher inflation, again disproportionately affecting the poor.
- 2. Subsidies must be targeted. When a subsidy for electricity is provided, for example, the main beneficiaries should be those of low income who cannot afford to pay the bills. This implies means testing. I am not sure if there has been any comprehensive testing of means in Pakistan prior to applying subsidies? If not, as I suspect is the case, all income levels cash in on the subsidy, and the larger the consumer, the bigger the subsidy. Again, the poor are shortchanged.
- 3. Subsidies must be clearly quantified and transparent, i.e., not be hidden in some obscure part of the budget's fiscal transactions.

4. The moral hazard must be minimized. If subsidized energy is provided, it gives users less incentive to avoid waste. There are instruments to mitigate this.

An integrated approach provides the tool to assess the impact of, and to manage, energy subsidies on the national economy, to enable informed choices.

Let me give you an example where countries have managed subsidies while maintaining economic growth and yet reducing poverty. At the end of the 1990s and the early part of this century, thirteen Central and Eastern European countries were working assiduously to join the European Union. Among them was Romania, a country with a rapidly shrinking economy together with considerable income inequality and, concomitantly, a high incidence of poverty. I happened to be there as the World Bank chief of mission. The leadership of the country was emphatic in defending its social agenda which, in addition to social security and pension reform, involved the widespread use of subsidies for the poor. Good analysis and judicious decision-making based on the principles I alluded to earlier not only allowed the economy to make a remarkable turnaround but also reduced poverty dramatically enabling Romania to gualify for membership of the European Union in a remarkably short period. Incidentally, as part of the accession process, Romania, with support from the World Bank, also launched an aggressive anti-corruption and public administration reform program with far-reaching success. The other twelve countries, perhaps on a less dramatic scale given their more favorable starting positions, went through similar changes facilitated by appropriate policy initiatives. While each country has its own particular problems and solutions, Pakistan could do well to draw some broad lessons from the East European experience.

The fourth set of issues, consolidated in what is called Circular Debt: This very complex and convoluted problem can be explained, in simple terms, as the cumulative effect of payment arrears in the power utilities and their suppliers and clients. Revenues are insufficient and production costs too high. Instead of focusing on the endemic issues behind high production costs, the solution sought by the authorities is a series of bailouts which, clearly, present a major moral hazard. The issues involve system management and structure (including partial and poorly managed unbundling of institutions), maintenance, operational efficiency, system losses including an inordinate level of theft, tariff collection performance, and so on. *System losses are a prohibitive 25% of net generation and consumer payment arrears are an unacceptable 30% of the amount billed.* The effect of circular debt on Independent Power Producers is nothing short of disastrous. This is another subject and deserves separate and detailed treatment.

Seen through the lens of IEP, its causes can be attributed, in large part, to the absence of this mechanism. This would explain the conspicuous lack of a long-term integrated

approach and the reliance on stop-gap bail-out measures. *The result is that, while power system capacity in Pakistan is 19,855 MW and the peak demand is 14,500 MW, the power system can meet only 70% of peak demand,* hence the acute shortages, brown-outs and black-outs. So let's dispel the myth that we are short of capacity. We are utilizing less than 50% of the installed capacity. *And no amount of financial bailouts for settling arrears will improve the situation if the endemic operational issues remain outstanding.*

How did we get here? The path is characterized by "stop-go" reforms, policy reversals, bureaucratic delays and missed opportunities and, over the last decade or so, a growing security crisis. Many would maintain that security concerns have lead to our inability to implement effective policy reform. While this may now be true, there is a chicken-andegg dilemma here. My contention is that, to a large degree, our inability to implement needed reforms has severely weakened our economy and increased the disparity of income, and has thereby contributed to the decline in security. There are many examples of missed opportunities but let me share just one which relates to Central Asia in the early to mid-90s when all six of the newly-independent republics, under immense internal economic pressures, were actively seeking avenues to export their surplus energy. Strong consideration was given to the southern corridor through Pakistan to tap the large energy-starved South Asian market as well as gain access to ports on the Arabian Sea for further extending export. This was well before the security situation in Afghanistan had begun to deteriorate. As expected, there were competitors promoting alternative routes. The Great Game was on again, being played with higher stakes and at electronic speed.

Central Asian authorities and international consortia made several attempts to pursue discussions with Pakistani authorities but progress was elusive. One thing was evident. The level of interest and effort of the competitors drowned out the lukewarm response of our government as well as the private sector. The rest is history. One can only surmise how the trade corridors, had they been established, would have transformed the regional scenario. Revenue from trade and from transporting energy across the region would have brought immense benefits to Afghanistan and Pakistan. Both countries as well as India would have also benefited from greatly enhanced energy supplies. The resulting prosperity and trade links would certainly have strengthened interdependence among the three countries and helped mitigate the conflict which currently engulfs the region. Efforts under SAARC are now being made but are mired by a hostile unstable environment, underscoring the difficulty of trying to recapture lost opportunities.

International Experience: The concept of IEP was introduced in the 1970s and successfully applied in a wide range of countries, amended to suit individual country conditions. However, in the 1990s, in the wake of a major push by international

development agencies to promote market economies in the developing world, it began to wane on the assumption that the free market will determine appropriate policy choices. *This assumption does not hold for most countries in the developing world.* It might have been ideologically motivated to counter the "Gosplan" heritage of the newly independent states of the former Soviet Union. Fast-forward to today. The World Bank has recently updated its global energy sector strategy. Feedback from countries has identified the absence of long-term energy planning and a shift in focus from pro-poor energy policies as key emerging issues – signaling the importance of reverting to coordinated long-term planning and social protection for those countries that may have discarded the model and suffered as a consequence. *Common sense seems to be prevailing over ideology to achieve a practical balance.*

Through all this, most developing countries maintained some form of integrated energy planning supported by appropriate institutional arrangements at the policy level and sound implementation. Successful examples include: Indonesia, Malaysia, Thailand, Philippines, Poland, Bulgaria, Romania, Hungary, Slovakia, Czech Republic, Cambodia, Viet Nam, Russia, Ukraine, Belarus, Turkey, Tajikistan, Kyrgyzstan, Uzbekistan, Uganda, and Kazakhstan;

Two countries which can serve as examples for Pakistan are Turkey and Kazakhstan, in terms of an integrated line ministry model and well coordinated and successfully implemented policies.

Some words on IEP in Pakistan: IEP is not unknown in Pakistan. It was introduced in the country, albeit partially and briefly, in the 1980s. The government of the time was firmly committed to establishing IEP and, as an interim step, had established a planning unit within the Directorate General of Energy Resources. There was a decision to move this to a central neutral location in the Planning Division. Relevant administrative orders were issued and budgets approved. An Energy Policy Board, with top level representation from all energy-related ministries, was instituted to provide a forum for integration with national plans and to make policy decisions. Decisions having nation-wide impact were to be referred to the National Economic Council or the Cabinet. The eventual aim was to have an independent ministry of energy.

An <u>excellent</u> start – but unraveling was inevitable since there was no follow-through on the necessary organizational changes. Instead of moving towards a simple integrated structure, there was a gradual fragmentation of policy institutions, compounding the *complexity, confusion and overlap of responsibilities*. Instead of one integrated agency at the policy level there are over 15 agencies and ministries involved, making coordination well nigh impossible. Again, this bloated structure (and staffing) of policy-level institutions is not confined to the energy sector. It pervades the whole economy. A Washington Post article estimated the number of federal level ministers and advisors in

Pakistan at 61. The US has 16 and the European Union restricts the figure to 15. Even outlier Nigeria has less than 40 and is working hard to reduce this figure.

The conclusion is simple. The elusive fundamental in Pakistan's energy sector reform is IEP and the imperative of revitalizing this is unquestionable. With it, Pakistan's policy makers can finally go beyond *what* needs to be done to *how* it is to be done – to break the chain of living from crisis. Addressing the social dimensions through pro-poor, inclusive energy policies with due emphasis on non-commercial energy has now become essential. Here is where organizations such as SPDC can play a vital role as advocates and catalysts for change. Moreover, the time to act is now, given the national and international attention on the subject and the importance energy issues are likely to receive in the forthcoming elections. Necessary skills exist in Pakistan and, with political will, *the recovery of the energy sector can be undertaken much more swiftly than pessimists would have us believe.* On that will depend the country's economic revival.

INTERACTIVE DISCUSSION/QUESTION ANSWER SERIES ³

Javed Jabbar. Thank you very much Ziad for the thought-provoking, comprehensive, decisive exposition of the subject. After you began I noticed that the relatively compact and small group here is already very rich in quality. We've got analysts, scholars, researchers, activists, businessmen ... (and) a nice age profile among the audience. Let me open the floor for responses and I hope you have provoked some stirrings of dissent as well as assent. Urdu, *Angrezi*, Gujrati, Sindhi, all languages are welcome.

Salman Qureshi: When you look at that chart, the supply pie is on top and as you correctly pointed out, the supply of biomass is not in there; therefore, the supply for poor households is not there. That is really as much a larger pie than what we are seeing which means that any projections made from there are going to be horrendously high, probably a lot higher than the present projections based on this kind of pie. With that kind of thing being factored in by the planners, how would you factor that in IEP?

Javed Jabbar: Thank you, we will take three questions and comments and then Ziad will respond. Any other comments?

Kaiser Bengali: I think on the point that you made about lack of integrated planning, what I find is a complete lack of planning of any kind. Over the last 20-30 years, our entire development process is scheme by scheme. And one scheme has no relationship to the other scheme. There is no planning. It's not just energy, it's about everything else. I would look at energy in a much broader way. I'm sure you know that the whole

³ The talk given has been reproduced on 'as it is basis'. However, minor language editing has been done.

transport policy has tremendous impact on our energy sector. Our biggest import item is POL and we import seven broad categories of POL products. One of the seven is high speed diesel (HSD) which is 55% of our total POL imports. The reason we use so much HSD is because 90% of our goods transport is by trucks. If we are to shift that to rail, our HSD imports would go down by one third and if railways are electrified it would go down by one half. There are balance-of-payment implications of the transport policy translated into energy impact and so on so forth. I think that kind of thinking simply doesn't exist at any government level.

I've had opportunity to work in Islamabad and Karachi in governments and at no stage and at no level this kind of discussion takes place. I was in Sindh government for one and a half years and I couldn't get three minutes to discuss policies. All they were interested in was whether our scheme is getting approved or not. We have constructed a port at Gwadar without a highway and rail network and the port is shut; there is a lock on it actually. The chief minister of Gilgit said in the last ECC meeting: "The Satpara Dam has been built, but there is no canal or electricity, so what's the point of a dam?" If you go scheme by scheme this is what's going to happen. There is a much wider problem that we have than just energy.

Arif Hasan: Well it's really *good* to hear about IEP and the future but how do we go about that? What do you say about the 18th Amendment? How do you think this integrated policy will take place? Who will be the stakeholder? What part of the government will take which responsibility?

Ziad Alahdad: All three of you raised very important points. Mr. Salman Quereshi speaks about the size of the pie, on both the supply side and on the demand side and the effect of factoring in non-commercial energy (mainly bio-mass), which would significantly enhance the figures, by a factor of as much as two. That is absolutely correct. You will notice that on the third pie-chart depicting demand after including noncommercial energy, I have mentioned percentages only and deliberately avoided absolute figures. There is a very good reason for this. Data on bio-mass in Pakistan is very weak while data in commercial energy is robust. When combined, it only increases the margin of error and devalues the worth of commercial energy data. Hence, rather than give absolute values, I stick to more approximate percentages - which equally effectively illustrate the broad point we are making. There is another more technical reason that analysts prefer to deal with commercial energy only. It is difficult to assess the primary energy equivalence for non-commercial fuels because they generally burn at low and varying levels of efficiency, depending on the heating device. All this is no argument to leave out non-commercial energy. IEP emphasizes this need. The analysis is not complete without all forms of energy. IEP also emphasizes the need for additional scientific research to improve the quality of non-commercial data. Thanks for bringing this point up.

Your point, Dr. Bengali, about the lack of integrated planning being a factor beyond just the energy sector, is absolutely correct. As I mentioned in my talk, the issues in the energy sector are symptomatic of the whole economy. Similar sub-optimal decisions (or no decisions at all) are being made in all sectors and for the economy as a whole. The energy sector, as I mentioned, is critical because, like the financial sector, it affects every sector of the economy. Energy can be considered as the currency of the economy. As you very rightly mention, transport policy cannot be made without analyzing energy implications, especially as it constitutes a large slice in the consumption pie-chart. IEP actually emphasizes and demands a cross-sector view. Cross-sector analysis is rapidly declining in our country or, even if it is being done, the "conduit" between such work and the policy-makers is clearly blocked. I am appalled at the precipitous decline in railways in Pakistan. Your point on the clear economic advantage of rail over road-transport, for carrying freight over long hauls is absolutely correct. The world over, ton-mile freight costs including fuel costs (and therefore environmental costs) are much lower for rail than for road transport.

Again, I agree with what you said about the wish list of schemes that get approved. This happens largely on the basis of patronage rather than on economic benefit to the nation. To some extent this happens all over the world: parochial interests clash with the overall good, but in most countries there are checks and balances which promote balanced decisions. The problem in our country is well-recognized and articulated in policy circles and the media every day but the political will to tackle it is missing.

Mr. Arif Hasan raised a point about the 18th Amendment and, by extension, I assume, Arif, you are referring to the devolution process. I am glad you raised it. In my experience with development policy, *positive policy changes in a negative policy environment have a negative effect* – not a zero effect but a *negative* effect. No one can argue about the benefits of decentralization *per se*, which include increased ownership by the beneficiaries themselves, more meaningful service delivery, and development schemes with closer client orientation. But the negative policy environment that prevails in our country is fraught with governance issues, insufficient capacity and poor administration including inadequacies in financial planning and provisioning. This has severely impeded the process. The quality of services, particularly education and health, is rapidly declining. One begins to wonder whether the timing and speed of the process were motivated politically. However, now that the steps have been taken, let us give it more time to see if those involved will benefit from a learning curve.

As for *who* should take the responsibility for IEP, by definition this would have to be at the federal level, with an effective mechanism to consult with the provinces. It would be

impractical to decentralize it due to capacity constraints and coordination difficulties. This is the pattern followed by countries that have successfully implemented IEP.

Mustafa Kamal: Thank you for giving us this information. It is very enlightening. I have a question from your previous discussion and talk and your conclusion. You mention about political will. I am a politician and as a student of politics, to me this word called 'political will', I don't see there's any meaning in today's world. In today's phenomenon, I don't think there's any political will and you can't describe that will. I would rather change, seek an opportunity and weigh our ways to convert this political will to a political obligation or political compulsion. It's about how politically compelled a decision-maker or decision-making party becomes.

What you are suggesting today is that we've got the potential resources and the best people available here. All we need is right direction. But the policy-makers know this, they are highly qualified people. But if it comes to political will, I don't think this political will can be relied upon. Political compulsion might solve the problem. So, how do we convert this into political compulsion? And if you allow me to speak on devolution, to me it is half- hearted devolution. Now instead of one monster we have created 4 more monsters. This is a mockery of the word called devolution.

Devolution is done at the grass root level. If you don't take things to the doorstep that is not called devolution. We transferred things from Islamabad to Karachi, Peshawar, Lahore and Quetta with a trickledown effect on that. I believe that accountability doesn't exist because a top level man can attack the lower level man and the lower level man doesn't have power. Due to political compulsion he won't resort to corrupt behavior as compared to a person who knows that there is no one to catch him and his accountability doesn't exist. So I don't think this is devolution.

Majyd Aziz Balagamwala: Thanks for the enlightening presentation. We have solid people to solve the technical problems that our country has. However, what is the actual problem? Is it a governance, political will or political compulsion problem, or is it because people are ignorant about everything? In the eighties and nineties, people cared about institutions and their functions, however, now people are completely alienated from the present system.

Mohammad Siddique Sheikh: There are four main players in the energy sector: the technical people who devise solutions; the policy makers who formulate solutions into policies; the government which approves policies and provides resources; and the stakeholders from major industries. The problem that Pakistan faces is that the wrong people are making decisions about things they are not experts in. For example, in the case of coal, we assumed that Thar Coal is the solution to all of Pakistan's problems,

ready to be taken advantage of immediately. But the actual situation is that no one is on the same page. It will take about six to seven years to obtain Thar Coal.

In *addition*, we continue to import furnace oil, HSD oil, etc. However, no work is done on wind energy because there is some Energy Board that did not take the right decisions. Our infrastructure system is also lacking. The problem is that the government doesn't listen to the business sector or the technical sector.

Ziad Alahdad: I can relate to what you are saying; it's all the factors that you mention and more that need to be integrated. Let me go one by one. Mr. Kamal, you rightly place the emphasis on political obligation instead of political will. By definition, this requires a system of checks and balances for which a robust policy framework and regulatory mechanisms need to be designed and put in place. In the end, even with the best systems in place, individuals will need to make the decisions. Therefore, even the best systems cannot compensate entirely for individual incompetence or lack of integrity. This brings me to the question, also raised by Mr. Balagamwala and Mr. Sheikh, on whether those involved in analysis and decision-making are incompetent or lack integrity.

We did not invent corruption in Pakistan nor are we going to eradicate it. What we can do is to reduce it and minimize its effect on our economy. And this can be done and has been done in many countries. Again, I am reminded of my experience in one of the Eastern European countries where I participated in discussions between the IMF and the officials of the country. Both parties were trying to close the budget deficit and a gap of a guarter of a percent of GDP remained between what was already negotiated and the target. There was little room for maneuver and even essential expenditures such as salaries of teachers and doctors and additional potentially crippling taxation were under discussion. At that juncture, I asked how much impact corruption had on the GDP. While no precise answer was given, there was general agreement that it was significant and if reduced by even a small percentage, could more than wipe out the whole budget deficit. So we carried out scientific surveys to identify the main areas of corruption and it came as no surprise that the agencies like customs and tax authorities were in the list. To address this, in addition to robust checks and balances, we proposed computerbased systems which could eliminate or considerably reduce the interface between officials and the public. The relatively small impact that these measures made in relation to the overall level of corruption, was sufficient to eliminate the deficit. The potential in Pakistan for such measures is much larger, given the level of corruption and the size of the informal economy. And my question is: why are the steps taken for Eastern Europe and many other parts of the world not replicated in Pakistan?

Then there was a comment on devolution which not only questioned the capability of those involved but also the motives. Once again, this points to the futility of introducing

policies with insufficient preparation and in an environment where poor governance and corruption can undermine the best efforts.

The situation surrounding Thar Coal is most interesting. The Thar deposit containing some 175 billion tons is the fifth largest in the world. Of this amount, a billion tons have already been proven. However, assay figures released indicate high levels of sulfur, ash and water, requiring costly treatment to reduce pollution. In the end there is no such thing as clean coal; purification techniques bring down but do not eliminate pollution. The difficult decision needs to be made on how much pollution we should tolerate. Let me offer an approach which could facilitate decisions on Thar coal development and treatment. There was a recent World Bank report on atmospheric pollution in Pakistan. I was shocked to see how pollution levels have skyrocketed in recent years, particularly in the vicinity of cities. As much as 80% is attributed to transport pollution. What was most shocking was that this was largely due to a decline in pollution monitoring capabilities in the country and a disregard for standards which already exist. In other words, the standards were in place but were no longer enforced due to declining capacity and, again, because of governance issues, a euphemism for corruption. The solution, i.e., bringing down pollution does not necessarily require heavy capital expenditure. I suggest that work be done to set an overall air pollution target for the country; reduce the pollution from the transport sector with low-cost measures such as enforcement of standards; and study what levels of pollution can be tolerated from Thar coal-fired power plants to remain within the overall target. Such an approach would at least break the impasse we find ourselves in. We need to harness this vast coal resource which sadly remains unutilized while the country is starved for energy.

Manzoor Hussain Memon: I want to understand how IEP will address the problem of the supply side, with oil prices over a \$100 and one third of our import bill being POL. This will be increased by 300 percent to \$38 billion. I also see that there is alternative energy in this election campaign which is very important. This is not only our issue, it is a world issue. They are also looking for alternative resources. So how will IEP address the slicing of the pie issue from the supply side since it also has social damages?

Muhammad Siddique Sheikh: We had very good institutions in the fifties because of which it was predicted that Pakistan will be very successful in the sixties, which we were unable to do. I think that the reason for the problem we have is that we can't handle institutions. Another reason is the inconsistent continuity. I think that we should have national priorities. Some big brains should agree on 10-12 priorities. In the whole world, no matter what government takes office, they don't change their priorities. We need to ensure that we also have these priorities and we build institutions which are required for priority implementation.

Omair Saeed: As researchers and policy analysts, how can we contribute towards building pressure on the government and policy makers? Which countries, in your experience, have been subjected to pressure which made them take necessary steps?

Ziad Alahdad: These are all very powerful comments, with which I largely agree. Let me focus on the questions raised. Mr. Memon raised the question of rising oil import costs and prospects for developing alternate sources. As mentioned in my talk, our strategy to address rising oil import costs should include promotion of oil and gas exploration, for which there are good prospects. The most convenient and abundantly available renewable energy in the country is in the form of small and large hydro. Large hydro projects in Pakistan have been unnecessarily politicized and also have a long gestation period before they come on stream. Then there is solar and wind energy. The enthusiasm for developing wind and solar resources has to be tempered with a degree of reality. Pakistan is looking to close very large energy deficits. Wind and solar energy, while it can economically supply power to areas remote from the grid, cannot be relied upon as yet to supply energy in very large quantities. Then there is the cost implication. Energy experts often allude to these renewable resources as "free but not cheap". At present, power generation, without subsidies, through solar energy is roughly 30% more expensive than conventional resources and wind roughly 70% more expensive.

This does not mean we ignore solar and wind energy. As I said, there is an immediate market in remote areas where it is too expensive to connect to the existing power grid. And there is scope for research and development as well as design of appropriate technology. Substantial R&D is underway in the world, especially in China and Germany. China is spending a hundred times more than the United States on R&D. The result is that cost per kilowatt-hour generated is going down rapidly. At the same time, the cost for power generation from conventional sources (fossil fuels) oil, gas and coal, is gradually going up. My suggestion for Pakistan is to wait for the cross-over and when that occurs, be ready for massive investment in wind and solar power. Advanced IEP techniques are able to project technology changes and could be a useful tool in making decisions on when to invest in different sources of energy.

Mr. Sheikh, you talked about institutions. It is true that, in the fifties and sixties, Pakistan was blessed with robust institutions and since then, tragically, there has been a gradual decline in many of them. In fact, because of its institutional strength in the fifties and sixties, many predicted that Pakistan was on the fast track to becoming a developed nation, and would achieve this even before the emerging economies of the Far East. Of course, this did not happen. Every successive government blamed its predecessor and began to undo what had been done before, and this contributed to the decline in institutions. I am reminded of the inauguration speech of a Japanese Prime Minister who stated his policy will be to build on the legacy of the good work of his predecessor. I

am waiting for such a Prime Minister for our country. It takes a long time to build institutions but a much shorter period to destroy them. In the end, institutions are made up of individuals. Many of our governments have followed policies which encouraged experts and skilled workers to go abroad to reap the short-term benefits of remittances rather than take a longer-term view to retain expertise to strengthen our institutions. As I said in my talk, capacity building occurs at three levels, the individual, the institution and the policy environment in which the institution functions. Our policy environment and the brain drain has taken its toll on our institutions. That said, it is not too late for Pakistan to turn around. There are still many sound institutions in Pakistan manned by competent staff. What seems to be missing is an appropriate policy environment.

On Mr. Saeed's question of how can we influence government policy. Let's start here. Every drop counts – and this is a very influential group. The institution that has brought us together today is a remarkable institution and there are many more like it I am sure. That should be enough to start with. The world is replete with examples where countries have succeeded. If we look at examples from the Far East, from Central and Eastern Europe, from Latin America and others, a turnaround in economic performance can be very rapid once there is determination and concerted effort from all stakeholders. Turkey has made a remarkable turnaround and is a good example for us to follow.

Omair Saeed: Could you suggest a strategy to make it more effective or give examples of countries that have been successful?

Ziad Alahdad: As far as examples are concerned, I have already identified some. On strategy, one eminently successful approach I have seen up close is to first identify a national objective which all stakeholders firmly believe in and then to support this objective as a centerpiece of development policy. Romania is a concrete example where European accession was the national objective with overwhelming support from the entire population as well as from outside the country. The international community led by the World Bank provided strong support and within months, the process of accession was formally launched by the European Union. That was the turning point. The precipitous contraction of the economy at over 5% of GDP per year for several years was reversed dramatically and within two years the economy was growing at over 5% and poverty was declining rapidly. So the strategy hinges on finding and incentivizing a common objective which everyone passionately believes in.

Kaiser Bengali: I want to disagree with what has been said about the 18th Amendment and devolution. There is no way anyone can say that the 18th Amendment did not result in devolution. The first step was taken from the center to the provinces. It was very significant and it has changed the character of the state and the structure of the state. Next stage would be further devolution. Just because that has not taken place, doesn't

mean the first stage should be run down. It took 65 years to go through the first stage and we cannot expect the next stage to happen in 65 weeks.

There are benefits of course and there is the learning curve. Provinces never handled *something* for 65 years and suddenly this took place. It takes time to get used to it. Taxation is an area where the provinces made no effort and all the money came from the center but then taxation powers were devolved. Sindh set up an authority to collect taxes; it set a target and it exceeded the target in the first year. FBR has 25,000 employees while the Sindh Revenue Board has 54 employees. On one particular tax collection, Sindh Revenue Board collected 60 percent more than what FBR was collecting. So devolution is kicking in and it is successful. There are other areas too.

One last *point* I want to make is that for 60 years plus, what are known as the nationalist parties in Sindh ran their politics on anti-Punjab, anti-Islamabad and anti-army slogans. They have lost their place now. In fact many of these nationalist parties are merging with PML-N or aligning with PML-N, the Punjab based party. So the 18th Amendment and the NFC award have actually served to strengthen the federation. I think these are very positive moves.

On the *question* of why they aren't doing things right, even though things are being pointed out, I will put half the responsibility on donors, and the World Bank in particular. Till about 20 years ago, the foreign assistance program was project assistance. Now it is entirely program loans which provide budgetary support. Project loans mean we create an asset, there is additional income, and then we repay the loan. With program loans, there is no way to repay them.

The World Bank, DFID and others are giving money to BISP. The World Bank just gave \$300 million for the education sector loan to Sindh. This would be a disaster because there is no way this money can be paid back. If you look at the budget document, on one page it says receipts and expenditure, and one line is for external financing which is budgetary support. When your deficit is covered so easily, why is there no deficit to do things better? A message has to be sent to international financial institutions to stop budgetary support and only give money for project financing. We built Mangala Dam, Tarbela Dam, Steel Mills, Indus Highway and scores of other projects in the fifties, sixties and seventies with financial assistance from international agencies including the World Bank and they changed the economic geography of this country. The last 20 to 25 years, however, have been disastrous.

Ziad Alahdad: I am glad you are pointing out some of the good aspects of devolution. No one can fault the measure itself. Devolution is essential. It is a question of *how* it is carried out, the policies that govern it and the capability of those who manage it. I did say that, now that devolution has started, we have to give it a chance. There will be a learning curve. Like you, I sincerely hope it will succeed – for the sake of the country, its provinces and its people. The changing dynamics of Sindh's nationalist parties, which you described, is a positive development and augurs well for the future.

And *then* you come to the effectiveness of donor assistance, especially the World Bank. I am in agreement with you that the quality of the assistance provided to Pakistan has been questionable over long periods of time, although I feel it is beginning to improve. There is a trend towards increased project lending, which you clearly favor. The conditions under which funds are allocated to individual loans, program loans or project loans, are negotiated between the two parties concerned. So our own negotiators are also responsible for the quality of the programs in Pakistan. From what you said, and I agree with you to some extent, we do not seem to be able to negotiate effectively. Every deal should have two winners. Perhaps our misguided eagerness to take whatever funds are available, results in capitulating to conditions which prove harmful to us. If the conditions are unsuitable, we should not accept the funds. Funds for poorly designed programs are often worse than no funds at all. It is like throwing good money after bad.

On your point about the composition of the World Bank's portfolio in Pakistan which has tended to favor program lending rather than project lending over the last two decades or so: this is how I would approach it. Both types of lending have their merits. Program lending (or adjustment lending as it was earlier referred to) seeks to reform specific sectors (or the overall economy) through a change in the policy environment. The objective is to enable project interventions in those sectors to succeed, irrespective of who finances them. So both forms of lending go hand in hand. Program lending is generally favored when the sector policy environment is deteriorating, which has been the case in Pakistan. To that extent, one can explain the emphasis on program lending. However, what I would question is that, despite this emphasis, our sector policies have not improved, e.g., our social indicators continue to decline, and the overall economy continues to perform much below its potential. Something is going wrong here. Either the program lending suffers from inherent faults (including in the choice of agreed conditionality) or it is the inability of our policy-makers to follow-through with the agreed reform measures. In other words, implementation is poor. These facts need to be borne in mind in negotiating, not only individual project and program loans, but also the composition of the overall program for Pakistan.

Kaiser Bengali: I was head of BISP, World Bank was pestering me to take technical assistance and I said no. And they had me removed. And they gave the loan to BISP. Anyway, how do you evaluate this urbanization that's taking place? Do you take it as an opportunity or a threat, in the case of Pakistan, when our cities are dramatically changing and being heavily populated by the rural population? The World Bank reports that 50 percent of the world's population is rural which has now migrated towards the

cities of the world. Now 20 years down the line, 70-74 percent of the world population will be living in the cities and Pakistan is not an exception. Same is the case with urban planning as well. There is no urban national policy in this country and everything comes under that: population, transportation, power, health, social sector, education and infrastructure. All we can do is prepare ourselves for those upcoming challenges. Whatever we are facing today is due to lack of planning. From the government's point of view, we never anticipated for the migrants' accommodation, jobs, or infrastructure. So how do you handle the urbanization that is taking place?

Mustafa Kamal: I think much of what I was going to try to say was in a different way than Kaiser has said. There are lots of policies and policy documents. At a policy level, you can sit together in a room and draft a policy and a good one at that. The issue is how do you implement that policy? Institutions would function because there was a well defined relationship between the politicians, bureaucracy and the structure of governance. That relationship of course changes over time; you adapt to it. We did not change. These relationships are now all undefined and there is a need to redefine them in very clear and concrete terms. And there can be no real redefinition unless we accept that this country has changed.

Local *government* involves integrating many groups: It is transporters, it is *mandi* operators, and a whole list of people who are linked with the energy sector. Now how can these groups be incorporated into political decision making? That depends on restructuring these relationships which have become undefined. Secondly, research will have to deal with the problems of people at the micro level which it does not do. It comes up with generalizations and grand scheme of proposals with grand development scenarios. It will not work except in very affluent societies. My own thinking has been that unless we can go into a massive public sector reform process, preferably at a provincial level, we are not going to be able to deliver policy, irrespective of what you plan. How that reform process should be managed and determined is extremely important.

Khawar Jamal: Dr. Ghaus spoke about poverty alleviation in the opening statement. I will stick to that and talk about how the power sector can filter into it. I have been involved with the power sector in Pakistan since 2000. I want to bring few points formally. Sundar Coal is 20 meters from the top, it is right there and we can use it. Number two: food for fuel. That is the debate. Pakistan is exporting food right now. We are one of the most prominent exporters of meat, corn and sugar. Our sugar is cheaper in India than Indian sugar right now. We are exporting energy. We are exporting 325 metric tonnes of ethanol and we are jumping onto 425 next year and in five years they are estimating 1 million tonnes, which is a substantial leap forward. Alternate energy you said is only five percent to the mix so it's not the answer to our problems. Ethanol is

not what we need in Pakistan. We need butanol, the fuel of choice pre-second world war. Standard oil destroyed all the refineries in North America just for mineral oil to come out, so butanol is there.

One *more* thing, you spoke about data on biomass. In 1998, oil importing companies came up with a solution that by 2005, they will need 0.5% sulphur-containing HSD. They said that it would cost \$400 million for the industry in Pakistan to convert into less sulphur-producing HSD. So the option that was given to the government at that time was that we will import HSD instead of revamping our facilities. We cannot spend that kind of money; it's going to be ten times more now.

Muhammad Siddique Sheikh: About Thar Coal. RWE Company is making 38,000 MGW from this type of coal in Germany and their coal is two percent inferior to our coal. So this can very well be used, there is nothing against it technically.

Asghar Soomro: As far as devolution is concerned, I fully agree with Dr. Kaiser and I think it should have been done long before. My question is that the building of capacity of Pakistan to make decisions and, on the other hand, you mentioned that continuation of policies is very important. In building capacity, this means that either Pakistan is making the wrong decisions or someone else is making the decisions, so if we would have continued with that we would have ended up with disaster. How do you explain that?

Ziad Alahdad: These are all very powerful statements, both positive and negative. There is no doubt, Mr. Bengali, that internal migration to our cities poses a great challenge to the urban sector. The fact that we have not been able to cope, whether in planning or implementation, is patently visible in most of our cities. We have experts here who know more about the solutions and the social factors affecting them, than I do. I defer here to Mr. Arif Hasan to enlighten us either now or, individually, at the reception that follows.

Mr. Mustafa Kamal's comments are most enlightening and he so ably describes the complexity of the factors determining the efficacy of policy planning and implementation in Pakistan. I fully endorse his view that major public administration reform is essential in Pakistan. Implementation has always been an Achilles heel for our country. We all know of the fact that, in the sixties, the Koreans learned from our outstanding planning processes. The only difference was that they actually implemented their plans effectively. Look where they are today. Recently, a senior colleague of mine, while visiting Korea, asked one of the country's top policy-makers how the country managed to transform itself so dramatically. He responded that the more enigmatic question was how Pakistan managed *not* to succeed in a similar way. So, clearly, the conduit between policy making and policy implementation is blocked in our country; we need to remove the blockage heal that blockage through massive administrative reform both at

central and provincial levels. The World Bank has successfully spearheaded comprehensive administrative reform assistance all over the developing world and it is high time such a program was implemented in Pakistan.

Since we are running out of time, let me quickly respond to the remaining questions. We can carry on individual discussions at the reception. Mr. Jamal, you offered a number of interesting suggestions which are worth investigating and your point on the need to change policies to cope with rising fuel import costs, is well taken. A word of caution on ethanol blending: it seems that, with the current technology, the energy it takes to produce the ethanol exceeds the savings generated by its use. However, the technology is improving and we hope the situation will change. On the whole question of coal, whether it is Sunder coal, Thar coal, or Lakhra coal, as I mentioned earlier, I am surprised this resource remains largely unexploited while we continue to import coal. Mr. Sheikh, you even questioned the quality of Thar coal and, as I understand it, you say that: (i) some assay results are better than those publicized; and (ii) that some coal-fired plants in Germany use lower-quality coal. These are important points and need to be investigated. IEP is a tool which will bring out such facts. We should also keep in mind that our neighbor, India, uses coal to generate the bulk of its massive power requirements, and it will be interesting to see what quality standard are applied there.

This has been an excellent discussion from an enlightened and articulate audience. So many pertinent points have been raised by you and, to give them full justice, each of these requires a separate conference. Thank you very much, indeed.

SPDC's PERSPECTIVE

Mr. Ziad Alahdad spoke on the very important issue of 'Integrated Energy Policy Formulation' with an emphasis on social dimensions providing insight on the energy crisis in Pakistan and its repercussions.

Over the last two and half decades, there has been a gradual shift in Pakistan's economy from agrarian to industrial and service oriented. This shift has increased reliance on energy and import of energy and energy-based products by more than 10 times in value terms. Fundamental and small industrial operation tasks, if not performed timely, result in economic inefficiency and higher costs. Further, the inflationary impact of these energy and energy-based products has increased unprecedentedly. The energy crisis has had a complex impact on Pakistan's social, political and economic environment but its impact on social issues stands out.

Firstly, the nature, quality and functioning of schools are affected by the non-availability of electricity. Power outages, of four to six hours or more in urban areas and 14 to 18

hours in rural areas, create difficulties for students especially during their exams. Needless to say, this will have a negative impact on the future of the youth.

Secondly, the energy crisis has added to the burden on society especially women and children. For example, stay-at-home women are unable to perform their household duties during power outages. They lose time they could otherwise use efficiently for education purposes, distance learning tools, recreation and other such activities. As mentioned earlier, according to a World Bank study, families living in non-electrified homes in South Africa spend more than one hour collecting firewood. Thus, the majority of the burden falls on the women in these families as they are assigned this task. This example illustrates how the lack of electricity has a negative impact especially on women.

Thirdly, it is believed that the fallout from the energy crisis has caused mental health problems for both women and men. The everyday life of citizens is disrupted by power outages and gas shortages – the long queues at gas stations is a stark example of this. It is no surprise then that this has led to anger and frustration among citizens thereby negatively affecting their mental health along with efficiency and time allocation.

Also overcoming the energy crisis will improve conditions at hospitals and clinics with benefits such as proper refrigeration of life saving drugs; comfortable conditions for patients; and fewer delays in surgeries.

As mentioned earlier, the energy crisis has far-reaching effects and it is extremely important to understand the correlation between the availability of electricity and the level of human and social development. This crisis is causing human suffering besides impeding development and growth in the country. Undoubtedly, an improved electricity provision system will help reduce the domestic burden on the government along with unemployment and poverty. It is time to depoliticize the issue and address it on a war footing.

ABOUT SPDC

SPDC is a research think tank, established in 1995, primarily financed by the International Development Research Centre (IDRC), Canada. The organization has a high profile board of members including Dr. Moeen A. Qureshi (patron), Mr. Sartaj Aziz (chairman), Mr. Javed Jabbar, Dr. Manzoor Ahmed, Mr. Rafiq Akhund and Dr. Zeba Sathar.

SPDC has been working on poverty, governance, public finance and other macroeconomic issues. Five years ago, it also started its Gender Research Programme (GRP) financed by the Royal Norwegian Embassy in Pakistan. Moreover, work on an

important study, 'Gender and Social Vulnerability to Climate Change: A Study on Disaster Prone Areas of Sindh', is currently underway. Notably, SPDC has tried to expand its research areas without moving away from its core research.

SPDC is also planning to hold a discussion on the implementation issues of the 18th Amendment. This is in connection with its latest annual review, 'Devolution and Social Issues', launched in October 2012. The objective is to promote serious discourse on the issues that were highlighted in the report.

Furthermore, in order to gain international exposure, SPDC has joined a consortium of countries including Nigeria, Bangladesh, India and African countries like Burkina Faso and so on. It will be working on bringing out solid research for respective governments on building the Southern voice on post-MDG reforms.

LIST OF PARTICIPANTS

S.N	Name and Address	S.N	Name and Address
1	Mine and Address Mr. Ziad Alahdad Distinguished Visiting Specialist Former Director of Operations (World Bank) and the World Bank Institute Washington D.C. Cell: 0306-5360340 (for Pakistan only) Email: malahdad@gmail.com	7	Mame and Address Mr. Muhammad Siddique Sheikh Chairman Standing Committee on R & D Advisor on Social Sector, The Federation of Pakistan, Chamber of Commerce & Industry Karachi Tel: 021-3587-3691 Cell: 0321-8290707
2	Mr. Javed Jabbar BOD-SPDC	8	Mr. Abbas Bilgrami Managing Director Progress Energy Progress Energy (Pvt). Limited Karachi Tel: 021- 35432363/35294965
3	Mr. Khursheed Alam Ansari Director Marketing Sindh Coal Authority Government of Sindh F-158/A-1, Block No.5, Clifton, Karachi Tel: 021-99251060/35874708	9	Mr. Arif Qasim Director MAQ International 59-A, Sindhi Muslim Society Karachi Tel: 021-3453-5671-4
4	Mr. Syed Mustafa Kamal Former City Nazim Karachi Senator-MQM Karachi. Cell #: 0301- 8222590 Email: syedkamal@hotmail.com	10	Mr. Arif Hasan Chairman Urban Resource Centre (URC) A-2, 2nd Floor, West Land Trade Centre,Commercial Central Area, Karachi Administration Cooperative Housing Union, Block-7&8, Shaheed- e-Millat Road, Karachi Tel/Fax: 91 21 4522361 Email: arifhasan@cyber.net.pk
5	Mr. Majyd Aziz Balagamwala Former Chairman SITE Association of Industry Karachi Tel: 021-3257-5371/74 Cell: 0300-826-1969	11	Dr. Kaiser Bengali Economist PILLER-Karachi Cell: 0300-820-3043 Email: <u>kbengali@yahoo.com</u>
6	Mr. Khawar Jamal Director Sea Trade Group, Corporate Head Office 71, Al-Badar, Kokan Muslim Housing Society,Hyder Ali Road, Karachi. Tel: 021-34931362 Cell: 0331-2322-473	12	Mr. Amar Z. Khan Finance Consultant Cell: 0300-888-9843 Email: <u>khanamar9@gmail.com</u>

Integrated Energy Policy Formulation with Emphasis on Social Dimensions

S.N	Name and Address	S.N	Name and Address
13	Mr. Salman Qureshi Director ICIL Pakistan Karachi Cell: 0300-8221274	14	Dr. Tahir Abbas Naqvi MS-IT & Telcome, MBA-HRM, LLB Weekly The Times News Karachi F-133/3, Martin Road Karachi-5 Tel: 021- 3492-8808 Cell: 0300-2479236 Email: <u>stan.raza@gmail.com</u>
15	Ms. Sumaira Jajja Reporter Daily DAWN News Cell: 0300-2351062 Email: <u>sumaira.jajja@gmail.com</u>		
SPD	C Team		
16	Prof. Dr. Khalida Ghaus	17	Mr. Asif lqbal
18	Mr. Muhammad Sabir	19	Ms. Iffat Ara
20	Mr. Nadeem Ahmed	21	Mr. Manzoor Ahmed Memon
22	Ms. Tabinda Areeb	23	Mr. Asghar Soomro
24	Ms. Naeema Kazmi	25	Mr. Omair Saeed
26	Ms. Aasiya Kazi	27	Mr. Rizwanullah Khan