2013
ISSUE2 No.7
The News Magazine of Economic Cooperation Organization

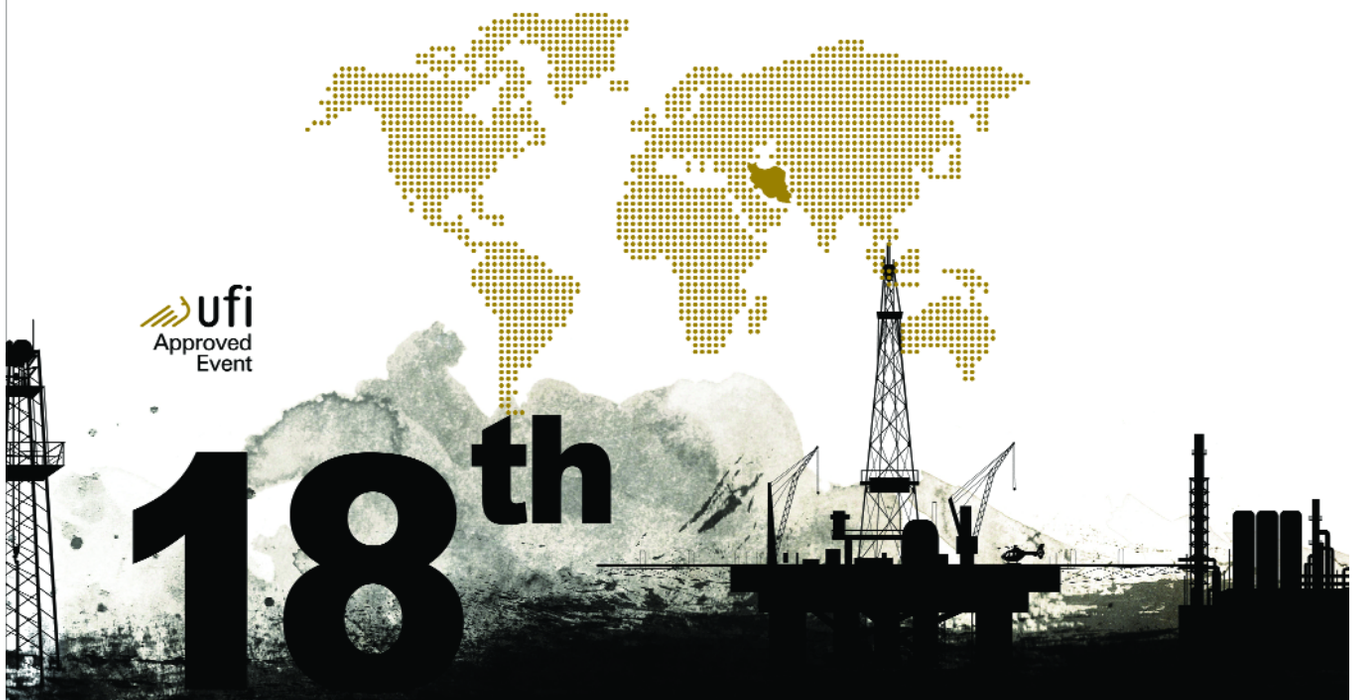
ECO CHRONICLE

Iran Hosts
3rd ECO Ministerial Meeting on Energy/Petroleum
"Sustainable Energy for All"

شرکت سهامی نمایشگاههای بین المللی
جمهوری اسلامی ایران
Iran International Exhibitions Co.

وزارت نفت
Ministry of Petroleum

سازمان توسعه تجارت ایران
Trade Promotion Organization of Iran



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18th

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OIL, GAS, REFINING
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Promoting Sustainable Economic Development & Integration of ECO Region

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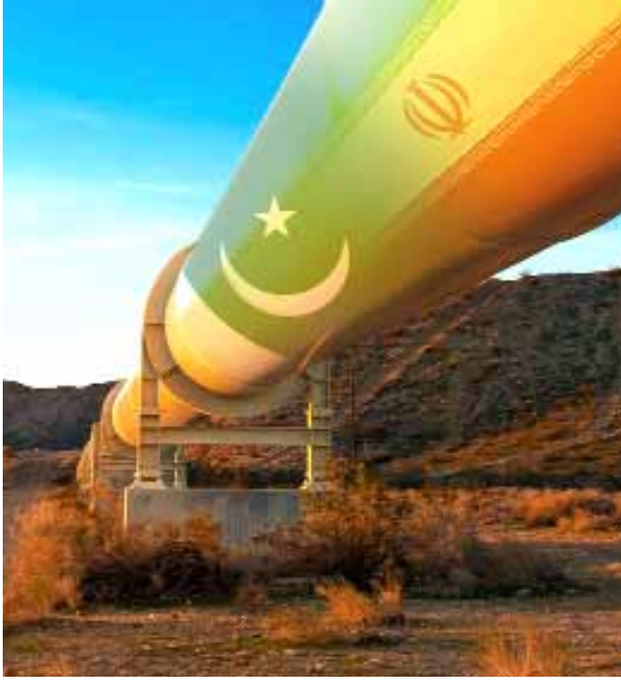

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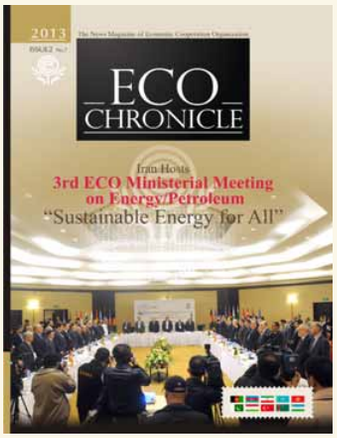
Editor's Note:

ECO Chronicle is a non-profit making news magazine. The views expressed and data contained in this publication are provided by writers/ authors from ECO member countries or from outside the ECO region, and are not necessarily those held or agreed by the ECO Secretariat or ECO Chronicle Editorial Board.

Cover



Iran Hosts
3rd ECO Ministerial
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Published by
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Editorial

Norouz, the Int'l Holiday of Peace!

Every cherished folk tradition carries the deep meaning of life along with inexhaustible supply of kindness and humanity. The spring transition from cold to heat, the full renewal of nature has, since ancient times, had the deep symbolic meaning and ritual context for people.

The origins of Norouz, which falls on the spring equinox, date back to ancient times. Since then, the importance that people attached to this period of the year gave birth to many customs and rituals associated with magic acts, the cult of nature and fertility as well as beliefs in the dying and resurrecting nature.

It is no accident that Norouz is rightly considered one of the most ancient and revered holidays in the world. As time passed by, common traditions have undergone some changes, depending on the location and living conditions. However, Norouz has remained one of the most popular holidays in many countries, for many people, especially in the ECO region.

It is worth remembering that three years ago, the United Nations declared Nowruz, "the spring festival of Persian origin" as an international holiday. Last year, UN Secretary-General Ban Ki-moon, sent a message on the occasion of the International Day of Norouz noting that "Norouz celebrates the value of mutual respect and the aspiration for harmony held by all societies. It is a moment for cleansing and rebirth, an opportunity to renew wishes of peace and goodwill. Each Norouz showcases the world's diversity and offers an opportunity for deepening the ties that bind us all together", the UN Secretary General stressed.

"At a time of global change and uncertainty, including in many regions where Norouz is celebrated, the message of peace that lies at the core of this observance is especially important. My thoughts are with those communities observing Norouz under difficult circumstances. This holiday is a reminder that we share a common fate and must work for a better future for all. Let us join forces to celebrate the rebirth of life and express our commitment to building a safer, more peaceful and just global community. This is the promise of Nowruz - and our task together throughout the year. "

1st Conference of ECO Parliamentary Assembly Convenes

—ECO— CHRONICLE

The Inaugural Ceremony and the 1st Conference of the Parliamentary Assembly of the ECO Countries (PAECO) were held in Islamabad, Pakistan on February 11-12, 2013. The event was attended by the parliamentary delegations from six Member States including Afghanistan, Azerbaijan, Iran, Pakistan (host country), Tajikistan and Turkey.

The delegations from Azerbaijan, Iran, Pakistan, Tajikistan and Turkey were represented by their respective speakers of parliament, whereas Afghanistan's delegation was led by the Second Deputy Speaker of the Wolesi Jirga (House of People), National Assembly of Afghanistan.

The parliaments of the Republic of Kazakhstan, Kyrgyz Republic and the Republic of Uzbekistan were officially represented by their respective embassies in the Conference. The Secretariat of the Economic Cooperation Organization (ECO) was represented by the Secretary General of the Organization, Dr. Shamil Aleskerov.During the inaugural ceremony, held on February 11, 2013, the leaders of the delegations signed the agreed Charter of the Parliamentary Assembly of the ECO Countries (PAECO), thus marking the establishment of the Parliamentary Assembly of the ECO Countries.

The Parliamentary Assembly will support the Member States in enhancing the socio-economic development of the region. It will also serve as a forum for consultations and exchange of ideas among the parliaments of the Member States and will enable them to work closely for the actualization of their common goals of sustainable socio-economic development. In his statement delivered at the occasion, the ECO Secretary General observed that the establishment of the Parliamentary Assembly of ECO Countries marked an important milestone in ECO's journey towards greater regional integration. He pointed out that the formation of the parliamentary forum is a manifestation of the Member States' commitment to advance the existing mutual cooperation to a higher level for the realization of the common objectives of socio-economic development. Further during the event, the delegations expressed their views regarding the role of parliamentary oversight in promoting intra-regional trade and investments for sustainable socio-economic development in the ECO region. The delegations expressed confidence that the Assembly will play a vital role in assisting the Member States in realizing their objectives of regional economic development.

Earlier, during the two days, the 1st Meeting of the Executive Council of PAECO and the Women Parliamentarians' Meeting were also held within the framework of the Conference.

The next PAECO Conference will be held in Afghanistan in March-April of next year. The exact dates of the Conference will be conveyed after consultation with the PAECO Parliaments. ■

4th ECOSA Int'l Seed Trade Conference & 4th General Assembly Meeting

ECO CHRONICLE

Organized by the ECO Seed Association and TURKTOB in collaboration with the ECO Secretariat, the 4th ECO Seed Association (ECOSA) International Seed Trade Conference (ECOSA-2013) and the 4th General Assembly Meeting of ECOSA were held in Istanbul on January 11-13, 2013 in which more than 200 private

and public sectors representatives and seed sector specialists from Afghanistan, Azerbaijan, Iran, Kazakhstan, the Kyrgyz Republic, Pakistan, Tajikistan, Turkey and Uzbekistan participated. The representatives of the ECO Secretariat, FAO, Seed Union of the Republic of Turkey (TURKTOB) and International Seed Federation (ISF) also attended the Meeting.

After the welcoming statement by Mete Komeagac, ECOSA President, the Conference was inaugurated by Vedat Mirmahmutogullari, Deputy Undersecretary of the Ministry of Food, Agriculture and Livestock of the Republic of Turkey. Representatives of ECO, FAO-SEC and ICARDA also made their statements.

In his inaugural statement, Vedat Mirmahmutogullari, while thanking Member States for joining ECOSA, which currently consists of 70 private companies and national seed associations in ECO Region, noted that cooperation among regional countries, seed unions and seed companies is essential for the success of ECOSA.

He also thanked the international institutions, namely IDB, FAO, TURKTOB, ISF and ICARDA for their support in the realization of the conference.ECO Representative, in his statement, gave brief information on seed cooperation in the ECO region and called on Member States for their support for further membership to ECOSA. Private Seed Companies from the ECO Member States also held bilateral buyers-sellers meetings for extension of seed trade in the region on the sidelines of the above event.The 5th ECOSA Seed Trade Conference and the 5th General Assembly Meeting of ECOSA will be organized in 2013-14 in Turkey or in Kyrgyzstan on the sidelines of the International Business Forum on Seed in Central Asia to be held in Bishkek in September, 2013. ■

1st ECO Coordination Committee Meeting on Health Tourism

ECO CHRONICLE

The 1st ECO Coordination Committee Meeting on Health Tourism was held on December 18, 2012 in Mashhad, Iran, on the sidelines of the 3rd Conference on Health Tourism in Islamic Countries. The Meeting

was co-organized by the ECO Chamber of Commerce and Industry in collaboration with Razavi Hospital and the ECO Secretariat and was attended by the delegates from Afghanistan, Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Uzbekistan and the ECO Secretariat.President of the ECO Chamber of Commerce and Industry, Mohammad Nahavanvian, inaugurated the meeting. In his opening remarks, he underlined the importance of promotion of Health Tourism in ECO Member States.

The meeting deliberated on the agenda items and came up with recommendations:

- Developing regional arrangements for health /medical tourism cooperation was strongly supported and requested for active participation of all Member States in health tourism events/activities in the ECO region especially in the workshop in March 2013 in Turkey.
- The Committee agreed to have regular ECO coordination meetings alongside the next Conferences on Health Tourism in Islamic Countries. ■

UNDP Rep.

Calls on ECO SG

ECO CHRONICLE Balasubramaniam Murali, the Representative of UNDP in Tehran called on the ECO Secretary General Dr. Shamil Aleskerov, at the ECO Secretariat on Sunday, 13 January 2013.

He briefed the Secretary General on UNDP's activities in Iran, highlighted the scope of possible cooperation between the ECO and the UNDP and expressed UNDP's readiness to consider enhancing cooperation in the fields of Natural Disaster Management, Health, Environment, Poverty Reduction and Drug related issues.

The Secretary General referred to the fields of activities which are corresponding to the interest of the UNDP and Economic Cooperation Organization (ECO).

He suggested that the UNDP and ECO can jointly develop programs and projects for the benefit of the people of ECO region.

Both sides agreed to continue collaboration in the future. ■

WB Country Director for Pakistan Visits ECO Bank

ECO CHRONICLE On 28 January 2013, the World Bank Country Director for Pakistan, Rachid Benmessaoud and his delegation visited the ECO Trade and Development Bank in order to exchange the point of view on mutual cooperation between the two institutions for supporting sustainable economic development in Pakistan.

Following the welcome remarks of the Vice President of Credits of the ECO Bank, Dr. Yashar Akgun, the Vice President of Operations, Saulat Ali Khan, gave brief information on the Bank's overall activities and operations in Pakistan.

The key challenges, opportunities and fields of mutual cooperation towards Pakistan were discussed by the two institutions. ■

ECO-IEST President, Alternative Member to the IPBES Bureau

ECO CHRONICLE

As some of the delegates put it at the meeting, "the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) is now a new born baby that needs pampering". Excellent progress has been achieved and an ambitious inter-sessional process leading to IPBES-2 has been agreed on.

According to the Official Website of the Intergovernmental Platform on Biodiversity and Ecosystem Services, Professor Zakri from Malaysia now chairs the IPBES, who is also the head of the IPBES Bureau.

Asghar Mohammadi Fazel, President of the ECO Institute of Environmental Science and Technology (ECO-IEST), Deputy Head of the Natural Environment and Biodiversity of the Department of Environment of Iran was also elected as alternative member of IPBES from Asia-Pacific states.

This 6-day meeting also took this opportunity to elect an international group of renowned experts for the Multidisciplinary Expert Panel (MEP), which will ensure the scientific credibility and independence of the IPBES work. Ms. Mehrasa Mehrdadi, Technical Expert of the Natural Environment and Biodiversity Division of the Department of Environment of Iran, was also elected as one of four MEP members from Asia-Pacific States.

Established in April 2012, IPBES is a new platform established by the international community as an independent intergovernmental body for assessing the state of the planet's biodiversity, its ecosystems and the essential services they provide to society.

IPBES provides a mechanism recognized by both the scientific and policy communities to synthesize, review, assess and critically evaluate relevant information and knowledge generated worldwide by governments, academia, scientific organizations, non-governmental organizations and indigenous communities. This involves a credible group of experts in conducting assessments of such information and knowledge in a transparent way.

It aims to strengthen capacity for the effective use of science in decision-making at all levels; address the needs of Multilateral Environmental Agreements that are related to biodiversity and ecosystem services, and build on existing processes ensuring synergy and complementarities in each other's work. ■

ECO Bank & Southern Khorasan Water and Wastewater Company Sign Agreement

ECO CHRONICLE

On 27 January 2013, ECO Trade and Development Bank signed long term loan agreement with Southern Khorasan Water and Wastewater Company

(SKWWC) for the amount of EUR 16.975 million in order to provide 10 years credit facility inclusive of 3.5 years grace period. According to the signed agreement, the ETDB will finance the construction of the second module of the wastewater treatment plant besides the building of the collection networks and the main transmission line in Birjand City.The project aims at improving public health conditions in the region by protecting the quality of underground and surface water resources as well as ensuring uncontaminated food supply chain. At the ceremony organized for the signing of the agreement, Finance Minister of the I.R. of Iran, Seyyed Shamsaddin Hosseini, underlined the importance of using the facilities of IDB and ETDB, noting that Iran would continue extending its full support to these institutions in line with their development programs. ■

EGM Meeting on Standardization Conformity Assessment, Accreditation & Metrology

ECO CHRONICLE

Hosted by the Turkish Standards Institution (TSE), the 5th Meeting of the Expert Group (EGM) on Standardization, Conformity Assessment, Accreditation and Metrology was held in Izmir, Republic of Turkey on January 21-22, 2013, with the participation of delegations of eight Member States namely Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan and Turkey.

Cevdet Ozmen, the Head of the Foreign Relations Department of the Turkish Standards Institution (TSE), on behalf of TSE President Hulusi Senturk, inaugurated and chaired the Meeting. He hoped that ECO Member States could enjoy the benefits of exchanging their knowledge, technology and experience.

The Meeting deliberated on the developments and decisions of the previous meetings and concluded to push forward the cooperation on Standardization, Conformity Assessment, and Accreditation and Metrology with some main agreed points as below:

"A project proposal will be followed by the Head of the ICU regarding studying and comparing the standards, conformity assessment, accreditation procedures and measurements techniques in ECO Member States with relevant counterparts in international organizations such as IEC, ISO, OIML, ITU and Codex.

"A questionnaire prepared by ICU for establishment of data base on standardization, conformity assessment, accreditation and metrology will be distributed among Member States to be further completed and returned to ICU/Secretariat to be processed."

"A website will be designed and launched by ICU for the purpose of uploading relevant information of ECO Member States.

"The Islamic Republic of Iran will invite the ECO Member States to a workshop, to be co-hosted by IEC in 2013."

"Turkey may organize a workshop on relevant issues of standardization in 2013."

Iran offered to host the 6th EGM in Tehran in 2014. ■

Experts Group Meeting on Scientific

ECO CHRONICLE

Hosted by the National Central Bureau of INTERPOL, Tehran, the Experts Group Meeting on Scientific Detection of Crime was held at the International Police University of Iran on 18-19 February, 2013.

Present at the event were the representatives of Afghanistan, Azerbaijan, Iran (host), Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan and relevant officials of the ECO Drug and Organized Crime Coordination Unit (ECO-DOCCU).

Country reports were presented by the delegates of the Member States highlighting the methods of detection of crime in their respective countries. They emphasized the

ECO /UNESCO
Enhance Scope of Cooperation

ECO CHRONICLE

On 14 January 2013, Ms. Tarja Virtanen, the Representative of UNESCO in Tehran, called on the ECO Secretary General Dr. Shamil Aleskerov, at the ECO Secretariat. The ECO Deputy Secretary General Hayri Maraslioglu, was also present at the meeting.

The UNESCO Representative briefed the Secretary General on the several programs of UNESCO to enhance cultural, educational and tourism activities under her office. She highlighted the extent of possible cooperation between the ECO and the UNESCO in the relevant fields. The Secretary General, apart from the activities of ECO Cultural Institute, informed of the two newly established ECO institutions i.e. ECO Science Foundation in Islamabad and ECO Educational Institute in Ankara as specialized arms for promotion of scientific education and training in the ECO Member States.

The Secretary General informed the UNESCO Representative regarding the earlier request of the ECO Cultural Institute to gain an observer status in the UNESCO's activities and requested the UNESCO Representative to assist in pursuing the matter.

The Secretary General emphasized that ECO, being a regional organization, can contribute and promote the global activities of UNESCO if ECO could be engaged in the UNESCO regional programs/projects.

In order to enhance the coordination between the two organizations, the Secretary General proposed the exchange of focal points of the two organizations. The Secretary General also stressed the possibility to boost the cooperation in the field of tourism and offered full support of ECO in achieving the objectives of the UNESCO in the field.

The UNESCO Representative agreed with the view of the Secretary General that granting an observer status to the ECO Secretariat in the UNESCO activities/meetings would be advisable. The both sides agreed to consider renewal of existing MoU between the two organizations to enhance the scope of cooperation in the relevant fields. ■

Detection of Crime

need for sharing of experiences among the law enforcement agencies of the Member States.

Thereafter, special lectures/presentations were delivered by the heads of different laboratories working under the auspices of the Identification Center of the Iranian Police. The participants were briefed on a number of subjects such as crime scene investigation, clarification on real and unreal finger prints, DNA extraction of bone and tooth and creating criminal genetic data base.

The participants visited the Criminal Biology Laboratory, Criminal Chemistry Laboratory, Criminal Physics Laboratory and Finger Prints Laboratory in Tehran where they were briefed about the procedure of detection of evidence from the crime scene by using the latest equipments available in these labs.

The participants highly appreciated the ECO-DOCCU and the Police of the Islamic Republic of Iran for their efforts to bring the experts in Tehran.

They also requested for the continuation of such courses in future. Towards the end of the meeting, Brigadier General Dr. Assar, Dean of the International Police University of Iran, together with Hossein Pourkarami, Officer in Charge of the ECO-Drug Organized Crime Coordination Unit, awarded certificates to the participants. ■

Turkmenistan Trade Turn Over Increased

ECO CHRONICLE Turkmen trade turnover increased by 1.9 times as a result of the successful policy pursued by Turkmen President Gurbanguly Berdymuhamedov, Turkmen Minister of Economy and Development Babamyrat Taganov said at a meeting of the World Economic Forum in Baku.

All the conditions have been created in Turkmenistan to attract investment, Taganov said to reporters.

The country is also working on further diversification of energy resources, as the relevance of energy remains an important issue for the country.

Turkmenistan has recently worked to diversify hydrocarbon supplies to China and Iran, he said.

"Moreover, we are working on the TAPI gas pipeline project which is of great importance for the development of the region," he said.

The Kazakhstan - Tajikistan - Iran railway is being rapidly constructed. A road leading to Afghanistan and Iran is planned to be constructed from 2016." ■

ECO Bank President

Joins Turkmenistan's Int'l Investment Forum

ECO CHRONICLE Hossein Ghazavi, ECO Bank President, participated at the International Investment Forum of Turkmenistan organized by the Foreign Economic Relations Board of Turkey (DEIK) and the Union of Chambers and Commodity Exchanges of Turkey (TOBB) under the patronage of Gurbanguly Berdimuhamedov, President of Turkmenistan, and Abdullah Gül, President of Republic of Turkey on 5-6 March 2013 in Istanbul, Turkey.

Representatives of the Turkmen state structures, international business community, financial institutions, leading experts, analysts and scientists, non-governmental organizations and mass media were present at the Meeting.

The forum aimed to address specific tasks related to modernization and technological renewal of the Turkmen economy, strengthening its competitiveness, implementation of promising projects and initiatives, taking into account the national priorities and growing investment attractiveness of Turkmenistan.

Visitors had the opportunity to listen to thematic reports that highlighted key areas of state policy of Turkmenistan in the sphere of investment.

At the inaugural session, the welcoming messages and visions of the esteemed Presidents with regard to further enhancing bilateral relations were conveyed to the participants. The event provided important opportunity for discussing investment potentials and further strengthening cooperation and business linkages. Speaking at the plenary session of the Forum, Hossein Ghazavi, ECO Bank President, highlighted the operations and plans of the Bank in contributing to the sustainable development of the ECO countries and regional cooperation. He then underlined that one of the major challenges of intensifying regional integration and cooperation has been the mobilization of sufficient financial and technical resources for the realization of prospective development projects and business initiatives. Ghazavi noted that ECO Bank has been well positioned to contribute to fulfilling this gap indicating that since the inception of operations in the last quarter of 2008, the total amount of loans disbursed by the Bank to various projects/programs in the member states amounted to USD 648 million by the end of 2012. "It is not a small achievement for a young regional institution to have a stable positive net income without having any non-performing loan in its well diversified portfolio" he stated.

He further emphasized that ECO Bank, as the multilateral development bank of the region, would continue its support to further strengthen the business linkages and common initiatives that focus on promoting trade, joint ventures and investments among member countries.

During the event, Ghazavi also met with Dovletgeldi Sadykov, Minister of Finance of Turkmenistan, and provided detailed information on the operations and activities of the Bank. While informing about the signing of the articles of agreement of the Bank by Afghanistan and Azerbaijan, which are expected to become full members of the Bank soon, Ghazavi underlined that ECO Bank would be honored and look forward to receive the application of the Turkmenistan for the membership of the Bank as well. On his part, Dovletgeldi Sadykov stated that the key role and successful expansion of operations of the Bank has been noted and Turkmenistan would make necessary considerations and assessments in order to become a member of the Bank in the coming period. ■

1st General Assembly of Inter-Islamic Network on Nano-technology

ECO CHRONICLE

ECO Institute of Environmental Science and Technology, as a partner organization cooperates in organizing "1st General Assembly of Inter-Islamic Network on Nanotechnology" to be held on 13-15 May at the Materials and Energy Research Center, Karaj, Iran and organized by Inter-Islamic Network on Nanotechnology (INN) which is an organization under OIC (Organization of Islamic Cooperation) parallel to its first General Assembly. The main topics of this General Assembly include:

"Systematic development of Nano-technology network according to a strategic planning and future studies.

"Promotion of cooperation and encouraging activities in the field of Nano-technology between Islamic countries.

"How to provide easy access to the new markets of Nano-technology products?

"New science & novel materials in the nano regime.

"Computational Nano-science, simulation, design and modeling.

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http://www.comstech-nanonet.org ■

Courtesy Call by General Director of MFA of I.R. Iran

ECO CHRONICLE

Majid Bizmark, the Director General of Multilateral Economic Cooperation of the Ministry of Foreign Affairs of the Islamic Republic of Iran, also serving as the Permanent Representative of the Islamic Republic of Iran to the Economic Cooperation Organization, presented his credentials to Dr. Shamil Aleskerov, the Secretary General of Economic Cooperation Organization on Sunday, March 3, 2013.

In his remarks, M. Bizmark stressed the unwavering support of the I.R. Iran to ECO. The Secretary General also expressed gratitude for all-out supports given by the Islamic Republic of Iran for the initiatives and programs of this Organization. Both sides emphasized the significance of ECO as an appropriate mechanism to promote regional economic cooperation aimed at sustainable development and improving the standards of living for the nations of the region. They also expressed the need for further interaction between ECO and the Ministry of Foreign Affairs of the Islamic Republic of Iran. ■

The Fifty Sixth Session of the **Commission on Narcotics Drugs (CND)**

ECO CHRONICLE

The Secretary General of ECO, H.E. Dr. Shamil Aleskerov, attended the Fifty Sixth Session of the Commission on Narcotics Drugs (CND), held in Vienna on 11 - 15 March 2013. The session of the Commission on Narcotic Drugs was attended by over 1000 representatives of the Member States of the United Nations, its observer members and different international and regional organizations.

This session of the CND revealed the broad diversity of CND's work through resolutions on new psychoactive substances, alternative development, HIV, and the shared responsibility of nations to counter illicit drugs. On the sidelines of the CND, an international exhibition was also organized at the Vienna International Center. In order to increase the visibility of the ECO's activities, the Drug and Organized Crime Coordination Unit of ECO also set up a stall in the exhibition.

Special posters and banners, prepared by the DOCCU along with its latest publications such as statistics and analytical report of drug situation in the ECO region and newsletters, were displayed at the exhibition. USB flash cards and brochures, reflecting the four components of the joint ECO-EU project on Fight Against Trafficking from/to Afghanistan with the ECO Member States, were also distributed among the visitors and participating delegates. ■

Workshop on **Undercover & Surveillance Techniques** in Ankara

ECO CHRONICLE

The workshop on "Undercover and Surveillance Techniques" was organized by the ECO-Drug and Organized Crime Coordination Unit (DOCCU) on 4 - 8 March 2013 at the Turkish International Academy Against Drugs and Organized Crime (TADOC), Ankara.

The workshop was held within the framework of an EU-funded project titled "Fight Against Trafficking from/to Afghanistan with the ECO Member States" and with the technical support of TADOC. The course was led by Turkish Experts. Operational and law enforcement officials from the anti narcotics agencies/forces of the ECO Member States namely, Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Tajikistan and Turkey along with the relevant staff of the ECO-DOCCU and the German International Cooperation Agency, Berlin, participated in the workshop. The main objective of the workshop was to equip the participants with the latest undercover and surveillance techniques both theoretically and practically. The course provided curriculum regarding drug interception investigative techniques in an undercover setting for narcotic investigators in the field. Multi-jurisdictional standards and techniques utilized by the investigators in undercover counter drug operations were also discussed during the workshop.

Topics of the training course included: importance of undercover operations in organized crime investigations, current trends in organized crime groups and new policing requirements, secret investigators usage, legal procedures and prerequisites, informant handling, main characteristics of informants, surveillance techniques like technical surveillance techniques, vehicle surveillance and foot surveillance. Certificates were also awarded to the participants. ■

Solar Energy in Uzbekistan

ECO CHRONICLE

An era of uncertainties related to petroleum industry and oil prices has left investors and nations scrambling to develop alternative sources of energy. The theoretical annual potential of solar power is estimated to exceed all fossil fuels reserves by more than 10-20 times.

In the ECO region, solar power is receiving renewed attention, particularly in the Republic of Uzbekistan, with a population of 26 million.

Besides a climate suited to solar power, Uzbekistan brings advantages to the table, including a longstanding interest in generating power from sunlight, an advanced industrial base and a highly literate, hard-working population.

The technical potential of solar energy in Uzbekistan is immense and is estimated to exceed by 400 percent the country's annual energy needs of 65 million tons of oil equivalent. The problem for Uzbekistan, as with many alternative energy sources, is the relatively high start-up costs.

Initial projects have been modest in scope, with a major effort being made to develop solar-powered hot-water supply systems for use in such enterprises as agricultural greenhouses, cattle farms and the drying and canning of fruits and vegetables.

Officials in Tashkent have been busy searching out funding for solar projects from a variety of sources, including the United Nations. Under a grant from the U.N. Development Program, scientists of the Uzbek Physical and Technical Institute and Agency for Technology Transfer have instituted the "Pure Energy for Rural Communities in Karakalpakstan" project, which allowed specialists at Uzbekistan's "Foton" Plant to produce 25 photoelectrical systems for supplying the people of the Aral Sea region with electricity and hot water in the designated Ayazkala tourist complex, which uses solar photovoltaic batteries to supply the facility with energy and desalinated drinking water.

Uzbekistan is on the crest of a development wave in alternative energy sources, as environmental concerns and other factors are driving many nations to consider solar power.

The 12th ECO Summit (Baku 16 October 2012) acknowledged the vast potential of the ECO region in the field of renewable sources of energy and its importance for sustainable development.

According to Uzbekistan government officials the concerned authorities are pressing forward with bringing together solar specialists from around the world to share ideas on research on solar power.

It is estimated that the country's proven reserves of black coal may last for an estimated 50 years at the most; oil for not more than 12; and natural gas for about 30 years. Beyond any doubt, Uzbekistan has immense potential for using alternative energy sources, such as wind and solar power. With sunny days 82% of the time, and high-wind terrains and fast-moving mountain rivers, Uzbekistan has the potential to produce three times as much energy as hydrocarbon reserves would allow. ■

Iran-Pakistan Gas Pipeline

Implications for Energy/Petroleum Cooperation in ECO Region

Just prior to the 3rd ECO Ministerial Meeting on Energy/Petroleum to take place in Tehran on 6 March, the two founder members of ECO finalized their long awaited bilateral gas purchase /sales agreement on 27th February 2013. After the 3rd ECO Ministerial Meeting on Energy/petroleum concluded and adopted its Tehran Decleration, the Pakistani President and his Iranian counterpart inaugurated the $7.5 billion US Dollars Iran-Pakistan (IP) gas pipeline project at Iran-Pakistan border on 11 March. A Fresh Step Forward in the ECO Region's Energy/Petroleum Cooperation

Although the IP project had not been included amongst the ECO regional Energy/petroleum projects, Iran and Pakistan Presidents, in the process of inaugurating the IP, laid the foundation of bilateral and regional energy cooperation. They unveiled a plaque, shook hands and offered prayers for the successful conclusion of the project. "The Iran-Pakistan 'gas lifeline' will help eradicate terrorism, bring prosperity to the region and overcome poverty," President Zardari said after the ceremony.

Energy Shortfalls in Pakistan

Pakistan currently needs to generate approximately 5,000 megawatts (MW) more electricity per day to meet the increasing demand, and plans to produce 20 percent of its electricity (4000MW) using Iranian gas. Currently nearly a third of the population does not have access to electricity. Therefore, inauguration of the project was regarded as a major development in Pakistan.

Construction work of the Pakistani section will be undertaken by Tadbir Energy of Iran at an estimated cost of $1.5 billion. Iran will provide $500 million - half through a government loan and half through an Iranian bank. The remaining $1 billion will be provided by Pakistan including through the Gas Infrastructure Development Cess (GIDC). Tadbir Energy has also agreed to provide and assist in arranging $250 million as supplier credit and any additional financing for the second phase.

The firm will act as the lead contractor along with the nominated local subcontractor(s). Under an accord signed in June 2010, Iran will provide about 21.5 million standard cubic meters (mmscmd) to Pakistan for 25 years. The deal can be extended by five years and volumes may rise to 30 mmscmd.

IP Project Will Create Jobs

The IP pipeline will deliver 750 million cubic feet of natural gas per day (mmcfd / around 21 million cubic meters per day) to Pakistan by January 2015. Agreements for setting up a $4 billion oil refinery with a capacity of 400,000 barrels per day (bpd) at Gwadar in Pakistan's southwestern Balochistan province were also said to be signed after the ceremony.

It is estimated that the pipeline project on completion will contribute about five per cent to Pakistan's GDP and create 10,000 jobs during construction and about 3,000 after completion.

The project involves the laying of a 780 kilometer (485 mile) section of the pipeline on the Pakistani side.

"The completion of the pipeline is in the interests of peace, security and progress of the two countries ... it will also consolidate the economic, political and security ties of the two nations", the Presidents said in a joint statement.

The Peace Pipeline

Iran-Pakistan-India (IPI) pipeline project (also called peace pipeline) aimed at constructing a 1,620-mile (2700 km) pipeline from Iran's South Pars fields in the Persian Gulf to Pakistan's major cities of Karachi and Multan and then further to Delhi, India.

"Iran is the most geographically convenient supplier of gas to ECO region energy consumers and their neighbors. The IP pipeline can carry 110 million cubic meters of gas a day. 50 mmcm meets domestic needs of Iran and the remaining 60 mmcm will go to Pakistan. Iran will initially transfer 30 million cubic meters of gas per day to Pakistan, but will eventually increase the gas transfer to 60 million cubic meters per day", News Agencies quoted an Iranian official involved in the project.

Turkmenistan Gas Export

Turkmenistan gas supply is also promising. Taking into account the recently discovered huge gas reserves in Turkmenistan, the ECO Deputy Secretary General from Pakistan welcomed the participation of high level Turkmenistan delegation at the 3rd ECO Ministerial Meeting on Energy /Petroleum in Tehran on 6 March and said he is optimistic that ECO's natural gas importing nations such as Turkey and Pakistan will also have secure energy supply from Turkmenistan and Iran.

"The Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline project is considered as another major energy /petroleum project for gas supply within the region's markets", DSG Altaf Asghar told ECO Chronicle.

An inter-state agreement for the construction of TAPI between the participating countries was signed in 2010. Turkmenistan further signed a memorandum of understanding with Afghanistan in May 2012. The purchase/sales agreements of Turkmen gas were signed with the State Gas Systems of Pakistan and Indian GAIL ltd." added DSG Altaf Asghar.

Sustainable Development of ECO Energy/Petroleum Resources

With reference to the outcome of the 9th International Energy Conference held during 20-21 February 2013 at the TAVANIR Research Center (Tehran-I.R.Iran) and the Declaration of the 3rd ECO Ministerial Meeting on Energy/ Petroleum, DSG Altaf Asghar is of the view that "The outcome of these events indicate that all participant delegations noted the fact that the sustainable development of ECO energy/petroleum resources is one of the key aims of economic cooperation between ECO members as stipulated in the Treaty of Izmir. It is also the subject of the 2011-2015 ECO Energy/Petroleum Action Plan."

New Methods Required

The ECO Head of States 12th Summit (Baku October 2012) acknowledged the importance of cooperation in the energy sector among the Member States for the development of their economies and called on the 3rd ECO Ministerial Meeting on Energy/Petroleum to consider relevant initiatives in this regard.

Observers with reference to the fact that it has become clear that the international financial system is unable to support the planned energy/petroleum investment within the current regional and global investment framework, and the aforementioned ECO Summit Declaration and the 3rd ECO Ministerial Meeting on Energy/Petroleum Declaration agree on the idea that additional instruments and new methods will be necessary to successfully promote and enhance the ECO Energy/Petroleum partnership and cooperation. ■

Tehran Hosts

3rd ECO Ministerial Meeting on Energy/Petroleum

The 3rd Ministers on Energy/Petroleum Meeting was held on 6th March 2013 in Tehran, I.R. Iran. It was preceded by the Senior Officials' Meeting (SOM) on 04 - 05 March, 2013. The Meeting was attended by delegations of the Islamic Republic of Afghanistan, the Republic of Azerbaijan, the Islamic Republic of Iran (Host), the Republic of Kazakhstan, the Kyrgyz Republic, the Islamic Republic of Pakistan, the Republic of Tajikistan, the Republic of Turkey and Turkmenistan.

The Meeting was inaugurated and chaired by Rostam Ghassemi, Minister of Petroleum of the Islamic Republic of

Iran. His Excellency Ambassador Dr. Shamil Aleskerov the ECO Secretary General made welcoming statement, and said: "ECO is considered a very important region in terms of energy and it has high potentials in this field."

"ECO members are implementing different joint projects such as export of electricity, gas and oil and we can be hopeful about increasing such collaborations in the future." the ECO Secretary-General added.

ECO Energy/Petroleum Cooperation

In his remarks as the Chairman of the Meeting, Iran Petroleum Minister, Ghassemi, pointed to Iran's new proposal for enhancing the region's energy/petroleum cooperation titled the ECO Energy Charter and said: "Consensus in this regard surely needs cooperation of all the Member States to review and approve it."

"If a new framework for the expansion of ECO regional cooperation is achieved, we can expect a prosperous future for the nations and I hope ECO Energy Charter will be approved until the next ECO energy ministers meeting," he added.

The Iranian Petroleum Minister further noted that the economic requirements of the regional countries can be answered in the best possible way in case of planning and optimizing the use of the ECO region's energy reserves.

Opening Remarks

In their opening remarks, the Ministers and Heads of participating delegates expressed that ECO cooperation has successfully enabled the Member States to enhance shared aims and through their close cooperation, they have improved their bilateral and regional cooperation in various sectors including energy and petroleum. However, it was emphasised that ECO Member States reflect their high involvement in the production and exploitation of energy/petroleum resources for improving each member country and the region's economic growth while protecting the environment.

In reviewing the region's energy/petroleum situation, the Ministers were satisfied to note that as a result of the 3rd Ministerial Meeting and in accordance with the 12th ECO Summit's request (16 October 2012-Baku) the regional energy/petroleum cooperation will demonstrate that the region is on the right path towards achieving the target set in the 1st and 2nd ECO Plan of Actions for Energy/Petroleum Cooperation adopted by the 1st and 2nd Ministerial Meetings (Pakistan November 2000 and Tajikistan 1st October 2010).

The Ministers were also fully aware of the tremendous challenges faced by the ECO energy/petroleum sector as the total final energy/petroleum consumption of the region is projected to rise. Therefore, the Ministers agreed to step up individual and collective efforts by the ECO Member States to pursue the dialogue to ensure stable, affordable and environmentally sustainable energy supplies. So as to enable the ECO countries to achieve the economic and social development goals as it has been outlined in the ECO Vision 2015.

In this regard, the Ministers called upon the ECO Secretariat to maximize its efforts to establish and enhance cooperation with relevant international organizations/financial institutions, including ECO Trade and Development Bank, Islamic Development Bank, etc., with a view to raising necessary financial resources for ensuring the implementation of mutual

projects/activities/studies within the ECO Plan of Action for Energy/Petroleum Cooperation (2011-2015) and other energy related activities among the Member States, including those envisaged in the 3rd meeting's Declaration.

ECO Gas to Power Cooperation

It is hence interesting to be able to report that there was a complete agreement among the ECO Energy/Petroleum Ministers/Delegates at the Meeting that in respect of energy/petroleum cooperation, power (electricity) generation and transmission generally, and a focus on gas-fired power production was on the top agenda of ECO nations economic objectives. Moreover, and again completely consistent with the policy that was proposed by the Iran Minister of Petroleum (Host) in relation to the need for enhancing regional energy/petroleum cooperation, there was an agreement in respect of the need for cooperation regarding the massive ECO investment in energy efficiency.

Energy /Petroleum Financing

The same systemic issues and structural problems which afflict investment in oil and gas infrastructure are even worse in the fields of renewable energy and energy efficiency. It was also agreed that the level of subsidies in ECO nations, particularly in ECO producer nations, has become unsustainable.

That being so, one of the subjects for urgent study by the ECO Secretariat in close cooperation with concerned authorities in the member countries will be the development of suitable frameworks for investment and financial instruments which facilitate both investment on the one hand, and the reduction of subsidies on the other.

Sustainable Energy for All

In strengthening ECO energy/petroleum activities, the Ministers reiterated their commitment made during the 1st and 2nd Ministerial Meetings in Pakistan (November 2000) and Tajikistan (October 2010) to further strengthen ECO efforts in addressing the current global economic crisis and enhancing ECO energy/petroleum cooperation towards a greener ECO energy sector and low-carbon economy.

In view of the existing power grids' interconnection within the ECO Region and beyond, the Ministers expressed the need to consider the possibilities in the Region to develop gas-to-power transformation initiatives, taking into account the importance of its environmental, safety and trade

dimensions. The Ministers also emphasized the best practices on phasing out inefficient fossil fuel energy subsidies and complying with environmental requirements in the energy sector.

Being mindful of the importance of the UN initiative "Sustainable Energy for All" and of the international efforts to eradicate energy poverty, the Ministers expressed their willingness to cooperate towards greater stability and security of energy supply and demand in the Region. In this regard, the Ministers reiterated their firm desire to strengthen cooperation in the field of renewable and alternative energy sources as an important step towards diversification of the sources of the energy supply chain in the ECO Region.

Eradication of Energy Poverty

The Ministers further welcomed the new developments of the international efforts to eradicate energy poverty and expressed their willingness to cooperate towards greater stability and security of energy supply and demand in the Region.

ECO Energy Market

The Ministers recalled the need for: regional energy market for ECO Member States, enhanced utilization of renewable and alternative sources of energy, increased energy productivity and efficiency, promoting joint investments and encouraging private companies to be involved in energy sector, training and development of human resources for energy sector, considering the establishment of appropriate financial mechanism in the region and exchanging of the best practices of phasing out energy /petroleum subsidies among Member States.

ECO Energy /Petroleum Cooperation Framework

The Ministers noted the need to better harmonise regulatory standards and systems, and to understand local conditions and regulations in order to enhance ECO economic growth. Consequently, in order to enhance the energy/petroleum cooperation in this regard, they recalled the need for conducting a study on a new approach and under the ECO Secretariat's supervision in cooperation with all interested ECO Member States' research institutes.

ECO S.G. to Exercise his Supervisory Role

They also called upon ECO Secretary General to exercise his supervisory role with a view to ensuring necessary human resources and expertise needed for the Secretariat to accomplish its mandate in the area of energy/petroleum cooperation and took note of the report on the pre-feasibility study on the new ECO energy/petroleum cooperation framework presented by the Institute for International Energy Studies (IIES) of the Islamic Republic of Iran. The IIES is expected to prepare a report for distribution among ECO Member States. After the evaluation of its report by the Member States, the Institute may continue the study in cooperation with the other interested research institutions of the Member States with a view to preparing the concrete recommendations by the end of 2013.

The result of this wave of agreement was therefore a major achievement for the ECO Secretariat and Iran's concerned authorities' efforts for all their hard work and follow ups to prepare the ground required for the Meeting to materialise. ECO region can now look forward to some truly meaningful energy/petroleum co-operation in the next 10 years (2013-2022). ■

By:ECO Chronicle Energy Desk

ECO Officials Attend

9th Int'l Energy Conference

Highlighting the Need for **Energy Poverty Eradication**

On 20-21 February 2013, Niroo Research Institute, affiliated to Iran Ministry of Energy, hosted the 9th International Energy Conference on "Energy Prospect and International Convergence - Requirements, Opportunities and Constraints" which was attended by hundreds of participants including dignitary officials, ECO Secretary General, Director General of the OPEC Fund for International Development (OIFD) and academic speakers from Norway, Austria, Australia, Thailand, and Saudi Arabia.. The conference was inaugurated by Iran Minister of Energy, Namjoo, who in his opening speech, referred to the importance of enhancing energy/petroleum cooperation in the ECO region.Amongst the key speakers were Prof. Deepak Sharma, Director, Energy Planning and Policy Program Faculty of Engineering and Information Technology University of Technology, Sydney-Australia; Prof. Thierry Lefèvre, Director, Center for Energy, Environment and

Resources Development (CEERD), Thailand; Prof. Nils-Henrik von der Fehr, Head, Economics Department, University of Oslo, Norway; Prof. Stefan Truek , Co-Director, Centre for Financial Risk, Department of Applied Finance and Actuarial Studies, Australia.

The general view expressed during the conference was based on the fact that in case there is not enough investment made in the energy/petroleum industry in time and socio economic development of countries are not taken into consideration, then with the continuation of the current trends in technological progress and innovation, the future demand, perhaps by 2020, for energy will be five times greater than the current volume.

At the dawn of the 21st century, nearly 1.3 billion people live without access to electricity. What's more, around 2.6 billion people rely on wood, animal waste and other biomass to provide heat for cooking. The outcome of these shocking facts is that people living in high income raising nations use 13 times more energy than those in the world's poorest countries. It is not difficult to imagine how this wide disparity affects not only the quality of life, but also the life expectancy, income and prospects in the developing world. When it comes to fighting energy pover-

ty, it has become clear that business-as-usual policies are not sufficient. We need to spark effective change. Not least, because energy is the key to wider social and economic development and, for millions, the path out of poverty." OFID Director-General, Suleiman J. Al-Herbish said.

Energy Poverty vs. Fuel Poverty

Energy poverty refers to the situation of large numbers of people in developing countries whose well-being is negatively affected by very low consumption of energy, use of dirty or polluting fuels, and excessive time spent for collecting fuel to meet the basic needs. Energy poverty is distinct from fuel poverty, which focuses solely on the issue of affordability.

According to the Energy Poverty Action initiative of the World Economic Forum, "Access to energy is fundamental to improve the quality of life and is a key imperative for economic development." Therefore, in any country where there is a situation in which a household does not have access or cannot afford to have the basic energy or energy services to meet the daily living requirements, such as lighting, cooking energy, domestic heating or cooling, then citizens are facing energy poverty.

In this respect, one of the participants told ECO Chronicle Correspondent on the side line of this Conference that the energy producers and consumers in the ECO region may organize a joint Emergency Meeting - as it was held in Jeddah, the Kingdom of Saudi Arabia in 2008 - and pursue the same idea on helping the poor in the ECO region to have better access to modern energy.

Last year was designated by the UN as the International Year of "Sustainable Energy for All" which, according to OFID Director General, was used as a platform to launch a global initiative to achieve universal energy access by 2030.

"As part of this initiative, the UN Secretary-General designated a High-Level Group to create an Action Agenda. OFID was nominated to this High Level Group and the agenda was formally presented to the Rio+20 Conference in June last year. In fact, just a few days prior to the Summit, OFID Ministers issued a Declaration on Energy Poverty which commits a minimum of $1 billion to augment OFID's work on energy poverty. They also confirmed that OFID stands ready to scale up this commitment if demand warrants. I had the honor to announce this Declaration in Rio in the presence of Ban Ki Moon", noted Suleiman J. Al-Herbish.

At the closing session of the Conference, the chairman summarized the presentations and the outcomes of the Conference were enumerated as follows:

- Eradication of Energy poverty should be amongst the priorities on the agenda of governments and policy makers in the developing countries.

"Energy demand for consumption is increasing while in many countries, power generation capacity is not enough to meet the demand. Therefore, a situation of disturbing the balance between supply and demand that will be a serious problem during the coming years is expected. Thus, optimizing energy consumption and managing energy demand are necessary for encouraging energy conservation as well as efficient use of energy which reduces pressure on energy supply side.

- The current challenge that Iran (a founding member of ECO) is facing in its power generating industry for electricity production is attracting enough investment for meeting the future demand for electricity consumption. The Conference noted that the problems are due to the cost of investments in the development of transmission and distribution lines, power purchase from private investors, funding the operations etc. It was suggested that solutions remain in either by increasing the electricity price or by securing margin between final cost and sale price or to continue allocating the public funds to improve the financial situation of the country's electricity industry. Moreover, establishing a specialized financial institution in order to solve the problems of financing for energy industry is essential. Iran International Energy Conferences are held biennially and contribute to the analysis of problems and challenges facing organizations and institutions in the energy sector and finding solutions for them. Wide participation and presence of organizations, universities and scientific and research institutes in the 8th International Energy Conference reveals the credibility of this event amongst energy experts, managers, researchers, and scholars.

The solutions formerly regarded as impossible or unaffordable are nowadays achievable technically and economically. Deployment of renewable energy resources, international cooperation, modern management systems, and advanced efficient technologies all can highly contribute to the development process. The 9th Conference, which closed on February 21, 2013, focused on energy practice and policies that in many participants' view highlighted the ECO Head of States' acknowledgment in their 12th Summit Declaration in which the vast potential of the ECO region sources of energy was emphasized. ■

Enroute Countries of Islamabad-Tehran-Istanbul Road Transport Corridor Meet

The 2nd Meeting of the enroute countries of Islamabad-Tehran-Istanbul Road Transport Corridor was held in Tehran, Iran on 4-5 February 2013. Present at the Meeting were delegations of Iran, Pakistan and Turkey plus delegations from the ECO Secretariat, the ECO-CCI, IRU and the private sector of the enroute Member States.At the opening, ECO Deputy Secretary General, Altaf Asghar stated that the project for developing the ITI road corridor was approved by the ECO Ministers of Transport and Communications in their 8th Meeting in June 2011 adding that ECO has placed a high priority to follow up all measures to launch this corridor in line with the Action Plan signed during the 1st HLWG Meeting in Islamabad in April 2012. "It is a pleasure that good progress has already been achieved in implementing most of the activities included in the Action Plan, thanks to active cooperation of all parties" Asghar declared.

Progress Review

ECO Representative briefed the Meeting on the progress with the implementation of the Action Plan singed by the 1st Meeting of the Islamabad-Tehran-Istanbul Road Transport Corridor. The Meeting highly appreciated all the enroute Member States, the ECO Secretariat and IRU for their efforts in moving ahead the activities enlisted in the Action Plan.

Finalization of the Routes

The Meeting agreed on the following initial routing for the ITI Corridor:

Islamic Republic of Pakistan

Islamabad to Taftan through Kohat- D.I. Khan- Quetta-Dalbadin

Islamic Republic of Iran

Mirjaveh to Bazargan through Zehidan-Kerman-Quom, Tehran- Tabriz

Republic of Turkey

Gurbulak to Istanbul through Erzurum-Erzincan-Amasya-Gerede

However, Pakistan suggested three routes in its own territory but ultimately agreed on one route. Being a sovereign country, Pakistan or any other enroute country may suggest any further routes, if they so desire, to the next Meeting in order to expand the corridor.

The border crossing points will be Taftan in Pakistan, Mirjaveh and Bazargan in Iran, and Gurbulak in Turkey.

Priority Measures for Corridor's Establishment

The Meeting discussed and made decisions on the following priority issues.

i.Measures on the application of the TIR Convention and the TIR Pilot Project along the Corridor

1.The enroute countries briefed the Meeting on the latest status of modernizing the infrastructure and custom clearance procedures at their designated border crossing points.

2.The delegation of the Islamic Republic of Pakistan informed the Meeting that Pakistan has already conveyed the reaffirmation of the Government of Pakistan on accession to the TIR Convention to the ECO Secretariat for implementation of the Pilot Project on ITI Road Corridor.

3.The IRU informed the Meeting that while Pakistan is on its way to join the TIR Convention, it could benefit from the TIR procedures through the specific legal framework to be put in place for the implementation of the ITI project. After consultation of all involved partners the most appropriate legal framework was defined. All documentation was provided to all partners at the end of 2012 for analysis. Iranian and Pakistani authorities supported the documentation. The national associations ICCIMA and PNC-ICC signed them. While TOBB supported the documents and reiterated it during the meeting, the Turkish Customs were still analyzing them.

4.The Republic of Turkey briefed the Meeting about certain legal issues that may arise from applying the TIR Carnet to Non-Contracting Parties of the TIR Convention mainly due to the lack of a certain date by Pakistan to access to the TIR Convention and non-obtaining of the UNECE's competent organ's consultative opinion for launching such a pilot project along the ITI Corridor using the TIR Carnet. Taking into account these points, the Meeting requested the ECO Secretariat to obtain, as decided in Islamabad Meeting, the consultative opinion of the UNECE with regard to the application of the TIR Carnet under the auspices of the pilot project along the ITI Road Corridor. Meanwhile the Meeting requested the concerned authorities of the Islamic Republic of Pakistan to expedite accession to the TIR.

5.The Meeting asked the enroute Member States, the ECO Secretariat and IRU to closely follow up the abovementioned options in parallel and plan for the pilot project accordingly.

6.The Meeting discussed at length the issue of working hours at the designated border crossing points. The Meeting decided that the border crossing points in principle should remain open 24 hours, 7 days a week. The Meeting also decided that an electronic data sharing mechanism be applied along the corridor.

7.The Customs Authorities of Pakistan have introduced container/cargo monitoring system by installing tracking devices on all containers leaving the Karachi Port. The cargo/containers are monitored from the Central Control Room (CCR) and eight Regional Control Rooms (RCR) which are setup in Customs House, Karachi and in up country Dry Ports respectively. These Control Rooms monitor containers till their exit from the border point.

8.The delegation of the Islamic Republic of Iran stated that they are using GPS system and will definitely equip ITI road corridor with GPS system. They informed that they have already data sharing system and will equip some border crossing points. They do not have equipped Taftan border with GPS system but they are ready to implement such project.

9.The delegation of the Republic of Turkey stated that they have started TIR EPD in June 2012 for transit and import transactions and are planning to start it for the export transactions by March of this year. This implementation is right now on voluntary basis, not mandatory. They have also started the Green Lane implementation for TIR transactions at Kapikule w.e.f December 2012. They have allocated a lane for the trucks using pre-declaration system, before entering Turkey which is an important element for the implementation of TIR-EPD. Additionally, by 1st December 2012, they have started using Common Transit System. With this system, the transit transport integration with EU has been achieved. Also, on the same day, another system has been implemented which is called Authorised Economic Operator. This system enables haulers and exporters' to process their transactions without coming to the Customs Offices.

ii. Issues pertaining to road transit permits

1.Taking into account the high spirit of cooperation and solidarity among the enroute Member States, the Meeting decided that there will be no requirement for exchange of permits for transport along ITI Corridor. In principle, no permit system is needed to be developed for this Corridor.

iii. Security and safety issues

1.Under this agenda Item, the delegations of the enroute Member States briefed the Meeting on the latest measures taken for the security of the drivers, trucks and cargoes along the Corridor. The Meeting reiterated on the importance of security for drivers, trucks and goods along the whole Corridor. All the enrotue member states ensured that they would take all necessary measures to provide security to the drives, trucks and cargos in traffic along this corridor.

2.The Meeting also decided that Workshop on European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), Modernization of Border Crossing Points and digital tachograph system will be held in Ankara, the Republic of Turkey in November 2013 or any other date intimated by the Host Authorities through the ECO Secretariat. The Meeting requested the enroute Member States to expedite the construction of model TIR Parking places along the Corridor. The Meeting decided that the IRU Model Highway would be utilized as a best practice to be used along this Corridor.

3. During a trilateral meeting, certain issues related to ITI Corridor towards Iran and Pakistan sides were raised with regard to fuel, additional taxes, Customs and security which were referred to a bilateral meeting simultaneously held on the sidelines of the trilateral one.

iv. Facilitation of visa for drivers

1.The Representative of the Ministry of Foreign Affairs of the Islamic Republic of

Iran renewed the readiness of the Islamic Republic of Iran to further facilitate the visa issuance for the Pakistani drivers traveling along this corridor. He informed the Meeting that the following specific measures are being considered by the concerned Iranian authorities:

- Reduction of the multiple visa fees to the level applied by Pakistan.
- Reduction of the time required for processing the visa for Pakistani drivers.
- Issuance of transit visa, in minimum time, for Pakistani drivers who hold Turkish visa.

2.The delegation of Iran also shared the Meeting with the progress in designing the ECO Unified Visa Sticker for Drivers.

3.The Representative of the Republic of Turkey stated that they have forwarded the proposals for facilitating visas for Pakistani Drivers, including reducing the time needed for processing the visa application and the visa costs, to the concerned authorities in Turkey for consideration. The results will be intimated shortly through the ECO Secretariat.

4.The IRU presented good experiences of the Turkey with Romania, Bulgaria and Ukraine exchange of list of professional drivers, at the end of the year, regarding issuance of long term multiple entry visas. The Meeting noted that the arrangement for annual exchange of driver lists can also be adopted in the relevant ECO decision making meetings and asked the Secretariat to follow up this issue with the Member States.

5.The Meeting also requested the enroute Member States to assure the implementation of the visa related provisions of the TTFA, according to which one-year multiple entry visa should be issued within 72 hours to drivers and persons involved in transit operations.

6.The Meeting also requested the enroute Member States to provide the ECO Secretariat with the updated tables of visa fees for drivers and persons involved in transit operations to the ECO Secretariat.

v. Application of the White Card Scheme on the pilot basis

Under this Agenda Item, the Meeting was briefed by the Iranian and Turkish National Insurance Bureaus delegations about the latest progress in implementing the measures agreed between the National Insurance Bureaus of the enroute Member States based on their informal meeting in Tehran in November 2012.

vi. Date and arrangements for the test run of trucks along the Corridor

The Meeting decided that the dates for the test run of the trucks would be specified as soon as the arrangement regarding a commonly agreed transit system is finalized.The Meeting also requested the enroute Member States to provide the details of Focal Points of the ITI Road Corridor at the earliest.

vii. Arrangements to initiate the study approved by the ECO CPR for this Corridor

The ECO Secretariat informed the Meeting that TOR of the international and national consultants to conduct the feasibility study is under preparation and it will be circulated to the enroute Member States within two weeks. Once circulated, the Member States would comment on the TOR within one month, and then the consultants will be recruited as per the arrangements agreed in the 1st HLWG Meeting in Islamabad.

viii. Priority infrastructure projects and the IRU Model Highway Initiative

1.Under this Agenda Item, the IRU delegation briefed the Meeting on relevant components of the Model Highway Initiative (MHI), which can be applied along the ITI Road Corridor, inter alia, with the following fundamental actions:

- Develop the ancillary infrastructure along main road arteries.
- Simplifying border crossing procedures and introducing state-of-the-art practices and technologies at border crossing and Customs posts, which have been implemented successfully on other parts of the world.
- Create a multilateral financial mechanism to have the financing required to develop the necessary ancillary infrastructure in line with the implementation of these essential reforms.
- A public private partnership for infrastructure developments.

2.Accordingly the Meeting urged the ECO Secretariat and IRU to expedite launching the pre-feasibility study to apply the Model Highway Initiative principles along the corridor with the assistance of the ECO Trade and Development Bank, IDB and other relevant international institutions.

3.With regard to the establishment of a logistics centre which was discussed in Islamabad Meeting, the delegation of the Islamic Republic of Iran informed the Meeting that the Provincial Government had allocated land of 57 hectares near Zahidan. This land is located near Zahidan-Mirjaveh-Taftan border two kilometres away from Railway station and five kilometre from international airport. The Meeting requested the ECO Secretariat to keep contact with the potential funding institutions to assist in construction of this logistic centre. The concerned authorities of the Islamic Republic of Iran were also requested to convey the layout and other necessary information about this Centre to the ECO secretariat.

The Meeting highly appreciated the business community of the enroute member states for active participation in the meeting. The Meeting also took note of the recommendations of the sideline meeting of the delegations from the private sector. The Meeting requested all parties to follow up these recommendations.

The delegation of the Republic of Turkey informed the Meeting about the training course recently held in Turkey for Afghan Customs staff regarding TIR Convention. They also offered similar course for the Pakistan authorities dealing with TIR Convention.

The 3rd Meeting of the ITI Road Corridor will be held in Turkey in the first week of June 2013 or any other date intimated in due course. The Turkish authorities will convey exact date and venue of the HLWG Meeting through diplomatic channel. ■

Report by the ECO Chamber of Commerce & Industry stationed at Iran Chamber of Commerce, Industries & Mines, Tehran

ECOTD Bank's Task in SMEs Development

The 12th Summit Meeting of the ECO (Baku, October16, 2012) acknowledged the significant role of the private sector as an engine of growth and economic development in the ECO region. Furthermore, it appreciated the role played by the ECO Trade and Development Bank and urged the strengthening of its financial capacity to meet the growing demand for economic exchange and expansion of Bank's activities in the region.

To eradicate poverty in ECO countries, the expansion of the private sector, notably micro-, small and medium-sized enterprises (SMEs) is an influential factor for economic growth and job creation. However, one of the main challenges for governments in ECO countries is to design institutional, organizational and regulatory frameworks which are conducive to private sector development. But, governments alone cannot create a private sector with an enterprise culture.

The Role of ETD Bank:

The ECO Trade and Development Bank in pursuance of ECO Summits directives has been active in assisting its ECO Member countries in their economic activities and helping beneficiary governments to structure programs in support of private sector development, with a particular focus on SMEs.

The Bank's activities also cover a wide range of areas such as support in creating an enabling business environment. Undoubtedly, a better business climate encourages efficient domestic investment, attracts foreign direct investment and increases productivity. Thus, providing needed ground for enhancing income and employment opportunities.

ECO Member States' major employment and income distribution challenges require special attention and plans for SMEs which are important to almost all economies in the world.

SMEs Development

One of ECO Bank's priorities is to support small and medium-sized enterprises (SMEs), which are critical for the economic and social development in the ECO Region. They play a major role in creating jobs and generating income for low income people.

ECO Bank works to increase access of SMEs to financial services in ECO Bank Member Countries by providing funding to banks and monetary institutions focusing on SME financing.

SME Development Loan

SME Development Loan is developed to encourage intermediary banks and leasing companies to expand and strengthen their financing of SME operations in the Member States to support small and medium-size enterprises (SMEs) in line with the vision and the mission of the ECO Trade and Development Bank.

SME Development Loan can be utilized for the purpose of Export Financing (No destination limitation), Import Financing (From ECO Member States) and Working Capital needs of the small and medium sized companies as defined below.

Client Category	Small Sized	Medium Sized
Headcount	10-49	50-249
Annual Turnover	<EUR 3 million	<EUR 15 million

Funds will be allocated to SMEs according to above amounts and below requirements.

a) Only be applied to SMEs which are bankable, financially sound and will be able to use the funds economically.

b) Only be applied to finance of SMEs domiciled in the territory of the ECO Bank Member States.

c) Only be used by SMEs which comply with ECO Trade and Development Bank rules on sector eligibility and restrictions as defined in this document.

In addition to above, final beneficiaries of the SME Development Loan will be filtered according to the negative list of products and sectors and the environmental policy of the Bank.It is expected that support also will be provided for business development services such as training, advice and information services which aim at improving technical and managerial skills and encourage the transfer of know-how and technologies. ■

The 3rd Meeting of the Heads of Blood Transfusion Organizations/ Authorities of ECO Member States was held in Baku, Republic of Azerbaijan, on 14-15 February 2013 hosted by the Ministry of Health of the Republic of Azerbaijan in collaboration with the ECO Secretariat.

Delegates from Afghanistan, Azerbaijan (Host), Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan and Turkey participated in the Meeting. The ECO Secretary General, Shamil Aleskerov along with relevant staff of the ECO Secretariat took part in the Meeting.Elsever Agaev, Deputy Health Minister of Azerbaijan inaugurated the Meeting. While welcoming the delegates of the ECO Member States, other guests and representatives of mass media, he highlighted the importance of safe blood donation as well as targets and achievements of the National Blood Program of Azerbaijan.

Azerbaijan Red Crescent Society, Gafar Askerzade, and Director of the Scientific-Research Institute on Hematology and Transfusiology of the Republic of Azerbaijan, Soltan Aliyev, in their statements also noted the blood donation education, awareness, vigilance and community involvement in voluntary blood donation as the most important items of the National blood policy of Azerbaijan.

Shamil Aleskerov, the ECO Secretary General, in his statement at the inaugural session, emphasized the role and importance of the cooperation in the field of blood transfusion to ensure provision of fair access for all patients to safe, quality and efficacious blood and blood products for transfusion in all spheres of medicine.

Highlighting the current activities and cooperation within the ECO region in this scope, he underlined the significance of the establishment of the ECO Blood Safety Network as one of grounds for relevant regional cooperation.

He pointed out the progresses made in some ECO Countries in voluntary blood donation which is possible to be achieved by the other Member States through exchange of experiences. He called for the enhancement of cooperation on blood transfusion and concluded with the hope that this meeting would be an important platform in adding greater depth and substance to the existing health related cooperation among the ECO Member States.

The participants of the Meeting reviewed the current blood transfusion situation in their respective countries, exchanged ideas and views on the Voluntary Donor Recruitment and Retention, Transfusion Medicine, Application of IT to Blood Services, Plasma Fractionation, etc.

The Meeting stressed the need for strengthening efficient and sustainable National Blood Programs with appropriate government commitment and support, national blood policies and legislative measures, integrated within the national health care system. The delegates also discussed the problems of development strategies, guidelines, norms and standards, technical and sufficiency issues relating to the entire blood transfusion process from donor to patient to ensure blood and blood products safety. The Meeting requested the ECO Member States to enhance the cooperation among themselves in this field and encourage holding training courses, workshops, scholarship, etc for all their blood system staff.

■ Country Reports

The delegates delivered Country Reports giving details of their national activities with regard to blood transfusion system in their respective countries.These included structure of their concerned bodies responsible for blood transfusion, the status of voluntary blood donation, new projects and initiatives, related laws and regulations, training programs, ratio of demand and supply, quality systems for blood safety. The participating delegations explained affordable facilities for more cooperation in the field of blood transfusion amongst Member States.

ECO Heads of **Blood Transfusion Organizations** *Meet*

■ Afghanistan

Ahmed Masoud Rahmani, MD, MBA, National Director, Afghanistan National Blood Safety and Transfusion Services, briefed the audience on "Mental Models Affecting the Blood Safety Services".

He explained experiences and challenges being faced in his country in the field of blood collection and elaborated on Afghanistan's achievements in this field and the future plans and programs for improvement. He requested the ECO Member States for a positive advocacy to the donors and other stakeholders for blood transfusion services in Afghanistan and providing any inter-regional training opportunities.

■ Azerbaijan

Chingiz Asadov, Scientific-Research Institute of Hematology and Transfusiolgy, in his presentation, gave brief demographic information of the country. He informed the Meeting about the history and structure of the blood transfusion services in Azerbaijan before and after 2011 as well as the distribution system of blood services. He further noted the remarkable growth achieved in the number of donors during the years 2001-2012 and explained the procedure of blood and blood components preparation by graphs.

■ Iran

Abdol Majid Cheragali, Advisor to the Managing Director of the Iranian Blood Transfusion Organization (IBTO), made a presentation explaining the country profile, structure, history, objectives and work flow of IBTO. He said that the IBTO has central procurement system working under a country wide network. The trend of blood donation in Iran was explained by graphs. While explaining the donors' profile, he said that 45% of donors have repeated donations with the number of male donors in majority as compared to the female ones. Laboratory testing procedures of donated blood were explained and the aims, activities, achievements and international collaborations of IBTO Research and Education Institute were introduced.

■ Kyrgyzstan

In his remarks, Bakyt Karabaev, Director General of Kyrgyz National Blood Transfusion Center, Ministry of Health, elaborated the key objectives, problems (low

level of voluntary blood donation, equipment), activities, structure of the blood services safety quality and availability of blood in the country. He also explained the strategies developed for improvement of blood services on the basis of international assistance.

■ Pakistan

Hasan Abbas Zaheer, National Project Manager of the National Blood Transfusion Services Program of Pakistan made a presentation covering the blood transfusion services in Pakistan. He underlined the current and future strategies for blood services in the country. He continued to explain the reforms envisaged for the safe blood transfusion program in Pakistan and briefed the audience on the role of government and regulatory authorities in the blood services. The importance of the legislative aspect of safe blood availability was also stressed upon in his presentation.

The national blood policy, quality managements systems, blood processing and testing, and national standards for blood transfusion system were also discussed. Problems and challenges being faced in this field were highlighted and said that the haemovigilance concept is new in the country.

The current strategy for the management of information system and achievements were shared with the participants. Zaheer concluded his remarks saying that there is still unleashed and untapped potential of many stakeholders like the NGOs and BDOs in the country.

Within the ECO region the significance of the establishment of the ECO Blood Safety Network is one of grounds for relevant regional cooperation.

■ Tajikistan

Aziz Odinaev, Head of the State Scientific Center for Blood Transfusion of the Ministry of Health, in his presentation, explained the structure of blood services in Tajikistan adding that the country is creating centralized blood system. He further, through graphs, the growing number of donors especially voluntary donors within the recent years. Data concerning blood testing were also shown in graphs.

■ Turkey

Bilal Aytac, Directorate General for Health Services, Ministry of Health made a presentation on blood services in Turkey providing general information on the history and the structure of the system of blood services in the country. Aytac further informed the participants on the rate of annual demands and supply as well as blood collection procedures and elaborated on the significance of blood screening and sources of donation as well as training of the personnel involved in the blood services.

A question/answer session was held at the end of the country presentations.

■ Status of Previous Decisions

Ms. Ainur Dyikanalieva, Director (HRSD) of the ECO Secretariat briefed the participants on the implementation of the most important decisions of the 2nd Meeting of the ECO Heads of Blood Transfusion Organizations/Authorities (Ankara 26-27 April 2010). She also underlined the latest developments of the ECO Blood Safety Network and reiterated the importance of the Focal Points' cooperation and conducting short/long term training courses for the blood services staff in the Member States.

■ Scientific Presentations

Voluntary Donor Recruitment & Retention in ECO Countries

A presentation was delivered by Matanat Garakhanova, Health Coordinator of Azerbaijan Red Crescent Society on "Experience of Azerbaijan Red Crescent Society in involving people to voluntary blood donorship". She gave background history of the Society and the legal framework of AZRCS.

Her presentation covered the Strategy 2020 of the IFRC to improve the blood services, an overview vision of 2011-2015 and a basic objective to increase the information available on safe lifestyle. Tasks to render voluntary donors were explained and joint cooperation as baseline within the national and international network was discussed.

She noted that the development of voluntary, non-remunerated blood donor recruitment in Azerbaijan is a project that was supported by the Norwegian Red Cross during 2004 - 2010. The volunteer, non- remunerated blood donor recruitment activities and public awareness about blood donation (1000 population, 2008) health care activities of the AzRCS during 2008 -2011 were explained in the presentation. To raise awareness of blood donation; promote healthy lifestyle; increase the number of young, healthy volunteer blood donors; provide social support for the people in need of blood donations and the major success of Club 25, achievements, problems and future plans were further highlighted.Garakhanova's presentation was followed by a speech by Parvana Hajiyeva, Head of Azerbaijan's Central Blood Bank, on "Motivating blood donorship in Azerbaijan" underscoring the fact that Azerbaijan's government has recently increased attention towards the issue of blood donation. In 2005, the Parliament of the Republic (Milli Majlis) adopted the Law of Azerbaijan Republic "On the donation of blood, its components and the blood service." The law was signed by the President of the Azerbaijan Republic on 3 May 2005. Furtherm Mehriban Aliyeva, the

President of the Heydar Aliyev Foundation, announced in 2005 the commencement of the project "Life without Thalassemia" which meets all modern requirements of a Thalassemia Center and formed a company to attract people to donate blood for the treatment of patients with thalassemia. Hajiyeva also presented information on the social status of the distribution of blood donors. Elsewhere at the event, Mahtab Maghsudlu (MD- MPH) Associate Professor of High Institute for Research and Education in Transfusion Medicine, Tehran, Iran made presentation on Self-sufficiency in safe blood, based on Voluntary Blood Donation. She defined the meaning of self-sufficiency in safe blood and its respective products based on voluntary non-remunerated, blood donation as well as the driver products.

The trend of volunteer blood donation in Iran was also discussed. Maghsudlu further informed the participants that Iran achieved the goal of 100% voluntary blood donation in 2007 adding that there is an urgent need to establish strategies and mechanisms for achieving self-sufficiency in safe blood and blood-related products based on VNRBD. "Ensuring the security of supply and demand are important national goals, and countries may set different timelines for the achievement of these objectives, depending on their health system development", she said.

■ Transfusion Medicine

Eldar Hadjiev, Senior Hematologist of the Ministry of Health of Azerbaijan spoke on the "Principles of Transfusion Tactics and Component Hemotherapy". In his presentation, he elaborated the current approach towards blood transfusion primarily based on substitution and haemostatic therapeutic effects of transfusion of cellular and protein components of blood.

■ Application of IT in Blood Services

Jabrail Asadzade, Director of Health Information Center, Azerbaijan, delivered a presentation on the "Application of IT to blood services in Azerbaijan". While providing a brief history on the application of IT in blood services in Azerbaijan, he said that new modern medical institutions are being constructed and existing hospitals and polyclinics renovated to improve the logistics of all medical services and ensure that the young specialists acquire international experience in their areas of expertise.

In addition, under the auspices of the Heydar Aliyev Foundation and on the personal initiative of the First Lady, Mehriban Aliyeva, modern medical centers are being built throughout the country and major actions against various diseases and especially children's diseases, has been implemented.

"The construction of modern diagnostics centers in the region is ongoing by the financial support of SOCAR. The introduction of information technologies into the public health sector will in turn result in the greater distribution of blood bank personnel, a reduction in the number of errors during various calculations and saving the working time by automation of drawing up registers and other documents. The integration of the Azerbaijani blood service institutions into the unified data network will enable data to be

exchanged rapidly between blood service institutions", Asadzade further noted.

■ Plasma Fractionation

Abdol Majid Cheraghali, Advisor to the Managing Director, IBTO, delivered a presentation on Plasma Fractionation. He elaborated the experience of Iran in contract plasma fractionation program and stated that there are three options for providing PDMs i.e. local production, importation and contract fractionation with the last option being the best. While expressing the readiness of IBTO to share experiences with ECO Member States, Cheraghali concluded his presentation with the following recommendations:

■ Utilizing Iran's experience by other countries especially the low resourced ones;
■ Introducing a nationally coordinated transfusion service that could significantly contribute towards the implementation of contract fractionation activity;
■ Providing technical assistance and expertise (e.g. improving QA) by the International organizations such as WHO which could play major roles in implementing such programs;
■ IBTO is ready.

■ ECO Blood Safety Network

Continuing his speech, Cheraghali, then briefed the participants on the background of establishment of ECO Blood Safety Network, its main objectives and latest status. He then elaborated on the objectives and database of blood safety, methods of data collection, questionnaire preparation and progress report of the Network. He also mentioned that the initial website for the Network (www.ecobsn.com) has already been aired. Cheraghali, subsequently, requested the Member States to forward their updated news, reports and publications (English and Russian) to the mail address of network: intl@ibto.ir or/and info@ecobsn.com. The participating delegates also exchanged their views on the issue.

■ Final Report

Emphasizing the need to provide safe and sufficient blood based on voluntary, non-remunerated donation to the citizens of ECO countries, the Meeting stressed the importance of establishing regional collaboration among the Member States.

It also recommended putting the blood transfusion medicine issue on the agenda of the next meeting of the ECO Health MinistersHolding a workshop on application of IT in blood transfusion services in one of the ECO Member States was another recommendation of the Meeting that also suggested the Meetings of ECO Heads of Blood Transfusion Organizations/Centers to be held annually instead of bi-annually.The delegates also discussed the problems of development strategies, guidelines, norms and standards, technical and sufficiency issues relating to the entire blood transfusion process from donor to patient to ensure blood and blood products safety.

In the final Statement, the Meeting requested the Member States to:

i.Enhance collaboration in the field of plasma fractionation among the ECO Member States;

ii.Propose to the Meeting of the Health Ministers to consider the possibility of the establishment of a joint plasma fractionation facility in one of the Member States the benefit of the ECO countries;

iii.Provide bilateral or combined training/scholarship opportunities in Member States' Transfusion Services for Experts from ECO Member States.

iv.Nominate/regularly update the information of their focal points on ECO Blood Transfusion Cooperation giving all relevant particulars, including Name, Position, Tele, Fax, and E-mail addresses at the earliest.

v.Formulate a standard template for the preparation of country reports by ECO Member States for future meetings.

■ Closing of the Meeting

The representatives of the Member States appreciated the initiative to hold this important meeting and expressed their gratitude towards the Ministry of

Health of the Republic of Azerbaijan for the excellent arrangements made and the warm hospitality extended to the delegates.

They also thanked the ECO Secretariat's staff for their valuable efforts in coordinating the arrangements of the Meeting.

The Meeting appreciated the offer of the Republic of Tajikistan to host the 4th Meeting of the ECO Heads of Blood Transfusion Organizations/Authorities in 2015 in Dushanbe.

ECO Blood Safety Network

www.ecobsn.com

Networking is one of the most recommended tools for optimization of resources between countries with limited resources in public health sector. There is no doubt that a safe and adequate blood supply is an essential part of any given health system. The safety of blood and blood products remains a continuing cause for concern, particularly among ECO member states. Most countries in this region are suffering from the lack of voluntary blood donation and high prevalence rate of transfusion transmitted infections among blood donors.

To communicate with key stakeholders, in particular, with policy makers, on the need for blood safety, Iranian Blood Transfusion Organization (IBTO) proposed to host the 1st Meeting of the Heads of Blood Transfusion of ECO member states on June 2008 in Tehran, Iran. In this meeting participants were urged to formulate a regional cooperation network on data banking, training, education and expertise exchange on transfusion medicine.By the end of 2008, Iranian Blood Transfusion Organization (IBTO) offered a proposal to establish "ECO Blood Safety Network". In April 2010, IBTO and ECO signed an agreement to set up the Network.

The aim of the first phase of the Network was to collect, analyze , compare and update statistics on blood safety and establishing a regional information network (e-network) in ECO member states in order to identify the shortcomings at regional level and to suggest recommendations for improvement.

In order to collect the related data, a special questionnaire was designed and sent to focal points or other related authorities of all Member States for several times. By the end of 2012, only three countries including Turkey, Afghanistan and Iran filled the questionnaire. Other information was derived from literature reviewing and web navigation.

Based on the findings of the report and to address the related challenges, IBTO organized a three-day workshop on "Voluntary Blood Donor Recruitment" and "Quality System" (10-12 May 2010). The workshops were very well attended by the experts from the Member States who discussed two main priorities for the blood transfusion services of the ECO region.

Finally, in 2012, a comprehensive report on blood safety status in the Member States was drafted and published after necessary revisions by the countries. Despite the lack of precise information, the report provides an overview on the general status of blood safety in this region.The report enables each country to assess its own situation and monitor its progress in relation to other countries and also regional trends as well as assisting them to plan research and develop appropriate strategies to address their needs.

In order to facilitate collaboration among national blood services of the ECO Member States, an online website was launched in July 2012. The daily updated website (www.ecobsn.com) contains the latest news, reports and publications from the Member States regarding blood transfusion & safety.

Filling the related questionnaire online in English and Russian is available on this website.

Member states are encouraged to forward their updated news, reports and publications to the intl@ibto.ir. ■

"A Significant Regional Organization for Economic Development & Integration"

By: Numan Hazar
Member of ECO's Eminent Persons Group (EPG) From Republic of Turkey

The Economic Cooperation Organization (ECO) is an important international institution. There are thoughts to the effect that it has not been able, up until now, to fully execute its functions in order to meet all expectations.

The reason is that this organization could have realized major initiatives because of its great potentialities. For that reason, all member states share in principle the thought that there is a need to exert more effort in this direction. Nevertheless, we have to admit that there are certain difficulties facing this path.

First, it is necessary to mention the various stages of development of the ECO. The Organization of Regional Cooperation for Development (RCD) was founded in 1964 by Iran, Pakistan and Turkey, with the aim of promoting economic integration and technical and cultural cooperation among member states, in order to raise their standard of living and to contribute to their

efforts at economic development. As a matter of fact, the RCD was successful in realizing several economic, technical and cultural projects.

In a bipolar world and in the conditions of the Cold War prevailing at that time, the West, which attached importance to the economic development of these three countries, also taking into consideration the strategic significance of the region, supported the RCD's approach of cooperation and integration.

In 1979 after the Islamic Revolution in Iran all activities of the organization were suspended. In 1980, the RCD was dissolved. Nevertheless, the founding members of the RCD, aware of the fact that the organization was a significant one related to economic integration and regional cooperation, decided to reactivate it. While doing so they changed its name to the Economic Cooperation Organization. To that effect, in 1990 during the meeting of the foreign ministers of the three founding members held in Islamabad, an amendment protocol to the original Treaty of Izmir was signed.

After this development and following the events that occurred with the demise of the Soviet Union leading to the independence of 15 new states, the ECO was enlarged with newly independent states with which there was a close cultural affinity and historical ties of the founding members of the ECO. These new members were Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Thus, the number of the ECO member states reached 10.

At this point, we can explain why the ECO is an important grouping:

1.ECO comprises an area of 8 million square kilometers with a population of 450 million people. It is geographically vast, and also a contiguous territory.

2.In addition to human resources, it is a region rich in natural resources, for example the existing oil and natural gas reserves.

3.The ECO region is situated centrally among three continents of the Old World -- Europe, Asia and Africa (collectively known as Afro-Eurasia) -- and thus it has great strategic value, as put forth by the theorist of strategy, Sir Halford MacKinder, within the context of his view to dominate the world through domination of the pivotal area. As a matter of fact, throughout history it was an area of competition for big powers.

4.The ECO also symbolizes a region functioning like a bridge between the East and the West: Asia and Europe.

5.The possibility of having access to the Indian Ocean, the Persian Gulf, the Mediterranean Sea and the Black Sea exists.

6.Another significance of the ECO is the proximity to big powers such as the European Union, Russia and China.

7.There

are highways, maritime routes and railways linking one country to another.

8.More important than all these factors, there is a historical and cultural affinity among member states.

As far as this particularity of the ECO is concerned, it is possible to compare it with the European Union. This particularity of the ECO has even drawn the attention of Samuel P. Huntington, who put forward the thesis of the clash of civilizations. When he explained that countries with similar cultures were choosing the option of economic integration, he mentioned the ECO as an example. As a matter of fact, despite linguistic differences, thousands of common words exist in the region. All these elements underline that the ECO has a significant infrastructure and important potential to deliver a successful performance. At this point, I would like to emphasize that the ECO is a technical organization. In this respect, it is different from the European Union. As is common knowledge, the EU had the purpose to reach political union at the final stage through economic integration at the beginning. Nevertheless, this particularity of the ECO does not constitute an obstacle for an exchange of views on actual or global political problems during summit meetings or meetings of the council of ministers. On the contrary, an opportunity is created for such a consultation mechanism.

Several measures have been adopted by the ECO in order to strengthen integration and to increase trade among its member states. Several projects were realized for developing transport and communication services. The ECO Trade Agreement, Transit Transport Framework Agreement and several other agreements and the establishment of the ECO Bank could be cited as examples.

Despite all these efforts and positive elements, the ECO has several issues. To give an example, there has always been an ambition to increase trade between its member states. In 2005, this internal trade of the ECO region was 6 percent of all trade and in 2010 it increased to 7 percent. This state of affairs could be characterized as a failure. In the ECO Vision 2015 document prepared by independent experts of the member countries, the goal of internal trade for the year 2015 was indicated as 20 percent of all trade.

When we take into consideration the fact that the internal trade of the European Union is 65 percent of all trade we can see a low performance from the point of view of the ECO's success. Undoubtedly, it will be useful to eliminate all existing obstacles in this area. Nevertheless, it is important that all member countries first sign the ECO Trade Agreement and implement it. There are also several structural or institutional difficulties which prevent the ECO from becoming a well-functioning international organization.

As far as Turkey is concerned, its government attaches importance to a well-functioning, efficient and dynamic ECO. According to the Turkish view, a successful and active ECO would best serve the interests of all the member states. In light of this evaluation, during the ECO summit held in Istanbul in 2010 where Turkey assumed the task of Chairman in Office of the organization, President Abdullah Gül proposed the establishment of an Eminent Persons Group (EPG) to provide recommendations to enhance the dynamism, efficiency and visibility of the organization. This proposal was included in the final declaration of the summit meeting.

> The EPG report also suggested the reconvening of the EPG six months after the approval of the report for a follow-up and assessment report of the implementation.

The EPG was established in mid-2011, and it started its work towards the end of that year. This group is the third one created by the ECO up to now. The second EPG prepared the ECO Vision 2015 document and proposed a host of measures in this context. This document was approved by the council of ministers in 2005.

The third EPG continued its activities intensively in 2012. According to its terms of reference, the EPG was given the

task of examining all documents and the ECO Vision 2015 document in order to propose amendments to basic agreements, to interview the staff of the secretariat, specialized agencies and regional institutions in order to submit its recommendations contained in a report to the council of ministers. The EPG would remain in contact with the council of permanent representatives (CPR) composed of the ambassadors of member countries in Tehran, if required. The secretariat would provide the facilities and services for EPG meetings for the purpose of it functioning smoothly.

The EPG completed its functions in 2012 and the chairman of the EPG presented its report to the council of ministers on the occasion of the ECO summit held in October 2012 in Baku, Azerbaijan.

The EPG report contained in detail several recommendations including the strengthening of the secretariat, the selection of the staff on the basis of merit, the increase in budget, the amendment in the decision-making mechanism, the last-mentioned having created some difficulties in the past for the efficiency and success of the organization.

Turkey did not only propose the establishment of the EPG, but also provided the necessary financing. The submission of the EPG report at this time has particular significance, since the ECO Vision 2015 document prepared by the second EPG would be revised and a new vision document for the next decade (2016-2025) will be created. In this regard, the EPG report is timely as a guide. The results of the work of the EPG will furnish the basic elements of a new Vision Document, as of 2013.

This new document is also expected to be prepared by the EPG. As referred to in the decisions of the council of ministers regarding the EPG report, the ministers asked the secretary-general to prepare a roadmap for its implementation and to submit it to the council of permanent representatives.

The EPG report also suggested the reconvening of the EPG six months after the approval of the report for a follow-up and assessment report of the implementation.

The EPG proposed in its report the organization of national conferences in each member state with the participation of government and private sector representatives, members of the media, think tanks and academics. In these conferences, views, assessments and expectations of the member countries would be presented. The results of these conferences would be reviewed in a meeting of the EPG at the end of 2013 at the organization's headquarters in Tehran. This evaluation will be considered in the preparation of the new ECO vision document. Nevertheless, all member states should have a high level of political will in order to adopt the necessary dispositions aimed at ensuring the ECO becomes a well-functioning international organization. This is also emphasized by the EPG report. In the millennium goals of the world summit held in 2005, special importance is attached to regional organizations. This may encourage all member countries to demonstrate the necessary political will aimed at realizing a well-functioning ECO. Nevertheless, we have to underline the fact that an active and efficient ECO is in line with Turkey's political interests. I also believe that all member countries share the view that the ECO will serve their own national interests. ■

Investment in ECO Energy/Petroleum Industry Urged

During the year 2012, amid the prevailing economic despair and market volatility, the investors around the world learnt that it pays to take a risk.

Signs are that in 2013, investors need to be braver to enter any market. In the ECO region it may be advisable for investors to invest in the region's petroleum industry.

Within the year 2012, the investors faced Euro crisis in Europe, followed by the slow-moving growth in the UK and the prospect of a frightening "fiscal cliff" in the US.

This year, so far, not much has changed. The European situation, although stable is now facing the Cyprus crisis. The UK economic growth problem is also far from being resolved. The US administration is facing its differences with the House of Representatives over tax rises and spending.

H. Khademi, Managing Director of North Drilling Company (NDCO) is of the opinion that ECO region's investors should invest in the ECO Energy/Petroleum industry and his company, since separation from the National Iranian Oil Company (NIOC), has done well as a

private company.

"Our company shares are best for investment and have showed remarkable increase in value since it was privatized and will continue to increase over time too", Khademi said alongside the recent 3rd ECO Ministerial Meeting on Energy / Petroleum in Tehran.

NDCO has recently added two Jack up rigs SAHAR 1&2 to its fleet of offshore drilling rigs in the Persian Gulf and has registered its name on the record as the first and, so far, the only drilling company in the region which operated at the depth of about 800 meters in the Caspian Sea.

During the 2nd ECO Ministerial Meeting on Energy/Petroleum (Tajikistan - October 2010), NDCO initiated the idea of ECO Drilling Industry cooperation through organizing training programs and partnership. During the 22nd ECO Regional Planning Council (RPC), the Republic of Azerbaijan offered to host the first ECO Drilling Training workshop in 2013.

"Considering the current global financial situation and the increase of the petroleum drilling and exploration costs in the ECO region, we need to establish closer links and cooperation and I am pleased that Tehran Declaration has paved the way in this regard." Khademi noted .

He further offered the investors in the ECO region to be active in the Tehran Stock Exchange and investing in the NDCO shares. "In the first place, look for stocks with P/E ratios below the long-term average of the stock market index", Khademi suggested.

Most ECO investors are familiar with the P/E or price to earnings ratio. It's the stock's price per share divided by its earnings per share. Investors by looking into P/E ratio will look at how cheap or expensive a particular stock (share) is. Therefore, lower the P/E ratio, the better the price.

Let's use an example for better understanding of P/E ratio for those who are thinking to buy shares at any stock market.

An investor wishes to purchase a property that will provide the investor with for example $10,000 a year in rental income, after the deduction of maintenance costs and taxes.

If the investor could buy that property (an apartment or a house) for, let's say, $80,000, then he or she will be very happy of his or her investment in purchasing the property. That would be like a P/E ratio of 8 times in the stock market. But if the house costs the investor $200,000 (a P/E ration of 20 times) most people would say that is a bad investment.

Thus, in any stock market what an investor should look for is to see the basket of the market stocks that are considered to be widely held. This basket of market stocks (index) is weighted by market value, and its performance is thought to be representative of the stock market as a whole.

For example, in US markets, Standard & Poor's 500 (S&P 500) is an index comprised of the 500 biggest stocks trading in the U.S. On average, it has traded at a price of 17 times earnings. In general, when you can find a quality company trading with a P/E below 17, the investor will be getting a good deal.

Khademi is proud of his company stock's dividend yield and payout ratio and stated: "NDCO, since its privatization, has a growing dividend, which is a sign of a profit making company that treats its shareholders well. Historically, since its privatization, NDCO's dividend growth has been consistent."

Referring to the ECO 12th Summit Declaration in which the significant role of private sector was acknowledged as an engine of growth and economic development in the region Khademi is of the view that: "We should work hard to pave the way for the realization of the directives of the 3rd ECO Energy / Petroleum Ministers' Declaration. That is when ECO investors, by investing their funds in the region's petroleum and drilling industry, will have an extra measure of protection and peace of mind." ■

Ghanats of ECO Region

The Ingenious Traditional Water Management System

According to UNDESA (United Nations Department of Economic and Social Affairs) water scarcity affects every continent. Around 1.2 billion people, or almost one-fifth of the world's population, live in areas of physical scarcity, and 500 million people are approaching this situation. Another 1.6 billion people, or almost one quarter of the world's population, face economic water shortage (where countries lack the necessary infrastructure to take water from rivers and aquifers. Water scarcity is among the main problems to be faced by many societies and the World in the XXIst century.

On the other hand, water use has been growing at more than twice the rate of population increase in the last century, and although there is no global water scarcity as such, an increasing number of regions are chronically short of water. How did our ancestors in the ECO region confronted the challenge of water scarcity and what technology had they employed to counter this problem? The ingenious traditional water management system known as Ghanat or Kahriz invented and used in Iran and elsewhere in the ECO region is certainly an inspiring notion worth scrutinizing and study.

Ghanats are ingenious traditional water management systems used to provide a reliable supply of water for human settlements and irrigation predominantly used in ancient Persia, where it originated, to numerous countries all over the world, particularly those with arid and semi-arid climates such as Afghanistan, Central Asia and North Africa.

While an underground stream is called a Ghanat in Iran, they are called Kaariz in Afghanistan, Pakistan and Central Asia; Kahan, Khettara in Morocco; Galeria in Spain; Falaj in the United Arab Emirates and Oman; Kahn in Baloch or Foggara/Fughara in North Africa, Kanerjing in China, a Khettara in Morocco and a Galeria in Spain. Alternative terms for Ghanats in Asia and North Africa are Kakuriz, Chinavulz, and Mayun. Common variants of Ghanats in English include Kanat, Khanat, Kunut, Kona, Konait, Ghanat, Ghundat.

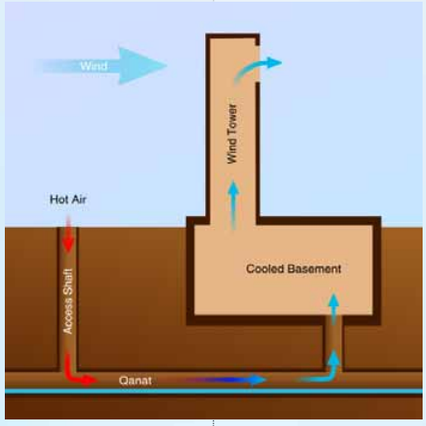
According to the available information, the system is known to have been developed by the Persians sometime in the early 1st millennium BC. Discoveries of underground conduits in a number of ancient Roman sites led some modern archaeologists to suppose the Romans had invented the Ghanat system. Written records and recent excavations leave no doubt, however, that ancient Iran (Persia) was its actual birthplace. References to Ghanat systems, known by various names, are fairly common in the literature of ancient and medieval times. The Greek historian

Polybius in the second century B.C. described a Ghanat that had been built in a Persian desert "during the Persian ascendancy." It had been constructed underground, he remarked, "At infinite toil and expense ... through a large tract of country" and brought water to the desert from sources that were mysterious to "the people who use the water now."

During the periods of Roman and then the Muslim Rule, the technology was so simple and effective that it was adopted in North Africa, Spain and Sicily. In the Sahara region a number of oasis settlements are irrigated by the Ghanat method. The value of a Ghanat is directly related to the quality, volume and regularity of the water flow. Although a Ghanat was expensive to construct, its long-term value to the community, and therefore to the group who invested in building and maintaining it, was substantial.

Technical Features

Ghanats are constructed as a series of well-like vertical shafts, connected by gently sloping tunnels which tap into the subterranean water in a manner that efficiently delivers large quantities of water to the surface without need for pumping.



Being about 1½ meter high and ¾ meter wide, Ghanats are rather narrow, but they can reach depths of 30 meters (the record seems to be 60) and can cover distances of many kilometers (the longest Iranian Ghanat is said to be 70 kilometers long.)

Shafts are built for three reasons: to supply air, remove sand and dirt and prevent the tunnels from becoming dangerously long. The shafts are not very far apart, and as a result, a Ghanat seen from the air gives the impression of a long, straight line of holes in the ground - as if the land has been subjected to a bombing run.

Ghanats are sometimes split into an underground distribution network of smaller canals called Kariz. Like Ghanats, these smaller canals were below ground to avoid contamination. In some cases water from a Ghanat is stored in a reservoir, typically storing night flow for daytime use. An Ab Anbar is an example of a traditional Ghanat fed reservoir for drinking water in Persian antiquity. Ghanats allow water to be transported over long distances in hot dry climates without losing a large proportion of the water to seepage and evaporation.The Ghanat system has the advantage of being resistant to natural disasters such as earthquakes and floods, and to deliberate destruction in war.

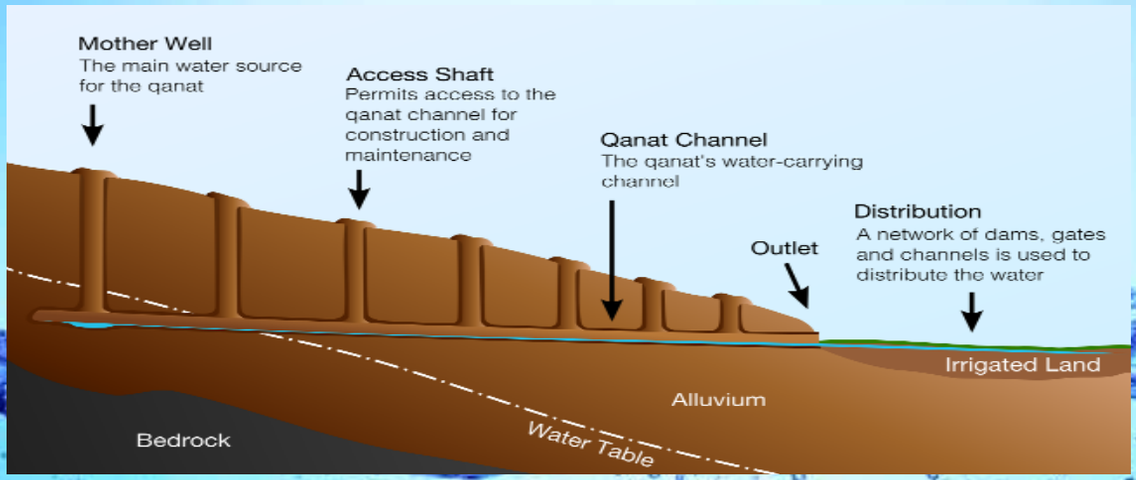
Construction Process

A Ghanat system is usually dug in the slope of a mountain or hillside where material washed down the slope has been deposited in alluvial fans. The surveyor examines these fans closely, generally during the fall, looking for traces of seepage to the surface or slight variations in the vegetation that may suggest the presence of water sources buried in the hillside. On locating a promising spot, lie arranges for the digging of a trial well.

Two diggers, called muqanni, take up this task. They set up a pulley at the surface to haul up the excavated material in leather buckets and proceed to dig a vertical shaft about three feet in diameter, one man working with a mattock and the other with a short-handled shovel. As they load the spoil in the buckets, two workers at the surface pull it up with the pulley and pile it around the mouth of the shaft.

If luck is with them, the diggers may strike an aquifer at a depth of 50 feet or less. Sometimes, however, they dig down 200 to 300 feet to reach water, and this necessitates installing a relay of pulleys at stages 100 feet apart on the way down.

When they arrive at a moist layer - a potential aquifer - the diggers scoop out a cavity to its impermeable clay



bottom, and for the next few days the leather buckets are dipped into the hole periodically to measure the rate of accumulation of water in it. If more than a trickle of water is flowing into the hole, the surveyor can conclude that he has tapped a genuine aquifer. He may then decide to sink more shafts into the stratum in the immediate area to determine the extent of the aquifer and its yield.

The surveyor next proceeds to chart the prospective course of an underground conduit through which the water can flow from this head well or group of wells to the ground surface at some point farther down the slope. For the downward pitch of the conduit he selects a gradient somewhere between one foot in 500 and one in 1,500; the gradient must be slight so that the water will flow slowly and not wash material from the bottom of the conduit or otherwise damage it. For his measurements the surveyor uses simple instruments: a long rope and a level.

The surveyor lets the rope down to the water level in the well and marks the rope at the surface to show the depth. This will be his guide for placing the mouth of the conduit; obviously the mouth must be at some point a little below the water level indicated by the rope. A series of vertical shafts for ventilation will have to be sunk from the surface to the conduit at certain measured intervals (perhaps 50 yards) along its path. Consequently the surveyor must determine the depth from the surface for each of these shafts. He uses a level to find the drop in the ground slope from each shaft site to the next and marks the length of this drop on the rope. This tells him how far down from the surface each shaft would have to be dug if the conduit ran a perfectly level course. He then calculates the additional depth to which each should be dug (in view of the prospective pitch of the conduit) by dividing the total drop of the conduit from the well's water level to the mouth by the number of proposed ventilation shafts.

As the muqanni proceeds to dig the conduit itself, guide shafts are sunk to the indicated depths at intervals of about 300 yards to provide information regarding the route and pitch of the conduit for the diggers. They start the excavation of the conduit from the mouth end, digging into the alluvial fan. To protect the mouth from storm-water damage they often line the first 10 to 15 feet of the tunnel with reinforcing stone. The conduit is about three feet wide and five feet high. As the diggers advance they make sure they are following a straight course by sighting along a pair of burning oil lamps.

They deposit the excavated material in buckets at the foot of the nearest ventilation shaft, and it is hauled up by their teammates above. The tunnel needs no reinforcement where it is dug through hard clay or a coarse conglomerate that is well packed. When the muqanni come to a boulder or other impassable obstacle, they turn around it and then must recover their bearing toward the next ventilation shaft. They show a good deal of skill in this, relying partly on their sense of direction and partly on listening for the sounds of the diggers working on the vertical shaft ahead. The greatest danger encountered by the muqanni is sandy, soft, friable or otherwise unstable soil, which may cause the roof of the tunnel to collapse on them.

In such passages the diggers generally line the excavation with oval hoops of baked clay as they cut away the face of the work. Gases and air low in oxygen also are hazards; the diggers carefully watch their oil lamps for warning of the possibility of a suffocating atmosphere.

As the muqanni approach the aquifer they must be alert to another danger: the possible flooding of the tunnel by a sudden inrush of water. This hazard is particularly great at the moment of breakthrough into the head well; the well must be emptied or tapped very cautiously if the men are not to be washed down the conduit by a deluge. Because of these hazards muqanni call the Ghanat "the murderer." Depending on the

depth of the aquifer and the slope of the ground, Ghanats vary greatly in length; in some the conduit from the head well to the mouth is only a mile or two long, and at the other extreme one in southern Iran is more than 18 miles long. Commonly the length is between six and 10 miles. The water discharge obtainable from individual Ghanats also varies widely. For example, of some 200 Ghanats in the Varamin plain, southeast of Tehran the largest yields 72 gallons per second and the smallest only a quarter of a gallon per second.

Not until the Ghanat has been completed and has operated for some time is it possible to determine whether it will be a continuous "runner" or a seasonal source that provides water only in the spring or after heavy rains.

Because the initial investment in construction of a Ghanat is considerable, the owner and builders often resort to probing and laborious devices to enlarge its yield. For example, they may extend branches from the main conduit to reach additional aquifers or excavate the floor of the existing conduit in order to lower it and tap water at a deeper level.

A great deal of care is also given to the maintenance of the Ghanat. The ventilation shafts are shielded at the top with crater-like walls of spoil and sometimes with hoods to prevent the inflow of damaging storm waters. Muqanni are continually kept employed cleaning out silt that is washed into the conduit from the aquifer, clearing up roof cave-ins and making other repairs.

As is to be expected of a system that has existed for thousands of years and is so important to the life of the nation, the building of Ghanats and the distribution of the water are ruled by laws and common understandings that are hallowed by tradition. The builders of a Ghanat must obtain the consent of the owners of the land it will cross, but permission cannot be refused arbitrarily. It must be granted if the new Ghanat will not interfere with the yield from an existing Ghanat, which usually means that the distance between the two must be several hundred yards, depending on the geological formations involved. When the parties cannot agree, the matter is decided by the courts, which normally appoint an independent expert to resolve the technical questions at issue.

Similarly, there are traditional systems for the fair allocation of water from a Ghanat to-the users. If the Ghanat is owned by a landowner who has tenant farmers, he usually appoints a water bailiff who supervises the allotment of water to each tenant in accordance with the size of the tenant's farm and the nature of the crop he is growing. When the peasants themselves own the Ghanat, they elect a trustworthy water bailiff who sees that each farmer receives his just share of the water at the proper time - and who receives a free share himself for his service. The bailiff is guided by an allocation system that has been fixed for hundreds of years. For instance, three hamlets in the region of Selideh in western Iran still receive the shares that were allotted to them in the 17th century by the civil engineer in the reign of Shah Abbas the Great.

The hamlets of Dastgerd and Parvar are entitled to eight shares apiece and Karton nine shares and these allocations are built into the outlets from the Ghanat distribution basin: the outlets at Dastgerd and Parvar are eight spans wide and the one at Karton is nine spans wide.

Whatever the future of Iran's Ghanat system may be, it stands out today as an impressive example of a determined and hardworking people's achievement. The 22,000 Ghanats in Iran, with their 170,000 miles of underground conduits all built by manual labor, deliver a total of 19,500 cubic feet of water per second - an amount equivalent to 75 percent of discharge of the Euphrates River into the Mesopotamian plain. This volume of water production would be sufficient to irrigate three million acres of arid land for cultivation if it were used entirely for agriculture. It has made a garden of what would otherwise have an uninhabitable desert. There are indications that in early times the country had flourishing vegetation that gradually dried up, partly because of deforestation and the loss of fertile soil by erosion. The Persian people responded to potential disaster with a farsighted solution that is a classic tribute to human resourcefulness.

Conclusion

Ghanat system has a profound influence on the lives of the water users. It allows those living in a desert environment adjacent to a mountain watershed to create a large oasis in an otherwise stark environment. The United Nations and other organizations are encouraging the revitalization of traditional water harvesting and supply technologies in arid areas because they feel it is important for sustainable water utilization. ■

ECO Bank's Review of Key Sectors & Pakistan

Following the high growth rates of 2002-07, the economy slowed down considerably as the country experienced serious security and political crisis in 2008-09. This situation was made worse by severe energy shortages that put a serious road block on the road to rapid economic recovery. Although GDP growth rates managed to remain in the positive territory but the figures were very low. Power shortages, high inflation, and poor security situation negatively impacted the growth rates in manufacturing and services sectors. Standby agreement with the IMF and growing amount of foreign remittances has helped to stabilize the foreign exchange reserve position and current account deficit. The nascent recovery was dealt a severe blow by the unprecedented floods in the country in 2010 which inundated 20% of the county and caused a damage of around USD 9.5 bln. This shaved off around 2% of economic growth.

Most economic observers are now predicting that the worst of the downturn may be over and the economy should now start growing again. This recovery would depend primarily upon strong performance in agriculture, services, and manufacturing sectors provided there are major improvements in power supply and infrastructure bottlenecks. Textile sector has shown encouraging signs of growth particularly in the export markets.

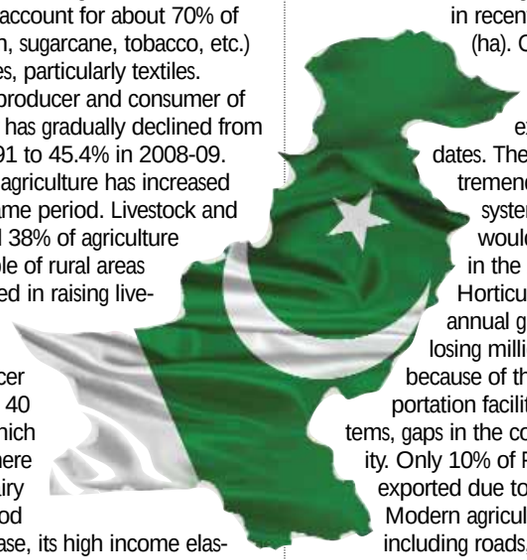
In the coming years, the key priority sectors for the Bank would be energy, agriculture, transport, and infrastructure. It would also explore viable projects in manufacturing sectors.

i)Agriculture

Pakistan has a total geographical area of 79.6 million hectares (ha). Agriculture contributes around 21.5% of the GDP, employs

44% of country's workforce and is a major source of foreign exchange earnings. Approximately 67% of the country's population lives in rural areas and directly or indirectly relies on the agricultural sector for its livelihood.

Wheat, rice, cotton, and sugarcane are considered to be the major crops and contribute around 6.5% to the overall GDP. Wheat is grown over 8.41 million ha, rice over 2.52 million ha and cotton about 3.05 million ha. The cropped area for rice is growing steadily; however, there is decreasing trend is observed in sugarcane plantation. Food crops account for about 70% of the cropped area. Cash crops (cotton, sugarcane, tobacco, etc.) provide basic inputs for key industries, particularly textiles. Pakistan is the world's fourth largest producer and consumer of cotton. The share of crop sub-sector has gradually declined from 65% of agricultural activity in 1990-91 to 45.4% in 2008-09. By contrast, the share of livestock in agriculture has increased from 30% to over 50% during the same period. Livestock and dairy sub-sectors account for around 38% of agriculture value added. About 38 million people of rural areas (involving 6 million farms) are engaged in raising livestock and deriving 30-40% of their incomes from this activity.



Pakistan is the fourth largest producer of milk in the world, producing over 40 million tonnes of milk annually of which only a small fraction is processed. There are approximately 6 million small dairy farmers in Pakistan. Livestock has good growth potential owing to its large base, its high income elasticity of demand, and the relative lack of constraints from the cropped area. Growth in demand for dairy products in Pakistan is estimated at 5.5% per year. Demand for livestock products is increasing because of population growth rate and increased income levels. Most milk production continues to be channeled to the market through traditional networks. Moreover, the milk yield is also low which can be attributed to a poor genetic pool and inappropriate feeding and farm management. Significant productivity gains can be achieved through better farm-management practices, improved feeds, better veterinary services, and improved marketing channels. Poultry sector is also one of the progressive segments of agriculture industry of Pakistan. This sector generates (direct/indirect) employment for about 1.5 million people. Its contribution in agriculture growth is 4.81%. Poultry meat contributes 19% of the total meat production in the country. The existing daily availability of protein quantity per capita in Pakistan deriving from animal source amounts to 13.6 grams. This is far less than the recommended daily dietary protein allowance from animal source of 27 grams. According to industry sources there is capacity of 5,000 Environmental Control Houses in Pakistan and currently around 2,500 houses are working. The poultry meat production has showed a growing trend over the past few years which is now close to 0.65 million tons annually. Pakistan annually produces about 13.7 million tons of fruits and vegetables. Citrus fruit has taken the lead in term of production followed by mango, dates and guava. Potato and onion lead among vegetables and condiments. The total area devoted to fruit and vegetable production has increased rapidly in recent years, reaching 1.5 million hectares (ha). Citrus, with total production of 2.1 million tons, is the largest horticulture crop group by volume, and a major foreign exchange earner, along with mangoes and dates. The horticulture sector in Pakistan represents tremendous unrealized potential that requires a systematic and focused intervention. This would help the country to get a sizeable share in the global market of USD 80 bln. Horticulture has been estimated to have an annual growth potential of around 8%. Pakistan is losing millions of dollars annually in citrus exports because of the absence of basic infrastructure, transportation facilities, deficiencies in storage, credit systems, gaps in the cold chain and limited cold storage capacity. Only 10% of Pakistan's produce, in case of fruits, is exported due to inadequate cold storage facilities. Modern agriculture requires expensive infrastructure including roads, irrigation, and electrification. Pakistan needs to invest in the irrigation infrastructure placing emphasis on farmer organizations to ensure efficient use of water and adequate maintenance. Some experts believe that the banking sector must provide, for medium to long term, an annual credit to the extent of USD 17 bln per annum for a sustained growth of 6% in the agriculture sector. The USD 2.5 bln targeted credit for 2008-09 fell way short of that mark. Even this was mostly concentrated on short term production/ working capital farm credit.

The Bank would support investments to build storage facilities, cold chain infrastructure, and other ventures to support value addition in the agriculture sector. It would actively seek to finance industrial projects that use agriculture produce as raw materials.

Investment Opportunities

ii)Infrastructure

Pakistan's physical infrastructure is inadequate in comparison with other rapidly developing emerging economies and has been cited as one of the major reasons holding back rapid economic growth in the country.

It is estimated the infrastructure bottlenecks may be costing around USD 3.5 bln to the economy every year. According to the World Economic Forum Survey Pakistan is ranked 67th out of 125 countries in basic infrastructure. Pakistan's total requirements for infrastructure development over the medium-term are in the range of USD 45 bln, but would be much higher at about USD 65 bln if the planned large water storage dams are also included. This state of affairs demonstrates that the government requires heavy investment in physical infrastructure in order to improve delivery of social services and to enhance its domestic and global competitiveness. It has been estimated that if a country wants to attain a 7% GDP growth rate, then it has to invest at least 7% of its GDP in infrastructure development. Given this scenario, the government needs to upscale both its own and private sector investment in the infrastructure field.

Public sector has traditionally been the main provider of basic infrastructure in Pakistan. However, in view of the needs of large backlog and government's limited financial resources its capacity to address the infrastructure deficit is severely constrained. There is a dire need of a well designed long-term strategy to enhance infrastructure investment and expand private sector participation in infrastructure development. The potential of the private sector to meet Pakistan's pressing infrastructure needs is largely untapped. So far governments policies and incentives have focused on attracting private investment in power and telecommunications sector where it can claim some success as power generation capacity increased in 1990s and a great deal of private investment come into the telecom sector in 2000s. The government is now keen to attract private sector participation in other sub-sectors as well. The recent floods have added to the daunting infrastructure challenge facing the country as more than 5,000 miles of roads and railways have been washed away, along with some 7,000 schools and more than 400 health facilities. Estimates have put the total cost of the flood damage at around USD 9.5 bln. This comes to around 20% of Pakistan's annual budget and exceeds the total cost of US aid package to Pakistan spread over five year. Irrigation network is a vital part of agriculture infrastructure in Pakistan. The total irrigated area is 18 million ha. The irrigated land accounts for 84% of the total 23.39 million ha of total area under cultivation. Currently, the available water falls short of the existing irrigation requirements, leaving no scope for bringing further 3.8 million ha rain-fed and 8.33 million ha waste lands under irrigation. This water scarce situation can turn worse if the water coming down from glaciers decreases because of climatic change. Snow and glacial melt contributes more than 80% to Indus River System Flows. Most of the glaciers in Northern Pakistan are retreating which has been causing increased flooding in Indus and Kabul rivers during the month of June (2001-2005). As per International Panel on Climate Change, the glacial melt in the Himalayas is projected to increase flooding within next two to three decades to be followed by decreased river flows as the glaciers recede.

To offset existing and future shortages, water resources should be managed properly through modern irrigation techniques based on scientific research and institutional collaboration at federal, provincial and international levels.

Federal and provincial governments are undertaking projects to remodel, rehabilitate, and repair canals and barrages. These are

typically large projects; however, the Bank would look for possibilities to finance appropriate project(s) in this field.

iii)Transport

The transportation sector accounts for about 10.5% of the country's GDP. It provides over 6% of employment in the country and receives 12 to 16% of the annual Federal Public Sector Development Program (PSDP). Roads, railways, and other infrastructure is developed and maintained by the public sector; whereas, most of the logistics and transportation services are provided by the private sector. The latter is also developing and managing facilities at some of the country's major ports.

Although the sector is fairly well organized, its inefficiencies with long waiting and traveling times, high costs, and low reliability are dragging the country's economic growth. These factors also add to the cost of the country's exports, negatively impact the investment climate, and undermine efforts by businesses to become part of the global supply chains that required efficient and on-time delivery of products. There is growing recognition that the sustainability of economic growth is closely linked to the efficiency of its transport system. To support sustained growth and increase competitiveness, the government is taking a strategic and holistic approach to the transport sector and has launched a major initiative to improve the trade and transport logistics chain along the north-south 'National Trade Corridor' (NTC) linking Pakistan's major ports in the south and south-west with its main industrial centers and neighboring countries in the

north, north-west and east. Together the ports, road and railways along NTC handle 95% of external trade and 65% of total land freight serving the regions of the country.The main objective of the NTC initiative is to reduce the cost of trade and transport logistics and bring it up to international standards in order to reduce the cost of doing business in Pakistan and ultimately enhance export competitiveness and country's industrialization.Pakistan has a road network of around 260,000 kilometers (km) having around 180,000 KM of high type roads and 80,000 km of low type roads. Total road network has increased by around 9% in the decade upto 2009-10. Even then the road density in Pakistan stands at 0.32 which is low when compared with those of developed economies of UK (1.62) and Spain (0.68) and some emerging economies such as India (1.00). Over the past ten years, road traffic, both passenger and freight, has grown significantly faster than the national economy. Currently, it accounts for 91% of national passenger traffic and 96% of freight traffic. NHA (National Highway Authority), a federal government agency, manages around 12000 km of roads that carries around 80% of commercial traffic. Over half of the national highways network is in poor condition, and the road safety record is poor. The country's truck fleet is mostly made up of obsolete, underpowered, and polluting vehicles, and trucks are often grossly overloaded. Truck operating speeds on the main corridors are only 40 - 50 kph for container traffic, which is about half of the truck speeds in Europe. For trucks carrying bulk cargoes, the journeys take 3-4 times longer than in Europe

Pakistan Railways' (PR) network consists of the main North - South corridor, connecting the Karachi ports to the primary production and population centers in the north. The track is generally in good condition with an axle-load of 23 tons and maximum permitted speeds of 100/110 kph but it needs repair and rehabilitation at certain points. Over decades, railways level of service has declined and its share of inland traffic has reduced from a high of 41% to 10% for passenger and 73% to 4% for freight traffic. However, in the last nine years (2000?2009), Pakistan Railways has shown improving trend in both passenger and traffic registering an average increase of 3.2% and 4.0% per annum, respectively. However 2009-10 saw a decrease in passenger traffic as well as freight traffic, which decreased by 13.1%, over last year's figure. The fall in growth rates for freight traffic during this period has been attributed to the less availability of locomotives for freight traffic because of non procurement of spares. The productivity of PR's freight services is about 1/3 of Indian Railways (IR) and half of Thai Railways. In addition, PR continues to cross-subsidize passenger services from freight services, resulting in non-competitive freight rates over road transport. As a result, the PR has a very low and stagnant market share, carrying less than 10% of passenger traffic and 5% of freight. Pakistan Railway is trying to bring in private sector investment into railway operations by offering certain sections of the network for running of passenger and freight trains by paying track access charges. It has also planned to procure around 200 new coaches and induct over 500 new wagons into the system.

Railway track is also being doubled from Khanewal?Raiwind (246 km). Possibility of extending rail link to China, Afghanistan and Turkey (via Iran) is being seriously looked at.

There are 36 operational airports in the country. While Karachi is Pakistan's main airport significant levels of both domestic and international cargo are also handled at Islamabad and Lahore. Pakistan International Airlines (PIA), the major public sector airline, though facing competition from a few private airlines, carries approximately 70% of domestic passengers and almost all domestic freight traffic. New airports have been planned at Islamabad and Gwadar and facilities and infrastructure at current airports in Multan and Peshawar are being expanded for operation of wide bodied aircrafts. The passenger volumes in terms of passenger kms were just one tenth of rail service and one hundredth of road service. Between 1995 and 2005, the average growth rate of export freight by air was about 7%, while the growth rates of import freight by air and domestic air freight were 3.4% and 3.8%, respectively.

Port traffic in Pakistan has grown at 8% annually in recent years. Two major ports, Karachi and Port Qasim, handle 95% of all international trade. Port Gwadar, which was inaugurated in March 2007 and is being operated by Singapore Port Authority, is aiming to develop into a central energy port in the region. Fourteen dry ports are located inland catering to high value external trade. Port Qasim Authority (PQA) that initially had handling capacity of 40 million tonnes per annum has partnered with the private sector and undertaken capacity expansion projects in container handling, grain and fertilizer terminal, coal, cement, and LNG handling. These projects would result in increasing PQA's capacity to 86 million tonnes per annum; an increase of 115% over initial capacity. PQA also plans to invest substantial amount of money in developing the infrastructure in nearby industrial estates. Recently, DP World has announced the opening of its new container terminal in Port Qasim, the country's first dedicated international container terminal. This has increased container capacity at Port Qasim to around 1.2 million TEU (twenty foot equivalent units) from around 900,000 TEU and marks the successful completion of the first of DP World's 3-phase development. The Bank would like to support both the public and the private sector entities in undertaking infrastructure projects that demonstrate clear development impact. It would be interested in supporting private sector participants in public-private-partnership transactions.

iv)Manufacturing Sector

The manufacturing sector has achieved a growth rate of over 4% in 2009-10. For 2010-11, a growth rate of 5.6% is expected from the manufacturing sector as a whole while 4.9% and 7.5% growth rates have been fixed for large-scale and small-scale manufacturing, respectively. Major factors impacting achievement of these targets are law and order situation, power supply position, and reforms relating to tax administration and business regulation. The government is focusing its energies on development of common facility centres such as advanced computer aided design and manufacturing training centres, agro food processing facilities, and export processing zones. It is also supporting projects to develop ceramics, gem and jewellery, and marble and granite sector, textile and garment.

Key industries that are expected to witness major activity in investment, expansion, modernization, and replacement, in the coming years, would be steel, cement, and automobiles.

As per Pakistan Automotive Manufacturers Association there are 21 automobile manufactures / assemblers working in Pakistan producing passenger cars, light commercial vehicles, trucks, buses, tractors and 2/3 wheelers. The vendor industry comprising of 600 players is supplying parts to automobile sector. The total direct employment in the sector is over 0.2 million with a total investment of over (Rs.98 bln) USD 1.15 bln. The auto industry has played a significant role in the large scale manufacturing industry as it contributes USD 3.6 bln to the economy besides import substitution resulting in annual foreign exchange savings of over USD 1 bln.In 2006, the government took a major policy decision and replaced the erstwhile deletion programme with a tariff based system in which customs duty charged for the raw materials was set at 0%, sub-components at 5%, components at 10%, and sub-assemblers at 15%. Moreover other incentives were given that included first year allowance or Initial Depreciation Allowance at the rate of 50% of Plant, Machinery and Equipment (PME). Moreover, remittance of capital, profits, dividends, etc. is allowed; 100% foreign equity is allowed.

The domestic consumption of steel products in Pakistan is around 5.6 metric tonnes per year. The present capacity of steel production is 4 million tonnes as against demand of over 6 million tonnes per annum, showing a gap of 2 million tonnes which is being met through imports. The steel production units are functioning below capacity because of raw material shortage. The scenario of the steel sector in Pakistan indicates that this industry has a vibrant growth potential. The per capita consumption of steel in Pakistan is only 38 kilograms (kgs) as against global average of 175 kg. If a modest increase in per capita steel consumption takes place and reaches 80 kg in the next 10 years, the steel demand would be 16 million tonnes per annum for a population of about 200 million by the year 2020. In view of this, steel production targets are being estimated at 10 million tonnes for 2015 and 15 million tonnes for 2020.

Pakistan Steel has also started an indigenization programme to replace costly imported iron ore by locally available material. Expansion in the production capacity of Pakistan Steel to three metric tonnes per year or above has been planned. The plan is expected to be implemented in two phases and completed in around five years time. The steel re-rolling industry of the country is presently facing numerous problems as it is not getting raw material in sufficient quantity and utilizing only 40% capacity against normal use of 80 to 90%.Further development and expansion on the steel production capacity requires security of investment, technical expertise, continuous availability of raw materials at reasonable prices, uninterrupted supply of electricity.The cement sector in Pakistan comprises of around 25 companies. The top 4 players have more than 40% of the production capacity in the industry. The sector is divided into the north and south zones. The former accounts for around 80% of the current capacity and comprises of 19 plants, while the latter has 20% of capacity with 10 plants. Domestic demand for cement hovers around 25 million metric tons per annum and in the past years this sector has exported around 10 million metric tons of cement to foreign countries. A number of companies launched capacity enhancement projects in the past few years and after completion of these projects the capacity of the domestic cement industry is expected to be around 51 million metric tons annually. The demand for cement has diminished domestically because of curtailing of public sector development programme under fiscal constraints and subdued activity in the real estate and construction sector because of weak domestic economic outlook and acute security situation. However as the economy stabilizes in the coming years and enters the growth phase of the economic cycle the demand for cement is expected to pick up. This should be further helped by extra demand from large scale infrastructure projects that would be taken up in near future such as Bhasha Dam and national highways. The reconstruction of flood affected areas and return of activity in the housing sector would also augment the demand.

On the external side Pakistan has traditionally exported cement to Afghanistan, India, Gulf and African region countries. Afghanistan has accounted for over 30% of the cement exports of the country. This market is expected to remain attractive for Pakistani exports in the medium term. In India new production capacities have come on line in 2010 which would greatly reduce the prospects of exports to that country in near future.

The Bank would support capacity enhancement and modernization projects in manufacturing sector. It would like to partner with other financial institutions in undertaking large projects.

v)SMEs

SMEs play a very significant role in the economy of Pakistan. They constitute nearly 90% of all the enterprises in Pakistan; employ 80% of the non-agricultural labor force; and their share in the annual GDP is around 40%. They also contribute around 35% to manufacturing value addition and account for 25% of total exports. The size of the SMEs is generally small in the country with 5 or less people are working in 87% SMEs. In terms of business sectors, cotton and textile are the leading sectors, followed by wood and furniture, fabricated metal products, beverages, carpets, art silk, and jewelry. The sector as a whole faces numerous challenges that include limited access to finance as well as limited support in improving business practices. International Labor Organization projects that economically active population in Pakistan is projected to increase from 63 million in 2008 to 93 million in 2020. SMEs will be the main source of employment and poverty reduction in Pakistan that will create the value and innovation for the country in the days to come. Government could achieve its goal for poverty reduction, economic progress and above all the value creation by promoting SMEs. Pakistan needs to invest in its SMEs to improve the value addition component of its products. It has been pointed out that Pakistan was converting one million bales of cotton for USD 1 bln, while India was converting one million bales into USD 2 bln, and China USD 4 bln.

According to business leaders, the biggest hurdle being faced by SMEs is limited access to finance. According to the reports of State Bank of Pakistan, SMEs financing by banks fell 6.6% to USD 3.8 bln (Rs.326 bln) in March 2010 from USD 4.3 bln (Rs.349 bln) in March 2009. Federal government has allocated Rs 10 bln under venture capital fund for SMEs, while the government has also resolved to provide a 50% guarantee for the credit to SME through banks. Some commercial banks have partnered with multilateral development agencies to deliver business skills' training programmes in finance, accounting, and other business practices to their SME customers. According the related bank officials, these trainings have proved to be quite useful and effective and most of the trainees have started putting

in the newly acquired skills into use immediately.

The Bank would continue to support SME sector through its products that are offered through FIs. It would extend the coverage of its products by engaging mid-tier banks.

vi)Telecom Sector

In the past decade, telecom has been a major success in Pakistan with number of private operators providing communication facilities across the country. Currently the teledensity of the country is recorded at 62.4% with mobile phone component having the largest share. Number of mobile phone subscribers at the start of 2010 stood at around 96 million with a steady growth of around 2% per annum. In the telecom sector, broadband could replicate the success of the mobile phone business in Pakistan. Although penetration rates are low the sector is witnessing explosive growth. The sector has witnessed double digit growth in the past few years and is expected to achieve penetration rate of 33% in the country in the next three years. It is fast and reliable as well as a cheap source of information dissemination and communication. The latest technologies of WiMax and EvDo increase business opportunities emanating from this sector. Telecom has remained the top sector in terms of attracting FDI over the past few years. This trend reversed in 2008-09 because of saturation of this sector and shortage of credit with the onset of global financial crisis. However, broadband offers attractive investment avenues to build on the investments made by telecom operators.

vii)Retail Sector

Pakistan has a growing population and amongst the South Asian nations it's the most urbanized country with 33% of the population living in cities. This trend is expected to continue with more and more people living in cities in Pakistan. Given the agricultural and industrial base of the country, Pakistan offers a wide variety of grocery merchandise that is available in wholesale markets. Generally the Pakistani market is dominated by small 'general stores' and local market superstores. However, recently there has been a new trend whereby large investment has been made in super store by few multinational companies these include Metro, Macro, and Carrefour. There is evidence that despite some initial apprehensions the consumers have liked this concept due to the availability of all basic utilities under one roof which saves their time and also makes grocery shopping a whole family affair.

This sector has shown significant growth over the last few years. The sector's contribution towards GDP in the year 2008-2009 was 17.5%. Investment in this industry by private sector has also shown a progressive trend. Although the retail business in Pakistan is not providing large scale employment directly there are clear signs that indirectly it is contributing to the job creation in agribusiness and supply chain sector. Moreover, with more stringent quality standards in place the supermarket sector would lead to better practices in agriculture production, marketing, and product packaging leading to increase value addition in this sector. This would offer greater variety and better quality to the consumers as well. The consumers are steadily shifting towards buying packaged/branded products. Companies are striving to come up with better quality products.

Factors supporting the growth of this sector in the country include easy availability of merchandize and human resources; growing population; expanding cities; increasing trend of enjoying the convenience of shopping under single roof; and acceptable level of technological intervention required. The challenges faced by these businesses in the sector are heavy taxes in the form of sales tax and income tax; high competition from small neighbourhood shops; less likelihood of suppliers giving credit to newly entrants; and competition from initial entrants into the market.The Bank would seek to finance projects that aim to develop retail infrastructure as well as strengthen the supply chain of agriculture and industrial merchandise to organized retailers.

V. Conclusions

Under the IMF programme, Pakistan is trying to bring its macroeconomic situation under control. Expenditure is being reduced to cut deficit financing, policy rate has been raised to keep inflation in check, and measures are being taken to increase taxation revenues. It is hoped that this would provide the environment necessary for growth and investment to take place. Sustainable economic growth, among other things, is dependent upon:

"Adequate and stable energy / power supply situation. There is considerable potential for hydel, coal, and wind energy projects. The Bank would like to engage in suitable power generation projects that would help to increase power generating capacity on one hand and improve the energy mix on the other.

"Agriculture remains the mainstay of majority of population living in the rural areas. Lately high food prices domestically and internationally have increased household incomes in the rural areas. This offers opportunities to support ventures that would improve agriculture productivity and promote agribusiness activities in areas of dairy and livestock, horticulture, and trading of agriculture produce. The Bank would engage in projects that aim to improve agriculture infrastructure and promote agri-business activity.

"Strong performance in the agriculture sector would make a major impact in reducing rural poverty, in particular, and creating surplus for the growth of economy, general. Agriculture production is dependent upon adequate water supply. Pakistan's vast irrigation network is undergoing rehabilitation and repair. The Bank would seek to support suitable project that would strength and development irrigation facilities in the country.

"Infrastructure deficit and bottlenecks add to the costs of production and transportation in Pakistan. Traffic congestion in commercial centres and ports as well as non-availability of adequate water supply and sewage facilities in expanding urban centres are negatively impacting individuals and businesses. Urgent investment is needed to remove these impediments opening up growth opportunities for small and large scale enterprises. The Bank would provide financial resources to both public and private sector entities to undertake vital infrastructure projects.

"SMEs have proven to be the most resilient and entrepreneurial segment of the economy. Its growth vital for providing employment opportunities to the growing population. The Bank would continue to expand its products to support development of this sector in Pakistan. ■

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