

# HRD COMMUNIQUE

## NEWSLETTER

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APRIL- JUNE, 2003

### Water Scarcity and Poverty

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**when water is scarce, women must spend long hours every day carrying water for household use.**

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### editor's note

Dear readers

We are pleased to share with you the new issue of HRD **Communiqué**. The theme is water scarcity and its impact on poverty, as this is emerging as one of the most crucial issues in international discussions and conferences concerned with sustainable development. The importance of water as a resource cannot be over-emphasized. Water has nourished civilizations for thousands of years, and does so today. The best-known examples of rivers that have fostered great civilizations are the Nile in Northern Africa, the Tigris and Euphrates in Mesopotamia (present-day Iraq), the Yellow River in China and the Indus River in Pakistan.

Fresh water is a finite resource. It is imperative for sustainable development, bio-diversity and the existence of eco-systems. The availability of fresh water is necessary for economic growth, social stability, people's health and poverty eradication. Yet more than one billion people lack access to safe drinking water. According to the World Health Organization (WHO) millions of people, most of them children, die from water-related diseases every year. The need therefore is to build the capacities of communities and local and national governments, to make them more effective water managers. More support must be given to local capacity-building institutions in order to engage all segments of the global community in making and keeping long-term commitments to alleviate the water crisis.

Because water makes the difference between life and death, the urgency involved in addressing water-related issues is extreme. There are some emerging solutions that indicate a hopeful future, but they require that individuals, communities, governments, policy makers, international institutions, and the private sector make substantial and effective contributions to address the water crisis.

This edition of **Communiqué** uses graphic clips, articles and case studies on water issues, in an attempt to enlighten our readers about water issues and problems.

I would like to thank our readers for their critique of our previous issues. We hope you will let us know what you think, and add your voice to the debate on this important issue. We look forward to hearing from you: your feedback will let us know if you need more info on the issue and will help us decide if we should dedicate another issue to this very important theme.





# water and poverty

(written by: Nafeesa Mushtaq )

## What is water scarcity?

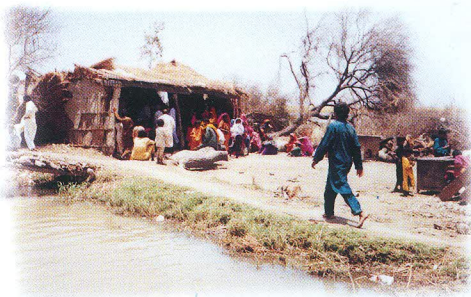
Scarcity is the condition of inadequacy. The term identifies the gap between availability and demand. In this context the term refers to the inadequacy of water supplies to satisfy normal human requirements. This is the simplest possible description of the term water scarcity. There are degrees of scarcity and scarcity can have different effects: scarcity may be absolute, seasonal, temporary, cyclical, and so on.

Different terms such as water scarcity, water shortage and water stress, are used to describe specific aspects of water-related problems. Gaps between supply and demand can occur at any level of supply, depending on demand and other circumstances. Water shortage, on the other hand, is the condition where there is an absolute shortage of water or where the available water resources are insufficient to meet minimum requirements. Thus the terms scarcity and shortage are not synonymous. An imbalance between demand and availability results in water stress, leading to disputes among users of a common source. This imbalance usually results in crop failure or decreased yields and hence food insecurity.

## The importance of water

Water is the greatest gift of nature. It is a natural resource of great value. All living organisms depend on water for their very existence. Without water, life on earth would be impossible. Water is the determining factor in a nation's prosperity, progress and development. But water scarcity is capable of causing human and environmental disasters, which present a grim and potentially devastating scenario. The magnitude of the role that water plays in a region cannot be over-stated. It is predicted, for example that, "the next war in the Middle East will be fought over water".

It is commonly acknowledged that less than one percent of the earth's water supply consists of fresh water readily available for human usage. Another 3 percent is fresh water locked up in polar ice while the remainder is seawater. Although the oceans are inexhaustible sources of water, the salt component makes it unusable for drinking and irrigation. There are some



modern techniques being developed for the desalination of water, which would convert this inexhaustible supply into a usable resource, but these are extremely expensive.

## Causes of water scarcity

The causes of water scarcity are varied. Most often, a combination of natural and human factors is responsible. One cause of water scarcity is unpredictable changes in natural weather patterns, such as El Nino. Water pollution caused by discharging household, agricultural and industrial waste is a major factor in reducing the amount of usable water. Large scale deforestation, leading to lower humidity levels, also results in water scarcity. Increasing demand from consumers affects the supply of water, ultimately resulting in 'water stress' situations. Basic economic theories predict that a vital commodity such as water, which is offered free or at a low price, will inevitably become "scarce" in the sense that demand will outstrip supply at the prevailing price.

Two billion people – one third of the world's population – presently experience severe water scarcity. The majority of these people reside in the semi-arid regions of Asia and in sub-Saharan Africa. If things do not improve – if we do not learn to treat water as an irreplaceable resource – even more people will experience water scarcity.

Other factors causing water scarce situations are:

- Population growth
- Food production
- Land use
- Waste and leakage

## snapshot

- What is water scarcity?
- The importance of water
- Causes of water scarcity
- Effects on the eco-system
- Effects on poverty
- Effects on agriculture
- Effects on health
- Protecting available water resources
- conclusion

- Water quality
- Poverty and economic policy

## Effects on the eco-system

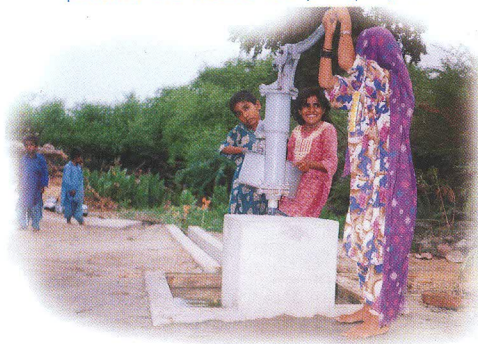
In the world's arid and semiarid regions the overexploitation of groundwater has reached the point where eco-systems, human and animal health, and food security are threatened. Our natural environment will suffer the worst effects, in the loss of wild life species, as natural habitats vanish due to water scarcity.

## Effects on poverty

Without water security a poverty eradication programme cannot be effective. Water issues are increasingly acknowledged as critically important factors in poverty eradication programmes. Economic poverty and water scarcity are two sides of the same coin.

In the last 40 years there have been many technological advances in water harvesting and delivery systems, from tube wells to mega-dams. These water harvesting and delivery technologies are instrumental in ensuring an abundant food supply and in reducing poverty.

Irrigation has played a major role historically in poverty alleviation by providing food security and protection against famine. Livelihoods in rural areas depend on properly functioning irrigation systems. The growing scarcity of, and competition for, water however, stands as a major impediment to advances in poverty alleviation. Food production will almost inevitably be adversely affected in the world's semiarid regions, which include two of Asia's major breadbaskets, the Punjab and the North China Plain. Between the 1960s and the 1990s real food grain prices fell by approximately 50 percent. This decline was principally but not







entirely due to the impact of the 'Green Revolution' in the developing countries. The benefits of lower food grain prices to the poor are self-evident. 60% of the money spent on food by people living below the poverty line in Asia is apportioned for cereals, which provide as much as 70% of total nutrients.

Water scarcity is caused by a combination of factors: changing climate, the quality of water-harvesting infrastructures, water-management policies, pricing mechanisms, and so on. The poor are the most severely affected by water scarcity, since they are least able to respond to the need for alternative water supplies, and because they pay a disproportionate amount of their income for water.

### Effects on agriculture

Scarce water supplies will keep dwindling unless better irrigation techniques and public water saving programs are introduced. Pakistan's food security is heavily dependent on water security. Since agriculture consumes approximately 80 percent of the total demand, Pakistan's agri-based economy has been severely damaged as a result of the current water shortage.

### Effects on health

The quality of water is as important as quantity in terms of its impact on human health. Water scarcity almost invariably leads to declining water quality. When the poor are forced to drink polluted water their health is compromised, as they fall prey to epidemics of typhoid, cholera, gastro-enteric diseases and skin diseases as well as life-threatening problems like hepatitis and renal malfunction.

### Protecting available water resources

Water supplies should be conserved and water purity should be preserved. Not a drop of water should be wasted and better provision must be made to store water. Many ingenious proposals have been made for overcoming water scarcity. For instance, education and publicity campaigns can help in sensitizing the public to the need for water conservation. This will also help to persuade people to change their attitude towards the way they use water. Extension services should be made efficient to educate farmers in more effective

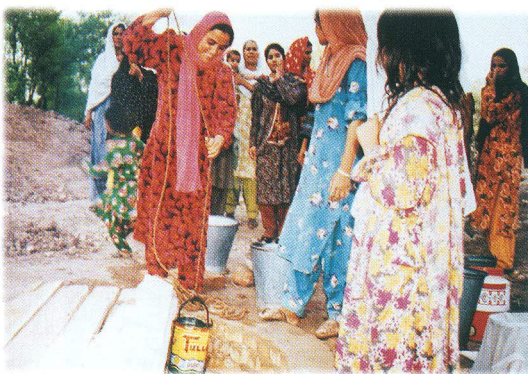
management of land and water resources.

Reducing water pollution can also save existing water sources. Some contaminants are extremely dangerous and should be banned. Use of some common pollutants, such as detergents, should be controlled through public awareness and enlightened legislation. The agricultural sector must produce more food with less water. New crops and varieties of existing crops that require less water should be made widely available. The option of saline irrigation must be given serious thought. Groundwater extraction should be regularized through legislation and effective implementation of policies. Not all water needs to be treated to the standard required for drinking purposes. Moreover, fresh water should not be used where it is not necessary. Many personal, domestic, industrial and civic uses could be met through non-potable water. Some other solutions are:

- Capturing and storing all surface water
- Minimizing household water use
- Detecting and repairing all household leaks
- Long distance conveyance and inter-basin transfers
- Dual quality water standards
- Desalination
- Institutional and legal changes
- Reforms for pricing and delivering water
- Establishing quotas
- Recycling all water used in industry
- Towing icebergs and melting them close to urban areas

### Conclusion

Our mission must be to preserve, enhance and restore the quality of water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.



NGOs, farmers' organizations and professional organizations like International Water Management Institute (IWMI) should be engaged for better results. To achieve long-term sustainable water development it is essential that the population be sensitized

about appropriate environmental and social issues. This will require communication, information, education, and public participation. Institutional understanding and capacities need to be developed for the effective implementation of water policies, programs, and projects, which in turn will require a determined effort to institute an effective and meaningful communication program with the people whose lives will be affected by these activities. We all, as the inhabitants of planet earth, should make every effort to preserve all water resources in order to protect future generations from famine and drought.

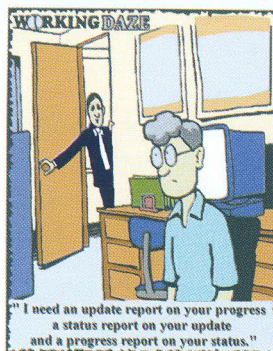
#### Sources:

1. *Water Scarcity and Poverty* by Randolph Barker, Barbara van Koppen, and Tushaar Shah
2. *On Water Scarcity in Israel*
3. *Modern Solutions to an Ancient Problem* by Vald Dorjets
4. [www.thewaterpage.com](http://www.thewaterpage.com)
5. [www.dawn.com](http://www.dawn.com)
6. [www.worldwater.org](http://www.worldwater.org)

### Some interesting water facts

- Water is the most common substance found on Earth.
- The only water we will ever have is what we have now.
- In a 100 year period, a water molecule spends 98 years in the ocean, 20 months as ice, about 2 weeks in lakes and rivers, and less than a week in the atmosphere.
- Each day the sun evaporates 1,000,000,000,000 (a trillion) tons of water.
- Water is the only substance on Earth naturally found in the three true element forms: solid, liquid, and gas.
- 80% of the Earth's surface is water.
- 97% of the Earth's water is in the oceans and seas.
- 66 % of your body is water.
- Bones are 25% water.
- Human blood is 83% water.
- A person can survive without food for more than 30 days, but less than a week without water.

Source: [www.cityofdurand.com](http://www.cityofdurand.com)



### Efficient Reporting

Source: [@egroups.com](http://humoronline)



# latest water info...

## snapshot

- World water day
- International year of fresh water
- XI world water congress-water resources management in the 21st century
- Water for the poor
- Website on water information launched
- Real conflicts over world's water
- The blue revolution
- A glass half empty
- World water resources enough but improperly distributed

### World water day

World Water Day was celebrated all around the world on March 22, 2003. The General Assembly of the United Nations declared March 22 as the World Water Day on February 22, 1992. "Water for the future" was the chosen theme for the year 2003. The purpose of celebrating the day was to create public awareness about the emerging issue of water scarcity and the need to preserve dwindling water resources.

### International year of fresh water

In an effort to raise awareness and initiate action on managing and protecting the world's clean water resources, the UN General Assembly proclaimed 2003 the International Year of Freshwater. According to the UN, 1.2 billion people live without access to freshwater, 24 billion people lack proper sanitation and, if current trends persist, the UN estimates that two-thirds of the world's population will be living with severe water shortages by 2025. In addition, the UN estimates that 3 million people die each year from diseases caused by unsafe water.

### XI world water congress - water resources management in the 21st century

This congress, organized by the International Water Resource Association, will be held from 5-9 October 2003 in Madrid, Spain. Themes include: water planning under uncertainty; valuing water; impact of new technologies in water management; relevance and sustainability of intensive groundwater developments; and water infrastructure development.

Source: [www.cedex.es/iwracongress2003/en/hoja2e.htm](http://www.cedex.es/iwracongress2003/en/hoja2e.htm)

### Water for the poor

This meeting, organized by the International Water Academy, will be held from 4 to 5 November 2003 in Stavanger, Norway. It aims to promote international coordination and develop target-oriented measures for the fulfillment of the water-related MDG (Millennium Development Goals) and WSSD (World Summit

on Sustainable Development) goals.

Source: [www.thewateracademy.org](http://www.thewateracademy.org)

### Website on water information launched

Daily Times (Pakistan)

April 11, 2003

Islamabad: Water and Power Division Additional Secretary Riaz Ahmed Khan on Thursday launched the 'Pakistan Water Gateway', a website for all water related information pertaining to Pakistan on the Internet, and said the website had been launched by the World Conservation Union of Pakistan with the Dutch government's support.

Source: [www.dailytimes.com.pk](http://www.dailytimes.com.pk)

### Real conflicts over world's water

BBC

March 20, 2003

Former USSR president Mikhail Gorbachev has told the Third World Water Forum in Kyoto that a failure to reverse the global water crisis could lead to "real conflicts" in the future. It is estimated that by 2025, two thirds of the world's people will be living in areas of acute water stress. "If current trends continue, we could be faced with a very grave situation," Mr. Gorbachev warned. It is feared conflicts could arise in areas where rivers and river basins cross state borders. If a country near a river's source begins using more water, this lowers the amount that reaches countries further downstream. For example, there is currently concern about what effect a proposed scheme in India to divert the Ganges to currently dry areas might have on the water supply downstream in Bangladesh.

Source: [news.bbc.co.pk](http://news.bbc.co.pk)

### The blue revolution

Granma International (Cuba)

April 8, 2003

According to UN estimates, each person should have at his/her disposal 50 liters of water per day. In the United States, the average person uses between 250 to 300 liters per day whilst in Somalia the figure barely reaches nine liters.

The current situation of water resources is extremely serious. Some 1,200 million people have difficulty in gaining access to drinking water. It is estimated that by 2025, some 2,700 million people will be victims of water shortages. Every eight seconds a child dies from drinking contaminated water. Polluted water is the third largest cause of death in the developing countries.

During the Johannesburg Summit, world leaders agreed to reduce the number of people without access to drinking water and adequate sanitation by 50% by the year 2015. But this objective seems unfeasible given current world conditions. Neoliberal policies have transformed water into a commercial product and it features as such in the commercial trade agreements between the United States, Canada and Mexico.

Canadian Maude Barlow, author of "Blue Gold", condemned the shady management of transnational water companies during the 3rd World Water Forum that took place in Kyoto, Japan recently.

Source: [www.granma.cu/ingles/abril03/mar8/14agua.html](http://www.granma.cu/ingles/abril03/mar8/14agua.html)

### A glass half empty?

Vanguard (Nigeria)

March 26, 2003

It has become an almost unchallenged assumption that the 21st century faces water wars as communities and countries become increasingly thirsty, and desperate for the world's most fundamental natural resource. Alarming statistics and forecasts of the impending calamity are disturbing. A third of the world lives in water stressed areas, where consumption outstrips supply. By 2025, two thirds of people will be trapped in this appalling plight, if current trends continue unchecked. A fifth of the world's population are without access to safe water supplies; 6,000 people, mainly children and mainly in developing countries, die everyday as a result of dirty, contaminated water. Annually, it is the equivalent of the entire population of Central Paris being wiped out.

Source: [www.vanguardngr.com](http://www.vanguardngr.com)



## World water resources enough but improperly distributed

The Nation,

June 4, 2003

Karachi (APP)—Water resources in the world are more than adequate but are extremely unevenly distributed in time and space in relation to demand concentrations, experts said in a workshop. They said the availability of water per capita in the country has been reduced by five times since Independence; now it is only 1,000 cusecs per month.

The workshop titled "Management of Water Resources and Technology Options" was organized by Global Change Impact Studies Center with the cooperation of Aga Khan University and Data Communication and Control (Pvt) Ltd. here on Tuesday. Dr. Ishfaq Ahmad, Special Advisor to the Prime Minister and ex-Chairman of Pakistan Atomic Energy Commission (PAEC) said Asia ranked the lowest in per capita water availability with only 4,000 million cusecs per year while South America has 38,000 million cusecs and the average quantity of water availability among the continents is 7,600 million cusecs.

The senior scientist said that as food requirements increase with rapidly expanding population it is putting pressure on available water as well as degrading the quality of water. He said the deterioration of water quality is affecting human health. Over five million people die every year due to water related diseases. Dr. Ishfaq said water availability and water management, and reuse were challenging problems in mega cities like Karachi. He said better exploitation of new technologies could play a vital role in the management and utilization of Pakistan's water resources. Dr. Ishfaq highlighted main features of his book titled "Water and New Technologies" which was launched at the workshop. President of Aga Khan University, Dr. Shamsh Kassim Lakha in his welcome address pointed out that Indus delta was reduced to 1,000 million sq.ft. in 2002 which was 1,850 million sq.ft. a decade ago.

He said not only the quantity, but the quality of water was another challenge. "80 per cent of diseases are caused by unsafe water," he added. He quoted World Bank saying that limited access to fresh water would be the critical determinant of economic development in next few years.

Chairman National Environmental Consultants, Dr. Junaid Ahmad presented an overview of the national picture of water resources. He said only five wastewater treatment plants

were functioning in the country, of which three are in Karachi. Big quantity of wastewater of the city goes un-treated into coastal areas. Meanwhile, other industrial estates deposit their industrial waste into the canal system, he said. Brig Sardar Javed Ashraf, Managing Director of Karachi Water and Sewerage Board underlined need of understanding the root cause of water shortage. Indus was the only economic and viable source of water for Karachi, he said. He suggested the Town safety plans must address sewage problem.

Director Research and Training Orangi project, Parveen Rahman recommended fixation of water supply quota for UCs and Towns in the city which, she maintained, would help check water theft, etc. She also emphasized the maximum community participation to manage water supply and sewage situations. She was critical that there was no map of water supply system in the city, which could help check many

irregularities/malpractices with the system. Director Eco-coastal department IUCN, Tahir Qureshi who spoke on the downstream water needs in the city said that due to short supply downwards Kotri a large number of people specially the fisherfolk had migrated to other places adding population pressure to towns and cities. Besides, it had a bad impact on the environment of the areas he said, adding that the Indus delta in Port Qasim had been deteriorating very fast.

Dr. Yamin Memon and Ghulam Mustafa Ujan spoke on the role of Farmers Organizations in water supply distribution and recovery of water charges.

Agri-scientist, M.H. Panhwar, said agriculture which is major user of water could be made water efficient with the use of sprinkle and drip irrigation.

Source: [www.nation.com](http://www.nation.com)

## The 3rd world water forum and ministerial conference

March 16-23, 2003

The 3rd World Water Forum met from 16-23 March 2003 in Kyoto, Osaka and Shiga, Japan, and was organized jointly by the World Water Council and the Government of Japan. The Ministerial



Conference on the occasion of the Forum, organized by the Government of Japan, took place from 22-23 March in Kyoto. Representatives from over 170 countries as well as participants from UN agencies, inter-governmental organizations (IGOs) and non-governmental organizations (NGOs), academia, business and industry, youth organizations and media outlets attended the eight-day meeting in Kyoto, Osaka and Shiga, three cities located in the Lake Biwa and Yodo River Basin Area. During the Ministerial Conference, delegates considered a Ministerial Declaration and launched a Portfolio of Water Actions. A Senior Officials Meeting was held on Wednesday, 19 March and Thursday, 20 March to discuss the Ministerial Declaration. On Friday, 21 March, a Dialogue between Forum participants and Ministers was held in two rounds to discuss challenges in water and poverty and post-Forum actions. A Water Fair and Festival "Mizu-En" took place throughout the meeting, including a Water Expo, along with other cultural events, three award ceremonies and a ceremony for the 3rd World Water Forum Memorial Forest.

From Monday, 16 March, to Friday, 21 March, participants met in 351 sessions organized around 33 themes and five Regional Days. Theme issues included a range of topics related to water including: climate; supply, sanitation, hygiene and water pollution; cultural diversity; nature and environment; cities; governance; floods; integrated water resources management and basin management; peace; agriculture and food; poverty; financing water infrastructure; and dams and sustainable development. During the five Regional Days, sessions were held on water issues related specifically to Africa, Asia and Pacific, the Americas, the Middle East and Mediterranean, and Europe. The Forum concluded on Sunday, 23 March, following issue of a preliminary Summary Forum Statement, drafted by the 3rd World Water Forum's Secretariat.

On Saturday, 22 March, and Sunday, 23 March, delegates to the Ministerial Conference convened in Kyoto to discuss five themes in sub-groups: safe drinking water and sanitation; water for food and development; water pollution prevention and ecosystem conservation; disaster mitigation and risk management; and water resources management and benefit sharing. The Conference closed on Sunday following adoption of a Ministerial Declaration and a Portfolio of Water Actions.



# NRSP tidings...

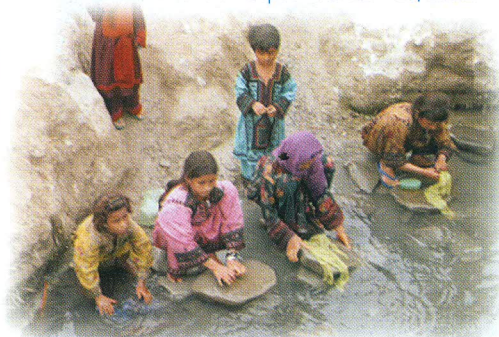
## snapshot

- South Asia Pacific Regional Consultation workshop on water and poverty initiatives
- NRSP and the 3rd world water forum
- Launching ceremony of the Handbook for Literacy and Post Literacy
- ToT for CMST
- Advanced teachers' training
- Tailoring training
- Building electrician training
- Exposure visit of IRM staff to vocational institutes

## South Asia Pacific Regional Consultation workshop on water and poverty initiatives

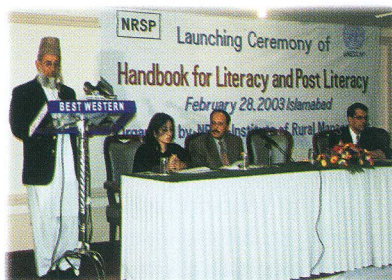
In September 2002 Pakistan Water Partnership (PWP) nominated NRSP to conduct a study on the effects of the devastating drought that lasted for five years in Pakistan. The MER section decided to examine initiatives to rehabilitate the karez (an ancient water harvesting system) that has sustained communities in Balochistan for centuries but is now under threat. With the help of Ahkter Hussain, RPM Turbat, and the CO members, a survey of 108 households in 10 villages was conducted which analyzed changes in crop yields, livestock numbers, subsistence patterns, household economies and people's health. People were also asked about their coping mechanisms and how they wanted NRSP and the Government to help ensure that communities could mitigate the effects of drought in the future.

The Asian Development Bank (ADB) invited the authors of the study, Dr. Virginia Appell and M. Saleem Baluch, to present their preliminary findings at the South Asia Pacific Regional Consultation Workshop on Water and Poverty Initiatives in Dhaka on September 22 - 26, 2002



## NRSP and the 3rd world water forum

NRSP was invited to present the full study conducted on the effects of the devastating drought in Pakistan at the 3<sup>rd</sup> World Water Forum (3WWF) in Kyoto, Japan from 16-23 March 2003. The study was part of the ADB's worldwide Water and Poverty Initiative. The Forum provided the participants, M. Saleem Baluch and Dr. Virginia Appell with an opportunity to present the activities of NRSP to experts, NGO members, journalists and other people from countries around the world.



## Launching ceremony of the Handbook for Literacy and Post Literacy

NRSP - Institute of Rural Management organized the launching ceremony of the Handbook for Literacy and Post Literacy on February 28, 2003 at Best Western Hotel, Islamabad. Mr. Najm ud Din Mangrio, Joint Education Advisor, Ministry of Education, Pakistan was the Chief Guest of the ceremony. Professionals from various walks of life including Donors, NGOs, INGOs, academic community, government and civil society organizations attended the ceremony.

This handbook is an attempt to fight illiteracy. It is the outcome of the UN-ESCAP project, which aimed at women's empowerment. The purpose underlying the book is to promote literacy among women in South Asia. The whole book revolves around two important issues: why is illiteracy or neo-literacy prevalent among women of South Asia and what would be the most effective strategies for solving this problem.

The Chief Guest Mr. Najm ud Din Mangrio acknowledged the efforts of the NRSP - Institute of Rural Management by saying that the Institute has done a marvelous job in coming up with such a valuable document. The whole event was a success as every body present at the event appreciated the efforts of the professionals involved in the entire process of the compilation and launching of the book.



## INNOVATIONS

### ToT for CMST

NRSP - Institute of Rural Management conducted a unique training event on February 20, 2003. It was unique in the sense that it was particularly designed for the trainers of CMST. This training, attended by twenty-seven participants, was intended to improve their training skills further so that they may design and implement community management skills training independently in a better way. The training contents included TNA, DOT and delivery of entire CMST sessions.

### Advanced teachers' training

SSTP (Social Sector Training Programme) of IRM; working for the capacity building of the teachers designed an advanced teachers' training with a view to providing more practical knowledge through exercises and demonstration rather than just theory. Furthermore it intended to increase the effectiveness of the existing training namely Teachers' Training Step II. The need to redesign an entire new training package and come up with something totally different was felt in view of the results yielded by the research conducted on the efficacy of the existing training, showing that it was insufficient to meet the requirements of the teachers.

After a number of discussion sessions and meetings with education specialists, it was concluded that the training should be more focused on the core curriculum rather than "joyful learning" techniques because teachers face more problems in teaching the curriculum contents.

It was a subject-oriented training, which will really prove to be a helping hand to the





teachers, specially those in the remotest areas like D.G. Khan, where there is no mentor to guide them.

### Tailoring training

NRSP-Institute of Rural Management in collaboration with Islamabad Tailoring College designed a Tailoring Training event consisting of two categories, Professional and Advanced Tailoring Training especially for women. Women are usually interested in sewing clothes and in this way they utilize their spare time in useful way. Moreover, through utilizing this training for commercial purposes they can augment their family's income as well and hence contribute to the socio-economic uplift of their family.

### Building electrician training

Building Electrician Training is one of the most valuable and significant training so far as its scope and utility in rural and urban areas are concerned. It is an intensive training event of two months' duration and is conducted in the well-equipped Government Vocational Training Institutes like National Institute of Science and Technical Education, Islamabad (NISTE) and Technical Training Center, Islamabad. This particular training focuses on electrical wiring, circuits and repair and maintenance of electrical devices. This training aims at enabling the participants to start their own business and services, as Business Management Skill Training (BMST) is also a part of the training.



### Exposure visit of IRM staff to vocational institutes

On Feb 24, 2003 an exposure visit to different vocational institutes like National Institute of Science and Technical Education (NISTE), Islamabad, Technical Training Center, Islamabad and NSTI was arranged by vocational training

programme of IRM. The visit was basically organized for IRM staff members for the purpose of providing them with an opportunity to observe the kind of training events that are conducted in these Institutes.

Several training events were in process, all aimed at helping the participants to excel in trades like building electrician, plumbing, auto electrician, civil surveyor, welding, radio/ TV mechanic, machinist, refrigeration and air conditioner etc. The visit proved to be of much help and interest to the participants.

## UPCOMING MEGA EVENTS

### HRD Congress

Human Resource Development Network is planning to organize an International HRD Congress on "Harnessing Human Capital – Key to Economic Development". The keynote theme of the Congress is "Changing Paradigms of Capacity Building". Speakers from the government, international academic institutions, UN agencies and prominent corporate sector organizations engaged in human resource development will present papers on various sub-themes. About 500 delegates including the Secretaries and Heads of the Ministries and other public sector organizations, CEOs of civil society institutions and multinational corporations are expected to attend the Congress. The basic objective of the two-day Congress is to create learning opportunity for organizations and professionals from all sectors of civil society by cross-fertilizing knowledge, sharing experience and discussing its effect on society and the economy among the stakeholders.

Source: [www.hrdcongress.net](http://www.hrdcongress.net)

### Peak Productivity

Source: [www.norwich.net](http://www.norwich.net)



"Productivity is way up this quarter. Our department is producing 25% more mistakes, 42% more excuses, and 58% more paper clip bracelets."



"I've identified our productivity problem. We installed faster computers, but we forgot to install faster computer operators."

## Karez - a source of life in Baluchistan

Karezes are the main source of water in Baluchistan. A karez is a long underground tunnel carrying seepage water from the surrounding areas, facilitated by a number of mother wells, to daylight point where water is finally distributed to the fields for irrigation and household use. The mother wells are always located at a high elevation in comparison to the daylight point.

All karezes are owned by a group of villagers that uses it for drinking and irrigation purposes. The village farmers have to contribute to the maintenance cost of the karez according to their share of water. The land irrigated by Karez is known as Daya and it is distributed in proportion to the investment made by each farmer. The irrigation capacity of a Karez and the distribution of water rights (= share in irrigated land) are expressed in terms of a unit called a Hangam. It is that portion of land, which can be irrigated in 12 hours. The size of a Hangam is equivalent to about 8 acres and it can be divided into sub-units. The water rights are measured in terms of these units and distributed to each farmer according to his share of investment.

There is a traditional system of operation and maintenance (O&M) of karezes. The head of the system is called Sarishta. He is responsible not only for the maintenance of the Karez, but also looks after the distribution of water and mediates water disputes that emerge from time to time between farmers. The assistant of Sarishta is known as Gazir who is responsible for conveying messages from the Sarishta to the stakeholders of the Karez. At one time the Sarishta used to hold a key position in the Ballot system and being a privileged water user he did not contribute in the maintenance costs of the Karez. However, over the years, Sarishta's leading position has changed due to socio-economic changes in the life of people.

There are more than 400 Karezes in Turbat Region. Out of these, 326 are functioning while the rest are defunct or poorly maintained. NRSP is working on the rehabilitation and extension of more than 80 Karezes.

Source: PITD section-NRSP head office



# case studies...

## Social Mobilization to meet the community water needs

### snapshot

- United we stand, divided we fall
- Masters of their own destiny
- Impact study of water supply scheme at Pallandri



### United we stand, divided we fall

Village Kritote is 7 km from NRSP field unit Sehnsa. There are different Mohallas in the village; Bhandi Kritote being the first one where the women members were organized in May 1998 to form a community organization. Initially, the people of the adjacent Mohallas considered it a futile activity to sit and discuss problems and devise plans to solve the issues. But the president of the CO, Marouf Begum and the manager, Mahfooz Akhtar, were resolute enough to stand firm. They emphasized the importance of a collective forum. At that time, the CO consisted of 15 members from the mohalla of 27 households. All of them showed great interest specially in saving and generally in all other packages offered by NRSP.

The prioritized collective need of the community was to have pure drinking water. The matter was discussed time and again during the meetings of the CO and then the support of NRSP was sought in this regard. A survey committee consisting of three men and two women conducted the survey as per NRSP rules. The cost/budget of the project was estimated at Rs 127,000. All the CO members were entrusted with the responsibility of contributing their share of Rs 33,000. The members did not hesitate, as they knew that the benefits of this whole process would occur in the long run. Even the non-members of the mohalla started showing interest in the project, having come to know about the individual benefits which the CO members received in the form of training and credit for income generation. This enhanced the membership of the CO which grew rapidly from fifteen members to twenty-one, in only one month. The CO contributed their due share of Rs

33,000 within a week and hence the project was approved by NRSP head office. The practical implementation of the scheme began on May 27, 2000. During the layout of the scheme, a minor conflict took place because one of the beneficiaries wanted certain changes in the approved plan of the scheme but the CO members resolved the conflict by convincing all the beneficiaries to stay with the original plan. All members worked enthusiastically and completed the scheme within the stipulated time period of two months.

A committee was established for the maintenance of the scheme. All the beneficiaries deposit Rs. 10 per household with the committee, as it is the body responsible for the maintenance of the scheme. Presently it holds a fund of Rs. 2160 for maintenance.

It was not an easy job and involved the efforts of all the community members. All the CO members felt proud of achieving a goal like this just through their individual as well as collective efforts. Now the women do not have to fetch water from far off places. All the participating households have water taps installed in their houses.

This scheme has been instrumental in bringing about a paramount change in the socio-economic condition of the people living in Bhandi Kritote. Now people do not need to use open lavatories, as water is easily available. The majority of the people have the facility of attached baths with readily available water. Moreover, the trend of kitchen gardening is becoming a common practice and almost every household is growing its own vegetables for consumption. Lastly the skilled women folk are now in a better position to utilize their time and skill in productive activities like tailoring, gardening and cattle rearing instead of fetching water from distant places. In this way they are making a significant contribution to their income.

Source: PITD section - NRSP head office

### Masters of their own destiny

Village Manik Khan Lashari is 14 Km from Tehsil Talhar, District Badin. It is a small village with

twenty-two households and a population of 170. Most of the people residing in Manik Khan Lashari are very poor and 90% of them depend on agriculture for their livelihood. Despite the fact that the land of the village is very fertile and cultivable, the scarcity of irrigation water adversely affects the annual crop yields. Although there is a canal in the area, it is usually dry for most of the time as this area is situated at the extreme end of the national canal system. The residents of the village were completely helpless in the matter. The per-acre yield of sugarcane and rice in the area was only 450 mounds (valued at Rs. 20, 000) and 45 mounds (valued at Rs. 10,500) respectively, due to lack of irrigation water. In a situation like this, the villagers could hardly make both ends meet.

In October 1998, the representatives of the National Rural Support Programme visited the village and suggested to the villagers the three basic principles of self-help, unity and savings, as these serve as necessary tools in overcoming problems. They persuaded the residents of the area to organize themselves, identify and prioritize their mutual problems and then plan their future strategy for attaining economic prosperity. The villagers accepted these principles as the best response to their economic ailments. The first community organization (CO) was formed on 22<sup>nd</sup> October 1998 with twenty members. The CO members elected Ali Ahmad as their manager and Nazar Ali as their president. They were very enthusiastic about the saving package and within a few months they had saved enough money to repair and level the backyard of the village mosque for the purpose of ensuring maximum congregation





on Jumma and Eid prayers. Soon they realized that they could do miracles while following the three principles.

But their major problem and most serious concern was scarcity of irrigation water. Nine of the CO members received a credit of Rs. 157,000 for agri-inputs but due to lack of irrigation water there was no significant improvement in their economic condition. In one of their CO meetings they discussed the problem with the Social Organizer and unanimously decided to install a tube well to solve the problem. The manager of the CO motivated the CO members to initiate this project on a self-help basis. Each member contributed Rs. 1,500 per acre. A plot was provided free of cost for the tube well and all the community members participated voluntarily in its installation. The project was completed in March 2001. The total cost of the implementation of the project was Rs. 67,500. The whole process of the installation took only six days. This tube well has the capacity to irrigate 25 acres of land but the residents of the area are utilizing the tube well optimally to irrigate 45 acres of the agricultural land of the village. The fuel consumption of the tube well is 1.5 liters per hour (Rs. 25/hr), which is borne by the users. The availability of irrigation water has resulted in increased productivity of the land and in economic prosperity for the people.

Now community members of Manik Khan Lashari feel a great sense of achievement and they are very optimistic about their future. They solve their day-to-day problems in their CO meetings. Their village community organization provides them with a platform where they can plan and pursue their future goals. They have leveled a four-acre plot for their children to play. They have also constructed a hut to serve as a school for girls and have had it registered with the Ministry of Education. Their strong determination and enthusiasm led NRSP to sponsor a Drinking Water Supply Scheme for them. The CO share in this project was Rs. 70,000. The scheme was completed within the stipulated time and the people of the village now enjoy a safe and permanent supply of fresh drinking water.

The members of this CO have developed a comprehensive plan for their future. There is no electricity in the village, so they are struggling to get an electric power supply line that is presently 1.25 Km from the village. WAPDA has surveyed the area and the CO members are willing to bear the cost. Their plans include installation of another tube well and the construction of a link road of about 800 meters

on self-help basis.

These CO members firmly believe in self-help and savings. They think that NRSP's greatest gift for them is that it has broadened their intellectual horizon. Ali Ahmad and his fellow CO members have only one message for their countrymen, which is "God helps those who help themselves".

Source: PITD section - NRSP head office



### Impact study of water supply scheme at Pallandri

On January 11, 1998 Rukhsana Qureshi visited Nakkar Bandian Sehr Sallan at Pallandri to conduct an impact study of the water supply scheme. A special meeting was arranged with the CO members by the field unit incharge Mr. Ashfaq Ahmed Khwaja. The purpose of the meeting was to assess and measure the impact of the Drinking Water Supply Scheme (DWSS) on the socio-economic condition of the people. The CO has 30 women and 29 men members from a total of 54 households. The estimated cost of the scheme was Rs. 227,941. DWSS being the priority of the CO members was approved on 25<sup>th</sup> September 1996. NRSP established a link between the CO and PDP (Participatory Development Programme) thereby facilitating the entire process. Following were the terms on which the CO and PDP agreed to work in collaboration:

	Rs.	Percentage
CO share in labour	31,700	14%
in cash & material	56,366	25%
PDP share	137,875	61%

Before the scheme was implemented people were having a hard time due to the unavailability of drinking water. Thus womenfolk used to fetch water from far off places six to eight times daily. This was a tiresome and time consuming practice and as a result they were left with hardly enough time to tend to other household chores. So an urgent need was felt by the community members to implement a drinking water supply scheme to ease their life. With this in mind a Community Organization was formed on 11<sup>th</sup> Jan 1996 and a plan was devised to implement the scheme. However

the execution of the plan started in December 1996 and it was completed in August 1997. The completion of the project not only provided the people with pure drinking water at their doorsteps but it also relieved women of hours of stressful daily labour. The time usually consumed by fetching water was now available for other useful and productive activities.

The completion of the project had a positive impact on the general health of local women, as it relieved them of the strenuous work routine. The CO members have hired a person to maintain the scheme. All members collect Rs. 15 per household at the end of every month out of which they pay the salary of the maintenance person Razzaq.

One of the community women has put her saved time to good use by tailoring clothes, a job which she can perform in daylight only, as there is no electricity in the village. This has added to her income as she charges Rs. 50 per suit and earns an average of Rs. 600 per month. Now women have ample time to tend to their kitchen gardens, collect firewood, raise poultry and a score of other activities that were impossible before the completion of the scheme.

Source: PITD section - NRSP head office

### Water saving tips

- Don't leave water running while shaving, cleaning teeth, or washing dishes. Leaving a tap running can use 10 - 14 liters of water per minute. (Source: Environment Agency - Water Wise)
- A full load in the washing machine uses less water than two half loads. (Source: Thames Water Website)
- Take showers, not baths and save enough water each week for 1000 cups of tea. (Source: DETR)
- Install a water saving device in your toilet cistern. The average family uses the equivalent of two baths of water per day when flushing the toilet. (Source: Save-a-Flush)
- Wash your car with a bucket. Using a hose to wash your car wastes up to 300 litres or 33 buckets full of water. (Source: Southern Water website)
- Fit a water butt to collect rainwater. Most of our rainwater appears when we least need it, saving water in this way for spring and summer helps conserve water.
- Avoid the use of garden sprinklers. A garden sprinkler uses 1,000 litres of water an hour - that's nearly one pint for every 2 seconds it is in operation. (Source: Southern Water website)



# stress ...at work

(written by: Batool Akhter)

## What is stress?

Stress is a part of day-to-day living. One may experience stress meeting academic demands, adjusting to a new living environment, or developing friendships. The stress one experiences is not necessarily harmful. Mild forms of stress can act as a motivator and energizer. However, if the stress level is too high, medical and social problems can result.

Although we tend to think that stress is caused by external events, events in themselves are not stressful. People differ dramatically in the type of events they interpret as stressful and the way in which they respond to such stress. For example, speaking in public can be stressful for some people and relaxing for others.

Stress is, "An adaptive response, moderated by individual differences, that is a consequence of any action, situation, or event, that places special demands on a person."

## Causes of stress

In the context of our definition of stress, it is important to understand that stress is the result of dealing with something that places "special" demands on an individual. Special demands mean unusual, physical or psychologically threatening, or outside an individual's usual set of behaviors.

Job stress is not limited to any one type of job, but majority of jobs come with some degree of stress. Plummeting productivity, massive layoffs, sour relations between management and employers, executive incompetence and dishonest business dealings all plague the workplace. There is no denying the fact that career problems are a source of stress and anxiety for millions. There are various causes of stress. Some of them are as follows:

- **General causes:** General causes of stress at work include organizational problems, insufficient back up, long or unsociable hours, poor status, pay and promotion prospects, unnecessary rituals and procedures, uncertainty and insecurity.

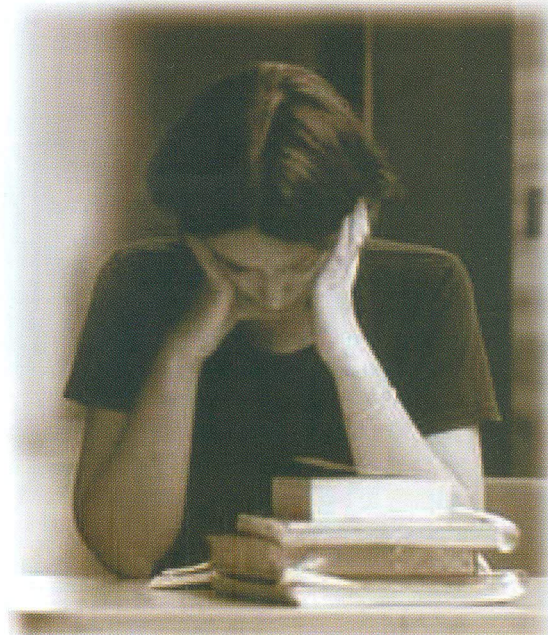
- **Specific causes:** Specific causes include unclear role specifications, role conflict, unrealistically high self-expectations (perfectionism), inability to influence decision making (powerlessness), frequent clashes with superiors, isolation from colleagues' support, lack of variety, poor communication, inadequate leadership, conflicts with colleagues, inability to finish a job, and fighting unnecessary battles.
- **Task related causes:** Difficult clients or subordinates, insufficient training, emotional involvement with clients or subordinates, the responsibilities of the job, and the inability to help or act effectively are some causes of task-related stress at work.
- **Home related causes:** This includes stress caused by a partner, children, domestic arrangements, or by environmental pressures upon the home.

## Symptoms of stress

- **TENSE MUSCLES, SORE NECK, SHOULDERS, & BACK** - people under stress may be so tense that they experience muscle cramps and backache.
- **INSOMNIA** - trouble falling asleep, staying asleep, or early waking. Tense muscles, increased heart and breathing rate brought on by stress can cause insomnia.
- **FATIGUE** - is a symptom of stress unless the fatigue is brought on by physical exertion.
- **EATING TOO MUCH OR TOO LITTLE** - compulsive eating can put added strain on the heart, kidneys, and arteries, and can create self-disgust (a major stressor). Eating too little can signify withdrawal and depression.
- **DIARRHEA, CRAMPS, GAS, CONSTIPATION** - symptoms of digestive distress can come from spoiled food or viral infection, but persistent trouble can indicate stress. The blood is drawn away from the digestive system.
- **PALPITATIONS - HEART SKIP** - the stress alarm increases the rate of heartbeat, causing a feeling of palpitations or heart skip. This can result in a destructive cycle

## snapshot

- What is stress
- Causes of stress
- Symptoms of stress
- Consequences of stress
- How can you reduce stress



of fear.

- **PHOBIAS** - unfounded fears, such as fear of enclosed places, heights, etc. could be a sign of stress caused by hidden emotional conflicts.
- **ANY SYMPTOM** - that is unusual for you can indicate stress

## Consequences of stress

Stressed-out employees are more likely to miss work both as a coping mechanism and due to health-related problems. Lost productivity and replacement costs make absenteeism a costly consequence. The feeling of powerlessness, a major contributor to employee stress, also contributes to the desire for retribution. Frequent grievances are both a legitimate warning sign that organizational problems exist and a less extreme way of expressing powerlessness, which in itself indicates organizational problems.

Stress causes a narrowing of attention, preoccupation, and fatigue - a sure recipe for workplace injuries. Stressed-out employees trying to do more are also likely to take shortcuts, which can lead to accidents.

When people are under stress, they become preoccupied with the issues troubling them. Stress also causes attention to narrow, creating



a sort of "tunnel vision." This makes the stressed-out employee more susceptible to missing environmental cues and information required to make both effective and safe decisions. Stress also dulls the thinking process. Under extreme or unremitting stress, people become intellectually, emotionally, and interpersonally dull. This can result in costly - and sometimes life - threatening mistakes.

Violence is both a cause and a consequence of employee stress. The stress brought on by interpersonal challenges and conflicts, combined with the fact that many people are operating just below their "boiling point," creates a potentially volatile situation. Conversely, the threat of violence or an actual violent episode in the workplace creates tremendous stress. This is especially true in cases where powerlessness and helplessness play a central role in a person's stress.

A relatively small percentage of customers who aren't completely satisfied with a company's service can result in a huge loss in profitability. There is an obvious connection between happy employees and a satisfied customer, yet so often ignored.

Many attempts at organizational change and improvement fail because of employees' resistance to change. Research shows that stress is also connected with "heo phobia" - fear of novelty. We see this throughout organizations everyday. As people become more stressed, the new and the different triggers fear.

Stress costs organizations dearly in terms of decreased quality and productivity. It creates a terrible cycle of trying to work harder and harder because the volume you have to put out is increasing, but you aren't doing anything to make the process more effective and efficient. Their depleting intellectual and emotional resources are focused on survival, not on improvement.

At the most basic level, the more stressed-out and depleted a person is, the less that person cares about excellence and innovation. At the most fundamental psychological and neurobiological levels, stress affects a person's intellectual and emotional capacity. Stress makes people less intellectually and interpersonally intelligent. When people are in high-stress situations over which they have no control, their thought process becomes more rigid, simplistic, and superficial.

## How can you reduce stress

- Get organized: Getting our priorities straight will help us plan our day

- Remember time limits: The average worker works 8/9 hours a day. Trying to fit 12 hours of work in a 9-hour day does not work.
- Leave home without the perfectionism: This leads to a lot of stress.
- Drop the superman approach: Remember, even Superman was affected by kryptonite and the tortoise did win the race. Work at your own pace and maintain a steady flow or rhythm.
- Try to maintain a positive attitude: Negative thinking drains one's energy and motivation. Pat yourself on the back for a job well done even if your boss fails to recognize your work.

## What the employer can do to reduce the stress

Caring is an important part of what motivates people. Social Workers and Psychologists have known this fact for years. People need to feel important, valued and appreciated in order to continue to produce at top performances. Let's look at five simple practices an employer can do for his/her employees to help reduce the stress level.

- Praise positive work - don't take it for granted
- See every employee with equal value
- Show appreciation
- See each employee as different - with different needs
- Communicate, communicate, communicate

Many times job stress occurs because a person is not in his desired position and is afraid to make a change because of unclear goals.

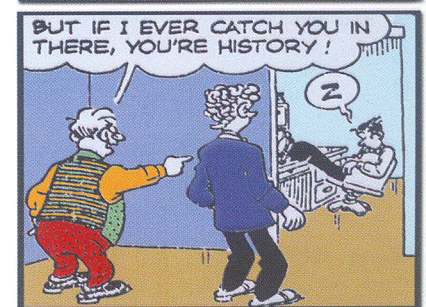
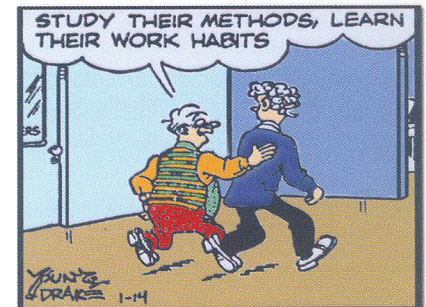
Organizational stress may be viewed as the consequence of the relationship between the individual and the work environment. Management of job stress is a two way process, both the employer and employee have to take necessary steps to overcome stress. Creating an organizational climate that encourages and supports people to perform at their best - and rewards them accordingly - not surprisingly creates a happier, healthier work force. The successful organizations offer a glimpse at both opportunities lost by not addressing how worker well-being affects the bottom line as well as guidance about how to "do things right."

Sources:

1. [www.jobstresshelp.com](http://www.jobstresshelp.com)
2. [www.canville.net](http://www.canville.net)

*If there is magic on this planet, it is contained in water*

-Loren Eiseley



**Blondie** \_ by Dean Young & Stan Drake

Source: The News

## Interesting workplace facts

### Playful introductions

Our next speaker not only needs no introduction, he doesn't really deserve one. Our next speaker needs no introduction. It wouldn't help.

### Getting up in the morning

Getting up and going to work is terrible. Staying in bed and going to work probably wouldn't be too bad. They say the early bird catches the worm. It serves the worm right for being up that early.

### Monday morning blahs

The worst thing about Monday is that it's followed by Tuesday, Wednesday, Thursday and Friday.

What we call the Monday Morning Blahs are really the Friday, Saturday, and Sunday After-Effects.

Besides Monday is a terrible thing to put at the end of a weekend.

### Smokers and non-smokers

If looks could kill, smoking in our office would clearly be "injurious to your health." One worker asked another, "Do you mind if I smoke?" He replied, "I don't care if you burn."



# Akhter Hameed Khan resource center

In recognition of the remarkable achievements of  
**Late Dr. Akhter Hameed Khan**

AHK-RC acts as a center for all the RSPs where they could share their best practice studies/documents produced, impact analysis, programme videos and training manuals and material and other publications. It is a knowledge depository of rural support programmes in particular and other development organizations in general.

Akhter Hameed Khan Resource Center caters to the information requirements of development organizations working for participatory development approach and methodologies of social mobilization in Pakistan. It consists of the following sections:

- Reference library
- Graphics studio
- Xerox facility
- Audio-Video studio
- Write shop

More than 6,000 books and over 1500 videos/documentaries on various subjects/topics are available at the Resource Center.

## New Arrivals

Books on various subjects have been added to AHK-RC. Here we will discuss only one of these i.e. The Politics of Managing Water, which is most relevant to the theme of this issue.

### The Politics of Managing Water

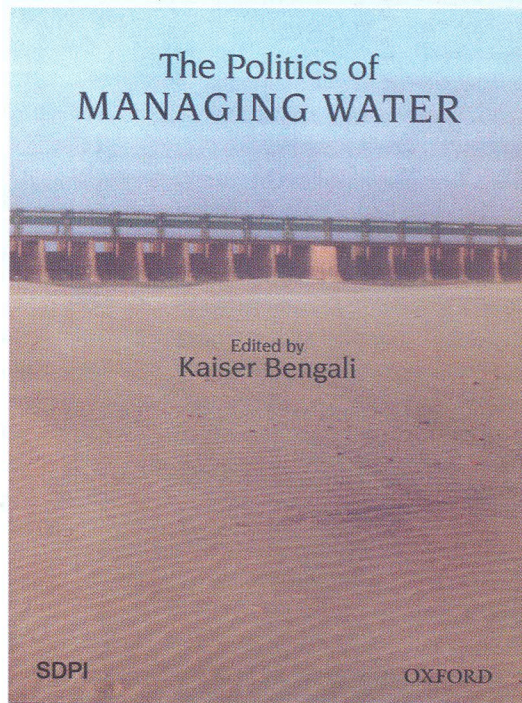
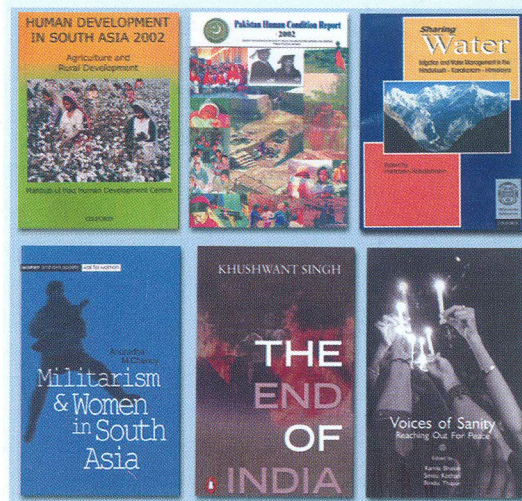
Edited by Kaiser Bengali, SDPI and Oxford University

The book "The Politics of Managing Water" is just in time in view of the fact that water issue is emerging as one of the most prominent issues in international debates. The book revolves around issues like water storage and distribution; water conservation and conflict resolution.

The book is divided into five parts each one dealing with a specific aspect of water issues. It covers a diversified range of topics and discusses every issue picked in a comprehensive way. The first part of the book 'the water resources' as the name suggests is all about the water resources of Pakistan. It also presents an overview of Pakistan's water sector.

'In the Wake of Development' the second part of the book deals with different topics like Salinity and sustainability of agricultural productivity in irrigated areas; pollution of the river Kabul; principles of coastal zone management; ecological imbalances in coastal areas; water issues in Balochistan; water resources and irrigation in Balochistan; water harvesting in mountain areas and Tankas in Tharparkar.

The third part the most enriching one namely 'Policy Debates' covers policy issues. It is further divided into ten chapters. This part discusses at length the various policy issues thus presenting a very clear view of the issues in policy reforms, socio-economic realities, national water plans, drainage crisis in Sindh, Indus basin irrigation system, sewage disposal options in Karachi, rural water supply and the economics of participatory water supply schemes. This part also presents the views of both the civil societies and the World Bank on water reforms. The fourth part of the book discusses water conflicts while the last part presents the water vision i.e. vision for the future. This book despite the fact that it is divided into parts never loses its thematic focus thus maintaining its organic unity throughout. It is a useful and valuable document and will serve as an important reference guide for development professionals and civil societies as it portrays very clearly the water situation prevalent in Pakistan.



**Sources of articles:** Articles are produced internally with information from various books, magazines and the internet. This newsletter is provided complimentary to the readers.

### Reader's suggestions

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