POWER PROBLEM

Why Not Utilise Day-light and Reduce Peak-hour Load?

by Dr. AF Rafiqul Islam

DURING the Egyptian civilization (2000-4500BC), the lighted hours of the day was considered to be the real productive working hours. This expression was true for all forms of mortal lives, except kings who were considered immortal. In case of plant life, this concept holds good eternally due to photosynthesis caused by day-light.

The Japanese are known as workaholic because of their extreme diligence. Even today, I find some Japanese who work from sunrise to sunset. I asked one president of a medium-scale company of Nishio-city, Japan, "Mr Ishikawa, what is the office hour of your company?" He replied, "My office hour is from sunrise to sunset. I work as long as the sun shines irrespective of Sundays or holidays."

Utility of Day-light Hours

As our country is experiencing an acute power shortage, we should utilize nature's power, sunlight, which is the biggest source of power, to our benefit. The village people are utilizing it more by going to bed early and getting up early in the morning and, in the process, also keeping themselves healthier.

Utilization of day-light hours simply means that we should work more in day-time and less in night-time. For this purpose, we should get up early in the morning and go to bed early at night. For health as well as for work-efficiency, this practice is acclaimed by most of the people all over the world.

The Power-shortage Problem

If we study the average electric power consumption pattern of Dhaka city, we can get an idea of power crisis in the country. DESA's annual average load during different hours of day/night is as shown below:-

(a) 195 MW: from midnight to sunrise.

(b) 300 MW: from sunrise to 9 am

(c) 385 MW: from 9 am to 5 pm (office hours)

(d) 665 MW : from sunset to 11 pm(peak load hour)

(e) 220 MW : from 11pm to midnight.

Studying the above figures of load requirement, we can understand that DESA has to strive hard to overcome peak hour shortage and failing to overcome this crucial problem, it is compelled to resort to load-shedding against its will. If DESA could find a better solution to reducing the peak hour load, it would definitely follow that reducing/withdrawing load-shedding. However for the benefit of the people, DESA may follow load scheduling instead of load-shedding.

Major Consumers During Peak-Load Hours: The average consumers during peak-load hours at present are as below:

(A) Domestic/Street-light	390 MW
(B) Industrial	110 MW
(C) Commercial (Shops etc.).	165 MW
Total:	665 MW

Proposals

To reduce the peak-hour load to 515 MW i.e. reducing the consumption by 150 MW (which will be a great success if can be achieved), we have two proposals:

Day-light Saving Time: We can turn the clock one hour early, i.e. to make the time difference of Bangladesh Standard Time (BST) with Greenwich Mean Time (GMT) 7 hours instead of present 6 hours. By this change of time, the sunrise and sunset will be changed to 6 am and 8 pm instead of present 5 am and 7 pm in summer, while in winter sunrise and sunset will be changed to 8 am and 6 pm instead of 7 am and 5 pm. As the office hours/school hours will remain the same, people will get up one hour earlier and go to bed one hour earlier.

As at night people will go to bed one hour earlier, the peak-load electricity consumption by domestic uses will be cut by one hour and there will be a saving of 390 MW for this one hour. This is a great saving of electricity for a poor and power-starving country like Bangladesh and load shedding (if required) will be reduced by about 25 per cent.

Closure of Shops after Sunset: In most of the developed countries of the world, we notice that shops remain open only during day-time. All the purchase of daily necessities take place during day-time and on the two weekly holidays. In our country also if shops remain closed after sunset, consumers will automatically change their habit of buying to during only day time and two weekly holidays like in the developed countries.

By this system the shop-owners and shop-workers will get time at night to look after their children's education, needs of other family members, friends and relatives. They can have more sophisticated and cultured life utilizing the night time effectively.

If the shops remain closed during night time, the shop-owners will not lose any profit, instead, they will have more free time and will reap same or more benefit by selling the same quantity of goods in less time as consumers will change their purchase habit. The consumers also will be able to finish shopping during day-time having no difficulty at all. By introducing this system the general public will be immensely benefited having no load-shedding (or much less load-shedding) due to the reduction of about 150 MW out of 165 MW commercial consumption. Only restaurants, medical shops, clinics, hotels, will use electricity during peak-load hours.

The proposals, if followed, the peak-load hours will be reduced as below:

(A) Domestic/Street-light load 390 MW (peak load hour will be reduced by one hour and 390 MW will be saved for one hour).

B) Industrial 110MW (industries will be undisturbed)

(C) Commercial (shop etc.) 15 MW (150 MW to be reduced by closing shops early)

Total 515 MW

Benefits

The new system and the reduction of the peak-hour load from 665 MW by about 150 MW will bring immense benefit in the following ways:

(a) Bangladesh will be able to save about 450 MW installed capacity of electric generation plant. Because, by reducing 135 MW load consumption out of 665 MW in DESA, Bangladesh can reduce about 450 MW peak-load consumption in the whole country out of about 2000 MW requirement. Thus the installed capacity can be reduced to 1550 MW instead of 2000 MW at the moment and the country will save about US$ 360 million in foreign exchange, because, less electricity generating plant will serve the same purpose.

(b) The general public will face only greatly reduced load-shedding and will enjoy peaceful life without facing disturbances caused due to power-failure and load-shedding.

(c) The shop-owners will save on electricity costs and shop workers will have better social and family life due to reduced working hours but with better efficiency and have increased profit-sharing due to saving in electricity cost.

(d) The shop-owners will save about Tk 95 crore annually due to their saving of 150 MW daily for average 5 hours during peak-load hours. The domestic users similarly will save about Tk 50 crore annually due to their saving of 390 MW daily for average one hour during peak-load hours. Thus about Tk 145 crore would be saved annually by reducing the unnecessary electric consumption.

(e) The system-loss during peak-load hour is more than that during normal hours. Due to the reducing of peak-load hours by about 150 MW the system-loss would be minimized by about 8.5 per cent during the peak-load hours of 5 hours (found by approx. calculation). This is also a great saving for the nation considering the fact that reducing 8.5 per cent system-loss during peak-load hours everyday, the nation will save about Tk 28 crore annually.

Conclusion

In fine, we want to emphasize that Bangladesh should follow the developed countries and capitalize enormous benefit besides solving the electric power problem by introducing the easy and beneficial method as proposed above. By introducing these methods, the country will gain much without any additional capital investment and this will contribute towards improvement of people's social, cultural and family life.

FISH DISEASE

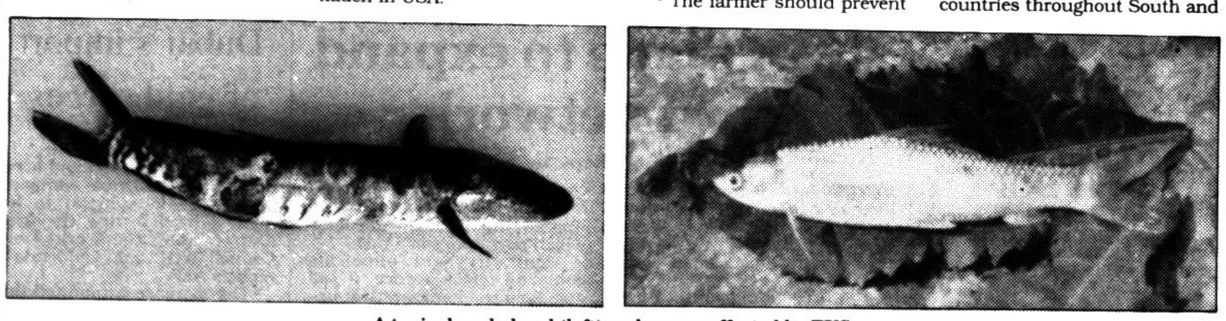
Recent Development in EUS

by Md Ghulam Kibria

EPIZOOTIC ulcerative syn drome (EUS), a devastating fish disease, has been in existence in Asia since 1980s. EUS is the term generally used to describe a serious epizootic condition of wild and cultured freshwater and brackish water fishes. Its spread has extended deep into the Indian sub-continent over the past decade. The origin of the disease remains a matter for speculation.

The potential social and economic impacts of the EUS, a highly infectious disease affecting rice-field fish in Asia, are immense. It is estimated that 250 million families in the region depend on rice as a main crop and much of the incidental fish harvest from these paddy fields is an important part of their family diet. Farmers involved in improved fish culture in rich field and pond systems stand to lose significant financial investments as well as interest. It should be noted that major months for harvesting paddy-field fish are from September to February — the period when most ulcerative disease episodes occur.

Fish disease on a large-scale has not previously been found in Bangladesh. Not surprisingly, there has been a great deal of resistance among local people to diseased fish. However, after the outbreak of disease in an area, consumption of fish fell and 50-75 per cent fall in the price of fish in badly affected districts was reported? The occurrence of disease in waters (fish) leads to real fear for human health by local people who blamed affected fish or water for gastric disorders. In addition, death of ducks or other domestic animals was also attributed to the fish disease. There is no scientific evidence in Bangladesh or in any other country that the occurrence of EUS causes human or animal illness.



A typical snakehead (left) and a carp affected by EUS.

In Bangladesh, some professional dry fish traders collected these EUS affected fish for commercial purpose. They used to sell these to the fish buyers as dry fish as well as fish meal after grinding.

It must be stressed here that dry fish should not be marketed not because of EUS as such, but because bacteria or toxins often present in any dead dry fish may cause human illness.

However, Bangladesh suffered severe losses from EUS in 1988 and 1989. Even 75 per cent fall in consumption and price for fresh water fish was noticed. And in view of the vast socio-economic impact of the disease in Bangladesh, the following proposals can be made to respective authorities for better handling of the disease : 1) There is no adequate diagnostic or research facilities for fish disease in Bangladesh. A well-equipped modern laboratory having the relevant facilities to cope with the disease like EUS, should be set up. 2) The respective authority should forecast regularly through TV, radio etc, the occurrence of a disease like EUS (including measures to be taken). 3) Leaflets, booklets containing information on various diseases (including EUS) should be distributed through respective District Fisheries Officers (DFOs) and Thana Fisheries Officers (TFOs) on a regular basis. 4) The authority should keep year-wise statistical record on EUS and other major diseases.

Because of the acute and explosive way in which the disease flares up in an area a wide range of fish species is affected when it first occurs. The very seasonal nature of the disease still makes it likely that an environmental, or more likely, a viral factor, facilitates invasion by the apparently pathogenic Aphanomyces. Further studies are currently under way to determine the precise role of this particular pathogen in the pathogenesis of the disease and its relationship to viral and bacterial agents which can also consistently be isolated from affected fish.

The outbreak of disease occurs at the time when there is little or no rainfall and gradual fall in temperature. Indiscriminate pesticides application to paddy fields has aggravated water pollution problem which played a significant role in the outbreak of EUS. Brackish water fishes were affected only when they migrated to fresh water or when salinity dropped below 15 ppt. The fishes become lethargic, float on the surface of water sometimes with heads projected out of water. Initially the disease appears as red coloured lesions hemorrhagic in nature, sometimes elevated blister as seen in Wallago attu.

Clinically and histologically the lesions of EUS, especially in Puntius and Indian major carps closely resemble those of a fungal condition of pond culture ayu, Pleoglossus altivelis in Japan.

Fungal involvement is now a consistent finding in the disease. With the finding of Aphanomyces fungus, the following three/four other disease prevailing in the world seem to be pretty same : 1) Red spot in Australia, 2) Mycotic granuloma in Japan, and 3) Menhaden in USA.

Remedial measures of EUS: The effective treatment and control of EUS is hindered by several major problems, in particular its widespread occurrence in wild fishes and its still unknown aetiology. It is virtually impossible to control pathogens in large water bodies. According to fisheries scientists, till now no prophylactic measures can be suggested; however, there are some precautionary measures which can easily be followed. Some remedial measures of the different Fisheries Research Institutes of this South-east Asian region are as follow :

Fisheries Research Institute, Bangladesh

* The aquatic environment of the pond should be well maintained. Usually, the rural people don't care about the pond environment.

* Apply lime (CaO) at the rate 1 kg/decimal in the affected ponds. In case of severely affected pond, lime may be used 3-4 times on a week's interval.

* The connection of river, canal or other water bodies with the infected pond should be closed.

* The used fishing net should be disinfected before further use.

* Lime at above rate can be used at the advent of winter season as a precautionary measure.

* Remove the infected fish as soon as it is seen.

* Entry of wild paddy field fishes should be checked.

* Apply salt and lime at the ratio 1:1 kg/decimal in the 7-8 feet deep affected pond. This will cure the fishes within 10-15 days. Salt is known to control some external parasites, but more importantly, it temporarily inhibits the activity of some bacterial and fungi and lowers toxicity of nitrite and ammonia to fish.

* Lime and salt should be applied in mid-October when diseases usually occur.

Central Inland Capture Fisheries Research Institute (CICFRI), India

The fisheries scientists of India advised to use three types of chemicals in the affected ponds : lime, potassium permanganate and antibiotics.

Lime : 200-600 kg/hectare lime had been advised for following reasons:

* It raises pH of acidic water to neutral or slightly alkaline value.

* It promotes biological productivity and transparency of the water.

* It kills most of the undesirable micro-organisms, especially pathogens, due to its caustic reactions.

$KMno_4$: Apply 0.5-2 ppm in the pond water.

Antibiotic therapy : 60-100 mg Erythromycin/Nalidixic Acid/ Oxytetracycline/Teramycin etc with one kg of feed for 7 days to cure the ulcers.

Department of Fisheries (DOF), Thailand

* The farmer should observe very closely the fish in the waters near the ponds, especially in the potential disease period.

* The farmer should close the water inlet immediately and completely if it is found that the fishes in the neighboring waters show signs of disease.

* The farmer should prevent the water from agricultural areas coming into the pond as much as possible, especially, when it rains.

* The farmer should apply 60-100 kg of lime per rai ($1600m^2$) into the pond and repeat 3-4 at 3 weeks interval and try to apply it all over the water surface including pond side.

* The farmer should add at least 200-300 kg of salt per rai ($1600m^2$) when the pond water becomes very polluted.

* The farmer should only release water into the pond when the situation outside is cleared.

* The farmer must destroy dead fish by burying or burning them.

National Inland Fisheries Institute (NIFI), Bangkok, Thailand

* Apply lime and salt at ratio 1:1 per decimal in the 7-8 ft deep pond. For this, salt should be splash and lime mixed with water and then applied.

* Whilst this EUS disease outbreaks in the pond during mid-October, apply lime and salt in above dose. After that there is little scope for outbreak of this disease.

Couple of years ago (25-27 January, 1994) at a seminar in Bangkok, Thailand, Australian participants agreed that there is no difference between Australian red spot and EUS. The Japanese participants had the opinion that if the mycotic granuloma and EUS are not same, then it must be a similar disease. The menhaden disease in the USA is also thought to be a similar disease. Remedial prophylactic and therapeutic measures for disease have been tried only in manageable water areas. The lime treatment has given good result around the world.

The intensity and fear of the disease now has greatly reduced mainly because 1) immunity has developed by the fishes over the years, and 2) greater knowledge of the people.

The well-fed, carefully handled, parasite-free, well-managed fishes, ponds did not get the disease.

Conclusion

Bangladesh has vast highly productive inland water bodies which contribute about 73 per cent of the total fish production. Once our country abounded with fish and fisheries wealth but today it is not like that. Currently Bangladesh is producing a total of about 12.0 lakh MT of fish which hardly meets the total national requirement. The current per capita availability of fish per day is 21 gm against the requirement of 45 gm a day.

EUS continues to cause significant loss of wild and cultured fresh water fish as it recurs annually. Various adverse factors such as destruction of spawning ground, indiscriminate use of chemicals, construction of dams, pollution of water bodies, discharge of industrial waste into water without any treatment, siltation of river, over-fishing etc, have caused sharp fall in the country's fish production. Further to that fish disease like EUS has contributed significantly in depletion of the fish population since 1988.

A serious disease like EUS poses a challenge to the fisheries scientists of EUS affected countries of the world.

A survey from outbreaks in countries throughout South and South-East Asia showed that a morphologically typical fungus was consistently present within lesions. Although the majority of the fungal mycelium was dead in most lesions it proved possible to isolate a very delicate and culturally demanding Aphanomyces from such lesions in a few cases.

The recent observations in Thailand suggest that rhabdovirus can be readily isolated from moribund fishes collected during the early period of the epizootic. Snakehead fish recovering from natural outbreaks produced antisera which was recognised as rhabdovirus protein M1 and/or M2 antigens in Western blot analysis. It is proposed, therefore, that rhabdovirus should be re-evaluated as a possible agent in a complex of aetiological agents having a role in EUS.

Still now no assumption can be made unless complete clinical pathological and microbiological data are obtained/confirmed. As a whole, this type of disease occurs due to environmental imbalance. So, the fisheries scientists of the world should put more emphasis on environmental pollution, which is now a global concern.

The writer is Training and Extension Officer (Fisheries), Oxbow Lakes Small Scale Fishermen Project, DANIDA Technical Assistance, Bangladesh.

Metropolitan

MCH-FP Extension Project study

Health conditions in city's slums worse than in rural areas

The Mother and Child Health-Family Planning (MCH-FP) Extension Project (urban) of the International Centre for Diarrhoeal Diseases and Research, Bangladesh (ICDDR,B) has so far completed a total of 45 studies in its area of work in Dhaka and other parts of the country, reports BSS.

The studies mainly focused on baseline survey of slum and non-slum households, demand for health services, inventory of health services, assessment of MCH-FP and field workers services, survey of pharmacy and its users, health needs in urban areas, male involvement in family planning and coverage of immunisation services.

The project, a partnership to improve urban health and family planning in Bangladesh, was launched in August, 1994, with financial and technical assistance of the USAID and Johns Hopkins University aimed at reducing fertility and mortality in the country's urban areas.

"Over one-third of the population in Dhaka live in slums where health conditions are worse than in rural areas of Bangladesh," an ICDDR,B official told BSS recently.

However, the objectives of the project are to develop coordinated and cost-effective systems of delivering MCH-FP services, to disseminate project findings and provide technical assistance and to enhance capabilities for planning, evaluation and implementation at the local level.

Various government agencies including the Ministry of Health and Family Welfare, Ministry of LGRD and Cooperatives, Directorate of Health Services, Directorate of Family Planning, Dhaka City Corporation and an NGO named 'Concerned Women for Family Planning' are actively involved in the project.

According to the selected research findings on conditions of slums, one-third of pregnancies were reported to be unplanned, fewer than one-third of women sought antenatal care and over 90 per cent of them delivered their children at home. "Infant mortality in slum areas is 99 per 1000 live births," the official said.

The research findings also showed, almost one-third of the breast-fed infants do not receive adequate food supplement after 6 months of age.

Less than half of the children aged 12 to 13 months are vaccinated against measles but there is high prevalence of diarrhoeal diseases and acute respiratory infections among slum dwellers, the findings also said.

The research findings also referred to factors limiting use of services which included lack of awareness, inadequate male involvement, high costs and the perception that private care was of better quality.

The environmental problems mentioned in the research findings were poor housing, sanitation, lack of latrines and garbage disposal. Almost half of the slum households need more than 30 minutes per trip to collect water everyday, the findings said.

The project director, Abdullah H Bagui told the inaugural session of a seminar on dissemination of research findings on this project in the city recently that the initiative started three years ago in zone 3 of Dhaka City. Overtime, he said, the activities expanded to all 10 zones of Dhaka City, three other city corporations and a number of municipalities.

The Daily Star Entertainment Guide

Tuesday 22nd July
(All programmes are in local time. There may be changes in the programme)

BBC

6:00 am BBC World News **6:30** World Living : Tomorrow's World **7:00** BBC World News inc. World Business Report/Asia Today/24 Hours **10:00** BBC World News **10:30** World Focus: Window On Europe **11:00** BBC Newsdesk **12:00** BBC Newsdesk **12:30** Hard Talk **1:00** BBC World News **1:30** World Focus: Window On Europe **2:00** BBC World News **2:25** 50 Years Of Independence **2:30** World Living : Top Gear **3:00** BBC World News **3:30** Hard Talk **4:00** BBC World News **4:30** World Living : Tomorrow's World **5:00** BBC Newsdesk **6:00pm** BBC Newsdesk **6:30** World Focus: Window On Europe **7:00** BBC World News **7:15** World Business Report **7:30** BBC Newshour Asia & Pacific **8:25** 50 Years Of Independence **8:30** World Living : Holiday **9:00** BBC World News **9:30** Hard Talk **9:55** Weekend World: Horizon **10:00** BBC World News **10:30** World Living : Airport **11:00** The World Today **12:00mn** The World Today **12:30** Hard Talk **1:00** BBC World News **1:30** World Focus: Reporters **2:00** BBC World News **2:25** 50 Years Of Independence **2:30** World Living : Building Sights **3:00** BBC Newsdesk inc. World Business Report/24 Hours **4:00** BBC Newsdesk inc. Asia Today & World Business Report **5:00** BBC World News

CHANNEL V

6:30am Rewind VJ Sophiya **7:00** Tune in T [V] **8:30** Rewind VJ Sophiya **9:30** Tune in T [V] **2:30** Liberty First Day First Show **3:00** The Indian Top 10 **4:00** Tune in T [V] **6:00** Tune in T [V] **7:00** Tune in T [V] **8:30** Tune in T [V] **9:00** Tune In T [V] Simply South **9:30** Rexona Deo Out There **10:00** Liberty First Day First Show **10:30** Tune in T [V] **11:00** 70's Rewind **11:30** Tune in T [V] **1:00** Haysah VJ Dania **2:00** By Demand VJ Trey **3:00** HS V Hour Special **4:00** Speak Easy Jon Bon Jovi **4:30** First Day First Show **5:30** Freestyle

STAR PLUS

6:30 Ninaad **7:30** Good Morning India **9:00** Business Agenda **9:30** Nine to Five **10:00** Yan Can Cook **10:30** For Your Entertainment **11:00** The Wonder Years **11:30** The Oprah Winfrey Show **12:30** The X Files **1:30** Santa Barbara **2:30** The Bold & The Beautiful **3:00** Imtihan **3:30** Sunghursh **4:00** Tu Tu Main Main **4:30** WWF: Superstars **5:30** Doogie Howser MD **6:00** The Wonder Years **6:30pm** Yan Can Cook **7:00** Janata Ki Adalat **7:30** Star News (Hindi) **8:00** Small Wonder **8:30** Kya Baat Hai **9:00** Meri Awaz Suno **9:30** Star News **10:00** Some Mothers Do Ave Em **10:30** Space: Above And Beyond **11:30** The Bold & The Beautiful **12:00mn** Santa Barbara **1:00** Star News **1:30** Baywatch **2:30** Dynasty **3:30** Vega **4:30** The Oprah Winfrey Show

STAR SPORTS

7:30 Trans World Sport **8:30** WPGET Deesse Ladies Swiss Open **9:30** Pepsi Asia Cup 1997 H/L Day 4 Pakistan V India **10:30** LIVE Pepsi Asia Cup 1997 Sri Lanka v Bangladesh 1st Session **2:00** Lunch **2:30** LIVE Pepsi Asia Cup 1997 Sri Lanka v Bangladesh 2nd Session **6:30** Malaysian Open Badminton 1997 Semi Finals **10:30** Mancester United's 1997 Tour Of Asia Manchester United V Japan **12:30mn** Thai Premier Cup Final **2:30** Pepsi Asia Cup 1997 Sri Lanka v Bangladesh

STAR MOVIES

7:30am Classic: Sea of Sand? **9:30** Action: Crazy Mama 15 (Arabic Subtitles) **11:30** Family: Best Shot PG (Hindi Subtitles) **1:30** Romance: Message From Nam (Part 1) (Hindi Subtitles) **3:30** Romance: Message From Nam (Part 2) 15 (Hindi Subtitles) **4:00** Documentary: The Directors Herbert Ross **5:30** Thriller : The Abominable Dr Phibes 15 **7:30** Classic : Bachelor Of Hearts 12 **9:30** E! Features **10:00** Action: One Man Army 15 **12:00** After Dark: Blindfold — Acts Of Obsession 18 **2:00** Horror: Countess Dracula 18 **4:00** World Cinema: The Servile (English Subtitles) **5:30** Family : Bye Bye Red Riding Hood PG

PTV

8:00 TILAWAT AUR TARJUMA/HAMD/NAAT **8:20** CARTOON **8:30** KHABRAIN **8:45** BEAUTY CARE **8:50** Fun Kadha **9:10** Dhanak & Health Tips **10:05** HAR TAAN HEY DEEPAK **10:30** ENGLISH FILM: Home Improvement **10:55** MILLI NAGHMA **11:00** KHABRAIN **11:10** Anita (Serial) **12:00** SPORTS HOUR **12:55** QURAN-E-HAKEEM **1:02** BISMILLAH **1:15** THE SCIENCE SHOW **2:00** Yeh Jahan (Music video) **2:25** Animated Classsics **3:15** Geography & Sammar school **4:20** Mitti Sona **5:00** Allah Huma Labbaik **5:25** Qabhi Mein Soochta Hoen (Drama Serial) **6:25** AIOU COURSES **7:00** Dhanak **7:45** ENGLISH NEWS **8:15** UN Quiz **8:45** Jab (Drama Serial) **9:00** Break for Headline News **10:00** Khabarnama & Commercial News & Khushal Pakistan **11:20** VCD Top Ten (Pakistani Video Countdown)

EL TV

7:00 Yeadon Ki Barat **7:30** Stand By (Trailer Show) **7:40** Amitabh Specials **8:20** Haseen Pal **8:30** Positive Health Show **9:00** Chehre **9:30** Teen Do Panch (Serial) **10:00 Hindi Feature Film** **1:00** Jaguar- Its My Choices **1:30** Siyarams Kamal Kombination **2:00** Gujrati: Sapna Na Vaveter **3:00** No problem **3:30** Anurag **4:00** Tanav **4:30** HFF **7:50** Haseen Pal (Trailer Show) **8:00 Hindi Feature Film** **10:30** Stand By (Trailer Show) **10:45 Hindi Feature Film** **1:30** Teri V Chup **2:00** The Real Countdown **3:00** Purushkhetra **4:00 Hindi Feature Film (B/W)**

DD 7

10:30 Janmadin (Birthday Greetings) **10:35** Daily Sope-Ogo Priyatama **11:00** Daily Sope- Rajeshwari **11:30** Tele film / Parliament Hour **12:30** Chuti Chuti (Serial) **1:30** Trishna **2:00** Kuasha Zakhan **2:30** Mantaz/ Katha (Serial) **3:00** Nabajanma (Serial "Moonmoon) **3:30** Ghum Nei (Serial " Prasenjit, Indrani) **5:05** Science prog-Bignan Prasange. **5:30** News **5:35** Ghare Baire **5:50** Employment News/Lalitkala **6:00** Janmabhumi (Serial) **6:30** Basant Bahar/Gaan Niye **7:00** Serial: Palli Katha **7:30** Bangla Sambad **7:55** Dinindan **8:00** Katha ("Laboni, Anushree) **8:30** Anushandhan (Serial) **9:00** Janmabhumi (Serial) **9:30** Harekrakamba **10:00** Bengali Movie Club Film Show **1:00** Closed

SONY ET

8:30 Khoya Khoya Chand (Hit Songs Show) **9:00** Double O Slip **9:30** Dennis The Menace (Hindi Dubb English Film **10:00** I Dream Of Jeannie (Hindi Dubb English Film Lary Hugman) **10:30 Bewitched 11:00** Taak Jhank **11:30** Gaane Jaane Maane **12:00** Faslee (Serial) **12:30** Jai Veer Hanuman (Serial) **1:30** The Young And The Restless (Hindi Dubb Eng. Serial) **2:30 Cine Matinee-Hindi Feature Film 5:30** Double O Slip **6:00** Dennis The Menace (Hindi Dubb English Film) **6:30** Khoya Khoya Chand **7:00** I Dream Of Jeannie (Hindi Dubb English Film) **7:30** Bewitched **8:00** Surf-Wheel Of Fourtune (Game Show) **8:30 Cine Prime- Hindi Film 11:30** The Young And Restless **12:30** Mahayaga (Serial) **1:00** Taj Mahal Takita Dhin **1.30** Premier (Latest Film Songs) **2.00** Surf-Wheel Of Fourtune (Game Show) **2:30** Closed

ZEE TV

6:00 Jagran **6:30** A to Z of COMPUTER-The Managment Course **7:30** Zee Business Show **8:00** Zee News & Business **8:30** Special Report **9:00** Disney Hour (Cartoon) **10:00** Gaane Anjaane **10:30** Lakme Khubsorat **11:00** Paribartan (Serial) **11:30** Close-Up Antakshari **12.00** Chanakay **1:00** Mere Ghar Ana Jindagi **1.30** Silsila **2:00** Hum Panch (Rpt.) **2:30** Kurukshetra (Rpt.) **3:00** Dard (Rpt.) **3:30** Dhara- Zaika Ke Safar **4.00** Hati Cement Aashiana/Karz (Serial) **4.30** Jhatpat Khana **5.00** Celeste **5:30** Caspar Kya Sin Hai **6:00** Aur Ek Minitue **6:30** Ganee Anjanee **8.15** Ek Nazar (Trailer On Film) **7:00** Disney Hour (Cartoon) **8:00** Paying Guest (Daily Sope) **8.30** Nirma Hum Panch **9:00** Margarita **9.30** Sapath **10.00** Hasratain **10.35** Zee News & Business **11.00** Adhika **11.30** Dastaan **12.00** Campus **12.30** TVS Saregama (Talent Show) **1:00** Vakaalat **1:30** Zee Horror Show (Serial) **2:00** Paying Guest (Daily Sope) **2:30** ZEE Arabia: Roshni **3:00** Feature Film .