

Warm Shelters for Northern Regions A Project Proposal

by Dr Khandaker Shabbir Ahmed, PhD

BASED on last five years' meteorological data for the northern and north-western regions of Bangladesh, regular reports of hardship and alarming number of deaths, it is apparent that like cyclones and floods, cold wave can be regarded as a natural calamity. Although temperatures recorded in those regions never reached 0°C, for people acclimatised to higher range of Tropical summer temperatures, frequent dips of temperature below 5°C have proven to be fatal. For such circumstances it is imperative to provide long-term structural measures, along with temporary relief operations.

It is totally inadequate to have only warm clothing to withstand such environmental conditions while living in vernacular shelters or homes evolved for hot and humid conditions. We have to look at the living conditions, existing shelter types and to suggest necessary improvements. It is interesting to note that human beings without the aid of high technology have successfully built their homes and lived in cold environments where temperatures often remained below freezing point. For affected regions in Bangladesh we have to employ such levels of technology backed by modern scientific knowledge. The positive side of the situation is that with human intervention in terms of simple improvements of the shelters and construction method, many deaths can be averted for years to come.

The following are the three levels of intervention:

1. To improve existing house forms to withstand cold waves.
2. To upgrade existing house forms as warm shelters.
3. To build communal warm shelters.

Improvement of Existing House Forms: Along with adjustments for reducing cold wind seepage through the wall, insulation using indigenous materials can be provided to the interior spaces of the existing homes. This will minimise heat loss through the shelter enveloped under cold conditions and help maintain comfortable conditions. [Approximate ma-

terial cost: Tk 2000-3,000; Project time: Short/Rapid (2-3 days)]

Upgrading Existing House Forms as Warm Shelters: Depending on the type and construction of the existing house form a central heating system can be incorporated. The method for such a system is totally safe and passive i.e. without the aid of any mechanism and extra energy. The system will operate on recovering heat from daily cooking and transmitting that to interior spaces. This is the most effective way to withstand cold conditions. During summer the system may not be used. [Approximate material cost: Tk. 10,000-Tk 15,000; Project time: Moderate (1-2 weeks)]

Building Warm Shelters: There are large communal spaces centrally heated with the aid of passive technology as mentioned above. However the scale of operation will be greater to accommodate large number of people, particularly those living in makeshift homes, old, children and sick i.e. those who are particularly susceptible to cold. This can be neighbourhood based and the space can be designed for other communal uses during the day or at other seasons. [Approximate material cost: Tk. 300,000-Tk. 400,000; Project time: Long (3-4 weeks)]

Preliminary Work: All technical help, drawing and instrumentation should be made available.

a) Survey should be conducted: This would include a survey of conditions of the existing indigenous houses, available building materials.

b) Evaluation should be made: This will include evaluation and correct recording of temperature regimes in the affected region; as meteorological stations are not present in many areas hence lack of understanding of the severity of the situation. 24-hour indoor temperature swings will also be recorded. This information would help in providing effective design solution.

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REFUSAL by the Iraqi authorities to have access to Saddam's palace and other sensitive sites where the government headed by Saddam Hossain may be hiding arms or the equipment to make biological and chemical weapons has set the stage for a fresh confrontation with the UNSCOM inspectors. Richard Butler, head of UN special commission charged with overseeing the elimination of weapons of mass destruction indicates that Iraq is engaged in germ warfare programme, its alleged production of the deadly VX nerve gas and missile warheads. Iraq has persistently argued that it could not have effective chemical and biological weapons because any that existed before the Persian Gulf War would no longer be usable. But American Inspector Charles Duelfer now in Iraq rejected the contention saying that ammunition loaded with the nerve gas VX, which lasts several years, is among materials the inspectors are looking for. Iraq, it is learnt, has banned inspectors from some 60 key sites, including about 40 presidential palaces citing protection of its national security. Despite Lt Gen Amer Mohammed Rashid's denial of accusation that Iraq was hiding weapons and materials proscribed under UN Security Council resolutions passed after the 1991 Gulf war, doubts remained because of Iraq's clandestine activities of using mustard gas in the 1988 war with Iran.

These reports of accusations were known to the world after the release of a UN report that graphically documented the use

of gas in Iraq attacks in the early part of 1988. Even those reports of human suffering paled beside the horrific descriptions of Iraq's most brutal assault, the bombing in March 1988 of Halabja in northern Iraq then held by Iran. Reports have it that deadly yellow and white clouds settled, hundreds perhaps thousands of bloated Kurdish bodies littered the streets. Shockingly, despite the incontrovertible evidence of a chemical onslaught, Iraq did not admit to the use of poison until July, 1988.

Surprisingly world reaction to Halabja carnage had been strangely muted at that time as it has inspired it now. People are still wondering as to how Iraq's flagrant violation of the 1925 Geneva Protocol that put a ban on the use of chemical weapons was taken so lightly. Despite such 'major acts of genocide', says Steven Rose, a neurobiologist of British Open University, the fact remained that Iraq could get away with it. Analysts, of course, speculate that Iran's pariah status although the period, might have engendered the silence. Many other big powers are learnt to have admitted owning chemical arsenals. But specialists worry about countries like Libya, Cuba, Burma, Peru, Ethiopia and Vietnam along with Iraq, some of which are believed to have employed chemical weapons in battle. The prolifer-

ation of poison gases while chilling, is not surprising. "Chemical weapons are the poor man's weapon," so says Etienne Copal, former deputy chief of staff of the French air force. "They are cheap, simple to use and very effective." The sad fact is that any country with a pesticide factory is capable of making deadly gas. We have seen the example of gas leak in Bhopal's (India) Union Carbide pesticide factory that took a heavy toll of human lives. Iraq, it was known, produced some of its chemical weapons at a pesticide plant at Samarra.

Shockingly, such activity violates the 1925 Geneva Protocol, which outlawed the use of poison gases, but never forbade their production and stockpiling. More stringent precautions might have been advised, given the sordid history of chemical warfare. Reports have it that use of deadly fumes dates back to the Peloponnesian War, when tar pitch and sulphur were mixed to produce a suffocating gas. Twenty-three centuries later chemical weaponry emerged as the ugly stepchild of the modern chemical industry. The great nations of Europe decided that such weapons were barbaric and outlawed them in the Hague Convention of 1899.

Historical records reveal that the Germans first violated the agreement and used poison

gas to devastating effect in World War I. In April 1915, German soldiers surreptitiously installed about 6000 cylinders of liquid chlorine in the trenches along a four mile section of "no man's land" near the Belgian town of Ypres. Using a heavy artillery barrage, the Germans were able to shatter the cylinders and release the lethal gas. In a single afternoon, 5000 French troops were killed and an additional 10,000 were injured.

German chemists subsequently introduced the far deadlier mustard gas to the battle field. By the end of the war, both sides had fired more than one lakh tons of chemicals killing about 90,000 soldiers and wounding 1.2 million more. There are arguments on both sides of the fence. Advocates of chemical warfare produced statistics showing that this gas caused far more casualties per round than explosives. Opponents produced conflicting evidence that it took a higher tonnage of chemicals to control a given area. Some claimed that gas was a "humane weapon" because the incidence of fatal casualties was only 1 in 30, and even the wounded were not mutilated. But the Germans, convinced of the lethal effect of the gas never unleashed their newly developed nerve gas on the battle field in World War II, though that was applied in the gas chambers of the concentration

camps. On the plea that "deterrence was the rationale", some superpowers that faced deadly gas attack in the battlefield in the past, have continued production of chemical weapons. France, for example, argues that without a chemical arsenal, the only response to attack by poison gas would be nuclear retaliation.

Many other countries are emphasizing defensive measures. Israel widely assumed to possess a chemical arsenal, has purchased gas masks for its entire civilian population of 4.2 million and stored them throughout the country. The Israeli army medical corps has developed an injection that neutralizes gases. Israel's preparedness stems from a fear of Syrian chemical attacks on Israeli airbases and military installations.

Of all the horrors etched in people's memory in the Gulf region during the eight-year war between Iraq and Iran, none have been more insidious than the routine use of mustard gas by the Iraqis against their Iranian foes. That weighed heavily in Iran's abrupt decision to abandon the fight and pursue a cease fire. The horrors unleashed by chemical warfare is frightening by any measure. When a gas weapon is used one would first detect an odd odour, something a little like the smell of garlic. Then the burning sets in, blurring vision as the eyes begin to smart and itch. Then comes the uncontrollable bouts of sneezing and coughing, often attended by nausea and vomiting. As the hours crawl by, victims who are still conscious are aware of an inflammation that

slowly spreads. When it reaches the respiratory tract, swelling the internal lining, the breath shortens and the chest tightens. The skin darkens to a sickly purplish colour, the armpits and other cavities turning almost black. Excruciating blisters appear on the neck, chest and thighs, causing patches of skin to fall off. Large lesions discolour the genital area. Even if the victims survive they may be plagued by side effects like bone marrow or gastrointestinal disorders for years to come. Others perish quickly, as victims of a silent killer.

The table given below reveals the nature of chemical weapons devised so far and their effects on living species. Reports have it that in the US, Nixon Administration halted production of chemical weapons in 1969 after a nerve-gas accident at the Army's Dugway Proving Ground in Utah killed more than 6000 sheep.

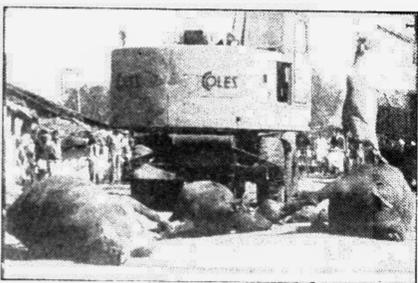
Iraq's intransigence to allow access to at least 40 Saddam palaces throughout Iraq has made the whole world weary. Allegations were there that the Soviets were involved with the use of poison gases in Laos, Kampuchea and Afghanistan. In the third world countries the issue is complicated by the fact that many of the chemicals and much of the equipment used in the production of chemical weapons are also used in the production of legitimate agricultural and industrial products. Even if a global consensus is achieved, global co-operation is a must. Unless Iraq or Libya or Israel or any other third world country goes by the total ban of chemical weapons, one frightening conclusion seems valid: now that Iraq has used chemical weapons with impunity, at some point another war-weary nation will resort to this hellish poison.

The writer is Controller of Examinations, BUET.

Chemical Warfare: Legacy of Silent Cruelty

by Md Asadullah Khan

The issue is complicated by the fact that many of the chemicals and much of the equipment used in the production of chemical weapons are also used in the production of legitimate agricultural and industrial products. Even if a global consensus is achieved, global co-operation is a must.



Bhopal tragedy: (Left) Bodies of victims being burned in row upon row of funeral pyres. (Above) A crane removing bloated carcasses of cattle amid fears of contamination.

Courtesy: TIME

Varieties of Weapons and Effects

Chemical Weapon	Effects
Blood Agents Hydrogen cyanide Cyanogen chloride	When inhaled, they block the blood's oxygen-carrying capacity, causing tearing, choking and sometimes death
Choking Agents Chlorine Phosgene Chloropicrin	These gases, some of which smell like hay, sear the lining of the air passages. When plasma enters the lungs from the bloodstream, victims drown in their own fluids
Blistering Agents Sulfur mustard Nitrogen mustard Lewisite	These can linger for weeks, inducing vomiting and nausea. Eye and skin irritation, temporary blindness and blisters typically result. Respiratory problems can lead to death
Nerve Agents Tabun Sarin Soman VX	Odorless, colourless substances that disrupt the function of the nervous system. The deadliest of the chemical poisons, they are inhaled or absorbed through the skin and can kill within 15 minutes.

Metropolitan

Theatre workshop

A theatre workshop will be organised at the Alliance Francaise in the city, in cooperation of the Asia in Theatre Research Centre of Singapore, from February 9 to 21, says a press release.

Application forms will be available from the reception desk of Alliance Francaise until January 20.

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

বহিঃ প্রচার অনুবিভাগ
তথ্য মন্ত্রণালয়
পররাষ্ট্র মন্ত্রণালয় ভবন, ঢাকা

নং ১ (৫)/৯৪-৯৫/ইপি-৪/৬ তারিখঃ ২০-০৯-১৯৯৪ বাং
০৪-০১-১৯৯৪ ইং

দরপত্র আস্থান

বহিঃ প্রচার অনুবিভাগের দায়িত্বে কাজে ব্যবহারের জন্য নিম্নবর্ণিত দ্রব্যাদি সরবরাহ করার নিমিত্তে প্রকৃত ব্যবসায়ী/সরবরাহকারীদের নিকট থেকে দরপত্র আহ্বান করা যাচ্ছে :-

- ১। বিভিন্ন প্রকার ব্র্যান্ড ক্যাসেট — অডিও, ভিডিও (বেটাকাম) ক্যাসেট।
- ২। এ অনুবিভাগের বিভিন্ন অফিস কক্ষের জন্য পর্দা তৈরি ও সরবরাহ।
- ৩। একটি সোফা সেটের কাপড় পরিবর্তন।

দরপত্রের সিডিউল নিম্নস্বাক্ষরকারীর দপ্তর থেকে দরপত্র দাখিলের পূর্বদিন পর্যন্ত নগদ ১০০/- টাকা মূল্যে (অফেরতযোগ্য) জমা করা যাবে। পররাষ্ট্র মন্ত্রণালয়ের অভ্যর্থনা কক্ষ রক্ষিত দরপত্রের বাস্তব দরপত্র দাখিলের তারিখ ১৮/০১/৯৮ ইং বেলা ১২.০০ টা পর্যন্ত। দরপত্রের সাথে জামানত হিসাবে ব্যাংক ড্রাফট/পে-অর্ডার দাখিল করতে হবে।

কোন কারণ দর্শানো ব্যতিরেকে যে কোন দরপত্র গ্রহণ অথবা সমগ্র দরপত্র বাতিল করার ক্ষমতা কর্তৃপক্ষ সংরক্ষণ করেন।

DFP-286-6/1 এটিএম মোনামুল হক
G-41 সহকারী পরিচালক (প্রশাসন)



A delegation of law officers led by Attorney General K S Nabi called on President Shahabuddin Ahmed at Bangabhaban yesterday. — PID photo

What's on today....

Book inauguration: Vassula Ryden will present the Bengali translation of her newly-released book, 'True Life in God'. Venue: St Christina Church, 92 Asad Avenue. Time: 7:30 pm.

Painting competition: A children's painting competition will be held as part of the 'Zianul Utsab' organised by Fine Arts Institute, DU. Venue: Institute premises, Shahbag. Time: 10 am.

Prize-giving ceremony: Prizes will be distributed among the winners of a painting and poetry recital competition organised by Kendriyo Kachi Kanchar Mela to mark the birth anniversaries of Shilpacharya Zainul Abedin and poet Jasimuddin. Venue: 37/A Segun Bagicha. Time: 9:30 am.

Publication ceremony: The publication ceremony of a book titled 'Techniques and concepts of photography' by Md Rafiqul Islam will be held. Venue: VIP lounge, Jatiya Press Club. Time: 10:30 am. Organiser: Bangladesh Photographic Society.

Closing ceremony: The prize-giving and closing ceremony of a photography exhibition, 'Amar Desh', organised by Bangladesh Photojournalists Forum will be held. Venue: Jatiya Press Club. Time: 3 pm.

Discussion: Jatiya Party will hold a discussion and photo exhibition to mark the release from jail of its chairman Husain Muhammad Ershad. Venue: Ramna Batamul. Time: 10 am.

Reception: Dhaka City Awami League will accord a reception to its general secretary Mufazzal Hossain Chowdhury. Venue: Bir Bikram MP and Sabir Hossain Chowdhury, MP. Venue: Ramna Batamul. Time: 3 pm.

Discussion: Friendship Development Organisation will hold a discussion on the importance of opinion of Journalist on political and economic programmes and accord a reception to new committee of the Dhaka Reporters' Unity. Venue: Jatiya Press Club auditorium. Time: 4:10 pm.

CHT peace accord hailed

Current chairmen of the commission on human rights and permanent representatives of the Czech Republic to the UN Office in Geneva ambassador Miroslav Somol has welcomed the signing of the Chittagong truce agreement, according to a message received here yesterday, reports BSS.

In a letter addressed to the permanent representative of Bangladesh to the UN Office in Geneva Dr Iftekhar Ahmed Chowdhury the Czech permanent representative referred to the importance of the agreement for the people of Bangladesh.

892 more tribal refugees return

From Our Correspondent

KHAGRACHHARI Jan 8: A total of 892 tribal refugees belonging to 183 families returned home to the district today, the eighth day of the sixth phase of repatriation.

With this, 7632 refugees of 1527 families have returned home through Rangarh frontier point from Kathalchhari refugee camp in the Indian state of Tripura.

Two hundred forty-three refugees of 51 families are scheduled to return home tomorrow through the same frontier.

The seventh phase of repatriation will be resumed on January 10 through Tabalchhari frontier point of the district.

JS body on Shipping Ministry reviews ferry service

A meeting of the parliamentary standing committee on the Ministry of Shipping was held yesterday at the Sangsad Bhaban with committee chairman Col (ret) Shaikat Ali in the chair, reports BSS.

The meeting reviewed the progress of development projects of Bangladesh Inland River Transport Authority and Bangladesh Inland River Transport Corporation and the ferry service situation in the country including the Aricha ferry ghat.

The meeting directed the concerned authorities to take necessary measures to ensure transportation of passengers and vehicles by ferries during the coming Eid Ul Fitr.

It expressed concern that many of the ferries were very old and some of them were built as back as in 1925.

The meeting was informed that in 1995-96 financial year BIWTC earned taka six crore by ferrying 11 lakh vehicles.

NU to take fresh exam on Bangla Feb 14

CHITTAGONG, Jan 8: A four-member delegation led by World Bank's principal education specialist for South Asia region, Hineida Martinez called on Vice-Chancellor of Chittagong University Prof Abdul Mannan at the latter's office today, reports BSS.

Prof Mannan briefed the delegation about different educational projects and other infrastructural facilities of the university.

The team expressed satisfaction over the performance of the university and assured the Vice-Chancellor of its keen interest to convince the World Bank to assist various development projects of the university.

Iftar party cancelled

Bangladesh Sangbad Sangstha (BSS) has cancelled its iftar party scheduled to take place at the auditorium of Jatiya Press Club on January 13 following the example set by Prime Minister Sheikh Hasina, reports BSS.

The money thus saved in this account will be donated to the Prime Minister's fund on purchasing winter clothes for the poor people.

Khaleda hosts iftar for newsmen

Leader of the Opposition and BNP Chairperson Begum Khaleda Zia hosted an iftar party in honour of the journalists at her Minto Road official residence yesterday, reports UNB.

Deputy Leader of the Opposition in the House Badruddoza Chowdhury, BNP Secretary General Abdul Mannan Bhuiyan and other party leaders were present.

Vacancy Advertisement

A UN Organisation is seeking applications from Bangladeshi Nationals to fill a number of positions of Office Manager/Senior Secretary for its Dhaka Office. Nature of Assignment:

The candidates will be required to provide general secretarial support and office management assistance to the Section to whom assigned. Their duties will include word processing documents and correspondence, writing and updating computerised files, processing internal financial and administrative documents, arranging meetings and taking minutes, liaison with other Sections and ensure follow-up on various activities.

Profile of Ideal Candidate: The ideal candidate will have completed at least Higher Secondary Education or equivalent, have a minimum of 3 years of relevant working experience, has very good knowledge of written and spoken English, be familiar with most updated version of computer software such as WP 6.1, Quattro Pro for spreadsheet and graphics. Highly desirable is knowledge of cc-mail, E-mail, PowerPoint, Internet. Ability to work in a team, willingness to continually learn and adapt to a changing working environment, commitment to work late hours when required and cope with large amount of work are essential characteristics of the person we are looking for. Very good knowledge of spoken and written English is a must.

Remuneration: Remuneration is at the GS-4 level (equivalent to approximately Taka 15,800 per month) and of the GS-5 level (equivalent to Taka 18,900 per month) UN salary scale. This remuneration is net and taxfree. A dependency allowance of 813 Taka per month per child is also payable.

Applications with bio-data should be forwarded to Box No D-16, C/o. The Daily Star, House # 11, Road # 3, Dhanmandi R/A, Dhaka 1205, by 14 January 1998.

Only candidates who meet the specific job requirements are encouraged to apply. Due to the large number of applications normally received, only candidates in which the organisation has further interest will be contacted.

PREFERENCE WOULD BE GIVEN TO QUALIFIED FEMALE CANDIDATES.

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