## **Time Use Survey**

The Time Use Survey conducted in 2024 aimed to comprehensively capture how individuals allocate their time across various activities. This survey, critical for understanding societal trends and individual behaviors, utilized a robust methodology to gather data from a representative sample of the population. The survey employed a combination of techniques including structured interviews, digital surveys, and observational methods to collect data. A stratified sampling technique ensured representation across different demographics such as age, gender, occupation, and geographic location. Participants were selected randomly to minimize bias and ensure the findings reflect the entire population's diversity. A significant portion of time was dedicated to employment-related activities, including work hours, commuting, and professional development. The survey highlighted variations in work patterns across different sectors and demographics, emphasizing the impact of occupation on time allocation. Household chores and caregiving emerged as substantial time commitments, particularly among women and individuals in certain age groups. This underscored gender disparities in domestic labor and the evolving dynamics within family structures. Leisure activities, ranging from hobbies, socializing, sports, and entertainment, constituted a notable portion of individuals' daily routines. The survey explored how leisure preferences varied across age groups and geographic regions, reflecting cultural influences and lifestyle choices. Time spent on educational pursuits, including formal schooling, selfstudy, and skill development, was analyzed to gauge the population's engagement with lifelong learning. This section highlighted the role of education in personal development and professional growth. The survey assessed time allocated to health-related activities such as exercise, healthcare appointments, and personal wellness routines. It provided insights into health behaviors and the prioritization of physical and mental well-being in daily schedules.

The study tracked time spent on media consumption, including television, internet usage, reading, and digital entertainment.

### Will there be another Sam Manekshaw?

ield Marshal Sam Hormusji Framji Jamshedji Manekshaw became a legend in his lifetime. Whenever Sam Manekshaw's name comes up, the 1971 India-Pakistan war comes to our mind. He was leading the Indian Army in that war. Sam Manekshaw became the Chief of Army Staff of India in 1969, and the culmination of his illustrious career was the glorious victory in the 1971 war against Pakistan. It was after this war only the East Pakistan became an independent Bangladesh. Sam Manekshaw paved the way for India's military victory in 1971. It is said that it was India's first victory in any war in thousands of years. It changed the map of the world. 93,000 Pakistani soldiers surrendered before Indian forces. Sam Manekshaw ensured that Pakistani prisoners of war (POWs) were treated with dignity under the rules of Geneva Convention. Those Pakistani prisoners of war were allowed to celebrate Eid in India. They were given a copy of the Quran and gifts when they returned to their country. Now learn about the ungrateful act of Pakistan. Captain Saurabh Kalia was the first martyr of the Kargil war. His sacrifice penned the initial lines of the Kargil war. At the mere age of 22, he endured unimaginable pain for 22 days at the hands of the enemy. Pakistanis crossed all boundaries of inhumanity with Saurabh Kalia, even gouging out his eyes and shooting him. After training from the IMA in December 1998, he was posted in February 1999 in the 4 Jat Regiment in Kargil. When the news of his death arrived, he had been in the army for barely four months. On May 14th, Captain Saurabh Kalia and his five soldiers reached Bajrang Top. After that, Pakistan captured them and handed over their bodies after 22 days. Sam Manekshaw's blood must have boiled seeing what happened to Saurabh Kalia.

After the 1971 war, Time magazine wrote, "A Parsi (Sam Manekshaw) led the military campaign of the "Hindu" India.' The head of the Eastern Command of the army that liberated Bangladesh was a Sikh (Lieutenant General J.S. Arora), and the plan for the campaign was devised by a Jewish ( Lt. General J.F. Jacob). Sam Manekshaw was a brave soldier and war strategist, but his tongue often slipped, which caused him a lot of damage. He was always keen on taking the credit for the victory in the 1971 war with Pakistan, knowingly or unknowingly. In his recently published book - "@75- As I saw it: A Reporter Recounts" senior journalist Mahendra Ved rightly wrote: " Sam Manekshaw sometimes spoke without thinking. It also harmed him. After the 1971 war, a woman journalist asked him, "Sir, if you were leading the Pakistani army, who would have won the war?" Manekshaw's soldierlike, but non-diplomatic, answer was, "Pakistan would have won the war!" Everything went topsy-turvy. Demands were made to strip him of the rank of Field Marshal. Although this was said in jest, he stood by his answer." It is said that this remark made the country's then Prime Minister Indira

Sam Manekshaw was critical of political leadership in private conversations, often being its victim. One of his memorable quips was: "Sam Bahadur chuckle: As he [Manekshaw] rightly surmised once: 'I wonder whether those of our political masters who have been put in charge of the defence of the country can distinguish a mortar from a motor, a gun from a howitzer, a guerrilla from a gorilla - although a great many of them in the past have resembled the latter'." Surely, he had no political ambitions. A visiting American diplomat asked Sam when he was going to take over. Sam retorted: "As soon as General Westmoreland takes over in your country.

After independence, Sam Manekshaw was involved in all major military operations. He planned the Kashmir operation (1947-49) under the instructions of Jawaharlal Nehru and Home Minister Sardar Patel. After the defeat in the 1962 war with China, he openly told Pandit Nehru that we lost due to poor leadership. Our soldiers fought very bravely. So it is very clear that Sam Manekshaw held Nehru's leadership responsible for the defeat in that war. Not only Sam Manekshaw, but the whole country considers Nehru the villain of the 1962 war. Seeing the life-size statue of V.K. Krishna Menon on Krishna Menon Marg in the capital, many Indians are reminded of the China war. In that war, our soldiers fought without adequate warm clothing in the severe cold. They also did not have the necessary weapons to fight the enemy. But, Menon continued to receive respect from Nehru and later Indira Gandhi. V.K. Krishna Menon was a very arrogant and stubborn man. When Nehru appointed Menon as Defense Minister in 1957, the country welcomed his appointment. Hope was pinned on the duo of Menon and Army Chief Kodandera Subayya Thimayya to strengthen the defence sector. But this did not happen. Menon would listen to no one.

After the death of Krishna Menon on October 10, 1974, former Prime Minister Indira Gandhi dedicated a road in the heart

of the capital in Menon's name. China had occupied 37,244 square kilometers of India's territory in the 1962 war. Nehru and Menon were directly responsible for the 1962 debacle. Sam Manekshaw did not say anything wrong by indirectly blaming Nehru for the loss in the China war. Of course, heroes of the battlefield like Sam Manekshaw are not born again and again. India would always remain indebted to him. Sam Manekshaw would continue to inspire the

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## **Hot Humid Climate and Intense Workout: A Fatal Clash**



■ DR SUNITA KUMARI & MISS LAYBA NOOR

eople are gradually becoming more aware of the health benefits of exercise and agrowing number of people from L all age groups are partaking in different types of exercise programs to improve their physical fitness. For those living in places that undergo seasonal climate changes, exercising outdoors can be particularly dangerous during the transition from spring to summer. In hot, humid summers, it becomes mandatory to modify the exercise intensity until the participating individual gradually adjusts to changed environmental conditions, else the participating individuals and even athletes may suffer from exertional heat illnesses due to long-duration or high-intensity workouts, and the result may be withdrawal from the workout or collapse during or soon after the workout. The present article is intended to reduce the morbidity and mortality of exertional heat-related illnesses during intense

In a healthy state, the normal temperature of the human body at rest ranges between 97.0 to 100.0 degrees Fahrenheit (36.1 to 37.8 degrees Celsius), and fluctuations are less than 1.8 degrees Fahrenheit, which reflects the balance between heat loss and heat production. During intense exercise, the metabolic rate can rise beyond 20-25 times the normal resting level, and consequently, there can be an increase in the core body temperature by about one degree C every 5 minutes.A hot, humid environment further accentuates the risk of an increase in core body temperature, which can be life-threatening in case the fluctuation is more than 1.8 degrees Fahrenheit.

The spectrum of heat-related illnesses includes, Heat rash and oedema, Heat Syncope, Heat Cramps, Heat Exhaustion and Heat Stroke. The most serious heat-related illnessis Heat Strokewhere core body temperaturerises beyond 104 degrees F with altered sensorium such as irritability, confusion, seizures and loss of consciousness. Exertional heat stroke can develop in a few hours. An important feature is the absence of sweating as because of markedly elevated body temperature, thermoregulatory mechanisms stop functioning and cannot initiate heatloss mechanisms. The rate of metabolism increases as higher temperatures speed up the rate of all chemical reactions and the result is even greater heat production. Heat stroke is rapidly fatal if untreated. Even with treatment, the mortality rate is high. The rate of permanent disability in survivors is also high because of irreversible damage caused by the high internal heat. One more important thing is that although absence of sweating is a sign of heat stroke, butinathletes, presence of sweating does not rule out stroke. Even non-exertional heat stroke may occur during prolonged, stifling heat waves in elderly and otherwise unwell individuals. In that case it tends to develop slowly over days

How does sweating work?

It is not the wetness of the sweat that makes us cool but cooling occurs when sweat evaporates off the skin and carries away heat with it. In winters when body temperature is more than the environmental temperature body loses heat by conduction, convection, radiation and evaporation. But during summers when environmental temperature is greater than the body temperature, evaporation is the only means to remove extra heat. In dry summers, sweat evaporates fast and brings out a cooling effect. Therefore, comparatively lesser sweating is required to maintain normal body temperature. But in humid summers, evaporation of sweat occurs more slowly or sometimes may even stop as the surrounding air already contains a lot of moisture. Therefore, under such conditions body tries to get rid of extra heat by sweating even more. In an adult man, about 60% of body weight is water, out of which only 10% circulates in the bloodstream and can be excreted out through sweating. Intense workout in hot humid conditions can make us sweat up to three litres which is almost equivalent to all the water present in the blood stream. The person loses excessive body water through sweating, feels drenched and uncomfortably hot and becomes dehydrated. In that case in order to replace this lost water from blood stream body draws water from adjacent tissues or uses fluids that we drink during and after the exercise. At this time body struggles with three challenges, increased core body temperature, maintaining body temperature against the higher environmental temperature and decreased cooling efficiency of sweat due to high humidity. Recommendations for Athletes and Exercise Partakers

Ensure acclimatization: Before stepping into intense workouts and competing in hot humid environments, acclimatization is recommended for umpires, volunteers, players, athletes and other officials especially if they are coming from temperate climate to hot humid conditions for competition. Repeated exercise training in hot humid conditions induces certain changes in the body that leads toenhancement of heat tolerance leading to improvement of performance under the similar environmental conditions. Composition of sweat also differs in trained versus untrained people. After heat acclimatization, body retains more salt and sweat is more dilute. Heat acclimatization is an important and most effective performance enhancement approach, but despite the well-known benefits, it is an underutilized pre-competition intervention in athletes. Below are few suggestions regarding heat acclimatization:

- 1. One hour acclimatization activity per day for one to two weeks with at least four sessions per week provides significant preparation for safe workout in the heat. Two sessions per week are recommended to maintain the acclimatization
- 2. Preferred method is training in an atmospheresimilar to the competition. Alternatively other strategies like overdressed training, passive heat exposure that increase the core and skin temperature can be used.
- 3. Complete the acclimatization processaround 1 to 3 weeks before the competition.
- 4. Restrict acclimatization decline by intermittent exercise and exposure to heat and also re-acclimatization is recommended with 2 to 4 consecutive days of exercise heat training just beforethe competition.

Stay hydrated: Drink sufficient fluidsorally before, during and after the exercise and replenish your electrolytes also. Hourly consumption of 16 to 24 hourly consumption of water is recommended but during endurance exercise in hot humid atmosphere fluids consumption needs to be increased to thrice. Fluid intake should be customized depending upon fluid losses (1 litre of fluid loss equals 1 kilogram weight loss). Light- or pale-yellow coloured urine indicates adequate hydration. Caffeine, alcohol and sugar containing drinks should be avoided as they can aggravate dehydration. Prefer low calorie

Wear appropriate clothing and use sunscreens regularly: Chooseclothes that enhance sweat evaporation. Lose-fitting, light coloured wicking fabrics made up of natural fibres are good choice. Use sunscreen (SPF 30 or higher), sunglasses and hat if possible. Avoid direct sunlight. Protective clothing (leathers in mountain biking and motorcycling, protective equipment for hocky goalkeepers, softball and baseball umpires) should be worn only while training and competing. Immediately remove non-breathable clothing in case any participant or official feels unwell and start cooling the body.

Adopt cooling strategies: Listen to your body and reduce workout intensity in high temperatures. Prefer shady areas while walking. Cooling strategies include external (water immersion, fanning, application of iced garments) and internal (intake of cold water or ice-slurry) methods. Depending upon the type of activity, cooling strategies should be tested and customized during training sessions to minimize disruption to the athletes.

Recommendations for event organizers: Avoid the hottest part of the day. Ensure an adequate supply of palatable fluids. Encourage proactive monitoring of hydration status and behaviour of athletes. Beware of signs of heat illnesses.

#### Treatment of heat illnesses

The first critical step is to diagnose that the individual is in trouble. Heat illness may progress if this step is missed. The goal is to bring down core body temperature to an acceptable level (below 100.4 degrees F) as quickly as possible. Move the player into a shaded area away from direct sunlight, remove extra clothing and immediately start cooling the bodyvia cool spray, ventilation, wrapping in cold towels, applying ice packs and also make him ingest cold fluids or sports drink. Raise his legs above the heart level. Intravenous fluid therapy may be required in case he is not tolerating oral fluids. Altered sensorium indicates heatstroke and in that case the treatment strategy is altogether different and requires immediate medical attention with the aim of lowering body temperature below 104 degrees F within 30 minutesin order to protect the athlete's brain and other vital organs. Immediately shift the patient to nearby hospital and meanwhile during the transit try to continue with the hydration and cooling of the body.

#### Return to play after exertional heat illness

After mild heat illness, athletes may return to play within 24 hours with adequate hydration. Prior to return to play, they should be evaluated by a physician. Recovery time mainly depends upon severity of illness. The athlete must be symptom-free, and laboratory tests should be normal. For successful and full participation after an exertional heat stroke, a gradual return-to-play strategy should be adapted under the direct supervision of an athletic trainer or physician.

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# **Technological Advancements for Rural Prosperity**

ndia is a land of villages and about 70 per cent of India's population lives in the rural areas. Agriculture is the backbone of the rural economy. The Indian Council of Agricultural Research (ICAR) has rendered great service in the scientific farming and also bridging the gap between lab and land. With the improved agricultural implements and modern machines, farmers are able to increase their agricultural productivity. Assistance for purchasing the modern agricultural machineries is also provided to the farmers. The use of agricultural machines is not uniform as the improvements have mostly seen in the states of the Northern India and in a few other states where irrigation facilities have been developed. We have a technology mission on oilseeds that has achieved a major breakthrough in its production. We have developed more than 600 high vielding, early-to-very early, late maturing, dwarf, disease and pest-resistant varieties of paddy and wheat. In our country wheat contributes around 36 per cent to the total food grain basket. More than 260 high-vielding, disease and pest-resistant wheat varieties having good quality grains suitable in different climatic conditions have been developed. We are at number two in fruit and vegetable production the world after China. We are at number one position in production of mango and banana in the world. Research has led to the development of regular-bearing, dwarf mango hybrids, resulting in increased production and export of mango. We are at number one in milk production in the world. Now drudgery has been reduced in agricultural sector due to availability of quality farm implements for interculture, spraying, harvesting, thrashing etc. In many ways ,the rural areas have benefited from the developments in science and technology indirectly or directly. Scientific inputs in agriculture are of direct importance to the rural sector. So, are the expansion efforts in telecommunications and roads though much remains to be done in these fields. Technology for rural areas should aim at creating gainful employment, recycling wastes to create value-added products, human welfare through better housing, sanitation, drinking water etc. particularly for remote areas

We are so much obsessed with the political somersaults such as rise and fall of governments, insurgencies, various film stories, sports such as cricket, modern fashions etc. that we tend to bypass the changes in rural India. We can't deny that technology triggered the Green Revolution that brought spectacular results in the agricultural field. Science has made tremendous impact on agriculture. In present era we talk of integrated pest and disease management, integrated land and water management, eco-farming, low-cost housing and sanitation, training etc. in the use of modern agricultural appliances for greater productivity. We can't ignore the myriad achievements of Council of Scientific and Industrial Research (CSIR) set up in 1942. Almost onefourth of the technical grade pesticide production is based on CSIR technology. CSIR has produced specific pesticides and also biological methods of pest control for cotton and sweet potato and also neem based insect antifeedants. It has also promoted technologies suited to local resources endowments for low cost housing, semi-mechanised brick making, construction of rural roads, grain and water storage bins, cultivation of medicines and aromatic plants, extraction of oils etc. The Department of Atomic Energy has also contributed a lot in the area of agriculture and food preservation. Its nuclear energy programme covers development of high yielding crop seeds, fertilizers and pesticides-related studies and radiation processing of food items. The research efforts at Trombay in the field of crop improvement has led to the development of more than 22 high-yielding varieties of pulses, rice, oilseeds etc. One of important achievements in radiation-induced mutation is the development of a green manure crop-sesbania rostrata. This method of green manuring is very cost effective. This can help in boosting the organic farming. Department of Space has produced rich dividends for the Indian farmers. Remote sensing applications now cover diverse fields of crop acreage, yield estimation, drought warning and assessment, etc. Centre and State Governments get advanced acreage and production estimates for crops such as wheat, paddy, sorghum etc. Our country different extension agencies are also trying their level best to bridge the gap between rural and urban India. It is hoped that India's all the6 lakhs villages will be having econnectivity in the coming years. With the support of Tata Trust.a Jamsetii Tata National Virtual Academy for Rural Prosperity has been established at the M.S. Swaminathan Research Foundation (MSSRF) for training and selecting one million rural men and women as fellows of the society. They will be the torch-bearers for the rural people. The ISRO-MSSRF Village Resource Centre programme has already been launched in our country. These kinds of centres will help the villagers to meet their basic needs in education, health, farming, nutrition etc. This satellite based project seeks to achieve digital connectivity to remote villages for providing services such as telemedicine's, tele-education and remote sensing applications through a single window. While inaugurating the Village Resource Centre (VRC) project via INSAT link from New Delhi, the Prime Minister Dr. Manmohan Singh said that unless the benefits of science and technology were taken to the rural areas, the country would not be able to eradicate poverty and illiteracy problems. The concept of VRC was given by ISRO and implemented through a paternership with the MSSRFISRO's capabilities in satellite communication and satellite-based earth observation to disseminate a variety of services emanating from the space systems have been integrated with other information technology tools to address the changing and critical needs of the rural communities. The Village Resource Centre (VRC) works on an interactive Very Small Aperture Terminal (VSAT) network. According to an imminent agricultural scientist Dr.M.S Swaminathan, the rural economy can flourish if

Information and Communication Technologies (ICTs) are used to create new livelihood opportunities. These technologies could be in the areas of agriculture, animal husbandry, fisheries, sericulture, food processing, handicrafts etc. Important services such as education and health care can be delivered through ICTs in the rural areas. Computers can be provided in the rural schools and doctors from government hospitals can offer online services to the rural people. The drinking water is becoming the scarcest commodity and countryside, alternatives like desalination though costly method now is being resorted with the purpose of providing drinking water for the rural and urban areas. Department of Atomic Energy showing the way in this regard. Chennai which is said to be the most water starved city in India is now having Rs.1000-crore desalination plant. As far as fresh drinking water is concerned, the plight of people in the countryside is worsening. Around 296 villages in Ramanathapuram District in Tamil Nadu are getting their quota of drinking water Naripaivar Desalination Plant. Many studies on renewable energy sources have been conducted and a large number of solar gadgets such as solar grain dryer, solar water heater, solar fruit and vegetables dehydrator, improved cooking stove. multi-rack solar dryer etc., have been developed. Wooden-based gasifiers have been developed for the production of producer gas. India is among the prominent countries that have developed renewable energy sources, especially for the rural areas. The major sources that have been tapped in this regard have been solar energy, biomass and wind power. Although all these are technological breakthrough, rural India is still looking backward. This indicates that full benefits of the technology have yet to reach to the rural people. Education, health, communication need to catch up with the advancements in the science and technology and their implication in rural areas.

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## **YOUR COLUMN** TWO IN ONE

Dear Editor, -ndergoing the pain of vacating his MLA seat, newly elected MP Hanuman Beniwal has come out with a suggestion that a candidate elected for both Assembly and Lok Sabha should be allowed to remain in both the Houses. He has cited the example of America having provision for this. MLA Beniwal won the Lok Sabha seat from Nagaur as RLD candidate. If that is to happen, then Article 101(2) of the Constitution according to which no person can be a member of both Parliament and Vidhana Soudha has to be repealed and necessary constitutional amendments have to be made to implement the suggestion of Beniwal. In fact it is meaningless to allow a candidate to contest the Lok Sabha election by an MLA and contest Assembly election by an MP. The provision for allowing sitting MLA to contest for MP election and sitting MP to contest MLA election is to the convenience of politicians to enjoy power and perks. This provision has been paving way for too many by-elections leading for avoidable expenditures. Further, a candidate is allowed to contest from two

constituencies either for Assembly election or for Lok Sabha election. If the candidate contesting from both the constituencies is defeated in one of the two, the need for by election does not arise. When the candidate wins both the seats, one of the seats has to be invariably vacated causing by election. Law makers take care of their interest first. Opposition to contest from two constituencies at a time does not stir the conscience of the law makers. They cannot be expected to respond positively to the public criticisms against simultaneous contest from two constituencies. People should become wise. In the by election, the same party candidate should not be elected. Party candidate opposed to the party of the candidate who vacated the seat in favour of the other should be elected. If it is done, a candidate contesting from two seats can be discouraged. He must be made to stick on to the seat for which he was earlier elected. This would be successful if only the people wish to vote for a party other than the party for which they earlier voted. This is easier said than done. Because party loyalty does not allow a large number of people from taking a different stand in the by election. The alternative remedy is to declare the candidate won who had polled next highest number of votes in the general election. Contesting from two seats and a sitting MLA contesting in MP election and a sitting MP contesting in MLA election should be discour-

aged. If the law makers have the political will, they can do it by barring one sitting member contesting for the other Contest from two constituencies for either Lok Sabha elec tion or Assembly election can be allowed only for the Prime Ministerial or Chief Ministerial candidate as exceptional case. Too many by-elections have placed heavy burden on public exchequer. A candidate donning the role of both MLA and MP is two in one. He cannot concentrate on both the constituencies.

Further, it shrinks the political space to many others. If it is believed that it is possible to a candidate to concentrate both on Assembly Constituency and Lok Sabha Constituency without undermining his efficiency in taking care of the people of his constituencies, then a single election can be held and the candidates winning in such election can be declared as MLA-cum-MP. Then the terms "General Elections" have to be redefined to mean an election for MLA-cum-MP election. In that case there will be only one election once in 5 years as against two elections i.e. Lol Sabha elections and Assembly Elections, now going on in 5 years. This would save crores of rupees. The suggestion by Beniwal is unacceptable. If his suggestion is accepted then a demand may come up for "Four in One" i.e., MLA  ${\it cum-MLC-cum-LS\ member-cum-RS\ member.}$ 

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