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Brawn Drain: The New Challenge



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Introduction

War is a national effort that exhausts resources, both material and human. Notwithstanding mechanisation and digitisation of the battlefield, the human factor will always remain the most important determinant. The manner in which the ongoing Russia-Ukraine war is playing out attests to this. Routine discussion about humans in war generally focuses on leadership, administration, training etc. However, recent slow but sure changes in the world points to a possible scenario wherein the very availability of human resources might be in question. This is because the world in general is heading towards 'depopulation', although in an uneven manner, across regions. This situation gets further exacerbated given the fact that with increasing globalisation and mobility, humans may fast become something akin to 'global commons' unencumbered by 'accident of birth'.

Key Points

- The world is heading towards depopulation with the developed nations leading the way. India too will depopulate.
- This may lead to a race wherein developed nations endeavour to attract foreign human resources for various activities including military. Indians are likely to be among the most preferred.
- How will a 'depopulating India' compete with the world to attract its 'own' citizen, particularly towards its Armed Forces? Is India ready for a possible 'Brawn Drain'?

What has changed?

Total Fertility Rate (TFR) refers to the total number of 'live births per woman in a lifetime'. This is an important indicator to project population growth (positive and negative) of a given country/ region/ society. As per the latest National Family Health Survey (NHFS-5) 2019-21, released by the Ministry of Health and Family Welfare, Government of India, India's TFR for the period 2019-21 stands at 2.0, down from 2.2 as compared to that of 2015-16¹. TFR of less than 2.1 is considered to be below 'Replacement Rate', the number of births required to keep the present population unchanged, which therefore is not good for a country. When read in conjunction with Report of the Technical Group on Population Projections for India and States 2011-2036, it becomes evident that India's TFR has only been falling.² It was 2.5 for the period 2009-11, dropping to 2.0 (2019-21) and is projected to further drop to 1.73 for the period 2031-35 if the current pace of decline continues. In other words, within two decades, India's population is expected to peak albeit due to increased life expectancy and thereafter will decrease. In other words, India will depopulate.

Briefly turning focus to the world, we see that the world, particularly developed countries, for long have had a TFR below the replacement rate. In the book *Empty Planet: The Shock of Global Population Decline*³, the authors have mentioned reasons like rapid strides in field of women education/ empowerment and availability of contraceptives coupled with changed social milieu and urbanisation among others leading to lesser number of babies being born in the past few decades. Although, quantum of decline varies across regions, but it seems to be the trend when seeing the world as a whole.

Table 1: TFR of the Most Populous Nations

Country	Present Population (million)	TFR
People's Republic of China (PRC)	1433.78	1.7
India	1366.42	2
United States of America (USA)	329.06	1.8
Indonesia	270.63	2.3
Pakistan	216.57	3.6
Brazil	211.05	1.7
Nigeria	200.96	5.4
Bangladesh	163.05	2.1
Russia	145.87	1.8

Mexico	127.58	2.1
**India's TFR has been taken from NHFS-5		

Sources: UN Statistical Year Book⁴ and UN World Population Prospect⁵

As is evident from **Table 1** above, among the ten most populous nations (adding to approximately 58% of world's population), barring five, all have a TFR below 2.1 including China and India (who together make 36.3% of global population). The five nations, having a TFR of 2.1 and above, makes just 12.7% of the global population- a low base that may not lead to an exponential growth. At 2.5 in 2019, the global TFR is just a little over replacement rate. This, however, does not convey the real essence, hence we need to look at the economic aspect as well.

Notwithstanding the Malthusian Catastrophe concept, it is quite obvious that population does translate into economic activity and therefore, a larger population is an economical advantage. During the pre-globalisation age, countries like UK, even with a small native population, leveraged larger population of their colonies to become economic powerhouses in the 18th and 19th centuries. The age of colonialism is long over and now every nation has to bank on population 'within' its territory to source manpower for everything- be it economic activity, sports, military among others. In other words, larger population 'is' an advantage. Having said this, it will be worthwhile to take a look on how are the world's richest nations faring as far as population is concerned.

Table 2: TFR of the World's Top Economies

Country	GDP (USD Billion)	TFR
United States of America (USA)	19974.53	1.8
People's Republic of China (PRC)	14317.69	1.7
Japan	4553.03	1.4
Germany	3584.79	1.6
United Kingdom	3111.9	1.8
India	2751.57	2
France	2605.32	1.9

Italy	1915.05	1.3
Brazil	1809.84	1.7
Canada	1689.71	1.5
South Korea	1634.57	1.1
*GDP at constant prices, 2019		
**India's TFR has been taken from NHFS-5		

Sources: UN Statistical Year Book and UN World Population Prospect

As **Table 2** above brings out, all top economies of the world have a TFR below replacement rate, with Japan, Italy and South Korea being below 1.5. The eleven richest countries have 49.68% of the world's population but only 13.38% when India and China are excluded. It is therefore a foregone conclusion that, to sustain their current levels of human driven activity, these countries will have to look for people with all type of skill sets wherever they may be across the globe. The ongoing Russia-Ukraine War has not yet ended in a Russian victory in spite of overwhelming Russian military superiority. Is there a connection between depopulation and military outcomes? This facet needs to be adequately examined in times to come. For now, let us look at a highly probable scenario that is likely to take place in the next five years.

Europe is now seeing a full-scale war in the continent after over seven decades. Learning from Ukraine, many countries may realise the limits of security guarantees which therefore will lead to 'remilitarisation' of Europe as it was before the Second World War. Apart from Europe, even Japan is 'remilitarising' to counter China. But, both Europe and Japan face 'depopulation'. There are limits to 'mechanisation and digitisation' of armed forces and there is a requirement of human beings, both for hand-to-hand combat as well as handling hardware.

European countries no longer possess colonies from where they used to mobilise troops during the past world wars. Al-Qaeda and ISIS have shown how to recruit fighters globally and it should not be long before rich western nations start recruiting foreign fighters. NATO/ USA may also look for 'low cost' options around the world to man their forces, at least those deployed outside their territories. Such a scenario will lead to a 'pull' on people belonging to poorer regions of the world wherein current population and TFR is relatively high. Consider the example of Sergeant Uday Singh, an US Army soldier of Indian descent, who was killed in action in 2003 during the Iraq War.⁶ With a declining population, richer nations are expected to give this rather unpleasant work to foreign fighters.

Can this Affect India?

Indian troops played a very important role as part of the British Armies that fought both the World Wars. However, even then recruitment was a challenge. In his book *Aadha Gaaon*, set in the 1940s, Dr. Rahi Masoom Raza speaks of anxieties and resentment among the protagonists as many young men joined the British Indian Army to fight the ongoing war. The author also speaks of how the British Government rewarded those who helped in soldier recruitment- those, however were different times.

Cut to the third decade of the 21st century wherein India still has a demographic advantage, at least at present. With its younger population, India is better placed when compared to the entire western world and even China. However, lower TFR implies that youth in the 17-25 years age bracket, the pool from which soldiers are recruited, is steadily declining. Boys and girls born during the period 2009-11 (TFR: 2.5), who will attain recruitable age in another four years, are more than those born during the period 2019-21 (TFR: 2.0). In other words, we are over the peak. Needless to state, the 17-25 years age group also forms the pool providing manpower to other sectors of the economy. For the Indian economy to grow, it requires steady supply of human resource in various sectors.

India, however, is not in a benign neighbourhood. While China is aging, Pakistan is not (TFR: 3.45) and therefore India still needs the numbers. One may feel that in the coming times, Indian Armed Forces will be competing *only* with other sectors of the Indian economy to attract the best talent but that may not be the case. It may so happen that India will compete with the world to attract and retain its *own* manpower.

During his UN Peacekeeping tenure, the author got to see first-hand the way Indian troops are preferred. Apart from the high standards of professionalism shown by the Indian Armed Forces, it's also true that Indians, by their very nature, are highly trainable and bring to the table rich cultural ethos which is benign as well. This will always give Indians a marked advantage over people hailing from other high TFR regions of the world. In coming years, Indians may be highly sought by countries facing depopulation. Could this possibly affect availability of prospective candidates for the Indian Armed Forces?

In the short term, if rich western nations, for reasons mentioned above, open enlistment into their defence forces to foreigners for pay, citizenship or both, this may very likely pull away some of the better prospective Indian aspirants. In the longer run, an improving Indian economy will pull away more Indians in the dwindling 17-25 age bracket cohort into non-military professions. This combined with 'pull' on Indian youth from across the borders, may

limit the availability of 'quality' candidates for recruitment into the Indian Armed Forces. With a large population base, India will find the required number of aspirants to enlist, but what is required is 'quality' manpower.

The Way Ahead

It will take about three decades for India to depopulate. Still, every year, the pool of recruitable candidates will keep on reducing. It is therefore imperative that India plans for this, today. There are no quick fixes to this issue since nature has its own pace, China being an important example.⁷

First things first, can depopulation reverse naturally? It is a globally established norm that with women exercising increased autonomy in reproductive issues, there is a tendency to produce lesser and lesser babies. In this age, it is therefore unlikely that depopulation can be reversed once it sets in. That said, can the effects of depopulation be dealt with force/legislation? Conscription is unlikely to work in the Indian context. Making it illegal for Indians to enlist in foreign militaries too will not produce the desired effect especially if the deal offered by foreign countries is too good to refuse. Pronatalist policies have not succeeded anywhere in the world and India is likely to be no different. In any case, reproduction is a matter of free will and should remain so.

Therefore, the only way to mitigate the inevitable depopulation shock is to work out sound Human Resource (HR) Management strategies. In addition to science and strategy, HR management too will drive the next revolution in military affairs. Some suggested lines of action are given below.

- **Make Military Service Attractive.** This will matter at the end of the day. Increasing remuneration would look like the most obvious way but it has its own limits. Therefore, there is a requirement to take a relook at the 'Terms of Service' of the Armed Forces.
- **Innovative Terms of Service.** There is a need for all stakeholders— the armed forces, potential aspirants, their families, social scientists, anthropologists, to understand what terms can make the Forces a desired career option. There may be a need to consider multiple entries with different career progression tracks for those who want to make the Forces a lifetime calling and for those who want to serve for a shorter tenure and move on. There can also be a hybrid method wherein one keeps on moving in and out of the Forces; the answer perhaps is in re-working composition and functions of the Territorial Army. These suggestions may sound radical but as stated earlier, HR management too will drive the next revolution in military affairs.



- **Leverage the Agnipath Scheme.** When seen from a national perspective, the *Agnipath* scheme can be leveraged to create a pool of military trained manpower, freed up for civilian jobs but available to the Forces whenever the need arises. A suggested method is that those who have benefited from various employment schemes offered by CAPFs, State Governments, PSUs be mandated to be a 'Reservist' till a certain age.
- **Leverage Technology.** Technology needs to be leveraged, both for combat and non-combat tasks. This however needs to be done in a balanced manner. Technology is not the answer to everything, human interface too is required—finding the correct combination will help maintain operational & administrative balance and at the same time optimise dwindling human resources at the national level.
- **Teeth v/s Tail.** The armed forces should recruit only those whose task are not possible to be outsourced. Outsourcing will also ensure that the forces get the best available options in the market. In this it is important to maintain linkages with the industry that can correctly convey military requirements to civilian professionals, thus arriving at an optimum solution; in this as well, former *Agniveers*, employed in the civilian field, can be of great help.
- **Look Beyond Young Age Profile.** Ideally, all armed forces aspire to have a young age profile. With every passing day, a young society is becoming a luxury and when extrapolated on the socio-economic milieu, becomes an unaffordable luxury. The forces will have to look at assigning meaningful combat/ non-combat tasks to the older lot as well. To cite an example, while there is no doubt that officers of a fighting unit should be young but should this be the case for those units not in the thick of fighting? Similarly, one would like a soldier in his twenties to be patrolling in high altitude areas but is there a requirement of a clerk in the twenties working in a HQ? There is a case to rework career paths for All Ranks in such a way that a person, while young, is at the cutting edge but as one ages, is put in roles supporting the forces. This calls for very imaginative manpower planning— starting point being to shed old ideas, which have served well, but will now lose relevance.

Conclusion

To end, it is very evident that there will be a demographic shift which is irreversible as well. It is therefore imperative for the Indian Armed Forces to anticipate and prepare to deal with this new reality. As stated earlier, there can be no quick fixes since nature has its own pace. In addition, if there is a misstep, the consequences will have to be borne till the time the results of course corrections manifest. Needless to state that planning, wargaming and execution needs to start 'today'. This article aims to act as a 'primer' to begin wide ranging



studies in this regard. A globalised world can be an antidote against 'Brain Drain' but for India, a nation with active borders and global aspirations, a possible 'Brain Drain' is a matter of concern, something that needs to be addressed now.

End Notes

¹ "National Family Health Survey 2019-21 NFHS-5", *Ministry of Health and Family Welfare, GoI*, March 2022. Available at <https://main.mohfw.gov.in/basicpage-14>. Accessed on 29 June 2022.

² "Report of the Technical group of Population Projections (2011-2036)", *National Commission on Population, Ministry of Health & Family Welfare*, July 2020. Available at https://main.mohfw.gov.in/sites/default/files/Population%20Projection%20Report%202011-2036%20-%20upload_compressed_0.pdf. Accessed on 29 June 2022.

³ Darrel Bricker and John Ibbitson, *Empty Planet: The Shock of Global Population Decline*, Robinson, 2019.

⁴ "UN Statistical Yearbook", *UN Department of Economic and Social Affairs*, Issue No. 64, 2021. Available at <https://www.un-ilibrary.org/content/books/9789210056717/read>. Accessed on 02 July 2022.

⁵ "World Population Prospects 2019, Volume II: Demographic Profiles", *United Nations, Department of Economic and Social Affairs, Population Division*, 2019. Available at https://population.un.org/wpp/Publications/Files/WPP2019_Volume-II-Demographic-Profiles.pdf. Accessed on 16 July 2022.

⁶ SR Ghosh, "Sergeant Uday Singh, Salute", *The Tribune*. Available at <https://www.tribuneindia.com/news/comment/sergeant-uday-singh-salute-136954>. Accessed on 28 July 2022.

⁷ The Editors of Encyclopaedia Britannica, "The Effects of China's One-Child Policy". Britannica. Available at <https://www.britannica.com/story/the-effects-of-chinas-one-child-policy>. Accessed on 28 July 2022.

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