

PROSPECTS AND CHALLENGES OF
INDUCTION OF WOMEN IN ALL RANKS OF
INDIAN AIR FORCE

A Dissertation Submitted to the Panjab University, Chandigarh for the Award of
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BY

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CERTIFICATE

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I have the pleasure to certify that **Sameer**, has pursued his research work and prepared the present dissertation titled '**Prospects and Challenges of Induction of Women in All Ranks of Indian Air Force**' under my guidance and supervision. The same is result of research done by him and to best of my knowledge; no part of the same has been part of any monograph, dissertation or book earlier. This is being submitted to the Panjab University, Chandigarh, for the purpose of Master of Philosophy in Social Sciences in partial fulfillment of the requirement for the Advanced Professional Programme in Public Administration (APPPA) of Indian Institute of Public Administration (IIPA), New Delhi.

I recommend that the dissertation of **Sameer** is worthy of consideration for the award of M. Phil degree of the Panjab University, Chandigarh.

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GLOSSARY OF TERMS

AFA	Air Force Academy
ATA	Air Transport Auxiliary
BSF	Border Security Force
CAPF	Central Armed Police Forces
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CF	Canadian Armed forces
CISF	Central Industrial Security Force
CMP	Corps of Military Police
CO	Commanding Officer
COVID	Coronavirus Disease
DoD	Department of Defence
GoI	Government of India
IA	Indian Army
IIPA	Indian Institute of Public Administration
IN	Indian Navy
IAF	Indian Air Force
IDF	Israeli Defence Forces
IDS	Institute for Defence Studies and Analysis
JSTOR	Journal Storage
NATO	North Atlantic Treaty Organisation
NBC	Nuclear Biological & Chemical
NDA	National Defence Academy
NZAF	New Zealand Air Force
NZDF	New Zealand Defence Forces
Op	Operation

PAF	Pakistan Air Force
PC	Permanent Commission
PIB	Press Information Bureau
PTI	Press Trust of India
RAF	Royal Air Force
RN	Royal navy
RNZN	Royal New Zealand navy
SA	South Africa
SANDF	South African National Defence Force
SCI	Supreme court of India
SE	South East
SLAF	Sri Lanka Air Force
SLAFWW	Sri Lanka Air Force Women Wing
SLAWC	Sri Lanka Army Women's Corps
SSC	Short Service Commission
SSL	Selective Service law
TNI	Tentara Nasional Indonesia or Indonesian National Military
US	United States
USC	United States Code
USA	United States of America

EXECUTIVE SUMMARY

1. The researcher has been a part of Indian Air Force (IAF) since 1991. In these years, he has served in different capacities and has been the Commanding Officer (CO) of a combat unit, and has Commanded two premier Air Force stations. He has undergone the prestigious Defence Services Staff College course at Wellington and Higher Air Command Course in addition to tenanted staff appointments at different units, stations, Command Headquarters and at Air Headquarters. He is a pilot having flown and instructed on various fighter aircraft.
2. These years have exposed him to cultures of various countries and their armed forces including Sri Lanka, Australia, Singapore, Myanmar, Philippines and Thailand. During visits to these countries and while participating in exercises with armed forces of these and other countries, one thing always stood out i.e., the participation of women in these air forces. In India also, women have been a part of Armed Forces for a long time, though only in medical branches. Induction of women as officers commenced in IAF in 1991, followed by Indian Army (IA) and Indian Navy (IN) in 1992 as Short Service Commission (SSC) Officers. Now women serve as officers in almost all roles in IAF while in limited roles in IA and IN.
3. Participation of women has been limited, despite this. Women were being inducted only as officers and those too in specific non-combat roles. Having worked with more than 50 of these women officers, the researcher found some of them to be brilliant officers, pioneers in their field and making a significant contribution to organisation combat potential and readiness. There was no significant difference between these women officers and their male counterparts and they were all highly motivated.

4. Having seen the performance of women officers in all scenarios, it was always a question why women are not serving in roles, other than officers. Surely, if they were to be inducted, like women officers, they would also contribute to the organisation. After all, in countries like Norway and Sweden, women are recruited in all ranks and roles with same terms and conditions as males. In countries like US, Canada and closer home i.e., within South East Asia, Sri Lanka, Thailand etc., women are currently performing various roles in different ranks. Islamic countries like Turkey and Pakistan have women as pilots.

5. The primary reasons cited for women not being recruited were Indian socio economic environment, physiological and psychological differences between men and women, traditional roles of women as health and care provider, traditional reluctance to accepting women in leadership roles, lack of existing infrastructure in training and operational areas. Religious reasons and importance of women for child care were also mentioned. While these may have been valid earlier, in the India of 21st century, these reasons did not appear to be valid anymore. In fact, more than half of the reasons faded away when women became a contributing member of the armed forces as officers.

6. Women constitute 50% of the population and have been part of Police forces and Central Armed Police Forces (CAPFs) for some time. Across the globe, women are increasingly becoming part of workforce transcending boundaries of gender, industry, geography etc. Over the years two quotes remained enigmatic. First one was by Hillary Clinton "*Women are the largest untapped reservoir of talent in the world*" This was amplified by Malala Yousufzai when she said "*We cannot all succeed when half of us are held back*". And this was the dichotomy. On one hand, there are more

than one lakh posts lying vacant in the armed forces, despite regular and continuous efforts for recruitment, on the other hand, 50% of the talent pool is being ignored.

7. There are two facets of the issue. One is increasing the talent pool for recruitment to improve the combat efficiency of the armed forces, including Indian Air Force. The other is promoting gender equity and diversity, which is beneficial to the armed forces as well as society, apart from being the mandate. Article 16 of the Constitution of India provides for “Equal opportunity for all citizens in matters relating to employment or appointment to any office under the state”. As far as gender inclusivity in armed forces across the world is concerned, it varies from nil on one end of the scale to near equal on the other. Women have now served in Indian Armed Forces as officers for more than 20 years. They occupy leadership roles but are not part of the ranks. The presence of ‘glass ceiling’, is not acceptable by law, however its presence is widely acknowledged in civil society. In armed forces, there is a reverse glass ceiling. All the three services, i.e., IA, IN and the IAF has had women officers rise to the highest military ranks, however, women are not accepted in the ranks below officers.

8. The representation of women in Indian Armed Forces has been low. Of the total strength, IAF has 1.08% and IA 0.56% women. Amongst officers, IAF has the highest 13%, followed by 6% in IN, and 3.8% in IA. In the Army, a strength of 1700 women has been sanctioned for entry in Corps of Military Police (MP). Apart from this, there is no other initiative for induction of women in ranks below that of officers in any arms.

9. In armed forces across the world, there is a gradual opening up of induction of women. The trend has picked up in India too. Women have recently been inducted as part of Military Police in the Indian Army. Below officer rank, this is their first entry

into Indian Armed Forces. Recently, entry of women has been opened up in Sainik Schools as well as in National Defence Academy (NDA). With equity and equality being the focus and gender inclusion as well as integration being the unambiguous way forward, a need was felt to study the prospects and challenges of induction of women in all ranks of Indian Air Force.

10. The research aim was to assess the readiness of infrastructure and attitude for induction of women into Indian Air Force in all ranks.

Scope and Limitations.

11. The cases of other countries were studied to set the benchmark and draw lessons, however, the scope was restricted to study challenges and scope of induction of women in all ranks of Indian Air Force. The restrictions due to COVID limited in person interviews and interactions with stake holders.

Chapterisation

12. Chapter I: Introduction

13. Chapter II: Literature Review

14. Chapter III: Research Strategy, Methodology & Data Sources

15. Chapter IV: Challenges in Induction of Women in IAF. In this chapter, the challenges faced by women in armed forces of other countries as well as the likely challenges to women being inducted in all ranks in IAF are examined.

16. Chapter V: Prospects for Women In IAF. This chapter examines all possible roles and trades of IAF for their suitability for women. Physical effort, risk, posting profile and other variable are taken into account. Thereafter the trades are divided into three categories so as to facilitate women joining IAF in a graded manner with each batch making the environment more suitable for subsequent batch, which may be tougher or more demanding.

17. Chapter VI: Impact of Induction of Women in IAF. In this chapter the impact of women joining in IAF is studied. The impact on IAF, impact on women and impact on society, all are examined.

18. Chapter VII: Findings and Recommendations. This chapter also includes a suggested strategy for induction of women in all ranks in IAF. The major step is taking the decision, which is the most difficult part. Rest will follow with support from the leadership. The strategy will have to be flexible, and will need to evolve.

19. Chapter VIII: Conclusion. Way forward and Future scope is included in this section.

Research Strategy and Methodology

20. Mixed research strategy was adopted for the study. Case study approach was adopted to study the need, challenges and success in induction of women in all ranks of the armed forces of other countries, spread over cultures, developmental states and geography. Stratified random survey amongst the focus group of IAF personnel in the field and offices was conducted. These people were chosen to be a mix of different ranks, male and female, who will be directly working with women, if inducted. The sample size was 92 against the goal of 80 i.e., 20 for each category. Personal interviews with the top decision-making echelons would have added value in terms of policy directions, however were avoided due to prevalent COVID situation. They were however consulted over telephone calls unofficially.

21. Existing literature from India and other countries was scoured. There was very little literature available about women in armed forces and rarer about Air forces. Majority of available literature centered around army and that too as officers, while the issues were whether women should be employed in combat roles at all. There was no literature about women in enlisted ranks in India or in IAF. The literature available

was used to examine the catalysts for induction of women in armed forces, their restricted or unfettered employment in various roles and capacities, the path followed, their experience and the state achieved thus far. These gave a good insight into the aims and ways of other countries which served as the base for suggesting the path for IAF.

22. The survey was designed to elicit responses from persons familiar with the work environment and ethos of IAF. The questions were framed to get the responses on each issue in two categories. One was their experience thus far, mainly based on demonstrated performance and issues faced with induction of women officers and the next was to get their views or anticipation about induction of women in ranks, other than as officers. Email IDs were required to establish the credibility of respondent and uniqueness. To examine gender-based biases in the responses, gender of the respondent was required in addition to age. The armed forces are hierarchical by nature hence respondents were divided into three broad groups, two, who will be supervising the women inducted and one group of those who will be their co-workers.

23. Review of literature and studies conducted thus far indicated that women are increasingly assuming roles in armed forces across the world. Women are working in presumably conservative societies like those of Islamic nations like Pakistan, Turkey and Indonesia. It was a surprise that Turkey had employed women as fighter pilots before the developed world and Indonesia was the first nation in SE Asia to induct women in its armed forces. There was a boost in early 1990s where major changes happened in armed forces across the world. One contributing factor for this uptrend was that the dependence on mechanical force as a means to an end, enabling women to join armed forces and perform at par with men in more and more capacities.

24. Armed forces across the world have been reluctant to induct women as officers or in other ranks. This reluctance or resistance was overcome, not by evolution or by any change in the willingness of the military hierarchy, but primarily by executive decision or legislation. This has been true for majority of armed forces across the world.

25. Keeping in synch with the world, Indian Air Force was the first to open its doors for women in 1991, followed by the Army and then the Navy in 1992. The government has taken a lot of policy decisions in the recent past paving the way for participation of women. NDA has opened its doors for women and so have the Sainik schools. 100 more Sainik schools are to be opened, which in conjunction with them opening up for women, will give opportunity to a large number of women. As officers, women are being granted permanent commission in almost all branches that they serve in. All these policy decisions clearly indicate the direction that the women will play an increasing role in the armed forces.

26. Some countries have opened up almost all roles and vacancies for women, some have no participation. In the middle of the spectrum, even though a large percentage of vacancies are available for women, the actual percentage is fairly low. It ranges between 3 to 20% in terms of total numbers of any arm. Amongst the various services in any country, the percentage of women has been highest in the Air Forces. Air Forces were also amongst the first to open combat roles for women as compared with the Navies or the Armies. Amongst the three services, IAF has the highest percentage i.e., 13% followed by 6% in the Navy and 3.8% in the Army.

27. Primary consideration in employing men or women in the armed forces have been the ability to deliver the required operational capability as compared to any other. There are some roles where women might be better suited as compared to men.

The major driver for induction of women in sparsely populated countries has been the shortage of qualified and skilled males for their armed forces. The next driver was opening up a larger talent pool by including the excluded 50% of the population. The more recent one is the need to ensure gender equity and ceasing the gender-based discrimination in so far as the armed forces are concerned.

28. No major differences were found between personality traits of women and men of the Indian Navy. Women were in favour of opening combat roles for women on a voluntary basis and in comparison, men had more reservations as compared with the serving women officers.

29. In the Indian Army, initially there was confusion regarding the status of women officers, i.e., whether they should be treated reverently as ladies or as officers. This stemmed from the term 'lady officers' being used for them. IAF addresses them as 'officers' or when essential, as "women officers".

30. In the US women were integrated with regular forces in 1978. Combat exclusion clause was lifted in 2013. Women are around 14% of total strength with the Army having least percentage compared to Air Force and Navy. In Australia, women were employed in non-combat ships since 1970s. All sea going billets were opened in 1990. At the same time, RAAF opened 94% vacancies for women and Army 55%. In the UK, Royal Navy was first, followed by RAF in 1994. Women are eligible for all roles in the Armed Forces, other than in Gurkhas since 2018. RAF has highest percentage of women amongst the three services,.

31. Canada, Norway and New Zealand have a similar state. Contrary to popular belief, women joined armed forces fairly late in Israel. The process commenced in 2000 and despite starting late, it has the highest percentage (20%), even though close combat roles are not open for women.

32. Amongst the Islamic nations, Turkey was one of the first to open armed forces for women in 1955. Gökçen, the adopted daughter of Mustafa Kemal Atatürk, the country's first president, became the first female fighter pilot in the world. Women's recruitment to the military has always been considered a security issue on which the Turkish Military has the professional authority to decide. Indonesia, also an Islamic nation, was the first in South East Asia to start women recruitment in 1960, mostly in support role. Women are nearly 10% of the strength. Bangladesh has women as officers since 2000 and as soldiers since 2016.

33. Sri Lanka Air Force (SLAF) was the first service of the Sri Lankan military to allow women to serve in 1972. Women have joined as Pilots after training in India in 2021. Myanmar military officer training course for women was established in 2013 for administration, logistics and support roles and six female pilots were chosen in 2017.

34. **Combat Performance.** More than 2,55,000 US women were deployed in Operation Enduring Freedom and Operation Iraqi Freedom and more than 130 have been killed and almost 700 wounded in the course of duty. Combat exclusion did not work due to blurring of demarcation between conflict and non-conflict zones. UK Two studies found that women performed effectively in combat roles during operations in Iraq and Afghanistan.

35. **Physical Standards:** Canada follows gender neutral physical standards i.e. same requirements and standards whether male or female. These are revisited and revised to ensure that they are selective without being discriminatory. Israel follows a combination of gender-neutral and gender-proportional physical standards. Indonesia has different physical ability test. New Zealand follows gender-normed standards which are different for men and women and are based generally on the performance

of women. It has been seen that gender differences in strength and endurance can be reduced when women undergo pre conditioning as well as strength and endurance training.

36. **Critical Mass.** Achieving a critical mass of women is extremely important if the benefits of induction of women are to be reaped. Almost all countries recognise the importance of this critical mass which is assessed as anywhere between 20-30%, but closer to 30%. Despite opening more than 60% vacancies, the actual representation of women remains between 10 to 20 %. The environment in IAF has become more conducive as the women now are 14% of officers strength. Large number of women applicants are available in India, who are highly motivated and qualified. If the selection is merit based, induction of women will only raise the bar for all applicants and result in better standards of recruits for Indian Air Force.

37. **Effect on Cohesion.** Cohesion can be between teams or colleagues and along the hierarchy. It could also be task based or social. All are important for efficiency in any organisation. Gender has not had any major effect on cohesion in most studies thus far.

38. **Women's Right or Obligation.** Duty to defend the state is part of US citizenship laws. This obligation is equal as are equal rights. Cutting off of citizenship responsibility based on gender alone was not found tenable and the courts ruled that being able to serve in the armed forces is an integral part of being a US citizen and cannot be curtailed based on sex.

39. **Excluded Groups.** In the US, a study found that erstwhile excluded groups like African Americans and homosexuals performed as effectively as other groups. Historically, women have played a role in armed forces in both combat as well as

support roles. It could be during the war of independence in US, wars against the British in India or elsewhere. Integrating women formally is the better option.

40. **Separation Rates.** The separation rates in Australia for women have been almost the double of men. Similar retention issues have been faced in other countries. In India, the initial term of engagement for recruits is only 15 years, hence this may not be an issue.

41. **Physical Strength** It has not found to be a good predictor of performance in combat occupations, except in very specific and limited roles, where brute force is essential, like carrying loads. Instead, factors such as teamwork, focus, mental and physical endurance, leadership, and competence are more predictive. IAF is technologically advanced and such tasks are very limited.

42. **Leadership** Importance of commanders and leadership in integration cannot be overemphasised. If commanders do not understand why integration of women is happening / required, they are unlikely to make the changes needed to support it. There was a reluctance on part of military leadership in India, where the then CDS, Lt Gen Bipin Rawat expressed in 2018 that women need to be sheltered, cocooned and kept away from eyes of subordinate soldiers. In the case of IAF, the experience with women officers has been successful, hence this belief and commitment would be easier. IAF took the lead in inducting women as officers as far back as 1991 and has opened all branches or roles.

43. **Traditional Barriers.** These included physical and physiological differences between men and women. Child birth; long absence due to maternity leave or child care leave; reaction if they were killed, taken POW or tortured; their needs of privacy, separate accommodation, washrooms etc.; expenditure involved were the other

barriers. Experience the world over and of officers in IAF has shown that these concerns are more imaginary than real.

44. **Timelines.** Almost 50% feel that IAF is ready right now to induct women in all ranks. This increases to a vast majority for the timeline of 1-2 years. Taking duration of recruitment, training etc., the decision can be taken RIGHT NOW.

45. **Recommendations.** Based on survey results and experiences of other countries, a strategy to induct women in all ranks has been recommended. The major ones include:

- (a) IAF is ready to induct women in all ranks.
- (b) Medical and physical standards should be the same as for women officers of non aircrew branches. Educational and other standards to be at par with male candidates for same role.
- (c) Gender normed physical standards should be adopted for most trades, while gender neutral standards be adopted for physically challenging trades.
- (d) No quota system to be applied, selection purely on merit and performance.
- (e) Pay, allowances, service rules and conditions be at par with male candidates.
- (f) Training to be at the same institutes and together with male candidates. Same syllabus and training pattern to be followed.
- (g) Infrastructure to be adapted or modified as part of infrastructure development plans in the order of recruitment centres, training institutes, units and stations.

(h) No sheltered or restricted trades though the sequence should be IAF(P), non-technical trades followed by technical. Initially IAF(S), the special forces may be excluded.

(i) Postings, tenures, trades to be allocated on pro rata basis.

(j) Strong existing mechanism for redressal of grievances, cases of sexual harassment or abuse be expanded to include women of all ranks.

CHAPTER – I

1.1 Introduction

1.1.1 Women constitute almost half of the population (Chitravanshi & Gera, 2021)¹ and have been part of Police forces and Central Armed Police Forces (CAPFs) for some time. They also have been a part of Indian Armed Forces for a very long time, though limited to medical and auxiliary branches and appointments. Induction of women as officers commenced in Indian Air Force (IAF) in 1991, followed by Indian Army (IA) and Indian Navy (IN) as Short Service Commission (SSC) Officers in 1992 (Garg, 2007). Now women serve as officers in almost all roles in Indian Air Force. They are serving in support arms in the Indian army and also in the Indian Navy. In all the three services, they are currently employed as officers only, apart from the medical branch. In IAF, apart from support services, they are serving even as combatants i.e. as pilots in fighter, transport and helicopter aircraft. Across the globe, women are increasingly becoming part of workforce transcending boundaries of gender, industry, geography etc. India, however remains a country where the women are underrepresented in the work force.

1.1.2 In the armed forces across the world, there is a gradual opening up of recruitment for induction of women. In countries like Norway and Sweden, women are recruited in all roles and serve on the same terms and conditions as males. In countries like US, Canada and closer home i.e. within South East Asia (SE Asia) like Sri Lanka, Thailand etc., women are currently performing various roles in different ranks, both as officers and as soldiers. Even an Islamic country like Pakistan has

¹ Chitravanshi & Gera, 2021 India now has more women than men but sex ratio at birth still low. *Business Standard*, p. 1.

recently inducted women into the flying branch of Pakistan Air Force (PAF) albeit in very limited numbers.²

1.1.3 Women have been part of the workforce in almost all professions. Agriculture is the single largest sector for employment in India where women constitute a large portion of agricultural labourers. They take part in traditional manufacturing where they have been part of the textile industry. Women have made their contribution felt in pottery and metal work. Electronic industry including mobile assembly industry are the new age sectors where women are a large part of work force. In a recent example, Ola has set up a mega factory manufacturing electric scooters in Tamil Nadu. It is claimed that this mega factory will employ 100% women. The factory is functional and production has started. It can safely be surmised that women are an active participant in the employment environment in India and are ready and willing to contribute to all sectors of the society.

1.1.4 Women have recently been inducted as soldiers as part of Military Police in the Indian Army. Below officer rank, this is their first entry into Indian Armed Forces. Recently, entry of women has been opened up in Sainik Schools, while the number of Sainik schools are also likely to be increased to 100. Sainik schools prepare children for careers in the armed forces. With this increase in numbers, all students cannot be inducted as officers, and some may be inclined to join in other ranks. A similar policy decision has also been taken for National Defence Academy (NDA), where entry for women has been opened up (Chaturvedi, 2021). For the exams 1,78,000 women have applied out of a total of 5,70,000 (Bharadwaj, 2021)³ i.e. more than 30% of applicants are women / girls. It is likely that a large number of them will be successful and will

² (Chaturvedi, A). Supreme Court allows women to appear for NDA exam. *Hindustan Times* 18 August 2021.

³ (Bharadwaj, D) 178,000 women apply for NDA as forces lift gender barrier. *Hindustan Times* . 30 October 2021

join NDA as cadets in 2022. The Chief of Army Staff Gen Narwane has also said that “Women officers will be in the same position 40 years later that, he is in now” (Bharadwaj, 2021). With equity and equality being the focus and gender inclusion as well as integration in all professions is the unambiguous way forward. The author himself has travelled to countries like Australia, Myanmar, Sri Lanka and Singapore, amongst others. These countries employ women as soldiers and airwomen in their forces. The extent to which they are employed / tasked varies of course, however women work shoulder to shoulder with the men. In India however, the situation is slightly different. Soldiering is primarily considered to be a masculine profession. Even though women as officers have been part of the armed forces, as soldiers, women have been absent. As yet, there is no clear policy or a road map about induction of women in roles other than as officers or below officers. With this scenario, a need was felt to study the prospects and challenges of induction of women in all ranks of Indian Air Force.

1.1.5 Available contemporary literature was studied and existing policies of entry of women as officers or otherwise was also studied. It was found that there have been some studies on induction of women into armed forces as officers, pros and cons have been studied and certain recommendations have been made. Majority of these studies have focused on India Army and one research was undertaken about Indian Navy. However, entry of women in roles other than as officers has not been studied in India at all.

1.2 **Historical Perspective**

1.2.1 The history of women in the military extends over 4000 years into the past, throughout a vast number of cultures and nations. Women have played many roles in the military. Indian women have often been on the battlefield. Rani Durgawati of

Gondwana and Chand Bibi of Ahmednagar (during Akbar's period), Rani Laxmi Bai of Jhansi during the Mutiny in 1857, are a few examples of women fighters from our history. The freedom movement is full of examples of women leaving the 'Chaar Diwari' of their households to secure freedom from the British - Sarojini Naidu, Kamala Devi Chattopadhyaya, Aruna Asaf Ali, Sucheta Kriplani, revolutionaries like Durga Bhabhi, Bina Das, Shanti Ghosh and Suniti Chaudhary, are prominent names, just to name a few. Subhash Chandra Bose had even raised the Rani Laxmi Bai Regiment to fight the British comprising only women under Captain Lakshmi Swaminathan, better known as Capt Lakshmi Sehgal. Women have played a very significant part in our freedom struggle. In fact, it can be said that had it not been for the 'picketing', 'courting arrests,' 'boycotting,' 'non-cooperation', and 'civil-disobedience' of Indian women, we may not have won our independence when we did. Despite various roles in the armies of past societies, the role of women in the military, particularly in combat, is an intensely debated and contested one. It is only recently that women have begun to be given a more prominent role in contemporary armed forces. Many countries and cultures have historically portrayed the woman as a nurturer and symbol of the home in need of protection from the outside world. It is the difference between these two standpoints that the role of woman as soldier and national protector vis a vis as homemaker or nurturer is debated. As increasing number of countries begin to expand the role of women in their militaries, the debate continues. Historically, women have played a significant role in military history through their numerous battlefield contributions. Images of women soldiers are now commonplace. The sex discrimination of the past on the basis of female physical inferiority has proven itself null in the actions of notable women who have taken their part to serve with honour during many conflicts in the world. Natural justice demands

that women too have the right to bear arms alongside men, to serve their country. Other male bastions have fallen and this one still stands. In recorded human history women soldiers have been part of each and every campaign, performing variety of tasks such as ammunition carriers, picking up a weapon of a fallen soldier, washing, mending and cooking, though their role as pure combatant has been limited. World War II, Vietnam war and technological revolutions affected intake of male recruits in armed forces of Europe, Asia and the USA and that has led to induction of women soldiers to fill the vacancies.

1.3 **Global Perspective**

1.3.1 Armed forces across the world have begun to induct women in their armed forces. The extent and varies from mere tokenism to full integration. Norway was a pioneer in 1984 when it terminated all restrictions on military roles open to women, allowing women to function in all positions as long as they fulfilled the requirements. Since the late 1980s, it has been a political goal to increase the number of women in the Norwegian armed forces, and various initiatives have been put forward to attract more of them. Despite Norway's commitment to creating a more gender-balanced force, the results have been limited; although it ranks among the top four North Atlantic Treaty Organisation (NATO) countries in strategizing to recruit and retain women. Women are a minority even in the United States (US) armed forces, however, it has one of the better female representation as women constitute around 16 per cent of the active-duty force (Ogilvie, 2013)⁴. At the same time, the armed forces are one of few areas in US society where women still face formal restriction, as they remain excluded from direct combat positions. Women's military participation has been much debated in both Norway and the US. The Norwegian debate has largely focused on

⁴ (Ogilvie, P) Sisters in Arms: Breaking down barriers and rising to the challenge. *US Military*, 03 Sep 2013

the integration of women numerically, whereas discussions in the US centre mostly on the existing restrictions pertaining to women's roles.

1.3.2 Similarly, Women have been a part of Canada's armed forces for over one hundred years when trained nurses were first called for active duty during the suppression of the North West Rebellion in 1885. Page 15 of the report says that by the end of the Second World War, approximately 50000 women had served in the women's divisions, 5000 nurses had served in the medical corps of the Canadian Navy, Army and Air Force and 53 nurses had died while on duty. Canadian servicewomen have been located in combat zones, been taken prisoners of war and killed. Canadian civilian women have participated in irregular warfare like espionage, intelligence operations etc, though Canadian women have never 'officially' participated as combat personnel in military assault (Kümmel, August 2001)⁵.

1.3.3 The Portuguese armed forces for the first time included women in 1961, with the creation of an all-female corps in the air force. These first women were trained as parachutists with the mission of providing nursing assistance during the war in the Portuguese overseas territories in Africa. Portugal has not been an exception to the general trend of increasing participation in armed forces. In 2000 there were almost 3000 women serving in the Portuguese armed forces representing 6.6 % of a total military force of around 44000 soldiers (Carreiras, 2001)⁶. The proportion of women is increasing with time and it is corroborated by the fact that women represent 11.3 % of cadets in the Military Academies. In the Air Force Academy (AFA), 20.6 % of all cadets are female, once again emphasising suitability of women for the Air Force.

⁵ (Kümmel, G) Proceedings of the Interim Conference 2000 of ISA RC. *The Challenging Continuity of Change and the Military*: Aug 2001. Strausberg: SOWI

⁶ (Carreiras, H) *Women in the Portuguese Armed Forces: From Visibility to Eclipse*. 2001

1.3.4 South Africa is a progressive country. Recently, in the wake of constitutional reforms the South African National Defence Force (SANDF) was forced to acknowledge the right of women to serve in ‘all’ ranks and positions, including combat roles. (Heinecken, 2001)⁷ Appointment of a woman Deputy Minister of Defence in 1999 has given ‘political clout’ for a more ‘gendered’ approach to peace and security, to policy formulation and the advancement of gender equality within the Department of Defence (DoD) in South Africa (SA). Unlike many European countries the participation of women in the South African armed forces has not increased due to a shortage of qualified men. It is also not due to perceived threat to the nation, a shift to an all-volunteer force or change in mission definition. The driving force, instead, since 1994 has been legislative coinciding with the shift to an all-volunteer force.

1.3.5 As can be seen, the participation of women in the armed forces across the globe has been low, but has improved. The motivations, needs, ways have varied, however the direction of change is clear. It is only natural to anticipate the need, make plans and progress rather than sit on the side and watch the world go by. The path will not be easy. Changes in the social system, at the organisational and individual levels in the military and civilian society will be required. Adoption of scientific technology, urbanisation, secular values, increasing commercialisation, decline of informal customs and the rise of legal systems are all catalysts.

1.4 **Statement of Problem**

1.4.1 Article 16 of the Constitution of India provides for “Equal opportunity for all citizens in matters relating to employment or appointment to any office under the state”. There are as many Armed Forces as there are nations or nation states in the world. As far as gender inclusivity in these is concerned, it varies from nil on one end

⁷ (Heinecken, L) Affirming Gender Equality: The Challenges Facing the South African Armed Forces. 2001

of the scale to near equal on the other. Women have now served the nation as officers for more than 20 years. As officers, they occupy leadership roles but are not part of the ranks. The presence of ‘glass ceiling’, is not acceptable by law, however its presence is widely acknowledged. In armed forces, there is a reverse glass ceiling. All the three services, i.e., IA, IN and the IAF has had women officers who have risen to the highest ranking military officers, however, are not accepted in the ranks below officers.

1.4.2 Traditionally, armed forces lead the way for the society. However, as far as induction of women is concerned, they have been the last to open their doors. Large number of factors have been cited for non-inclusion of women in armed forces, including physical and emotional differences, stress coping ability and sensitivity in possible hostage scenario being a few of them. On 17 Feb 2020, Hon’ble Supreme Court of India (SCI) delivered a historic judgment opening the way for women to be granted Permanent Commission (PC) as well as cleared their way to become Commanding Officers (COs) in the Indian Army (Peri, 2020)⁸. In fact, the court observed that “There is a different thinking that permeates the highest levels of leadership in the country and a different thinking in the bureaucracy of the Army” (Correspondent, 2021)⁹.

1.4.3 The representation of women in Indian Armed Forces has been low. Amongst officers, Indian Navy has 6.5% women officers on its strength. On the basis of total strength, IAF has 1.08% and Indian Army, a meager 0.56% of women (PIB, 2021)¹⁰. In the IA, now 17 of the possible 23 arms / professions are open for induction in the support arms or the combat support arms. The combat arms are excluded. In recent

⁸ (Peri,D) SC verdict on permanent commission to women officers: A blow to stereotypical mindset, says lawyer. *The Hindu* 18 Feb 2020

⁹ The Hindu, (29 January 2021). Supreme Court bats for women officers in armed forces. *Legal Correspondent*

¹⁰ (PIB, 2021) *Gender Ratio in the Armed Forces*. New Delhi: Ministry of Defence

times, a strength of 1700 has been sanctioned for entry of women in Corps of Military Police (CMP) (PIB, 2021). Apart from these, there is no other initiative for induction of women in ranks below that of officers in any arms.

1.4.4 The social and economic scenario has changed dramatically in recent years. With automation and increasing use of machinery taking care of physically intensive tasks, the differences in ability to take on tasks has come down. The status of women in society as well as their representation in various professions has undergone a transformation. Even in neighboring countries like Sri Lanka, women are part of Armed Forces. Within the country also, women are part of deployed forces of Border Security Force (BSF), Central Industrial Security Force (CISF) etc including in field areas. In 2018, all five Central Armed Police Forces (CAPFs) were opened for women in all ranks, including as combatants (PTI, Government allows women to be combat officers, 2018)¹¹. The research aims to assess the readiness of infrastructure and attitude for induction of women into Indian Air Force. The problems identified are:

- (i) Under representation of women in Indian Armed Forces in general.
- (ii) Indian Air Force missing out on the talent pool of half the population.
- (iii) Benefits of gender sensitive and gender-neutral environment being missed.

1.5 **Research Objectives.**

1.5.1 The problem is under representation After going through the statement of the problems, the following Research Objectives have been identified: -

- (i) To establish validity of traditionally cited reasons precluding inclusion of women in Indian Air Force.

¹¹ PTI, 18 Jul 2018, Government allows women to be combat officers. (*The Economic Times*)

- (ii) To explore differences in roles of women in Armed Forces of other nations.
- (iii) To establish prospective roles for women in IAF.
- (iv) To study likely challenges for induction of women in IAF.
- (v) To examine if time is right for induction of women in IAF in all ranks.
- (vi) To suggest strategy for induction of women in IAF.

1.6 **Research Strategy and Methodology.**

1.6.1 The research strategy would be mixed. It would be qualitative where interviews and statements of senior officers of Armed Forces of India and other countries will be examined to determine readiness of society and organisation for induction of women in IAF. To establish the performance so far and anticipated in future, stratified random surveys would be conducted amongst IAF personnel in the field and offices, who will be directly working with women. The sample size would be a minimum of 80. It may be ramped up based on prevalent COVID situation.

1.6.2 The dissertation would analyse case studies of other countries to study the need, challenges and success in induction of women in ranks of their armed forces.

1.6.3 The findings so obtained, shall be co related and analysed to establish to establish what roles of IAF are suited to be available for women. Whether this choice should be of women or of the organisation. Lastly, whether induction of women should follow a incremental approach or all avenues should be opened radically at one go, a lightning event approach.

1.6.4 The study shall conclude by recommending the way ahead for IAF in so far as induction of women is concerned, based on findings.

1.7 Rationale for Study

1.7.1 The researcher has served for more than 30 years in Indian Air Force as a commissioned officer. These years have exposed him to cultures of various countries and their armed forces including Sri Lanka, Australia, Singapore, Myanmar, Philippines and Thailand. In addition, he has worked in conjunction with and participated in exercises with armed forces of other countries. Military organizations tend to be representative microcosms of the society and the moral, ethical as well as social values of the society and its civilian institutions should be reflected in the armed forces as well.

1.7.2 There are vacancies lying untenanted across the rank and file of armed forces due to the inability to attract suitable candidates. In response to a question in Rajya Sabha, on 14 Dec 2021, Hon'ble Minister of State for Defence Shri Ajay Bhatt said "In the Indian Air Force, the number of posts of officers lying vacant is 621 while it is 4,850 for airmen" (PTI, Armed forces have shortage of 9,362 officers, Rajya Sabha informed, 2021)¹². The women of the country are quite qualified and competent to fill at least some, if not all of these vacancies. By reluctance to open up recruitment of women for all roles, who numerically are close to 50% of the talent pool on the country, their talent and competence is being ignored.

1.7.3 During the career and interaction with other services, vastly different levels of integration and participation of women in armed forces was apparent. There was a natural curiosity as to why such disparities exist. While women have been inducted in limited numbers by all three arms i.e., the Army, Navy and the Air Force, it stood out that India, despite its progress in other sectors, is lagging in integration of women in its armed forces. Further, women are being inducted only as officers and those too in

¹² PTI. Armed forces have shortage of 9,362 officers, Rajya Sabha informed. 14 December 2021, Business Standard

specific non-combat roles. Over casual interactions, when this lack of women in our armed forces was commented upon, the primary reasons cited by different people at different forums were Indian socio-economic environment, physiological and psychological differences between men and women, traditional roles of women as health and care provider, traditional reluctance to accepting women in leadership roles, lack of existing infrastructure in training and operational areas. Religious reasons and importance of women for child care were also mentioned.

1.7.4 Even the first casual inspection into any of these reasons was enough to question these ‘myths’. Sri Lanka, Myanmar, Indonesia, Thailand etc. which have very similar socio-economic environment have employed women in wider roles as compared to India. With the entry of women as officers in armed forces and their successful tenures of more than two decades, the myth of reluctance of Indian men to accept women in leadership roles has been shattered. The experience with induction of women as medical staff and as officers in majority of branches and roles has shown that infrastructure can be created, if there is a will. Similarly, other reasons cited could not stand the first probes of inspection.

1.7.5 It was imperative that the barriers standing in the way of recruitment of women in armed forces in general and IAF in particular, merits further study. It is felt that this would be a step in overcoming gender stereotyping and would pave the way for women serving their country with honour and dignity as airwomen in the Indian Air Force.

1.8 **Research Questions.**

1.8.1 Based on the research objectives, the study would attempt to explore and answer the following Questions: -

- (i) Are the traditionally cited reasons precluding inclusion of women in Indian Air Force still valid?
- (ii) What are the differences in roles of women in Armed Forces of other nations?
- (iii) What are the prospective roles for women in all ranks of IAF?
- (iv) What challenges are likely to be faced in terms of infrastructure for induction of women in IAF?
- (v) What are the perceived challenges for induction of women in IAF in eyes of coworkers, male and female?
- (vi) Is there a difference in perception of males and females about induction of women in IAF?
- (vii) What will be the right time for induction of women in IAF?
- (viii) What is the best strategy to be adopted for induction of women in IAF?

1.9 **Scope and Limitations.**

1.9.1 Even though the status of other countries would be studied to set the benchmark and draw lessons, the study will be limited to India and even though other arms would be studied, scope will be restricted to study induction of women in ranks of Indian Air Force.

1.10 **Summary** Women are an integral part of society and have not hesitated to pick up arms at any stage in history. The study is aimed to assess the likely advantages apart from challenges and impact of induction of women in IAF. It also aims to suggest a practical strategy to do so based on experiences within and outside the country.

Chapter II : Literature Review

“If women are expected to do the same work as men, we must teach them the same things”.

– Plato

2.1 Introduction

2.1.1. All available sources in public domain were searched extensively to find available research / literature. Library of Indian Institute of Public Administration (IIPA) and its affiliation with ‘del-net’ was utilized. ‘Shodhganga’ was searched for existing research in India on similar / allied topics. Online repositories like JSTOR, Google Scholar were used to find studies and gather data about other countries. Specific think tanks like Institute for Defence Studies and Analysis (IDSA) for Indian context and Project Air Force of Rand Corporation for US were explored. Above these, journals, news articles were examined for contemporary data including opinions and current policies. The perusal of available literature revealed that research on induction of women in all ranks of armed forces in general and IAF in particular is conspicuous by its absence.

2.1.2. One of the first observations is that the vast majority of studies are from the comparatively developed states like the U.S., Norway, Israel etc., with US leading the list. While there were very limited studies pertaining to the Indian sub-continent, there were a few articles in periodicals and journal tracing the history and current status of women in armed forces. Studies in India are limited to institutes directly or indirectly linked to armed forces. Here also, the majority of studies relate to the suitability of women in respective armies and almost none that focussed on the Air Force.

2.1.3. Majority of studies, as well as the arguments therein, are focused on suitability as well as desirability of induction of women in combat roles vis a vis non-combat roles like accounts, education, logistics etc. Studies in India till now have focused primarily on the feasibility or suitability of induction of women in armed forces as officers. The subject of women entering roles other than as officers has not come to fore at all. There are five previous researches on the subject of women in armed forces of India.

2.2 **Published Research**

2.2.1. In 2001, Bajpai, Sunita published “*A study of occupational preferences of women*” based on mixed surveys. The study first focused on the social and familial environment where women were ‘allowed’ to work. It then focused on the motivation of women to leave the confines of home and join a formal workplace and studied the roles undertaken by women. The study concluded that monetary gains or financial gains were the most important reason for women to work. This was despite the fact that the study was of 2000 -2001 and Indira Gandhi had become the prime minister in 1966, i.e., 34 years earlier and had led the country. The study also found that self-actualization or the need to prove one’s mettle was the least likely cause for women to work. The study is 20 years old and did not include armed forces as a choice of profession in the survey as till 1992, apart from medical stream, women were not allowed in any other profession / stream.

2.2.2. This was followed by a study undertaken by the spouse of an Indian Naval officer, Manuel, Wendy L (2006) “*Women in the Armed forces (Navy): A psychosocial and Gender Perspective*” which was based on quantitative surveys. This study focused only on women officers in the Indian Navy (IN). The study examined eight parameters i.e., Work related attitudes, gender equality attitudes, motivation, organizational role stress, self-actualization, personality, gender role identity and social support for married

women officers. The study concluded that women and men naval officers were a homogenous group on many variables. There were no major differences on five personality traits. There were no gender differences on work related attitudes i.e., overall job and satisfaction with the naval life style as well as morale. In terms of gender equality attitudes, women had a more favorable attitude than men naval officers. As per the study, when participants were asked to evaluate attitudes of male officers towards women officers, men evaluated the male attitudes better / higher than women participants did. Major differences between the perception of male officers and female officers about the performance and suitability of women officers have been highlighted in the study. According to the study, 98.57% of women felt that combat roles for women should be voluntary and 67.14% of women were willing to volunteer. The main reasons given as to why women should not be in combat were 'pregnancy', 'motherhood' and 'sexual abuse'. Women willing to volunteer for combat differed from those not willing to volunteer on the parameters of extraversion, spontaneity, lifestyle motivation and satisfaction with naval lifestyle. In terms of motivation for joining the Armed Forces, the study concludes that core motivation was the highest followed by lifestyle motivation while economic motivation was the least important.

2.2.3. Qualitative research, was conducted by a serving Brigadier of the Indian Army, Garg, AK (2007) "*Role of Women in Armed Forces*" through questionnaire-based surveys. The study was conducted 15 years after women were granted Short Service Commission (SSC) in the Indian Army (IA). The study researched the role and performance of women SSC officers till that time and recommended that women were neither suitable for combatant roles nor for being granted Permanent Commission in the IA. The study focused on traditional roles of women in India and studied opinions of male officers and compared it to opinions of '*lady officers*'. The study points out that

there was some confusion in the IA regarding the status of 'lady officers'. The rank and file of the IA was divided on the issue that whether women officers should be treated like ladies i.e., at par with wives of officers as far as extending courtesies etc. was concerned or as officers at par with their male counterparts. While majority of women wanted to be treated at par for all purposes, the opinion of men was quite opposite. Amongst others, the study recommends defining this status clearly and dropping the prefix 'lady' from all places, other than where it was absolutely essential. Further the study recommends that women should be given sheltered appointments in 'services' and should not be appointed to the 'Arms' or places where they would be directly in combat zones. However, this study and its recommendations as well as findings are now outdated or stand invalidated in view of recent policy decisions by the armed forces, judgments by the courts and recent policies announced by the Government of India (GoI).

2.2.4. Qualitative research by Piyasena, SD (2010) "*Engendering women and War: Representations of the Sri Lankan Woman Combatant*" focused on literature revolved around the Tamil issues in Sri Lanka in general. The study focused on Army operations against the LTTE cadre. The study is based on the premise that literature is a medium that effectively disseminated information about women cadres to the rest of society where there was no access to the women on the battle front. It says that literature not only reflects society but also influences ideology of society. Literature represents certain types of gender relations and makes them appear the acceptable norm. As per the study, ethnic conflict also is a clash between woman, both as victim and woman as victimizer. The prominent presence of women on opposite sides in these conflicts emphasized the dangers of treating 'women' as a monolithic homogenous category, ignoring differences of class, community and political orientation. The study

determines that the notion that women within the LTTE had the right for self-determination is questionable because of instances of Tamil women being oppressed inside and outside the organization. During the conflict, the LTTE had about 200 Tamil women in its prisons until 1990 because they were believed to be anti LTTE and consequently received brutal treatment at the hands of women Tigers. The study also found that women were well motivated and fought as combatants from both sides during the conflict. Further the study concluded that the primary reason for women to join LTTE was excessive use of force / atrocities against them or their family members. The study quotes a western author Trawick who during her visit to LITE controlled areas in North Sri Lanka, poses the question, "You live close to death. It could come today or tomorrow. Do you really feel no fear?" to a woman LTTE activist. The reply was "Chee, If I were afraid, would I have joined the struggle? I am just exactly like the men". Using this example, the study shows that the way the female militant is viewed, is radically different, from the male militant. The militant world is considered very masculine and the woman militant consciously, or sub consciously, carries the gendered stereotypes that are attached to a woman. Probably the same is true in the world of armed forces, overwhelmingly considered to be a male bastion.

2.2.5. A doctoral thesis was submitted by a retired IA women officer (Major) Gaurishtha (2016) "*Employability of women in the Indian Army: A critical study of its effectiveness and suggesting future role prospects*". The study highlights there is an abundance of fit and healthy, highly motivated and well qualified young women seeking challenging, rewarding careers. These women come from a society which is increasingly well informed, more liberal in outlook and is challenging traditional cultural values, societal boundaries and gender restrictions. The primary consideration in employing men or women in the Army must be the ability to deliver the required

operational capability. With increased reach and lethality of weapons, soldiers in the “front line” are necessarily not more vulnerable or more exposed to greater danger from enemy action than those in the rear areas. In many operational scenarios rear areas may be more prone to attacks based on their importance and effect. The study concludes that in terms of employment and deployment of soldiers, physical closure with the enemy in high intensity war fighting scenarios, rather than proximity to the threat of hostile action, is the determinant of greater risk with associated physical and emotional challenges posed to soldiers. The historical emphasis on physical strength and endurance is far less relevant today than in the past. Presently, arms or services from which women are generally excluded on physical grounds are the Arms in direct combat role. A detailed analysis of the personal attributes necessary to successfully undertake operational tasks and the development of gender free physical assessment that is in synch with operational roles is recommended to be considered and implemented for inducting best matching individuals to the army and broaden employment options for women. The study keeps the operational effectiveness of the army foremost and all the recommendations are conscious of this fact. Finally, based on feedback, it is concluded that women officers have performed well in roles assigned to them till then and that they should be considered for PC like their male counterparts.

2.3 **Study Reports** Rand Corporation, a major think tank of the US has published numerous papers on the US Armed Forces. Project Air Force, is one of the study centers which focusses on United States Air Force (USAF). Few relevant reports published have been studied in detail.

2.3.1. “*Considerations for Integrating Women into Closed Occupations in the U.S. Special Operations Forces*”, RAND Corporation, 2015 is one such report with two main objectives. It assesses potential challenges to the integration of women into

Special Operation Forces (SOF) in maintaining unit cohesion, and it provides analytical support in validating occupational standards for SOF positions controlled by United States Special Operations Command (USSOCOM). The report summarises the history of integration of women into the U.S. armed forces. It reviews the current state of knowledge about cohesion in small units and discusses the application of gender-neutral standards in SOF. It identifies widely agreed on professional standards for validation of physically demanding occupations and. One of the chapters is written by Thomas Szayna which is “*The Integration of Women and Other Excluded Groups into the U.S. Military: The Historical Experience*”. It studies the reasons for less representation of women in the Armed Forces. Since the US had opened up the ranks for women a long time back, the study gives an insight into the US experience which will help us in learning from their experience and devise a suitable action plan or strategy, if Indian Forces have to contemplate walking that path. The study also breaks down the reasons for resistance of armed forces towards inducting women both as officers as well as enlisted personnel. It further documents that this resistance was overcome, not by evolution or by any change in the willingness of the military hierarchy, but primarily by executive decision or legislation.

2.3.2. Rand Corporation published a book “Implications of Integrating Women into the Marine Corps Infantry” in 2015. The book has nine chapters. The second Chapter delves into the “*History of Integrating Women into the U.S. Military*”. It brings out that even though women have been part of forces present on the battlefield throughout the history of U.S., but till the world War -II had very limited roles. These were primarily as volunteers, nurses, and caretakers. During World War II, around 350,000 women were part of the war effort. These women began to take on new roles, though still auxiliary, so that more men could be free to take part in combat. The debates and minor

action continued and finally the women were allowed to enter nation's three service academies in 1976. Shortly afterwards, in 1978, President Jimmy Carter signed a Public Law dismantled the all-female WAC and integrated women into the Regular Army. It also allowed women to join duty on non-combatant ships in the Navy. In a major decision, President Bill Clinton ordered the services in April 1993 to open combat aviation to women and to investigate other opportunities for women to serve. This was the first formal diktat allowing women in direct combat roles. As a consequence, then Secretary of Defence, Les Aspin ordered the services to "permit women to compete for assignments in aircraft including aircraft engaged in combat missions". Later in the same year, Congress repealed the laws prohibiting women serving onboard combat ships. These decisions resulted in women serving and being part of combat operations in the Gulf War. One important facet brought out in the book is how things change once the initial resistance is overcome. A bill was introduced in May 2005 by the Chairman of the House Armed Services Committee Mr Duncan Hunter that would prohibit women from serving in any company-size unit that provided support to combat battalions or their subordinate companies. This would have blocked the posting of women to appointments in units where they were already serving. The tables had turned. The same army which had opposed the entry of women into combat positions, now opposed this bill. In fact, the Vice Chief of Staff of the Army said that the amendment will cause confusion in the ranks, and send the wrong signal to the brave young men and women fighting the Global War on Terrorism. The bill was ultimately defeated. The latest expansion of the role of women in the US military came in Jan 2013 with the announcement that the ground combat exclusion would also be lifted. It came against the background that women had already served successfully in both the Gulf Wars i.e., Iraq and Afghanistan. The thought was, that not everyone can meet the

qualifications to be a combat soldier, irrespective of gender, but everyone must be entitled to the opportunity. This important decision overturned the 1994 rule that banned women from being assigned to ground combat units, opening entry of women to erstwhile closed appointments.

2.3.3. There are a few studies regarding status of integration of women in armed forces of other countries. One of the earlier ones of 1990 by Hugh Smith, published by Australian Institute of Policy and Science titled "*Women in the Australian Defence Force: In Line for the Front Line*" is available on JSTOR. The study studies the path taken by Australian Defence Forces (ADF) towards integrating women into the forces against the earlier approach. The Royal Australian Navy (RAN) has employed women on non-combat ships since the late 1970s. The major opening of roles in forces started with support of the government. A government decision was taken to permit women to occupy roles involving combat which had been excluded till then, even though women were still not allowed into traditional combat roles such as the infantry, artillery, armour and fighter aircraft. It was envisaged that women will progressively move closer to the 'front line' and be at greater risk of injury as well as death. These changes were also applicable to the reserve forces. RAN was the first to implement this policy and the Chief of Naval Staff announced in April 1990 that nearly all sea-going billets would be open for women, except for submarines. The necessary infrastructure was to be created to facilitate this with the aim of increasing the percentage of women on sea going ships from 0.5% to around 11%, which is at par with the percentage of women in the RAN, overall. In May 1990, the Royal Australian Air Force (RAAF) and the Army followed suit with the RAAF opening up about 94% and the Army about 55% of vacancies to women. While a large number of people in the government and the opposition supported the policy, a significant number of people from the forces opposed this. The

major arguments even in Australia were the same as in the rest of the world. These included physical limitations, medical issues like menstruation and pregnancy, traditional gender roles of men being protectors and women being nurturers etc. The last being the belief that any society can withstand the loss of large number of males and not of females. These were true till the late twentieth century. Lot of social changes have occurred since then in Western democratic societies in terms of political rights, social status and employment opportunities for women. Women have entered a range of manual, skilled and professional occupations which were traditionally reserved for males. They have also begun to move into senior ranks in occupations other than menial and support roles. In politics, too, women have not only won the right to vote but also achieved high office - despite their still limited numbers. The study quotes examples of women like Golda Meir, Indira Gandhi and Margaret Thatcher who have demonstrated both a capacity for determined national leadership and a readiness to take their countries into war. The study finds that the church and the armed forces are among the most conservative organisations / entities, but both are currently facing increased pressure to change accepted patterns of sex discrimination.

2.3.4. The study also finds that armed forces will struggle to attract new recruits and to retain existing members if the current policies do not change. It quotes examples of Nations without compulsory military service who have encountered particular problems in finding sufficient numbers of suitably qualified volunteers. The proportion of young males in many countries with low birth rates has begun to decline. If there are not enough young males to enlist, the only option is to recruit females to fill the gaps. Recruiting females in place of males who make the cut marginally is likely to be advantageous. The women who do enlist are likely to be more highly qualified and

more committed than the males who would have been recruited despite marginal performance.

2.3.5. The second major factor enabling greater employment of women in the change in type of warfare, primarily due to technological developments. New weapons and systems which are far less demanding in terms of physical strength than their predecessors which opens new opportunities for women. As a result, the technological and managerial elements of the armed forces have a greater integration of women in its ranks. Amongst the three services, the Air Force has a very large technological and administrative 'tail' vis a vis the lesser number of combatants, who are primarily fighter / bomber aircrew, apart from a few others. The study suggests that due to these reasons, it is the Air Forces which have pioneered the recruitment of women and has opened more positions to them. On the other hand, the Army and the Navies which can employ women in technical and specialist tasks on ground and onboard ships, they find recruitment and retention most difficult.

2.4 Country Studies

2.4.1. One of the relatively modern Islamic nations is Turkey with modern armed forces. There, a study was published in 2004 titled "*Nationalism, Modernization and the Military in Turkey: Women Officers in the Turkish Armed Forces*" by Tokas Sule. This journal article is written as an attempt to understand the relationship between nationalism and modernization with the gender issue in Turkey. The study first defines the three major roles of the Turkish military i.e. the modernizer, the national identity constructor and the protector of secular Kemalist ideology. It then charts the history of women in the Turkish Military and their increasing roles. Lastly, it identifies the specific issues and challenges of recruiting women recruitment in the armed forces of Turkey. The article brings forward a few interesting and novel propositions. The first

of these being the fact that Military is considered to be the guardian of national identity and plays an important role in defining national interests. It then puts forward the view that Militarist and Nationalist ideologies function on the basis of being unique. This uniqueness amongst the national community is based specific characteristics like courage, strength, capability and potency. The study argues that the uniqueness myth in military accompanies and is strengthened by the visibility function of the uniforms. The military uniforms help distinguishing between civilians and military, between different national armies and even between different regiments. As far as the place of women is concerned, it is also brought out that the femininity of women, is visible in appearance. The colourful and stylish dresses, long hair, cosmetics and jewellery identify women in society. Men, on the other hand, dress in a much simpler way. Women in military uniforms similar to those of men, makes them appear asexual. This similarity is like the unisex uniforms in communist China. Warfare is getting more and more dependent on brain power and high technology rather than muscle power. As per the study, this key factor has been the major facilitator towards women serving in the armed forces. The study quotes an 1995 publication by Segal to point out a new definition of transformation. As per this, either the military had to be perceived to be transforming so that women had become compatible to the military or the women had to be perceived as transforming so that they had become suitable to the military service. It further states that in either case, this is due to change in traditional patriarchy brought out by pressures of modernity. These dictate that equality is a goal and so are the professional ethos. The militaries cannot resist / refrain from modernising.

2.4.2. An interesting article by Martha E. McSally was published in the American Journal Daedalus in 2011 titled “*Defending America in Mixed Company: Gender in the U.S. Armed Forces*”. The author is a Professor of National Security Studies at the

George C. Marshall European Centre for Security Studies and had retired from the U.S. Air Force as a Colonel in August 2010. She has served for 22 years and was one of the first seven women selected to become fighter pilots in the USAF. She begins her argument by stating that women have served as volunteers in the US armed forces since the birth of US. This has continued either due to the necessity or the fight for equal opportunity, but has always been limited by law or policy. She points out that more than 2,55,000 women have been deployed in Operation Enduring Freedom and Operation Iraqi Freedom and in the course of duty, more than 130 have been killed and almost 700 wounded. Thus, the concept of keeping women away from conflict or harm zones is negated. She also brings out a few unique arguments.

2.4.3. The rights of citizenship are bound with the obligation of the citizen to defend the state. This is deeply rooted and is reflected in American Constitution and laws. One example is the immigration law. In the past applications for US citizenship, were rejected if the applicant refused to take the oath to bear arms to defend the nation if needed, irrespective of being a male or female.

2.4.4. The military force must reflect the society it defends. This is good for motivation and cohesion apart from a strong sense of belonging. Women are now almost 51 per cent of the U.S. population, but only about 14% of the forces. In senior ranks, they are only 6%. This has been recognised by the lawmakers and in 2009, the US Congress directed the creation of the Military Leadership Diversity Commission to address the issue that the military power structure and leadership was predominantly of white men.

2.4.5. The study then draws a parallel between the cases of homosexuals and women insofar the armed forces are concerned. U.S. District Court for Central California gave a ruling in Sep 2010, that the ban on homosexuals serving openly in the military was

unconstitutional. The court rejected the inverse relationship between equal opportunity and military effectiveness. The parallel drawn in the study is that just as homosexuals in the military were successfully, but invisibly, performing their duties under “Don't Ask, Don't Tell, women too, are involved in ground combat and have contributed positively.

2.4.6. Another point of argument put forth was based on nature of jobs. The study opines that some jobs need women for them to be performed effectively. Example of searching women and children is cited. In Iraq and Afghanistan, “Lioness” teams were created. These accompany all male combat soldiers to perform this function. Further in Counter Insurgency (CI) role, women soldiers may be better in winning the population over, as part of CI operations.

2.5 Author Hugh Smith penned an article in *The Australian Quarterly*, Winter 1990 edition, “*Women in the Australian Defence Force: In Line for the Front Line?*”. The article examines the political rights, social status and employment opportunities for women in the Australian context. The article begins by examining the traditionally accepted division of roles and labour. It brings out that transcending the borders of societies, women were expected to perform the vital function of bearing and raising children. They are also considered more suitable in caring and nurturing roles than men. The article also brings out the roles and criticality in maintaining societies and cultures. It points out that males are more dispensable as far as maintaining the population is concerned. Societies can endure the loss of a large proportion of young men rather than the loss of comparable numbers of young women. This was the basis for the ‘natural’ division of labour where women remained at home while men took on the hazardous tasks of guarding families against attacks by outsiders.

2.5.1. The article then traces the history of women in ADFs. Women were first employed in clerical, administrative, transport and communications tasks. During the world wars, number of women employed in these roles increased, however, in most cases after the wars ended, these specialized women's units were either disbanded or reduced numerically. Till the 1960s and 1970s, the number of women in ADF did not increase significantly. In Australia, equal pay for women was enacted by Parliament in 1969 and the Sex Discrimination Act of 1984 prohibited many gender based discriminatory practices. This did not extend to the armed forces, but changed the way society perceives women.

2.5.2. The author asserts that across the world, women have already entered a wide range of manual as well as skilled or professional occupations, which were traditionally reserved for males. Women have also started to move into senior ranks in these occupations where they were earlier confined to menial and support roles. In other words, they have broken the glass ceiling to a large extent. The case of politics is cited where women have risen to the top, despite their limited numbers. It is pointed out that women such as Golda Meir, Margaret Thatcher and Indira Gandhi have provided a determined national leadership and have shown the readiness to take and lead their countries into war.

2.5.3. The article points out that some institutions and professions are particularly resistant to the trend of women taking up lead roles. It says that the church and the armed forces are among the most conservative institutions. Both are under great public and societal pressure to change erstwhile accepted norms of gender discrimination. A beginning has been made in these and some smaller churches have begun to implement female equality. It is only a matter of time that the military also follows the path of society. The article then examines the role of technology in bringing gender parity. Like

other studies, this also points out that new weapons and systems are far less demanding in terms of physical strength than their predecessors. The change is most dramatic where major weapons systems are concerned which require training, skill and judgement. The experience of several countries has shown that women pilots, for example, are no less capable than men. An interesting example is brought out, that of the most destructive weapon - The nuclear ICBMs. These function regardless of gender and in the US, women officers also regularly command these weapons.

2.5.4. The study then focusses on the challenges. It points out that one factor limiting the number of women in the ADF is their greater separation rate. In 1978-88 women left the ADF at a considerably greater rate than men i.e. turnover of 20.5% compared with 10.6% for men. This higher separation rate served as a disincentive to recruiting women since it meant increased training costs and personnel management problems. On a positive note, it brought out that these separation rates have lately moved much closer to each other.

2.6 The United Kingdom House of Commons Defence Committee published a report in 2021 titled "*Protecting those who protect us: Women in the Armed Forces from Recruitment to Civilian Life*". The study is comprehensive and studies the history of women in the UK armed forces. As the title suggests, it studies the issues in recruitment of women, barriers to it and suggests ways to overcome them. It also examines the biases and changes needed following a case study approach. It conducted in depth interviews of more than 4,000 female Service personnel and veterans. One of the findings was that nearly 90% of military women would recommend the Forces to other women. The study finds that perception is key barrier as even after 100 years of women serving in the armed forces, it is still considered to be a male bastion. The committee opined that Ministry of Defence (MoD) and Services are not helping female

personnel in achieving their full potential. 84% of survey respondents felt that female Service personnel face additional challenges. Despite more than 20,000 servicewomen in Armed Forces, the MoD stated that it may take decades, even over 300 years, to improve women's presence as Senior Officers. Some of the difficulties faced by women included balancing Service life and family life. It found that serving mothers, make the greatest career sacrifices and at times, leave. The report brings out the differences between similarly placed men and women. Among mid-ranking Officers, 90% of men have children, compared to 10% of women. This, as per the report, indicates inadequate support to women in childcare. The committee concludes by stating that "We must make progress on all of these issues both for the operational effectiveness of our Armed Forces, and because our shared British values of fairness, equality and justice demand it".

2.7 **Deductions**

2.7.1. The review of literature so far reveals that the proportion of women in armed forces across the world is far less than in the population. There is a reluctance in women being employed in direct combat roles. Majority of women are employed in support and administrative roles. These are across the spectrum. In almost all armed forces, there was a top down approach in integrating women in forces. In majority of cases, the Govt / legislative action was taken first, followed by the induction of women in armed forces.

2.7.2. There are a number of studies, reports, papers and articles on the issues, however most are centered around the role of women in the Army. Further, majority of research has been centered around the role or performance of women as officers. This hold even more true in the case of India. No Indian study touches the subject of

employment of women in all ranks of armed forces in general, leave aside the specific arm i.e. Indian Air Force.

2.7.3. Apart from the books and researches, a number of studies are available as articles both in journals and news media on the prospects and status of women in armed forces for western and developed nations. Majority of information about women in the armed forces of the Indian sub-continent is available only as articles in newspapers and periodicals apart from websites of the respective armed forces. These also have been extensively scoured to get relevant details due to the scope of the study. Over 30 such articles have been archived for this study.

2.8 **Research Gaps**

2.8.1. Based on review of literature, the identified research gap is very limited studies on the employment of women in Indian Armed Forces in general and Indian Air Force in particular, other than as officers. There are no Indian air force specific studies. The research gap widens if the time period since women have been officers in the armed forces is focused upon.

2.8.2. Review of literature confirms that the prospects, advantages or disadvantages of inducting women into IAF in all ranks including officers, has not been studied.

CHAPTER – III

RESEARCH STRATEGY, METHODOLOGY AND DATA SOURCES

“Research is to see what everybody else has seen, and to think what nobody else has thought.”

-Albert Szent Gyorgyi

“Research is formalized curiosity. It is poking and prying with a purpose.”

-Zora Neale Hurston

3.1 Introduction

3.1.1. Study of literature and analysis of data allows a researcher to learn about the impact of a particular policy initiative as well as to draw out the mechanisms behind its success or failure. It derives general lessons that can be applied in a similar context and requires adapting different models taking into account the prevailing local conditions and the capacity of society or organisation for its implementation. The current research is based on the belief that study of other armed forces will be an effective way in understanding the success and failure of different policy initiatives. Collection of primary data from concerned people who are directly impacted and who will be in positions to affect the policy initiatives / changes will also help in determining suitable permutations to arrive at appropriate recommendations.

3.1.2. The experiences of other countries provide a reservoir of potential solutions that can be evaluated against the needs and realities of our own country. As compared to some of the western countries, the differences in political systems, norms and beliefs are vast. However, as the world becomes global village, the influence of countries and culture over one another has increased and will continue to increase. It is also a belief that learning from each other is hampered by a cultural distance which exists more in the perception than is real. The belief that one is more evolved and is capable of charting

one's own way and will be able to do better than others is another impediment in learning from each other.

3.1.3. The belief that the lessons from studying the examples of other countries will be invaluable stem from the following quote by a judge in the US:

“A single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country”.

-Louis Brandeis

3.2 **Methodology**

3.2.1. The methodology used in this study is mixed research. Both Qualitative and Quantitative research methods have been utilised. Both these types of research were found to be jointly useful in meeting the objectives of the study. For ease of reference, the objectives of the study are reproduced here as:

- (i) To establish validity of traditionally cited reasons precluding inclusion of women in Indian Air Force.
- (ii) To explore differences in roles of women in Armed Forces of other nations.
- (iii) To establish prospective roles for women in IAF.
- (iv) To study likely challenges for induction of women in IAF.
- (v) To examine if time is right for induction of women in IAF in all ranks.
- (vi) To suggest strategy for induction of women in IAF.

3.3 **Data Sources.** Qualitative research techniques have been mainly used for addressing the first two objectives of the study. The secondary source of material used for addressing these objectives include the following:

- (i) Books and journals.
- (ii) Periodicals and newspapers available in the libraries and online editions.

- (iii) Internet web pages and JSTOR repertoire.
- (iv) Research reports by RAND Corporation and other think tanks.
- (v) Existing policies, procedures and experiences in respect of women officers
- (vi) Previous studies in the similar field
- (vii) Study of other Armed forces of the world
- (viii) Ministry of Defence Annual Reports
- (ix) Answers to questions tabled in the Parliament

3.3.2. The literature and information have been studied and deliberated upon. Various issues and concerns have been addressed, conclusions have been drawn and recommendations have been made.

3.4 **Primary Data**

3.4.1. Apart from the above, for primary data, inputs and opinions have been taken as a response to a questionnaire. The rationale of the questionnaire and its design is discussed in the succeeding paragraphs. Quantitative Research techniques have been used for meeting the objectives of the study to find out the applicability of factors affecting the employability of women in the Indian Air Force and to find out the readiness of women as well as IAF for induction of women in all ranks.

3.4.2. A standard questionnaire was drafted and the sample universe defined. The contents of the questionnaire are placed as an Appendix 'A'.The design of the questionnaire was base on the following considerations.

- (i) Respondents should be credible.
- (ii) It should be easy to understand.
- (iii) There should not be any ambiguity about the possible responses.
- (iv) Data collected should be easy to collate and analyse.

(v) Credibility of the respondents should be established.

(vi) Categories of respondents should be unambiguous.

3.4.3. The rationale in framing the questions is discussed in the following paragraphs.

(i) Email ID was required to establish the credibility of respondent and uniqueness.

(ii) The study is examining gender-based biases in the responses, if any. Hence the second question establishes the sex / gender of the respondent.

(iii) There could be a change in perceptions and views / opinions based on the age of respondents and hence the third question brackets the respondents into four age brackets of 20-30, 30-40, 40-50 and 50-60.

(iv) The armed forces are hierarchical by nature as well as design. Therefore the fourth question categorises respondents into three categories. Officer, Warrant Rank, SNCO and below. The other two options of Ex-Service Person & Civilian were added to restrict respondents to those currently serving.

(v) Fifth and sixth questions establish whether the respondent has requisite experience of having worked with women employees and the seventh records their response about efficiency of women.

(vi) 8th and 9th questions are to gauge acceptability of women in leadership roles.

(vii) Questions 8 to 14 gauge the readiness of infrastructure and attitudes in IAF to accept women employees. The category is broken in two parts i.e. for women officers and women in all ranks. This was done as women have been serving as officers and defence civilians since 1992 and hence the response will be based on direct observation by the respondents while for women in other ranks, it will only be an assessment, which might be subjective.

(viii) 15th and 17th questions classify the respondents' knowledge about latest policy decisions by the GoI into two broad categories by asking a yes / no question.

(ix) 16th and 18th question find the mutual acceptability of women and IAF.

(x) 19th question onwards, the focus is in assessment of the timeframes of induction, type of roles for women in IAF and the barriers, real or perceived towards induction of women.

3.4.4. Each question has been designed to elicit a qualifying answer i.e., yes / no response or a grading on a linear scale of either three or five. This was calibrated to keep the range of responses to the minimum without sacrificing clarity. Subjective answers to questions 24, 25 and 27 were sought to identify any outlier trades / branches. Since any change will be gradual, the response to these is expected to help in designing the roadmap better and make the transition smooth.

3.5 Universe

3.5.1. In a study like this, defining the universe and deciding the sampling technique was quite a challenge. The first challenge was to decide whether it should be a sample from society / population at large or from a focus group. Casual interactions were done with possible respondents of following three categories:

(i) General heterogeneous population.

(ii) All armed / uniformed forces

(iii) IAF personnel.

3.5.2. It was found that responses from the first two categories were based on stereotypes and perceptions rather than any significant insight or knowledge. Therefore it was decided to restrict the survey only to persons who have worked in IAF and are

directly / indirectly affected by presence and effectiveness of women in IAF i.e., stakeholders.

3.5.3. **Sampling Technique.** The universe was considerably large even after limiting it to IAF personnel. There could be large differences in responses based on gender and place in the hierarchy of the respondents. Simple random sampling might not be best suited and hence **Stratified Random Sampling** was utilised for the survey. For any worthwhile analysis, the respondents would have to be divided into three broad categories.

- (i) Male officer
- (ii) Women officer
- (iii) Male, other than officer

3.5.4. The first two categories have been working in IAF for a considerable time and would be most concerned with the effectiveness of women, were they to be inducted in IAF as airwomen. These would also be the supervisors and it is their job to ensure combat effectiveness of IAF as an organisation. The third category is to find the views / perception of persons who would be colleagues / persons in immediate contact with women inducted. Though there are a few women defence civilians in IAF, as their employment is only administrative and at fixed locations only, category of women, other than officer has been disregarded.

3.5.5. A minimum sample size of twenty for each category was required for any fruitful analysis requiring at least 60 responses. However, as the numbers of women are less, to get responses of at least twenty women officers, the minimum total sample size required was increased to 80. To elicit these responses, 100 questionnaires were sent. These were distributed evenly between field and peace locations, combat units and support units, HQ and field units, officers and other ranks. The stratified sample sizes

would be disproportionate as the numbers have been designed in line with their stake and enthusiasm.

3.6 Survey Respondents

3.6.1. The questionnaire was circulated and collected from the environment. The responses for these items have been converted into percentages and tabulated category wise. Then these responses in percentages are graphically represented for comparative analysis. For each category, the responses are analysed and deliberated in detail. The categories and the responses received are as follows:

3.6.2. Gender Ratio

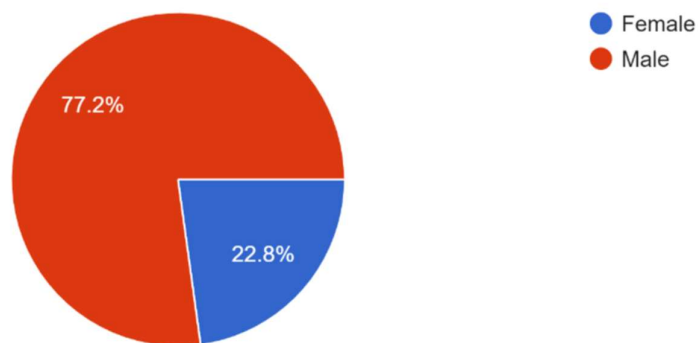


Fig 1: Gender Ratio of Respondents

Out of 92 responses received, 22.8% responses i.e., 21 were from women. This meets the minimum sample size of 20 women.

3.6.3. Age Distribution.

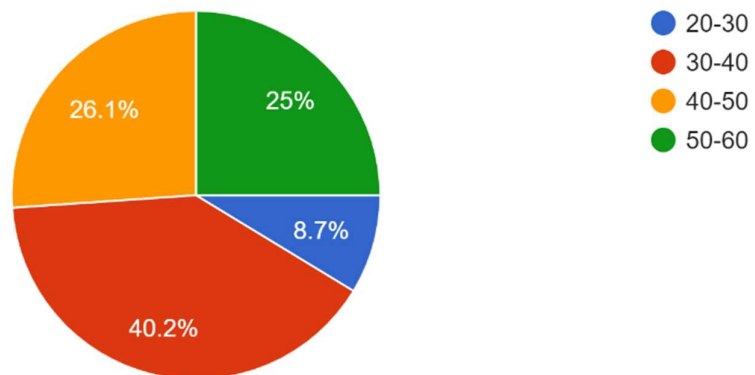


Fig 2: Age distribution of Respondents

The age ratio of the respondents does reflect the normal distribution of age in the IAF. The number of respondents in the 20–30-year age bracket is less as compared to the others. One reason could be that the age of joining IAF is higher than 20 years and the first few years are spent in training. Also, it is expected that the majority of respondents would be in the middle service bracket.

3.6.4. **Ranks.**

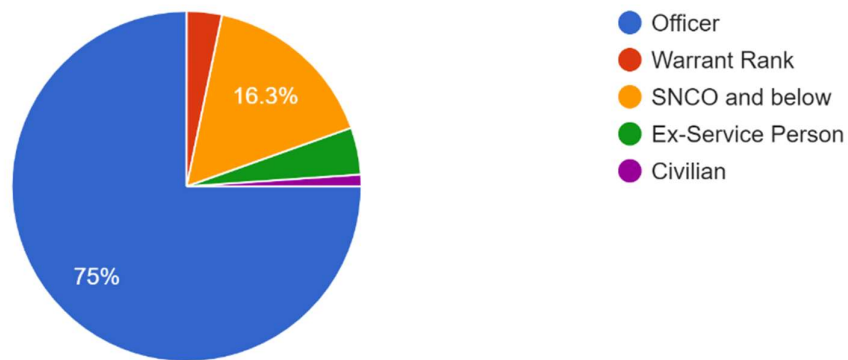


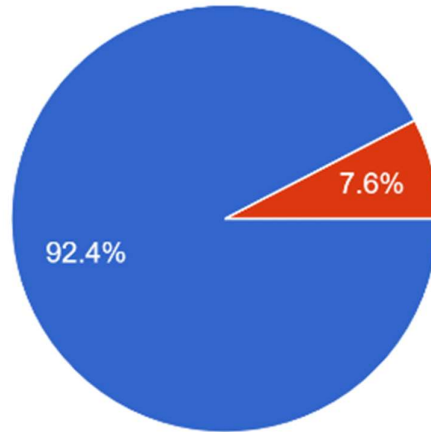
Fig 3: Rank Breakdown of Respondents

An overwhelming majority of respondents are officers. One of the factors possibly is that there were two categories of officers i.e., male and female, while there was only one category other than officers. The total responses from warrant ranks and SNCOs and below as well as ex servicemen is 21. All would be male and hence meets the minimum sample size requirement.

3.6.5. **Experience of working with women.**

Have you served with women employees?

92 responses



Does your workplace currently have or has had women employees?

92 responses

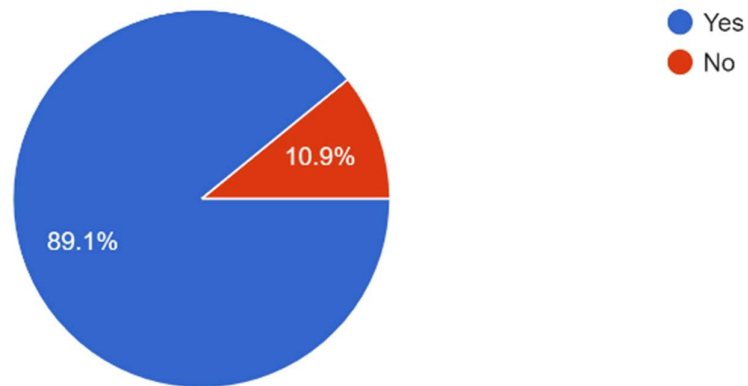


Fig 4 : Experience of working with Women

The responses indicate that approximately 10% of respondents have not worked with women at their workplace. Their response would be based on their perceptions, based on others' experience or stereotypes. There is a discrepancy of 3 respondents where while 10 respondents have said that their workplace does not and has not had women employees, only 7 say that they did not have any experience of working with women

employees. One possible, even though remote, explanation may be that the women employees were not stationed / posted permanently at their workplace, but the respondents have interacted with them in due course of their work.

3.6.6. Subject Knowledge

How do you rate your knowledge/exposure of the work environment in IAF
92 responses

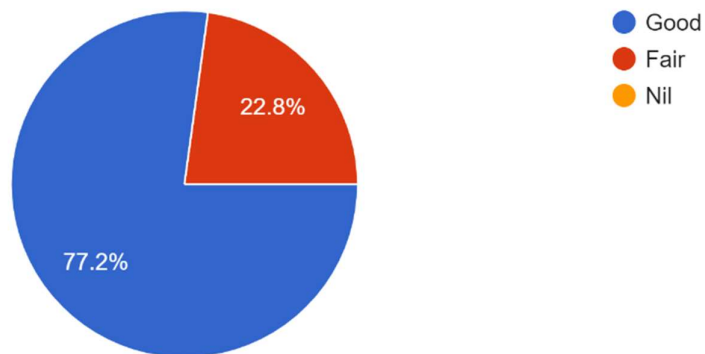


Fig 5: Self Assessment of Work Environment Knowledge

An overwhelming majority considers their own knowledge about the work environment in IAF to be good, while all the rest, probably out of modesty, claim it to be fair.

3.6.7. General Awareness.

Are you aware that Indian Army and Central Armed Police Forces like BSF, CRPF etc. employ women in all ranks (including other than as officers)?
92 responses

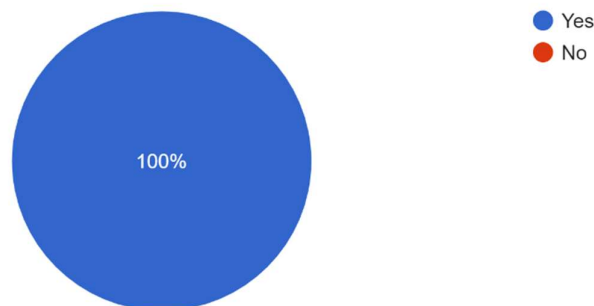


Fig 7a: Depiction of General Awareness about Women Employment

Are you aware that the entry has now been opened for women in NDA and girls in Sainik Schools ?
92 responses

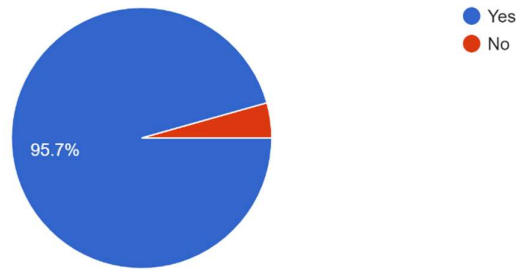


Fig 7 b : Depiction of General Awareness about Women Employment

When checked about their awareness about latest policy decisions, all respondents were aware about the induction of women in CAPFs, a policy decision taken some time back while 4 respondents were not aware about NDA and Sainik schools, a very recent decision which was yet to be implemented at the time of survey.

3.7 **Validity of Data Set.** The data collected meets the requirement of stratified random sampling and it can be safely assumed that the respondents reflect the overall population of IAF.

3.8 **Summary.** The data from primary and secondary sources is sufficient to progress the study further. The sample of respondents is representative of the overall strength of personnel in IAF.

CHAPTER – IV

CHALLENGES IN INDUCTION OF WOMEN IN IAF

“No nation can ever be worthy of its existence that cannot take its women along with the men. No struggle can ever succeed without women participating side by side with men. There are two powers in the world; one is the sword and the other is the pen. There is a great competition and rivalry between the two. There is a third power stronger than both, that of the women.”

— Muhammad Ali Jinnah

4.1 **Introduction.**

4.1.1 Random evaluations allow us to learn not only about the impact of a particular programme but also to draw out the mechanisms behind its success to help derive general lessons that can be applied in the same context. This requires adapting and scaling a programme taking into account local conditions and implementation capacity so that a programme that is effective at improving outcomes in one context may help in other places where the key problems and underlying reasons for the problems are similar.

4.1.2 The experiences of other countries provide a reservoir of potential solutions that we can evaluate against the needs and realities of our own country. This is not always easy. Sometimes differences in political systems, norms and beliefs are too great. This is the case of contact-tracing measures adopted in some Asian countries, considered excessively privacy-infringing in the Western world. On other aspects, instead, learning from each other has been hampered by a cultural distance that is more apparent than real.

4.1.3 The belief of being able to do better than others has proven to be a further impediment for learning from each other.

“A single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country”.

4.1.4 It is with this belief that we must study the experience of induction of women in the Armed Forces of other countries. The chapter begins with the country that has a well-documented and well researched experience in the field.

Study of Various Countries

4.2 United States

4.2.1 United States of America (USA) is one of the largest democracies of the world and one of the most powerful nations. It is a federal republic with arguably a long history of women’s liberation and civil rights movements. In fact, the history of women being part of all walks of society is also long. The driving forces for inducting women in the American forces were a combination of the necessity to make up numbers and the fight for equal opportunity. However this was always limited by law or policy grounded in accepted gender roles and norms (McSally, 2011)¹. The involvement of a female Army captain in a minor armed clash during the US invasion of Panama in December 1989 received great publicity. This prompted moves in Congress to allow women into combat roles (Smith, 1990)².

4.2.2 Women constitute 14% of the US armed forces and more than 255,000 of them took part in Operation Enduring Freedom or Operation Iraqi Freedom in Iraq and Afghanistan. Some have been deployed in combat roles also. During these operations, more than 130 women were killed and almost 700 were wounded. However, even

¹ McSally, M. E. (2011). Defending America in Mixed Company: Gender in the U.S. Armed Forces. *Daedalus*, Summer, 148-164.

² Smith, H. (1990). Women in the Australian Defence Force: In Line for the Front Line? *The Australian Quarterly*, Winter, 125-144.

today, women are still restricted from more than 220,000 military positions solely because of their sex (McSally, 2011)

4.2.3 It was argued the male only Selective Service law (SSL) and Department of Defence (DOD) policies are not consistent with the principles of American democracy. First, there is a fundamental obligation of full citizenship is a requirement to defend the nation if needed. This principle is also part of the immigration law. In the past, applicants for citizenship were rejected if they refused to take an oath that they would bear arms to defend the nation, irrespective of their being male or female. Similarly, the Selective Service Law mandates males including those living as aliens to register for military service. This also is a reflection of the obligations of residency in the US (McSally, 2011) and should be applicable to both males as well as females.

4.2.4 Other arguments in favour of entry of women in the armed forces include the belief or value that the armed forces should reflect the society, and hence women must be a part of it. The US Constitution prohibits discrimination or lack of equal opportunity based solely on gender (McSally, 2011). However, the women themselves have not always supported entry of women in armed forces. In 1980, Kathleen Teague of the Eagle Forum, testifying before a House Armed Services Committee about women's potential inclusion in Selective Service registration, said, "We expect our servicemen to be tough enough to defend us against any enemy - and we want our women to be feminine and human enough to transform our servicemen into good husbands, fathers, and citizens upon their return from battle". She also warned that "she and her colleagues were not about to give up the right to be free from a military obligation just because a handful of women, unhappy with their gender, want to be treated like men" (McSally, 2011).

4.2.5 In April 1993, President Bill Clinton ordered the services to open combat aviation to women and to investigate other opportunities for women to serve. In response, Aspin ordered the services to “permit women to compete for assignments in aircraft including aircraft engaged in combat missions.” Later that year, Congress repealed 10 U.S.C. 6015 (the combat ship exclusion), opening most Navy combatant ships to women except submarines. In 1994, DoD rescinded its “risk rule” because “the rule no longer applied since, based on experiences during Op Desert Storm, everyone in the theatre was at risk (Schaefer, et al., 2015)³.

4.2.6 The arguments in favour of entry of women into armed forces received a major boost when the US Supreme Court in 1996 ruled that the state of Virginia had violated the Fourteenth Amendment of Constitution by prohibiting women from attending the Virginia Military Institute. The Court stated that, “Generalizations about ‘the way women are’ or estimates of what is appropriate for ‘most women’ do not justify denying opportunity to women whose talent and capacity place them outside the average description.” Further, the Court stated that the US government’s justification for discrimination “must not rely on over-broad generalizations about the different talents, capacities, or preferences of males and females” and that the government has “no warrant to exclude qualified individuals based on ‘fixed notions concerning the roles and abilities of males and females.’” (McSally, 2011)

4.3 Finally, in 1999, the US Congress debated the elimination of the Selective Service System (SSS) and the requirement for registration for military service. During the debate, a military sociologist Charles Constantine Moskos argued that if registration was not mandatory for all American eighteen-year-old male citizens, “it will mean a

³ Schaefer, et al (2015). *Implications of Integrating Women into the Marine Corps Infantry*. Santa Monica: RAND Corporation,.

cut off of citizenship responsibility. This is the one time in a man's life he has to sign a document saying he has citizen obligation." (McSally, 2011)⁴. This line of argument implied that being able to serve in the armed forces is an integral part of being a US citizen and cannot be curtailed based on sex.

4.4 In 2009, the Pentagon reported that 75 percent of young American men and women are ineligible for entering military service based on the set standards of minimum health, weight, educational, and aptitude, as well as other restrictions including criminal records and parenthood. Of the 25 percent who are eligible, 15 percent go on to college, leaving only about 10% of the young population as potential military recruits. In 2005-06, the Army significantly lowered educational, medical, aptitude, and criminal standards to meet its recruitment goals during a strong economy and while fighting two wars (McSally, 2011)

4.5 In September 2010, the U.S. District Court for Central California ruled that the ban on homosexuals serving openly in the military was unconstitutional, based on empirical evidence against any inverse relationship between equal opportunity and military effectiveness (McSally, 2011). The court strongly rejected the argument that homosexuals need to be excluded to protect unit cohesion in the US military. As a consequence, in Dec 2010, Congress repealed the law banning homosexuals from serving openly. It also rejected the premise that "the presence in the armed forces of persons who demonstrate a propensity or intent to engage in homo sexual acts would create an unacceptable risk to the high standards of morale, good order and discipline, and unit cohesion that are the essence of military capability." In contrast to earlier Govt stand, President Obama, while signing the bill said that "This law...will strengthen our

⁴ McSally, M. E. (2011). *Defending America in Mixed Company: Gender in the U.S. Armed Forces. Daedalus, Summer*, 148-164

national security and uphold the ideals that our fighting men and women risk their lives to defend” (McSally, 2011). Here, a parallel is drawn with women. The argument is that, just like homosexuals in the military were successfully, but invisibly, performing their duties under "Don't Ask, Don't Tell," women too are involved in ground combat and are necessary to the success of the mission. (McSally, 2011)

4.6 **Specific Roles.** Women have been necessary to fill the ranks. In addition, operations in Iraq and Afghanistan required some jobs to be specifically done by women, such as searching women and children. Specific “lioness” teams were created which accompanied all-male combat soldiers for this function. Women troops are also critical in winning the population over as part of counterinsurgency strategy. Previously, U.S. military efforts focused on engaging with local men only. 50 percent or more of the population i.e., women that they were trying to protect, engage, and empower were ignored. Then, “female engagement teams” were created to interact with local Afghan women in order to understand their concerns and gain critical information while helping meet their needs. These roles cannot be performed by males due to cultural sensitivities (McSally, 2011).

4.7 **Women in Combat Roles.** There was neither any clear line between combat and noncombat roles, nor any sanctuary from combat risks in Iraq and Afghanistan. Although women were officially not assigned to combat positions as mandated by the ground combat exclusion policy, women were employed as truck drivers, gunners, military police, medics, and other support roles in which they could come under attack and required them to be trained and equipped to fight. (McSally, 2011) Here a parallel is drawn with African-Americans. Senator Barack Obama, in 2007, while answering a question about whether women should register for Selective Service during the Democratic Presidential Debate said “There was a time when African-Americans

weren't allowed to serve in combat. And yet, when they did, not only did they perform brilliantly, but... they helped to change America, and they helped to underscore that we're equal. And I think that if women are registered for service-not necessarily in combat roles, and I don't agree with the draft -I think it will help to send a message to my two daughters that they've got obligations to this great country as well as boys do". (McSally, 2011)

4.8 **Trendsetters.** General Colin Powell was the first African American to become the Chairman of the Joint Chiefs of Staff Committee in Oct 1989. Lt. Gen. Nadja Y. West is the first African American as well as woman Lt. Gen. She is also the highest-ranking female to have graduated from the United States Military Academy. General Lori Robinson was the first United States female four-star commander of combat forces in 2014. In 2016, she became the Commanding General of United States Northern Command and was the first woman to command a unified combatant command.

4.9 **Canada**

4.9.1 The Human Rights Act of 1978 led to extensive trials of women in non-traditional military roles in Canada (Smith, 1990)⁵ and a number of different strategies to integrate women into combat occupations were tried. The Servicewomen in Non-Traditional Environments and Roles (SWINTER) trials were conducted to assess the feasibility of integrating women into combat positions as early as the early 1980s. (Schaefer, et al., 2015).⁶ The decision to integrate in 1989 was based not only on court ruling, but also on societal pressure and norms, which were in favour of equal opportunities for women. This was amplified by manpower shortages which made recruiting women necessary (Schaefer, et al., 2015).

⁵ Smith, H. (1990). Women in the Australian Defence Force: In Line for the Front Line? *The Australian Quarterly*, Winter, 125-144

⁶ Schaefer, et al (2015). *Implications of Integrating Women into the Marine Corps Infantry*. Santa Monica: RAND Corporation,.

4.9.2 The Canadian Armed Forces (CF) were one of the first to allow women into combat occupations and began the process in 1989 after the Canadian Human Rights Tribunal ruled that limitations on where women could serve violated equal opportunity laws. A legislation was passed, based on which the armed forces opened up all positions to women except in areas where it could be demonstrated that military effectiveness would be adversely affected (Smith, 1990).

4.9.3 **Current Status.** The number of women in combat occupations is still low, and women have not served in elite Joint Task Force occupations, as they have not been able to meet the physical requirements. According to a 2014 estimate, 15 percent of the CF is made up of women i.e., 16.8% of officers and 13.2% of non-commissioned officers. However, women are only 4% in the combat arms i.e., artillery, infantry, and armour as officers and only 1.5% as soldiers (Schaefer, et al., 2015).

4.9.4 **Physical Standards.** Gender neutral physical standards i.e. same requirements and standards whether male or female, are followed for combat occupations. These have been revisited and revised several times to ensure physical standards they are selective without being discriminatory (Schaefer, et al., 2015)

4.10 **United Kingdom**

4.10.1 The Women's Auxiliary Air Force (WAAF) was formed in 1939 to support the RAF in WWII. to support the RAF in administrative and later technical trades. It was fairly short lived and was disbanded in 1920 after the end of WWI with an overall strength of 32,000 (Schaefer, et al., 2015)⁷. Whilst the WAAF did not recruit women as aircrew, large number of ground trades were open to them. Despite this restriction,

⁷ Schaefer, et al (2015). *Implications of Integrating Women into the Marine Corps Infantry*. Santa Monica: RAND Corporation,.

many women, such as Mary Ellis and Joy Lofthouse did fly during WWII with the Air Transport Auxiliary (ATA), primarily for ferrying aircraft.

4.10.2 The government announced in early 1990 that women will be allowed to serve on Royal Navy warships (Smith, 1990)⁸. This was followed by Royal Air Force (RAF). In 1994, Flight Lieutenant Jo Slater became the first female operational pilot and since then many other women have trained and flown on operations as aircrew. In 2008, Flt Lt Michelle Goodman was awarded the Distinguished Flying Cross for gallantry in Iraq, the first woman till then. In 2013, Air Vice-Marshal Sue Gray became the most senior regular serving woman and the second female to hold a two-star rank (RAF, 2018)⁹.

4.10.3 Initially, combat positions were not opened to women. Two extensive studies were carried out in 2002 and in 2009 (Schaefer, et al., 2015). The 2001–2002 assessment focused on physical performance and found that though some women could meet the physical standards for combat occupations, women were slower and had a higher failure rate on strength and endurance tasks. 2009 study instead focused on the effects of women on cohesion and operational performance where they had been integrated into erstwhile all-male units. It did not conduct physical standard tests or trials, it reported that women in combat roles in Iraq and Afghanistan performed effectively (Schaefer, et al., 2015).

4.10.4 This 2009 study conducted surveys and interviews to both men and women in mixed gender units or with combat experience. The survey focused on small team cohesion during ground combat and enquired about issues such as peer bonding, teamwork, leader competence, values, and norms as well as the impact of a mixed-

⁸ Smith, H. (1990). Women in the Australian Defence Force: In Line for the Front Line? *The Australian Quarterly*, Winter, 125-144

⁹ RAF News (2018, August 13). 100 Years of Women in the RAF. p. 1

gender team. Results suggested that, overall, women reported lower cohesion than men while men in mixed-gender units did not report different levels of cohesion than those in all-male units. One possible explanation was the fact that cohesion is likely to be higher for those who serve together longer, those with longer terms of service and those in senior positions. The argument then was that the differences in cohesion were not due to gender (Schaefer, et al., 2015). Though the results were inconclusive, three points were brought out:-

- (i) Women are important to operational effectiveness of the armed forces.
- (ii) Women were able to perform in combat roles in Iraq and Afghanistan, and some women can meet physical requirements of combat situations.
- (iii) Effects of integration on cohesion remain uncertain.

4.10.5 With these results, the British MOD decided that close-combat occupations should remain closed to ensure continued combat effectiveness and to guard against the risks to cohesion of mixed-gender teams. The study did not explicitly reference physical ability as a reason to keep combat occupations closed (Schaefer, et al., 2015)

4.10.6 Another study was done for six months five years later and the results were published in December 2014. The study was overseen by the head of the army and found that there was no evidence that integrating women into combat units would disrupt the effectiveness or morale of these units. As a result of the study's findings, the Defence Minister announced that the ban on women in combat units will be lifted soon. Also, physical standards would not be lowered but that positions would be open to anyone who could meet the requirements. (Schaefer, et al., 2015). On 8 July 2016, Prime Minister David Cameron announced progressive lifting of ban on women serving in close combat roles. Since late 2018, women are eligible for all roles in the Armed Forces, other than in Gurkhas. Some other restrictions have also been removed.

(i) Bans requiring female Service personnel to resign if pregnant was dropped in 1990.

(ii) Preventing (openly) gay personnel (male and female) from serving was dropped in 2000 (Commons, 2021)¹⁰

4.10.7 RAF became the first branch of the British military to open up every role to men and women in 2017. On 10 July, Group Captain Anne-Marie Houghton led the RAF100 parade of over 1000 RAF servicemen and women in Central London. Anne-Marie herself graduated as our first female Navigator in 1991 (RAF, 2018)¹¹. The percentage of women amongst armed forces is highest in RAF. As per Director of RAF Families Federation, RAF is the “youngest of the three Services” and the RAF tends to have more technologically based roles, which may be more appealing to women (Commons, 2021).

4.11 **Australia**

4.11.1 The two world wars saw employment of women in clerical, administrative, transport and communications tasks. However, these women’s units were disbanded or severely cut back at the end of hostilities. Military organizations are social institutions which reflect and respond to the society that supports them. Female equality was assisted in Australia by legislations like equal pay for women, of 1969 and Sex Discrimination Act of 1984 (Smith, 1990), which prohibited many discriminatory practices.

4.11.2 The Act of 1984 was not applicable to Defence Forces. Despite that, women were already serving in many branches of the Defence Force. In 1975-76, a review had recommended equal opportunity for women in services, apart from combat functions.

¹⁰ House of Commons. (2021, July 12). Protecting those who protect us: Women in the Armed Forces from Recruitment to Civilian Life. p. 1-103

¹¹ RAF. (2018, August 13). 100 Years of Women in the RAF. *RAF News*, p. 1.

In 1979, a Committee had made a number of recommendations including abolition of the Women's Royal Australian Army Corps as a separate unit and equal pay for males and females. Women started joining Navy in 1979 as officer cadets in 1979 in the same officer training course as males at HMAS Creswell, Jervis Bay. By 1983, 8% i.e., 5,200 vacancies were opened for women, which increased to 30,000 in 1989 i.e., about 40% (Smith, 1990). Despite the opening of these vacancies, the actual percentage of women in the forces remained low and by 1990 women constituted only 11.3%.

4.11.3 The policy in Australia is focussed more on removing any policy impediments in the way of women joining the forces, rather than on achieving higher absolute numbers. Women will still not be allowed into traditional combat roles such as the infantry, artillery, armour and fighter aircraft but they will be moving progressively closer to the 'front line' and will be facing greater risk of wounding and death. In April 1990, the Chief of Naval Staff announced that nearly all sea-going billets would be opened to women with an intention to increase the proportion of women from around 0.5 per cent in sea-going billets to around 11.5 per cent. The effect of the new policy will be to remove virtually all barriers to women in the Navy. (Smith, 1990)

4.11.4 In May 1990 the Minister for Defence Science and Personnel, Gordon Bilney, and the Chief of Defence Force, General Peter Gration, announced that all positions defined as 'combat related' are to be opened up to women, implying that all positions in RAAF will be open except for combat aircraft and ground defence i.e., about 94% (Smith, 1990). In the army Armour, Artillery, Infantry and combat Engineers will remain closed as they fight at close quarters. In Army, women will be eligible for over 55% vacancies, compared with the present 19 per cent (Smith, 1990). Here the distinction between 'Combat Related' and 'Direct Combat' should be kept in mind. Australia is one of the most recent integrator, starting the process of opening combat

operations in 2013 with the intention of completing integration by 2016 (Schaefer, et al., 2015).

4.12 **Turkey**

4.12.1 Republic of Turkey is a transcontinental nation situated in West Asia and South Eastern Europe and is one of the world's earliest permanently settled regions. It was a Sultanate and was occupied by Allied Forces after World War II. The Turkish War of Independence resulted in the abolition of the Sultanate on in 1922 and was proclaimed a Republic in 1923. Reforms by the country's first president, Mustafa Kemal Atatürk made Turkey a secular, unitary and parliamentary republic. The parliamentary republic was replaced with a presidential system by referendum in 2017 after which under President Erdoğan is often described as Islamist and authoritarian.

4.12.2 In Turkey, Military is considered to be the guardian of national identity and plays an important role in defining national interests. The ultimate citizenship duty for people is sacrificing one's life for the nation and contributing to the national defence. Entry of women in the armed forces in one way, gives them full citizenship. Recruitment of Women first started in the medical services as nurses, ambulance orderlies, first aid corps, etc. apart from musical bands, headquarters, support services, logistics and technical fields. Changes in way wars are fought, has resulted in forces getting more dependent on brain power and high technology rather than muscle power (Tokas, 2004)¹².

4.12.3 Modernization in Turkey had two basic characteristics. First, modernization meant westernization and second, it was followed a top to bottom approach. The Turkish military has been the 'school of the nation' (Tokas, 2004). Thus, the military

¹² Tokas, S. (2004). Nationalism, modernization and the military in turkey: women officers in the Turkish armed forces.

was the first to be westernized. At that time, Turkey followed universal conscription of males above the age of 18 and the soldiers were taught the Kemalist Reforms, patriotism, loyalty to the state, submission to authority, citizenship rights and the ideal characteristics of Turkish identity as part of military education. Kemalist nationalism affected Turkish women. Participation of women in nation building in Turkey has a long history. At the beginning of the 20th century itself, nationalism ensured political mobilization of Turkish women. Later, following the top-down approach, the women of elite families started to organize mass meetings and called other women to take part in the national defence (Tokas, 2004). This enabled women to move to the public sphere from the private sphere. These activities in the nationalist movement were seen as natural extensions of womanly nature and a duty rather than a right. (Tokas, 2004)

4.12.4 World over, the erstwhile belief was that during times of war, men were to go to battlefields and women take active roles in the public sphere in replacement of the men. Once the war was over, women returned back to their homes as men returned back to their original occupations. In the case of Turkey, this notion was not true. After the National Independence War women were granted civil and political rights, which increased their participation in the public life, including in the military. Against the Islamist culture, which endorsed confinement of women to the private sphere, the State projected the image of women in western clothes with roles and responsibilities in the public sphere. A Dress Code that banned religious clothes in public sphere was implemented. Women officials were not permitted to wear veils during work hours. The Military defended this image of unveiled woman. The accession of women to military ranks and regiments and dressing in military uniforms was not even subject to a political debate (Tokas, 2004). The decision of the Turkish Military to recruit women

was considered legitimate and made possible due to Turkish Military being one of the most respected and trusted institutions.

4.12.5 Women were not recruited to the professional cadres of the Turkish military until 1955. Turkey followed a top-down approach, led by its first President. Sabiha Gökçen was his adopted daughter. With Atatürk's orders, she got private lessons in the Turkish Civil Aviation and later was sent to Russia to become a pilot trainer. After a two-year special education designed for Gökçen, she became the first female fighter pilot in the world. The international airport of Istanbul is named after her. In her memoirs, she mentions that Atatürk was very proud of her being a pilot. Gökçen always wore a military uniform but she was not granted a military rank as women were not allowed in armed forces as officers at the time even though she served as an active fighter pilot in the suppression of the Islamic rebels in Dersim, an eastern province of Turkey. After her successful mission, she wanted to join the Air Force as an officer and asked Atatürk for permission to join the Military. She was given his blessings, but was told to approach Fevzi Çakmak, the head of armed forces. She asked him his permission for women to be allowed to the Military. “The issue of women's becoming officers ä you know my status because there is no legislation for it. Atatürk has advised me to ask you about this and wanted you to help me. It is only your decision and permission to allow women to serve in the Military. If you enact this law, all the Turkish women would be grateful to you. I know many girls who would sacrifice the most beautiful years of their lives in order to wear this honourable uniform” (Tokas, 2004)¹³. After a long wait, women were allowed into the Service Academies i.e., the Air Force Academy, the Navy Academy and the Army Academy in 1955. After two years of

¹³ Tokas, S. (2004). Nationalism, modernization and the military in turkey: women officers in the Turkish armed forces.

training, women were assigned officer ranks and some of them were recruited to combatant positions such as fighter pilots in air warfare units of the Air Force. However, the practice stopped later with Islamisation of the country.

4.12.6 Another milestone for women in Turkey was the country becoming a NATO member. It gave the Turkish Military the opportunity to compare itself with other NATO militaries. At the time, there were female officers in the armed forces of other NATO countries i.e. the USA and UK. Like other reforms that aimed the modernization of the Turkish Military, the decision of women's service in the military ranks seems to have been the requirement of the benchmark with these NATO. Women had worked as civilian personnel in the headquarters staff, technical fields and social services since 1960, the recruitment of women to the military ranks restarted in 1982 and female cadets were allowed to the Air, Naval and Army Academies in 1992.

4.12.7 In Turkey, the entrance examinations are conducted under equal conditions except the physical proficiency test. The total number of female cadets was 185 in 1999 that corresponded to 4% of the total number of cadets. The women officers in the Turkish Military mainly serve in ordnance, signals, transportation, quartermaster, finance, personnel, air traffic control and intelligence but are not permitted in armour, infantry and submarines. They also perform combat roles such as artillery, aviation and engineering. There are also female fighter pilots though their number is very low when compared to male fighter pilots. The female officers serve alongside their male counterparts under the same respective chains of command. There is no special women's corps and there are no women Non-Commissioned Officers (NCOs) or troops. A decision was taken to recruit female NCOs in 1993, the legislation was made only in 2001.

4.12.8 The political parties, civil society organizations, media agencies and the social movements like feminism in Turkey did not consider the issue of entry of women in non officer ranks relevant for any discussion. On the contrary, women's recruitment to the military has always been considered a security issue on which the Turkish Military has the professional authority to decide.

4.12.9 Thus, it can be seen that entry of women in armed forces of Turkey happened in three waves. In all of them, women were seen as symbols of modernization and a requisite for the modern and secular image of Turkey. Induction of women in military has never been seen as a political issue or a civil rights issue, but one of security, focussed on modernization of the armed forces and increasing their war fighting capability.

4.13 Norway

4.13.1 Norway is located in Northern Europe, and has the fourth-highest per-capita income in the world as per World Bank and IMF lists. Norway has had the highest Human Development Index ranking in the world since 2009 and had the highest inequality-adjusted ranking in 2018.

4.13.2 Norwegian military conducted studies in 1979 on the requirements for integration of women in Armed Forces, including the changes required in the infrastructure and standards of the forces. Norway was one of the first to allow women into combat occupations in 1983, but after this early start, the Norwegian Armed Forces has had only halting progress at actually getting women into combat occupations and keeping them there (Schaefer, et al., 2015)¹⁴. In 1984 the Norwegian Parliament voted in favour of allowing women to serve in combat roles. The Netherlands has allowed women on warships for a number of years and Denmark has recently authorized the

¹⁴ Schaefer, et al (2015). *Implications of Integrating Women into the Marine Corps Infantry*

recruitment of women for naval assignments other than submarine duty (Smith, 1990)¹⁵.

4.13.3 Women make up about 9% of the overall military in Norway but only 2-3% of combat occupations which include infantry, armour, artillery, and anti-air warfare positions. According to a report published in 2010, no women had served in close combat situations, and few women had served in leadership roles despite similar opportunities as men. Women work primarily in support functions rather than combat occupations. In the special forces, they work in personnel and logistics occupations, rather than as operatives (Schaefer, et al., 2015).

4.13.4 Norway has pursued a number of different strategies to integrate women into combat occupations. First, the Norwegian strategy has focused on equal treatment of men and women in recruitment and promotion. Use of quotas or policies that give women priority over men has been avoided. Military leaders set a goal of having 20 percent women in the military and 25 percent of seats in military school filled by women using targeted recruiting and retention programs to increase the representation of women, especially in combat-related occupations. Special emphasis has been placed on increasing representation of women in leadership roles, despite which there are three women in leadership positions in education, logistics, and the home guard.

4.13.5 The Norwegian military followed one approach radically different from the rest of the world. It has used integrated training and accommodations to minimize gender differences after finding that segregation only worsened cohesion problems as integration occurred. This was done after complaints by women that they were isolated and excluded by their male colleagues and did not feel a part of the force, due to the fact that their rooms were removed from the rooms of other soldiers. Now, men and

¹⁵ Smith, H. (1990). Women in the Australian Defence Force: In Line for the Front Line?

women can be put in the same rooms and barracks, usually six in a room, three women and three men only and never only one woman alone (Schaefer, et al., 2015). Subsequent studies found that men and women who were in the mixed-gender rooms were happier than those in the single-sex rooms.

- (i) Some important lessons emerge from the Norwegian approach.
- (ii) Studies of women serving in combat occupations suggests that physical strength is not a good predictor of performance in combat occupations. Instead, factors such as teamwork, focus, mental and physical endurance, leadership, and competence are more predictive.
- (iii) Integrated training and accommodations can promote cohesion within a mixed-gender unit and reduce stereotypes.
- (iv) Importance of engaged commanders and leadership. If commanders do not understand why integration is happening / required, they are unlikely to make the changes needed to support it. It must be clear as to why women are important to their unit and to their local community.

4.14 **New Zealand**

4.14.1 New Zealand were the last large habitable landmass to be settled by humans. A developed country, New Zealand ranks highly in international comparisons of national performance, such as quality of life, education, protection of civil liberties, government transparency, and economic freedom. Between March 2005 and August 2006, New Zealand became the first country in the world in which all the highest offices in the land – head of state, governor-general, prime minister, speaker, and chief justice – were occupied simultaneously by women.

4.14.2 Human Rights Commission Act of New Zealand does not allow discrimination on grounds of sex, marital status and religious belief. Defence Force policy integrates

the separate women's services with mainstream forces, including equal pay and maternity provisions, however, the women were initially excluded from combat trades. The original motive for allowing women to serve in combat occupations was social pressure for equality and pressure from military leaders who felt a wider recruiting pool would improve operational effectiveness. In addition, changes in funding and demographics necessitated a larger role for women in military occupations (Schaefer, et al., 2015).

4.14.3 Women completed same training as men at the Officer Cadet Training Unit, in NZ Army in 1977 for the first time and in Navy in 1979. A paper which was published in 1981 on the employment of Women at Sea in non-combatant ships, concluded that women should be permitted to serve in survey and research ships. Women were accepted for pilot training in the NZ Air Force in 1987 and allowed to fly combat aircraft and train for combat in 1988 (NZAF, 2021)¹⁶. At that time, women were not allowed to serve in combat situations, however women are now eligible to do any job within the Air Force.

4.14.4 1989 ushered in a change in the way women are integrated into armed forces. Navy Order 35/1989 authorised the permanent employment of women at sea. From January 1989, all female entrants are now required to serve at sea except in certain shore-only trades (NZAF, 2021). This made opportunities to serve in same conditions as men mandatory, and not optional. In 1991, women were allowed to enter Engineering branches of the Navy allowing the integration of 16 year old women with men of the same age group.

4.14.5 As far as women in combat roles is concerned, NZ Army commenced a trial of integration of female soldiers in frontline combat positions in 1993. However, Navy

¹⁶ NZAF. (2021, November 11). *Air Force Museum*

was the first NZDF service to open combat roles to women in 1993, who may serve on all naval vessels, combat and non-combat. All RNZN branches, except Diving Sub Branch, were opened to women.

4.14.6 The next major change happened in 2000 when restrictions on women serving in combat abolished across NZDF through Defence Force Order 05/2000. For the first time women were deployed on operations in combat roles and in 2007 the Govt passed legislation for women's full participation in front-line combat roles, reflecting the Defence Force Order 05/2000 (NZAF, 2021)¹⁷.

4.14.7 As a consequence of these policy decisions, women began entering combat occupations in NZDF in 2005 (NZAF, 2021). Despite these, the number of women in combat positions is low. Women have generally not qualified for Special Forces and the NZDF continues to struggle with the recruiting and retention of women in combat occupations. In 2009, women constituted 17% percent of the NZDF (NZAF, 2021).

4.14.8 There is one difference between NZDF and other forces. It has used gender-normed standards rather than gender-neutral for all occupations except special operations. Gender-normed standards are different for men and women and are based generally on the performance of women. A timed run standard might be set at the 70th percentile of men and women, even if this time differs by gender (Schaefer, et al., 2015). In NZDF, integration of women into combat occupations was conducted in phases. Internal recruits or lateral transfers were integrated first, followed by new recruits.

4.15 **Israel**

4.15.1 Israel is a relatively young recognised nation which was admitted in the UN on 11 May 1949. Throughout its history, its survival has been at stake and it places a very high priority on the operational readiness of its armed forces. Israel, is frequently, but

¹⁷ NZAF. (2021, November 11). *Air Force Museum*.

wrongly, cited as allowing women in combat, has kept female soldiers away from combat roles since the war of independence in 1947-48. (Smith, 1990)¹⁸

4.15.2 Integration of women into combat arms occupations in Israel commenced in 2000, driven by necessity, manpower needs, legal considerations and by a desire to promote equal rights and responsibilities for men and women. Israel has opened most but not all combat positions to women. Women do not serve in close combat positions but serve in a large number of other combat occupations in light infantry, shallow-water diving, dog handling, artillery, aviation and border patrol.

4.15.3 Women make up about a third of conscripts and 20 percent of the professional military. In 2013, about 2.5 percent of women in the Israeli military occupied open combat positions. Women make up about 16% of artillery, 15% of field intelligence, 21% of Nuclear Biological & Chemical (NBC), 14% of Commando K9 Oketz (Israeli special forces canine) unit and 68% of light infantry (Schaefer, et al., 2015). Despite the progress, some positions remain unofficially gendered. Women are not assigned certain occupations, specifically those that involve high risk of close combat.

4.15.4 Israeli Defence Forces (IDF) have followed a phased integration progress. The IDF started with all-male and all-female units before gradually moving to integrated units. It also made necessary modifications to equipment and combat gear to address physical differences between the bodies and requirements of men and women. (Schaefer, et al., 2015)

4.15.5 IDF follows a mix of gender-neutral and gender-proportional physical standards. It's experience has shown that given the appropriate training, women can perform most tasks that men are able to perform. The importance of training in ensuring

¹⁸ Smith, H. (1990). Women in the Australian Defence Force: In Line for the Front Line? *The Australian Quarterly*

the physical readiness of women is one of the key lessons from Israel (Schaefer, et al., 2015). IDF also suggests that integrated training is most effective at improving the physical performance of women.

4.15.6 The IDF experience shows that integrated accommodation promotes unit cohesion. It also brings out the importance of having leadership support and of getting women into leadership roles, where they can act as mentors and role models (Schaefer, et al., 2015).

4.16 **Myanmar**

4.16.1 Majority of countries studied so far were developed and consist of ‘westernised’ societies. The culture and ethos of these countries might be different from the Indian sub continent and hence, it is important that some of the neighbouring countries are also studied.

4.16.2 Following Myanmar’s independence from the British in 1948, women were largely excluded from military service even though they were recruited to the military during the 1950s to serve primarily in the medical field (Byrd, 2019)¹⁹. After independence in 1948, female officers and female other ranks were assigned to respective corps and medical corps. Traditions in which female officers from Myanmar Female Military Services were organized in 1954 was seen as an honour. Over 3,000 servicewomen in roles like female nursing officers, graduate female officers, female medical officers, female nursing and paramedical personnel, female sergeant clerks and female soldiers were appointed.

4.16.3 The Myanmar Army stopped recruiting women for non-medical roles in 1961 (Zaw, 2018)²⁰. The Tatmadaw, as the Myanmar Army is called, is recruiting female

¹⁹ Byrd, M. W. (2019, NovDec). Integration of Women and Gender Perspective into the Myanmar Armed Forces to Improve Civil-Military Relations in Myanmar

²⁰ Zaw, H. N. (2018, December 27). First Female Military Pilots Take to the Skies. *The Irrawady*.

officers so that they can participate in national defence, as per the army chief. He added that UN and international forums are regularly discussing promoting the roles of women and Myanmar also attaches great importance to women's empowerment as women are taking greater roles in international armed forces and shouldering important duties.

4.16.4 Myanmar women have traditionally held an influential and important role in their indigenous society. In a Myanmar family, the husband is the head of the household, often referred to as 'god of the house' The Myanmar language has many expressions that put the husbands role or position above the wife's: a married woman is obliged to respect her husband. (Salim, 2014). Despite this, Myanmar women have contributed significantly to the political, economic, social, and cultural development of the nation throughout its history. They traditionally have held prominent positions in the business, education, literary, and fine arts sectors (Byrd, 2019).

4.16.5 There are more than 90 minister and deputy minister posts in the government, of which only the Social Welfare, Relief and Resettlement Ministry has a woman minister. There are six deputy ministers at the other ministries, which is also a relatively small number. Though there are some women directors, women directors-general are few and far between. Men outnumber women in such places as the health and education ministries where there used to be a predominance of women. In the two Houses of over 664-seat Parliament, women MPs are only 31 i.e., only 4.67% (Salim, 2014)²¹.

4.16.6 The purpose of any military organisation is not to improve women's equality but to win the nation's wars and prevail against enemies. They must clearly be able to demonstrate the benefits of increased effectiveness in achieving an organization's primary purpose through the integration of women and gender perspectives. The

²¹ Salim, L. (2014). Leadership Role for Myanmar Women. *Myanmore*, p 1-6.

integration of women into the military is beyond equality; rather, it is to improve the quality of the force (Byrd, 2019). Research has shown that a critical mass of 30 percent is needed in order to see the full benefits of female integration and gender perspective within the organization and at leadership levels (Byrd, 2019).

4.16.7 Women have started joining the Tatmadaw but much more is needed to realize the full benefits. Women are currently serving in administrative, logistics, and information communication technology roles and are restricted from operational positions. Most of them are posted in the garrison headquarters as support staff. Such limited roles do not prepare the female officers to be competitive for advancement into higher ranks and decision-maker levels (Byrd, 2019).

4.16.8 The military officer training course for women was established in 2013, and each batch accepted between 75 and 100 cadets. Six female pilots who were interested in serving in the air force were chosen from the graduates of the 2017 batch as reported in 'The Irrawaddy' (Zaw, 2018).

4.16.9 The military officer training course for women has received high numbers of applications every year, and only bachelor degree holders are eligible for the course while master degree holders are preferred. The female officers who completed the course are assigned to administrative positions and the non-armed corps, according to sources of the military (Zaw, 2018). In January 2014, the Myanmar Army for the first time dispatched its female military officers who had been serving in medical roles as military representatives in the national legislature and has also appointed fresh graduates of the officer training course to parliamentary positions over the past years.

4.17 **Indonesia**

4.17.1 Indonesia is the world's largest island country with about 270 million people making it the world's fourth-most populous country and the most populous Muslim-

majority country. Indonesia's Armed Forces (TNI) include the Army (TNI-AD), Navy (TNI-AL, which includes Marine Corps), and Air Force (TNI-AU). The Armed Forces were formed during the Indonesian National Revolution when it undertook guerrilla warfare along with informal militia. Territorial lines are the basis of TNI structure, aimed at maintaining domestic stability and to deter foreign threats.

4.17.2 The rights of women were one of the many rights fought for during the freedom movement. Colonel Dr. Sumarno, the then Assistant Chief of Staff of personnel of the Indonesian Army, recommended the service of women for certain assignments that required precision, perseverance, patience, and maternal qualities to improve organizational affiliation within the ranks of Army and in reserves. Commander of the National Armed Forces and Minister of Defence, who was also the Chief of Staff of the Army issued General Orders No.1056/12/1960 on 21 Dec 1960 (Abke, 2018)²², creating the Women's Army Corps officially. This was created as a special arm of the Army for the volunteer service of women in military service as officers, warrant officers, non-commissioned officers and enlisted servicewomen, making Indonesia one of the first Southeast Asian countries to admit women for volunteer military service in the military.

4.17.3 Law No. 34/2004 on the TNI mandates the fulfilment of women's rights as part of human rights. The regulation requires armed services to be developed professionally while adhering to principles of democracy, human rights as well as other national and ratified international laws. Indonesia has ratified the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) through Law No. 7/1984, however, it does not stipulate gender mainstreaming in the armed forces (Arbi,

²² Abke, T. (2018, June 14). Women moving up the ranks in Indonesia's military. *Indo Pacific Defense Forum*, p. 1

2020)²³. Women are making strides in the Indonesian National Armed Forces with support from President Joko Widodo. The initial group of female cadets entered the elite Indonesian Military Academy in 2013. Thirty-eight graduated in 2017: 10 from the Navy, 12 from the Air Force and 16 from the Army. This accounted for almost 9 percent of all academy graduates (Abke, 2018). Women are 10 percent of the 450,000 personnel of armed services.

4.18 Academy graduates, including women, are eligible for command positions also as regional military commander etc. Positions that require combat experience, such as chief of staff are out of reach of women because they are prohibited from engaging in combat. The combat restriction may soon be lifted, however, said TNI spokesman Brig. Gen. Fadhilah. “The staff and commando academy,” he said, “until now was not open for women, but this year we opened for women with the same requirements as for men. This means they are subject to the same health requirements and pass the same tests as men. The only differences are modifications to the physical ability test, as women and men have different physical capacities.” (Abke, 2018)²⁴. The low number of women in the Indonesian Military (TNI) has hampered gender equality within the institution as mandated by the TNI Law, scholars and activists have said (Arbi, 2020). It can be seen therefore, that even in an Islamic country, with a culture similar to India, women serve in almost all ranks and roles.

4.19 **Sri Lanka**

4.19.1 Sri Lanka is an Island nation with a long cultural association with India. It is a Buddhist country, however has a large section of Tamils. It battled insurgency and

²³ Arbi, I. A. (2020, Jun 26). Long road to gender equality in Indonesian Military. Jakarta.

²⁴ Abke, T. (2018, June 14). Women moving up the ranks in Indonesia’s military.

militancy for a very long time and hence places a very high importance to op preparedness of its battle hardened armed forces.

4.19.2 Historically, inscriptions and foreign writing have positive images of women as military leaders, rulers and benefactresses of religion. It has developed as Sri Lanka was granted with universal adult franchise in 1931 and free education in 1944, both of which help promote equal rights of men and women. The constitution of Sri Lanka preserves the fundamental human rights of every citizen of the country without any gender discrimination.

4.19.3 The military is an environment where personal discipline is enforced and practiced and where inter-personal relationships play a vital role in achieving organizational as well as individual goals. Discrimination on the basis of gender in the military comes into play where women are engaged in combat roles, where arguably, masculinity is a demanding factor.

4.19.4 Sri Lanka Air Force (SLAF) was the first service of the Sri Lankan military to allow women to serve, accepting female recruits to the Sri Lanka Volunteer Air Force in 1972 (Manju, 2020). The Sri Lanka Army followed in 1979 with the establishment of the Sri Lanka Army Women's Corps (SLAWC) as an unarmed, non-combatant support unit. Since then, each service has maintained separate units for women for administrative and practical reasons i.e., SLAWC for the Army and the SLAF Women's Wing for the air force. Sri Lanka Navy does not have a specific name for women's units. All three services have women MPs attached to their respective military police/provost corps to maintain and enforce discipline.

4.19.5 SLAWC was identical in structure to its parent organization and its first generation of officer cadets was trained in Britain. Candidates between 18 and 20 years old had to pass the General Common Entrance (Ordinary level) examinations, while the

Officer candidates were to pass the Advanced Level. Enlistment entailed a five-year service commitment, the same as for men, and recruits were not allowed to marry during this period. In the sixteen-week training course at the Army Training Centre at the Diyathalawa Sri Lanka Military Academy, women cadets were put through a program of drill and physical training similar to the men's program, with the exception of weapons and battle craft training (Manju, 2020)²⁵. Female recruits were paid according to the same scale as the men.

4.19.6 The SLAWC is the only prestigious women battalion in the South Asian Region and has a strength to over 200 lady officers and about 3,500 ladies of other ranks who have been deployed in different establishments of the Army camps located island wide. Sri Lanka Air Force Women Wing (SLAFWW) was established on 21 November 1987 and according to the set of rules/ Gazette order Commander of the Air Force appoints a regular officer as the commanding officer in the Sri Lanka Air Force women's wing.

4.19.7 At the beginning, SLAWC had professional female soldiers in telecommunication, health services, military intelligence services, nursing duties, Military Police duties, Lawyers, Accountants, English Instructors, Psychologists, Physiotherapists, Veterinary surgeons, Speech therapists, Agriculture officers, Software Engineers, Quality Control Engineers, Cyber Security Officers, Civil Engineers, Architects, Surveyors, Technical Officers etc. These have now been transferred to support the respective regiments in the Sri Lanka Signal Corps, Military Intelligence Corps, Sri Lanka Army Medical Corps, Sri Lanka Corps of Military Police, Sri Lanka Army General Service Corps, Sri Lanka Engineers and Sri Lanka Army Ordnance Corps, Sri Lanka Army Service Corps, etc (Katugampala, 2021)²⁶.

²⁵ Manju, C. (2020). *Women in Combat Arms of the Army*. New Delhi: IIPA

²⁶ Katugampala, M. (2021, March 09). Sri Lanka Army Women's Corps. *Ceylon Today*, p. 2.

4.19.8 Sri Lanka has employed women in most roles both as officers as well as as soldiers / airwomen. This excluded direct combat roles. This changed in 1970s and 1980s. In 1984, it was reported that the 5th batch of female recruits were trained at the Boossa camp and were given training on using light machine guns as well. They were the 1st batch of recruits to obtain weapon training. On 12.05.1987, the 4th batch of Lady Officer Cadets comprising 5 cadets were recruited. They were trained at the Sri Lanka Military Academy, Diyatalawa (SLAF, 2022)²⁷.

4.19.9 Sri Lanka is increasing the role of women in combat related operations / roles. It was reported that for the first time in the history of Women's Corps women soldiers got the opportunity to participate for a demining course and 02 Lady Officers and 30 Women Other Ranks pursued the first ever "Field Engineering Basic Module and Humanitarian Demining Course" organized by Sri Lanka Army Corps of Engineers at the Field Engineer Brigade, Boo Oya. As far as the Air Force is concerned, female officers were not able to join the general duties pilot branch, they can join any other branch including the SLAF Regiment and the Air Force Police. The last of these bastions has also fallen as two women officers, Rangana Weerawardhana and Pavithra Gunaratne, were commissioned as pilots in the Sri Lanka Air Force (SLAF) in 2021 after completing their training at the Indian Air Force Academy near Hyderabad. They have become the first women military pilots in Sri Lanka.

4.19.10 Thus, it can be seen that Sri Lanka has employed women in Armed forces i.e. Army and the Air Force in almost all roles, except as direct combatants.

4.20 **Performance Criteria of Men vis a vis Women**

4.20.1 There is little doubt that there is a gender difference between the physical performance of men and women. When it comes to physical training and exercise, push-

²⁷ SLAF. (2022, January 23). *Sri Lanka Army Womens Corps*.

ups and sit-ups are among the most frequently used body-weight exercises to increase strength and fitness. They are thought to be convenient and easily learned, require no equipment and are adaptable to different fitness levels. In sports, sit-ups and push ups are used to improve both muscular power and muscular endurance. They are also used to evaluate the effect of training, the eventual risk for injury and to predict and specify talent. (Augustsson, 2009)²⁸. This makes these two exercises a good indicator when deciding the physical performance criteria of women in armed forces.

4.20.2 As per the study conducted, there was a significant difference between men and women in the push-ups test, but no differences were found in the sit-ups test, regardless if whether the tests were timed or maximally performed. The result indicates that women's muscular strength in the upper body is less than men's while the women's abdominal strength is similar to the men. The findings suggest that both sit-ups and push-ups can be used to test muscular power as in a timed test, but also for muscular endurance as in the maximal number of repetitions.

4.20.3 It has been noted that women's upper body strength averages 55% of men's and that the lower-body strength averages 72% of men's (Augustsson, 2009). These gender differences were partly explained by comparing total body weight and fat-free mass, and when comparing strength expressed relative to bodyweight or fat-free mass, the differences were smaller.

4.20.4 The study finds that usually, women's physical conditional programmes (aerobics and resistance training) frequently contained sit-ups, whereas exercises for the upper body such as push ups were less common. It is therefore possible that the lack of upper-body training resulted in poorer performance for women than for men when

²⁸ Augustsson, S. R. (2009). Gender differences and reliability of selected physical performance tests in young women and men. *Advances in Physiotherapy*, 2-16.

examining upper-body strength and endurance in the present study. As per the study, it is well known that gender differences in strength and endurance can be reduced when women perform strength and endurance training and that the greatest improvements have been seen in local muscular endurance (Augustsson, 2009). The study concludes that strength and conditioning programmes that target women in particular might lead to changes in gender differences.

4.20.5 The case of IDF supports these findings. As brought out earlier in the chapter, Israel has paid significant attention to the pre conditioning of female recruits or even service women and that this approach has improved the survival rates and reduced injury rates of women in IDF. Therefore, it is safe to recommend that whatever be the physical standards specified, some pre conditioning or post induction training regime would assist in improving combat readiness of women.

4.20.6 In so far as the performance criteria, other than physical is concerned, there has not been any documented significant difference in performance of women vis a vis the men. In fact, as the women who join are highly motivated and are without the baggage of responsibility of being the sole bread earners for their families, their performance is at least at par with the men, if not better.

4.21 **Availability & Willingness of Women to Join Armed Forces**

4.21.1 The CBSE declared results of Class XII, which is the qualifying exam for joining armed forces in ranks other than as officers for 2021. The girls fared better than boys and 1.57 lakh students scored over 90 percent and 38,686 scored over 95 percent. The pass percentage for girls was 92.15 percent which was higher than 86.19 percent for boys. With such a large number of girls passing out with high academic standards, there cannot be any doubt regarding availability of adequate number of suitable women for recruitment.

4.21.2 In a similar case, when NDA was recently opened for women, 1.77 lakh women applied for approximately 19 vacancies. Out of these applicants, 1002 successfully qualified the exam. These numbers are for selection as officer cadets. Therefore, there cannot be any reservation on availability and willingness of women for joining the armed forces.

4.22 **Challenges in Different Types of Conflict**

4.22.1 The case of majority of the countries shows that women employment has been restricted for trades / jobs where direct combat is involved. Even the countries like USA, UK and Israel which are part of developed world do not allow women to be employed in direct combat roles. Amongst the developing countries in the neighborhood, Myanmar, Sri Lanka and Indonesia, do not allow women in direct combat roles. This restriction limits the employment in roles during conventional wars and even more in sub conventional wars or in situations involving counter insurgency / counter terrorism operations.

4.22.2 Women face some unique challenges, some of them are physiological. Pregnancy, breast feeding, and disproportionate share of family care are some unique challenges faced by women. In the normal course, these may affect their readiness and affect their employment and hence limit their deployment as compared to males. However, as is the case with women officers, with organisational support and positive intervention, these challenges can be overcome, as has been the case in armed forces across different nations.

4.23 **Socio Economic Environment and Social acceptance**

4.23.1 Indian women have traditionally had a dependency syndrome. They depended on male members of the family from birth to death, though with notable exceptions. Women were misled by a stereotyped ideal of womanhood. Society was mostly

patriarchal and women were confined to the four walls of their home. The identity of women was based on whose daughter, wife or mother they were depending upon their age and stage in life. The men were supposed to be more powerful, capable, more qualified and higher earning as compared to their wives. If the women were to be ahead in any way, it was considered a direct attack on the manhood. However, Indian women have proved that they can be manifestations of will power, grace, dedication, hard work and brilliance. They have raised their bar and broken untouched barriers. Despite the stereotypes, the women have a tremendous capacity for making rapid decisions based on knowledge and experience. Their ability to communicate, talent for persuasion and the ability to win cooperation, loyalty and trust of colleagues, employees and clients, makes them more suited for certain professions / roles which place a premium on such qualities.

4.23.2 Induction of women into armed forces has raised the issue of their employability in various spheres. The role of women in the armed forces for a long time, was limited to the medical profession. The experience of all three arms of forces highlighted that the initial adjustment problems were more for the men, rather than women. Men were confused between the status of women as colleagues vis a vis ladies. Men who came from conservative families had seen women play only traditional roles.

4.23.3 To some people, society is still not ready to face the prospect of our women, captured as Prisoners Of War (POW) or held hostage with terrorists. In 2018, former army chief Lt Gen Bipin Rawat told a news network that there were not any women soldiers serving in front line combat positions because “a woman would feel uncomfortable at the front line” (Rawat, 2018)²⁹. He said maternity leave was an issue,

²⁹ Rawat, B. (2018, December 15). Can't Give Women Combat Roles, There Will be Ruckus When Maternity Leave is Denied:

women need more privacy and protection, and that India was not yet ready to accept “body bags of women” killed in combat. He also said that women need to be “cocooned” from the eyes of subordinate soldiers (Rawat, 2018).

4.23.4 Over the years things have changed and men have realized that these women in uniform are their efficient and able co-workers. The time may be soon when the term ‘sisters-in-arms’ becomes as prevalent and used as equivalent to ‘brothers-in-arms’.

4.24 Need for Sheltered Employment

4.24.1 The survey conducted amongst air force personnel asked two specific questions to determine whether the women should be employed in sheltered appointments or not.

The results of the survey are shown below.

Should women only be employed in sheltered trades/ occupations in IAF?
92 responses

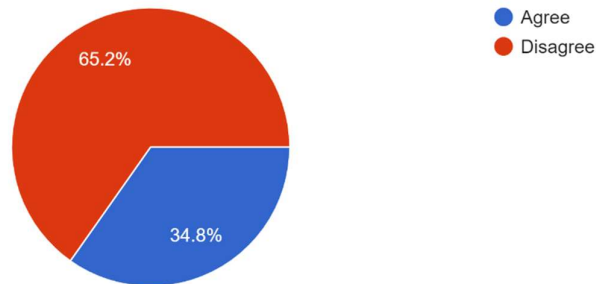


Fig 7: Women Employment in sheltered Appointment

As can be seen, almost two third of the respondents disagreed with the idea and only one third were in favor of any sheltered appointments for women. These responses were further broken down by each category to check for any trend on the basis of gender, seniority etc. The results are shown below:-

Should women only be employed in sheltered trades/ occupations in IAF?			
	Agree	Disagree	Total
Female	4	17	21
Civilian		1	1
Ex-Service Person		1	1

Officer	4	15	19
Male	28	43	71
Ex-Service Person	1	2	3
Officer	18	32	50
SNCO and below	9	6	15
Warrant Rank		3	3
Grand Total	32	60	92

Table 1: Breakdown of Response for Sheltered Appointments

4.24.2 All categories disagreed with the idea, except for male SNCO and below. One possible explanation was the fear that in case of any inefficiency or reluctance from the women, they will bear the burden of extra work. Overall, one trend was very clear. Women disagreed more with the idea of sheltered trades / appointments as compared to men. Women believed that once a person is choosing a profession voluntarily, she should have the right to join and perform all tasks as for men. Technology is increasingly making attributes like physical toughness redundant. In fields such as meteorology, weapons development, cryptography, software development, ordinance etc., women may be as capable as men and some may even be better. The light-switch phenomenon becomes more applicable. There is no special gender advantage for turning a light switch on or off. Therefore, there should not be any discrimination in ascribed roles for women in the IAF. They should be able to choose the trades they apply for, and once they choose, they should be treated without any bias or discrimination.

4.25 **Legal Issues and Implications.**

4.25.1 Women in combat is a contentious issue in armed forces throughout the world. Some see the exclusion of women from many combat roles as a form of sexual discrimination. Some are wary of the effect of opposite sex on the battlefield.

4.25.2 There have been instances of sexual harassment in armed forces across the world. There is a section of society which strongly feels that this reason alone is enough to keep women out of armed forces. The counter view is that such instances have happened across the world in most other professions too. Even the confines of four walls of their own home have not always been safe. So, is this ground sufficient to exclude women. Another argument is that the armed force consist of highly disciplined personnel. In fact, discipline and code of conduct have always been a matter of pride and honour for the armed forces. Therefore, the environment should be safer for women in the armed forces.

4.25.3 One possible legal issue might be the applicability of Juvenile Justice Bill (JJ Bill). It was amended by the Lok Sabha on 7 May 2015 and now allows minors in the age group of 16-18 to be tried as adults if they commit heinous crimes. The crime is to be examined by Juvenile Justice Board to ascertain if the crime was committed as a 'child' or as an 'adult'. The minimum entry qualification for other ranks in IAF is Class XII. Considering the minimum age of admission to Class I as per CBSE is 5 years and which may be increased to 6 years. Therefore, the person would be 17 years when joining class XII and be 18 bey the time he / she completes Class XII. Therefore, the trainees would be mostly above the age of 18, however, some could be just below 18. There is a confusion amongst a certain section about the legal implications of a sexual harassment issue between two minors.

4.25.4 It would only be right to bring out that such cases could also happen between two persons of the same sex. The legal provisions should be equally applicable in both the cases.

4.26 **Summary** The history of employment of women in various countries and roles assigned has been studied. The fact that emerges is though the process commenced

much earlier in the developed nations, the process got a fillip in 1990s. This coincided with the increasing use of machines to perform tasks requiring mechanical force and increasing use of technology. Leadership skills and other soft skills came to fore rather than brute force. Challenges faced in induction of women have also been studied and their relevance in Indian context will be studied in later chapters.

CHAPTER – V

PROSPECTS FOR WOMEN IN IAF

“Of course, it’s hard. It’s supposed to be hard. If it were easy, everybody would do it. Hard is what makes it great”

Jimmy Dugan, A League of their Own

“Most obstacles melt away when we make up our minds to walk boldly through them”

Dr Orison Swett Marden

5.1 Introduction.

5.1.1 This chapter will examine the recruitment procedure and examine ways in which it can be adapted to suit Indian Air Force for induction of women. The recruitment of officers is excluded from the study as women are already part of IAF as officers, in all branches. At some places, the standards for women officer cadets and officers will be used a reference where standards for women in all ranks are to be set.

5.2 Current Recruitment Procedure

5.2.1 Any Indian citizen can join IAF as an Airman. The term airman usually is used for a person who is a member of an air force of the country. In some cases, aircrew are termed as ‘airmen’ and some refer to a specific enlisted rank as airman in certain air forces. Being an IAF Airman is not just a matter of immense pride but the ones serving the country get a lot of respect. One can commence a career as an Airman and later on become an officer in the Indian Airforce. Being an ‘Airman’ brings with it, the responsibility of adjusting to the Air Force, adapting the military life, and becoming proficient in an Air Force occupational speciality. The eligibility criteria include an appropriate educational degree / qualification. Once eligibility is established, it is followed by a rigorous screening and selection process. These processes are aimed at

testing and evaluating the mental acuity, physical stamina and leadership skills of the candidates.

5.2.2 Individuals who opt for a career as an Indian Airforce Airman serve different administrative, technical and airborne roles. These play an active role in cost analysis, maintenance of aircrafts, and combat rescue operations. There is a certain skill set required to opt for IAF as a career including the ability to make quick decisions, analytical and logical thinking, improvisational skills, communication skills and strong higher mental capabilities.

5.2.3 **Central Airmen Selection Board** is the central agency to test and enrol Airmen and NCs(E) for the IAF. It prepares and standardises selection procedures, organises publicity drives, prepares question papers, conducts scheduled tests and recruitment rallies across the country. It also prepares All India Select List (AISL) and enrolls candidates. Selection Tests are conducted in two ways i.e., STAR and Rally.

5.2.4 **STAR (Scheduled Test for Airmen Recruitment)**. Selection process checks for three different capabilities in three different rounds i.e., the written test, physical fitness test, and medical test. Candidates are analysed in all fields to check the capability of the candidates for all posts and need to crack qualifying marks. Candidates from any place in India can apply by registering their names. STAR is conducted into two Phases:-

(i) Phase-I - This is a computer based ONLINE examination conducted by CDAC (Centre for Development of Advanced Computing).

(ii) Phase-II - Shortlisted candidates as per their merit are called for Phase-II Selection Tests to be conducted at Airmen Selection Centres which are the Physical Fitness Tests (PFT). It is mandatory to pass the PFT which include completing a 1.6 km run in 6 min 30 sec, 10 Push-ups, 20 Squats and 10 Sit-ups

5.2.5 **Types of Tests**

(i) **Adaptability Test.** Candidates who clear the PFT then undergo the adaptability test. This also has two parts as follows: -

(ii) **Situation Reaction Test (SRT).** Here the decision making, response and reactions are assessed. This test assesses the attitude of a candidate in response to the qualities set by the defence forces for selecting a candidate of the right frame of mind.

(iii) **Group Discussion (GD).** Here 10-15 candidates sit in a group and discuss their views on a common assigned topic related to current affairs and social events. This checks the knowledge, communication skill and Interpersonal skills such as convincing ability.

5.2.6 **Medical Test.** Shortlisted candidates undergo medical examinations at the same or different venue where they are checked and cleared medically.

5.3 **Rally.** These are “On the spot selection test” conducted for candidates hailing from remote areas or under-represented areas to maintain demographic balance in the IAF.

5.4 **Eligibility**

5.4.1 The applicants should be between 17to 21 Years and should have passed Class 10 + 2 / Intermediate / Equivalent exam from a board / Institute listed in Council of Boards for School Education (CBSE) website as members, with minimum 50% marks aggregate and 50% marks in English.

5.5 **Selection Centres.** There are 15 selection centres spread across the country as shown below:



Fig 8: Location of IAF Selection Centres

5.6 **Trade Structure**

5.6.1 The airmen, based on their charter of duty and eligibility criteria, are divided into two major groups i.e., Group X & Y with two sub sections, i.e., Technical and Non-Technical each. The selection or allocation of group / subgroups / trades is based purely on the merit along with performance in other selection rounds as well as eligibility criteria. The qualifications and eligibility criteria for these are elaborated in subsequent paragraphs.

5.6.2 **Group X**

- (i) **Education Qualification:** Intermediate / 10+2 / equivalent with Mathematics, Physics and English with minimum 50% marks in aggregate and 50% marks in English.

OR

Passed 3 years Diploma Course in Engineering from a Govt recognized Polytechnic with **50% marks** in aggregate, and 50% marks in English in

Diploma or in Intermediate /Matriculation, if English is not a subject in Diploma Course.

5.6.3 **GROUP ‘Y’**

(i) **Physical Standards** To get selected as an airman, the candidate must be physically and mentally FIT to perform duties in any part of the world, climate and terrain. Physical/Medical Standards to become an airman are as follows: -

(ii) **Height** Minimum height acceptable for recruitment will be 152.5 cms in general. Minimum Height specified is 165 cm for Auto Tech, 167 cm for GTI and PJI trades, 175 cm for IAF(P) and 162 cm in Musician trades. These are relaxed by specific relaxations for persons from NE and other hill states. Candidates from NE and Hill states includes Gorkhas, Kumaonis, Garhwalis, Assamese and those belonging to the States of Nagaland, Manipur, Mizoram, Meghalaya, Arunachal Pradesh, Tripura, Sikkim and hilly areas of Uttaranchal.

Weight	Weight should be proportionate to height and age.
Chest	Minimum range of expansion: 5 cm
Hearing	Should have normal hearing i.e. able to hear forced whisper from a distance of 6 meters by each ear separately.
Dental	Should have healthy gums, good set of teeth and minimum 14 dental points.
Health	Normal anatomy without loss of any appendages, free from all communicable diseases & skin ailments. Physically and mentally FIT to perform duty in any part of the world, in any climate and terrain.
Body Tattoo	Permanent body tattoos are generally not permitted except inconspicuous or specifically considered ones.,

(iii) **Eyesight:** In general, the minimum eyesight or visual acuity should be 6/12 correctable to 6/6 for Group X and correctable to 6/9 for Group Y

Trades. There are other specifications too, however, for the purpose of ascertaining the standards required for women and men, these are acceptable.

5.7 **Difference in Physical Performance** IAF has female officers in all branches and the physical standards to be maintained by them vis a vis male officers for each age bracket are different. These have been formulated after an indepth study and the latest revision was done in January 2022. These standards are shown below: -

STANDARDS OF PFR TEST: MALE					STANDARDS OF PFR TEST: FEMALE				
AGE UP TO & INCLUDING 30 YEARS					AGE UP TO & INCLUDING 30 YEARS				
EXERCISE	EXCELLENT	GOOD	PASS	FAIL	EXERCISE	EXCELLENT	GOOD	PASS	FAIL
2.4Km Run	<10' (14.4 kmph)	10'01" to 11'10"	11'11" to 13'	> 13' (11 Kmph)	1.6Km Run	<8'30" (11.2 kmph)	8'31" to 9'45"	9'46" to 10'45"	> 10'45" (8.8 Kmph)
Push Ups	>55	40 to 55	25 to 40	<25	Push Ups	>18	14 to 18	10 to 13	<10
Sit Ups	>60	45-60	30-45	<30	Sit Ups	>25	20-25	15-20	<15
Squats	>49	44-49	35-43	<35	Squats	>40	32-40	24-31	<24
Sprint (60 M)	<8 sec	8.8-8.4 sec	8.5-9 sec	<9 sec	Sprint (60 M)	<9 sec	9.1-9.2 sec	9.3-9.6 sec	>9.6 sec
AGE 31-40 YEARS					AGE 31-40 YEARS				
EXERCISE	EXCELLENT	GOOD	PASS	FAIL	EXERCISE	EXCELLENT	GOOD	PASS	FAIL
2.4Km Run	<10'45" (13.3 kmph)	10'46" to 12'10"	12'11" to 14'10"	> 14'10" (10.1 Kmph)	1.6Km Run	<9'30" (10.1 kmph)	9'31" to 10'45"	10'46" to 12'	> 12' (7.9 Kmph)
Push Ups	>50	40 to 55	20 to 35	<20	Push Ups	>15	12 to 15	8 to 12	<8
Sit Ups	>55	40-60	25-40	<25	Sit Ups	>20	15-20	12-15	<12
Squats	>45	40-45	33-39	<33	Squats	>35	27-35	21-26	<21
Sprint (60 M)	<8.4 sec	8.4-9 sec	9.1-9.5 sec	>9.5 sec	Sprint (60 M)	<9.3 sec	9.4-9.8 sec	9.9-10.4 sec	>10.4 sec
AGE 41-45 YEARS					AGE 41-45 YEARS				
EXERCISE	EXCELLENT	GOOD	PASS	FAIL	EXERCISE	EXCELLENT	GOOD	PASS	FAIL
2.4Km Run	<11'30" (12.5 kmph)	11'31" to 13'00"	13'01" to 15'20"	> 15'20" (9.4 Kmph)	1.6Km Run	<10'30" (9.1 kmph)	10'31" to 12'00"	12'01" to 13'30"	> 13'30" (7.1 Kmph)
Push Ups	>40	25 to 40	15 to 25	<15	Push Ups	>12	8 to 12	5 to 8	<5
Sit Ups	>45	30-45	20-30	<20	Sit Ups	>15	12-15	8-12	<8
Squats	>41	35-41	30-34	<30	Squats	>30	23-29	16-22	<16
Sprint (60 M)	<8.8 sec	8.9-9.6 sec	9.7-10.2 sec	>10.2 sec	Sprint (60 M)	<10 sec	10.1-10.8 sec	10.9-11.8 sec	>11.8 sec
AGE 46-50 YEARS					AGE 46-50 YEARS				
EXERCISE	EXCELLENT	GOOD	PASS	FAIL	EXERCISE	EXCELLENT	GOOD	PASS	FAIL
2.4Km Run	<12'30" (11.5 kmph)	12'31" to 14'20"	14'21" to 16'50"	> 16'50" (8.6 Kmph)	1.6Km Run	<12' (8.0 kmph)	12'01" to 13'30"	13'31" to 15'30"	> 15'30" (6.2 Kmph)
Push Ups	>25	15-25	10-15	<10	Push Ups	>8	5 to 8	3 to 5	<3
Sit Ups	>35	20-35	10-20	<20	Sit Ups	>12	8 to 12	5 to 8	<5
Squats	>37	33-37	27-32	<27	Squats	>20	14-19	10-13	<10
Sprint (60 M)	<9.2 sec	9.3-9.8 sec	9.9-10.7 sec	>10.7 sec	Sprint (60 M)	<12 sec	12.1-12.8 sec	12.9-13.6 sec	>13.6 sec
AGE 51-60 YEARS					AGE 51-60 YEARS				
EXERCISE	EXCELLENT	GOOD	PASS	FAIL	EXERCISE	EXCELLENT	GOOD	PASS	FAIL
1.6 Km Run/ Jog/ Walk	<10'30" (9.1 kmph)	10'31" to 13'	13' to 14'30"	> 14'30" (6.6 Kmph)	1.6 Km Run/ Jog/ Walk	<14' (6.8 kmph)	14'01" to 16'01"	16'01" to 18'	> 18' (5.3 Kmph)
Push Ups	>12	8-12	5-8	<5					
Sit Ups	>15	10-15	5-10	<5					
Squats	>35	30-35	24-29	<24					
Sprint (60 M)	<10 sec	10.1-10.6 sec	10.7-11.5 sec	>11.5 sec					

Table 2: Comparison of Physical Performance : Male and Female

Source : India Air Force

5.7.1 There would be a need to differentiate between men and women, primarily due to genetic differences. Medical and physical standards for male and female officers as shown above have been in vogue and have stood the test of time for both the two distinct categories i.e., Aircrew and Non- Aircrew or ground duty branches. The study is currently about induction of women in all ranks. For this category, it is proposed that the medical and physical standards specified for women officers of ground duty branch be implemented ab initio for women in other ranks also.

5.8 Current Training Pattern

5.8.1 Basic combatant training is currently imparted to all recruits. This includes basic discipline and manners, educational training, weapon training etc. On the basis of the performance in the Joint Basic Phase Training (JBPT) at Basic Training Institute, Belgaum, specific trades are allotted to the successful candidates after which they are trained at the same place or other training institutes, based on specific trades. It is proposed that the same time-tested training schedule is implemented for women candidates also. The list of training institutes is given below.

SNo.	Training Institution	Trades
1	Basic Training Institute, Belgaum	Joint Basic Phase Training for all trades (JBPT)
2	MTTI AFP&STI Avadi, Chennai	Auto Technician Automobile Fitter Indian Air Force (Police)
3	Workshop Training Institute (WTI), Tambaram Chennai –	Environmental Support Services Assistant (ESSA) Meteorological Assistant Workshop Fitter (Mechanical) Workshop Fitter (Smith) Mechanical System Fitter
4	Mechanical Training Institute (MTI), Tambaram Chennai –	Propulsion Fitter Structure Fitter Weapon Fitter
5	ETI, E&ITI, CTI Bangalore	Electronics Fitter Ops Assistant Electrical Fitter Communication Technician Musician Logistics Assistant
6	Non-Technical Training Institute (NTTI), Belgaum Air Force School of Physical Fitness	Adm Assistant Accts Assistant Education Instructor Ground Training Instructor

SNo.	Training Institution	Trades
7	Medical Training Centre (MTC), Bangalore	Medical Assistant
8	Garud Regimental Training Centre (GRTC) Chandinagar	Indian Air Force (Security)

Table 3: List of Training Institutes of IAF

5.9 Classification of Risk factors

5.9.1 For the purpose of ascertaining suitability of trades for women, there might be a need to grade each trade in terms of requirement of physical effort, location and involvement in direct combat/ susceptibility to enemy action. Each of these attributes is graded into three distinct categories as follows: -

Physical Effort	Heavy	Moderate	Light
Location	Frontline	Field	Peace
Risk of Injury	High	Moderate	Light

Table 4: Classification of Risk Factors

5.9.2 The role and duties of each trade would be graded for suitability of women, if a step by step approach for induction of women is followed. Thus, in the table above, the top left corner would indicate the least suitable while the bottom right, most suitable. Accordingly, a score of 1, 2 or 3 would be ascribed to each trade with score of 1 indicating most suitable for women.

Group X Technical Trades

- (i) **Automobile Fitter:** Responsible for maintenance and repair of all types of light and heavy duty mechanical vehicles, cranes and loading equipment etc. Effort heavy, Location difficult, Injury high. Score = 3
- (ii) **Electronics Fitter:** Operate and maintain Radar, Voice and Data transmission and reception equipment mounted on latest airborne weapon

delivery systems and ground based air defence systems. Training in Digital Electronics, measuring instruments, radar technology, latest electronic devices and related trade fundamentals. Effort Moderate, Location field, Injury moderate. Score = 2

(iii) **Electrical Fitter:** Maintain power supply system of aircraft, missiles and associated ground systems, airborne photo equipment mounted and operate ground based photo systems. Training in electrical trade, operation and maintenance of digital devices, electronics devices etc. Effort Moderate, Location Peace, Injury Low. Score = 1

(iv) **Mechanical System Fitter:** Repair and maintain mechanical, hydraulic & pneumatic systems of missiles, engines, automobiles, refuelling equipment and ground support equipment. Training in handling and preparation of bombs and explosives and in electrical system, workshop and mechanical trades as well as automobile mechanics. Effort heavy, Location Field, Injury moderate. Score = 2

(v) **Structures Fitter:** Responsible for maintenance and servicing of airframes, their accessories, components and aircraft controls. Checking hydraulic and pneumatic systems and responsible for marshalling, parking, picketing and ground handling of aircraft. Effort heavy, Location Field, Danger Low. Score = 2

(vi) **Propulsion Fitter:** Repair, maintain and prepare propulsion system of aircraft and other weapon delivery systems. Effort heavy, Location Field, Danger Low. Score = 2

(vii) **Workshop Fitter (Smith):** Major structural repairs of all aircraft at central repair facilities. Training in workshop trade for material treatment,

welding, heat treatment, smithy and basic machine tools etc. Effort heavy, Location Peace, Danger Low. Score = 2

(viii) **Workshop Fitter (Mechanical):** Repair and maintenance work of mechanical nature. You will be trained in workshop trade and practices. Effort heavy, Location Field, Danger Low. Score = 2

(ix) **Weapon Fitter:** Prepare, maintain and service armaments, ammunition and safety equipment of aircraft, missiles and other weapon delivery systems. Operate and maintain small arms and bomb destruction equipment. Training to handle bombs, explosives, arms and their installation on weapon delivery platforms. Effort heavy, Location Frontline, Danger high. Score = 3

Group X Non Technical Trades Education Instructor: Run training programme at instructional schools and improve education level of Air Force Personnel. Effort Light, Location Peace, Danger Low. Score = 1.

As compared to other trades, the eligibility for this trade has certain differences.

- (i) Age : 20 - 25 Years.
- (ii) Education Qualification : BA with English as one the subjects or B.Sc with Physics/ Psychology/ Chemistry/ Mathematics/ IT / Computer Science/ Statistics as one of the subjects or BCA with minimum 50% marks.
- (iii) B.Ed degree with minimum of 50% marks from a Government recognized institute.
- (iv) Graduation and B.Ed should be recognized by UGC/ NCTE etc.

OR

- (i) Age :20 - 28 Years

- (ii) **Education Qualification :** MA in English/ Psychology or M.Sc in Mathematics/ Physics/ Statistics/ Computer Science/ IT or MCA with 50% marks
- (iii) B.Ed degree with minimum of 50% marks from a government recognized institute.
- (iv) Graduation, Post-Graduation and B.Ed programmes should be recognized by UGC/ NCTE/ Competent accreditation authority.

Group Y Technical Trades.

- (i) **Communication Technician:** Operate, service and maintain all types of state of the art communication devices, telephone exchange and radio equipment Effort Light, Location Field, Danger Low. Score = 1
- (ii) **Automobile Technician:** Drive all types of light, medium and heavy automobiles, load carriers and specialist vehicles like cranes, towing tractors, fork lifters etc. Carry out minor repairs, day to day maintenance and basic level servicing of the common user vehicles and specialist vehicles in the Indian Air Force inventory. Effort Moderate, Location Field, Danger Moderate. Score = 2

Group Y, Non-Technical Trades

- (i) **Admin Assistant:** Maintain and analyse records, files and information of personnel. Manage ration supplies, cook houses and messes. Effort Light, Location Field, Danger Low. Score = 1
- (ii) **Accts Assistant:** Record and manage accounting of pay and allowances, equipment, logistics transactions, public fund and cash flow etc. Effort Light, Location Field, Danger Low. Score = 1
- (iii) **Medical Assistant:** Nursing and first-aid. Management of medical stores, dispensaries and ward supervision. For this trade , the additional

Education Qualification are Passed 10+2 / Intermediate / equivalent exam with Physics, Chemistry, Biology and English with a minimum of 50% marks in aggregate, and 50% marks in English. Effort Light, Location Field, Danger Low. Score = 1

(iv) **Logistics Assistant:** Involved in the procurement, storage and handling inventory control as well as accounting of military stores. Effort Light, Location Field, Danger Low. Score = 1

(v) **Environment Support Services Assistant (ESSA):** Maintenance of the firefighting section and ensure the upkeep of hygiene of Air Force Campus. Effort Moderate, Location Field, Danger Moderate. Score = 2

(vi) **Ops Assistant:** Operate various systems of Air Traffic Control Centre, Air Field and Air Defence System. Training in operating of Radars, Display Units, reporting and tracking procedures of airborne weapon systems etc. Effort Light, Location Field, Danger Moderate. Score = 1

(vii) **Meteorological Assistant:** Undertake weather observation and to maintain meteorological instruments. Plotting of charts, taking balloon observations and compilation of weather summaries. Effort Light, Location Field, Danger Low. Score = 1

(viii) **Ground Training Assistant:** Train personnel on drill, parade, handling of arms and physical exercise. Organise and conduct all games and sports activities. Effort Moderate, Location Field, Danger Low. Score = 1

(ix) **Indian Air Force (Police):** Assuming police duties and investigation of offences. In-charge of maintenance of security. Effort Moderate, Location Field, Danger Moderate. Score = 1

(x) **Indian Air Force (Security):** Undertake special operations and carry out high level security operations. Effort Heavy, Location Frontline, Danger High. Score = 3

(xi) **Musician:** Be a part of the Air Force Band and training to play different musical instruments. The eligibility criterion is different with **Age** :17 - 25 Years, **Education Qualification** : Passed Matriculation /10th class or equivalent with minimum pass marks from any Government recognised School/Boards and should be proficient in playing at least one of the following musical instruments: Trumpet / Bass / Violin / Saxophone / Clarinet / Euphonium / Jazz-Drum / Piccolo / Bass Trombone / Key Board / Guitar / Sarod / Viola / Cello / Contra Bass (String Bass).

5.2 **Posts / Roles Suitable for Women**

5.2.1 **Survey Results** The survey conducted amongst IAF personnel had two specific questions regarding suitability of trades for women. It asked respondents as to which 3 trades are most suitable for women and which 3 the least. The rationale was to crosscheck the ranking system for trades employed above. For the analysis, any trade that is regarded as most suitable and ranked 1 would obviously be the first choice and those regarded as not suitable at all be compared with those ranked as 3. Those, not figuring in any of the two would be further analysed to find whether it is an error of omission, or should be ranked as 2 as done in the empirical ranking system. The first column shows the number of respondents who included the trade in their list of three most suitable trades for women. The second shows the number of respondents who feel it is least suitable for women. The survey results are as follows:-

Respondents by “Should women only be employed in sheltered trades/ occupations in IAF?” and “If yes, can you suggest three trades/ occupations where they should be inducted first / last?”

Trade	Respondents for First	Respondents for Last	Emperical Priority	Validity
Gp X Technical Trades				
Auto Fit	0	7	3	
Electo Fit	0	2	2	
Elect Fit	0	0	1	
Mech Fit	0	0	2	New Trade
Structures Fit	0	4	2	
Propulsion Fit	1	5	2	
Wkshop Fit Smith	0	4	2	
Wk Shop Fit Mech	0	4	2	
Weapon Fitter	0	9	3	
Gp X Non Tech	0	11		
Edn Instr	21	0	1	
Gp Y Tech Trades	0	6		
Commn Tech	10	2	1	
Auto Tech	0	9	2	
Gp Y Non Tech Trades	0	0		
Adm Asst	50	4	1	
Accts Asst	44	2	1	
Med Asst	24	1	1	
Lgs Asst	33	2	1	
ESSA	13	8	2	
Op Asst	17	6	1	
Met Asst	9	0	1	
Gd Trg Asst	2	1	1	
IAF(P)	16	10	1	
IAF(S)	0	10	3	
Musician	2	0	1	

Table 5: Breakdown of Respondents Choices of Trades for Women

5.2.2 It was brought out in the previous chapter that an overwhelming majority of respondents have disagreed with the concept of sheltered appointments for women. 17 out of 21 women respondents and 43 out of 71 male respondents were against the idea. Overall, 65% of respondents opposed the idea. Only in one category i.e. SNCOs and below, the majority response favored the sheltered appointments.

5.2.3 The priority of trades decided based on job description and the empirical priority allotted is mostly conformal with the results of the survey. Therefore, it would be prudent to make the following two statements.

(i) Majority is not in favor of restrictive or sheltered employment of women.

(ii) The sequence of induction should be Non technical followed by technical trades.

5.3 **Career Profile & Management**

5.3.1 **Promotions**

(i) Promotion of Leading Aircrafts men to the rank of Corporal and Sergeant is based on passing the promotion examinations and completion of minimum length of service. Further promotions to the rank of Junior Warrant Officer, Warrant Officer and Master Warrant Officer is on merit-cum-seniority.

(ii) Length of service. Promotion Board in May each year at Air Force Record Office (AFRO) considers airmen for promotion. Minimum length of service is as follows:

Rank	Min length of service
LAC to Cpl	5 Years
Cpl to Sgt	13Years 6 months
Sgt to JWO	17 Years
JWO to WO	23 Years
WO to MWO	28 Years

5.4 **Career Management**

5.4.1 **Appraisal System.** Appraisal system plays a key role in evaluation of an individual's job performance, behaviour and personal traits. This is necessary to allocate human resources efficiently, motivate and reward individuals, give feedback about their work, maintain fair relationships within groups, train, develop and comply with regulations.

5.4.2 There would be no requirement for a separate appraisal chain. Existing appraisal system applicable for men to continue and be applicable for women. Appraisal Reports will be utilised for the following activities.

- (i) Promotions.
- (ii) Selection for various postings within India and abroad.
- (iii) Commissioning.
- (iv) Courses and Deputations within India and abroad.
- (v) Extension of service.
- (vi) Grant of HONOURS and Awards.
- (vii) Honorary Commission.
- (viii) Employment in other government organizations / agencies.

5.4.3 Performance Counselling. Counselling is carried out periodically during which the appraisee is informed of the areas, wherein they need to improve upon.

5.5 Career Enhancement

5.5.1 Courses. IAF is one of the leading operational Air Forces in the world, which requires constant updation of equipment, technology and human resources. All personnel are considered for regular training / courses conducted within the country and abroad on the basis of service requirements. The selection process is on merit and individual qualifications.

5.5.2 Remustering. This is a process of change of trade during the career as a means of career progression or due to medical problems.

5.5.3 Commissioning IAF provides opportunity to airmen to become a commissioned officer in IAF through Service Entry Commission and in IA through Army Cadet College Course.

5.5.4 **Honorary Commission.** To recognize the service rendered by an airman, a Warrant Officer when he superannuates, is granted honorary commission on merits.

5.5.5 **Deputations.** The IAF has earned its name in various peacekeeping missions around the world and is therefore tasked for many such missions abroad. Also, there are postings to various countries on different assignments. The selection criteria are as per the requirements laid down by Air HQ and are strictly as per merit.

5.5.6 **Service Entry Commission.** IAF provides opportunity for Sgt and above with minimum 10+2 educational qualification, 10 years of service and between 34 to 42 years of age, to become permanent commissioned officer in ground duty branches (Technical and Non-Technical). Higher education qualifications and sports achievement are given weightage in selection process. Written test and SSB interview has to be passed to be selected for commissioning.

5.6 **Conclusion.** It can be seen, therefore, that it is feasible to induct women into IAF. The induction may not be like a tsunami, but like any social change, it will have to be slow but steady. Certain trades or types may be more suited than others or all may be similar, but the moot question is whether the choice is with women or with the administrations as to what is suitable and what not for the subject, i.e., women.

CHAPTER – VI

IMPACT OF INDUCTION OF WOMEN IN IAF

“Being powerful is like being a lady. If you have to tell people you are, you aren’t.”

-Margaret Thatcher

6.1 Introduction.

6.1.1 Women in armed forces has been discussed for a long time. Armed forces reflect the civil society they defend and from where they draw their talent pool. For every person in the armed forces to feel that he / she is defending their nation or their society, they have to be drawn from the entire spectrum of society. In fact, recruitment in the armed forces follows a pattern of proportional representation. In fact, recruitment rallies are conducted in areas which are under represented. The broad aim of this entire exercise is to ensure that the organisational attitude of the forces mirror those of society. It is therefore important that one of the largest component of the society, the women are not left un represented. The debate now centers on how much and when. One of the major issues remains the predominantly male environment of the Services and the traditional association of masculinity with the military or any profession of arms.

6.1.2 Women are already an integral part of the armed forces with their induction as officers having started in 1992. Their induction was facilitated partly by the government thought process and policy decisions, partly by the interpretation of the constitution and judiciary and partly as a conscious process by the organisation. In any big and formal organisation, change is a slow, measured and a deliberate process. Women have spent almost three decades in the armed forces as officers in addition to their even longer service in medical and allied fields. Women themselves have been asking for greater opportunities within the

services on one hand and on the other hand, armed forces were initially reluctant. Now that women as officers in armed forces are a 'done deal', similar issues crop up when women are considered in other ranks.

6.2 **Impact on IAF**

6.2.1 A positive departure or change in circumstances of condition in service is expected if and when the decision to induct women as soldiers / airwomen is taken. There are two major reasons for that.

- (i) Women are already part of the forces as officers and their performance vis a vis their male counterparts has already been seen by the organisation.
- (ii) The societal and organizational norms for women vis a vis their male counterparts have already been set.
- (iii) Women soldiers or air warriors would have the support and guidance of women officers, who have already been part of the armed forces.
- (iv) The organisation would also have the advice on requirements and policy etc., from women officers, helping the organisation in taking informed decisions.

6.2.2 Certain policy decisions have already been taken and inputs are being sought at all levels to implement necessary changes. In the case of officers, it was demonstrated at the highest level by the Chiefs of Staff Committee, the highest decision-making body, which commissioned a report to look into all aspects of the issue of women in the Indian armed forces. One drawback of the committee was its constitution, wherein there were no women officers in the team.

6.3 **Why Women are Important for IAF** There are two major reasons for propagating the case for women to join the armed forces. One is increase in organisational efficiency due to increase in talent pool and diversity and the second is abiding by the values

and ethos of the Indian constitution and practicing the social values of equality and non-discrimination in any modern society.

6.3.1 **Talent Pool**. The job of HR in any organisation is to attract the best talent from the country, recruit from that pool and retain them. A casual internet search for the top career choices for men in India reveals that armed forces are not part of the top ten choices. Even in exceptional circumstances, they are definitely not in the top five choices, even sector wise. Amongst the jobs in the government also, the ranking of defence forces has slipped compared to others. It is apparent that the best of male talent is not coming to defence forces, except for a few who have either a armed forces background or are passionate. While numerically, each vacancy is vied for by thousands, if not lakhs of aspirants, but is that the best talent? This question remains and it is apparent that the answer would be no.

6.3.2 There is an untapped pool of talent in plain view. The women. It is apparent that career choices for women in the corporate or industrial sectors also are more restricted than for men. They are motivated and qualified. It would be quite naïve, if not straight forward foolhardy to ignore this talent pool. The answer lies in opening up recruitment to include this talent pool, have gender neutral or gender adjusted QRs or standards and then select the most suited candidate for the job. It would, therefore, be logical to open up the armed forces for women in roles excluded till now.

6.3.3 **Social Effect** One social aspect that is a cause inhibiting entry of women is the perception of the likely effect pf physical intimacy between both genders which may affect the capability of units. Men and women have been employed as officers in all three wings of the armed forces as officers for almost three decades. There has not been any adverse effect of it till now rendering any such misgivings as more of a perception than reality.

6.3.4 **Effect of Capture or being POW** Another argument cited is that women in frontline are likely to be captured and maybe tortured, which is totally unacceptable, as women

may be more susceptible to give away information in order to save their physical sanctity. Even as recently, as 2018, the CDS Lt Gen Bipin Rawat had said that India is not ready yet “I am not saying a woman who has children doesn't die, she can also die in a road accident. But in combat, when body bags come back, our country is not ready to see that” (Rawat, 2018)¹. In the Airforce, women are already employed as pilots in all three types of aircraft i.e. helicopters, transport and now even fighters. They are the ones, who will cross enemy lines and venture deep into enemy territory. Consequently, they run the highest risk to being captured, taken hostage or subjected to torture. The organisation and the society has already accepted that risk and in fact, are proud of this. The women pilots themselves have chosen this profession and are highly motivated to take this risk. It is, therefore, the male patriarchal mindset that cites these reasons in the mistaken belief that we know better than the subject themselves.

6.4 **Effect on Cohesion.** Adverse effect on the cohesion or esprit de corps of a fighting unit is an oft cited reason for women to be excluded from armed forces, specially in the ranks. This was the major reason in most countries seen the country specific cases as is the case in India. Many defence persons have stated that they would be reluctant to trust a woman to perform her duties in a place, where trusting your co-worker would be critical. Since this a critical factor and one which determines the combat efficacy, this issue is discussed in detail in succeeding paragraphs.

6.4.1 **Definition of Cohesion.** It is necessary to study and understand cohesion and how it has been measured. Early conceptions of cohesion were very broad. For instance, Leon Festinger defined group cohesion as “the resultant of all the forces acting on the members to remain in the group. These forces may depend on the attractiveness or unattractiveness of either the prestige of the group, members in the group, or the activities in which the group engages”

¹ Rawat, B. (2018, December 15). Can't Give Women Combat Roles, There Will be Ruckus When Maternity Leave is Denied:

(Schaefer, et al., 2015)². How cohesion is defined and measured will determine the extent to which cohesion will be affected due to gender integration.

6.4.2 Cohesion can be broadly divided into two categories based on function. Social cohesion and task cohesion. Task cohesion is defined as the “shared commitment among members to achieving a goal that requires the collective efforts of the group,” while social cohesion is defined as the “nature and quality of the emotional bonds of friendship, liking, caring, and closeness among group members”.

6.4.3 Task cohesion is important for attaining set targets or goals. Task Cohesive groups ensure that achievement of group goals also allows individuals to meet their personal goals. There is scientific evidence of a positive relationship between task cohesion and group performance. Research on group decision making has shown that groups with higher task cohesion perform better under time pressure than groups with lower task cohesion (Schaefer, et al., 2015).

6.4.4 The Rand study finds that social cohesion on the other hand, emphasises interpersonal liking and social activities. The focus of task cohesion on job-related tasks rather than purely social activities suggests that task cohesion is more relevant when integrating women into the armed forces. It also finds evidence that task cohesion better predicts group performance than does social cohesion (Schaefer, et al., 2015).

6.4.5 Cohesion can also be divided into two broad categories based on hierarchy. These are Vertical and Horizontal Cohesion. Vertical cohesion is defined as the bonding between followers and their leaders, while horizontal cohesion is defined as bonding between group members at the same level of hierarchy. The former would affect transparency, faith in the organisation and belief in the jobs being assigned, the latter would directly affect the efficiency in completing assigned tasks or attaining these goals.

² Schaefer, A. G et al. (2015). *Implications of Integrating Women into the Marine Corps Infantry*.

6.4.6 Effect of Gender Integration on Cohesion The expansion of the role of women in the military caused some to warn that “an accumulation of problems will have a devastating impact on combat readiness, unit cohesion and military effectiveness.” (Schaefer, et al., 2015) In the same study, it was concluded that a large number of studies conducted thus far had indicated that the concerns about the detrimental impact of women on military readiness and cohesion never materialised. The study found that the integration of women had not had a major effect on readiness, cohesion, or morale. In the units studied by Rand Corporation in 1997 neither gender issues nor the presence of women were perceived to have a significant impact on readiness. The study also found that divisions caused by gender were minimal or invisible in units with high cohesion. Gender was an issue only in units characterized as “divided into conflicting groups, and then it took second place to divisions along the lines of work groups or, within work groups, along the lines of rank.” Lastly, the study found that “gender is one of many issues that affect morale, but it is not one of the primary factors influencing morale.” (Schaefer, et al., 2015)

6.4.7 One of the findings of the Rand study was that, the diversity may have some impact on social cohesion as some members may be uncomfortable with a particular individual or group, but it did not necessarily have a negative impact on task cohesion. People do not necessarily have to like the people that they work with in order to carry out a job well (Schaefer, et al., 2015). But this effect is not based only gender based. Fault lines of the society like those based on religion, caste, creed or even economic conditions are also factors affecting this cohesion. Therefore, singling out gender as the only diverse factor affecting cohesion, and ignoring or overcoming the rest successfully does not appear to be a reasonable assumption or thought.

6.4.8 However, post induction or post actual studies, it has been found that there is no significant effect on gender integrated units. The qualifying issue is that there should be similar training, similar treatment and genuine integration rather than treating men and women as

separate categories. As long as these conditions are fulfilled, the cohesion becomes better. In fact, research has indicated that there are ways to increase cohesion in all types of groups. These team building exercises and strategies have been used in corporates across the world successfully. It follows that any adverse effect, real or perceived, can be addressed.

6.5 Cohesion-Building Activities One way that gender-integrated units can build cohesion is through structured activities. Research suggests that activities that integrate women and support them in contributing to unit success increase cohesion in mixed-gender units. Group success breeds cohesion and vice versa, so successful group-based tasks that involve the participation of all group members, including women, lead to higher group cohesion. It is important that women be allowed to perform roles in these activities that allow them to thrive as part of the group. Research on gender-integrated military teams has found that early group success leads to greater group cohesiveness, and research with Norwegian naval cadets shows that the shared experience of stressful training activities is associated with increased unit cohesiveness. In addition, qualitative research on women in Army units suggests that units where women perform well on group tasks are more cohesive than units where women perform poorly (Schaefer, et al., 2015). Hence adverse effect on cohesion is not a valid reason to rule out induction of women in armed forces.

6.6 Availability of Infrastructure. A policy decision has to be backed up by allocating resources and creating a conducive environment. One of the practical challenges towards integrating women in a traditional male only environment is infrastructure. The key aspects include the provision of accommodation, rest and leisure areas which ensure the safety, security and privacy of male and female personnel. It is prudent, initially, to group female soldiers in units where appropriate accommodation facilities can be provided. Mixed gender facilities, are not so practical in the Indian context. The cost of modifying or provisioning infrastructure in barracks and field areas need are not prohibitive if appropriate these measures

are costed and included in long term infrastructure development plans, already in vogue. Even if the integration of women, on whatever scale, is several years away, planning should start now to provide the facilities necessary to cater for both sexes (Gaurishtha, 2016)³. Additional family accommodation, medical facilities etc., would not be required because women would be counted against overall manning strength and such facilities already cater for women who are part of families of existing personnel, and will not be additional to unit establishments. Some modification of facilities in technical and office accommodation will be required.

6.6.1 The survey had a specific question on the state of infrastructure in IAF as assessed for its suitability for women. To better understand the current status, the question was divided in two parts. First, to understand the current situation, adequacy of infrastructure for women officers was asked. This question was to assess the existing reality based on their experience while in service. The responses are tabulated below:-

The infrastructure in IAF caters for needs of women officers						
Row Labels	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Grand Total
Female	5	10	4	2		21
Civilian		1				1
Ex-Service Person		1				1
Officer	5	8	4	2		19
Male	27	25	11	5	3	71
Ex-Service Person		2	1			3
Officer	15	22	6	5	2	50
SNCO and below	10		4		1	15
Warrant Rank	2	1				3
Grand Total	32	35	15	7	3	92

Table 6: Survey Results for Adequacy of Infrastructure for women officers in IAF

6.6.2 An overwhelming majority i.e. 82 of 92 respondents felt that infrastructure is adequate while 10 of 92 did not agree. In fact, 67 of 92 (more than two thirds) either agreed or strongly agreed that the current infrastructure is adequate for women officers.

³ Gaurishtha. (2016). *Employability of Women in the Indian Army*

6.6.3 The next question was on similar lines, however the target category was enhanced to include the infrastructure for women in all ranks including airwomen. This question was designed to check the perception of the future. The responses are as shown below:

The infrastructure in IAF caters for needs of women in all ranks (including as airwomen)						
Row Labels	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Grand Total
Female	1	3	3	8	6	21
Civilian				1		1
Ex-Service Person			1			1
Officer	1	3	2	7	6	19
Male	11	15	11	16	18	71
Ex-Service Person		3				3
Officer	7	7	7	14	15	50
SNCO and below	4	3	4	1	3	15
Warrant Rank		2		1		3
Grand Total	12	18	14	24	24	92

Table 7: Survey Results for Adequacy of Infrastructure for women in IAF

6.6.4 It can be clearly seen that the current infrastructure in considered adequate by only 44 (48%) respondents while 52% (48) felt did not feel it adequate. Between the male and female respondents, there was a major difference where one third (33.33%) i.e., only 7 women agreed that it is adequate against 52 % i.e., 37 male respondents. At the same time, the respondents were asked a simple question as to whether, in their opinion, IAF was ready for induction of airwomen. The responses are shown below.

Do you think IAF is ready to induct women as airwomen?

92 responses

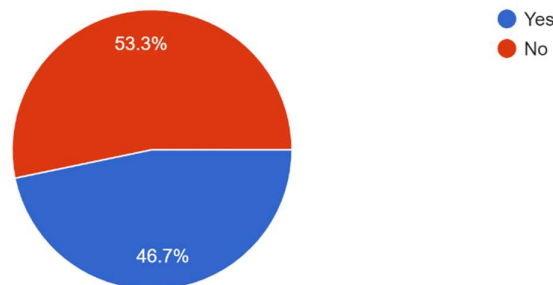
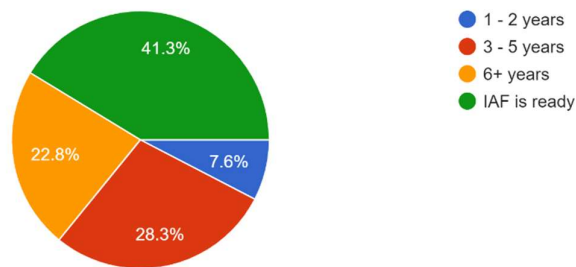


Fig 9: Responses on Readiness of IAF for induction of Women

6.6.5 Slightly less than half of the respondents felt that IAF is ready at the moment. With this response, it was clear that the infrastructure currently is considered inadequate. But it must also be seen as to how much time would it take to get it ready as the next logical question. The readiness of the organisation to accept women was examined earlier. Even the environment was not fully ready. Infrastructure is a part of the environment and organisational readiness they cannot be divorced from each other. As said earlier, developing facilities takes time. Hence the time it will take for the environment as well as infrastructure was also surveyed by asking a combined question. The responses are tabulated below.

Fig 9: Responses on Timelines for Readiness of IAF for induction of Women

If the answer to the previous question was 'No', in your opinion, what is the timeline by which you think IAF will be ready?
92 responses



With this response, it was clear that almost half of respondents feel that IAF is either ready, or will be ready in 1-2 years.

If the answer to the previous question was 'No', in your opinion, what is the timeline by which you think IAF will be ready?					
	1 - 2 years	3 - 5 years	6+ years	IAF is ready	Grand Total
Female	1	9	6	5	21
Civilian		1			1
Ex-Service Person				1	1
Officer	1	8	6	4	19
Male	6	17	15	33	71
Ex-Service Person		1	1	1	3
Officer	3	13	12	22	50
SNCO and below	3	2	2	8	15
Warrant Rank		1		2	3
Grand Total	7	26	21	38	92

Table 8: Breakdown of Responses on Timelines for Readiness of IAF

6.6.6 There is a data inconsistency here. When it was asked whether IAF is ready or not for induction of women, 42 respondents had said that IAF is ready. Now, when an option was given to specify timelines for IAF to be ready, the number dropped to 38. However, this is a variation of 10% and therefore data can be assumed to be consistent and hence, reliable.

6.6.7 38 out of 92 i.e., 41.3 % respondents feel IAF is ready. If we include the 7 respondents of column 1, 45 of 92 i.e., 49% or almost half of the respondents feel that either IAF is ready or can be ready in the next 1-2 years as and when the decision is taken to induct airwomen in IAF. Considering the time taken in training which is 1.5 to 2 years, almost half of the respondents feel that IAF will be ready to induct them. However, there is a caveat. The time taken for getting the training institutes ready will determine the timeline of induction of airwomen in IAF.

6.6.8 IAF has an inherent advantage wherein at the workplace, infrastructure already caters for women officers. It may not be considered perfect or all encompassing, however the three decade long successful experience bears testimony for that. There still is an urgent need to modernise infrastructure, and therefore there is a need for coherent, timely and funded plan for the same as part of the LTPP or LTIPP. In order to meet these needs and support future policies for personnel, including induction of women, a holistic approach is required.

6.7 **Expenditure.**

6.7.1 One of the major concerns whenever infrastructure is talked about is expenditure. It is argued by some against induction of women in the armed forces, that the additional expenditure required to create dedicated gender specific facilities and infrastructure is unjustified and amounts to frittering away the scarce resources. Separate washroom facilities are not just niceties or luxuries, these are basic requirements. Though they may be irrelevant in combat situations as while going in convoys there may not be enough toilets along roadsides, but then exceptional circumstances do not justify exclusion. At the same time, the question is that are

toilets not a basic necessity for all? Existing detailed mobility plans cater for well planned enroute halts prepared carefully after numerous recce trips.

6.7.2 Infrastructure for women does not entail only additional toilets / washrooms, but a complete set of inter related facilities like establishment of crèches etc. There are other aspects like issues relating to families where both parents are working, single parenthood, childbearing requirements of women etc. The Maternity Benefit Act, 2017 was amended in 2018. This amendment made it mandatory for all companies or organisations with more than 50 employees to have a creche. Accordingly, most IAF stations or bases have established creches of varying capacities, based on requirements. Armed forces of even US were not fully equipped for induction of women. However, the actual deployment of women during the Gulf war on combat ships is evidence that all these factors can be overcome.

6.8 **Effect on Society.**

6.8.1 Indian society is passing through a phase of transition from traditionalism to modernity. Even now, some of the parochial beliefs remain. Societal and cultural ethos continue to discriminate based on sex. The society is changing and the participation of women in all spheres is increasing. Better educational and employment opportunities coupled with increasing awareness of the general populace, have started negating or erasing some of the negative stereotypes for women. The ones that need to be totally erased in any progressive or developed country are as follows:

- (i) The woman's place is at home.
- (ii) Physical beauty is the most important and valuable asset of a woman.
- (iii) Marriage is the ultimate life goal of a woman and her energies and intellect must be directed to finding the right man, and thereafter keeping him.
- (iv) A woman is good if she remains the traditional housewife, who is pious and submissive.

(v) A modern woman who asserts herself and is independent cannot be happy nor can bring happiness to anybody.

(vi) The working woman is the undesirable exception and she should be married and adhere to social norms.

(vii) Man remains the lord and master of the house, irrespective of the role of the woman

6.8.2 It is these traditional values which pose the biggest challenge to women entering any career or profession and these pose a huge challenge to change the traditional Indian social structure. With their growth in careers, women are being accepted as individuals resulting in a truly egalitarian society where women participate in all walks of life. Indian women who have had the determination, finance and support to break traditional barriers are a testament to the potential talent available to armed forces as has been shown in the case of women officers. IAF is an institution which, along with the other two sister services, prides itself on representing the diversity of the country, It brings together all castes, religions and geographical regions in a spirit of harmony, but in other ranks, gets represented only by men.

6.8.3 The Indian Constitution proclaims the Right to Equality as the “equal protection of the laws” declares that “The State shall not discriminate against any citizen on grounds of only of religion, race, caste, sex, place of birth or any of them” and includes a clause relating to equality of opportunity in matters of public employment. Women, in keeping up with the spirit of the constitution, are now contributing in the All-India Services, in the fields of engineering, medicine, management etc. The general view is that no vocation or profession could be termed unsuitable for women and the Police and Paramilitary organisations of India have set the pace for the wider employment of women in their ranks. Members of the Mahila Battalions in the CRPF played a key role in IPKF operations in Sri Lanka (Gaurishtha, 2016). In the Police Force, more and more women are proving to be an asset at all levels and will play an ever

growing role as pressure is brought to better protect women from crime and the National Security Guard (NSG) of India have now recruited their first female members of the Black Cats counter terrorist force (Gaurishtha, 2016). Inducting women in the armed forces will result in a more egalitarian society standing on pillars of social justice and equity.

6.8.4 Impact on Families Working women face a big challenge everyday which is balancing between work and their families. People wonder as to what gender integration would mean for their families and several persons believe that it would increase tension at home. Working close to the opposite sex while on deployment, long hours for training, and close physical contact during training are potential problems for many. In a study, (Szanya, et al., 2016) several participants stated that their spouses were even upset that focus groups were taking place. Other contentious aspects of life in armed forces enforced separation from families, traditional inflexibility of working hours, excessive regimentation of social life including the evening functions at messes which are treated more like parade with emphasis on dress and time. Children are generally not allowed in social functions, there could be late nights (Gaurishtha, 2016)), and generally there is a lack of good schooling facilities.

6.8.5 Effect on Male Employment. India is a populous country and unemployment is a major concern for all governments. There is a concern that entry of women in male only organisations would lead to a decrease in male recruitment. Armed forces are considered a male bastion as it conforms to the basic idea of male of the species being responsible for security of the family. There are sufficient number of male volunteers. Information technology revolution has opened an entire gamut of alternative careers for men where material benefits and climbing the corporate ladder as fast as possible have become the main incentive. Armed Forces have moved down in the priority list of traditional career choices for men. This gap in recruitment of motivated men to fill the officer vacancies is being filled by women. The officer

vacancies are few as compared with other ranks and with these vacancies being opened for women would result in reduction of employment opportunities for men.

6.8.6 While the apprehension about loss of jobs for men may be valid, but it must be kept in mind that providing employment is not the only reason for the existence of armed forces. Operational efficiency and maintaining combat capability are the prime tasks for any armed force. For these, it is imperative that the best suited persons are selected from the available talent pool irrespective of gender. It is based on this principle that caste based reservation is not applicable for the armed forces. Therefore, allowing gender to exclude a portion of the talent pool appears to be counterproductive and must be rectified.

6.9 **Retention Policy.** Recruitment is only the first step in maintaining performance standards. Training of recruited persons and thereafter retaining these trained personnel are equally important. One of the concerns for women in armed forces across the world are low retention rates. In the Rand study for checking suitability of women in special forces it was found that in addition to retention concerns with men, many participants believed that women who did join Special Operation Forces (SOF) units would have low retention rates. Some argued that these rates might be low enough to render women's training not cost-effective (Szanya, et al., 2016)⁴. In India, the requirement is not long tenures. In fact the initial term of engagement is deliberately kept short to maintain a young profile in the armed forces. Women are inducted as SSC officers only with this aim. Hence retention of women is not likely to be an issue in IAF. There are however a few concerns, which are enumerated in subsequent paragraphs.

6.9.1 **Responsibilities towards Families.** Women want to strike a balance between their private and professional lives. Marriage and childbirth are amongst the major turning points in

⁴ Szanya, T. S. et al, (2016). *Considerations for Integrating Women into Closed Occupations in U.S. Special Operations Forces.*

the careers of women. Men also undergo these same events while in service but comparatively remain professionally unaffected by these. Other aspects of service life that bother women are enforced separation from their families, traditional inflexibility of working hours, excessive regimentation of social life and lack of good schooling facilities in remote field stations. Service women are unable to send their spouse away with children to a place where schooling is available, unlike men who do so with ease and with societal approval.

6.9.2 One potential reason for low female retention, cited by several groups in studies in the US was the timing of a military career and the desire for a family that many individuals would have. It was suggested that it was unlikely that a woman with a family would attempt to join SOF, therefore applicants would be younger. Several also believed that the physical effect of having children and the time away from the unit for maternity leave would be a barrier to continued operations. Finally, many speculated that the demands of SOF operations would be difficult for a women with young children (Szanya, et al., 2016)

6.10 In 1970s, women were ‘family oriented’; in the 1990s they became ‘career oriented’; and in the present century they want a balance between both and are confident to efficiently handle both the fronts (Gaurishtha, 2016)⁵. Hence child rearing has become less a preoccupation than an improvisation, housework less an obsession than a chore. Now, women want the environment to change and not them.

6.11 **Career Progression.** Every person has the right for progression in their careers. If armed forces want to integrate women, long-term female career progression has to remain at the forefront of its decision making throughout the entire integration process. This would encompass the time from planning and include long-term monitoring. One of the primary lessons from the integration experiences of both foreign militaries and civilian organizations is

⁵ Gaurishtha. (2016). *Employability of Women in the Indian Army : A Critical study of its Effectiveness and Suggesting Future Role Prospects*

that gender integration is a long process and cannot be achieved in a couple of years. In the case of women officers too, it has been a long journey and the process is still continuing despite the passage of three decades. Granting Permanent Commission (PC) to women officers is a recent decision. Initially, the challenges tend to focus on issues such as recruiting and hiring, which slowly changes into focus on promotion and retention issues as women progress in their respective careers (Szanya, et al., 2016).

6.12 **Effect on Accommodation.** Barring a few stations, most of the stations in armed forces and in IAF face a shortage of accommodation. The problem arose due to the mismatch between raising of new unit which entailed increase in manning levels while the administrative tail could not keep pace. However, this is one aspect where entry of women in armed forces including IAF will see a positive impact in a short time. Large number of the women joining forces would marry their colleagues as was the case in the case of women officers. If the overall manning levels remain the same, for every woman getting married to a colleague and collocated, would imply reduced housing requirement by one.

6.13 **Manning at Peace Locations.** One trepidation for men is the likely posting profile of women. They feel that women would invariably fill those jobs in cities and locations preferred by men returning from field areas. Similarly, the low medical category personnel might not be able to get these choice postings as per their preference. However, this is a issue more imaginary than actual. In a study by a retired Army officer, it was found that a majority of women officers wanted to serve with their units and viewed their exclusion from the combat zone prejudicial to their career. Women officers are already serving in the Medical, Nursing and Dental Corps and their posting profiles are fully balanced and we hardly find any heartburns among their male counterpart (Gaurishtha, 2016). In a similar way, women officers have served in all branches in IAF. Their posting profile is also balanced.

6.14 **Summary** The results of survey were encouraging. It was seen that the majority is confident that IAF is ready, or will be ready in 1-2 years for induction of women. The experience of three decades that IAF has with women officers is a enabler. It was clear that non-discrimination should not only be practiced in induction, but also in other policies like postings, job content, allowances etc. It can be seen that the effect of women entering armed forces in all capacities will have a positive impact on the armed forces, society at large and also the women.

CHAPTER – VII

FINDINGS & RECOMMENDATIONS

7.1 Introduction

7.1.1 The study has thus far examined the prospects and challenges in integrating women in other ranks of IAF. To do so, first, the experiences of other countries was studied. These hits and misses were critically examined along with their applicability in the Indian context. Experiences of women officers in different branches was also studied as it would provide the template. In order to get the ground zero feel and feedback on the issue, a focus group survey was also conducted. Most of the issues have already been discussed in preceding chapters. It would be prudent, therefore, to summarise these and examine any leftover issues so as to arrive at a actionable plan for induction of women in IAF in other ranks.

FINDINGS

7.2 State of Women in Armed Forces

7.2.1 Women are increasingly assuming roles in armed forces across the world. Even the erstwhile conservative societies have integrated women in different roles, albeit to different extent. Islamic nations like Pakistan, Turkey and Indonesia also have opened their air forces for women and they are serving on the front line i.e., as aircrew on helicopters, transport as well as fighter aircraft.

7.2.2 Amongst the various services in any country, the percentage of women has been highest in the Air Forces. Air Forces were also amongst the first to open combat roles for women as compared with the Navies or the Armies.

7.2.3 Some countries have opened up almost all roles and vacancies for women, some have no participation. In the middle of the spectrum, even though a large percentage of vacancies are available for women, the actual percentage is fairly low. It ranges between

3 to 20% in terms of total numbers of any arm. In most countries, the ratio of women within the armed forces is highest in their respective Air Forces.

7.2.4 Even in countries which have opened most of roles for women, there has been a debate about employing women in combat roles and even the so called developed countries have reservations on this issue. The European countries, especially the Scandinavian ones, have fared the best on this parameter. In the neighbouring countries, almost all have integrated women in their armed forces. Air forces have been the first in most countries to employ / deploy women in combat roles as pilots.

7.2.5 Women have been part of the workforce, formal as well informal since time immemorial. Even in modern times, they are a large part of the workforce specially in agriculture. As society evolves, workplaces are becoming more technical and the effect of brute force is reducing. This has opened up a lot of opportunities for women. Even in armed forces, the dependence on mechanical force as a means to an end has reduced. This permits women to join the armed forces at par with men in more and more capacities.

7.3 **Recent Policy Decisions.** The government has taken a lot of policy decisions in the recent past which pave the way for participation for more and more women. NDA has opened its doors for women and so are the Sainik schools. 100 more Sainik schools are to be opened, which in conjunction with them opening up for women, will give opportunity to a large number of women. As officers, women are being granted permanent commission in almost all branches that they serve in. All these policy decisions show the direction clearly, which is that the women will play an increasing role in the armed forces of the country.

7.4 **Literature on Women in Air Forces.** There is a general dearth of literature on the women in armed forces. Most of research and publications are from

the United States. However, there have been some studies on women in the Army. In the Indian context, most research has been done on the role of women as officers in the Indian Army and a little on them in the Indian Navy. There has not been any research on the role of women in the Indian Air Force.

7.5 **Drivers for Induction of Women.** The major driver for induction of women in sparsely populated countries has been the general shortages of qualified and skilled males for their armed forces. The next is opening up a larger talent pool by including the excluded 50% of the population. The more recent one is the need to ensure gender equity and ceasing the gender-based discrimination in so far as the armed forces are concerned.

7.5.1 Armed forces across the world have been reluctant to induct women as officers or in other ranks. This reluctance or resistance was overcome, not by evolution or by any change in the willingness of the military hierarchy, but primarily by executive decision or legislation. This has been true for majority of armed forces across the world.

7.5.2 Till 1991, armed forces were not a career option for women apart from medical and allied fields in India.

7.6 **Differences between Men and Women.** No major differences were found between personality traits of women and men of the Indian Navy. Women were in favour of opening combat roles for women on a voluntary basis and in comparison, men had more reservations as compared with the serving women officers.

7.6.1 In the Indian Army, it was found that initially there was some confusion regarding the status of women officers, i.e., whether they should be treated reverently as ladies or as officers. This stemmed from the term 'lady officers' being used for them.

7.6.2 Primary consideration in employing men or women in the armed forces must be the ability to deliver the required operational capability as compared to any other. There are some roles where women might be better suited as compared to men.

7.7 **Women in Armed Forces of Various Countries.**

7.7.1 **Unites States.** In the US women joined the three academies in 1976 and were integrated with regular forces in 1978. Combat aviation was opened in 1993 and combat exclusion clause was lifted in 2013. More than 2,55,000 women were deployed in Operation Enduring Freedom and Operation Iraqi Freedom and more than 130 have been killed and almost 700 wounded in the course of duty. Combat exclusion did not work due to blurring of demarcation between conflict and non-conflict zones. Women are around 14% of total strength. 75% of population is ineligible to serve based on prescribed minimum standards.

7.7.2 In Australia, women were employed in non-combat ships since 1970s. All sea going billets were opened in 1990. At the same time, RAAF opened 94% vacancies for women and Army 55%.

7.7.3 In the UK, Royal Navy was first off the block and opened its doors for women. RAF followed suit in 1994. Two studies found that women performed effectively in combat roles during operations in Iraq and Afghanistan. Ban on women serving in close combat roles was progressively lifted from 2016 and since 2018, women are eligible for all roles in the Armed Forces, other than in Gurkhas. Amongst the three services, RAF has highest percentage of women.

7.7.4 Canada took the plunge in 1989. It also opened up combat arms. Currently women constitute 15% of the armed forces.

7.7.5 Norway was one of the first to allow women into combat occupations in 1983. integrated training and accommodations to minimize gender differences after finding that segregation only worsened cohesion problems as integration occurred

7.7.6 Women completed same training as men at the Officer Cadet Training Unit, in NZ Army in 1977 for the first time and in Navy in 1979. Combat pilots in 1988, first in combat roles in air force.

7.7.7 Contrary to popular belief, women joined armed forces fairly late in Israel. The process commenced in 2000 and currently the women are 20 % of the total strength. Despite starting late, it has the highest percentage, even though close combat roles are not open for women.

7.7.8 Amongst the Islamic nations, Turkey was one of the first to open armed forces for women in 1955. Gökçen, the adopted daughter of the first president became the first female fighter pilot in the world. Academies for all three arms were opened in 1955 for women, who were part of armed forces. Later, Islamisation halted induction of women but it restarted in 1982 for ranks and officer cadets in 1992. women's recruitment to the military has always been considered a security issue on which the Turkish Military has the professional authority to decide.

7.7.9 Myanmar military officer training course for women was established in 2013, administration, logistics and support roles. Six female pilots who were interested in serving in the air force were chosen from the graduates of the 2017

7.7.10 Indonesia was the first country in south east Asia to start women recruitment in 1960, despite being a Islamic nation. Their role was mostly in other ranks in support role and officer academies were opened for women only in 2013. Women are nearly 10%of the strength.

7.7.11 Sri Lanka Air Force (SLAF) was the first service of the Sri Lankan military to allow women to serve, accepting female recruits to the Sri Lanka Volunteer Air Force in 1972. The Sri Lanka Army followed in 1979 with the establishment of the Sri Lanka Army Women's Corps (SLAWC) as an unarmed, non-combatant support. Combat roles excluded, but changing now. Pilots after training in India in 2021.

7.7.12 Women have been part of militant groups and have participated in dangerous 'missions'. They were competent as militants and their motivation levels were high. Their reasons for picking up of arms as militants were mostly personal aggravation or victimization.

7.8 **Policies of Different Countries.**

7.8.1 **Physical Standards:** Canada follows gender neutral physical standards i.e. same requirements and standards whether male or female, are followed for combat occupations. These have been revisited and revised several times to ensure physical standards they are selective without being discriminatory. Israeli experience shows that gender differences in strength and endurance can be reduced when women perform strength and endurance training and that the greatest improvements have been seen in local muscular endurance. It follows a combination of gender-neutral and gender-proportional physical standards. Emphasis on training for women for pre conditioning. In Indonesia women have the same health requirements and pass the same tests as men. The only differences are modifications to the physical ability test. New Zealand follows gender-normed standards which are different for men and women and are based generally on the performance of women.

7.9 **Critical Mass**

7.9.1 Achieving a critical mass of women is extremely important if the benefits of induction of women are to be reaped. Almost all countries recognise the importance of

this critical mass which is assessed as anywhere between 20-30%, but closer to 30%. Despite the recognition of this target, and opening more vacancies or roles for women, which in cases goes well beyond 60%, the actual representation of women remains between 10 to 20 %.

7.9.2 Large number of women applicants are available in India, who are highly motivated and qualified. If the selection is merit based, induction of women will only raise the bar for all applicants and result in better standards of recruits for Indian Air Force.

7.10 **Effect on Cohesion.**

7.10.1 Cohesion can be divided vertically or horizontally. Horizontal is between teams or colleagues and vertical is along the hierarchy. Similarly, cohesion could be task based or social. All are important for efficiency in any organisation. Gender has not had any major effect on cohesion in most studies thus far.

7.11 **Women's Right or Obligation.**

7.11.1 It is the bounden duty and obligation of every citizen to serve the nation. In the US, the duty to defend the state is part of its citizenship laws. All citizens have the obligation to perform equal duty, the same as exercising equal rights. Cutting off of citizenship responsibility based on gender alone or any other trait was not found tenable and the courts ruled that being able to serve in the armed forces is an integral part of being a US citizen and cannot be curtailed based on sex.

7.12 **Common Traits**

7.12.1 **Excluded Groups.** In the US, a study found that erstwhile excluded groups like African Americans and homosexuals performed as effectively as other groups. Historically, women have played a role in armed forces in both combat as well as

support roles. It could be during the war of independence in US, wars against the British in India or elsewhere. Integrating women formally is the better option.

7.12.2 **Separation Rates.** The separation rates in Australia for women have been almost the double of men. Similar retention issues have been faced in other countries. In India, the initial term of engagement for men is only 15 years, hence this may not be an issue.

7.12.3 **Physical Strength** It has not found to be a good predictor of performance in combat occupations, except in very specific and limited roles, where brute force is essential, like carrying loads. Instead, factors such as teamwork, focus, mental and physical endurance, leadership, and competence are more predictive. IAF is technologically advanced and such tasks are very limited.

7.12.4 **Leadership** Importance of engaged commanders and leadership cannot be overemphasised. If commanders do not understand why integration of women is happening / required, they are unlikely to make the changes needed to support it. In the case of IAF, the experience with women officers has been successful, hence this belief and commitment would be easier. This is despite the fact that there was a reluctance on part of military leadership where Lt Gen Bipin Rawat as late as in 2018 expressed that women need to be sheltered, need to be cocooned and kept away from eyes of subordinate soldiers. This is not the case with IAF which too the lead in inducting women as officers as far back as 1992 and has opened combat roles for them as pilots.

Research Findings.

7.13 Are the traditionally cited reasons precluding inclusion of women in Indian Air Force still valid?

7.13.1 The traditionally cited reasons were that Women are physically less capable; Woman would feel uncomfortable at the front line; Maternity leave, child care leave

etc. mean long terms of absence rendering women unsuitable for command positions and even for other appointments; Women need more privacy and additional infrastructure, which is infructuous; India is not ready to accept "body bags of women" killed in combat; Women need privacy and separate quarters; Women being taken hostage or POW will be unacceptable to any country.

7.13.2 It has been found that most women are physically not as strong as most men, however it has had no impact on their performance in armed forces. Whatever differences exist, can be overcome by training. In fact, some roles were found to be more suitable for women. Women have served at the frontline in most countries and were deployed in field conditions in India also. As officers, they are even going into enemy territory. Therefore, the arguments about them being uncomfortable at the front line or their being taken as POW or tortured as well as them coming back in body bags have been nullified by the service rendered by women officers in Indian armed forces. Leaves of absence are taken not only by women, but by men too. Only two tranches of child care leave and maternity leave are permitted for a woman in her career. Absences are also due to deployment, training and courses. These render this argument futile. Privacy and infrastructure do entail some costs for the organisation. The experience with women officers has shown that these are not very high, especially if they are dovetailed into long term infrastructure planning.

7.14 What are the differences in roles of women in Armed Forces of other nations?

7.14.1 Women have been part of armed forces for a long time. In modern times, women have joined armed forces across the divides of religion, development or race. Amongst the developed world, in the US, UK, Canada, Norway, Australia, New Zealand etc, women have joined the armed forces, both as officers and in other ranks. They are employed as aircrew in most air forces and in fact the air forces have the largest

participation of women among the three services. Two Islamic countries Turkey and Indonesia were the pioneers in so far as inducting women in armed forces is concerned. Sri Lanka and Myanmar are two countries bordering India with significant women participation. These two as well as Pakistan employs women as pilots in their air forces. Despite varying timelines, the major thrust towards opening most barriers in expanding roles of women in armed forces came in the early 1990s. Most armed forces either already have, or are in the process of opening all roles for women.

7.15 What are the prospective roles for women in all ranks of IAF.

7.15.1 Women are already serving in all branches as officers in the IAF. The focus group survey favours gradual opening up of branches or trades for women. This is corroborated with the infrastructure requirements in IAF. Most persons favour inducting women first in the non-technical and police roles first to be followed by technical trades. Majority also does not favor any exclusions, except the IAF(S) trade which are Garuds, the IAF Special forces. Therefore, all trades can be opened up for women in IAF.

7.16 What challenges are likely to be faced in terms of infrastructure for induction of women in IAF.

7.16.1 Half of the respondents feel that IAF is ready at the moment, socially as well as in terms of infrastructure, however, majority feels that it will take 1-2 years. 90% of the respondents feel that the infrastructure and the environment is good for women officers. Medical, administrative and married accommodation Infrastructure will have to be catered for at three places.

- (i) Training institutes and Recruitment centres.
- (ii) Stations and Units in terms of Offices or work place.

- (iii) Accommodation for in living airwomen in terms of messes, billets, rest areas etc.

7.16.2 There is sufficient capacity at all the three places. Some modifications would be required in terms of washrooms etc however, all infrastructure changes can easily be accommodated if made part of LTPPs or LTIPPs. Almost two third respondents feel that amongst the three services, IAF is best suited with only 13% disagreeing with that statement. The infrastructure at Sainik schools and at NDA has been catered for in less than one year, hence it is entirely doable, once the policy decision is taken.

7.17 What are the perceived challenges for induction of women in IAF in eyes of co workers, male and female.

7.17.1 The major challenges in the eyes of male co-workers were:

- (i) Special treatment or sheltered appointments
- (ii) Overburdening of male co workers in case of any inefficiency of air women
- (iii) Increase in cases of sexual harassment and litigations
- (iv) Fraternisation between officers and airwomen.
- (v) Increased chances of friction in families due to close proximity of both genders.
- (vi) Inability of airwomen to undertake long tenures in the field.

7.17.2 Based on the experiences of other forces as well as the experience with women officers in IAF, these challenges are more a perception than based on any reality. Almost 22% respondents felt that average women officers performed better than average male officers, while 62% felt that women were at par. Hence, based on actual working experience, 84% of respondents felt women officers were better or at par with male officers. In the case of airwomen, a similar story is likely to unfold.

7.18 Is there a difference in perception of males and females about induction of women in IAF.

7.18.1 There is a difference in perception of males and females about induction of airwomen in IAF. Similarly, there is divergence in the views of officers and other ranks.

7.18.2 Only one woman disagreed that environment in IAF is conducive for women officers, while 10 males disagreed. For airwomen two third felt that environment is conducive.

7.18.3 Only 14% males felt that Indian women are not ready to work as airwomen and even in this, as compared to officers, more airmen felt that women are ready.

7.18.4 More female respondents felt that IAF is not ready at the moment to induct airwomen as compared to men. Similarly, women felt that IAF will take more time to be ready to induct airwomen.

7.19 What will be the right time for induction of women in IAF.

7.19.1 The time taken to start recruiting airwomen would be one year from the time the policy decision is taken. This includes time taken to finalise QRs or eligibility criteria, medical and physical standards, publicity and getting infrastructure ready at recruitment centres and at training centres.

7.19.2 The training period would be 1.5 to 2 years, based on trades. This is the time required to get some of the stations and units ready for airwomen. This coincides with the majority view that IAF will be ready in 1-2 years. Therefore, from the time a policy decision is taken, things will fall in place with right support. The decision can be taken now and NOW is the best time to start.

RECOMMENDATIONS.

The strategy recommended to be adopted for induction of women in IAF is enumerated succeeding paragraphs.

7.20 **Determining Standards for Women**

7.20.1 **Educational.** The Educational standards and QRs should be the same as for male candidates.

7.20.2 **Physical.** As a start point, physical standards for non-aircrew female officers should be adopted and implemented. These gender normed standards may be modified if required and adopted at a later stage for most trades, while gender neutral standards be utilised for physically challenging trades, till suitable normed standards are developed and approved.

7.20.3 **Medical.** Medical standards akin to women officers may be implemented ab initio.

7.21 **Service Rules and Conditions.**

7.21.1 Pay and allowances should be same as men.

7.21.2 The tenures and service rules should be the same with additional application of Maternity benefit Act 2017.

7.21.3 No quota system to be applied and selection to be merit based.

7.22 **Training**

7.22.1 Training syllabus and schedules to be same as for men.

7.22.2 No changes in Training institutes as to the type or duration of training to be imparted.

7.22.3 Certification and training or examination standards to remain the same for men or women.

7.23 **Infrastructure**

7.23.1 First the existing infrastructure at recruitment centres and training institutes to be suitability modified in terms of toilets etc.

7.23.2 Existing billets to be reappropriated to earmark certain billets specifically to suit requirement of women candidates, recruits and airwomen.

7.23.3 Messing facilities to remain common.

7.24 **Uniform**

7.24.1 Uniform for airwomen to be specified / designed to incorporate the same differences as between male and female officers.

7.24.2 Trade specific overalls / uniforms to be also specified and supplied accordingly.

7.25 **Trade Allocation**

7.25.1 There should not be any sheltered trades or restricted trades as a matter of policy.

7.25.2 In the initial stages, entry of women may be staggered based on trades.

7.25.3 IAF(P), which is the trade entrusted with policing, maintenance of discipline and investigation be amongst the first to induct women.

7.25.4 For women, who meet the requisite standards and merit, choice of recruits may be given certain weightage as for men.

7.26 **Posting Policies**

7.26.1 Stations or units which require least time to adapt and make additions / alterations for women at work and for accommodation be identified.

7.26.2 Units / Stations to be identified and earmarked with pro rata ratios of peace, modified field and field stations.

7.26.3 Postings of initial batches be done to these stations which will give time to other stations to be ready for women.

7.27 **Societal Requirements**

7.27.1 Common areas like messes, auditoriums, shopping complexes mostly cater for requirements of women. If any deficiencies exist, these be removed.

7.27.2 For redressal of grievances and cases of sexual harassment etc., the existing committees and mechanisms to continue. Where women officers were required to be a part, suitable representation of women may be looked into.

7.28 **Career Management / Promotions**

7.28.1 The existing promotional policies for airmen to be extended for airwomen.

7.28.2 Honours and awards scheme including honorary commissions and special provisions for sportspersons be extended for airwomen.

7.28.3 No quota system be adopted at all, even though some targets may be decided to have tangible goals.

7.29 **Summary**

7.29.1 Based on available secondary data and primary data collected through a focus group survey using stratified random sampling, it has been found that the traditionally cited reasons for excluding women from armed forces are not valid anymore. Within the services, Air Forces are best suited to lead the way to induct women in all ranks and for India, IAF is ready to induct women. Induction of women will benefit the organisation by widening the talent pool and society by increasing diversity and inclusivity besides setting an example to the society, as has always been done.

7.29.2 Men and women are different. Gender normed standards for selection into most trades is recommended while gender neutral standards be adopted for physically challenging or strenuous roles like aircrew. Discrimination on the basis of gender must be avoided in all field, except where absolutely essential

7.29.3 A detailed strategy has been recommended for induction of women in IAF in all roles.

CHAPTER – VIII

CONCLUSION

8.1 Women in IAF

8.1.1 India prides itself on its human capital. Armed forces, the world over, are a mirror of society that they defend or care for. The current buzzword is “Sabka Saath, Sabka Vikas”. With this being the direction of the government and the society, it is inconceivable that the nation can move forward while ignoring half the population while recruiting for its armed forces.

8.1.2 The traditionally cited reasons are less and less valid as the society and armed forces move from the supremacy of brute force to a more ‘mind over matter’ scenario. Technical innovations and dependence on systems require persons with more brains than brawn. This has reflected in upward revision of basic qualifications required in any sector.

8.1.3 IAF, or for that matter any Air Force, always is the first to embrace new technologies and leads the way in social change. Women have been part of IAF for three decades now and have worked shoulder to shoulder with the men. The apprehensions about their requiring any special treatment or their acceptability to subordinates coming from a feudal background have been negated by their conduct and demonstrated efficiency.

8.1.4 There is an ideal solution. Each country in the world has evolved their own solution, studying the experiences of others and learning from them. Thereafter, each has taken into their own social, cultural and political peculiarities and dovetailed it with their specific needs. Indian Armed Forces and IAF will have to do the same.

8.1.5 Research findings suggest that amongst the three services, IAF is best suited to induct women in all ranks. The women are available for recruitment and are capable to test this frontier. The challenges now are similar today as they were for women officers three decades back. They have been overcome then and shall be now also.

8.1.6 In the armed forces, which pride themselves on their immunity to differentiation on the basis of caste, colour or creed, now have to imbibe the same for gender also. Differences between men and women are there, and will remain too. All men are also not equal. All men cannot perform equally and all men cannot perform all tasks. The challenge is in selecting the best person for the job and for that the talent pool has to be

as wide as possible. Society will benefit as the traditional barriers are crossed effectively, efficiently and emphatically.

8.2 **Way Forward**

8.2.1 The path has been laid by two pillars i.e. the judiciary and the legislature. It is for the armed force and IAF to take the path and move with the times and society. A strategy has been suggested. By no means of imagination, will it be a perfect or even the best course of action. It is meant as a starting point which will need to be taken apart bit by bit, refined and assembled again. HR and other policies are always part of a continuum. They will need to be changed with every change in society as well as in the organisation.

8.2.2 The biggest challenge in the decision making process is to take a decision. Once any path is chosen, and there is a committed leadership supporting that decision with intent and resources, the path is easy to follow, It would not be without any challenges, but overcoming challenges make the armed forces of who they are.

8.3 **Limitations**

8.3.1 The sources are limited. With the armed forces being under the Official Secrets Act in India and similar laws in other countries, hard data was difficult to come by. Even the numbers, social composition and other personal data is protected. Therefore, some important case studies or the valuable lessons contained in them, might have been overlooked.

8.3.2 Any data or policy, once published, has been cited or published at multiple times by multiple agencies. Some valid citations or some important points made in reports or releases may have been missed out because of this.

8.3.3 The survey conducted was based on stratified random sampling within the focus group i.e. IAF personnel. Care has been taken that minimum sample size for each of identified categories is maintained and the sample provides proportional representation to all IAF personnel. However, like in any sampling, there is a chance that the sample is not representational of the target population.

8.3.4 There are a few limitations of the sample:

- (i) Circulation by email which may not ensure even distribution
- (ii) Oversampling of officers as compared to other ranks.

8.3.5 The sample selection was based primarily on gender and rank. Factors such as religion, social background, educational qualifications, economic well being etc. were not taken into consideration and may have biased the findings.

8.4 **Future Scope.**

8.4.1 Gender normed or gender neutral standards for recruitment have been a topic of debate and no clear answer has emerged yet. This aspect itself is a vast area open to further study.

8.4.2 While the study examines cases of all three services, the structure and trades of Indian Army or Indian Navy have not been studied for their suitability for women in all ranks. Cases for both the services in an area for open for research.

8.4.3 In a wider sense, there are a large number of professions, where women are under represented. The underlying causes and their mitigation strategy is an area of future research.

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Annexure 1

Sample Questionnaire
Ref 47 APPPA, IIPA Roll No 4723

Your Opinion is valuable.

Please share your frank opinion. All data and personal choices expressed would be confidential. Email is being collected only to revalidate unique identity and cross check or clarify any response, if needed.

Circulated by Air Cmde Sameer as part of his M Phil Dissertation.

* Required

1. Email *

2. You are *

Mark only one oval.

Female

Male

3. Your age (in years) *

Mark only one oval.

20-30

30-40

40-50

50-60

4. You are *

Mark only one oval.

- Officer
- Warrant Rank
- SNCO and below
- Ex-Service Person
- Civilian

5. Does your workplace currently have or has had women employees? *

Mark only one oval.

- Yes
- No

6. Have you served with women employees? *

Mark only one oval.

- Yes
- No

7. How would you rate the performance of female employees, as compared to male employees, who are similarly placed, in your workplace? *

Mark only one oval.

- Better
- Equal
- Lesser

8. Have you served with women officers? *

Mark only one oval.

Yes

No

9. How would you rate the performance of women officers as compared to male officers in IAF. *

Mark only one oval.

Better

Equal

Lesser

10. How do you rate your knowledge/exposure of the work environment in IAF *

Mark only one oval.

Good

Fair

Nil

11. Do you think the environment in IAF is conducive for women officers? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

12. Do you think the environment in IAF is conducive for women in all ranks (including as airwomen) ? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

13. The infrastructure in IAF caters for needs of women officers *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

14. The infrastructure in IAF caters for needs of women in all ranks (including as airwomen) *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

15. Are you aware that Indian Army and Central Armed Police Forces like BSF, CRPF etc. employ women in all ranks (including other than as officers)? *

Mark only one oval.

- Yes
 No

16. Do you think Indian women are ready to work as airwomen in IAF? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

17. Are you aware that the entry has now been opened for women in NDA and girls in Sainik Schools? *

Mark only one oval.

Yes

No

18. Do you think IAF is ready to induct women as airwomen? *

Mark only one oval.

Yes

No

19. If the answer to the previous question was 'No', in your opinion, what is the timeline by which you think IAF will be ready? *

Mark only one oval.

1 - 2 years

3 - 5 years

6+ years

IAF is ready

20. Are you aware that women are currently employed as combatants i.e. as Pilots in flying units and System Operators / Controllers in Air Defence units of IAF? *

Mark only one oval.

- Yes
 No

21. Keeping in mind, that women are already employed in all branches of IAF as officers, do you think equal opportunity of employment is being denied in non-officer ranks of IAF? *

Mark only one oval.

	1	2	3	4	5	
Strongly Agree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly Disagree

22. Should women only be employed in sheltered trades/ occupations in IAF? *

Mark only one oval.

- Agree
 Disagree

23. Is there is a need to induct women into IAF gradually, initially limited to some trades, followed by others? *

Mark only one oval.

- Yes
 No

24. If yes, can you suggest three trades/ occupations where they should be inducted first? *

25. If you agree, can you suggest three trades/ occupations where they should be inducted last or never? *

26. IAF is the service best suited to induct women as airwomen, compared to Indian Army and Indian Navy. *

Mark only one oval.

1 2 3 4 5

Strongly Agree Strongly Disagree

27. If you feel that IAF should not employ women in all ranks at all, what according to you is the main barrier?

Mark only one oval.

Infrastructure available in IAF

Work Environment of IAF

Societal readiness/acceptance

IAF is ready

Option 5

Other: _____

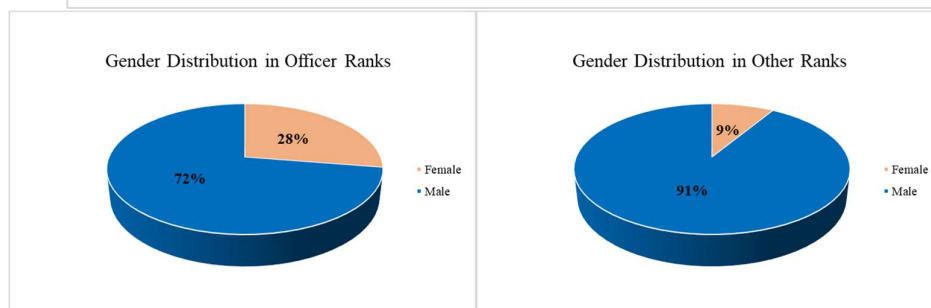
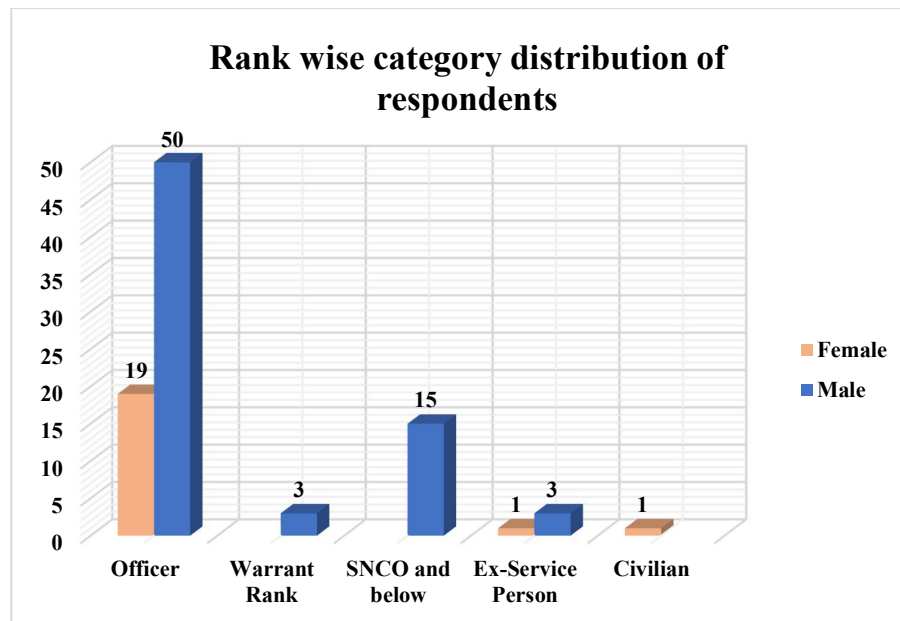
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ANALYSIS OF RESPONSES TO QUESTIONNAIRE

1. Respondent's Overview

Category	Female	Male	Total
Officer	19	50	69
Warrant Rank		3	3
SNCO and below		15	15
Ex-Service Person	1	3	4
Civilian	1		1
Total	21	71	92

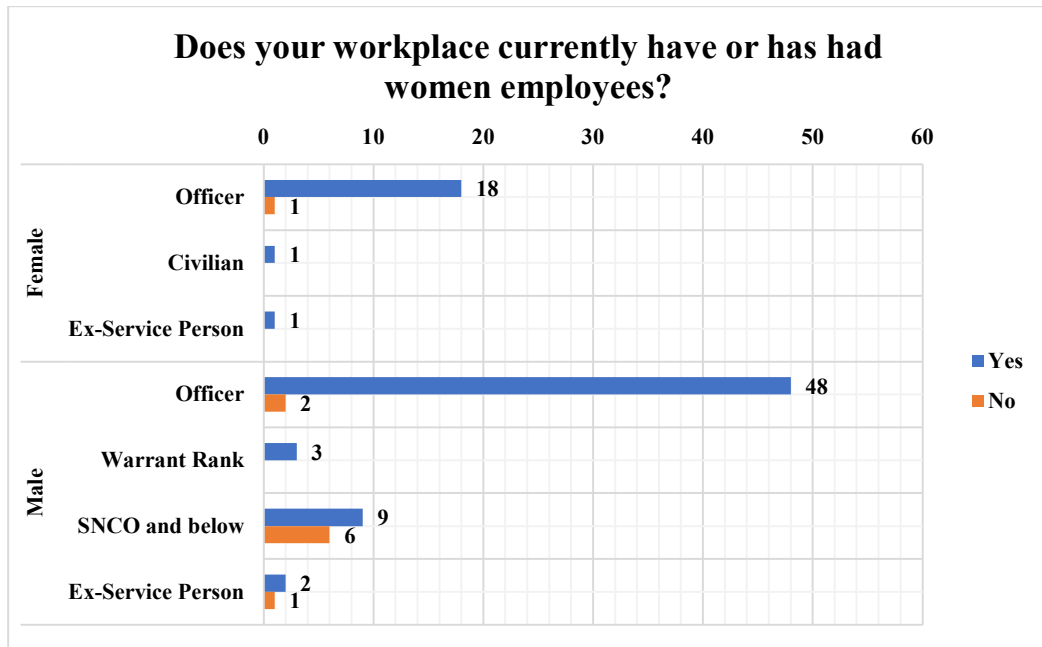


2. The percentage of women amongst officers was 28% which is twice the actual percentage of 14%. For other ranks and other categories, it was 9%. The overall low percentage is attributed to their absence in ranks other than officers.

3. The actual percentage of women i.e. 14% lies in between both these values

4. Does your workplace currently have or has had women employees?

Respondents	Yes	No	Total
Female	20	1	21
Officer	18	1	19
Civilian	1		1
Ex-Service Person	1		1
Male	62	9	71
Officer	48	2	50
Warrant Rank	3		3
SNCO and below	9	6	15
Ex-Service Person	2	1	3
Total	82	10	92

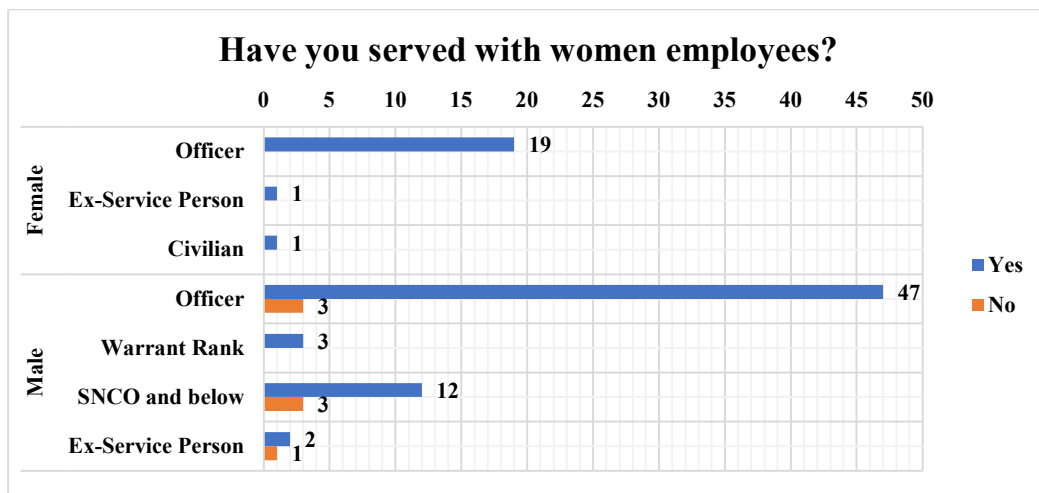


Almost 90% of respondents have or have had women employees at their workplace.

They would be familiar with working environment and conditions for women employees.

5. Have you served with women employees?

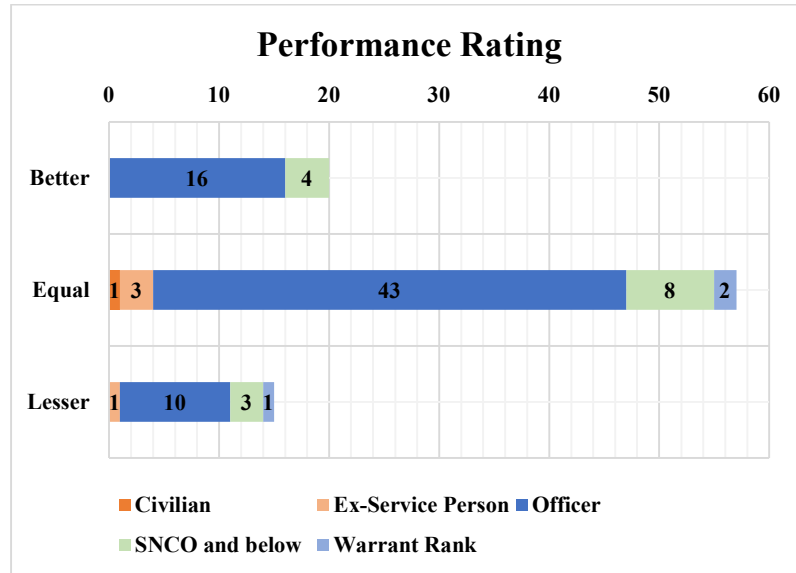
	Yes	No	Total
Female	21		21
Officer	19		19
Ex-Service Person	1		1
Civilian	1		1
Male	64	7	71
Officer	47	3	50
Warrant Rank	3		3
SNCO and below	12	3	15
Ex-Service Person	2	1	3
Total	85	7	92



92 % of respondents have served with women employees. They will be able to assess and most likely accurately predict the challenges and impact of women in IAF in all ranks.

6. How would you rate the performance of female employees, as compared to male employees, who are similarly placed, in your workplace?

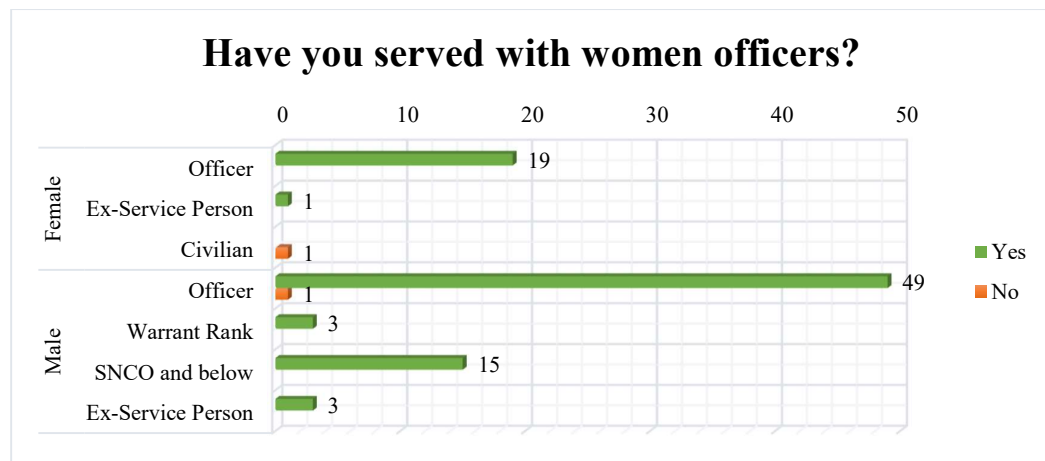
	Officer	Warrant Rank	SNCO and below	Ex-Service Person	Civilian	Total
Better	16		4			20
Equal	43	2	8	3	1	57
Lesser	10	1	3	1		15
Total	69	3	15	4	1	92



Across all categories, the vast majority of respondents have assessed performance of women either better or equal with that of similarly placed men. This assessment is most likely based on real life experience as almost 90% of respondents have had women employees at their workplace and more than 92 % respondents have worked with them.

7. Have you served with women officers?

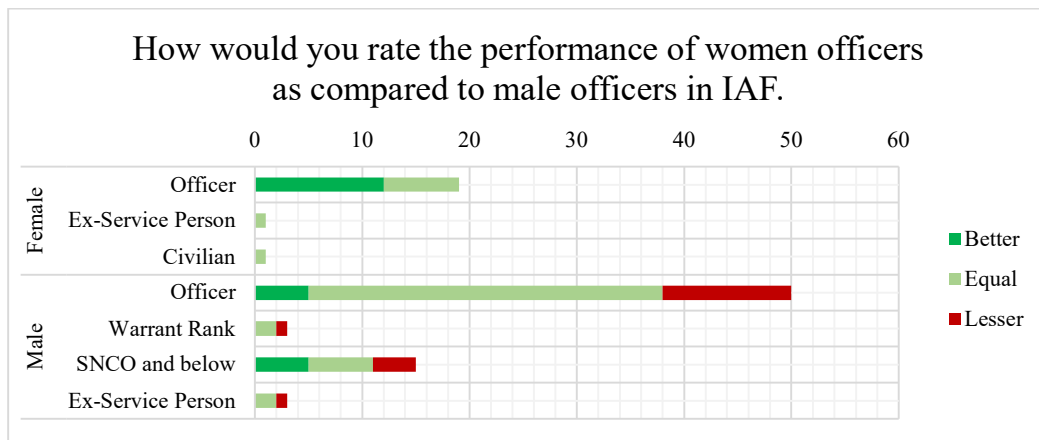
Respondents	Yes	No	Total
Female	20	1	21
Officer	19		19
Ex-Service Person	1		1
Civilian		1	1
Male	70	1	71
Officer	49	1	50
Warrant Rank	3		3
SNCO and below	15		15
Ex-Service Person	3		3
Grand Total	90	2	92



Almost all respondents i.e. 90 out of 92, have worked with women officers. They are likely to be aware about challenges faced by them and the environmental conditions for women in IAF. While for officers it would be based on direct observation, for women in all ranks, it would be a predictive analysis based on their individual exposure and experience.

8. How would you rate the performance of women officers as compared to male officers in IAF?

Respondents	Better	Equal	Lesser	Total
Female	12	9		21
Officer	12	7		19
Ex-Service Person		1		1
Civilian		1		1
Male	10	43	18	71
Officer	5	33	12	50
Warrant Rank		2	1	3
SNCO and below	5	6	4	15
Ex-Service Person		2	1	3
Grand Total	22	52	18	92



Almost 80% of respondents rate the performance of women officers as better or equal as compared with their male counterparts.

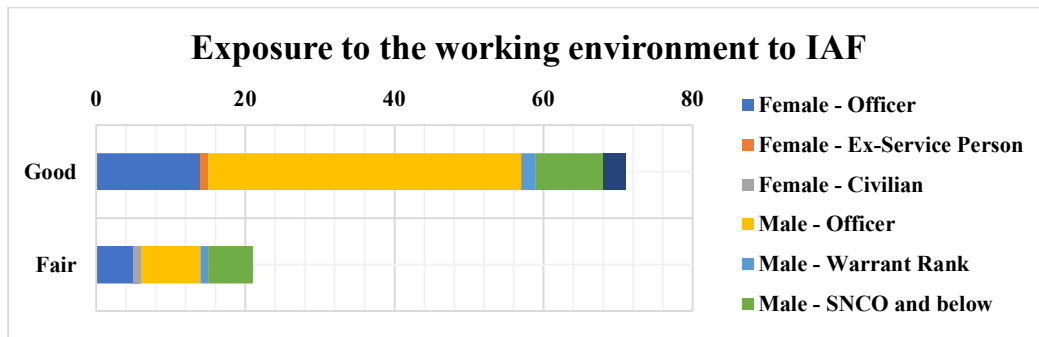
A significantly higher percentage of women respondents have rated the performance of women better as compared to male officers. The converse is also true.

25% of male respondents feel male officers have performed better.

57% of women respondents feel female officers have performed better.

9. Exposure/knowledge to IAF Environment

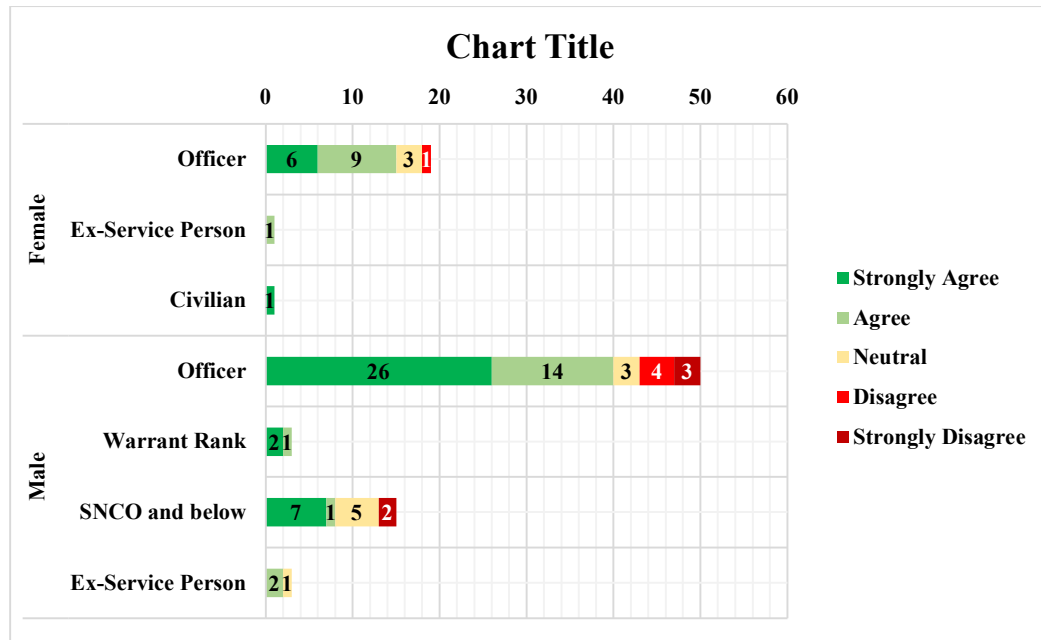
Respondents	Good	Fair	Total
Female	15	6	21
Officer	14	5	19
Ex-Service Person	1		1
Civilian		1	1
Male	56	15	71
Officer	42	8	50
Warrant Rank	2	1	3
SNCO and below	9	6	15
Ex-Service Person	3		3
Total	71	21	92



All respondents have good / fair knowledge about work environment in IAF

10. Do you think the environment in IAF is conducive for women officers?

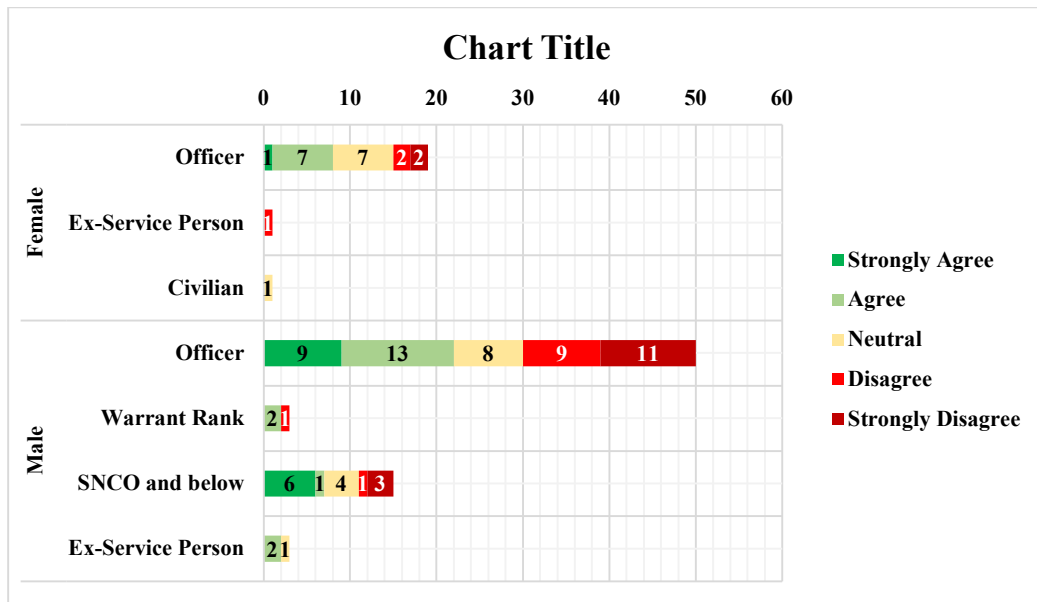
Respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Grand Total
Female	7	10	3	1		21
Officer	6	9	3	1		19
Ex-Service Person		1				1
Civilian	1					1
Male	35	18	9	4	5	71
Officer	26	14	3	4	3	50
Warrant Rank	2	1				3
SNCO and below	7	1	5		2	15
Ex-Service Person		2	1			3
Grand Total	42	28	12	5	5	92



Vast majority of respondents agree that environment is conducive in IAF for women officers. The views are consistent in all categories cutting across ranks, gender etc.

11. Do you think the environment in IAF is conducive for women in all ranks (including as airwomen) ?

Respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Female	1	7	8	3	2	21
Officer	1	7	7	2	2	19
Ex-Service Person				1		1
Civilian			1			1
Male	15	18	13	11	14	71
Officer	9	13	8	9	11	50
Warrant Rank		2		1		3
SNCO and below	6	1	4	1	3	15
Ex-Service Person		2	1			3
Total	16	25	21	14	16	92

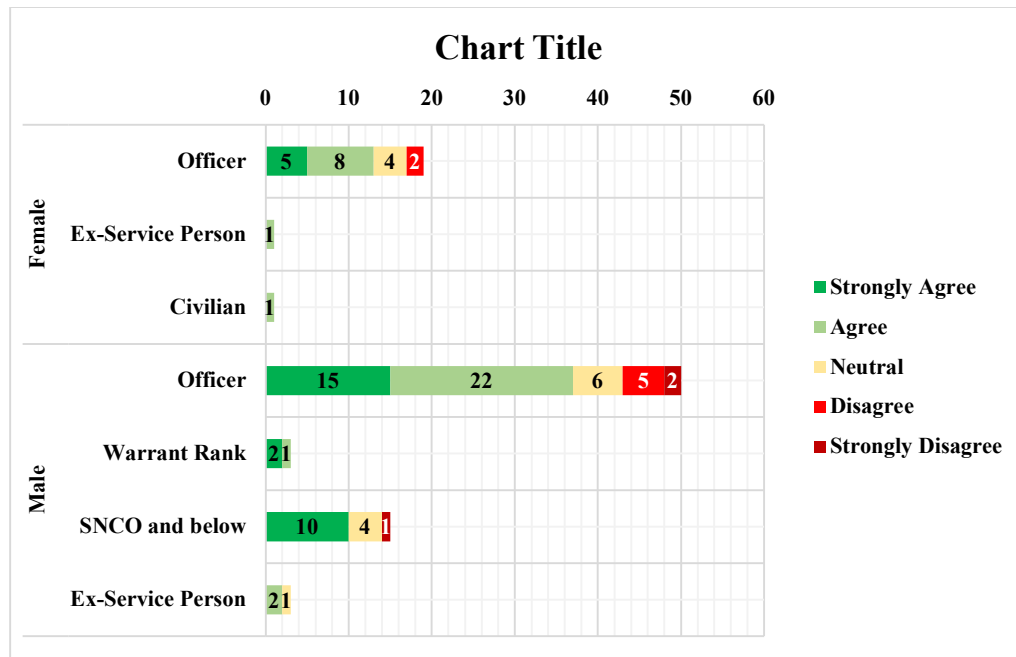


Approximately one third of respondents feel that currently the environment in IAF is conducive for women in all ranks.

A higher percentage of male respondents feel that environment is not conducive for women as compared to women respondents, who in most likelihood, are more aware about issues faced. If any, by women in IAF.

12. The infrastructure in IAF caters for needs of women officers.

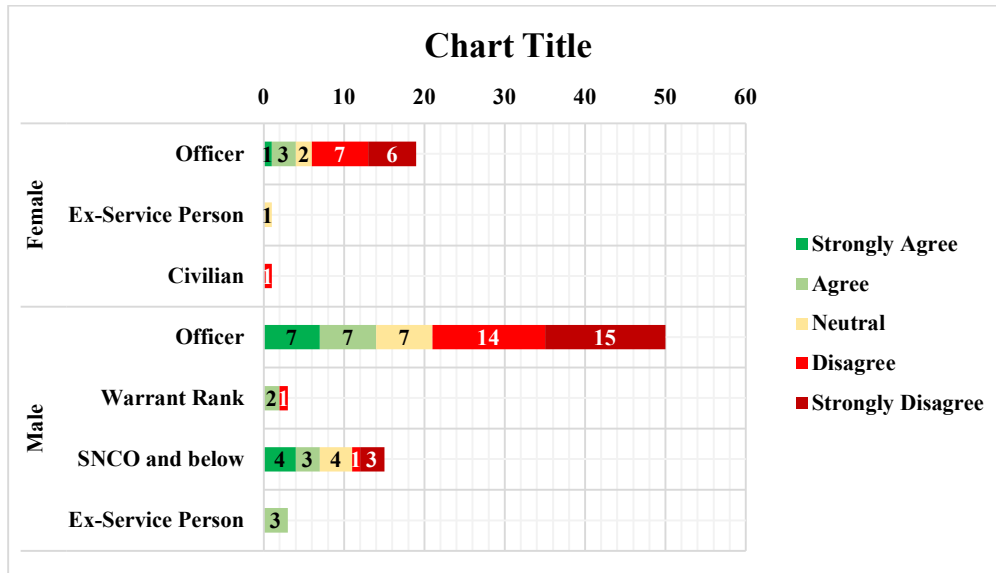
Respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Female	5	10	4	2		21
Officer	5	8	4	2		19
Ex-Service Person		1				1
Civilian		1				1
Male	27	25	11	5	3	71
Officer	15	22	6	5	2	50
Warrant Rank	2	1				3
SNCO and below	10		4		1	15
Ex-Service Person		2	1			3
Total	32	35	15	7	3	92



Roughly 10% of respondents feel that infrastructure in IAF is yet to be suitable for women officers.

13. The infrastructure in IAF caters for needs of women in all ranks (including as airwomen)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Female	1	3	3	8	6	21
Officer	1	3	2	7	6	19
Ex-Service Person			1			1
Civilian				1		1
Male	11	15	11	16	18	71
Officer	7	7	7	14	15	50
Warrant Rank		2		1		3
SNCO and below	4	3	4	1	3	15
Ex-Service Person		3				3
Total	12	18	14	24	24	92



The percentage of respondents who feel that infrastructure in IAF does not meet the requirements for women in all ranks is significantly higher.

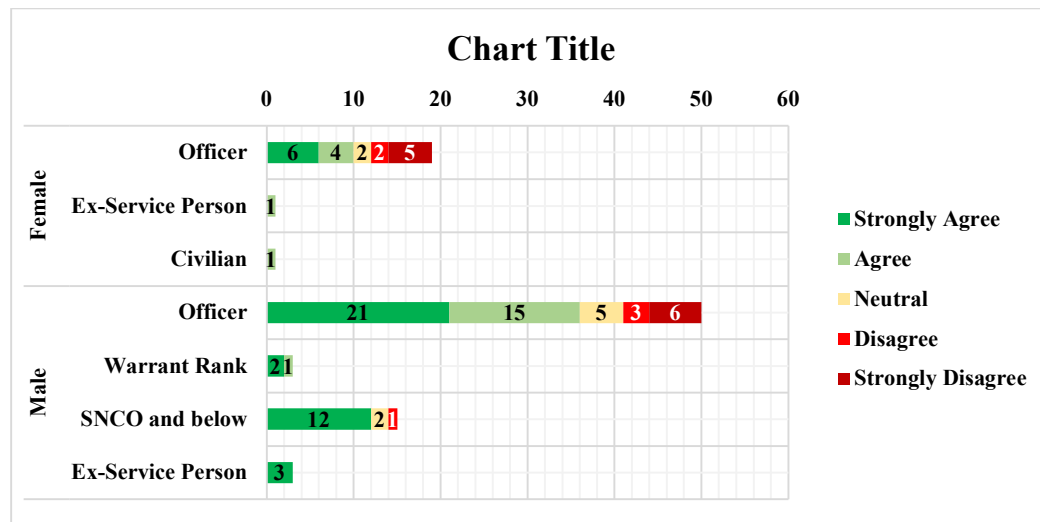
The percentage of officers who feel so, either male or female, is higher as compared to non officer category.

14. Are you aware that Indian Army and Central Armed Police Forces like BSF, CRPF etc. employ women in all ranks (including other than as officers)?

Responses – All YES!

15. Do you think Indian women are ready to work as airwomen in IAF?

Respondents	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Female	6	6	2	2	5	21
Officer	6	4	2	2	5	19
Ex-Service Person		1				1
Civilian		1				1
Male	38	16	7	4	6	71
Officer	21	15	5	3	6	50
Warrant Rank	2	1				3
SNCO and below	12		2	1		15
Ex-Service Person	3					3
Total	44	22	9	6	11	92

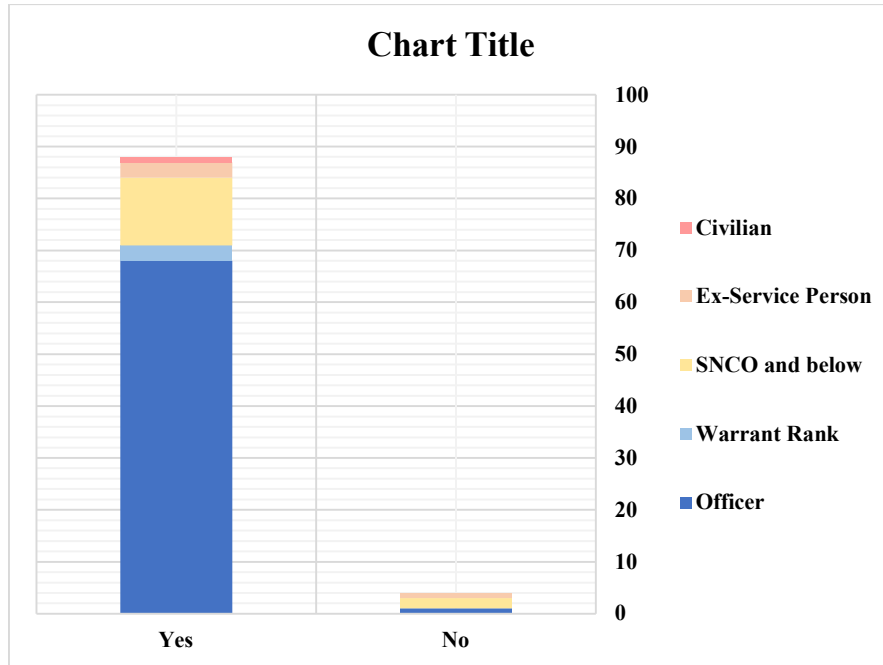


Less than 20% of respondents feel that Indian women are yet to be ready to serve as airwomen in IAF.

48% feel so strongly, another 24% agree. Percentages are more or less consistent across the barriers of rank, gender etc.

16. Are you aware that the entry has now been opened for women in NDA and girls in Sainik Schools ?

Responses	Officer	Warrant Rank	SNCO and below	Ex-Service Person	Civilian	Total
No	1		2	1		4
Yes	68	3	13	3	1	88
Total	69	3	15	4	1	92



Vast majority is aware of the latest development. The percentage is slightly lesser as compared to women in CAPFs etc, presumably because this is a very recent decision.