

## Editorial

While it is commonly believed that the time for major wars has passed, the security environment is becoming more complex. We should, however, remember that whereas there has been no global war after 1945 and no ideological war after 1991, the world has not witnessed an absence of conflict either. Besides the ongoing regional contestations and bilateral disputes involving sovereignty we are now faced with internal wars of high intensity, often with deep external involvement. West Asia and Africa are the current theatres of war while the situation in East Asia has the potential to boil over into a catastrophic conflict. The idea that economic interdependence can prevent conflict—much touted after the end of the Cold War—is being severely tested. The theory of power transition is also yet to be disproved.

The idea that fighting a war in present times will be unaffordable due to the costs involved, and also because modern equipment is getting more and more expensive, has come to influence European thinking. European countries are re-organizing their armed forces and reducing defence budgets. Even in the United States, one can notice a deliberate attempt to trim the defence budget and curtail involvement in conflicts. Its 'rebalancing' in Asia may turn out to be much more of an economic and diplomatic exercise rather than a military one, as was initially expected.

India does not yet have the luxury of scaling down the size of its armed forces or to abort its attempt to overcome large-scale obsolescence of military equipment while simultaneously having to address the issue of equitable growth and socio-economic development. There is hardly any debate on issues such as force restructuring, smarter ways of utilizing available resources, or the impact of delayed decision-making on matters related to defence and security on India's global and regional standing. These are some of the areas we would like to focus on in forthcoming issues of the journal. We hope to generate a debate on issues of contemporary relevance and flag those which will have a greater bearing on India's future security needs.

The current issue makes a start in this direction, discussing modernization of the armed forces, equipment, emerging technologies in weaponization, among others. Amit Cowshish kick starts the discussion with his article, 'Assessing Modernization of the Indian Armed Forces through Budgetary Allocations', wherein he seeks to spell out the distinction between modernization and capital acquisition through budgetary provisions. Cowshish points out that in the absence of conceptual clarity about what constitutes military modernization, the tendency is to equate it with capital acquisitions and to assess the state of modernization through the prism of the 'modernization' budget, with the entire focus being on allocation and utilization of funds. He opines that this approach is flawed as the 'modernization' budget itself is a notional sub-set of the capital budget and what constitutes this budget is not defined. Indeed, the composition of the 'modernization' budget has undergone some changes over the years. As things stand today, all expenditure incurred from the 'modernization' budget is not related to modernization, while some expenditure which could justifiably be viewed as being related to modernization does not get reflected in the 'modernization' budget. Cowshish highlights the need to bring about greater clarity by first defining the concept of modernization and then preparing an annual report card on modernization through outcome budgeting. This will facilitate a more informed, dispassionate and rational debate on the state of modernization of the armed forces in India.

Sataluri Govind undertakes an experienced, nuanced analysis of the state of the Indian Navy's submarine arm. 'Is the Submarine Arm Losing its Punch?' begins by establishing the importance of the submarine in naval warfare: the submarine's characteristics make it a necessary component of every navy's inventory to ensure protection of vital interests at sea. Govind opines that India needs a mix of nuclear and conventional submarines to maintain strategic and tactical deterrence in its areas of interest. The Indian Navy's submarine force levels are nowhere near the requisite numbers and the accident on-board the *Sindhurakshak* in August 2013 further eroded its underwater capabilities. Issues concerning safety and maintenance also have a bearing on the operational capabilities of submarines. The reduction in the navy's submarine force levels stands in stark contrast to the modernization programmes of China and Pakistan.

In November 2013, India and China signed the Border Defence Cooperation Agreement (BDCA) between India and China, during

the visit of the Indian Prime Minister Manmohan Singh to Beijing. In 'Border Defence Cooperation Agreement: The Ice Breaker in Making?', Bijoy Das examines the significance of the recently concluded BDCA as a new instrument to manage border incidents more efficiently. Almost 60-odd years since China and India became immediate neighbours, perhaps for the first time in history, the India–China border remains disputed. Das argues that the BDCA is primarily a confidence-building measure based on the principle of mutual and equal security, and that it has the potential to achieve even more. At the same time, the agreement also contains provisions that can change the narrative on the border, build military and political trust, and make a positive contribution towards managing problems such as drug trafficking, wildlife conservation and peaceful political resolution of armed insurgencies. All that will depend on whether the agreement is followed in letter and spirit.

In 'Maritime Security in the Indian Ocean: An Indian Perspective', Sarabjeet S. Parmar opines that India's conception of maritime security in the Indian Ocean Region (IOR), and specifically, its approach to maritime security, has a long historical legacy. While admitting the influence of India's colonial past in shaping the Indian perspective on maritime security, Parmar focuses on the post-independence period wherein the challenges presented by various geo-political currents and India's quest for ensuring energy and trade security have influenced its conception of maritime security in the IOR.

In 'IAF Equipment and Force Structure Requirements to Meet External Threats: 2032'—a follow-up to his article 'Challenges for the Indian Airforce: 2032', published in *JDS* Vol. 7, No. 1, January–March 2013—Vivek Kapur continues his focus on the external threats and challenges that are likely to be faced by the Indian Air Force in the next two decades. His current article examines the threat posed by China and Pakistan individually and jointly. Based on these challenges, Kapur posits a possible force structure for the IAF.

In 'Directed Energy Weapons for the Indian Armed Forces', Biswajit Bose focuses on the next chapter of weapons technology development— Directed Energy Weapons (DEWs), given that the 'blast and fragmentation' type of conventional weaponry cannot advance much further technologically. He estimates that by 2035, DEWs, consisting of laser, microwave and millimetre waves, can reach current performance levels of the existing kinetic energy weapons (KEWs) and conventional

weapons. While the advent of DEWs would not mean the end of conventional and kinetic energy weapons, a non-DEW option would have a debilitating effect on the defence preparedness of any nation. The numerous advantages of DEWs have made them a preferred project of choice for development by Russia, France, US and China. Bose stresses on the need for India to consider the potential advantages of developing DEW technology, highlighting the importance of DEWs in the Indian context, and aims to impel thinkers and policymakers to draw up a road map for the development of DEWs.

This issue also carries a commentary by Arnab Das titled 'New Perspective for Oceanographic Studies in the Indian Ocean Region'. Das highlights the challenges for the sonar designer in understanding the uncertainties of the underwater environment in littoral waters, specifically in the tropical littoral waters of the IOR. He points out that conventional oceanographic data collection entails huge infrastructure requirement and still produces sub-optimal results. He advocates adopting Underwater Glider concept as an alternative, it being a more cost-effective and efficient strategy for automated oceanographic data collection and analysis.

This issue also includes two detailed reviews: S. Samuel C. Rajiv reviews *Eating Grass: The Making of the Pakistani Bomb*, by Feroz Hassan Khan and Sturi Banerjee reviews *India's Foreign Policy and India's National Security* (2 Vols), edited by Kanti P. Bajpai and Harsh V. Pant.

The Editorial Board of the *Journal of Defence Studies* wish its readers a Happy New Year and hopes for a continued association. The Board welcomes suggestions, criticism and feedback with the sole aim of improving the quality of the Journal for the benefit of its readers. We would like to publish select feedback from our esteemed readers 'Letters to the Editor' section, so do write in. The past year has also seen an increase in the number of subscribers, especially from the Indian armed forces. We hope the trend continues in 2014.