



**GLOBAL INDIA PODCAST
The Brookings Institution**

**“India-China security competition on land, at sea,
in space, and beyond”**

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Episode Summary:

India faces security competition and capabilities gaps with China across several domains: conventional, maritime, space, nuclear, and cyber. In this episode, Tanvi Madan speaks with three experts about these challenges, the linkages between them, India’s response, and the potential role for India’s partners. Her guests are Walter Ladwig of King’s College London; Raji Rajagopalan of the Observer Research Foundation in New Delhi; and India’s former chief of the naval staff Admiral Karambir Singh, now chairman of the National Maritime Foundation in New Delhi.

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MADAN: Welcome to *Global India*, I'm Tanvi Madan a senior fellow at the Brookings Institution, where I specialize in Indian foreign policy. On this new Brookings podcast, I'll be turning the spotlight on India's partnerships, its rivalries, and its role on the global stage. This season our conversations will be focused on India's relationship with China, and why and how China-India ties are shaping New Delhi's view of the world.

In the HBO show *The Wire*, there's a conversation between two characters. Cutty says, "game done changed." Slim Charles on the other hand replies, "the game's the same, it just got more fierce." He could have been describing India-China security competition. There have been security considerations and concerns in that relationship since India gained its independence and the People's Republic of China came into being in the late 1940s.

These were evident in the war the two countries fought in 1962, which India lost. That conflict enhanced the Indian sense of China as an adversary, alone and in conjunction with Pakistan. There were periods when New Delhi and Beijing managed this competition, and that allowed for cooperation between the two countries in certain domains.

But that competition, that security competition, has never really disappeared. And indeed, since 2020, when there was a fourth significant military standoff in a period of seven years between the two countries, India's threat perception has intensified.

This sense has only been exacerbated by the capabilities gap between India and China. Three decades ago, their economies were about the same size. Today, China's economy is more than five times that of India, and its defense budget is over three times.

And this gap has contributed to India's desire for partnerships with others as it recognizes that it cannot deal with the security challenge on its own.

Today on this episode, the second episode of the *Global India* podcast, we'll be discussing the security challenges that India sees across several domains:

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conventional, maritime, nuclear, space, and cyber, the linkages between them, how India is addressing these challenges it sees from China, whether or not India sees its partners as playing a role, and what potential Indian efforts to stabilize relations with China might mean for those partners.

I have three guests today across two segments. The first segment will feature Dr. Walter Ladwig and Dr. Rajeswari Pillai Rajagopalan. Walter is a senior lecturer in international relations at King's College London. He specializes in South Asian security issues and the geopolitics of the Indo-Pacific. He is currently writing a book on Indian defense policy co-authored with Dr. Anit Mukherjee.

Rajeswari, or Raji, is the director of the Centre for Security, Strategy and Technology at the Observer Research Foundation in New Delhi. She writes a weekly column for

The Diplomat on Asian strategic issues. You can learn more about them in their bios which will be linked in the show notes.

We'll have a second segment then, which will feature our guest, who will be retired Admiral Karambir Singh, who was India's 24th chief of naval staff from 2019 to 2021. He's currently the chairman of the National Maritime Foundation in New Delhi. His various senior roles included deputy chief of naval staff, as well as flag officer commanding-in-chief of the Eastern Naval Command before he became India's navy chief.

Let's get started with our first segment with Walter and Raji, where they will cover how India sees challenges across several security domains, conventional, nuclear, space and cyber.

Welcome to the *Global India* podcast, Raji.

RAJAGOPALAN: Tanvi, it's great to be here discussing some of these issues in the context of India-China relations. Looking forward to it.

MADAN: Thanks, Raji. Welcome to you as well, Walter joining us from London.

LADWIG: Thank you, Tanvi. Really happy to be here.

MADAN: Great. We're going to actually deep dive into some of the issues that were previewed in the previous episode, talking about India-China security dynamics. I'm going to start with both of you talking about perceptions of the challenge that India sees and in various security domains. Walter, starting with you, as India sees it, what are the challenges it sees in the continental domain that it's facing from China?

04:38 What challenges does India see from China in the continental domain?

LADWIG: Well, the principal continental challenge is a fundamental transformation in the character of the border dispute. And then with it, I would say a transformation in bilateral relations that have occurred since the 2020 Galwan clashes.

I think the idea that the China threat was perpetually multiple decades down the road, the idea that by showing kind of concern or deference for China's core concerns—without necessarily insisting on reciprocity and respect for India's concerns—could somehow manage relations, is out the window. And as [Indian External Affairs Minister] Dr. Jaishankar has said in numerous venues, the old formula of separating the border dispute from the rest of the bilateral relationship is simply something that isn't going to happen. It isn't going to work anymore.

So in the past, there was faith, I think, that the various agreements that had been negotiated on managing and stabilizing the border that go all the way back to the 1990s would be upheld. I don't think that confidence in those exists anymore. In particular, the way in which China has framed the current dispute—about being one over sovereignty—makes it much harder to resolve and negotiate. Space that may have previously existed is no longer there.

And this is then a real challenge from an Indian perspective, because by many metrics, China's position might be seen to be a stronger one. Although, of course,

the Chinese military is not concerned just about India, but it does spend about two-and-a-half times on defense as India does, so it has a lot of troops to go around. In the last decade, we've seen China undertake a major buildup of military-related infrastructure in Tibet, road and rail networks, air connectivity.

Now, in fairness, this does have a lot to do with their concerns about maintaining internal control in Tibet. But the challenge from the Indian side is that these same transport links that could bring, say, People's Armed Police, can also bring combat soldiers if need be.

And so, as the party that is at present not withdrawing its forces from disputed territory, it has the ability to create facts on the ground. And there's a sense that the Chinese might be trying to outlast the resolve of Indian political leaders who have competing pressures to perhaps normalize the relationship to an extent to perhaps takes some heat out of the relationship.

At the very least, we've seen efforts over the past several years to put down more permanent markers to kind of claim Chinese sovereignty in some of these areas. So there's been reports about a quarter of a million Tibetans being resettled into so-called "well-off villages," again to create facts on the ground and to exert control.

And then finally, the clashes that we've seen and the competing incursions that have taken place since Galwan suggest that the Chinese military sees these tools as a way of perhaps putting a degree of pressure on India and at the very least suggests that low level skirmishes of these type might be part of the sort of new normal in bilateral relations, which then makes this long-hypothesized two-front threat from China and Pakistan much closer to being a reality.

08:02 How is Pakistan linked to India's continental challenge from China ?

MADAN: Walter, I just want to draw you out on that last point you made. As you alluded to the two-front challenge—Pakistan's been India's other traditional rival. How has the China-Pakistan challenge been seen as linked in this domain from Delhi's perspective?

LADWIG: Well, since the 1950s, certainly into the 1960s, China has emerged as Pakistan's primary military patron. I think most common observers see the U.S. as having been Pakistan's main backer. But China has always been there as well, and since the 1990s has played a far more important role. So conventional munitions, support for Pakistan's ballistic missile programs, nuclear programs. China is currently building connectivity through the China-Pakistan Economic Corridor through disputed territory claimed by India.

And there's long been a perception that Pakistan has been a proxy for Beijing, that by keeping Pakistan strong enough to be an irritant and a security concern for India, it was a way for China to keep India distracted on the cheap and prevent India from being able to focus its efforts and attention into the Asia-Pacific more broadly.

09:21 How Indians see the nuclear challenge from China

MADAN: Raji, I want to pick up on something that Walter mentioned. He talked about the nuclear dimensions. But, of course, now it's not just the nuclear dimension where we're seeing this competition playing out. Also cyber, also in the space domain. Talk to us about how India is perceiving security dynamics in these domains when it comes to China.

RAJAGOPALAN: When it comes to nuclear, the challenge is not new. In fact, it's an existing challenge, which is that China is a nuclear power and India needs to develop various capabilities to address that. So in that sense, nothing has changed in terms of a new challenge coming from China.

But generally the India-China nuclear relations are considered stable because both have maintained a relatively small, modest arsenal and both have a declared NFU [no first use] posture, and therefore there has been no talk about using nuclear weapons, despite the fact that they are engaged in an active conflict right now or even in the past multiple conflicts that we have seen.

There is no real fear of escalation from a conventional conflict to one that involves the use of nuclear weapons. The assumption, at least on the Indian side, is that the Chinese leadership is mature, responsible, and it will behave as a responsible stakeholder than engage in talking about use of nukes in a casual manner, which has been the case if you look at the Pakistani leadership.

But I think things are changing. China is engaged in what appears to be a large-scale expansion of its nuclear forces. And of course, the lack of transparency makes it difficult to understand the extent or purpose of this expansion that we're seeing today.

So in terms of the key challenges coming from China, its nuclear expansion, along with the possible dilution of its NFU doctrine, the no first use doctrine, can be particularly concerning. And if you look at the latest estimates from the SIPRI [Stockholm International Peace Research Institute], China's nuclear warheads have grown from 350 in 2022 to about 410 in January 2023. And many experts claim that with the kind of expansion that we see, it is a mismatch between China's declared aim of maintaining only a minimum deterrent force.

But even in the absence of China's expansion that we see today, China has been reviewing and improving its nuclear capabilities. So the kind of qualitative changes that China has been engaged in in the past decade and along with now, of course, the quantitative changes, I think these are worrying trends that one sees.

But again, in Delhi, you don't see much of a debate on this particular aspect of China's expansion. New silo discoveries have happened, yet there has not been, at least in the open space, not much of a debate in terms of the kind of challenges that India should be prepared for while looking at China.

12:08 How Indians see the cybersecurity challenges from China

Cyber is an entirely different thing. China's growing cyber capabilities, including influence and information operations to offensive cyber tools capable of targeting one's critical infrastructure, these have been growing. These are worrying trends.

China, of course, may not have a declared cyber warfare doctrine, but the kind of actions that it has undertaken so far is very reflective of the offensive cyber capability undertaken for a number of, whether it is reconnaissance, attack, defense, deterrence, and so on and so forth.

And of course, there have been a large number of cyber-attacks on India, including from China and North Korea. Attacks on India's critical infrastructure, including atomic energy, space, power sectors and so on and so forth.

But the Indian government has also somewhat been careful not to attribute or not to even identify these attacks that they were coming from China, even though the government clearly recognizes and maybe indirectly makes a reference to the China challenge in the cyber domain.

Recently, the government, the minister, the IT minister, Rajeve Chandrashekhar, was talking about the increase in the number of attacks, cybersecurity incidents that have been put together by the Computer and Emergency Response Team, CERT-In.

But I think, again, the numbers are alarming. I don't want to go over the numbers, per se. But the government still does not really come out talking about, giving official confirmation of the specific events that are coming from China in a sense. But clearly, I think there is a growing set of worries about what China is able to do in the cyber domain. The number of attacks on critical infrastructure has been something that should be particularly worrying.

13:45 How Indians see the China challenge in the space domain

Now to come to space issues, I would say no specific challenge, but I think the Indian efforts are in some ways is to maintain some sort of parity. But that is in the broader domain when you look at it.

But if one were to look at the space security domain, specifically, China's advancing space capabilities do raise some concerns because of India's increasing use of space for a number of developmental as well as military utilities.

And of course, China's first successful anti-satellite test, or ASAT test, in January 2007 was a wakeup call for India. Which in a sense kickstarted a new debate within India on the kind of threats, challenges, and ways that India needs to put in place in order to protect its own space assets.

In a sense, it provided for a reevaluation of India's traditional policy against space militarization, created incentives for India to develop its own ASAT capability, which finally India demonstrated in March 2019. But China's counterspace capabilities are not restricted to the direct ascent ASAT weapons, which is the most destructive aspect of it. But they also include high-powered lasers, co-orbital ASATs, directed energy weapons, electronic jamming, spoofing, cyber means, and so on and so forth.

And Chinese have been employing them, testing them more precisely against the U.S. at this moment of time. One to send a political message to your adversary that

they have the capability right now and they can use them at any point of time should the need arise.

But second is also testing out their own technical feasibility of undertaking such kind of disruptive, damaging interferences and so on and so forth in other countries' space activities.

So, overall, on nuclear, space, and cyber, I think the kind of capabilities that China is developing and the kind of disruptive activities that China has been engaged in—maybe not as many space activities, counterspace activities against India, but the number of cyber incidents have been growing; and the Chinese nuclear expansion continues to grow at the pace that we are seeing right now—that could also be worrying trend for India.

15:55 Are the maritime and advanced domains challenges linked to the continental one?

MADAN: Walter, I just want to before we get to the approach that India is taking, just in terms of even the perceptual challenge, I want to pick up on these issues that Raji has laid out in terms of these advanced domains and the challenge there, but also mention something we'll be discussing later in this episode with Admiral Karambir Singh: the maritime security domain. How do you see them as linked, if at all, to the continental challenge that you laid out?

LADWIG: Well, they're certainly relevant, right? The world in which the cyber domain or the space domain was somehow separate from land warfare no longer exists. So from a continental standpoint, we would see these as key force enablers. So the ability to monitor the border and to detect incursions is enhanced by UAV technology, is enhanced by space surveillance technology. Cyber as a disruptive tool is increasingly seen as a normal component on the future battlefield.

The maritime domain, then, is a very interesting one because the structural, infrastructural, financial, and geographical advantages that China is seen to have on the border are to an extent, there are a number of analysts who suggest that that they could be balanced in the maritime domain. That this is where India has an advantage, and there are some who go so far as to say that rather than attempting to sort of match China soldier for soldier, road for road on the border, that India should instead try to play to its comparative advantage and focus on maritime.

We know that China relies significantly on the Indian Ocean, both for oil coming in to fuel its economy, as well as for goods flowing out into the world to important markets in the Middle East, Africa, and Europe. All that transits the Indian Ocean. And there are some who suggest that the Indian navy could bring pressure through blockades or interdictions of key choke points.

This sounds good at a 40,000 foot level. I think when you start to dig into the ways in which this could actually happen, the difficulties multiply in terms of differentiating between vessels going to China versus South Korea versus Japan. The nature of modern shipping where goods are often carried on vessels registered to third countries. So you might be interdicting a Tanzanian vessel even if it's carrying oil bound for China. So those things are very difficult.

18:27 The state of the Indian navy's fleet and forces

The other issue that I think we need to recognize and is very important for the Indian navy is the state of its own fleet and forces. So the People's Liberation Army Navy has undergone a significant increase in both its technological sophistication but also in its absolute numbers. Unfortunately, the same is not necessarily true for key aspects of the Indian navy, and in particular, if we're talking about the ability to control strategic areas of the Indian Ocean, we're talking about the submarine force. Right? That is really the tool that states use to close off access to strategic waters.

At present, India's submarine fleet has only about two-thirds the number of boats that it was supposed to be at this point, largely through a series of delayed acquisitions and tenders that have gone nowhere. Many of those submarines that India does have are approaching the end of their service life. Some of them have been refit once or twice. So this is a significant priority area.

On paper, comparative advantages exist, but the navy needs more in the way of funding and support to be able to really capitalize on those and make that a viable counterpoint to some of the Chinese advantages on the continent.

MADAN: And of course, there is a debate amongst those who look at this in India on: more submarines or more aircraft carriers? We're not going to get into that on this episode, we might be here forever.

20:00 What has India been doing to address the nuclear gap?

I want to go into India's approach as it's seen in these domains, particularly the capabilities gap growing both in quantity and in some cases in quality. Raji, what has in domains that you've covered for us, what has India's response been in terms of addressing some of these challenges? What has India been doing over the last few years?

RAJAGOPALAN: So, on the nuclear front, India has been trying to build the missiles with sufficient range to target all of China. This has remained the primary focus and not so much in terms of expanding the nuclear arsenal per se, at least not in any alarming fashion. So if you look at the growth trajectory of India's nuclear arsenal since 1998, it's been more like 4.5 to five weapons per annum. And that's not a massive expansion that we see.

So the nuclear arsenal expansion has not been per se the focus, but the emphasis is more on delivery systems such as long range missiles. And again, within this, the land-based missiles has been the primary focus. But India's longest range missile, Agni-V, which has a range of 5,000 kilometers, cannot cover all of China. More importantly, it is even not clear if the Agni-V has been deployed.

And so India does need to develop missiles that has a range of 7,000 kilometers or more if India has to be able to target all of China. But as of now, the longest range of the India's deployed missiles is Agni-II, which is only 2,000 km. So in terms of the capability gaps, it is quite significant even for the land-based missiles that India has been focused on.

Second, India has also been developing the second-strike forces by looking at the development of SSBNs, since SSBNs do promise a greater survivability. But if you were to look at the current SSBNs, these are underpowered—the Arihant, for instance. And it's more of a technology demonstration and of course we don't have long-range missiles that go with it with sufficient range. The only deployed operational SLBM today that we have is K-15 with 750 kilometer range, which is completely insufficient. K-4, which is in the production phase, has about 3,500 kilometer range, but it's still in the production phase.

So when I look at the overall nuclear deterrent capabilities, we still have a long way to go. So I'm not sure that we are catching up with China in terms of, not number-for-number, but even qualitatively what we need to do in terms of able to have a credible minimum nuclear deterrent.

22:35 India's response to the cybersecurity challenge

India's response to cyber challenges have been slightly different. India, of course, remains cognizant of various threats that emanate from China. But despite the talk of being an IT power, there have been a lot of centralized response measures that have been put into place. Clearly, these are not sufficient because there have been attacks coming from even North Korea, and of course China and from a number of other spots.

So in terms of our ability to kind of respond to and come up with an appropriate set of measures to prevent these attacks in the first place, I think India's response has been rather poor. So we need to go, again, some distance before we can say that we are able to stop cyber-attacks from happening. And there have been cyber-attacks on critical infrastructure. Over the last three years, for instance, the number of attacks on India's health infrastructure or the financial or other technology sectors, I think these are all becoming critical and India still does not have an appropriate measure to kind of prevent these attacks.

23:33 India's response to security challenges in the space domain

On the space front, India's somewhat working with a number of startups to fill up the huge amount of capability development that we have. I think the primary focus is in terms of the capacity deficit within the Indian Space Research Organization [ISRO], the civil space organization that is responsible for India's space program. India's response to China's counterspace capabilities has been most evident when India conducted the ASAT test, anti-satellite test, in March 2019. Again, with a clear response to China's ASAT weapon capability development.

But again, the ASAT demonstration was in some sense an effort to catch up to a capability that existed in the region, in the neighborhood, and had a message for China. But that alone is not going to be able to have the kind of deterrence value that India seeks to develop.

So the DRDO, the Defense Research and Development Organization, has plans to develop an entire range of counterspace capabilities, including directed energy weapons, laser, co-orbital killers, and so on and so forth.

But again, what the DRDO claims, I think that's to be taken not with a pinch of salt, but with a spoon of salt in terms of what they say, what they claim, because there are a whole lot of other factors that come into play for DRDO to make these kind of claims.

But I think the bigger point is that there's a huge capacity deficit. So unless the ISRO and the Indian government as a whole is able to expand the number of stakeholders involved and bring in the private sector as a capable actor, as an independent actor, India's ability to respond to any number of challenges coming from China, but also to respond to the whole lot of growing set of demands within India itself—I think that won't be really possible unless India is able to bring in the private sector.

There have been some measures in recent times, but I think we still need a piece of legislation for the private sector to have that kind of certainty to put in their money. So, unless there is a piece of legislation that happens that comes out of the parliament process, the private sector is still apprehensive of putting in money in serious R&D and so on and so forth. So there are some issues that we still need to deal with, even though space is relatively a sector that India has done well.

25:42 How is India addressing the challenge in the continental domain?

MADAN: Walter, what about the continental domain? What has India been doing to address the challenges that you laid out—along with what Raji laid out? What in this space—no pun intended—what has India been doing to address this challenge?

LADWIG: So, the focus of efforts for Indian security managers is now on China. You referenced earlier this notion that for decades Pakistan was seen as the primary security threat. That has now been significantly downgraded. And as a result, we've seen the Indian army engage in a degree of redeployment and reorientation of its forces in effort to project and put sufficient numbers of troops focusing north so that they could deter or perhaps even deny efforts to get easy gains on behalf of the PLA.

So, the strike corps of the Indian Army are its major offensive power. This is tank heavy, armored vehicle heavy. One corps, which had previously been primarily focused on Pakistan, has been shifted to give attention to the northern border. So now we have two strike corps pointing towards China and two towards Pakistan, which is a notable rebalancing. Divisions that are based in the northeast that had previously been focused on counterinsurgency and counterterrorism missions have now handed those off to paramilitary police forces and are instead primarily focusing on the northern border. And we've seen the deployment of at least one division to the central sector—again, previously Pakistan-focused, now there to support the independent brigades who had been stationed along the border.

And these are no small things. Right? If you're going to take troops who are previously trained for plains operations and reequip them and reorient them for operations in the mountains, that's a long-term commitment and that's a long-term change. But that being said, this is simply a moving pieces around. These aren't necessarily the induction of new forces. This is re-tasking and reorienting existing forces.

27:50 Efforts to address the infrastructure gap at the Sino-Indian border

Alongside this, there have been efforts to upgrade and close the infrastructure gap that exists between the Indian and the Chinese side of the border. For a long period of time on the Indian side, there was a sense that by purposefully letting some of these areas lay fallow, by not building roads all the way up to the Line of Actual Control, it was a smart defensive measure because you didn't have offensive ambitions, you weren't planning to attack the Chinese. But if you built roads up to the border, should they attack that might then give them easy ingress into your territories. So while the Chinese were building up metaled roads along the border so they could drive patrol vehicles, Indian patrols had to go on foot and so forth.

That mindset has changed. There's been a road-building effort underway since the early 2000s. It's gained much more steam. I think, the figure I saw was about 150 million has been spent since 2020 building new facilities that would allow the 50,000 or so troops that are currently deployed north to remain on post in terrible weather conditions. Again, in the past, depending on locations, troops would sometimes come down from heights or come down from more inaccessible regions during the worst months of winter. Their efforts allow them to stay on position throughout the year.

And then undergirding all of this is a really renewed focus on developing India's defense industrial base. Since independence, self-reliance in the defense sector has rhetorically been a priority, but it was most often honored in the breach. Now we're seeing real forced efforts at indigenization to kick into overdrive and really try to lead forward the capabilities in the public and private sector. But this is really just at the start of a very long-term process.

29:38 The Indian armed forces' modernization requirements

MADAN: Walter, one of the things Raji mentioned a bit that I'd like you to draw out as well is, you've addressed what India has been doing so far. What would you like to see India do more of in addressing these challenges?

LADWIG: Well, I think the answer is to create a more significant ability to deter and deny China easy gains on the border. And the problem is rooted, as I already mentioned, in the fact that the Chinese defense budget is many times that of India. And this problem is compounded by the fact that across all three services there are significant modernization needs.

So in terms of the Indian army, numbers of tanks and armored vehicles and artillery and other key systems are approaching obsolescence. And the challenge that the Indian army in particular faces—and I talk about the army because it's such a significant component of India's overall armed forces—is that it is very manpower intensive. It was built and designed for a time long ago when labor in India was cheap; and labor is no longer cheap.

In fairness, personnel costs in militaries around the world have exploded in the last several decades. It's not just an India problem. But what we see is that the cost of labor, pensions, and benefits are consuming an ever larger portion of the Indian

defense budget, which means that there's a lot less money to go around, to buy new equipment, to upgrade, and so forth.

And so what needs to happen is a shift towards technology, trying to find ways to use technology and systems—we mentioned UAVs earlier—to replace boots on the ground missions. And also, when we talk about the military, we talk about the tooth-to-tail ratio. Right? How many frontline soldiers do you have versus the people who support them. In what ways can the Indian military, but again, principally the army, use technology to reduce the number of support functions so that you either free up more soldiers for combat operations or you free up more money for modernization.

And we also need to see more in the way of jointness across the services. So the Indian army's ability to respond so rapidly in 2020, the Indian army's ability to sustain some of these very remote locations, relies extremely heavily on the Indian air force's strategic airlift capabilities. And so we need the Indian army and the air force to be able to operate ever more closely together and synergistically.

They have their own modernization needs; in terms of the state of fighter aircraft in the Indian air force is particularly dire. Again, like the submarine fleet I talked about, a series of failed tenders in combination with the slow development of indigenous production has meant that the number of fighter aircraft have dropped. In 2019, during the Balakot clash, we saw the Indian air force's air-to-air missiles being outranged by their Pakistani counterparts. We saw Indian air force communications being jammed by the Pakistani air force.

Now, some of those issues have been addressed since then, but they don't necessarily give a tremendous amount of confidence about how these forces might square up against the Chinese air force, particularly one that's backed by some very sophisticated and very dense air defense systems.

So, there is a lot that needs to be done to bring the Indian military into a cutting edge technological standard. But that really has to start with solving this manpower problem and kicking industrial production domestically into gear. I think the challenge is that, at present, a lot of Chinese observers are fairly dismissive about the Indian military. They don't see the Indian military as posing a threat because of the state of military modernization and because of the state of defense manufacturing. And until those two progress, deterring is going to be a lot harder.

33:35 Does India see a role for partners in addressing its capabilities gaps?

MADAN: Raji, I don't know if you want to add something to some of the points you made about things that India needs to do in the nuclear, space, and cyber domains. But I also want you to tell us, does India see a role for its partners in addressing the challenges that you laid out or helping narrow the capabilities gap? What does this mean for India's partnerships that it's been developing over the last few years?

RAJAGOPALAN: So, of course, India needs to get a lot of things right in the nuclear domain in terms of the longer range missile capabilities that is still needed. But also it needs to think about the nuclear expansion, because if China were to go beyond a thousand warheads and so on and so forth, what kind of compulsion would it bring about? What kind of restraint would it bring about in India's own behavior? And not

just restricted to the nuclear domain. So would it have a restraining effect in how India responds to a conventional conflict? So there are a whole lot of other things that come into play.

I think partners are increasingly important. India recognizes that. And India recognized the need for partners more in the domain of maritimes than the continental challenges. But when you look at the nuclear domain, I think it's going to be largely independent of partners. I think whatever India needs to do in terms of developing the kind of capabilities—because nuclear submarines, for instance, let's be clear about it, nobody is going to give India nuclear submarine technology or an SLBM. So the capability development mostly on the nuclear front has to be done by India on its own.

But I think there are still areas to look at. For instance, the kind of conversation, the intelligence cooperation, information sharing, the dialogue mechanism that needs to exist. And I did a lot of interviews in the last few months looking at India's response to some of these Chinese nuclear expansion and upgradation that China has undertaken so far. What kind of conversation do we need to have with partners? And many did suggest that we possibly are already engaged in U.S.-India conversation on China's nuclear expansion, gaining a better understanding of the logic of the Chinese nuclear expansion, and so on and so forth.

So partners, especially in the nuclear domain, when you look at it, I think it's going to be primarily in terms of developing a shared understanding, a common understanding, a better understanding of what is the Chinese nuclear expansion all about, where it's leading, and the logic and so on and so forth.

Because you can also look at the kind of capabilities: are they focusing more on ICBMs? Or are they focusing on IRBMs? If it is IRBMs then they are primarily looking at the regional context where Japan and India could be the primary targets and so on and so forth, or even Vietnam. But if they are assigning a larger proportion to ICBMs, then also you get to kind of what's the focus of the Chinese nuclear capability expansion and so on and so forth.

On cyber, there is a greater scope for collaborative cooperation, but I think there are also some hesitations, despite the obvious need to collaborate. Because U.S., India, Japan, these are some of the countries among the top when you look at it in terms of the highest number of attacks on their critical infrastructure.

But the hesitancy comes from the part that India is still doing a lot of business with Russia. And how does that really restrict, especially in the defense domain—a large chunk of the Indian defense inventory is still Russian, Soviet or Russian in nature. So therefore, the hesitancy to kind of share, the security of information that is going to be shared with India and so on and so forth.

So we have talked about several times creating dialogue mechanisms between the CERT-Ins, the computer emergency response teams between Indian CERTs and other CERTS and so on and so forth. We do engage in some dialogue. But again, how much of information sharing, how much of real-time info sharing is happening? I think there is some skepticism about that.

On space, I would say I think we have come a long way, and India is in fact more and more aligned with the U.S., or U.S. partners, U.S. allies, and so on and so forth. And most recently, India signed and became part of the Artemis Accords, which is a lunar exploration and governance arrangement. This is a U.S.-led mechanism, and this is something completely new for India. Because traditionally when you look at it, India went along with the G-21, typically the nonalignment countries at the Conference on Disarmament in Geneva, where these space security or arms control issues are being discussed.

And it's not a multilateral initiative, it's a U.S.-led initiative. So for India to become part of such an arrangement, I think that's something that is remarkable and that is in light of the kind of changes that we see both within the space security domain but also in the broader geopolitical dynamics.

Because India could not have become part of the alternate proposal, which is the International Lunar Research Station, which is a Russia- and China-proposed initiative. So clearly India is not left with too many good options and, given the kind of changes that we've seen in the geopolitics but also in the space security domain, I think India is increasingly aligned with the U.S., U.S. partners, like increasingly working with Australia and Japan and so on and so forth. So, I think that's the direction that I see when it comes to India's space program, space goals.

38:35 Does India see a role for its partners in the continental challenge?

MADAN: I mean, it's interesting because from what you say, it also reflects this constant tug in India between its need for alignment and its desire for autonomy. And sometimes the way it reconciles those is by, as you said on the space side, deepening ties with the U.S., yes, but then diversifying with other like-minded partners like France, which some have called the new Russia for India. And Walter, that's true in the continental domain as well in terms of India's capabilities.

But sometimes people will say, oh, you know, yes in the maritime and space and other domains partners are important, but beyond Russia they really aren't relevant to India's continental domain. I have a view on that, but is that correct from your point of view? Or has India seen now a role for its partners, whether that's Russia still or its newer Western partners—does it see a role for them as it seeks to address this continental challenge?

LADWIG: I think the answer is certainly yes. And we've seen the role that these partners have played in supporting India. Tanvi, you yourself have documented the support that the United States gave to India in the wake of the 2020 clashes, although the U.S. was asked to downplay and not be so public in discussing what sort of support that had come. But one can ask questions about UAVs that were flying over the border and were monitoring Chinese movements. Where did these suddenly come from and who were operating them? Right?

But we've also seen real payoffs in some of these extremely hard fought, ridiculously fought efforts to get foundational agreements signed between the United States and India, you know, after decades. What's the payoff right away? There's widespread reports that in December of 2022, Chinese incursions were defeated in part thanks

to geospatial intelligence that the United States provided to India. Right? So, these are very important enabling functions.

40:30 India's desire to develop its defense industrial base, and the potential role of its partners

And then beyond that, if we think of India's defense industrial base as being one of the foundations of its power alongside its economy, there's a real space for partner countries to help India progress. Right? We shouldn't have any listeners think that all of this talk about self-reliance means that India is looking to be autarkic, that India wants to completely develop technologies without any other partners and so forth.

Instead, what we're seeing is, in many cases, a rush to try to help India. So one key piece of technology is jet engine, jet aircraft, particularly high performance jet engines for fighter aircraft. Very, very difficult technology to produce. Even the Chinese have not been able to get a front-line engine. India wants to develop one and its Western partners are falling all over themselves. The United States and the British are competing, possibly with the French and maybe even the Russians, to see who can be India's technology partner to help India develop its jet engine of the future.

There's a range of technologies and a range of areas in which the private and public defense sector in India can be advanced through partnerships with Western partners. Bodies for Apache fighter helicopters, attack helicopters, are now being built in India. Wings for F-16 fighters are now being built in India. And this starts India down a path where mastering these steps in the process can lead down the road to a very vibrant and very robust defense industry. Because it's not just simply about those immediate technologies, it's about the broader ecosystem of expertise and suppliers and so forth that's going to need to be developed for India to be a first-rate military defense producer. And again, a real supporting role there.

So if we're talking in terms of do we envision French troops on the borders in Ladakh? Of course not. But do the exercises and drills that the Indian military across the board, all three services, have been undertaking with the French and the British and the Japanese and the Americans impart skills and know-how—are those vehicles for exchanging best practices, sharing perceptions, promoting future interoperability in ways that benefit both parties? Absolutely.

MADAN: It's interesting because an observer once mentioned to me that the other good thing down the line about Indian companies becoming part of Western supply chains in terms of defense industrial production is that it might help alleviate some of that reliability concern that India has always been concerned—especially, “U.S. sanctions will hit and we'll get cut off.” Well, if you're part of the supply chain, it's kind of interdependence more than dependence. We'll see down the line.

I think the second point I'll just flag is something both of you mentioned. India has been trying to diversify its capabilities away from Russia since before the Russian invasion of Ukraine. But for the foreseeable future, Indian military readiness will still depend on Russian capabilities. So, I think that we often talk about kind of the Western partners, but it will remain useful and relevant for India in that domain.

43:40 To stabilize the border situation, will India avoid measures to balance China that Beijing might see provocative?

I do want to ask before I get to our lightning round question, I want to ask about something that comes up often. We see often discussions about efforts between India and China, or at least a desire, to stabilize the border situation. So, not necessarily resolve it, but ensure that it doesn't escalate. So, something less than normalization, something more than just not another incident. In some ways, similar to what the U.S. is doing with China in terms of trying to set a floor, so to speak, through these discussions.

You often hear outside India this question from partners, who we were talking about, which is: if that happens or if India is keen on such a stabilization, and in their minds what that's done in the past is made India more reluctant to engage in these domains you've talked about, to engage with partners.

Do you see that happening again this time if there are efforts at stabilization? That is, are we going to see a redux of this concern about not wanting to provoke China and so not doing things with partners? Raji?

RAJAGOPALAN: No, clearly, I think there is some within the policy community and also within the government don't seem to be learning the right lessons. Because if you look back, 2017 happened, Doklam happened, and many wanted to believe that that was more of an aberration and that was not the kind of China that you should be prepared to deal with.

And come 2018, you had thereafter two informal summits. Many wanted to believe that this was a reset in the relationship.

Once again, there's a mood of optimism among many in the strategic community to think that there is going to be, again, a breakthrough in the relationship and things are going to go back to some semblance of normalcy.

There have been some amount of effort, even from the Indian side, to stabilize or bring in some semblance of normalcy. But I think that's driven by internal domestic considerations than anything else, because obviously we are going into general elections in a few months' time. Indian government does not want another major conflict to happen before that.

But again, to get taken in seriously to saying that there is going to be a breakthrough and we are actually the greatest of friends, we can be the best of friends, "Chindia," Asian giants and so on and so forth, I don't think that's the right way to look at these kind of changing dynamics at this point of time—very limited dynamics that we see. But I think many do take that particular line very seriously to say that there are going to be possibly changes that happen.

MADAN: Walter?

46:02 India's response to the cyber challenge

LADWIG: So I tend to see 2020 more as an inflection point. I completely agree with Raji about the pressures for taking some of the heat out of the relationship and the

sort of tactical maneuvers. I mean, what strikes me is the degree to which attitudes towards China have hardened across the board. And those who suggested in the past that a respect and concern for China's red lines would lead to reciprocity—I don't hear those voices as much.

Does anyone want to perpetually exist in a heightened state of antagonism? No. But I think maybe the ceiling has been lowered, I guess, for cooperation and hope. There might still be moves forward and into a better relationship.

And also, again, Tanvi, is something that you've documented: public opinion. Now, we always have debates about the degree to which public opinion actually shapes foreign policy in India, and that could probably be multiple podcast topic. But the way in which the average person's view on China has really changed, and at various points in the recent past, been on par with views of Pakistan. That is a really historical change from where things have been in recent decades.

So, as the Nobel Prize-winning physicist Niels Bohr said, predictions are hard, especially about the future. But what are the signs of a fundamental change on the Chinese side? Right? Do we even still have an explanation for what went on in 2020? Have they offered anything? When I talk to people in the MEA who deal with China—

MADAN: —that's the Indian Foreign Ministry—

LADWIG: —and asked them in these, you've had these multiple rounds of talks, 20, 22 rounds, what exactly goes on? They'll very kind of frankly say, well, we have talks. The Chinese talk and we talk and they don't listen to a single thing we say. And we sit back down again and they talk the same talk they talked last time—as if they can somehow think they'll just talk the Indian side into eventually giving up. But there doesn't seem to be much listening coming from Beijing. And so, it makes you wonder how that would ever lead to a change in behavior.

RAJAGOPALAN: Just to give you an illustration of the Indian effort to pacify or appease China in some sense. For instance, India had earlier in March agreed to when Australian prime minister was in Delhi for the summit meeting to be a full participant at the Australian-led operation Exercise Talisman Sabre. But now they've been downgraded to just being an observer. And some of the news reports talked about quote unquote, we didn't want to upset China which could result in Xi Jinping not coming to the G-20, and G-20 is something that India wants to absolutely get everything right.

So that's the kind of actions that we are taking in order to make sure that China is not upset with India. So I don't know whether that is going to really reap in any benefits. But that's what Indian establishment has done.

MADAN: It's interesting you bring that up because one of the other things I've been watching is while, for example, India is, for whatever reason, not taking part in Exercise Talisman Sabre, it continued with the Malabar exercise with Australia, Japan, and the U.S., and sending a submarine for the first time to Australia. It's taken a much more forward leaning position on the South China Sea arbitral award

in favoring Philippines, hosting the Philippines Coast Guard commandant, and deepening ties very obviously with Western partners as well.

So, on the one hand, I think you do see some kind of caution, but you're also seeing these other places where India is moving forward, perhaps in part to signal China that it has friends and it can take steps as well.

I'm skeptical that things will change, partly because I think there'll be efforts to stabilize, but in terms of something broadly changing, zero trust that even if there is some sort of agreement, China will stick to it. So, it'll be "verify, don't trust," to totally misquote the Reagan administration.

But I think the other thing is that even if you stabilize the border situation, there's so many other differences that on a previous episode our speakers laid out between India and China that this might be a stabilization, but not a change of structural trends.

50:06 Lightning Round: What is the biggest myth about India-China relations?

I do want to end with what we do with all speakers at the end of episodes or at the end of segments, which is a lightning round, and ask you a quick question, which is what is the greatest myth or misunderstanding you hear from observers about India-China relations? Walter?

LADWIG: I think it's that these two countries, or these two civilizations if you will, have centuries and centuries of ties and interactions and therefore understand each other very well. My biggest concern is around the depth and breadth of expertise on India in China and China in India. I think we need a lot more understanding and expertise for these two countries to navigate the world side-by-side.

MADAN: Raji?

RAJAGOPALAN: I think in India, many want to believe that we are somehow equal to China. There are some areas like aero engines where China is possibly weak, of course in comparison to the U.S. But the fact is that China has two fifth-generation fighter jets, the J-20 and FC-31 and so on and so forth. But somehow India wants to believe and have the assumption that we are equal to China in terms of the capabilities.

And of course, many also want to believe that we are friends, partners, the two Asian giants who can take on the rest of the world, who would love to go back to formulations like the "Chindia" and believe that our futures are intertwined in such a way. But I think that's where I feel that they fail to take note of or take lessons from the multiple crises that we have seen even in the last few years.

MADAN: With that, thank you, Raji, and thank you Walter for joining us for this episode on the security dynamics in the India-China relationship.

[music]

RAJAGOPALAN: Thank you, Tanvi.

LADWIG: Thank you so much, Tanvi.

51:50 Interview with Admiral Karambir Singh: India's maritime security objectives

MADAN: Now let's move from the land and space to the seas, where there's no one better to help us navigate the issue of India's competition with China in the maritime domain than Admiral Karambir Singh.

Admiral Singh, thank you very much for joining us on the *Global India* podcast.

SINGH: Thank you so much, Tanvi.

MADAN: Admiral Singh, I want to start with a broader look. As India considers its maritime security, what are its key objectives?

SINGH: India's maritime security aim would be obviously to safeguard and advance the nation's maritime interests. And India's maritime security objectives would accordingly flow from the above aim. And like most navies, the Indian navy, supported by other maritime elements, are mandated to protect and promote the country's maritime interest.

So, if you're really interested in India's maritime security strategy, it was released in 2015, and there are some objectives listed. One, of course, is to deter aggression and protect the nation from threats emanating at or from the seas.

Second, would be to shape a favorable and positive maritime environment in India's areas of maritime interest.

And of course, lastly, to develop requisite maritime force levels and maintain the capability to meet India's maritime security requirements.

Having said that, I just wanted to add that India is an aspirational nation. It's got one fifth of humanity; a very young country with an average age of 27 years, nearly 900 million youth; 95% of India's trade by volume flows through the seas. So, if India wishes to be a 5 trillion economy by 2025 and a developed nation by 2047, India needs to reach out to the world through the seas and take advantage of the favorable maritime geography. And to my mind, therefore, India's maritime interests will keep increasing as it grows, and so will Indian navy's responsibilities accordingly.

53:57 China's presence and activities in the Indian Ocean, and how it's changed

MADAN: Admiral, you mentioned the maritime environment around India. Given the theme of the series, I'd like to discuss China's presence and activities in the Indian Ocean region and indeed in the broader Indo-Pacific.

If we had been having this conversation say, 15, 20 years ago, how would you have perceived or described the Chinese presence in the Indian Ocean region a decade and a half, two decades ago?

SINGH: So your question is in two parts. One is China's presence and activities in the Indian Ocean region. The Chinese are moving into the Indian Ocean region with a sense of purpose and urgency. You just have a look at the map, and if you look at

China, if you were in China, if you were to move outwards to achieve their global aim, they'd either have a choice of going to the east or to the west.

And between the two, I believe they would prioritize their west because their markets, resources, most of the energy needs to drive their economy lie to the west. And Indian Ocean is the destination or the route that they would perforce would have to transit or traverse both for trade and for projecting global influence.

And if you look at the navies: as far as navies go, they are basically instruments for projecting influence, for protecting maritime interests, and also economic lifelines of any country. And China relies heavily on the seas for powering its economy. Therefore, the presence of the Chinese navy in the Indian Ocean region is not surprising.

MADAN: Has it increased over these last 20 years in terms of the change that you see?

SINGH: Yes. Also, I just wanted to add before I come to the increase: you know China is an autocratic nation and they have this ability to focus all elements or state organs to exercise sharp power to achieve their interests. And the navy, its other maritime elements like the coast guard, research vessels, intelligence gathering ships, distant water fishing fleet, maritime militia—they are part of this strategy.

And if you look at China, again the map, it is inhibited by its maritime geography. And therefore it will use maritime power to get access beyond the first island chain, the straits of the Indonesian archipelago, and the confines of the Indian Ocean to spread its influence outward globally.

But I feel the main problem is that they are approaching this through a very continental mindset: power measured through territory. If you look at the playbook in South China Sea, you get what I mean. So, we in India do not want this replicated in the Indian Ocean waters.

The Chinese maritime activities, if we look at them individually, they may seem of little consequence. But when you take a larger view: the OBOR [One Belt, One Road] or the BRI [Belt and Road Initiative]; the lease of ports like Gwadar [Pakistan], Kyaukphu [Myanmar], Obock [Djibouti], Hambantota [Sri Lanka]; defense exports—64% of Chinese defense exports are to countries in India's immediate neighborhood; almost continuous presence of warships in the Indian Ocean region; the distant water fishing fleet; the research vessels; IN[formation] gathering ships; the fact that China is the only nation to have diplomatic missions in the six Indian Ocean region island nations, the SIDS [small island developing states]; the PEACE [Pakistan & East Africa Connecting Europe] undersea cable; the recent naming of 19 underwater features in the Indian Ocean region with Chinese names. I think all these show the intent of projecting influence in the Indian Ocean aided by something they're excellent in: civil-military fusion. And that really helps them.

We are watching Chinese maritime activities in the Indian Ocean very closely. And I, for one, follow the principle of not believing what the Chinese say, but acting on what they do.

Your question about 15 to 20 years ago—I think the situation was pretty different at that time. The Chinese presence in the Indian Ocean region was less pronounced. We, like I dare say like the rest of the world, viewed Chinese presence and interest mainly as economic. We had just had that 26/11 [November 26 Mumbai] terrorist attack in 2008 and the focus of our country was more on cross-border terrorism emanating from our neighborhood. So, at that time, Pakistan was viewed as the immediate threat and China was looked at from the long-term prism.

Since then, things have changed, and significantly I'd say. We've seen that as China has got stronger, her assertiveness has increased. We saw the way the South China Sea dispute has been handled. Contrast that with how India and Bangladesh handled their international maritime boundary line dispute amicably through international arbitration.

Then we saw how their navy and indeed maritime forces started increasing their presence, commencing 2008 when the anti-piracy escort force, the first one, came in. We saw their complete disregard for India's concern about sovereignty when they were talking about OBOR [BRI] and the CPEC [China-Pakistan Economic Corridor]. And we saw some geoeconomic coercion in our neighborhood.

And finally, we had, of course, Doklam and Galwan [military stand-offs between China and India]. And I think Chinese aggression across the Line of Actual Control, to my mind, has been an inflection point that has sharpened our competitive instincts vis-à-vis China.

59:07 Has there been China-Pakistan naval cooperation?

MADAN: Admiral Singh, if I could, just for our audience who might not know about China-Pakistan cooperation, you mentioned the Chinese relationship with Pakistan and CPEC, the China-Pakistan Economic Corridor. If you could, has there been much naval cooperation between China and Pakistan historically or currently?

SINGH: Yes, of course, there has been a lot of cooperation. One, of course, is the exports. Pakistan is the one that is the beneficiary of maximum Chinese exports to Pakistan. The new plan that they have, Pakistan's navy, is mainly dependent on their imports from China. They have of course, you are aware of Gwadar [port]. And recently they were even offered some kind of basing rights, not basing rights but their R&R facilities and turnaround facilities in Karachi. We have seen a bit of the intelligence cooperation, the AMAN exercise which Pakistan holds has always had pride of place for the Chinese navy. So there is a fair amount of cooperation between China and Pakistan along the maritime front.

1:00:11 What is motivating China's changed maritime presence?

MADAN: And this change that we've talked about from two decades ago to today, from your perspective what is motivating this change on the part of China? You mentioned the economic needs, the energy needs. Are there other factors that you think are motivating this changed presence?

SINGH: Yeah. So as you rightly put it, the economic front, the fact that their markets, resources, and energy needs are coming from the Indian Ocean region. And the fact

that if they have to advance their influence globally, they have to move in this direction. So that is one big driver for them on how they are conducting business in the maritime front, whether it is through the BRI, through various cooperation mechanisms, through exports, and several other areas. So I think, to add to what you've said is the fact that they want to spread their influence commensurate with their comprehensive national power.

1:01:05 Challenges to India from China's increased Indian Ocean presence

MADAN: And from India's perspective, as India looks at this Chinese presence that has changed over time in the Indian Ocean, which India sits atop, what are the challenges given this altered dynamic for India?

SINGH: India is located in a pretty challenging neighborhood. So when we look at it from the point of view of the changing dynamic, it is affecting our modernization and military reforms. Though I'll hasten to add that military reforms and modernization had been ongoing, especially since the Kargil conflict [in 1999]. We had the Group of Ministers', we had the Naresh Chandra committee, Shekatkar committee reports. And military reforms and modernization were being progressed.

The present government also has made concerted efforts to ensure that our force restructuring and modernization is in keeping with lessons learned from the past, recent, and ongoing conflicts. And what I would say is that the changing global dynamics have given a sense of urgency to these reforms.

1:02:04 What this challenging environment means for India's naval operations

MADAN: You mentioned some of the changes in terms of force posture and modernization. Could you tell our audience what this kind of challenging environment that you mentioned, what does this mean in operational terms for India as it looks at the current moment, but also at the next five, ten years? What does this mean for operational terms in India's needs and military reforms?

SINGH: So, I covered military reforms, but as far as force posture is concerned, I think Indian navy has always been pretty clear that we needed to do more in the Indian Ocean region as far as cooperation, presence, and response to contingencies was concerned.

In 2017, we started something called the mission-based deployments. Here what we are doing is now we are deploying our ships continuously in important areas of the Indian Ocean region so that they are available for any contingency that may occur.

We also tried to give more impetus to our capacity building and capability enhancement measures with our neighbors. It is extremely important to keep our neighborhood well knit.

We tried to give a new energy to regional institutions like the IONS—Indian Ocean Naval Symposium. We worked pretty hard to establish Indian navy as a preferred security partner.

So I think it is the growing realization in India that we have regional responsibility. That is also driving this change as much as the global dynamics are doing. And of

course, in this we are guided by our outreach and partnerships that are guided by the government's vision of SAGAR, Security and Growth for All in the Region, Neighborhood First, Act East. And I think I quite agree with what [Indian External Affairs Minister] Dr. Jaishankar says, and I quote, "India would grow with others and not alone."

So these kind of policy formulations are what one would call the course to steer for the Indian navy. So we know how we're going to head in the next 5 to 10 years in terms of force modernization, posturing, partnerships, and what have you.

1:04:03 Key steps in India's naval modernization

MADAN: Just to draw you out a little on the modernization front for our listeners who might not be familiar, for the navy, what have been some of the key steps that have been taken in recent years?

SINGH: The most important thing as far as the navies are concerned is presence. So we have increased our presence through mission-based deployments. The fact that our ships, which were maybe a couple of decades back, were generally within 200 nautical miles, 300 nautical miles from the coast—that is the past. We have started engaging the advanced navies, like-minded navies, and the neighborhood in a much more proactive fashion.

We have taken this responsibility of preferred security partner in the Indian Ocean region very seriously. And you saw that at least during COVID. Then we had the Samudra Setu missions—up to 8, 9—which included repatriation of our citizens, vaccines, medical treatment, food supplies when things went wrong, providing oxygen, et cetera. So that is one: the presence, the domain awareness is one focus area.

And the most important thing, I think, to be an effective, world-class navy: we need technology. And therefore, the navy has started taking steps to modernize and enhance our capabilities in space, cyber, networking. Tomorrow's navy will not be looked at in a platform-centric manner, but as a kill web, which is based around a network. You're looking at long-range vectors, unmanned platforms, the domain awareness, like I said, with specific reference to underwater domain.

In addition to this, we've decided to go quite a bit substantially into self-reliance. And this self-reliance through co-development and co-production. So therefore, I think when Prime Minister Modi visited the U.S. and we had agreements like the ICET [Initiative on Critical and Emerging Technologies], and procurement of HALE [high-altitude, long-endurance UAVs], we in the navy were pretty enthused about it.

1:06:02 India's theater commands and jointness plans

MADAN: And, Admiral Singh, there's also been some discussion of theater commands. What is India's plan on the theater commands and the jointness front that our listeners should be aware of for the maritime domain in particular?

SINGH: So amongst the theater commands—again, since I've been out of the system for a while, so I have to resort to a bit of reading the newspapers and finding

out from the press—but what is coming out is that there'll be a maritime command that would cover both the seaboard and look at the maritime space. Because there are no borders at sea, and it's very difficult to make it threat-specific or country-specific. So the Maritime Theater Command will look after all issues related which are challenges coming up on the maritime front.

And the other two, I expect them to have one command which will face Pakistan and one that will face China. And of course, certain elements like the strategic elements would come under separate head. This is how I see this whole thing panning out.

But to make this a success, we can't have officers of my generation who have not had enough joint exposure. So I think that is one good thing that started during my time in the COSC [Chiefs of Staff Committee]. We already have put in place measures to make sure that anybody who wants to go up in the ranks has to serve in joint service appointments. Similarly, they're working on joint logistics and areas which are amenable to jointness, starting with the easiest first and then moving up the ladder to the more difficult part.

1:07:39 What are India's interests and concerns in the broader Indo-Pacific?

MADAN: Admiral, I want to zoom out a bit now. We talked about the Indian Ocean. What are India's interests and concerns in the broader Indo-Pacific, as India defines it? How do you view developments in the South China Sea or the Western Pacific?

SINGH: You know, South China Sea, the East China Sea, Taiwan Straits, Western Indo-Pacific—they have always been of utmost interest to India. They've been of interest for a long time—whether it was trade linkages (presently 50% of India's trade plies through these waters), our people-to-people connect, cultural and historical connect with the East.

We had a Look East policy. It was given additional energy by converting it to the Act East Policy. And a lot of Indian attention was focused towards the region of ASEAN, South China Sea, Western Pacific. And I think geopolitically, too, what happens in South China Sea, the Taiwan Straits, and East China Sea will to a great extent determine the future of this geopolitical power balance and hence this importance that India has towards the remainder of the Indo-Pacific.

Confrontation in the South China Sea, as we've seen, and it has a danger of becoming a threat to the free, open, and inclusive Indo-Pacific that the world and India will desperately need.

We're watching South China Sea, East China Sea, Taiwan Straits with a lot of interest and some trepidation. Because we saw geopolitical confrontation, disregard for international law, salami slicing, gray-zone tactics, use of lawfare, psychological warfare. All these left us in India worried because we did not want this playbook replicated in the Indian Ocean region. So I think in those terms, India is really concerned about what's happening in South China Sea and in the western Indo-Pacific.

MADAN: And I would recommend to our listeners a speech you gave recently in August 2023 on the subject [on] some of these themes, in Taipei, and we'll put the link to that in the show notes.

1:09:44 What additional capabilities does India's navy need to meet this maritime moment?

Looking ahead, Admiral—and I think you previewed some of this in your remarks—but looking ahead, what kind of additional capabilities or reforms does India need in your view to meet this altered dynamic in its maritime environment?

SINGH: So one is, like I mentioned to you, jointness is extremely important, because we have to have joint planning and joint execution. There's no other way out of it. So therefore, the theater commands are of prime importance.

Technology, as I mentioned, is extremely important.

And after that, once we have this, and in parallel to this, then we look at our partners or the advanced and like-minded navies, as an Indian navy, we're very keen to build interoperability and interchangeability. I think this will help us become a strong link in the chain should an eventuality present itself.

As far as our neighbors in the Indian Ocean region littoral is concerned, our aim in the Indian navy is to build something called the Collective Maritime Competence in the region, so that we can work together to meet the challenges of the region. This is extremely important because if we don't work hard at improving the maritime capability of our neighborhood, as you know, they are short on capacities. And if you don't help them, then the Indian Ocean region itself will present schisms, which any inimical power can exploit.

And what more can be done with our Western partners? To my mind, I think we need to engage much more, much more deeply to ensure that we become part of not only and interoperable, interchangeable, but integrated force that can meet the entire spectrum of challenges from the benign to the high-end.

And for the neighborhood, we would like to be of assistance, like I told you, as a preferred security partner. And for this, to do it well, for the neighborhood, to my mind the three C's, letter Cs, are important. One is credibility. That is, there should be no gap between promise and delivery. Customization, the second C, that is to ensure that assistance to smaller countries are customized to what they need most. So basically, rather than talking in the language of confrontation, talk the language of development to them. And cooperation between all of us like-minded nations, so that there is no duplication of assistance that is provided. I think that is perhaps the way to go for the future.

1:12:07 What has India's navy been doing with partners?

MADAN: Admiral, you mentioned like-minded partners who you would like to see more cooperation with. What has India been doing with these partners in recent years?

SINGH: We have done a lot of work with our partners. I have found countries like the U.S., Japan, Australia, France, the UK—I'm talking about the Western countries—they're on the front foot. They are ready to share best practices. You've seen what all has happened in the last four, five years, whether it is logistics agreements, reciprocal logistics agreements, basing, repair facilities, maintenance and repair facilities; how each exercise that we've done both bilaterally or multilaterally have increased in scope and complexity.

So there is a lot more talking. Roadmaps have been drawn up with each country between the chiefs of the navy, which have been approved at the ministry level. And we are following that roadmap to make sure that all these things that I am talking about—better integration—all these become a reality. And have to move fast because our pacing threat or challenge is also moving fast.

1:13:16 Lightning Round: What is the biggest myth about India-China relations in the maritime domain?

MADAN: A key point of course about the immediacy or the urgency of the challenge. I want to end our discussion, Admiral Singh, with a lightning round question, as we call it at Brookings, which is a question that we usually end the podcast with. You've been part of a lot of discussions and I'm sure asked a lot of questions. What is the greatest myth or misunderstanding you hear about India-China dynamics in the maritime domain or even about India and maritime security more broadly?

SINGH: That's an interesting question, actually. I don't know why, but I would suspect that one of the misunderstandings that exists in the West is that India is going a little slower, is tentative in its actions. And I think here the West, to my mind, must understand India's position, the economic linkages, its comprehensive national power deficit with China, and the fact that it shares a disputed border with China. So we have to take a more nuanced stand in managing the China dynamic.

You know, people complain that the Quad has no military component, is not doing enough. I feel on the contrary it's becoming more and more effective. We started with the secretary-level talks. We've gone to apex level. And we are addressing the larger security challenges of the Indo-Pacific: maritime security, infrastructure development, climate change, supply chains resilience, critical and emerging technologies—these are all good things that are happening.

And I think from the naval point of view, the IPMDA [Indo-Pacific Maritime Domain Awareness initiative], which is also part of the Quad, and progress in the Malabar series of exercises are a heartening developments. And I can assure you that India is doing its best given the circumstances.

MADAN: With that note, Admiral Singh, thank you so much for joining us on the podcast. Hopefully we can have you in some future episodes down the line as well.

[music]

SINGH: Thank you, Tanvi. It was an honor for me to be part of this podcast and I'm very, very, very happy that you called me over to share my views.

MADAN: Thank you for tuning in to the *Global India* podcast. I'm Tanvi Madan, senior fellow in the Foreign Policy program at the Brookings Institution. You can find research about India and more episodes of this show on our website, Brookings dot edu slash Global India.

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