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One more try: The International Solar Alliance and India's search for geopolitical influence

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ABSTRACT

The International Solar Alliance (ISA) is a new initiative launched at the 2015 Paris climate conference by India, jointly with France. The ISA is the first international organization headquartered in India and aims to promote solar electricity in the sunshine belt of states mostly between the tropic of Cancer and tropic of Capricorn. One of India's key aims in co-founding the ISA is as an instrument for geopolitical influence. However, India has limited capacity to provide financial support for this effort and is not a solar technology innovator or source of low-cost solar products such as panels or inverters (in contrast to far greater Chinese strength in these areas). This raises the question about whether and how India can reap geopolitical rewards from the ISA. This article explores the potential and limits for India to use the ISA as an instrument of geopolitics. We find that India's large domestic market and some of its recent success in scaling-up solar may provide some avenues for exercising leadership in the solar space and that those in turn may yield some opportunities for exercising wider geopolitical influence if those achievements are recognized. We theorize the stages of India's attempted journey from achieving solar leadership to exerting global influence and identify several barriers that must be overcome for success. These include overcoming challenges to its domestic solar program, ensuring institutional strength, and standing out in a crowded global renewables ecosystem of organizations.

1. Introduction

At the 2018 climate negotiations in Poland, the Indian government organized a series of side events to showcase the fledgling International Solar Alliance (ISA) [1]. The ISA is a new initiative launched at the 2015 Paris climate conference by India, jointly with France. The ISA is the first international organization headquartered in India and primarily aims to promote solar electricity in the sunshine belt of states mostly between the tropic of Cancer and tropic of Capricorn [2].

At the Poland side events, India touted new efforts the ISA would undertake to share some of India's recent success with scaling-up solar to other countries, including a fellows program where individuals would come to India for six months as well as agreements to take lessons learned to other developing countries such as Peru, Indonesia, and Kenya. These efforts were to be backed by direct assistance of $33 million and $10–12 billion in solar export credits for Africa from the Indian government [3,4]. The ISA has the wider financial support of France on the order of 1.5 billion Euros (nearly $1.7b bn) [5–7]. The ISA is also seeking to leverage the potential demand from members by pooling their credit risks to lower the costs of borrowing [8].

Do these efforts provide India with prospects for geopolitical gains? After all, India has long sought a role as a global leader as a part of its grand strategy. Official Indian government statements have repeatedly highlighted the ISA as being the first international organization headquartered in India [9]. The visibility of the ISA, including a March 2018 launch event attended by India's Prime Minister Modi and President Macron of France, suggests that India is using the ISA as an instrument for geopolitical influence [10]. However, India has limited capacity to provide financial support for this effort and is not a solar technology innovator or source of low-cost solar products such as panels or inverters (in contrast to far greater Chinese strength in these areas). This raises the question about whether and how India can reap geopolitical rewards from the ISA.

This article explores the potential and limits for India to use the ISA as an instrument of geopolitics at what is an early stage of the organization's activities. Other scholars have explored the prospects for leadership and challenges of South-South cooperation in the climate and energy space through such new coalitions, but none to date have assessed India's efforts through the ISA [11]. We theorize a 3-stage ladder of this journey to geopolitical influence, and identify challenges at each stage. These include overcoming challenges to its domestic solar program, creating effective partnerships with stakeholders, avoiding

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institutional over-bureaucratization, and distinguishing its value-add in what is a crowded renewables ecosystem of organizations.

In the second section, we theorize the related concepts of leadership, status, and influence. In the third section, we place India's desire for enhanced status and influence on the world stage in historical context. In the fourth and fifth sections, we review India's domestic solar policies and the actions of the ISA to date in more detail. In the concluding section, we evaluate the prospects for and limits of the Indian government's intent to use the ISA for wider geopolitical ambitions.

2. Leadership, status, and influence

It has long been recognized that rising powers have the desire to enhance their status on the world stage. In other words, they wish to shape how others regard them by enhancing the perception of their position relative to others. They also wish to exercise more control over their environment and the world order around them. Rising powers wish to become rule-makers rather than merely rule-takers. Scholars have identified status as a goal and a variable separate from material capabilities and have noted the various strategies states employ to pursue status [12–17].

Another useful concept in the literature is that of *leadership*, defined by Underdal as when "one actor guides or directs the behavior of others toward a certain goal" [18, p. 178]. However, exercising leadership does not automatically translate into geopolitical gains. A state may exercise leadership, in terms of setting a direction or demonstrating early successes for pursuit of a goal shared by other partners.[1] However, even if it exercises a form of leadership, it might not receive a boost in its status due to the lack of recognition by others of its leadership role. If this *status* enhancement is not achieved, then the state cannot also achieve the next step in this ladder – that of *influence*. Influence indicates translating the status (and any associated material) gains into outcomes desired by the state. These outcomes could be issue-specific or more broadly geopolitical, depending on the intent of the state. In other words, failure to be recognized for leadership actions will reduce the potential for an actor to exercise influence on related or even unrelated goals (see Fig. 1 for a depiction of this ladder of influence in the solar space).

Underdal has identified different categories of leadership: unilateral, instrumental, and coercive. Unilateral leadership is where a state or other actor does something that it hopes others will emulate. Instrumental action is where actors find means to pursue common ends through a process of learning and insight. Coercive action is where a state uses power resources to induce or compel others to follow its lead [18].

Andresen and Agrawala introduce a slightly different formulation of leadership categories including intellectual, instrumental, power-based leadership, and directional leadership. Here, directional is most akin to unilateral action in the Underdal framework where power-based action is coercive. The distinction they derive between intellectual and instrumental leadership is based on agency. Intellectual development is the development of ideas where instrumental action is agenda-setting behavior to take forward ideas into concrete action through coalitions and alliances [19]. In practice, these categories are not entirely separable.

States that have material capability may have the most capacity to influence the behavior of others through a combination of unilateral and coercive action. Some collective problems may be such that their gravitational force of unilateral action by one country may create incentives for others to emulate them. For example, when the United States threw its weight behind efforts to phase down ozone depleting chemicals in the 1980s, American companies were responsible for such a large market share that regulatory efforts by the United States could have an appreciable impact on the problem. Perhaps as, if not more, important, actors wishing to export to the US market found it in their interests ultimately to follow the US lead.

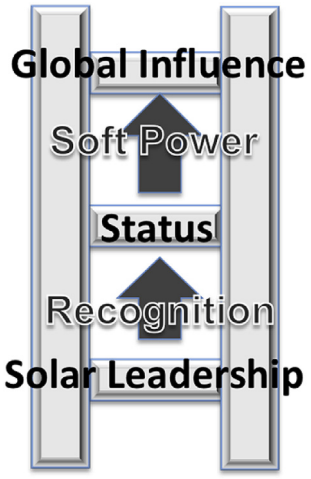

Fig. 1. The ladder of influence in the solar space.

However, as Underdal argues, weaker states and actors are limited in terms of their material capabilities to use coercion or inducements to incentivize others to follow them, but they can use the power of their example and persuade others to emulate them by putting forward new models of action and proposing new platforms for joint action. Success here may depend on wider perceptions of their legitimacy in the international system or the adequacy of their leadership ideas for problem-solving.

The literature on the concept of soft power, pioneered by Joseph Nye, also provides a somewhat separate but useful framework for analysis. Unlike coercive power of the military or the coercive/inducive power of economic tools, soft power lies in the domain of attraction [20,21]. With soft power, an actor aims to create an enabling environment to achieve its goals with a potentially lower cost than hard material power. This can be even more valuable than shaping their behavior through material coercion or inducement [22].

However, one of the challenges of soft power as a concept is that it may be both a product of state diplomacy and foreign policy but also a cultural property that accrues to states because of actions taken by societal actors independent of the state (such as the enhanced attractiveness derived from cultural creations such as Bollywood or Hollywood movies). States could certainly try to take advantage of these advantages, for example, by supporting a domestic film industry. However, soft power, if it has chiefly societal origins, may not be easily manipulated by states as a resource that they can control or alter in their favor.

Mere increases in soft power or global status do not by themselves lead to increased influence. Despite the difficulties of cultivating or manipulating soft power resources, a country that can enhance its soft power through diplomatic and foreign policy efforts (like the ISA) may be able to use those geopolitical resources to the collective advantage of joint pursuits, like further development of renewables worldwide. Or, the actor may use those soft power resources to pursue unrelated national interests, such as more influence in international bodies like the United Nations. This last step in the ladder – of translating a country's soft power or enhanced status into influence is possibly the most challenging one.

The next section details the historical origins of and context for India's desire for status and influence in the global order.

[1] Underdal also argues that leadership entails pursuit of group goals or some sort of shared collective interest. A country that withdrew from a treaty, for example, in opposition without an interest in replacing it with something better would be exercising influence over the process but not leadership per se.

3. India's long-standing push for status and influence

As a relatively weak state with massive economic challenges at independence from British rule in 1947, India had extremely limited hard power. Yet its anticolonial freedom movement, achieved through a unique philosophy of non-violent civil disobedience under Mahatma Gandhi, coupled with its self-image as a major global civilization, led to outsized global aims.

Under Prime Minister Jawaharlal Nehru, India forged an ambitious global project of Afro-Asian solidarity which by 1961 had evolved to become the Nonaligned Movement (NAM) with the backing of Egyptian president Gamal Nasser and Yugoslav president Josip Tito. The NAM, founded on the principle of third world solidarity, opposed military blocs, rejected colonialism, and advocated universal nuclear disarmament, greater equity in global trade, and more foreign aid for poorer countries.

Though idealism undoubtedly played a major role in India's global normative push by "speaking truth to power," particularly in its early years, nonalignment was also an attempt to enhance India's attractive power toward newly-freed developing countries and thereby gain international status. Indeed, lacking significant tools of hard power, this was an entirely logical strategy for New Delhi to pursue.

However, India's vision of non-alignment (and consequently its global status) was dealt a severe setback when India lost a war with China in 1962, a war that came as a shock to its policymakers and damaged Nehru's domestic and global standing. The NAM continued to add members through the subsequent two decades, but by the 1970s was widely seen as losing its way and tilting too far toward the Soviet bloc.

With the end of the Cold War, Indian grand strategy shifted dramatically [23–25]. The historic suspicion toward the United States and an emphasis on economic autarky was replaced with liberalization of its economy and a steadily increasing level of partnership with Washington. India continued to resist forging formal security alliances or joining any military bloc, but by the time the Indo-US nuclear deal was finalized in 2008, Washington had become New Delhi's closest strategic partner. India's hope was to emerge as a major economy, with the assistance of the US, and thereby multiply its international influence – eventually emerging as a global leader in its own right. Enhancing its role in international institutions such as the UN, the WTO and the World Bank, was also a key part of this strategy.

India did grow substantially in its nearly three decades of reform, with key sectors such as information technology (IT), automotive, and pharmaceuticals emerging as major global successes. However, growth rates never reached sustained and high enough levels as hoped [26]. Moreover, gains from its growth were highly unevenly distributed with the result that India remains stuck at a low level of human development, for example in energy access and health. Thus, though India's imprint on the world stage has grown, it remains far less than what its leaders aimed for. Though its hard power has also increased, most significantly with the addition of a nuclear triad, persistent military rivalries with China and Pakistan tend to tie its military assets down and limit India's power projection to within its immediate neighborhood. Such continuing hard power challenges have led to status-seeking as an even more important activity for the Indian state to enhance its global influence.

Thus, it is hardly surprising that India continues to emphasize its soft power on the international plane. This includes declaring an International Yoga Day at the UN, enhanced scholarships for students for developing countries to study at its universities, and repeated emphasis on its modern values of diversity and long-standing democracy and the claim that its modest foreign aid projects (to African countries in particular) do not seek hegemony or result in debt traps (often contrasting the latter two with China).

Along with these initiatives, India has been active in helping lead the formation of new international organizations such as the BRICS grouping comprising of key emerging powers,[2] the IBSA grouping of three major democracies,[3] and the Asian Infrastructural Investment Bank initiated by China.

4. India's domestic solar achievements

India's renewables story begins with wind more than a decade ago with substantial capacity additions in states such as Gujarat, Maharashtra, Tamil Nadu, and Madhya Pradesh. However, the wind additions were done using the feed-in-tariff (FiT) approach, which entailed significant costs. This was logical, since the costs of generating renewable energy were much higher during the previous decades.

India's solar energy scale-up, which kicked off in 2009 with the National Solar Mission (NSM), adopted competitive bidding right from the beginning, when major renewables leaders such as Germany, China, and the US were still mostly focused on supporting the sector through FiTs. The solar effort got a major boost with the new Prime Minister Narendra Modi's ambitious quintupling of national solar targets to 100 GW by 2022.

India's solar rise thus far has been impressive, having reached a net capacity of more than 29 GW of a total renewables portfolio of 80 GW, with $42 billion flowing into this sector over the past four years [27]. Though this still represents only 2% of the enormous country's generated electricity, renewables in total will exceed 10% of generation in 2019, a fraction only slightly smaller than the much wealthier United States. But solar is growing at more than three times the rate of wind (currently the biggest component of the renewables portfolio) and is expected to overtake it within a few years.

The latest addition to the renewables story is solar solutions for agriculture. In a country in which more than half of the population relies on farming for their livelihood, agriculture consumes a third or more of generated electricity in many of India's large states. States are experimenting with different approaches to getting agriculture powered by solar. For instance, the central state of Madhya Pradesh has launched a solar pumps program, whereas the western state of Maharashtra is connecting conventional grid-powered pumps by dedicated feeder lines drawing electricity from smaller solar generating stations at the district or sub-district level.

The agricultural pumps story is just one that indicates that different states in India – akin to nations in Europe in terms of their diversity and population – are taking different approaches on renewables. Though the central government has made a determined push, some states have lagged greatly behind others. Failures in India's renewables story are as instructive as its successes. Lagging states are faced with challenges as varied as lack of easily available land, opposition from entrenched interest groups, and limited political will.

The enormous monopsony power of its distribution companies (or Discoms), almost all owned by its federal states, may however be the biggest barrier. A large number of Discoms are heavily indebted, and recent initiatives to make them financially viable are not succeeding [28]. Discoms have acted as major barriers to rooftop adoption in several states and stand to lose from greater solar procurement due to existing lock-in contracts with coal plants. Other barriers include thin margins for solar developers and land and grid integration challenges [29]. Also, low bids carry their own risk of too-little profits for project developers which could deter new investment. These constraints mean that India is unlikely to achieve its ambitious capacity targets for 2022, though its scale-up will still be impressive by global standards.

India has also failed to generate a domestic solar manufacturing industry, long a key goal of its policies. Its attempts to use a quota system to ensure the use of domestically-sourced panels floundered after the WTO ruled in favor of a case brought by the US against such

[2] The BRICS countries consist of Brazil, Russia, India, China, and South Africa.
[3] IBSA countries consist of India, Brazil, and South Africa.

policies. In any case, its industrial productivity in this sector is well below that of the dominant player China.

In sum however, India's renewables scale-up under challenging conditions has many useful lessons for the wider developing world, handing India an opportunity for leadership on the global plane. India feels that it has something to offer and share with other developing countries who wish to also embrace solar at scale, thereby enhancing its status in the developing world and beyond. This was a key motivation for New Delhi working with France to found the International Solar Alliance.

5. The International Solar Alliance

The ISA was announced in the midst of the 2015 Paris climate negotiations as a joint effort of the government of India and France. The French saw the ISA as a means of incentivizing the Indian government to become more supportive of the final agreement. Looking at India's comparative advantages, solar seemed like an obvious area for Indian leadership. India, and its prime minister in particular, were supportive because they wanted to show the country could be an innovator in the international system and not simply a defender of its interests, in keeping with India's ambitions to be a bigger actor in the world of international organizations [30].

The International Solar Alliance (ISA) was initially designed to cater to 121 countries lying in the sunshine-rich area between the Tropic of Cancer and the Tropic of Capricorn. These countries, most of which are poorer, account for nearly three-quarters of the world's population but only 23% of global solar capacity. With interest from countries like Germany, the ISA was opened in late 2018 to all member countries of the United Nations [31]. The ISA's flagship goal is to draw $1 trillion in investment and additional solar capacity of 1000 GW across member states by 2030.

The ISA has adopted a model that is light on member commitments – no binding pledges and no large dollops of state funding. Instead, it aims to leverage mostly private investment in a way that eases the pathway for poorer countries to adopt solar. For example, costs of finance are much higher for such countries, and solar is a capital-intensive proposition, accounting for up to 75% of total project costs in some cases. Solar markets in smaller countries are also too fragmented to attract investors, and governments often lack the know-how to differentiate among the various technologies and policies to find the best fit for their own needs. Improved designs and certification standards for solar appliances such as agricultural pumps are also needed.

The ISA's approach to solving these problems is demand aggregation. Pooling demand from multiple projects within smaller countries, or even across countries, can reduce risk to investors, thereby reducing capital costs. Such risks include fluctuating local currency exchange rates, political change, or payment defaults from customers. The ISA estimates that demand aggregation, if done right, will as much as halve the costs of solar projects. The Indian think tank, the Center for Energy, Environment and Water (CEEW), has developed proposals to pool risks through a common platform. There are a variety of financial instruments that have been used in other contexts to pool risks so that the overall investment is perceived as less risky. This proposal has been taken on board by the World Bank in modified form, which may not fulfill CEEW's aspiration for pooled credit risk across borders. Nonetheless, the ISA may continue to pursue other programmatic efforts to lower the costs of borrowing [8,32].

This sort of demand aggregation for solar finance is akin to the efforts that were taken in the 2000s to organize the market for antiretroviral drugs (ARVs). Indian producers were ultimately responsible for satisfying more than 80% of that demand, but until that market was organized, countries that needed ARVs had small individual demand. The Clinton HIV/AIDS Initiative (later the Clinton Health Access Initiative) or CHAI helped organize and pool demand so that collectively countries, most of them in Africa, could secure lower prices for drugs purchased in higher volumes. Indeed, this sort of demand aggregation is a key feature of some of the rooftop solar initiatives that the Indian government is pursuing domestically [33].

In pursuit of these ideas for the ISA, $1 billion of seed funding has already been pledged by multilateral banks, private investors and the Green Climate Fund, which is expected to leverage an additional $15 billion of private sector funding. Other initiatives include training thousands of solar technicians and setting up innovation and research and development centers in member countries that will also tackle standards on equipment testing and quality control. Trainings have already begun with 3 week classes in this initial phase.

The focus is currently the greatest on Africa, with Ghana, Kenya, Senegal, Rwanda, and Uganda among countries that are participating more prominently. Some of these such as Kenya already have distributed solar initiatives independent of the ISA. A rooftop solar project involving demand aggregation along the lines of the initiative in the Indian state of Madhya Pradesh is being launched in Ghana [34].

6. Prospects for geopolitical success

What are India's prospects for using the ISA to achieve its wider geopolitical goals of global status and influence? As we have analyzed in a separate article, India's domestic focus on solar since 2014 was itself driven partly by geopolitical aims of increased partnerships with the United States and France and status gains in the broader international community [35]. Seen through this lens, the ISA is a logical extension of what India is trying to do domestically.

India has three challenges when it comes to the ISA, along the lines of the theoretical ladder laid out above. First, the ISA needs to succeed in achieving most of its goals. A necessary though not sufficient condition for this is continuing Indian progress in its domestic solar program. As the key ISA founder, this will reflect New Delhi's ability to lead. Next, India will need to be recognized for this leadership and enjoy the resultant increase in status and soft power. Finally, India will have to convert this soft power into tangible benefits for itself in the global order.

In creating the ISA in concert with France at the 2015 Paris climate negotiations, India was able to receive some global status gains from that moment and the symbolic launch of the organization in India. Going forward, the organization's track record will become increasingly important. Given that the ISA's primary aim is to aid poorer countries, regions such as Africa and parts of Southeast Asia and Latin America emerge as the focal points of India's aimed geopolitical gains.

As we noted, India has demonstrated leadership in the pharmaceuticals space where its production of low-cost antiretroviral drugs has produced public goods for the world to fight the AIDS epidemic. The Indian state would like to recover some of this domestic manufacturing capacity in the solar space (not least of which to boost domestic employment), but the early mover advantages and sheer size of Chinese subsidies for solar panel production have made that a challenging space to compete in (despite the imposition in 2018 of a new 25% import duty on imported Chinese panels).

India has also had a success in demonstrating unilateral leadership in the energy efficiency space. Building upon an earlier effort, it implemented a scheme in 2014 to bring down the price of LED lightbulbs using its procurement power and large domestic market. That has yielded benefits by bringing down LED prices by two-thirds.[4] However, despite the Indian government's efforts to promote awareness of this achievement, it has remained largely unknown outside of India, at least compared to wider appreciation in the media and public consciousness of the role played by China in bringing down the cost of solar panels.

[4] It is not quite clear if India's domestic procurement scheme is (primarily) responsible for the global fall in LED prices. Global prices have fallen dramatically but may have other causes [36].

This speaks to a leadership moment not translating well to recognition and consequent boost in global status.

Could India replicate these leadership stories in the solar space and also achieve recognition and status gains as a result? A major drawback is that it does not possess significant material capability in this space that can influence other players. For example, unlike China, it cannot boast of significant manufacturing capacity of solar panels, nor does it possess the financial prowess like China (or the United States) to unilaterally subsidize the production of solar panels and thereby drive down prices for the world. Moreover, India does not possess significant capability to offer financial inducements to other countries to embrace solar power along the lines of China's Belt and Road Initiative.

However, India has two advantages that could help. First, India has a large domestic market so its actions at home may drive down the prices of certain products, with advantages for regional neighbors and possibly the world. This includes domains such as high efficiency air conditioners, HFC free refrigerators, solar appliances, and electric vehicles. Because Indian consumers on the whole are much poorer than their Chinese counterparts, low cost solutions created for the Indian market might be more readily transferrable to other developing country contexts such as Southeast Asia and Africa with the ISA acting as an institutional force multiplier.

Moreover, the Indian model of solar scale-up, which includes both approaches to auctions for utility-scale plants as well as efforts to create an enabling environment for rooftop solar and off-grid distributed solar, may be sufficiently attractive to others if they knew about it. India's actions at home to build up this model thus would constitute unilateral action, but its efforts to organize others through the aegis of the ISA to learn about the Indian model of solar scale-up is a form of instrumental leadership. The innovations that India has developed in the domestic deployment of solar would in the Andresen and Agrawala framework also constitute intellectual leadership.

We have observed this form of weaker actor instrumental/intellectual leadership in the Brazilian context, which successfully was able to reduce the rate of deforestation in the early 2000s through a rigorous enforcement scheme that was backed by sophisticated remote sensing and satellite monitoring. When one of us visited the Amazonian city of Belém in 2014 and headquarters of the country's remote sensing program, one of the core activities that the agency was promoting was training of officials from other countries such as forest-rich African governments to learn about the Brazilian experience. In light of the economic decline, increased deforestation, and changing political climate in Brazil, this episode underscores the potential ephemeral quality to such leadership moments if not sustained over time.

As for the ISA itself, it is not easy to institutionalize a new organization. The ISA's priorities and the model adopted – light on state commitments and heavier on leveraging private sector investment – has good chances of success on paper. However, there are several risks. For instance, the Indian government does not have a good track record on building and maintaining institutions. There is a tendency to over-bureaucratize and micromanage. If these traits begin dominating the ISA – and there are some signs of this already happening – then its mission will be still-born [37].

The role of France is important in this regard. France has already announced contributions in support of the ISA's mission, for 300 million Euros in 2015 (nearly $340 mn), another 700 million Euros in 2018 (nearly $800 mn), and 500 million Euros (about $560 mn) in March 2019 [6,7].[5] The ISA itself is not a funding agency so French pledges of funding are in keeping with the mission of the ISA to expand solar, but the funds are to be administered as overseas development assistance. France places a high value on the ISA, seeing it as a unique global platform solely focused on solar, potentially providing new sources of South-South cooperation, particularly on capacity building, regulatory frameworks, and contracting. France sees progress on the risk mitigation platform as the biggest achievement by the ISA to date [30].

However, there is also a perception in the French government that the ISA is still trying to establish its added value with the ramp-up of the necessary expertise ongoing. The Indian vision of the organization is that of a UN-style bureaucracy, whereas the French see scope for a nimbler, flexible structure to work with the private sector and other actors [30].

The ISA will have to work to create equal partnerships with recipient governments, businesses, and communities. Some of the more ambitious aims of the organization – to pool credit risk for example – have been partially outsourced to other actors such as the World Bank and private investors, which can limit ISA's efficacy. Those actors have their own agenda, which may not dovetail with the expansive vision for risk pooling. Other developments such as trade tensions or downturns in the global economy may overshadow and limit the success for such shared pursuits.

The ISA's success depends on a seamless workflow with its partners, which includes states and international financial institutions such as the World Bank and private investors. Many of the member states are developing countries with pressing priorities at home who have not been always able to articulate their needs well. Some member states, such as those in Southeast Asia, are not fully convinced about solar power itself while others are waiting for more successes before wading in deeply. Institutional investors have yet to fully engage [30].

Assuming these risks are mitigated and the ISA does indeed achieve many of its solar goals in Africa and elsewhere, India will need to project its successes to the broader international community so that it is recognized as the key contributor in the organization's success. This represents the second stage of our theoretical ladder. In principle, recognition in this case ought to be easier than, say the LED story, since it is clear that India has led the initiative from the beginning.

However, India is not alone in the pitch for recognition as a solar leader. The ISA has emerged in what is already a crowded renewables ecosystem of multiple inter-governmental and global actors. Among the most prominent of these is the International Renewable Agency or IRENA. Headquartered in Abu Dhabi, but shepherded by Germany, IRENA is well-established, well-endowed, and widely seen as a professionally run entity with close to 150 members. The ISA will need to differentiate itself from IRENA, and it is not yet clear it will do so. Its initial pitch is to bill itself as a change-maker on the ground rather than a think-tank and research organization [34].

Another potential actor with formidable credentials could also muddy the waters – China. Given its massive domestic capacity additions, domination of solar supply chains and far higher organizational capacity, any coordinated Chinese initiative to stake a claim to solar leadership in the developing world could easily overshadow India's efforts to use solar for geopolitical gains. The ISA will need to showcase multiple successes, and early, in order to gain clear recognition as the global solar institutional leader.

The third stage of the ladder – converting recognition and status enhancement to broader Indian geopolitical influence – might be equally challenging. Since the success of India's IT industry and Bollywood, India is searching for new sources of soft power. Even in the cases of the former, it is difficult to link specific geopolitical gains with enhanced soft power directly. But status as a global solar leader will likely yield gains for India in future climate negotiations for example, or in shaping the flow of global green investments to its benefit.

But ideally, India would like to make its status boost fungible to other domains beyond the environment and energy, This could lead to greater support among the beneficiary countries of the ISA for Indian priorities at the UN, such as a seat on the Security Council or a robust international treaty on terrorism [38]. But here there is also a risk that other countries such as those from Africa will see the Indian role as too overbearing, which will detract from its attempt to lead. India-Africa

[5] Already, the French have committed 820 million Euros (about $925 mn) to 34 projects in 23 countries [30].

relations have sometimes suffered from this asymmetry [39]. The challenge of translating enhanced status in one domain to others will likely be the most difficult barrier to overcome. India will need to use its soft power skillfully in order to achieve this goal.

7. Conclusion – influence or irrelevance?

India's domestic model of solar scale-up and early ISA initiatives on risk reduction, training, and low-cost innovation show promise. However multiple barriers will need to be overcome at every stage of the ISA's journey to translate these into enhanced status for India in the international community and ultimately broader gains in shaping the global environment. Requirements include continued expansion of its solar program, avoiding over-bureaucratization, trained staffing, creation of seamless partnerships with multiple stakeholders, energetic participation of other member states, and rapid progress in achievements and visibility in what is already a crowded renewables ecosystem.

It remains to be seen whether India's ambitions with the ISA will ultimately be met. Even partial success will be welcomed in a country that has long struggled to break into the select club of major global influencers. A failure however is likely only to deepen New Delhi's frustration at its arrested rise in the global order.

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