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Summary Notes

25th August 2025

Presenter/ panelists:
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Mr. Dhananath Fernando – Advocata CEO [Host]

Organizer: Advocata Studio
Date: 24th July 2025
Video: Link

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Key learnings/takeaways

- The ISA (International Solar Alliance) is currently in dialogue creating a Country partnership framework for Sri Lanka. Details are still to be given but the planned 3-5 year future ecosystem for solar will have four pillars.

- The first pillar are policy and regulatory frameworks that are attractive to private investment to fill in funding gaps alongside catalytic finance by the ISA that takes on some project risk to reassure investors

- The second pillar is Self-ownership where locals have a self-reliant ecosystem and make independent decisions. The ISA has a planned center in Moratuwa university to encourage local experience and local development of solar.

- The third pillar is Regional Connections where there can be regional power trade. The main benefits are Market access, energy security and economies of scale for cost. This requires regional support, new transmissions and better storage.

- The fourth pillar is technology road maps. The ISA helps with analytic frameworks of different technologies where digitization and communication are key for the change management process. The ISA wants to make solar transparent and accessible.

- The ISA country partnership frameworks hope to expediate solar implementation and provide a long-term vision. Sri Lanka must decide on national power strategies that uses relevant comparative advantages of different energies.

- Sri Lanka's land use and grid are two specific areas that benefit from clearer regulations and investment for energy transmission and reactive power generations.

Detailed Notes

For the benefit of our audience, can you tell us a little about your story and what the International Solar Alliance (ISA) is about, including the work you have done in different parts of the world?

I come from a humble background in a small town called Bijnaur in Uttar Pradesh, India. I worked in the private sector in India for seven years before moving to the World Bank, where I led energy programs in India and later macroeconomic reforms and renewable energy initiatives in regions like Egypt, the Middle East, North Africa, and sub-Saharan Africa. In March of this year, I took over as Director General of the International Solar Alliance.

The ISA (International Solar Alliance) was formed after Paris COP 2015 between France and India and has 124 member countries in the treaty-based organization. The ISA is distinct from concessional lending organizations (e.g. World Bank, ADB) and academic report publishers like IEA. The ISA's focus is on 'pushing the envelope' or furthering implementation of solar. There is global space for an organization considering that over $2 trillion investment in renewable energy, less than 15% was going to developing countries and around 600 million people in the African region lacking proper energy access. Currently, the ISA is considering a country partnership with Sri Lanka and is starting discussion with stakeholders about the details of the country partnership. There are 4 pillars that will form the basis of the partnership.

As Sri Lanka is near the equator and there's much talk about solar energy, can you explain what it means for a partner country to join the ISA? What do they abide by, and what benefits do they receive?

ISA is a member-based organization focusing on pushing the envelope beyond existing institutions by emphasizing four key pillars. First, why private investment in renewable energy is still low in developing countries despite huge global investments. Private investors seek long-term policy and regulatory clarity. We help countries create these conducive environments. Sri Lanka, as a partner, will gain access to best practices in policy, finance, capacity building, and technology adoption to attract more private investments. The structure supports creating clear land use, transmission, bidding, and contract frameworks to facilitate deployment of solar projects.

Can you explain the first pillar of Regulation and Catalytic finance?

Half of the first pillar are policies and regulation that are attractive to private investment. There has to be special emphasis on clarity and vision to encourage investor confidence. For Sri Lanka, India provides a case-study where India added 110 GW of energy and $150 billion investment over the last 10 years following its ambitious 2030 goal of 500 GW of renewable energy. India Solar Energy corporation was created as an intermediary that resulted in standard power purchase templates, finance and power auctions.

The second half of the first pillar is Catalytic finance. Private sector hesitance often stems from perceived, not real, risks. To address this, ISA offers catalytic finance to reduce risk premiums through guarantees and blended finance. The ISA has previously taken responsibility for potential losses that helped reassure private investors. For example, Nigeria faces a huge energy access challenge. Their sovereign fund wanted to invest $150 million in distributed renewable energy but was wary of risks. We agreed in principle to provide a guarantee covering the first 10% of losses, helping unlock $600 million through leveraged equity and debt.

Private investment is beneficial for financially strained countries. Countries that do not have a current account surplus or large government revenues can use the private sector to fill in the solar infrastructure funding.

In Sri Lanka's context, there's debate about why the government can't just run electricity generation itself, given its strategic importance. What are your thoughts or examples regarding government versus private sector roles?

This depends on fiscal and governance capacity. Countries with fiscal surpluses and strong state enterprise governance can sustain government-led models. However, countries under fiscal and debt stress often cannot sustain fully state-run systems effectively. In those contexts, engaging the private sector is necessary to bring efficiency and investment. Across multiple countries, the goal is affordable, reliable energy - whether achieved publicly or privately depends on circumstances like fiscal health and corporate governance.

Can you explain the second pillar of self-ownership?

Self-ownership of the Solar panel industry is the second pillar. This means that locals in the country can be self-reliant and capable of independent decisions. ISA plans on building Solar Technology Application Resource Centers (Star C) in local universities. The objective is to build an ecosystem covering solar maintenance, labs and standards and supply chains. This Star C or solar center will be in Moratuwa University with the intention of communicating with a central hub in Delhi to share information and technology resources. While the training may start and get abandoned in similar centers, the ISA hopes that suitable leadership plus financial and operability sustainability will help make the Star C a long-term project.

How will these centers operate sustainably, and how is know-how transferred? What kind of leadership and monitoring is involved?

Sustainable institutions need strong founding leadership. My research shows that the quality and duration of leadership are critical for survival and impact. We assist countries in creating business plans focusing on financial and operational sustainability, incorporating private sector perspectives with an emphasis on job creation. We ensure the centers stay connected globally and regionally, fostering knowledge exchange and continuous innovation. Monitoring systems track progress, and the centers are positioned as hubs linked to broader networks.

Can you explain the third Pillar of Regional Solutions?

Regional Solutions that focus on regional energy interconnectivity is the third pillar. An example and economic incentive is that Sri Lanka occasionally has a much higher cost per electricity unit than India at certain peak usage times. Electricity trade would be beneficial for both countries. While there are storage options as solutions to varying country demand, very large markets benefit from regional interconnections and economies of scale. An example of the Pacific island states that have a combined procurement plan.

Given Sri Lanka's ongoing discussions about grid connectivity with India and the region, what's the response from stakeholders, and what are common concerns or risks in such projects?

Sri Lanka has been historically cautions of intra-regional connections with a feasibility study on the same topic carried out in 1990 with no result. However, in a discussion with UAE, Saudi Arabia, Bhutan, Nepal and India attendees, there was hypothetical support for regional interconnections. These countries save billions through hydro exports and secure supply via India. Undersea cable projects between UAE and Saudi Arabia show the regional momentum to expedite connectivity, which reduces costs and stabilizes supplies. Main challenges include institutional coordination and financing, which can be overcome with clear business cases and cooperation.

Can you explain the Fourth Pillar of technology policy?

Technology policy and road maps that account for a rapidly changing world is the fourth pillar. Examples relevant to Sri Lanka is solar integrated into urban building structures and solar-power urban mobility. There also more innovative ideas like solar ferries that could be explored further. Countries are uncertain about which technology to adopt, and the ISA creates analytic frameworks to investigate new technologies.

Communication and Digitization are two important themes of the Change management process that can make the process more transparent and fairer while also encouraging young people to learn and develop solar further. Solar can have both direct such as increasing employment and indirect impacts like using solar technology for other purposes like food storage. Sri Lanka's urban mobility could also be transformed by EVs. Digital tools can help speed up the solar process while making it more accessible and equitable.

What would a potential Sri Lanka partnership framework look like?

Out of the 128 member countries, only a few countries are eligible like Sri Lanka for a partnership framework. The program will be a 3-to-5-year ecosystem framework for solar batteries and EVs. The ISA will have discussions with Sri Lanka stakeholders for partnership details that will be given in the following months. A dedicated national support unit will oversee implementation, providing hands-on project management. Themes include operationalizing Sri Lanka's Green Acceleration Plan, addressing private sector concerns, resolving land issues, promoting digital tendering for transparency, and maximizing socio-economic benefits like job creation and agricultural applications.

Any Sri Lanka specific details that you can expand upon?

The ISA want to know what it will take for expediated implementation of solar projects that needs input from governments. Sri Lanka's recent crisis may be a hidden opportunity. High public debt means that private investment can play an important role which would require institutions that provide clarity and attractive frameworks. The ISA guidelines for a national plan would be decided by Sri Lanka whether it be focusing on the least cost generation plan or a national contribution plan. For regional and domestic factors, Sri Lanka must focus on where it has a relevant comparative advantage among the different renewable energies.

Land-related issues and slow processes have hindered solar projects in Sri Lanka. Can you elaborate on how ISA sees addressing these challenges? Is there an integrated approach beyond solar to other renewables?

Regarding Sri Lanka's grid and land, there are two specific possible proposals. In other international examples, standards and simplifications for land use for solar (where 80% of Sri Lankan land is owned by the government) have helped uptake. Regarding integration, ISA promotes hybrid renewable ecosystems—solar, wind, and hydro combined with regional grid interconnections for optimized and reliable power. This approach requires significant investments in transmission infrastructure and coherent policies, which we plan to help design in partnership with local agencies.

Considering global energy economics, what drives countries' commitment to solar beyond international pledges?

The economics of solar energy are now overwhelmingly favorable. Countries relying on expensive diesel generation at 25-30 cents per kWh are achieving solar prices as low as 4 cents with battery storage via competitive tenders and concessional finance. This drives countries' urgency to adopt solar for affordable, reliable power, making it a mandatory energy security measure rather than just an international commitment.

Does ISA have compliance guidelines for renewable energy targets or investment restrictions related to fossil fuel components in generation companies?

ISA does not impose mandatory renewable targets or compliance. We empower countries to develop their own least cost generation plans based on demand projections. Countries also define Nationally Determined Contributions (NDCs) under UN frameworks. Our role is advisory - helping countries understand barriers, harness private sector participation, and strategically plan their energy mix, respecting national ownership and flexibility.

Given supply chain concerns with solar panels and equipment, and global tariff changes, how does ISA help countries manage these risks and foster a stable ecosystem?

Supply chain resilience is a major concern, especially for countries undergoing large-scale solar expansion like India. Manufacturing capacity and energy security are intertwined with industrial policies. ISA's fourth pillar supports countries in assessing their comparative advantage in manufacturing and promoting strategic partnerships to diversify supply chains. We provide data analytics and policy advice, helping countries decide where to develop local

assembly or fully import components, which is also relevant for emerging areas like electric two- and three-wheelers.

Given grid constraints like in Sri Lanka, where the grid struggles to absorb solar, does ISA provide support in mitigating risks across the electricity value chain? What next steps will follow after the country framework, and what institutions might Sri Lanka expect?

A robust transmission system capable of handling variable renewables and grid inertia is fundamental. Lessons from events like the Spain-Portugal blackout highlight the importance of reactive power and transmission upgrades. ISA plans to support Sri Lanka by assessing variable renewable energy integration needs and collaborating on investment strategies. Once the country partnership strategy is ready, we will engage more deeply with specifics. Post-framework, Sri Lanka can expect a national support unit coordinating projects and partnerships, sustained stakeholder engagement, and continuous capacity building.

To wrap it up, what advice do you have for young people who want to pursue meaningful careers balancing personal needs with larger contributions?

I always ask myself, "Do I feel excited to wake up every morning?". My advice to young adults is to ask yourself three questions. The first is the purpose of your life. The second is what you are going to do with that purpose. The third question is what are you willing to give up for that purpose. When you align these three, doors will open. It's an internal journey requiring clarity, commitment, and courage.

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