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COP29 IN FOCUS: ALL EYES ON BAKU

IN AN INTERVIEW WITH MR. VITALY YAKOVLEV, MANAGING PARTNER AT KPMG AZERBAIJAN, WE DELVED INTO THE URGENT CHALLENGES POSED BY CLIMATE CHANGE AND THE AMBITIOUS STRATEGIES NEEDED TO COMBAT ITS ESCALATING IMPACTS. DESPITE THE LANDMARK PARIS AGREEMENT AND SUBSEQUENT CLIMATE ACCORDS, HE EMPHASIZED A CONCERNING GAP BETWEEN INTERNATIONAL PLEDGES AND THE ACTIONS NECESSARY TO LIMIT GLOBAL WARMING. THE INTERVIEW COVERED THE PRIORITIES DURING COP29, AZERBAIJAN'S POTENTIAL IN THIS AREA, AND INNOVATIVE SOLUTIONS TO MITIGATE THE PROFOUND IMPACTS OF CLIMATE CHANGE AND PAVE THE WAY TOWARD A SUSTAINABLE FUTURE.

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Question: The recent UN Environment Program report, released this fall, indicates a projected rise in temperatures by 2.5 to 2.9 degrees Celsius compared to pre-industrial levels. What are the implications of this temperature increase?

Answer: We are discussing climate change. Polar ice shields are melting, leading to rising sea levels. This phenomenon is accompanied by an increase in extreme weather events and rainfall in some regions, while others suffer from more frequent heatwaves and droughts. The implications of global warming are far-reaching, affecting every aspect of our lives, from nature to social structures and businesses. Higher temperatures can result in increased mortality rates, reduced productivity, and infrastructure damage. In terms of nature, shifts in climate zones inevitably impact ecosystems, leading to a dramatic decrease in productivity, affecting water provision, agriculture, and more. Evaporation and droughts affect forests and decrease the availability of fresh water and air. It's projected that, with a global average temperature increase of 3 °C, droughts will occur twice as often. Additionally, melting ice contributes to rising sea levels, with predictions suggesting Europe will experience a sea-level rise of 60 to 80 cm by this century's end, affecting a significant portion of the EU's population living within 50 km of the coast. From a social perspective, there's increased pressure on healthcare systems and employment. Business-wise, the changing climate necessitates adjustments to building infrastructure, agricultural practices, and energy production, as demands for cooling and heating shift. And let's not forget about tourism – a cornerstone of many economies worldwide. As the climate grows increasingly inhospitable, cherished destinations face uncertain futures. Whether it's scorching summers or vanishing snow, the very essence of these regions hangs in the balance, with dire consequences for industries like winter sports. In short, the economic fallout of climate change is poised to be nothing short of substantial, leaving a lasting imprint on our world as we know it.

Q.: Numerous climate agreements have been inked in recent years, such as the Paris Agreement, in which nearly all nations worldwide pledged to reduce emissions. Are these collective efforts sufficient to halt climate change?

A.: The Paris Agreement and COPs have certainly marked important steps in our global fight against climate change. However, it's clear that the efforts we've made so far might not be enough to truly stop its advance. There's a big gap between the promises countries have made and what must be done to keep global warming under 1.5 degrees Celsius – the level scientists say we need to stay under to avoid the worst effects. The current record pace of renewable deployments (440MW in 2023 and 550MW in 2024 as per the International Energy Agency) is not enough to contribute significantly to achieving the Paris Agreement's ambition to limit the rise in global temperatures. Deployments of renewables must triple from 2022 levels by 2030, which translates into clean energy additions reaching over 1,200 gigawatts each year by the end of the decade; this is two to three times the current rate of deployment. We need to appreciate that the transition is not possible everywhere. We're facing what some call an "Energy Trilemma" because we need energy that's reliable, affordable, and sustainable. In some countries, considerations of reliability and affordability prevail over sustainability and compromises need to be sought to solve this issue.

Q.: Azerbaijan is set to host COP29, the largest international climate event of the year. How might this conference contribute to the global efforts against climate change?

A.: The upcoming COP29 conference holds immense significance in our collective efforts against climate change, with its importance growing each year. Key topics from COP28 like climate, nature, and the decarbonization agenda (e.g., global carbon pricing initiatives, the phase-out of coal

and fossil fuels, and investment in renewable energy) are expected to carry over to COP29 due to unresolved issues and the need for further work. Again, bearing in mind the location of COP29, we expect all matters relating to energy and energy transition to be highly prioritized. Other key themes will include climate finance and the impact climate is having on other areas like nature and biodiversity, health, and food and agriculture. Artificial intelligence (AI) will also be a cross-cutting theme. Azerbaijan hosting COP29 provides an opportunity to advance discussions on transitioning away from coal and fossil fuels, with a focus on methane reduction and targeted funding to support vulnerable economies. Efforts to reduce barriers to renewable energy adoption and stimulate investment in low-emission fuels and carbon capture technologies will also be prioritized. Moreover, COP29 will emphasize the importance of sustainable innovation solutions, building on initiatives like the Industrial Transition Accelerator launched at COP28. Azerbaijan's role as host presents an ideal platform to showcase progress on this important agenda and accelerate globally aligned ambition across the heavy industry, transport, and energy sectors. In summary, COP29 in Azerbaijan serves as a crucial forum for advancing global climate action, addressing pressing challenges, and driving progress toward a sustainable future for all.

Q.: As KPMG Law Azerbaijan assumes the role of exclusive legal advisor to COP29, what are its key priorities in this advisory capacity?

A.: Relevant laws and normative legal acts have been adopted in order to develop the renewable energy sector in our country by improving the legislative and institutional environment in this area. As the legal advisor of COP29 Azerbaijan Operating Company, KPMG Law Azerbaijan plays a pivotal role in providing comprehensive legal support across a diverse spectrum of areas in accordance with best international practice. Our services extend beyond mere analysis of agreements. We offer strategic counsel on navigating the intricacies of local legislation, ensuring compliance with Azerbaijani laws while leveraging insights from international best practices in contract law. Our legal team specializes in dissecting complex agreements, reviewing every detail to safeguard COP29's interests and avoid potential risks. We proactively monitor changes in local regulatory frameworks, offering timely advice for adapting to evolving legal landscapes. Moreover, our expertise in international contract laws gives COP29 a competitive edge, enabling seamless integration of global standards into their operations. At the heart of our mission lies the objective of strengthening COP29's legal framework, fostering resilience against legal challenges, and fostering sustainable growth. Whether it's negotiating agreements, resolving disputes, or crafting strategies for long-term compliance, KPMG Law Azerbaijan serves as a trusted ally, empowering COP29 to thrive in a dynamic business environment while upholding the highest ethical standards, as it is governed by multiple institutions and attended by numerous stakeholders.

Q.: How pivotal is the development of renewable energy in combating climate change? Can it eventually replace traditional sources like oil, gas, and coal?

A.: With its capacity to drastically reduce greenhouse gas emissions, coupled with advancements in technology and declining costs, renewables are poised to play a significant role in our energy transition. Evidence indicates that renewable energy sources like solar, wind, and hydropower are becoming increasingly competitive with traditional fossil fuels. According to data from the International Renewable Energy Agency (IRENA), the cost of renewable energy technologies has plummeted in recent years, with solar photovoltaic (PV) and onshore wind now the cheapest sources of electricity in many parts of the world. While it's improbable that renewables will completely supplant oil, gas, and coal in the immediate future due to factors such as intermittency and existing infrastructure, their rapid expansion is undeniable. The International Energy Agency (IEA) forecasts that renewables will overtake coal as the primary source of electricity worldwide by 2025, driven by a surge in solar and wind capacity installations. By 2050, 36% of traditional fuel will be replaced by renewable energy sources. While renewable energy may not entirely replace traditional sources overnight, the evidence suggests a clear trajectory toward greater reliance on renewables in our energy mix. With ongoing technological advancements and supportive policies, renewables will undoubtedly play a pivotal role in shaping our low-carbon future.

Q.: What strategies can be implemented to accelerate the global adoption of green energy?

A.: To accelerate the global adoption of green energy, we must adopt a multifaceted approach that encompasses regulatory frameworks, technological innovations, financial mechanisms, and broad stakeholder engagement. The focus will be on enhancing data for adaptation strategies and identifying gaps in current plans at corporate, national, and regional levels. A crucial strategy is the decarbonization of the oil and gas industry, which plays a significant role in global emissions. Aligning global climate policies and enhancing Nationally Determined Contributions (NDCs) will be vital. International cooperation will be necessary to phase out coal and reduce barriers to renewable energy adoption. Financing is another pivotal area. We need to shift more capital toward sustainable development in emerging markets, increase the role of development banks, and realize the New Collective Qualitative Goal of providing $100 billion annually to developing countries. This financial push should also support the conversion of extractive industries in the Global South and spur revolutions in sectors like electric vehicles. Furthermore, addressing the supply chain for green technologies is critical. We face a burgeoning demand for essential metals like cobalt, nickel, lithium, and copper – materials necessary for batteries and other green technologies. Here, investment in the circular economy and recycling can mitigate geographical and resource risks. Additionally, improving energy storage systems will facilitate faster integration of renewable energies into the grid. Public and private capital access must also be enhanced; as per IRENA, an annual amount of $5 trillion is needed by 2030 to meet our green energy targets. This calls for more investments despite challenges such as high interest rates and inflation.

Q.: Azerbaijan has identified fostering a clean environment and "green growth" as one of its top five priorities for socio-economic development until 2030. How do you evaluate progress toward this goal?

A.: Azerbaijan's commitment to a clean environment and fostering "green growth" aligns with its ambitious vision for socio-economic development leading up to 2030. The country boasts a significant potential in renewable energy, with an estimated capacity of about 27 gigawatts (GW) across various sources – 3,000 megawatts (MW) from wind, 23,000 MW from solar, 380 MW from bioenergy, and 520 MW from mountain rivers. This diversity in energy resources strategically positions Azerbaijan in the regional energy landscape. The focus on harnessing these renewable resources isn't just about transforming the domestic energy landscape; it's also about carving out a substantial role in export markets. Discussions are actively progressing on how best to utilize Azerbaijan's renewable electricity and whether it should be for domestic use to displace traditional energy sources and free up natural gas for export to Europe, to export via transmission networks including deep water sea cable, or to spearhead the development of cutting-edge pure hydrogen technologies. Reflecting this ambition, the country's strategic documents on energy focus on transforming liberated territories into a green energy zone and establishing strong energy partnerships with the European Union. This strategy is underscored by significant collaborations with international energy firms like Masdar, ACWA Power, bp, and Fortescue on green energy projects. Hosting COP29 is particularly significant, as it will bring additional international focus and potentially more resources and partnerships to Azerbaijan. This opportunity is expected to provide a significant stimulus for further enhancing and accelerating green projects, ensuring that Azerbaijan can showcase its advancements and lead by example in the transition to a sustainable energy future. Thus, Azerbaijan's progress toward its 2030 goals for a clean environment and green growth is not only commendable but positions it as a leader in regional energy innovation and sustainability.

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Q.: To what extent does global emissions trading contribute to reducing air pollution?

A.: Global emissions trading represents a promising avenue for catalyzing investment in ecological projects aimed at curbing emissions and mitigating air pollution. However, its effectiveness hinges on addressing several critical factors. The absence of a universally recognized certification and definition for emissions poses a significant challenge, complicating the process of trading and accurately measuring reductions. Moreover, while financing from traditional sources like banks plays a role, it's evident that their support alone falls short of meeting the substantial financial requirements. Therefore, there's a pressing need to bolster the involvement of private capital in emissions trading initiatives. The key to maximizing the impact of emissions trading is the establishment of robust regulatory frameworks and transparent tariff mechanisms. Clear and

enforceable regulations provide the necessary certainty and stability for market participants, as they encourage greater participation and foster trust in the system. In addition, appropriately set tariffs can incentivize emission reductions while ensuring a fair and equitable distribution of costs among stakeholders.

Q.: How can the widespread adoption of artificial intelligence, which has surged in popularity in recent years, aid in combating climate change?

A.: AI plays a big role in fighting climate change by helping us solve different types of problems, like managing energy and predicting weather. This affects how we use resources like energy and water. The latest advancements, like combining AI with quantum computing, could be game-changers for cutting carbon emissions. AI has the following uses:

Renewable Energy: AI helps us maximize the effectiveness of renewable energy sources, such as solar and wind power, by analyzing weather data. By understanding weather patterns and energy demand, AI can optimize the generation of renewable energy, ensuring a more reliable supply that matches the specific needs of consumers.

Energy Systems: AI is employed to manage energy systems more efficiently. It optimizes the distribution and consumption of energy, ensuring that resources are used wisely and minimizing waste. This contributes to overall energy conservation and sustainability.

Greenhouse Gases: AI plays a crucial role in monitoring greenhouse gas emissions. By analyzing data from various sources, including satellites and sensors, AI can accurately track emissions levels and identify sources of pollution. This information is invaluable for policymakers and organizations working to reduce emissions and combat climate change.

Energy-Efficient Buildings: AI is used in the design and operation of buildings to minimize energy consumption. Through techniques like predictive modeling and automation, AI can optimize heating, cooling, and lighting systems to reduce energy usage while maintaining comfort levels for occupants. This helps to lower carbon emissions associated with building operations.

Resource Management: AI contributes to more efficient resource management practices, particularly in sectors like agriculture. By analyzing data on soil quality, weather patterns, and crop growth, AI can optimize irrigation systems and crop yields, reducing water usage and environmental stress. Additionally, AI-driven solutions like predictive maintenance help industries minimize energy consumption and maximize resource efficiency.

Overall, AI's applications in these areas demonstrate its potential to significantly contribute to decarbonization efforts and promote sustainability across various sectors of the economy. Finally, education, communication, and engagement are indispensable. It is crucial to enhance awareness about biodiversity and promote sustainable lifestyles. Engaging the youth – particularly in the private sector – is essential, as they are key accelerators of climate action and decarbonization across various sectors. By addressing these strategic areas, we can significantly accelerate the transition to a global green energy economy, aligning with both climate goals and sustainable development aspirations.