PARTNERSHIP FOR MARKET READINESS (PMR)

CARBON MARKETS: FROM CURRENT PRACTICE TO THEIR ROLE IN THE NEW CLIMATE REGIME

Summary of 10th PMR Technical Workshop

March 12-13, 2015

London, United Kingdom

INTRODUCTION

1. This note summarizes the presentations and discussions from the PMR Technical Workshop '*Carbon Markets: From Current Practice to their role in the New climate regime*', which took place in London on March 12-13, 2015. The workshop was co-hosted with the United Kingdom's Department of Energy and Climate Change and the International Emissions Trading Association (IETA) B-PMR, in collaboration with IFC and the European Bank for Reconstruction and Development (EBRD). The workshop was attended by approximately 100 participants from the PMR Participants, as well as, a number of international experts and representatives from the private sector.

2. The workshop agenda, list of participants, and all presentations are accessible from the PMR website.

HIGHLIGHTS OF THE WORKSHOP

3. On the first day participants discussed current carbon market practices, including learning about recent developments on emissions trading schemes (ETS) in China, South Korea, the EU, and California. The workshop also discussed the engagement of the private sector in carbon markets, including related opportunities and challenges going forward. As part of the workshop, participants also visited various trading houses to experience firsthand how carbon markets operate in practice with an interactive demonstration from an active trading desk.

4. On the second day participants translated this practical understanding of how carbon markets are developing and discussed a number of issues relevant to the future of carbon markets under the new global climate agreement.

5. Key highlights from the workshop are summarized below.

Latest developments from China

6. The seven ETS pilots are now well underway in China (with most having completed their first compliance year) and provide valuable lessons for the national scheme. Key challenges identified for the national scheme include making sure the ETS is supported by appropriate and effective legislation, improving the basic data and, supporting market liquidity, coordinating with other policy, and ensuring adequate human resources both on the administrative and company side. The development of the national ETS is envisaged as a three-step process including:

1) preparation stage (2014-2016): study & construction;
2) implementation stage (2017-2020): operation & improvement; and
3) extension stage (after 2020): extension & linkage.

Latest developments from Republic of Korea

7. The national ETS in the Republic of Korea was launched in January 2015 and provides valuable lessons for other countries, such as the need for consistent and strong political willingness, a strong legal basis, clear governance and strong institutions, stakeholder engagement, transparency and accountability, and supplementary measures compensating losses for vulnerable groups. Despite the successful start to the ETS there remains strong opposition to the ETS from some of the business sector.

ETS cooperation

8. All ETS jurisdictions recognize the importance of enhanced cooperation in the future, and the potential benefits of future linking:

- China's engagement focus is for now placed on learning from other's best practice and lessons.
- The EU is focusing on engaging with the new emerging markets on policy design and effective implementation.
- California and Quebec have a clear intention to develop a system that can be adopted by and linked with other sub-national jurisdictions.

Private sector participation

9. Ten years of experience in the EU ETS has demonstrated the crucial importance of the financial sector in the market at all stages – from policy design to effective market operations – in particular to help participants manage risks and define compliance strategies through various financial solutions and services. In China, new financial products and vehicles are now emerging to support the ETS pilots and the future national scheme. These developments reflect the national circumstances in China such as the regulation and structure of the financial markets. Participants highlighted the importance for policy makers to anticipate and understand how the private sector will respond to a carbon price, and how the price will influence their operations and investment decisions. They stressed that the detailed policy rules and compliance arrangements do matter especially in the short-term, but also and importantly the policy landscape over the longer term.

Carbon Markets post-2020

10. The workshop discussed the role of carbon markets post-2020 and the importance of negotiations during the year. The UNFCCC conference in Paris is seen as an important milestone but not the end point. Progress at the recent international meetings in Lima and Geneva indicate that Parties remain on track to reach an agreement and that carbon markets are back on the agenda, with multiple options having been proposed by Parties. Most likely countries will agree an enabling framework in Paris and work to resolve a number of outstanding technical matters in the months following.

11. Several participants indicated the importance of carbon markets in the context of their national plans to reduce emissions. Some are pushing ahead with their arrangements despite the lack of clarity at the international level. Others emphasized it is important for the Paris agreement to explicitly refer to carbon markets in order to send a clear signal of their relevance in achieving scaled-up mitigation, and for countries to move quickly to define the detailed rules as it is these that will provide the basis for investments to flow.

Technical issues to be resolved

12. How to account for trade in carbon assets and avoid double counting remains an important issue to be resolved. It will be difficult for countries to agree an enabling framework for markets without greater clarity on these issues. For example, many participants are still working through the complexities of

accounting for trade in the context of different types of targets and commitments. There are also mixed views on the types of carbon assets that could be used toward meeting targets and commitments with some preferring more international governance than others. On the other hand, most participants recognized the need for a tracking system and shared a general preference to maintain a centralized system.

13. The role and from of crediting mechanisms beyond 2020 remains uncertain both on the supply side (with most countries taking on INDCs and moving toward mechanisms with broad coverage, e.g. ETS) and demand side (with EU and others focusing more on achieving emission reductions domestically).

DETAILED SUMMARY OF THE WORKSHOP

DAY 1

1. Introductory session

14. The workshop was opened by Mr. Vikram Widge, Head, Climate and Carbon Finance Unit, World Bank. In his remarks, he outlined the importance of carbon markets as an efficient way to price carbon, bring down GHG emissions, and lower climate risks. He also reiterated the importance of having these discussions leading up to the Paris COP, which will provide an opportunity to anchor carbon markets in the long-term climate change agenda. Finally, he concluded by outlining the WBG support to the next generation of carbon markets through building readiness foundation for carbon markets (e.g. PMR), supporting market-based mechanisms and results-based financing (e.g. Carbon Partnership Facility), examining different market-based approaches for a future integrated global carbon market (e.g. Networked Carbon Markets), and advancing political agenda on carbon pricing (e.g. Carbon Pricing Leadership Coalition).

15. Mr. Dirk Forrister, CEO, IETA, welcomed participants on behalf of IETA and B-PMR. He highlighted the role of the private sector and businesses in making the markets work, emphasizing the efforts of IETA's B-PMR in bridging the gap between the private sector community and governments in building business readiness for the future markets. Finally, he outlined the rationale behind such interest, including the importance of having an ambition level as a signal to the markets, cost-efficiency and effectiveness of market-based solutions and a likely role that the markets will play in the new climate regime.

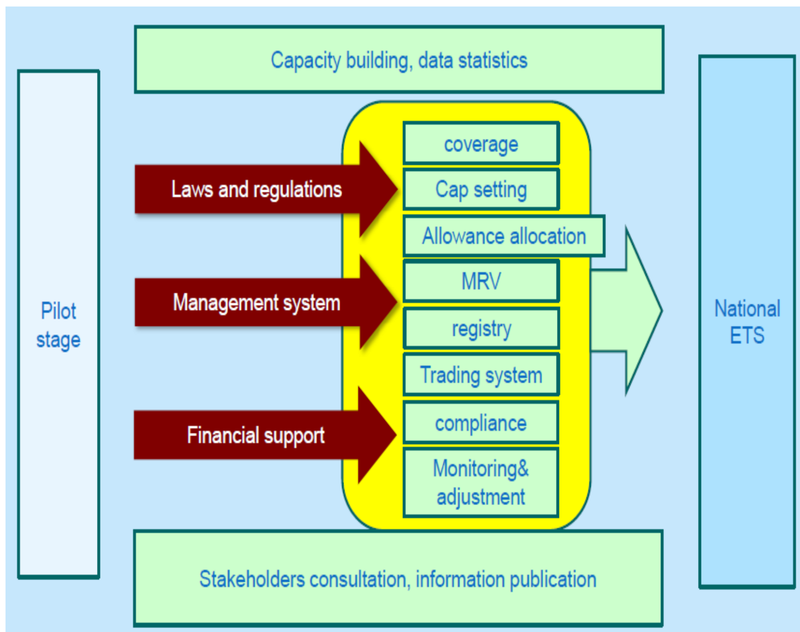
16. Mr. Pete Betts, Director, International Climate Change, Department of Energy and Climate Change, UK and Mr. Karl Upston Hooper, Greenstream Network and B-PMR Chair/IETA Board member delivered keynote speeches focusing on the benefits of the private sector engagement in developing and implementing climate policies. Mr. Betts highlighted the UK as a strong supporter of carbon pricing for which an effective partnership of private and public sector is needed. He also referred to market-based approaches as the least costly for developed countries, a way to provide a steady finance flow and technology to the middle income countries and a way to channel development financing to LDCs. He also reflected on the challenges countries face and a need for a robust international framework to tackle some of those, such elements to allow linking and prevent double counting, agreement on new crediting mechanisms, etc. Mr. Hooper concluded the opening session by outlining the relevance of the B-PMR in this dialogue, as an initiative to support development and share knowledge on good business practices related to market-based instruments.

2. Carbon markets in practice –latest development

17. This session provided an opportunity for PMR Participants, Technical Partners and Observers to share the latest developments from their respective emission trading schemes.

Update on Latest ETS Developments in China

18. Mr. Wang Shu (National Development and Reform Commission) and Duan Maosheng (Tsinghua University) provided an update on the development of ETS in China, at both the national and sub-national level. Substantial progress is being made to build China's nation-wide ETS, in particular drawing upon the capacity and ground work established in the 7 ETS pilots. NDRC also issued the Regulation on National ETS in December 2014 and is currently constructing the national registry which will support it. Intensive training workshops for various stakeholders are taking place throughout China, in both pilot and non-pilot regions.



19. The development of the national ETS is envisaged as a three-step process including:

1) preparation stage (2014-2016): study & construction;

2) implementation stage (2017-2020): operation & improvement; and

3) extension stage (after 2020): extension & linkage.

20. The 7 ETS pilots provide an invaluable basis for the development of China's unified national system, and the next steps towards such system will focus on enhancing the communication between the pilot subnational and nation-level to assure smooth transition. The 7 ETS pilots are regarded as providing comprehensive, diversified and successful piloting and to generate a number of lessons on ETS development such as challenges related to data availability and quality, human and financial resource, coordination of different types of policies, adaptation to the (changing) big context, and cooperation between authorities.

Update on Latest ETS Developments the Republic of Korea

21. Ms. Hyungna Oh (Kyung Hee University) introduced participants to the national ETS (KETS) which started operations in the Republic of Korea which in January 2015. The main features of the KETS were presented, and in particular how these differ from other systems such as the EU ETS.

	1st Commitment Period (2015~2017)	2nd Commitment Period (2018~2020)	3rd Commitment Period (2021~2025)
Main goal	▪ Settlement of the KETS	▪Reduction(considerable)	▪Reduction(significant)
System operation	▪Allow covered entities to choose flexible compliance methods as much as possible conditional on accurate MRV ▪Establishment of an accurate MRV system	▪Expanding the scope of the KETS ▪Making advanced MRV	▪Inducement of voluntary reduction in preparation for post-2020 climate change regime ▪Lowering barriers: 3rd party-participation, offshore offsets or linking can be considered
Allocation	▪Base: Grandfathering ▪Get balanced with the TMS	▪Introducing non-free permits ▪Advancement of the allocation method, such as benchmarking	▪Decrease the proportion of free allocated permits (at most 90%) ▪Settlement of advanced allocation method

Source: Master Plan, Ministry of Strategy and Finance, Jan. 2014.

22. Recent developments include discussions on the introduction of Market Stabilization Measures, notably due to concerns on high permit prices from the 2nd commitment period (2018~). For more information on the KETS and lessons learned in the Republic of South Korea, see Background Paper: A Non-Annex I Country's Attempt to Voluntarily Reduce GHG Emissions.

Panel discussion: enhanced ETS cooperation in the future

23. This session aimed to provide an opportunity for ETS policy makers share updates on concrete on-going cooperation efforts with other ETS jurisdictions, and exchange views and plans on linking.

24. Mr. Johannes Enzmann (European Commission) updated participants on bilateral cooperation activities of the EU with third countries, mainly focusing on China (project started in 2014) and the Republic of Korea (to start end 2015). Conditions for linking to another ETS include requirements such as the need for it to be mandatory, compatible, and set an absolute emission cap. No other linkage than that with Switzerland is expected to happen for the EU ETS by 2020.

25. Mr. Michael Gibbs (California Air Resources Board) presented concrete collaborative activities with Quebec to which it formally linked in January 2014 – such as the organization of the first joint auction held in November 2014. California has also been active engaging with countries such as Mexico and China, as well as with other sub-nationals in the US or Canada. Newly introduced EPA Clean Power Plan would introduce extra harmonization efforts for California to link with other US states.

26. Mr. Wang Shu (NDRC) shared views on conditions to link ETS which include developing a robust system and underlying infrastructure (e.g. MRV etc.) and market; remain open-minded towards international partners; increased technical cooperation to get to know each other; and step-by-step implementation such as linking first through project-based mechanisms before a full link.

3. Enabling trade and private sector engagement in carbon markets

27. In this session, participants discussed the importance of private sector's engagement in carbon markets and trading, and how it has and is being enabled.

28. Mr. Jan-Willem van de Ven (EBRD) highlighted the critical role of the financial sector in promoting markets, including through capacity building, and suggested to systematically include market players in efforts to design new policies in particular consultations on markets.

29. Louis Redshaw (Redshaw Advisors) shared 10 years of developments in the EU ETS from the perspective of the financial sector. Important lessons generated include 1) provide a secure registry system to maintain integrity; 2) markets needs banks for liquidity, don't discourage their participation; 3) auctioning (not free allocation) leads to liquidity; 4) set a realistic emissions target and allocation to avoid crashes; and 5) although ETS are manufactured markets, leave them well alone, competition will deliver the rest. Market liquidity was defined and its importance in ETS was further explained as shown in the table below.

	LIQUIDITY
Definition	▪ Ability to buy or sell an asset with minimal impact on price ▪ Ability to buy or sell an asset with a low transaction cost
Conditions	▪ There must be free access to the market for anyone and everyone ▪ Products must be standardized ▪ Documentation must be simple and standardized ▪ Creditworthy companies should be involved in the market ▪ Transparency –participants and potential participants must be aware of trades ▪ The market must be deep with large numbers participating (driven by a large requirement to participate) ▪ The market must be competitive ▪ If any, there must be predictable intervention. Best is none.
Benefits	▪ Costs to transact will be low (competition will drive down brokerage, exchange fees, bid / offer spreads etc.) ▪ Longer term hedging becomes possible ▪ Trust develops and the market price becomes a benchmark to measure performance and potential for investment

Product	Hubei	Shenzhen	Shanghai
Emissions allowance pledge loan	√		
CCER pledge loans			√
Carbon bond	√ (not yet issued)	√ (CCER)	
Emissions allowance trusteeship	√	√	
Green structured deposit		√	
Carbon fund	√	√	

30. Mr. Duan Maosheng (Tsinghua University) updated participants on latest financial developments in China's emerging carbon markets – including new products such as pledge loans and trusteeships on various carbon units. This presentation was based on the PMR Background Paper: Carbon Market Financial Innovation in China. Carbon-based products are currently limited to spot trading which reduces the market liquidity and number of transactions. Discussions are on-going in order to address those issues, in particular though the development of financial derivatives (e.g. Futures, options).

31. Mr. Lasse Ringius (World Bank, IFC*)* presented the work IFC in China to support local banks in their role of intermediary for carbon transactions and service/advisory providers on related hedging strategies. In particular, the IFC is currently working with the Shenzhen Emissions Exchange on demonstration activities to develop non-spot contracts. This also include specific work on raising awareness and readiness of local banks and regulators.

Panel discussion: private sector perspectives on operating across different and fragmented carbon markets

32. Mr. Daniele Agostini (Enel) shared his perspectives on the market-related issues that matter to businesses. First, engagement of trading platforms/exchanges is important to respectively reduce a counterparty risk. Banks are also important to reduce the volatility of the price in the short term (specifically day-to-day) and enhance risk management. Second, the availability of forward/futures contracts on emissions units is key to compliance, since demand from utilities is driven by forward sales of electricity which have to capture the cost of carbon (i.e. hedging). Finally, a stable long term price signal (i.e. 10/15 years ahead) is needed to reduce the level of uncertainty and allow appropriate planning and investment.

33. Mr. Ingo Ramming (Commerzbank) confirmed the need for financial players, which are still in high demand in the EU ETS. These not only offer solutions to manage risks and optimize compliance strategies, but also more and more advisory services.

34. Mr. Manuel Möller (EEX) highlighted the role of exchanges/trading platforms in helping to keep a high level of market integrity such as through establishing some requirements for participation. He also stressed that exchanges could play an important role to "connect" different markets in the future by offering a single platform for carbon units – in particular in the absence of linking through regulation.

4. Carbon trading in practice – site visit

35. Workshop participants visited a number of carbon trading houses in London to experience carbon markets operating in practice and witness an interactive demonstration of a trading desk. Trading sites included Shell, Carbon Neutral Company, ICE, Commerzbank, BP, EDF trading, PetroChina, and Mecuria.

DAY 2

5. Introductory session

36. The second day of the workshop was opened by Mr. Vikram Widge, Head, Climate and Carbon Finance Unit, World Bank. He remarked on some of the highlights from the day before and indicated that the focus of discussion for the remainder of the workshop would be on translating that practical experience to a number of carbon market issues that are active under the international negotiations.

37. He highlighted the unique role for the PMR in informing the negotiations so that the international regime can accommodate and support the development of carbon markets; and that one of the core objectives of the PMR is to share insights and lessons learned with the international community.

38. He also outlined the World Bank's view that putting a price on carbon is essential to help limit the increase in global mean temperature to two degrees Celsius above pre-industrial levels. He also shared his hopes that the Paris agreement can:

- recognize the role of carbon markets in scaling mitigation ambition both at the domestic and international levels.
- facilitate the development of carbon markets and encourage countries to define options to move toward an international carbon market.
- be clear on how Parties can use internationally traded carbon assets to provide a basis on which countries can decide on their contribution.

39. He informed participants that the workshop was one in a series of workshops and that he expected the days discussions to build on those from the earlier PMR workshop held in Santiago, Chile, where PMR participants had an opportunity to discuss the different market based mechanism that are being planned, designed, and implemented; and how a future integrated global carbon market could emerge from these mechanisms. He also indicated an intention for the PMR to hold further workshops throughout the year to continue discussions, inform the negotiations, and ultimately help shape the future of the carbon market.

6. The role of carbon markets beyond 2020

40. Building on previous PMR discussions, this session provided participants an opportunity to discuss how an integrated carbon market might develop in the future and to share insights on how this can be facilitated in the new climate change agreement.

Options for how an integrated carbon market could emerge in the future

41. Pauline Kennedy, PMR Secretariat, presented options for how an integrated carbon market could emerge in the future. She first clarified the objectives of the day:

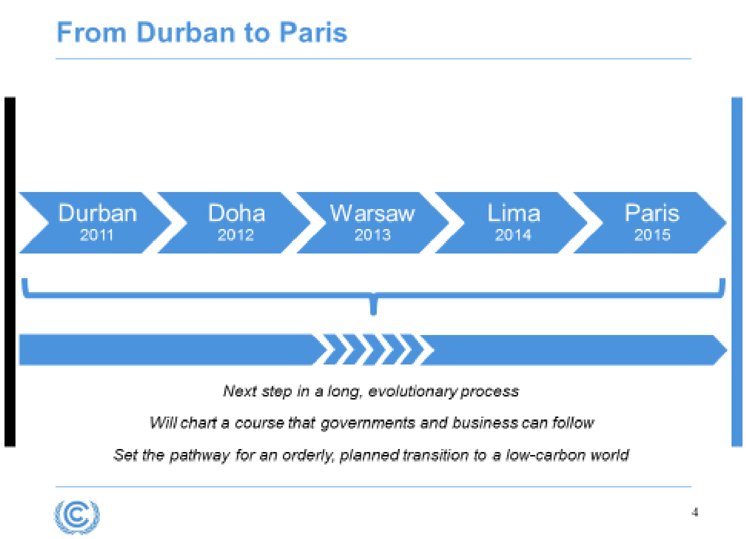
- Build knowledge on key technical market related issues discussed at the international level
- Exchange views and facilitate a common understanding for how the carbon market(s) will develop

- Bridge the gap between carbon market practitioners and negotiators
- Inform PMR activities accordingly

42. She then summarized the key themes of discussion at the previous PMR workshop to ensure a common starting point for all participants. She highlighted key questions for the workshop participants to consider throughout the day that included:

- What is the role of carbon markets beyond 2020?
- What are the technical details we need in GHG accounting?
- What is the role and form of crediting beyond 2020; and
- How does this relate to PMR country activities?

Stock-take on carbon markets under the UNFCCC



43. Robin Rix, UNFCCC secretariat, provided a briefing on the markets negotiations under the UNFCCC. He began with an overview of the context for this year's negotiations, indicating that while Paris is an important milestone it is also just the next step in long and ongoing process. He also indicated that the Paris outcome will include the new agreement as well as a package of decisions that will shape the forward work program.

44. Robin noted that until recently the market negotiations had been conducted without explicit reference to the post-2020 regime. However, at the negotiating session in Geneva there was a renewed emphasis on the role of market mechanisms. He anticipated that the outcome on markets would reflect the principles already agreed by Parties, as well as the commitment to a new market mechanism and framework for trade. He noted a number of important questions remain, including the relationship between markets and countries emissions reduction contributions and implications of recognizing carbon assets from other countries.

45. He anticipated that the role of carbon markets would be confirmed in the Paris agreement and a work plan established to elaborate further.

46. Participants discuss the slow progress under the UNFCCC in recent years on carbon market matters and stressed the need to move quickly to finalize the detailed rules as it is these that would guide the market. They also highlighted the value in those countries interested in carbon markets working together at a technical level. They also sought clarity on the basis for the different positions on carbon markets amongst the Parties.

Report back from Centre for European Policy Studies on their meeting "Markets in the 2015 Agreement"

47. Andrei Marcu, Center for European Policy (CEPs) gave a summary from the CEPs meeting "Markets in the 2015 Agreement" which took place in February 2015. It was part of a series of meetings that brings negotiators and other experts together to discuss issues of relevance to the markets negotiations. The critical topics addressed in the February meeting, included:

- What gets counted?
- How much does it get counted?
- What is the role of AAU?
- How can trade take place without AAUs?

48. He indicated that the type of INDC or commitment made by Parties matters (i.e. single year or multiyear). Since accounting as defined in the new agreement will not likely be based on AAUs – defining "what can be counted" to meet commitments will become a significant issue for the Paris agreement. Other issues discussed at the meeting included addressing double counting and implementation options for net mitigation. Andrei responded to questions from the floor regarding the complexity of the issues presented and the need for a prioritization of issues by emphasizing the importance of understanding the issues before simplifying options for discussion at the negotiations.

7. Perspectives on carbon markets and the new climate change agreement

49. Mr. Johnathan Grant, PWC moderated a roundtable to explore different views on the role of carbon markets to reduce emissions, the nature of trading of carbon assets arising from these markets and what is necessary for the new climate change agreement to support such initiatives.

50. Both PMR and private sector participants noted the importance of using market mechanisms and noted the flexibility they give companies, as well as, the ability of markets to leverage private investment for low carbon development. However, without clear signals private sector participants said that it is difficult for investors to take risks in investing in carbon markets.

51. One participant noted that innovative approaches can be tested in the voluntary market, which has been able to develop methodological approaches for areas that were not covered in the compliance market (e.g. REDD+ methodologies that are now entering compliance markets); and can also build capacity and understanding on the benefits of using carbon market mechanism.

52. Many countries are pushing ahead with carbon market mechanisms despite the lack of clarity at the international level. Carbon market mechanisms discussed were diverse and many participants see them as an integral element in their national domestic policies to reduce emissions. As a result they will

continue to develop carbon market mechanisms that are suited to their national circumstances and will continue to do so regardless of the text in the Paris agreement.

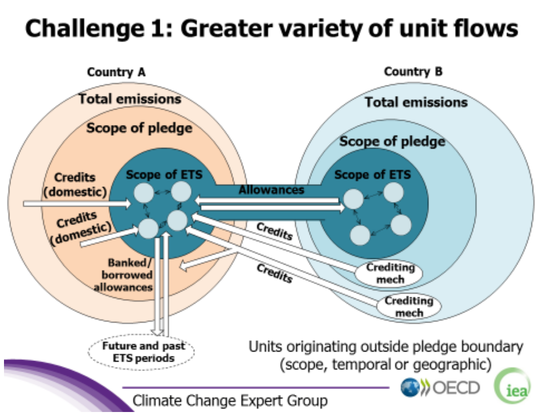
53. Several participants noted, however, that it is important for the Paris agreement to explicitly refer to carbon markets in order to send a clear signal of their relevance in achieving mitigation at scale. However other participants considered that countries will work to link and trade regardless in order to maximize cost efficiencies. They will do this provided certain criteria related to double counting and environmental integrity are agreed between the trading partners.

54. Several participants noted that for trade to be recognized in the new agreement, INDCs would need to be quantifiable and clear with agreed accounting rules for how trade is to be treated in that context. Others noted that while there are many issues still to be resolved at the international level on how carbon markets will function, many of these are very technical in nature and could be resolved in a forward work program, and should not therefore prevent agreement in Paris.

8. Accounting and 'avoiding double counting'

55. It is expected that countries will use the international transfer of carbon assets to help meet their mitigation goals and as a means to finance their low emissions development. In this context accounting and references to avoiding double counting have been raised at the international level.

56. In this session, [Ms. Christina Hood IEA](), provided participants an overview of the issues before they broke out into small groups to work through some exercises designed to build understanding, explore options and highlight complexities.



57. Christina focused on the following three accounting issues. First, accounting for international transfer of carbon assets post-2020 presents two important challenges to be resolved:

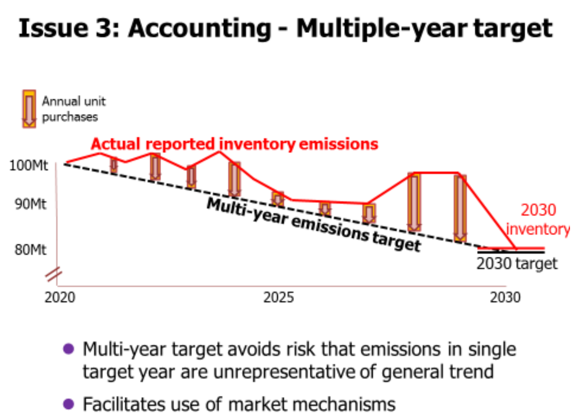
- There will likely be a greater variety of carbon asset flows – different types of units, arising inside and outside of countries national commitments, and potentially multi-directional flows with some developing countries also potential buyers.
- A great variety in the type or nature of national commitments – e.g. absolute emissions targets, GDP-links or intensity based emissions targets, targets compared to a baseline such as business as usual emissions; but also potentially non-GHG commitments such as renewable or energy efficiency targets; and finally potentially commitments to specific policies or measures.

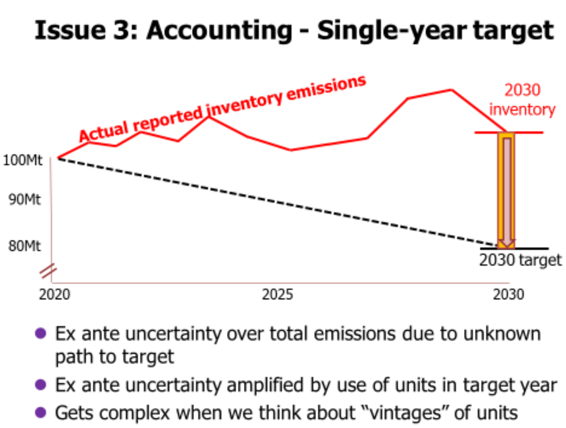
58. Second, three specific technical accounting issues need to be address in the post-2020 arrangements, including:

- registries and tracking systems, to prevent double selling/use of carbon assets, and reduce the scope for fraud;
- governance of unit issuance, including ensuring the environmental integrity of units and preventing double issuance of units; and
- systems or rules for accounting for transfers in the context of UNFCCC contributions, including preventing double claiming of emission reductions and use of units under single year and multi-year targets.

59. Finally, information on the use of markets in INDCs can help, such as:

- The expected use of international carbon assets
- Indication of how the quality of those units will be assured
- What tracking arrangements are intended to be used
- What the accounting assumptions are including: whether carbon asset transfers will be added/subtracted, the kind of target, and the method for accounting for LULUCF.





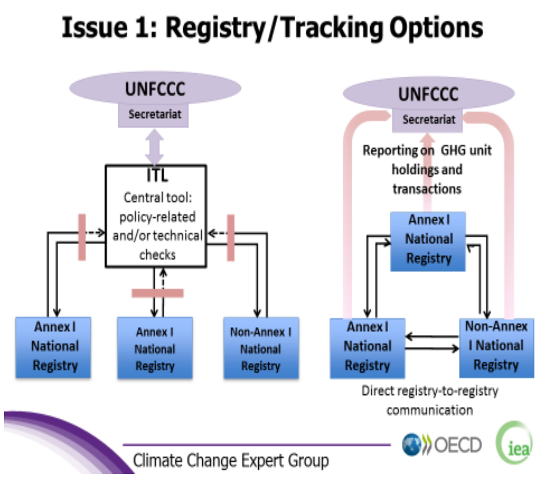
60. Following Christina's presentation, participants explored the issues in more detail by working through four technical exercises in small groups. The first exercise focused on clarifying the meaning of 'avoiding double counting'. It asked participants to consider four potential types of double counting:

- A situation where a carbon asset is used by one country and the emission reduction underpinning the carbon asset is also counted toward meeting the emission reduction goal of the selling country (double claiming);
- A situation where more than one carbon asset is issued for the same emission reduction (double issuance);
- A situation where the same carbon asset is used twice (double use);

- A situation where the carbon asset is counted toward a countries' emission reduction goal and the transfer of finance associated with the trade is also counted toward that countries climate finance contribution (double purpose).

61. Participants generally understood that the first three situation are what is meant by references to avoiding double counting and discussed potential measures, systems and processes that could be used to minimize the risk of such double counting.

62. The second exercise focused on tracking transfers of carbon assets between countries. It asked participants to compare two potential registry tracking systems:



- A central international transaction log model (e.g. such as the ITL adopted under the Kyoto Protocol), where transfers of carbon assets between countries are tracked through a centrally governed log that assures before an entry for the carbon asset is made in the receiving country registry that an equivalent entry has been removed from the selling country registry. Individual country registries would need to be designed to connect with such an international log.
- A direct transfer registry model, where the transfer of the carbon asset between countries is tracked directly by the trading countries' registries. The registries would directly communicate with each other to assure that before an entry for the carbon asset is made in the receiving country registry that an equivalent entry has been removed from the selling country registry. Individual country registries would need to be designed to connect with each other to allow trading.

63. Participants had a general preference for the central model, but understood that what was most important was that there is an agreed registry system to track transfers.

64. The third exercise focused on discussing what types of carbon assets could be counted toward countries emissions reduction goals. Several options where presented to participants as a basis for discussions including:

- Allow only those carbon assets that are generated by mechanisms established and governed by the UNFCCC (e.g. as was the case under the Kyoto Protocol);
- Allow those carbon assets that are generated by mechanisms that are 'accredited' by the UNFCCC (meaning that mechanisms must go through some kind of accreditation process governed by the UNFCCC before their carbon assets can be used);
- Allow carbon assets that are generated by any mechanism provided that the country can demonstrate they meet certain criteria;
- Allow Parties with absolute emission caps to issue and trade units freely;
- Allow countries to decide what carbon assets they will use;
- A combination of any of these options.

65. Most participants saw the benefit of having UNFCCC governed mechanisms as an option for generating carbon assets that could be traded. However, participants had different views on the best arrangements to facilitate trade from other mechanisms.

66. The fourth exercise used four illustrative examples to demonstrate and explore options for accounting for the trade of carbon assets when countries have different types of emission reduction goals, including:

- Country A and B have goals expressed as absolute emission reduction caps;
- Country A has an absolute emission reduction cap and Country B has an intensity target
- Country A has an absolute emission reduction cap (multi-year) and Country B has an absolute emission cap (single year)
- Country A has an absolute emission reduction cap and Country B has a commitment to implement an ETS in some sectors of its economy.

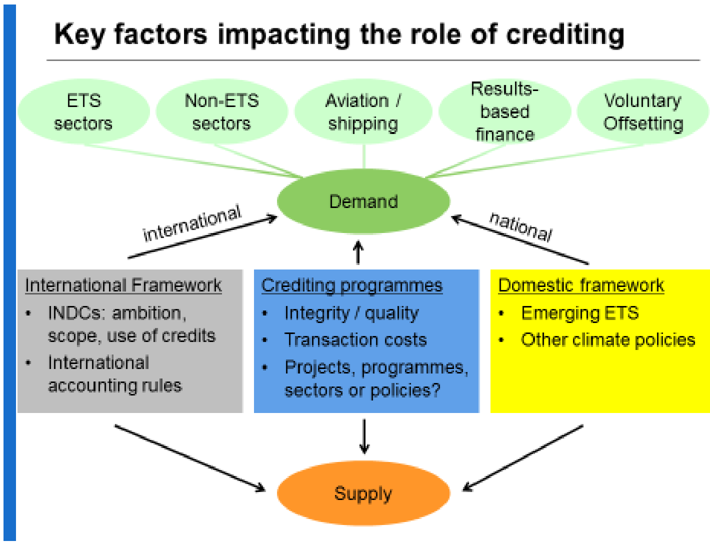
67. For each example, participants discussed the basic formula/approach for accounting for trade between the two countries; how this differed between the examples, and the types of rules and procedures that might be needed in the international regime to account for the different scenarios.

9. Role and form of crediting mechanisms beyond 2020

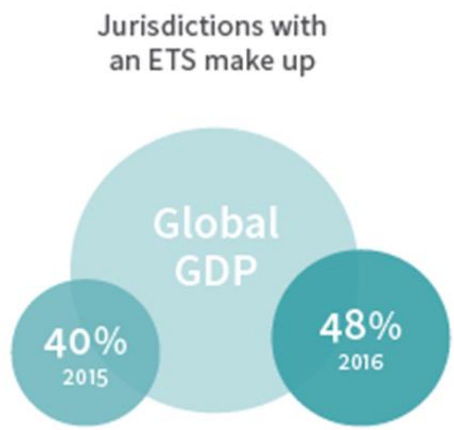
68. Several PMR Implementing Countries hope to use scaled-up crediting mechanisms to achieve their emission reduction goals but the role and form of crediting mechanisms beyond 2020 is uncertain. This session provided participants an opportunity to discuss the role and form of crediting mechanisms beyond 2020.

69. In his overview presentation Mr. Lambert Schneider focused on several key issues for the future of crediting, including:

- The need to consider crediting within the overall context of the post-202 regime with most countries adopting INDCs and therefore the majority of global emissions covered by those arrangements.



- The benefits and challenges of crediting in terms of integrity, transaction costs, avoiding adverse impacts; and the ability to reach the dispersed sectors (e.g. transport and households) and less-developed countries. These benefits and challenges have been discussed for the crediting at different level (projects/PoAs, sectors, policy crediting (e.g., NAMAs).
- The potential sources of demand include international, domestic ETS, compliance with carbon taxes, RbF (such as PAF, Ci-dev, potentially GCF) and voluntary offsetting.
- Prospects for crediting may be impacted by the willingness of host countries to transfer the credits in the context of their INDCs (closer to the JI context rather than CDM).
- The main issue is whether other policy instruments captured in INDCs will leave space for crediting. If INDCs will cover the same scope that Cancun pledges, only 20% of emissions will be left "uncovered". In this context, better understanding of trajectories of emissions and transformational impacts becomes key. Therefore, international crediting seems to be quite limited.



- The perspectives of the results based financing (RbF) approach with subsequent cancellation of credits may be more optimistic. This approach will provide real support to host countries, will not pose a problem of double counting and have less implications in case of less stringent interpretation of additionality.
- In his view, the most optimistic path for crediting would be a scenario where the transfer of the mitigation outcomes happens from within the scope of INDCs with international oversight of mitigation credited from sources outside of INDCs (e.g., under a UN mechanism taking the form of a mix between CDM, JI and NMM).

70. During the roundtable discussion, the following issues were raised:

- Risk of double claiming may be similar under the RbF as for markets. Cancellation could be the only 100 per cent sure way of avoiding double counting.

- RbF has a limited attractiveness for private capital and this option is essentially used by governments. At the same time, a large proportion of flows expected to go to developing countries will come from the private sector.
- It is important for any new mechanism to be appealing for the private sector. One obvious, but challenging to implement, solution could be to increase ambition while allowing the use of crediting.
- A less important role of crediting can be expected in post-2020 as compared to pre-2012 context with a growing role of domestic crediting and less international demand.
- The capacity of the CDM to regulate crediting process in the future is not fully clear, as well as, the role of UNFCCC in addressing fragmented crediting mechanisms (to include other sources of demand);
- Crediting units outside of INDCs will create a situation similar to the CDM and therefore international oversight will be needed. Crediting within INDCs will require less oversight conditional to the use of “carbon budgeting approach”.
- Pros and cons of fragmented versus single mechanism were discussed. One advantage raised of a more bottom-up approach is that the competition between mechanisms could stimulate efficiency, but to the contrary, it may instead lead to a “race to the bottom”.
- The scale of demand will depend on the shape and forms of INDCs, in particular the level of ambition and the use of external sources of abatement;
- The way to support crediting mechanisms in a new agreement would be to include accounting provisions and facilitate the use of crediting within the INDCs through clear accounting.
- Bilaterally agreed systems can potentially create even better matched “supply-demand” – centralized system has shown to have supply and demand evolving in rather uncoordinated manner.

10. Next steps and closing

71. The meeting was closed with remarks from Xueman Wang, PMR Secretariat; Jeff Swartz, IETA and Ian Trim from UK DECC.