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Scope, coverage and Cap setting: Experiences from China

23 July 2019, Mexico City

Allowance allocation: general methods applied

Free allocation

Grandfathering (based on the single entity's historical GHG emission)

Allowance = historical emission × reduction rate (set by government) × adjustment factor (set by government)

Allowance = historical production × carbon intensity × reduction rate (set by government) × adjustment factor (set by government)

Benchmarking (based on the sectoral benchmark of GHG emission)

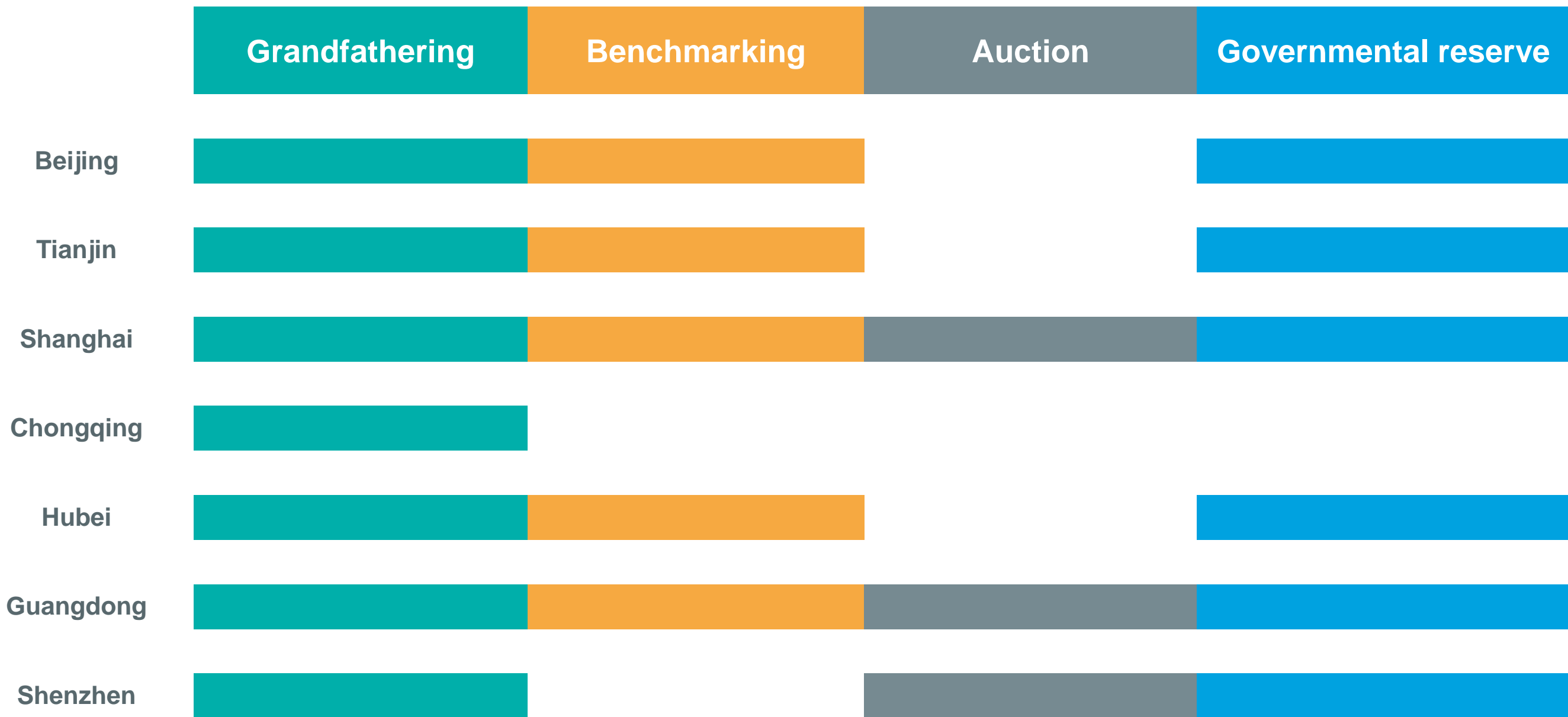
Allowance = previous year production × sectoral benchmark (set by government) × adjustment factor (set by government)

Allowance = present year production × carbon intensity × sectoral benchmark (set by government) × adjustment factor (set by government)

Auction

Open bidding (with floor and ceiling price)

Allowance allocation: overview of pilots



Allowance allocation: lessons learned from pilots

- Free allocation is the mainstream, but auction could be applied as supplementary tool for market stabilisation
- Good consultation with compliance companies and take into account well their advices
- Combination of various methods works well in practice
- Post-adjustment could help to keep the total amount of allowance consistent with the overall GHG emission target, but requires high capacity and administrative cost
- Power sector in general is running beforehand to understand and carry out allowance allocation
- Consistency and transparency of allocation standards make big sense to market players

Allowance allocation: key considerations of allocation in nationwide ETS

- **Step forward from free allocation to auction gradually**
- **Unified national allowance allocation standards will be formulated and applied**
- **Benchmarking has the priority to be applied in power sector, and expanded to other sectors when condition allows**
- **The allocation methods must contribute to the GHG emission reduction through apparent reduction indicators**
- **The methodology and standards must be transparent enough**
- **Responsibility will be shared between central and regional government**

Allowance allocation: methods to be applied in nationwide ETS (power sector)

- $allowance = \sum_{i=1}^n (allowance_{e,i} + allowance_{h,i})$
- $allowance_{e,i} = electricity\ output\ of\ installations_{e,i} \times benchmark\ of\ electricity\ installations_{e,i} \times technical\ adjustment\ factors\ of\ installations_{e,i}$
- $allowance_{h,i} = heating\ output\ of\ installations_{h,i} \times benchmark\ of\ heating\ installations_{h,i}$

Allowance allocation: challenges in setting benchmarks

- **Credibility and availability of emission data**
- **Diversity among various installations in one sector**
- **Complexity of production process and product features, such as chemical industry**
- **Proper application of adjustment factors**
- **Division between academy and industry**
- **Contradiction between stability of benchmark and fugitiveness of industrial producing**



Allowance allocation: inspiration for Mexico

- Feasibility is always more important than perfectionism
- Phase-in approach is a good option under the reality
- Combination of different approaches is worth to try
- Data basis is the Sword of Damocles above our heads
- Stakeholders consultation is a smart way for their acceptance
- Chose properly the leading sectors at the outset
- Keeping stability of standards will help you get advocacy from market
- It's impossible to satisfy everyone in the cake-cutting

Thanks for your attentions!

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