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Quality and Certification Issues in Agriculture Value Chains: Project Findings

By

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Project Findings

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Food as a “credence good”

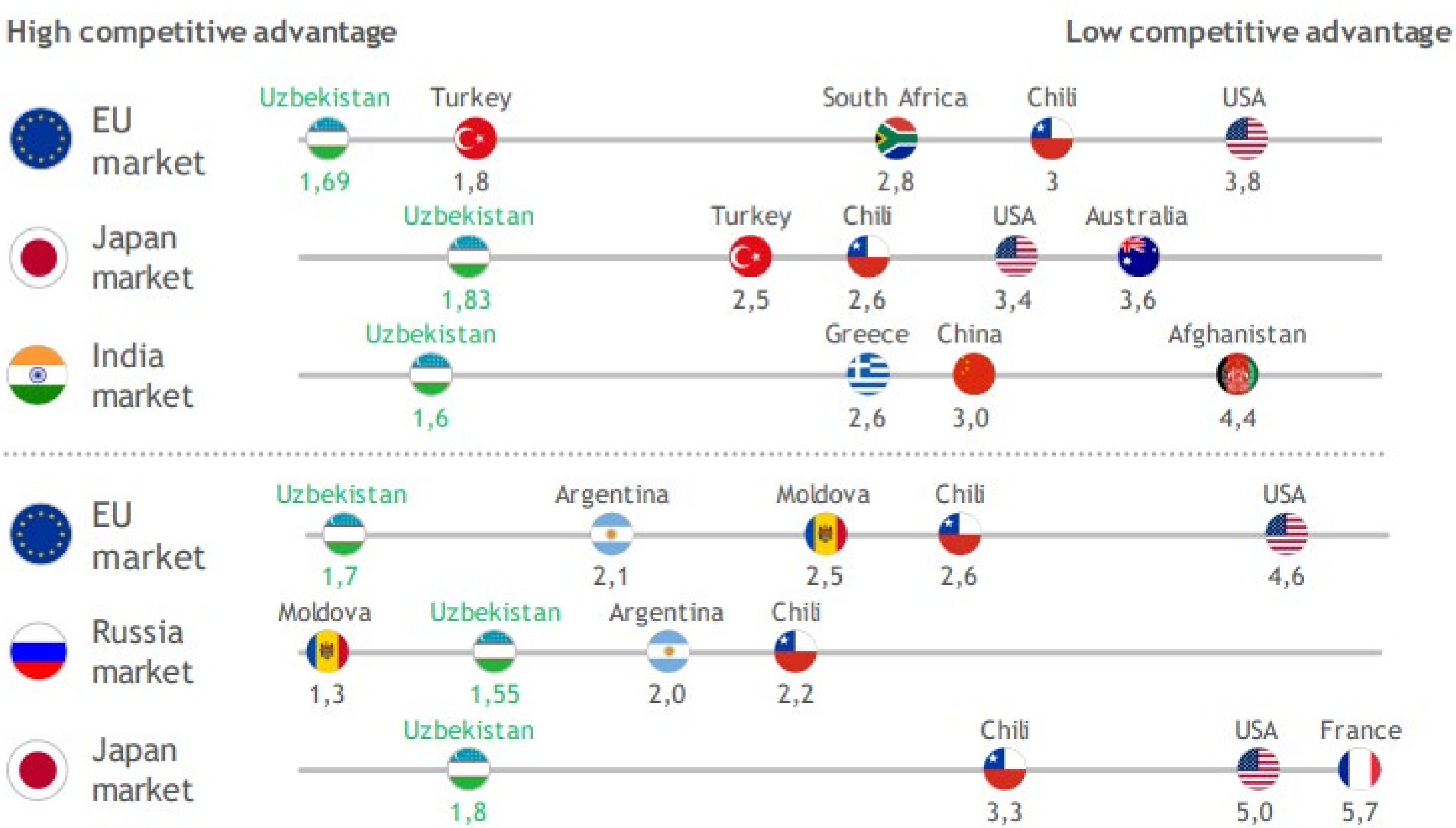
- Agricultural products including food can be vertically differentiated along different “quality” dimensions.
- There is asymmetric information between buyers and sellers about food characteristics (Tirole, 1988).
- This includes food safety issues (e.g. residues, toxins) as well as characteristics linked to production, transport and trade (e.g. labour, sustainability) (Dulleck et al 2011)
- A key aspect is the cost of *ex post* verification.
- Governments and firms impose standards (mandatory (SQS) and commercial) to address this issue.
- Third-party certification of firms meeting such standards is then a key requirement for exporters.
- A key assumption is that certifiers are credible.

Food Value Chains in Dev. Countries and Exports

- Certification is costly
  - Requires quality to be well defined (i.e. which standard?)
  - These quality requirements need to be sufficiently known along the whole export value chain (key with smallholders).
  - Requires incentives along the value chain to be aligned (i.e. itinerant traders vs relationship-based traders; contracts vs arms-length). "Reputation"/credibility is important.
  - Adds to the costs of all actors in the value chain, not just exporters. However, financing tools not always available.
  - Requires the domestic availability of credible certifiers.
  - Government regulation/supervision essential (institut. quality)
- Certification can add to other factors influencing trade from LLDCs, like logistics costs, tariffs and others.
- This results in widely different export prices.

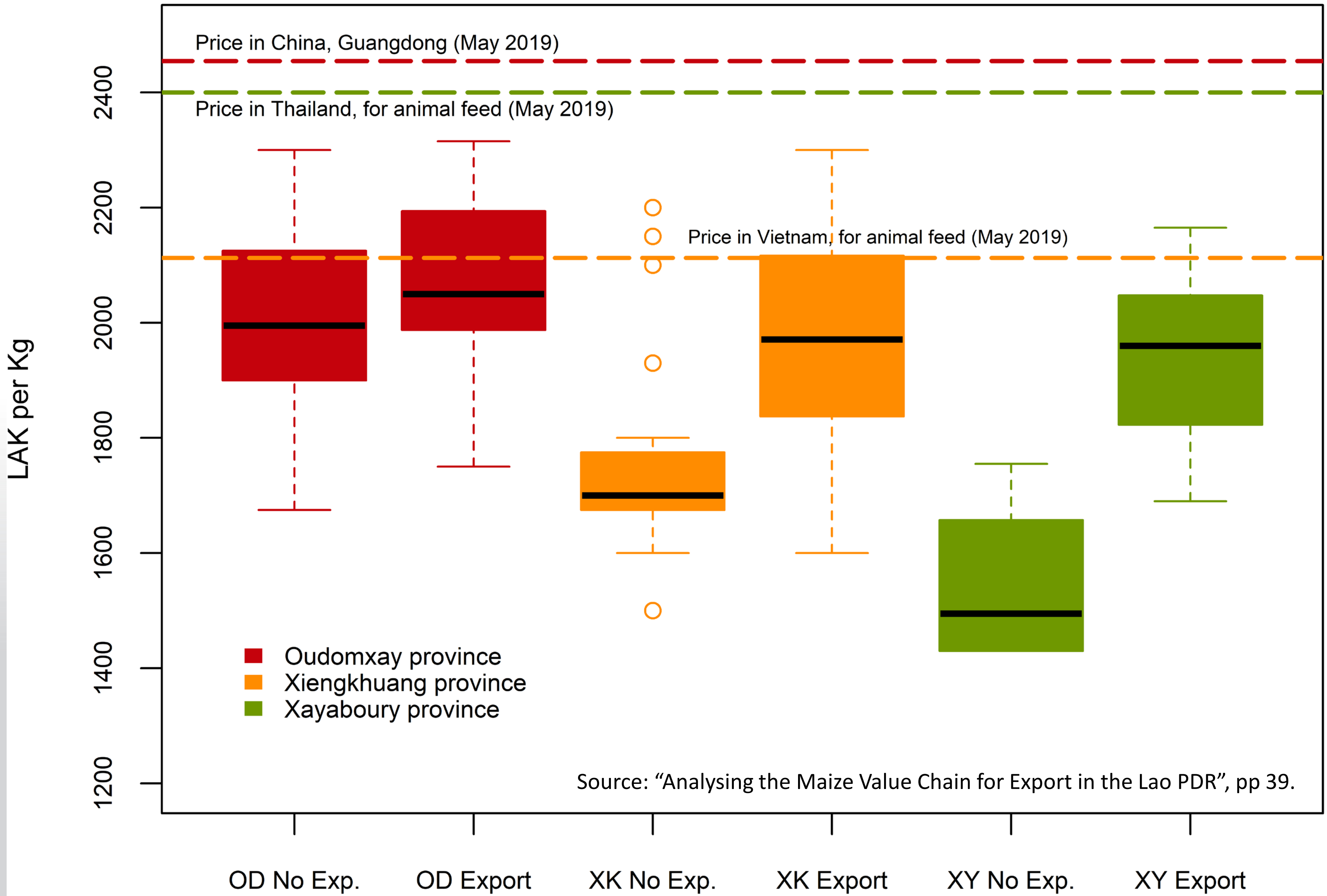
Heterogenous Export Prices - UZB

Comparison of prices for dried grapes and prunes by the largest markets with global exporters (in $ / kg)



Source: presentation by J. Sharasulov , Ministry of Agriculture, Uzbekistan, Feb 4th, 2021.

Heterogenous Maize Export Prices - LAO



Project Activities and Findings

- For each country-product genus, the project conducted:
  - A national survey of the value chain
  - Studies of the domestic value chain for export
  - A national workshop where findings were presented and policy recommendations were shared with stakeholders.
  - A capacity-building activity for private and public sector, on the findings of the project and related policies
  - Fostered participation by exporters into international fairs.
- During the conduct of these activities, the issue of quality appeared repeatedly.
- There were issues identified, in particular regarding:
  - The definition of quality along the value chain (VC).
  - Its measurement, in particular in quantitative, verifiable ways.
  - The importance of the characteristics of the VC for quality
  - The consistent need of policies applied across the VC.

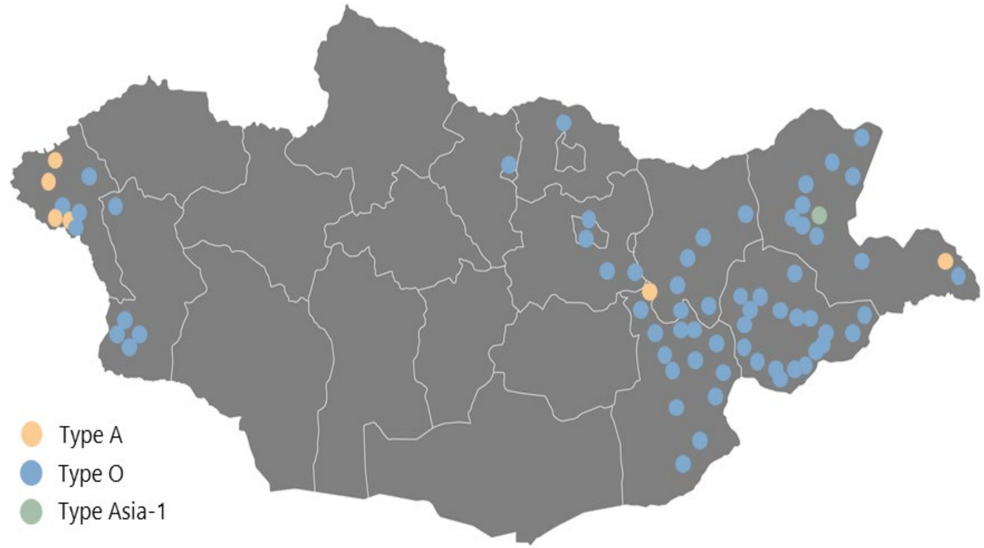
Findings in LAO on Maize Quality

- 22% of surveyed farmers had no dedicated storage, while the rest reported using wood sheds (including bamboo).
- Traders of different sizes play a key role in maintaining and improving quality, notably drying and shelling.
- 52% of traders own a shelling machine, with 49% of small and 65% of middle-sized traders owning one.
- Quality control increases along the value chain: 9%, 15% and 36% of small, medium and large traders indicated rejecting maize for quality reasons.
- Farmer-trader and trader-trader relationships appear more important than contracts for quality.
- 66% of traders indicated a cob-grain/quality premium: 25% over the price of maize in cob on average during the survey period, with some variation across provinces.

Findings in MNG on Meat VC Quality

- Free-range livestock is vulnerable to diseases like foot-and-mouth. The last outbreak was in May 2020 in Arkhangai aimag.

Occurrences of Foot-and-mouth Disease in Mongolia, 2000–2016.



Source: “Survey on the Domestic and Export Meat Value Chain in Mongolia”, pp 19.

- Surveyed herders vaccinate their animals, but some said vaccines can be difficult to find and origin/quality info is missing.
- Veterinary services are often not affordable to herders, so they buy medicines and self-provide these services.
- Less than 10% of meat processing companies in Mongolia meet international standards like Food Safety System Certification 22000, ISO 22000, and HACCP) standards.

Findings in UZB on Dried Fruit Quality - Farmers

- 81% of surveyed farmers have no certification and none has international certification like Global G.A.P. or Organic.
- 64% per cent of surveyed farmers indicated insufficient knowledge about how to implement pest and disease controls consistent with the Organic certification.
- Asked why they dry fruit, 81% mentioned ‘ease of storage’. Only 43% indicate drying only best quality fruit.
- Only 5% of farmers indicated having cold storage capacity.
- 5% of farmers use shade drying only and 3% use drying equipment. The rest use at least in part direct sun-drying.
- All these factors can negatively affect dried fruit quality (i.e. homogeneity, pest protection, “case hardening”, etc).
- Half of the dried apricot-producing farmers in Fergana regions indicated using sulphur during the drying process.

Findings in UZB on Dried Fruit Quality - Buyers

- Pre-purchase agreements, which can be used to foster quality in a value chain, were found to be rare among surveyed farmers (18%) and buyers (19%) of dried fruit.
- Surveyed buyers of dried fruit rely mostly on subjective criteria to define quality. All indicated that the appearance of fruit was a main quality attribute, 88% mentioned variety and 57% indicated weight (and size). None indicated residues as a quality criteria at the moment of buying.
- 79% of buyers had no certification, 15% had ISO 9001 certification, 2% had ISO 22000 or equivalent, and 4% had both. Size of buyers matters for certification.
- Cold storage availability is also infrequent: only 21% of surveyed buyers indicated having it.

Policy Implications

- In all countries and sectors studied, it is clear that quality starts at the farm/herder inputs stage.
- Public sector initiatives to strengthen production with extension services, animal health and information provision are key. So are initiatives regarding availability of credit (storage, veterinary services, drying), input availability at competitive prices (e.g. seeds), and others.
- The private sector has an interest to work together with the public sector. It can also provide the right incentives (e.g. prices) for the adoption of best practices upstream.
- Ongoing initiatives for the adoption of international standards and certification are complementary to this.
- However, issues remain regarding competing standards, certification roles, access to certification and others.

Thank you!

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