



Issues in the collection of FAO data

Sangita Dubey & Pietro Gennari
Statistics Division, FAO



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Outline

1. Challenges and issues
2. Data availability and data quality in the region (2007-2013)--
3. Patterns and trends in response/quality - questions for feed-back
4. Discussion on proposed recommendations



1. Challenges and issues

Increasing data requirements and decreasing data availability

- Worldwide need for evidence-based decision making on food security, agricultural growth and productivity, food security, poverty reduction and resilience, sustainable growth.
- Substantial increase in data requirements to provide evidence for increasingly complex articulation of policy issues, including the need to establish links between economic, social and environment data domains and policy dimensions.
- **Challenge/Issue:** falling data quality/response & increased imputation to compute regional/international indicators



2. Data availability and quality in the LAC region (2007-2013)

- FAO dispatches 7 annual questionnaires, and collects trade data through electronic trade data files

Production

Trade Flows

Producer Prices

Fertilizers

Pesticide Use

Land Use

Government Expenditures

- Response rates in 2013 of 71% for Agricultural Production; 70% for Trade; 64% Producer Prices; 56% Fertilizers; 45% for Land use; 42% for Pesticides use.
- Government expenditure had the lowest response rates, 17% on average, but increased from 12% in 2011 to 39% in 2013.
- Central and South America consistently outperform the Caribbean, and except in producer prices in Central America, also outperform the Global average.
- The Caribbean performs systematically worse than both other LAC regions as well as the Global average.



2. Data availability and quality in the region (2007-2013)

Countries divided in 3 groups:

1. NEVER REPORTING: never provided data to FAO.

- ✓ Only Haiti never provided data to FAO since 2007.

2. IRREGULAR REPORTING: reported 1 to 4 times (1 for government expenditures)

- ✓ The vast majority of LAC countries irregularly report data, which makes it difficult for FAO to build consistent times series in each data domain.
- ✓ Largest challenges in this group are faced by the Caribbean countries, and with respect to Government Expenditures in Agriculture.
- Irregular or incomplete reporting makes it difficult to build consistent time series for each data domain.
- Uses of data series is increasing, such as to build System of Economic and Environmental Accounts for Agriculture, Economic Accounts for Agriculture, and Investment statistics. Increasing use to support SDG monitoring.

2. Data availability and quality in the region (2007-2013)

3. FREQUENTLY REPORTING: reported 5+ times

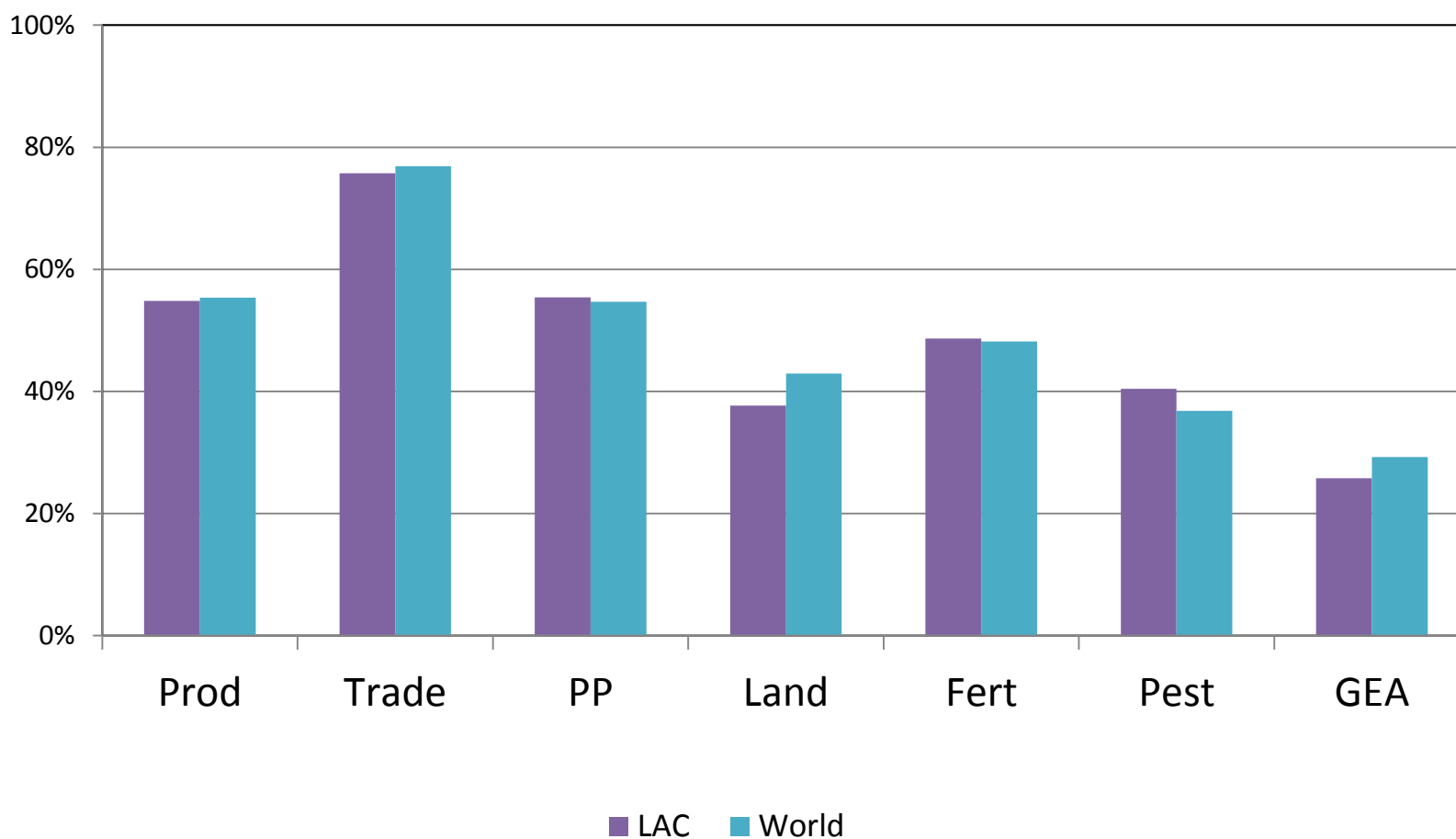
- ✓ Only Chile has regularly responded to all FAO questionnaires;
- ✓ Bolivia, Colombia, El Salvador, and Peru, New Zealand were regular respondents in at 6 of the 7 domains;



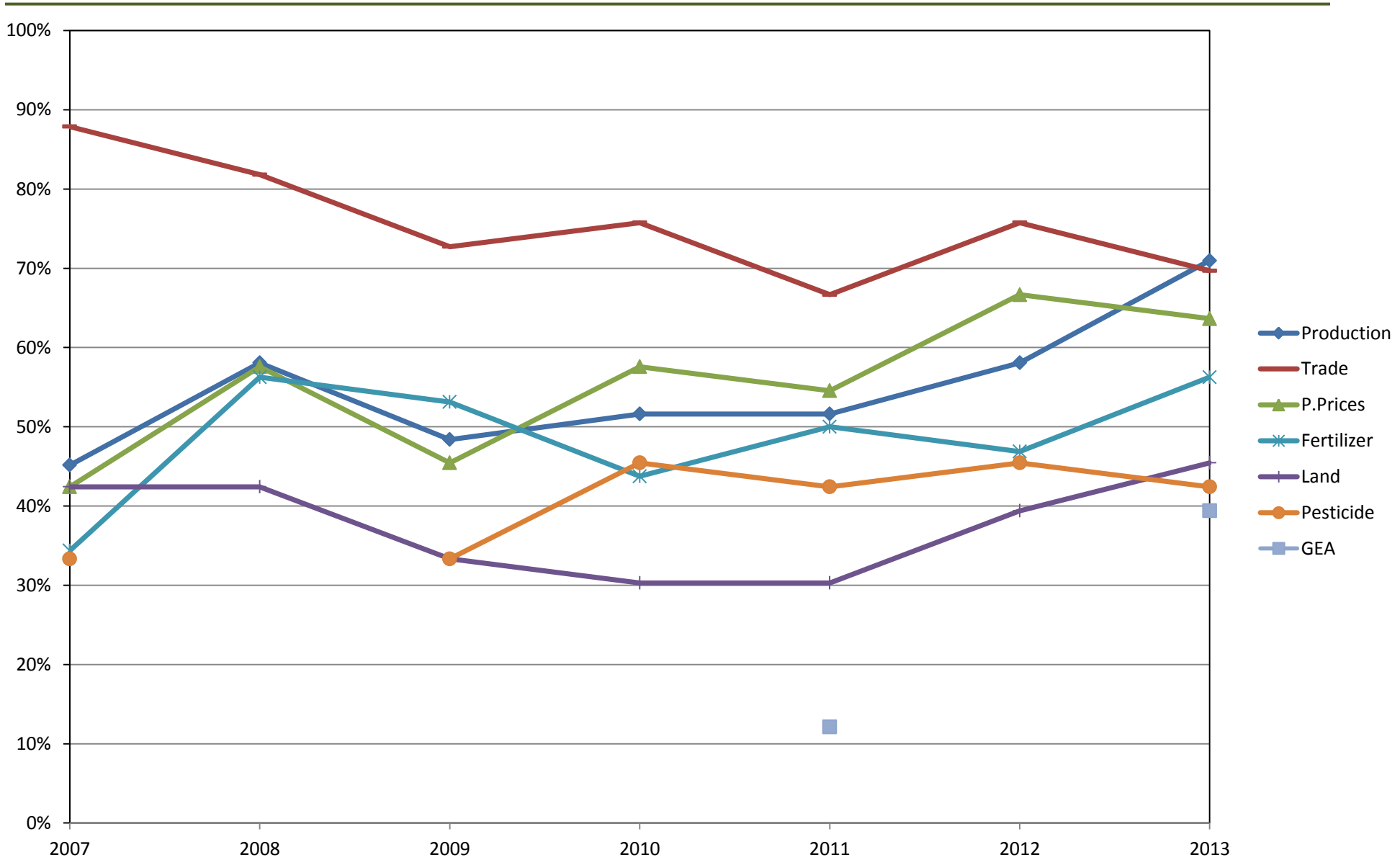
2. Summary of Results for the LAC region

- Generally good response rates in LAC vis-à-vis global response rates and quality, except Land Questionnaire in Central America, and all domains in the Caribbean.
- Most domains show response rate improvements between 2007 and 2013, except agricultural trade flows, due to increased efforts of country and support/coordination with FAO regional statisticians. We can still do better through improved coordination.
- Questionnaire completeness remains a challenge, resulting in FAO estimates/imputations, which may not be accurate, or missing FAOSTAT data where imputations are not done (e.g. producer prices, pesticides use, GEA), which reduces the value of the data.

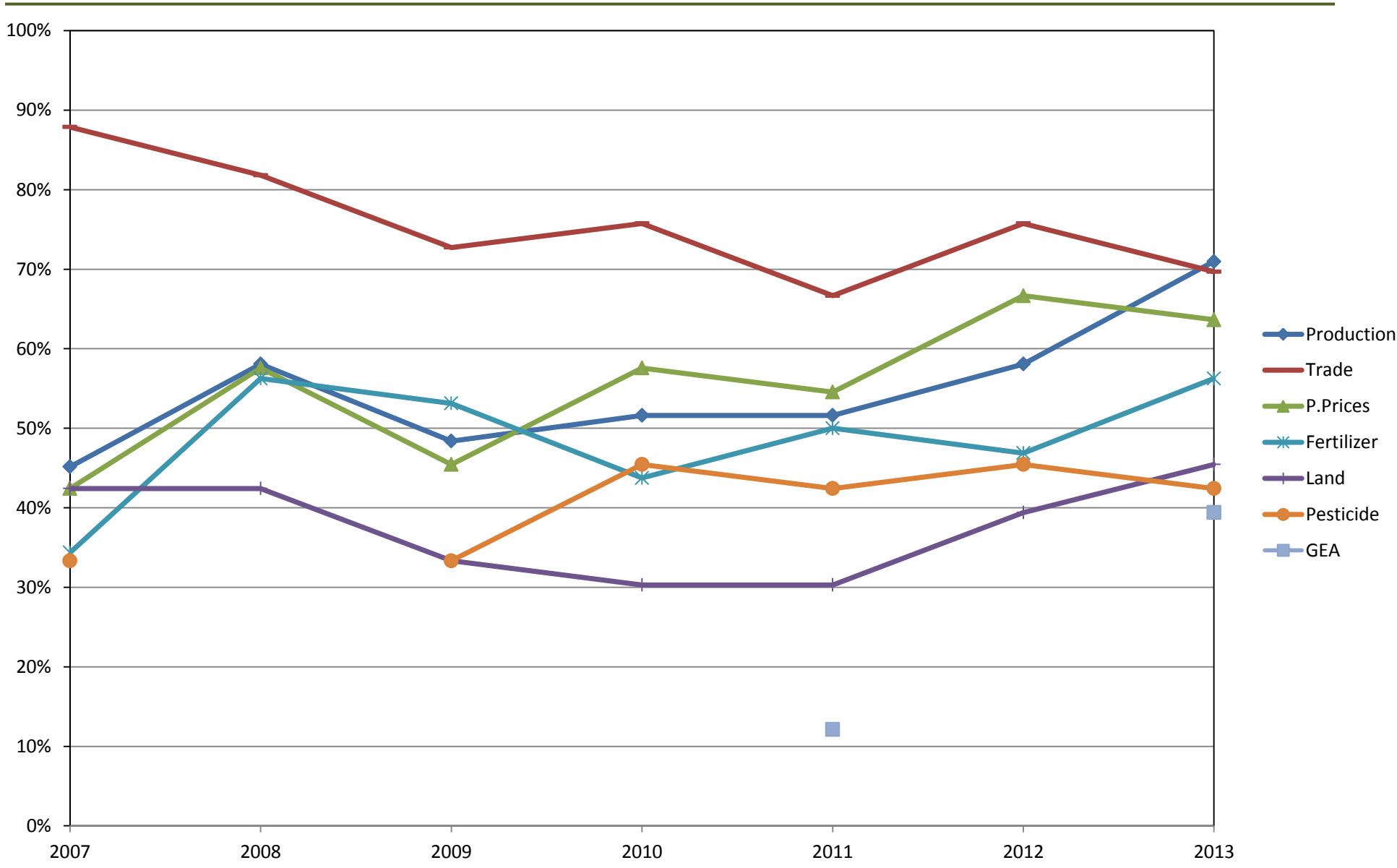
2. LAC vs World response rates by questionnaire, 2007-2013 average



2. Response rate trends in the LAC region (2007-2013)



2. Response rate trends in the LAC region (2007-2013)



2. Response rate trends in the LAC region (2007-2013), by domain

AGRICULTURAL PRODUCTION

- 4 Never reporting countries = Barbados, Grenada, Haiti, Saint Lucia.
- 16 Irregularly reporting countries = Argentina, Bahamas, Belize, Dominican Republic, Guatemala, Guyana, Honduras, Jamaica, Nicaragua, Paraguay, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela.
- 11 Frequently reporting countries = Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Mexico, Panama, Peru.

**Questionnaires were not sent to Antigua and Barbuda nor Dominica.*

AGRICULTURAL TRADE FLOWS

- 1 Never reporting country = Haiti
- 10 Irregularly reporting countries = Antigua and Barbuda, Cuba, Dominica, Grenada, Honduras, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago.
- 22 Frequently reporting countries = Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela.

2. Response rate trends in the LAC region (2007-2013), by domain

PRODUCER PRICES

- 6 Never reporting countries = Bahamas, Barbados, Belize, Dominica, Grenada, Haiti.
- 11 Irregularly reporting countries = Antigua and Barbuda, Guatemala, Guyana, Honduras, Nicaragua, Paraguay, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, and Venezuela.
- 16 Frequently reporting countries = Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Jamaica, Mexico, Panama, Peru, Suriname, Uruguay.

FERTILIZERS

- 7 Never reporting countries = Antigua and Barbuda, Bahamas, Barbados, Grenada, Guyana, Haiti, Saint Vincent and the Grenadines.
- 12 Irregularly reporting countries = Argentina, Belize, Dominica, Dominican Republic, Ecuador, Honduras, Jamaica, Paraguay, Saint Lucia, Suriname, Trinidad and Tobago, Venezuela.
- 14 Frequently reporting countries = Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Peru, Saint Kitts and Nevis, Uruguay.

2. Response rate trends in the LAC region (2007-2013), by domain

PESTICIDES USE

- 11 Never reporting countries = Barbados, Brazil, Cuba, Dominica, Grenada, Haiti, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Venezuela.
- 15 Irregularly reporting countries = Antigua and Barbuda, Argentina, Bahamas, Belize, Bolivia, Costa Rica, Dominican Republic, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Uruguay.
- 7 Frequently reporting countries = Chile, Colombia, Ecuador, El Salvador, Peru, Saint Kitts and Nevis, Suriname.

LAND USE

- 11 Never reporting countries = Antigua and Barbuda, Bahamas, Barbados, Belize, Brazil, Dominica, Haiti, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, Venezuela.
- 14 Irregularly reporting countries = Argentina, Costa Rica, Cuba, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Honduras, Nicaragua, Panama, Paraguay, Suriname, Trinidad and Tobago.
- 8 Frequently reporting countries = Bolivia, Chile, Colombia, Ecuador, Mexico, Peru, Saint Kitts and Nevis, Uruguay

2. Response rate trends in the LAC region (2007-2013), by domain

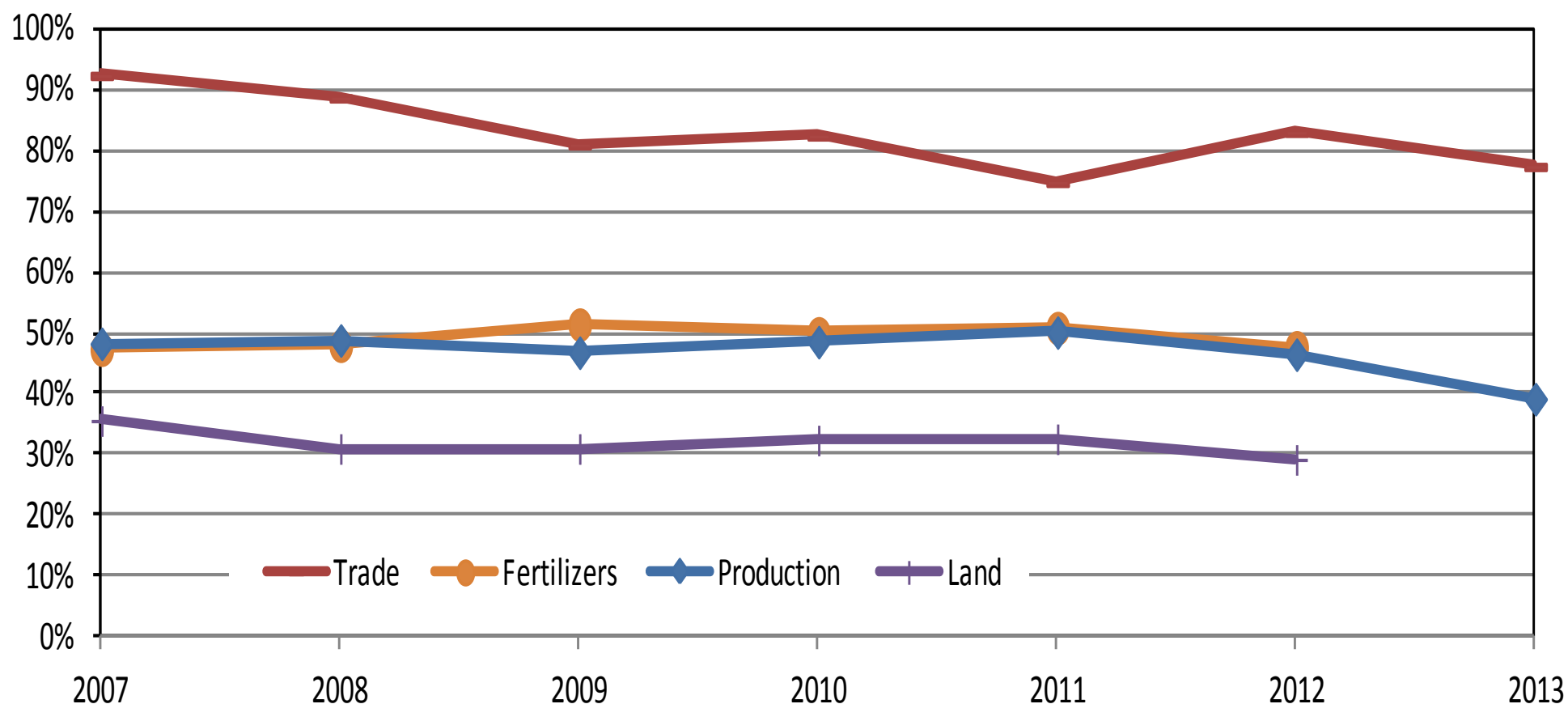
GOVERNMENT EXPENDITURES

- 19 Never reporting countries = Antigua and Barbuda, Barbados, Belize, Brazil, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, Guyana, Haiti, Mexico, Paraguay, Peru, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Uruguay.
- 12 Reported once = Argentina, Bahamas, Bolivia, El Salvador, Grenada, Guatemala, Honduras, Nicaragua, Panama, Saint Kitts and Nevis, Suriname, Venezuela.
- 2 Frequently reporting countries (reported both times) = Chile, Jamaica.

Improved data reporting and data quality will
only increase in importance in monitoring the
new SDGs.

2. Data quality (incompleteness) in the LAC region (2007-2013)

Figure 3: Proportion of official records in FAOSTAT for LAC, by domain, 2007-2013



Questionnaire incompleteness results in imputations and estimations by FAO, when official data could be more accurate, reducing data quality

3. Patterns & trends in declining response/quality

Possible explanations, for discussion:

- **Increased burden:** from FAO questionnaires (length, complexity, number, etc.); from all sources (regional/international organizations, NGOs, etc.)
- **Resource limitations:** budget/HR constraints at country level; staff turnover/loss of experience
- **Data unavailable:** less than *annual* frequency, or no data collection, in some domains (*though this absence should be reported*)
- **Other issues:** Training needs, confidentiality, other?

4. Proposed recommendations to address data quality

It is recommended that:

- To improve response rates and questionnaire completion: a) the FAO regional statistician, FAO HQ, and countries improve coordination mechanisms, such as maintaining up-to-date national focal point(s), endorsing and implementing new methodological guidelines, and peer-reviewing data and methodologies to be published by FAO, particularly where estimations and imputations are undertaken; b) FAO pilot multiple-mode data collection, such as on-line questionnaires and APIs, and select member countries pilot with FAO new data sharing technologies; and c) countries submit questionnaires even when new data is not available, indicating the reason for lack of availability.
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- To address the specific FAO questionnaire challenges in the region, and particularly in the Caribbean, countries collaborate with FAO through the regional statistician and new sub-regional statistician for the Caribbean, to request and support targeted capacity development/training workshops, and FAO support to countries in conducting Censuses/surveys.
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- To reduce the burden on countries and improve data quality, FAO coordinate across its questionnaires to reduce duplication and overlap, and exploit the new Statistical Working System to give countries opportunities to review their data before publication by FAO.



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For more information, please contact

Sangita.Dubey@fao.org

Thank you!

