



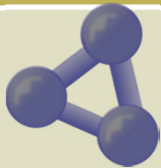
# Designing Reporting Programs



Step 1: Determine Program Objectives



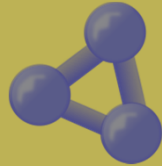
Step 2: Create an Enabling Environment



Step 3: Determine Program Structure and Requirements



Step 4: Conduct Program Review



## Program Structure

### Program coverage

- Who reports what

### Emissions quantification

- How to calculate and monitor emissions

### Reporting procedures and schedules

- What to report and how often

### Reporting platforms and data disclosure

- Where to report and who has access to reported information

### Quality control and assurance

- Who verifies what and how

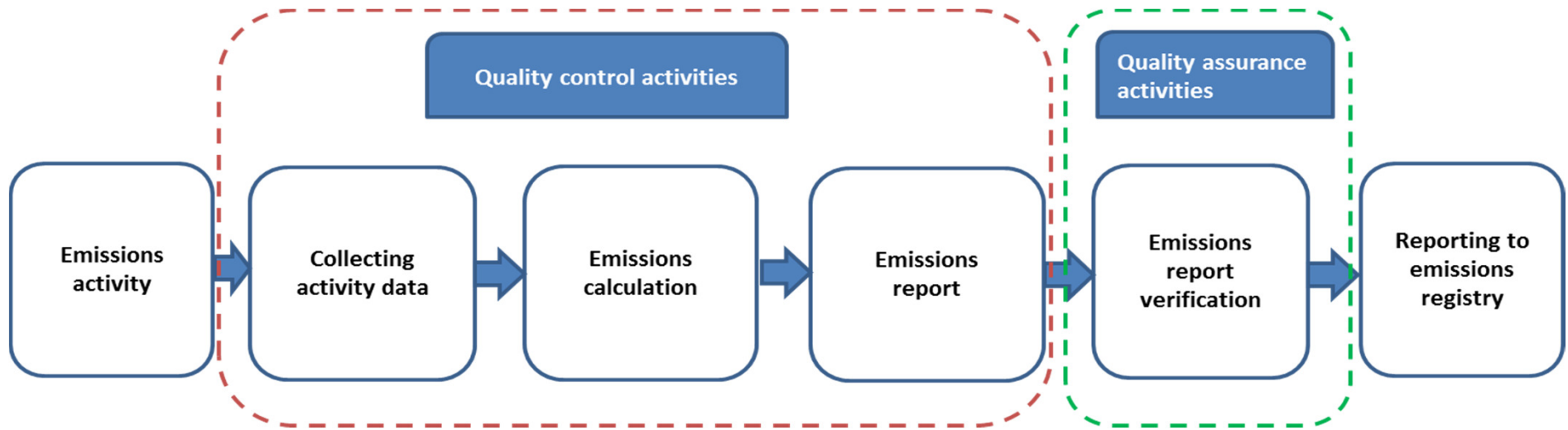
### Enforcement

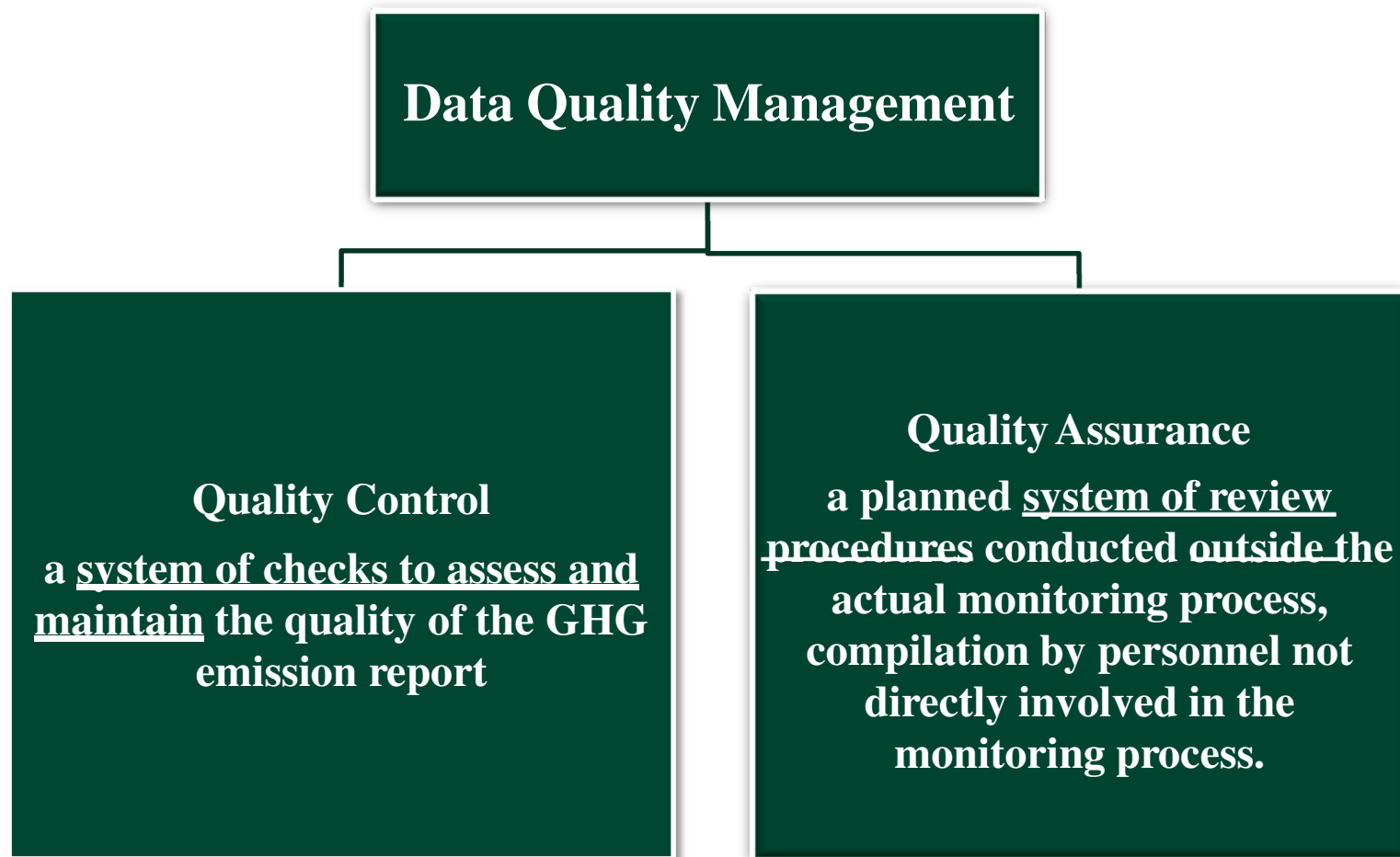
- What measures to apply in case of non-compliance



# Overview

- **QA vs QC**
- **QC and monitoring plan**
- **QA – Options**







# Purpose of QA/QC

- Investigate accuracy, completeness, transparency, consistency
- Risk management
  - Preparation and controls now avoids potential big problems later
- Management and credibility
  - Without checks, risk “garbage in as garbage out
  - Assurance builds trust and confidence
- Continuous improvement
- State of the art always evolving



# Quality Control measures

## **Prescribed calculation and monitoring methods**

- complete documentation, e.g., monitoring plan

## **Data validation before/after submission**

- Checks in data management systems, admin checks

## **Compliance assistance**

- Training, help desks, factsheets, technical guidance



# Monitoring Plan

- Provides documentation of entity's emissions monitoring methodology
  - maintained by the entity
- List of emission sources; activity data and calculation factors; description of calculation approach; EF source and tier
- Who takes what data, when, from where and how and does what with it – Data flow
- Risk management measures in place
- A living document
- Programs can provide templates
  - EU ETS requires installations to submit a report
  - EPA asks entities to prepare a plan, but not required to submit





# Quality Assurance Options

## Self Certification

- Relatively low cost option
- May not instill sufficient confidence in data if it is the only QA mechanism utilized

## Regulatory Authority Review

- Carries high level of confidence
- Labor and cost intensive
- Demands high level of technical capacity

## Third Party Verification

- Carries high level of confidence when done by accredited third party verifiers as per laid out guidelines
- Higher cost to the reporter → May affect program uptake



# Program's role

- Verification standards
  - Process for verification bodies to follow to verify emissions
  - Requirements (e.g., competency requirements) to seek accreditation
  - In advance of first reporting period; pilot verification phase; verify every few years instead of annually



# Program's role

- Materiality threshold
  - Risk-based approach – comprehensive risk evaluation of calculations, data flow, QC measures – for misstatements of data
  - Program can define when a misstatement is considered significant or material (in terms of % of total emissions)
- Accreditation standards
  - Process for accreditation
  - List of accredited verifiers



# Available guidance

- IPCC QA/QC and Uncertainty Guidelines
- Industry standards, national standards, equipment specifications (e.g., metering equipment calibration)
- ISO standards on verification and accreditation:
  - ISO 14064-3, ISO 14065, ISO 14066, ISO 17011



# Examples across programs

	Self-certification	Review by Program Administrators <sup>a</sup>	Independent Third Party Verification
Australia	✓	✓	✓
California	✓	✓ <sup>b</sup>	✓
Canada	✓	✓	
European Union	✓		✓
Japan	✓		✓
Mexico	✓		✓
Turkey	✓		✓
United Kingdom	✓		✓
United States	✓	✓	



# Checklist

- Have measures been defined to enhance entities' knowledge of rules and requirements to ensure quality control?
- What kind of features does the data management system include that can help ensure quality control?
- Have clear monitoring and calculation methodologies been provided to ensure quality control?
- Have quality assurance related rules been established that take into account factors such as program objectives and costs to the reporter and the administrator?
- Have clear guidance and standards for verifiers and accreditation agencies been developed to govern the third party verification process?



## Program Review

- Formal, periodic review process vs. ongoing review and stakeholder feedback
- Independent body
  - Australia established the Climate Change authority to review program legislation
- Process to solicit feedback from stakeholders



## Program Review

### Benefits

**Demonstrate impact**

**Lend credibility**

**Facilitate feedback**

**Identify good practices**

### Emphasis

**Process**

**Substantive  
details**

**Impact**





# Checklist

- Does the review process specify who will conduct the review and how often?
- Has the scope of the review process been determined considering potential benefits such as assessing progress made against objectives, lending credibility to the program, and identifying good practices and inefficiencies?