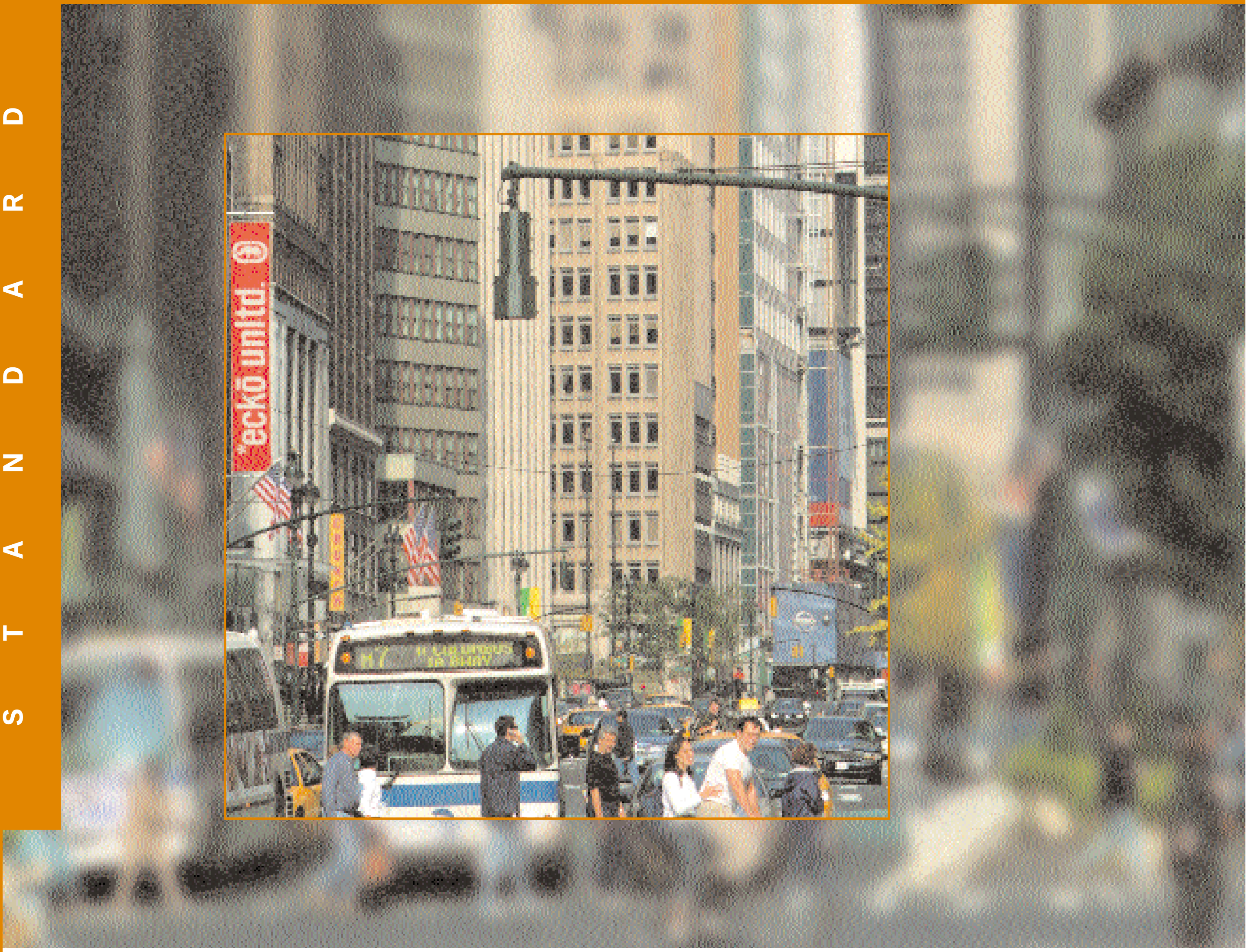
3 Setting Organizational Boundaries

S T A N D A R D



Business operations vary in their legal and organizational structures; they include wholly owned operations, incorporated and non-incorporated joint ventures, subsidiaries, and others. For the purposes of financial accounting, they are treated according to established rules that depend on the structure of the organization and the relationships among the parties involved. In setting organizational boundaries, a company selects an approach for consolidating GHG emissions and then consistently applies the selected approach to define those businesses and operations that constitute the company for the purpose of accounting and reporting GHG emissions.

STANDARD

GUIDANCE

For corporate reporting, two distinct approaches can be used to consolidate GHG emissions: the equity share and the control approaches. Companies shall account for and report their consolidated GHG data according to either the equity share or control approach as presented below. If the reporting company wholly owns all its operations, its organizational boundary will be the same whichever approach is used.[1] For companies with joint operations, the organizational boundary and the resulting emissions may differ depending on the approach used. In both wholly owned and joint operations, the choice of approach may change how emissions are categorized when operational boundaries are set (see chapter 4).

Equity share approach

Under the equity share approach, a company accounts for GHG emissions from operations according to its share of equity in the operation. The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation. Typically, the share of economic risks and rewards in an operation is aligned with the company's percentage ownership of that operation, and equity share will normally be the same as the ownership percentage. Where this is not the case, the economic substance of the relationship the company has with the operation always overrides the legal ownership form to ensure that equity share reflects the percentage of economic interest. The principle of economic substance taking precedent over legal form is consistent with international financial reporting standards. The staff preparing the inventory may therefore need to consult with the company's accounting or legal staff to ensure that the appropriate equity share percentage is applied for each joint operation (see Table 1 for definitions of financial accounting categories).

Control approach

Under the control approach, a company accounts for 100 percent of the GHG emissions from operations over which it has control. It does not account for GHG emissions from operations in which it owns an interest but has no control. Control can be defined in either financial or operational terms. When using the control approach to consolidate GHG emissions, companies shall choose between either the operational control or financial control criteria.

In most cases, whether an operation is controlled by the company or not does not vary based on whether the financial control or operational control criterion is used. A notable exception is the oil and gas industry, which often has complex ownership / operatorship structures. Thus, the choice of control criterion in the oil and gas industry can have substantial consequences for a company's GHG inventory. In making this choice, companies should take into account how GHG emissions accounting and reporting can best be geared to the requirements of emissions reporting and trading schemes, how it can be aligned with financial and environmental reporting, and which criterion best reflects the company's actual power of control.

- **Financial Control.** The company has financial control over the operation if the former has the ability to direct the financial and operating policies of the latter with a view to gaining economic benefits from its activities.[2] For example, financial control usually exists if the company has the right to the majority of benefits of the operation, however these rights are conveyed. Similarly, a company is considered to financially control an operation if it retains the majority risks and rewards of ownership of the operation's assets.

  Under this criterion, the economic substance of the relationship between the company and the operation takes precedence over the legal ownership status, so that the company may have financial control over the operation even if it has less than a 50 percent interest in that operation. In assessing the economic substance of the relationship, the impact of potential voting rights, including both those held by the company and those held by other parties, is also taken into account. This criterion is consistent with international financial accounting standards; therefore, a company has financial control over an operation for GHG accounting purposes if the operation is considered as a group company or subsidiary for the purpose of financial consolidation, i.e., if the operation is fully consolidated in financial accounts. If this criterion is chosen to determine control, emissions from joint ventures where partners have joint financial control are accounted for based on the equity share approach (see Table 1 for definitions of financial accounting categories).

- **Operational Control.** A company has operational control over an operation if the former or one of its subsidiaries (see Table 1 for definitions of financial accounting categories) has the full authority to introduce and implement its operating policies at the operation. This criterion is consistent with the current accounting and reporting practice of many companies that report on emissions from facilities, which they operate (i.e., for which they hold the operating license). It is expected that except in very rare circumstances, if the company or one of its subsidiaries is the operator of a facility, it will have the full authority to introduce and implement its operating policies and thus has operational control.

  Under the operational control approach, a company accounts for 100% of emissions from operations over which it or one of its subsidiaries has operational control.

  It should be emphasized that having operational control does not mean that a company necessarily has authority to make all decisions concerning an operation. For example, big capital investments will likely require the approval of all the partners that have joint financial control. Operational control does mean that a company has the authority to introduce and implement its operating policies.

  More information on the relevance and application of the operational control criterion is provided in petroleum industry guidelines for reporting GHG emissions (IPIECA, 2003).

Sometimes a company can have joint financial control over an operation, but not operational control. In such cases, the company would need to look at the contractual arrangements to determine whether any one of the partners has the authority to introduce and implement its operating policies at the operation and thus has the responsibility to report emissions under operational control. If the operation itself will introduce and implement its own operating policies, the partners with joint financial control over the operation will not report any emissions under operational control.

Table 2 in the guidance section of this chapter illustrates the selection of a consolidation approach at the corporate level and the identification of which joint operations will be in the organizational boundary depending on the choice of the consolidation approach.

Consolidation at multiple levels

The consolidation of GHG emissions data will only result in consistent data if all levels of the organization follow the same consolidation policy. In the first step, the management of the parent company has to decide on a consolidation approach (i.e., either the equity share or the financial or operational control approach). Once a corporate consolidation policy has been selected, it shall be applied to all levels of the organization.

State-ownership

The rules provided in this chapter shall also be applied to account for GHG emissions from industry joint operations that involve state ownership or a mix of private/state ownership.

BP: Reporting on the basis of equity share

BP reports GHG emissions on an equity share basis, including those operations where BP has an interest, but where BP is not the operator. In determining the extent of the equity share reporting boundary BP seeks to achieve close alignment with financial accounting procedures. BP's equity share boundary includes all operations undertaken by BP and its subsidiaries, joint ventures and associated undertakings as determined by their treatment in the financial accounts. Fixed asset investments, i.e., where BP has limited influence, are not included.

GHG emissions from facilities in which BP has an equity share are estimated according to the requirements of the BP Group Reporting Guidelines for Environmental Performance (BP 2000). In those facilities where BP has an equity share but is not the operator, GHG emissions data may be obtained directly from the operating company using a methodology consistent with the BP Guidelines, or is calculated by BP using activity data provided by the operator.

BP reports its equity share GHG emissions every year. Since 2000, independent external auditors have expressed the opinion that the reported total has been found to be free from material misstatement when audited against the BP Guidelines.

TABLE 1. Financial accounting categories

ACCOUNTING CATEGORY	FINANCIAL ACCOUNTING DEFINITION	ACCOUNTING FOR GHG EMISSIONS ACCORDING TO *GHG PROTOCOL CORPORATE STANDARD*	
		BASED ON EQUITY SHARE	BASED ON FINANCIAL CONTROL
Group companies / subsidiaries	The parent company has the ability to direct the financial and operating policies of the company with a view to gaining economic benefits from its activities. Normally, this category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has financial control. Group companies/subsidiaries are fully consolidated, which implies that 100 percent of the subsidiary's income, expenses, assets, and liabilities are taken into the parent company's profit and loss account and balance sheet, respectively. Where the parent's interest does not equal 100 percent, the consolidated profit and loss account and balance sheet shows a deduction for the profits and net assets belonging to minority owners.	Equity share of GHG emissions	100% of GHG emissions
Associated / affiliated companies	The parent company has significant influence over the operating and financial policies of the company, but does not have financial control. Normally, this category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has significant influence, but not financial control. Financial accounting applies the equity share method to associated/affiliated companies, which recognizes the parent company's share of the associate's profits and net assets.	Equity share of GHG emissions	0% of GHG emissions
Non-incorporated joint ventures / partnerships / operations where partners have joint financial control	Joint ventures/partnerships/operations are proportionally consolidated, i.e., each partner accounts for their proportionate interest of the joint venture's income, expenses, assets, and liabilities.	Equity share of GHG emissions	Equity share of GHG emissions
Fixed asset investments	The parent company has neither significant influence nor financial control. This category also includes incorporated and non-incorporated joint ventures and partnerships over which the parent company has neither significant influence nor financial control. Financial accounting applies the cost/dividend method to fixed asset investments. This implies that only dividends received are recognized as income and the investment is carried at cost.	0%	0%
Franchises	Franchises are separate legal entities. In most cases, the franchiser will not have equity rights or control over the franchise. Therefore, franchises should not be included in consolidation of GHG emissions data. However, if the franchiser does have equity rights or operational/financial control, then the same rules for consolidation under the equity or control approaches apply.	Equity share of GHG emissions	100% of GHG emissions

NOTE: Table 1 is based on a comparison of UK, US, Netherlands and International Financial Reporting Standards (KPMG, 2000).

When planning the consolidation of GHG data, it is important to distinguish between GHG accounting and GHG reporting. GHG accounting concerns the recognition and consolidation of GHG emissions from operations in which a parent company holds an interest (either control or equity) and linking the data to specific operations, sites, geographic locations, business processes, and owners. GHG reporting, on the other hand, concerns the presentation of GHG data in formats tailored to the needs of various reporting uses and users.

Most companies have several goals for GHG reporting, e.g., official government reporting requirements, emissions trading programs, or public reporting (see chapter 2). In developing a GHG accounting system, a fundamental consideration is to ensure that the system is capable of meeting a range of reporting requirements. Ensuring that data are collected and recorded at a sufficiently disaggregated level, and capable of being consolidated in various forms, will provide companies with maximum flexibility to meet a range of reporting requirements.

Double counting

When two or more companies hold interests in the same joint operation and use different consolidation approaches (e.g., Company A follows the equity share approach while Company B uses the financial control approach), emissions from that joint operation could be double counted. This may not matter for voluntary corporate public reporting as long as there is adequate disclosure from the company on its consolidation approach. However, double counting of emissions needs to be avoided in trading schemes and certain mandatory government reporting programs.

Reporting goals and level of consolidation

Reporting requirements for GHG data exist at various levels, from a specific local facility level to a more aggregated corporate level. Examples of drivers for various levels of reporting include:

- Official government reporting programs or certain emissions trading programs may require GHG data to be reported at a facility level. In these cases, consolidation of GHG data at a corporate level is not relevant
- Government reporting and trading programs may require that data be consolidated within certain geographic and operational boundaries (e.g., the U.K. Emissions Trading Scheme)
- To demonstrate the company's account to wider stakeholders, companies may engage in voluntary public reporting, consolidating GHG data at a corporate level in order to show the GHG emissions of their entire business activities.

Contracts that cover GHG emissions

To clarify ownership (rights) and responsibility (obligations) issues, companies involved in joint operations may draw up contracts that specify how the ownership of emissions or the responsibility for managing emissions and associated risk is distributed between the parties. Where such arrangements exist, companies may optionally provide a description of the contractual arrangement and include information on allocation of CO_2 related risks and obligations (see Chapter 9).

Using the equity share or control approach

Different inventory reporting goals may require different data sets. Thus companies may need to account for their GHG emissions using both the equity share and the control approaches. The *GHG Protocol Corporate Standard* makes no recommendation as to whether voluntary public GHG emissions reporting should be based on the equity share or any of the two control approaches, but encourages companies to account for their emissions applying the equity share and a control approach separately. Companies need to decide on the approach best suited to their business activities and GHG accounting and reporting requirements. Examples of how these may drive the choice of approach include the following:

- **Reflection of commercial reality.** It can be argued that a company that derives an economic profit from a certain activity should take ownership for any GHG emissions generated by the activity. This is achieved by using the equity share approach, since this approach assigns ownership for GHG emissions on the basis of economic interest in a business activity. The control approaches do not always reflect the full GHG emissions portfolio of a company's business activities, but have the advantage that a company takes full ownership of all GHG emissions that it can directly influence and reduce.

- **Government reporting and emissions trading programs.** Government regulatory programs will always need to monitor and enforce compliance. Since compliance responsibility generally falls to the operator (not equity holders or the group company that has financial control), governments will usually require reporting on the basis of operational control, either through a facility level-based system or involving the consolidation of data within certain geographical boundaries (e.g. the EU ETS will allocate emission permits to the operators of certain installations).

- **Liability and risk management.** While reporting and compliance with regulations will most likely continue to be based directly on operational control, the ultimate financial liability will often rest with the group company that holds an equity share in the operation or has financial control over it. Hence, for assessing risk, GHG reporting on the basis of the equity share and financial control approaches provides a more complete picture. The equity share approach is likely to result in the most comprehensive coverage of liability and risks. In the future, companies might incur liabilities for GHG emissions produced by joint operations in which they have an interest, but over which they do not have financial control. For example, a company that is an equity shareholder in an operation but has no financial control over it might face demands by the companies with a controlling share to cover its requisite share of GHG compliance costs.

- **Alignment with financial accounting.** Future financial accounting standards may treat GHG emissions as liabilities and emissions allowances/credits as assets. To assess the assets and liabilities a company creates by its joint operations, the same consolidation rules that are used in financial accounting should be applied in GHG accounting. The equity share and financial control approaches result in closer alignment between GHG accounting and financial accounting.

- **Management information and performance tracking.** For the purpose of performance tracking, the control approaches seem to be more appropriate since managers can only be held accountable for activities under their control.

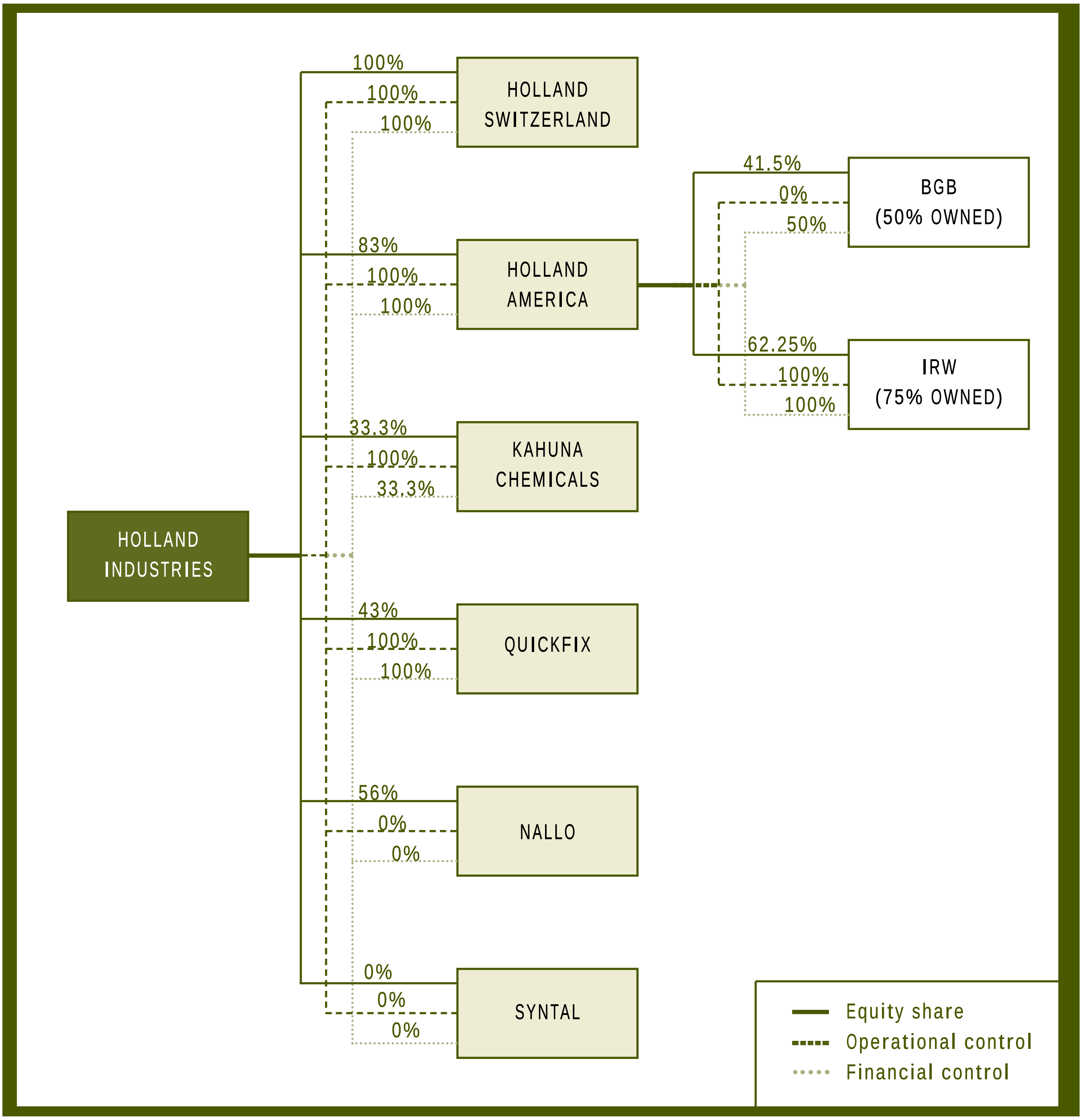
- **Cost of administration and data access.** The equity share approach can result in higher administrative costs than the control approach, since it can be difficult and time consuming to collect GHG emissions data from joint operations not under the control of the reporting company. Companies are likely to have better access to operational data and therefore greater ability to ensure that it meets minimum quality standards when reporting on the basis of control.

- **Completeness of reporting.** Companies might find it difficult to demonstrate completeness of reporting when the operational control criterion is adopted, since there are unlikely to be any matching records or lists of financial assets to verify the operations that are included in the organizational boundary.

Royal Dutch/Shell: Reporting on the basis of operational control

In the oil and gas industry, ownership and control structures are often complex. A group may own less than 50 percent of a venture's equity capital but have operational control over the venture. On the other hand, in some situations, a group may hold a majority interest in a venture without being able to exert operational control, for example, when a minority partner has a veto vote at the board level. Because of these complex ownership and control structures, Royal Dutch/Shell, a global group of energy and petrochemical companies, has chosen to report its GHG emissions on the basis of operational control. By reporting 100 percent of GHG emissions from all ventures under its operational control, irrespective of its share in the ventures' equity capital, Royal Dutch/Shell can ensure that GHG emissions reporting is in line with its operational policy including its Health, Safety and Environmental Performance Monitoring and Reporting Guidelines. Using the operational control approach, the group generates data that is consistent, reliable, and meets its quality standards.

FIGURE 1. Defining the organizational boundary of Holland Industries



AN ILLUSTRATION:
THE EQUITY SHARE AND CONTROL APPROACHES

Holland Industries is a chemicals group comprising a number of companies/joint ventures active in the production and marketing of chemicals. Table 2 outlines the organizational structure of Holland Industries and shows how GHG emissions from the various wholly owned and joint operations are accounted for under both the equity share and control approaches.

In setting its organizational boundary, Holland Industries first decides whether to use the equity or control approach for consolidating GHG data at the corporate level. It then determines which operations at the corporate level meet its selected consolidation approach. Based on the selected consolidation approach, the consolidation process is repeated for each lower operational level. In this process, GHG emissions are first apportioned at the lower operational level (subsidiaries, associate, joint ventures, etc.) before they are consolidated at the corporate level. Figure 1 presents the organizational boundary of Holland Industries based on the equity share and control approaches.

TABLE 2. Holland Industries - organizational structure and GHG emissions accounting

WHOLLY OWNED AND JOINT OPERATIONS OF HOLLAND	LEGAL STRUCTURE AND PARTNERS	ECONOMIC INTEREST HELD BY HOLLAND INDUSTRIES	CONTROL OF OPERATING POLICIES	TREATMENT IN HOLLAND INDUSTRIES' FINANCIAL ACCOUNTS (SEE TABLE 1)	EMISSIONS ACCOUNTED FOR AND REPORTED BY HOLLAND INDUSTRIES	
					EQUITY SHARE APPROACH	CONTROL APPROACH
Holland Switzerland	Incorporated company	100%	Holland Industries	Wholly owned subsidiary	100%	100% for operational control 100% for financial control
Holland America	Incorporated company	83%	Holland Industries	Subsidiary	83%	100% for operational control 100% for financial control
BGB	Joint venture, partners have joint financial control other partner Rearden	50% by Holland America	Rearden	via Holland America	41.5% (83% x 50%)	0% for operational control 50% for financial control (50% x 100%)
IRW	Subsidiary of Holland America	75% by Holland America	Holland America	via Holland America	62.25% (83% x 75%)	100% for operational control 100% for financial control
Kahuna Chemicals	Non-incorporated joint venture; partners have joint financial control; two other partners: ICT and BCSF	33.3%	Holland Industries	Proportionally consolidated joint venture	33.3%	100% for operational control 33.3% for financial control
QuickFix	Incorporated joint venture, other partner Majox	43%	Holland Industries	Subsidiary (Holland Industries has financial control since it treats Quick Fix as a subsidiary in its financial accounts)	43%	100% for operational control 100% for financial control
Nallo	Incorporated joint venture, other partner Nagua Co.	56%	Nallo	Associated company (Holland Industries does not have financial control since it treats Nallo as an Associated company in its financial accounts)	56%	0% for operational control 0% for financial control
Syntal	Incorporated company, subsidiary of Erewhon Co.	1%	Erewhon Co.	Fixed asset investment	0%	0% for operational control 0% for financial control

In this example, Holland America (not Holland Industries) holds a 50 percent interest in BGB and a 75 percent interest in IRW. If the activities of Holland Industries itself produce GHG emissions (e.g., emissions associated with electricity use at the head office), then these emissions should also be included in the consolidation at 100 percent.

NOTES

1 The term "operations" is used here as a generic term to denote any kind of business activity, irrespective of its organizational, governance, or legal structures.

2 Financial accounting standards use the generic term "control" for what is denoted as "financial control" in this chapter.