

Insetting: Developing carbon offset projects within a company's own supply chain and supply chain communities



ICROA

International Carbon Reduction
& Offset Alliance



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Chapter 1: Introduction

1.1. The case for a consensus on the definition of *Insetting*

The term *Insetting* has appeared with growing frequency over recent years to describe a management strategy whereby companies in the private sector invest within their own supply chain to reduce emissions. However, among the proponents of *Insetting*, there is substantial ambiguity regarding what it entails, and where the potential for its use and upscale lies.

Through a comprehensive market consultation with more than 50 organisations and individuals that have expertise of *Insetting*, this research sets out to define the term, and recommend best practice for its implementation as a management strategy within the private sector.

1.2. Increasing demand for corporate carbon management

As public concern about climate change grows, private sector companies are increasingly recognising the case for strategic carbon management in order to protect their bottom-line, and to retain market competitiveness.

Carbon *Offsetting* plays an important role in any robust carbon management strategy. It involves companies purchasing offset credits to compensate for their emissions. Carbon offset credits are generated by projects around the world which reduce emissions through a variety of techniques and technologies. These credits represent a unit of carbon dioxide (CO₂) equivalent which has been reduced, avoided or sequestered by a carbon reduction project and are a tradeable commodity. The trade in offset credits represents the voluntary segment of the global carbon market, which has experienced sustained and significant growth, driven predominantly by private sector activity.

However, over recent years *Offsetting* has been challenged as it does not focus enough on reducing emissions at the source. What's more, companies have faced increased stakeholder and consumer pressure to invest in supply chain emission reductions. This has prompted a small number of forward thinking organisations to devise and invest in an emergent management strategy termed *Insetting*.

1.3. The seminal definition of *Insetting*

The term *Insetting* was initially presented in 2009 to refer to the direct investment of a company within its own value chain (up- and down-stream) in order to reduce its carbon footprint. The rationale for this investment is that in addition to emission reductions, the company yields substantial return through effects including increased supply chain efficiency or customer loyalty.

Despite the similar name, the initial description of *Insetting* showed little resemblance to carbon *Offsetting* transactions outlined above. There is no evidence that this seminal definition was referred to in practical use. Indeed, the term *Insetting* has only really taken hold over the past two years, and there are now a significant number of organisations reporting investment in its development or implementation as a management strategy. Despite this growing support, current reports of *Insetting* are very broad, and show little resemblance to this seminal definition, or to each other.

Such variability is not particularly surprising given the nascent stage of development of the *Insetting* management strategy. However, this variability results in ambiguity surrounding the defining attributes of the management strategy, and where the potential for its use and upscale lies.

Chapter 2: Synthesis from a market survey

2.1. Academic review of definitions and key principles of *Insetting* used by market actors

ICROA mandated a researcher to conduct a market evaluation of the variety of definitions of *Insetting* used by market actors and identify the key principles that would define the management strategy. Through discussion with over 50 individuals and organisations that invest in *Insetting*, the researcher found there to be considerable uncertainties surrounding:

1. The motivations for corporate investment,
2. The characteristics of the management strategy,
3. The intended outcome of *Insetting*, and
4. The potential for the upscale of its use by private sector companies.

Building a theoretical understanding of how *Insetting* is defined and conducted is imperative to guide its future development and effective practical implementation.

Market analysis revealed that proponents of *Insetting* are not referring to a unified management strategy. Instead, two separate working definitions have evolved that differ substantially from one another, and also from the seminal definition of *Insetting* presented six years ago. There was a near equal split in the number of proponents for each of the two definitions. The defining attributes of each are set out in the table, and evaluated below.

Management strategy characteristic	First working definition	Second working definition
Project structure	The company invests in the development of a carbon offset project within its own supply chain, and purchases all generated carbon credits to offset its operational emissions.	The company invests in any activity within its supply chain that generates environmental, social and/or economic value for the supplier and company.
The requirement for third party verification of the <i>Insetting</i> activity	The carbon offset project must be verified by a carbon offset standard that is accredited by ICROA, such as the Verified Carbon Standard or Gold Standard.	Third party verification is optional. Some projects are verified by a carbon offset standard (often a small specialised standard that is not accredited by ICROA), and others are monitored in-house.
The scope of activities accounted for under <i>Insetting</i>	The carbon offset project must be developed within the immediate supply chain of the company, and the communities of the supply chain.	The project must be within the company's own 'ecosystem'. This refers to any area that is influenced by the activity of the company.
The activities covered include...	Any project where carbon credits are generated (e.g. reforestation and cook stove projects).	Any project within the company's ecosystem that generates environmental, social or business value.

These two working definitions are discussed in further detail in Sections 2.2 and Section 2.3 below.

2.2. First working definition of Insetting: ‘A direct progression from Offsetting’

2.2.1. Definition and principles of the first working definition

The first group of respondents referred to *Insetting* as a direct extension from *Offsetting*. The two differ by the location of the carbon offset. While *Offsetting* refers to the purchase of carbon credits from a carbon reduction project that is unrelated to the company in question, the first working definition of *Insetting* necessitates that the location of the carbon offset project is within the company’s own supply chain, and supply chain communities. Practically speaking, reference to the ‘supply chain and supply chain communities’ equates to any carbon reduction project that is located directly within the upstream supply chain of the company, and projects that are located within the geographical region that is directly impacted by the supply chain activity and that directly affects the stakeholders of that supply chain.

The management strategy is comparable to *Offsetting* in terms of its requirement for: (i), a voluntary corporate investment in a project that generates carbon credits; (ii) verification of the project that generates carbon credits by a carbon offset standard such as the Verified Carbon Standard or Gold Standard; and (iii) the application of purchased credits to offset the company’s own operational emissions.

However, the requirement for the carbon offset project to be developed within the company’s own supply chain necessitates fundamental differences in the management strategy. Firstly, it is unlikely that a carbon offset project will already exist within a company’s supply chain, therefore the company will be required to invest in all stages of project development, implementation and maintenance. Secondly, instead of carbon credit trades on the open market, the first working definition refers to a closed market transaction as the company commits to the purchase of all generated carbon credits.

Case example of an investment in a carbon offset project in the company’s direct supply chain activity

Company X provides financial and practical support to a supplier farm Y to develop an on-site renewable project. The renewable energy project involves the installation of a biomass boiler that is fuelled by farm waste.

Farm Y generates carbon credits that are verified by Gold Standard. Company X commit to purchase all carbon credits that are generated by the renewable energy project on farm Y, and use the carbon credits to offset Company X’s own operational emissions.

The co-benefits:

- Farm Y benefits from additional revenue generated by the renewable energy project, and from the revenue from carbon credits that are sold to company X.
- Company X can report the carbon reduction within their marketing strategy.

Case example of an Investment in a carbon offset project in the community of the companies supply chain

Company X provides financial support to a charity that invests in the development of a programme that sells energy efficient cook stoves to workers of one of Company X's supplier factories, Factory Y.

The carbon reduction associated with each cook stove sold to workers of Factory Y is quantified. Carbon credits are generated and verified by Verified Carbon Standard. Company X commits to purchase all carbon credits that are generated by the cook stove programme, and use the credits to offset their operational emissions.

The co-benefits:

- The community of Factory Y benefits from reduced fuel costs, and health benefits associated with cleaner stove usage.
- Factory Y benefits from improved wellbeing of factory workers.
- Company X can report the carbon reduction within their marketing strategy.

2.2.2. An evaluation of the first working definition

This definition of *Insetting* was presented to the researcher entirely by companies and individuals that in the past have invested some way in carbon *Offsetting*, but recognise the co-benefits associated with investment in a carbon offset project that is within the company's own supply chain. In theory, because of these co-benefits, *Insetting* generates a return on investment that is greater to that of *Offsetting*. Notable co-benefits include improved relations with the suppliers, and improved security of commodity supply. As is the case with *Offsetting*, reporting carbon neutrality is a major driver behind implementation of this project structure.

The potential for the upscale in use of the first working definition of *Insetting* is evident. It builds upon a clearly defined and widely implemented *Offsetting* methodology, and utilises established resources and expertise. This increases the viability for corporate investment. What's more, the clarity of this definition ensures that the intent and methodology of the management strategy can be clearly communicated to companies and then stakeholders, consumers and investors. There is little ambiguity in terms of what constitutes *Insetting* and what does not. These characteristics help to ensure that the credibility of *Insetting* is equivalent to that of *Offsetting*.

However, a number of factors limit the potential usefulness of *Insetting*. Firstly, the viability of *Insetting* is restricted to only a narrow scope of corporate supply chains because of the imposed restrictions on the management strategy. For instance, because of the large time and effort requirement in the development phase of the *Insetting* project, this management strategy is only viable for companies that source from large scale suppliers. What's more, where companies source from varying suppliers (e.g. throughout the year), *Insetting* is anticipated to become less attractive.

Secondly, the requirements for bespoke project development and verification by an internationally recognised standard are anticipated to elevate the cost of *Insetting*, relative to the cost of *Offsetting*. However, there are no published reports to demonstrate whether *Insetting* will generate a return on investment that is equivalent to that of *Offsetting*. Interviews demonstrated that there was considerable scepticism among respondents on this matter, made even more controversial by the difficulty of measuring such a return throughout the supply chain.

2.3. Second working definition: Insetting; ‘creating value through supply chain investment’

2.3.1. Definition and principles of the second working definition

The researcher identified a second group of respondents that provided a broad definition of *Insetting*. This group referred to any investment within a company’s supply chain that generates environmental, social or corporate value.

This definition refers to two broad management strategies. Firstly, some respondents reported *Insetting* as an investment in the development of a carbon offset project within the company’s ecosystem. While this appears similar to that outlined above, the primary motivation described for developing a carbon offset project was not to drive carbon reductions, but instead to finance some form of value creation. Secondly, respondents described a range of projects where a company invests in financial or practical support to generate environmental, social or economic value. This second project structure does not involve any form of carbon market transaction (see tables below).

While third party verification by a carbon offset standard is a requirement under the first working definition, it is not a requirement of the second working definition of *Insetting*. Respondents of this definition report that while third party verification is valuable in some cases for marketing purposes, the closeness of the supply chain investment to the company means that investments can often be monitored in house. Therefore, third party verification is not a necessity. Verification, where used, is not restricted to standards that are internationally recognised by ICROA, with a number of specialised standards instead referred to, such as Plan Vivo.

While the first definition of *Insetting* specified investment within a narrow scope of the company’s supply chain (and supply chain community), the scope of activities where investment is made is very broad under the second working definition. Investment is made within the company’s entire ‘ecosystem’. This refers to anything that is effected by the company’s operations. The justification for selecting the term ecosystem is to allow the company to decide the scope of activities for investment that bring the greatest social or environmental benefit.

Case example of an investment in a carbon offset project, with the motive to drive value creation within the company’s ecosystem

Company X provides financial support to an organisation that invests in composting projects within communities in the company’s supply chain.

The carbon reduction associated with each composting project is quantified and carbon credits are generated. Plan Vivo verifies the generation of carbon credits from the large projects, while small projects are not verified. Company X commits to purchase all carbon credits that are generated by the composting projects.

The finance generated within the communities through the composting projects and from the generation of carbon credits is used to finance social and economic development within the communities. Company X reports these benefits within its marketing strategy.

Case example of a direct investment in a value creation project within a company's ecosystem

Company X is a bottled water retailer and invests in rainforest conservation projects worldwide. Company X does not source water from rainforests, however water extraction affects the global water cycle, and so rainforest processes. Thus, rainforests are within Company X's ecosystem.

Conservation work is broad and includes erosion management, reforestation projects, indigenous community education etc. These create environmental value through protecting the rainforest, and social value through supporting indigenous populations.

Company X is able to report that it has invested in value creation within its own ecosystem.

2.3.2. An evaluation of the second working definition

A growing number of organisations are reporting the second definition of *Insetting*. In particular, the researcher identified that a number of corporates report investment in *Insetting* to describe a range of activities that contribute to achieving wider corporate environmental commitments.

The real value of the second working definition lies in the broad scope of activities that are accounted for under the definition. Companies have the freedom to select the most suitable management strategy that generates value within its ecosystem. This flexibility arises from: (i) the optional use of third party verification which is expensive and often imposes project size restrictions, and (ii) the broad scope of viable projects that are included within the company's ecosystem. The broad definition increases the viability for corporate investment in *Insetting*. This ensures that in practice, there is huge potential for upscale of this approach to *Insetting* within the private sector.

However, respondents raised a number of concerns with this definition of *Insetting*. The broad conceptualisation of the second working definition does not have the same clarity in terms of management strategy intent and methodologies as the first working definition. The consequence of referring to a management strategy that encompasses such a broad scope of activities are manifold.

By referring to the scope of activities as the company's 'ecosystem', the intended added value of *Insetting*, namely the addition of some supply chain investment, is lost. The consequence of this is that there is no clear differentiation between *Insetting* projects and other management strategies (namely *Offsetting*).

The broad definition of *Insetting* provides a lack of direction for companies that are looking to implement *Insetting* according to best practice methodology. What's more, reference to a broad scope of activities under the second working definition compromises the ability to communicate the management strategy clearly and concisely to stakeholders, consumers and investors. For instance, if a company reports an activity as *Insetting* that is compliant with the second definition, but that is at odds with the public perception of *Insetting*, this may invoke scepticism and criticisms of *Insetting*.

Finally, the broad definition creates considerable scope for companies to exploit the constraints of the *Insetting* definition. This raises the risk that a large number of companies could report *Insetting* activity, when in fact they are investing very little. These companies risk accusations of greenwash, which threatens to reduce the credibility of *Insetting* and potentially dilute the value of investment in *Insetting*, and so discourage companies from implementing it as a management strategy.

Chapter 3: ICROA recommendation for *Insetting* best practice

3.1. Synopsis of the research

Insetting is gaining momentum. A growing number of organisations are involved in its development, promotion and use as a management strategy within the private sector. Based on a market analysis of academic recommendations, ICROA recognises that *Insetting* has significant potential for use and an upscale in deployment within the private sector. However, it is apparent that the value of *Insetting* is restricted by the stark discrepancies that arise in its definition and description.

The researcher identified two very different definitions of *Insetting*. The first working definition describes a direct progression from *Offsetting*, the only difference being that the location of the carbon offset project is defined within the company's own supply chain, and supply chain communities. The second working definition refers to any corporate activity that generates value within its company's ecosystem.

As discussed, the value of the first working definition lies in its conceptual clarity. This results from the utilisation of established *Offsetting* methodologies and resources, and the reference to a clear and definitive management strategy methodology. Clear conceptualisation of a management strategy is imperative to develop an understanding of it prior to its implementation, and to retain credibility of the strategy in the long-term.

The second working definition refers to a range of projects that are implemented by a company to generate value within its own ecosystem. While there is considerably greater potential for corporate reporting of *Insetting*, the utilisation of a broad definition comes at the cost of reduced clarity and potentially reduced credibility of the management strategy. In particular, there are considerable implications for differentiating *Insetting* from other environmental management strategies, and for communicating *Insetting* to prospective companies, and their stakeholders, investors and consumers.

Through this evaluation of both working definitions, ICROA has established a recommended standpoint on *Insetting*. **ICROA recommends the corporate uptake and development of the first definition.** The principle reason for this is because of the clarity in its definition, which is seen as vital to develop an understanding of the management strategy prior to its implementation, and to retain credibility of the strategy in the long-term.

However, evaluation of the second definition demonstrates how the viability of the first working definition could be increased through certain developments, while respecting the current definition and without compromising the clarity achieved within the current management strategy. Consequently, future developments should focus on increasing the viability for project implementation.

Therefore, the remainder of this report will set out:

1. ICROA's recommendation for the definition of *Insetting*, and a description of the management strategy best practice.
2. A discussion of future developments required in order to increase the viability for use of *Insetting*.

3.2. ICROA definition of *Insetting*

ICROA defines *Insetting* as:

Insetting: “The development of a carbon offset project within a company’s own supply chain and supply chain communities”

ICROA’s recommended best practice for the *Insetting* management strategy is set out below:

<i>Insetting</i> characteristic	ICROA definition	Details
Type of investment	The company <u>invests</u> in the development of a carbon offset project within the perimeter of its <u>supply chain</u>	<p>The company must invest financially in project development and maintenance in order to use and account for it in its <i>Insetting</i> strategy and communication.</p> <p>Projects can be developed by:</p> <ul style="list-style-type: none"> • The company itself • Suppliers of the company • A reputable third-party organisation <p>The quantified GHG emission reduction can only be accounted for once, either by the company or by the project developer. This is to avoid double counting of the reduction.</p> <p>Example 1: Company X develops and funds a GHG reduction project within its own raw material sourcing activities. Carbon credits are retired in a third-party registry.</p> <p>Example 2: Company X reaches carbon neutrality by funding projects developed by its suppliers/clients and by transferring ownership of the GHG emission reductions units generated from the supplier/client to the Company.</p>

<i>Insetting</i> characteristic	ICROA definition	Details
Location of the investment	The supply chain activity, and communities of the supply chain	<p>The supply-chain activity is defined as operational participation in the company’s supply chain, such as:</p> <ul style="list-style-type: none"> • Raw material production and sourcing • Product transformation • Transportation <p>The supply-chain community is defined as the stakeholders that have a direct link with the supply chain. The link shall be in one of the following ways:</p> <ul style="list-style-type: none"> • The stakeholder is directly involved in the production of a product or service sourced by the Company in the same region; or • There are positive/negative impacts for the stakeholders, resulting from the supply chain activity. <p>The project perimeter represents the geographical zone in which the company/supplier/client could act to obtain GHG mitigation or co-benefits for the supply chain community. This perimeter must be validated by a ‘stakeholders’ consultation’.</p> <p>Example 1: An energy efficiency project contributing to GHG emissions reduction for the production of agricultural goods sourced by the company, can be considered <i>Insetting</i> if the project area is within the sourcing region (even if not all project beneficiaries directly contribute to the supply chain).</p> <p>Example 2: A reforestation project benefiting the same population of local stakeholders as the one directly involved in the sourcing activity of a company can be considered as an <i>Insetting</i> project.</p>
The activities covered	Any project where <u>GHG emission reduction units are generated</u> (e.g.) that respect principles of international standards recognised by ICROA	<p>Any project that generates GHG emission reduction units that respect all the principles of international standards recognised by ICROA. In particular, these principles include:</p> <ul style="list-style-type: none"> • Additionality • Uniqueness • Measurability • Verifiability <p>Projects must also comply with all other characteristics of <i>Insetting</i> stated hereby.</p>

<i>Insetting</i> characteristic	ICROA definition	Details
		<p>Example 1: Cookstove projects that increase energy efficiency and reduce CO₂ emissions within the specific perimeter of the supply-chain of the company.</p> <p>Example 2: Acccgricultural projects that change farming practices and increase carbon sequestration in soils, when they are included in the supply-chain perimeter of the Company</p>
Third party verification of the <i>Insetting</i> project	The <i>Insetting</i> project must be verified by a carbon offset standard, recognised by ICROA	<p>Carbon <i>Offsetting</i> standards may include:</p> <ul style="list-style-type: none"> • Internationally recognised standards • National standards as per ICROA government scheme policy. <p>These standards are fully endorsed by the ICROA code of best practice.</p>

3.3. Opportunities for the development of *Insetting*

As discussed previously within this report, there is increased scope for companies to report *Insetting* under the second working definition. The flexible approach enables companies to select the most suitable management strategy to achieve value, which increases the viability for corporate investment in *Insetting*.

This report has concluded that increased viability for project implementation comes at a considerable cost in terms of clarity of the management strategy, and that clarity of the defined management strategy supersedes this benefit. However, through an evaluation of the second working definition, ICROA has identified that there is an opportunity to increase the viability of *Insetting* through certain developments, without compromising the clarify achieved within the definition recommended by ICROA. These developments aim to:

1. Decrease the cost incurred by the company when implementing *Insetting*, and
2. Increase the scope of supply chain activities that are viable for investment under the current definition.

Two ideas for future developments of the management strategy are set out below. These are innovative approaches to *Insetting* that respect ICROA's definition of *Insetting*, and retain the clarity of the current management strategy best practice.

3.3.1. Advancement in verification processes

Current ICROA guidance recommends that *Insetting* projects are verified by carbon offset standards that are endorsed by ICROA. These standards frequently impose high project development costs and this limits the viability of *Insetting* to a small scope of supply chain activities. In order to unleash

significant investment potential in *Insetting* within the private sector, ICROA urges the verification standards to further adapt their methodologies and cost structure and to take into account the specificities of *Insetting* initiatives. These specificities include; the particularities of the supplier-client relationship (time of engagement, transaction costs, number of suppliers involved); and the specific type of greenhouse gas emission reduction activities that occur within *Insetting*.

There is evidence to demonstrate that verification standards are already taking this step. For example, the Gold Standard has recently collaborated with Fairtrade International to develop a subsidiary standard, Fair Carbon Standard. This is specifically designed to facilitate the verification of small-scale projects at a lower cost, while retaining the same stringency within the verification process. The intention is to enable small-scale suppliers to benefit from the financial gains of developing carbon offset projects. This is the first development of its type, but signifies a shift in market pressure for carbon offset standards, and may prompt other developments within this space.

3.3.2. Innovative project structures

Adopting innovative project structures offers real potential to increase the viability of *Insetting*. Two possible project structures are set out below.

Firstly, where a company has a large number of small and changeable suppliers, it is recommended that they use a project developer to facilitate development of an *Insetting* project. The project developer will generate carbon credits from a number of small hold farmers, and sell these to the purchasing company. This facilitates companies that source from small and changeable suppliers to invest in *Insetting*. Under this approach, the verification process by a recognised standard can be managed by the project developer, such as under a Programme of Activities.

A second project structure involves the collaborative development of *Insetting* projects by companies which source from the same suppliers. The continued growth of the voluntary carbon market will increase the opportunity for collaborative projects. This will help to reduce the effort involved in the development of bespoke projects, and decrease the financial cost of *Insetting* incurred by each company. Collaborative organisations such as ICROA will be fundamental to ensuring the communication and collaboration of ideas between companies and project developers.