ClimateWise Principles

Third Independent Review 2010

ClimateWise
REDUCING THE RISK FOR TOMORROW

An initiative facilitated by
UNIVERSITY OF CAMBRIDGE
PROGRAMME FOR SUSTAINABILITY LEADERSHIP

Contents

CLARENCE HOUSE

I am once again delighted to introduce the annual review of the insurance sector's ClimateWise Principles. This third year of the Principles spans a year which has seen many significant developments on the very urgent challenge of climate change – in science, politics and business.

Not least of these was the United Nations conference in Copenhagen at the end of 2009. As I said when I addressed the world's leaders in Copenhagen – climate change is a risk-multiplier. It has the potential to take all the other critical issues we face as a global community and transform their severity into a cataclysm.

I was very heartened to see the ClimateWise statement ahead of Copenhagen which was more ambitious than any other business group, setting out a target of 40 per cent emissions reduction for developed countries by 2020 in order to manage these risks. However, as we know, solving the climate change challenge is multi-faceted and touches on many global issues, from trade to food security, which goes some way to explaining why a global deal is so difficult to achieve.

As we are reminded on an almost daily basis, the impact on people around the world from weather events – whether the Pakistan monsoon floods or the fires in Russia – requires action that is both urgent and at an appropriate scale. While managing climate change to reduce the chances of more extreme weather events of this nature requires a global deal, it is now more urgent than ever that we get on with the work of designing and implementing the practical solutions to tackle these very real issues. Public money will indicate the direction of travel, but it is the private sector which must ultimately provide the solutions and investments into creating this new market for low carbon opportunity.

We must focus our efforts on demonstrating how the transformational emissions reductions and adaptation efforts will be delivered – from financing and risk management to measurement and deployment of technology. This is the real change that will affect the real risk.

The headlines continue to be dominated by financial instability and, sadly, a rise of so-called climate scepticism. While insurers are not banks, I am pleased to see that business leadership in the insurance sector, as outlined in this review, has not used the financial crisis as an excuse to lose focus and there is emphasis on the continued importance of the climate change agenda. However, in the absence of a global deal and with the rise of climate scepticism, it is now more important than ever for each of you to confront this issue and deliver on the opportunities that tackling climate change presents.

Will you use the power of your brands and the power of your communications to support what the science tells us and, if necessary, be prepared to take risks with your reputation to ensure you are on the right side of the debate? Will you manage the risks set out by the climate challenge or gamble on the hope that the massed arrays of climate scientists are wrong?

ClimateWise has made excellent progress on this very real global issue, and I hope that in the months ahead I will see even greater strides towards the low carbon economic solutions that we need, with ClimateWise and its partners at the heart of shaping this new future.

Charles

Message from Andrew Torrance

ClimateWise's ambition is to bring together the leaders of the global insurance industry to fight the risks of climate change. Set against this ambition, the initiative has made valuable progress during the past year which has been a challenging one for all who are committed to fighting climate risk.

A key milestone in the last twelve months should have been the intergovernmental negotiations in Copenhagen to deliver a global deal that combats the systemic risks of climate change. The scale and rate of progress we need from our political leaders was not delivered and for all those with an interest in reducing global climate risk, it was difficult not to share a sense of disappointment.

Yet for ClimateWise, this same period has seen two noteworthy steps forward, each of which indicates to me that our initiative is a powerful and growing force for change.

The first of these is the subject of this Third Independent Review, authored on this occasion by PwC. For the first time, we have insurers from right around the globe – from Norway to South Africa, Japan to the United States – subjecting themselves to external assessment of their actions to reduce climate risk. The ClimateWise membership is now conducting business in highly diverse cultural and socio-economic contexts and so the test of performance against the ClimateWise Principles is an ever-more fascinating barometer of our global industry's ability to deliver leadership and change. For PwC to conclude that this broader ClimateWise membership has demonstrated "innovation and leadership in their response to climate change" is something that I see as very positive.

The second significant step forward this year has been the ClimateWise Collaborations that we have built, using the Principles as our basis and the expertise of the University of Cambridge Programme for Sustainability Leadership as our facilitator. Through bringing together subsets of member companies to address specific issues facing our industry, ClimateWise has been able to harness the resources of the industry in a way which is unavailable to any single company. The transformative actions that we know are so badly needed to control global climate risk are, we believe, much more likely to be generated through such collaborations.

In the last twelve months, we have focused the power of collaboration on three key questions:

- How can we dramatically reduce the environmental costs of the claims process in ways that simultaneously increase customer satisfaction?
- How can we use the risk management expertise of insurers to increase the resilience of those we insure against extremes of weather, both in the developed and developing world?
- How can we work to protect people against the health conditions likely to be most common under future climate scenarios?

In each of these cases, bringing together the expertise from our industry, from academia, civil society and public policy has been critical to identifying actions that are more transformative in nature. It is this ability to foster focused and meaningful collaboration on industry and society-wide issues that is making ClimateWise's ongoing development so exciting.

But we know there is plenty more to do and one way in which we have sought to stretch ourselves further is by commissioning an independent thought-piece on the global insurance industry's response to climate change from the UK Sustainable Development charity, Forum for the Future, which we are publishing in parallel to this Independent Review.

I have no doubt that you will find the findings of both reports challenging and inspirational in equal measure and I hope that they will encourage you to join the journey that ClimateWise is defining.

Andrew Torrance

Andrew Torrance,
Chairman, ClimateWise

2 Introduction

The third ClimateWise reporting period (June 2009 to June 2010) has coincided with turbulent times in the global economy, the financial services sector and in the development of the climate change agenda. There has been much to occupy the time and attention of insurers worldwide and there is evidence that immediate crises, as well as fewer catastrophic events, have pushed climate change down the agenda. The 'Insurance Banana Skins' report 2009, by The Centre for the Study of Financial Innovation in association with PwC surveyed over 400 insurers across 39 countries and found that environmental risks fell sharply in importance to those surveyed – climate change fell from the fourth most important issue in 2007 to number 28 in the 2009 survey (conducted December 2008). The need to focus on access to capital, investment performance in a tight economic environment, a soft cycle for premiums, and the increase in solvency regulation (Solvency II), may have taken some of the urgency out of the perceived risks from climate change.

The reporting period also witnessed The United Nations Climate Change Conference in Copenhagen in December 2009. Ahead of the negotiations, business - including the insurance sector via ClimateWise in many cases - had been pressing governments to send clear, long term signals about the pace and direction of climate policy. The outcome of the negotiations, The Copenhagen Accord, while positive, did not quite manage to deliver this. It reflects a broader coalition behind the intent to stay within 2 degrees Celsius of warming, but failed to deliver any specifics on binding national emissions targets or mitigation plans for either 2020 or 2050.

Nevertheless, the development of the low carbon and climate resilient economy by governments, business and regulators continues. The insurance sector has an important role and vested interest in encouraging the transition to an adequately adapted lower carbon global society. The need to understand the implications of climate change on risk quantification, and on longer-term insurance availability and affordability remain. Likewise, the commercial and reputational opportunities for insurance companies presented in adaptation and mitigation are emerging, and in some places being put into practice. This is evidenced in the development of compliance with the ClimateWise Principles in a challenging market context.

The ClimateWise Managing Committee appointed PwC as the independent reviewer for this third review. The review retains the methodology of the previous independent reviews to maintain continuity. The ClimateWise Principles are designed to enable the 40+ (non-consolidated) international members to work individually and collectively to reduce the economic and social long-term risk from climate change, within the confines of a competitive market. The six Principles cover all aspects of the diverse insurance sector's response to climate change and require the members to:

1 Lead in risk analysis;

2 Inform public policy-making;

3 Support climate awareness amongst customers;

4 Incorporate climate change into investment strategies;

5 Reduce the environmental impact of their own business;

6 Report and be accountable.

ClimateWise members have committed to publish a statement as part of annual reporting, detailing the actions they have taken to comply with the ClimateWise Principles. This annual statement is central to the continuing credibility of the ClimateWise initiative. It serves to hold ClimateWise members to account as well as act as a show-case for the efforts of its members to demonstrate their own progress and lead the wider insurance industry. It is these reports that form the first stage in the analysis of compliance against the Principles. A second stage of analysis took place this year in the form of a telephone interview. This interview was designed to more fully understand the level of compliance against the Principles and Sub-Principles and gain further evidence of progress if required.

This year, the review considers the submissions from 26 members, the submission from the Lloyd's Market being consolidated into one report for Lloyd's of London. It also incorporates first time submissions from four new members; Fireman's Fund (USA), Santam (South Africa), Tokio Marine & Nichido Fire Insurance (Japan) and Tryg (Denmark).

3 Executive Summary

Against a challenging market backdrop, ClimateWise members continue to demonstrate innovation and leadership in their response to climate change, as evidenced by the improvement in compliance highlighted in this review.

The consolidated membership delivered an increase in compliance across all the ClimateWise Principles. Members now achieve over 70% compliance in each Principle and 90% compliance in all but two. This performance represents a considerable uplift in levels of compliance across most Principles. The development of compliance is supported by a continued improvement in reporting, with greater levels of disclosure against each Sub-Principle.

Despite the high levels of compliance achieved by the membership, it is clear that there is a spectrum of action taken to address the issues. Members that are able to demonstrate they are making the strategic links between research and innovative risk analysis, informing pricing and sales force activity, enhancing external engagement with public policy makers and influencing investing activity are at the leading edge of this agenda. Currently, there are few that demonstrate this sophisticated level of integration across all Principles.

This is an area in which the ClimateWise Initiative can play an important role, particularly in promoting collaborative efforts to understand and develop the right internal and external communication channels to share climate-related research, demonstrate its strategic importance and commercialise the risks and opportunities.

Equally important is the right regulatory environment. While the membership now achieves very high compliance in Principle 2, there is a continuing need to support dialogue between the industry, governments and policy makers. The ongoing collaborative efforts of the ClimateWise initiative are important in moving this agenda forward.

A summary and detailed review of compliance and reporting against the ClimateWise Principles are contained within this report along with case studies identified in the course of the analysis and recommendations and conclusions from the independent reviewer, PwC.

Chart 1: Principles Summary

Principle	2010 Compliance	2009 Compliance	2008 Compliance	Recommendation summary
1. Lead in risk analysis	91%	74%	80%	Continue efforts to generate more granular catastrophe and risk models and further integrate research into pricing and investment strategy
				Develop collaborative efforts to understand and develop communication channels to share research and demonstrate its strategic importance
2. Inform public policy making	91%	89%	85%	Continue proactive and collaborative approach to engagement with policy makers on adaptation and regulatory structures. Link research efforts in Principle 1 more effectively
3. Support climate awareness amongst our customers	89%	69%	59%	Develop more effective communication and product solutions to scale up climate change awareness, mitigation and adaptation
4. Incorporate climate change into our investment strategies	73%	61%	43%	Develop and deepen engagement with investment functions and integrate research work in Principle 1 to inform activity
5. Reduce the environmental impact of our business	94%	82%	67%	Maintain progress as regulation tightens through engagement with policy makers (Principle 2)
				Develop employee engagement to incorporate action-oriented programmes designed to promote behaviour change
6. Report and be accountable	93%	82%	80%	Continue to promote and develop senior executive responsibility and action on climate related activities

4 The ClimateWise Principles

1 lead in risk analysis

1.1 Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests.

1.2 Support more accurate national and regional forecasting of future weather and catastrophe patterns affected by changes in the earth's climate.

1.3 Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.

1.4 Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.

1.5 Share our research with scientists, society, business, governments and NGOs through an appropriate forum.

2 inform public policy making

2.1 Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.

2.2 Promote and actively engage in public debate on climate change and the need for action.

2.3 Support work to set and achieve national and global emissions reduction targets.

2.4 Support Government action, including regulation, that will enhance the resilience and reduce the environmental impact of infrastructure and communities.

2.5 Work effectively with emergency services and others in the event of a major climate-related disaster.

3 support climate awareness amongst our customers

3.1 Inform our customers of climate risk and provide support and tools so that they can assess their own levels of risk.

3.2 Encourage our customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services.

3.3 Increase the proportion of repairs that are carried out in a sustainable way through dialogue with suppliers and developers and manage waste material appropriately.

3.4 Consider how we can use our expertise to assist the developing world to understand and respond to climate change.

4 incorporate climate change into our investment strategies

4.1 Consider the implications of climate change for company performance and shareholder value, and incorporate this information into our investment decision-making process.

4.2 Encourage appropriate disclosure on climate change from the companies in which we invest.

4.3 Encourage improvements in the energy-efficiency and climate resilience of our investment property portfolio.

4.4 Communicate our investment beliefs and strategy on climate change to our customers and shareholders.

4.5 Share our assessment of the impacts of climate change with our pension fund trustees.

5 reduce the environmental impact of our business

5.1 Encourage our suppliers to improve the sustainability of their products and services.

5.2 Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.

5.3 Disclose our direct emissions of greenhouse gases using a globally recognised standard.

5.4 Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.

6 report and be accountable

6.1 Recognise at Company Board level that risk has significant social and economic impacts and incorporate it into our business strategy and planning.

6.2 Publish a statement as part of our annual reporting detailing the actions that have been taken on these Principles.

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www.climatewise.org.uk

5 Summary of findings

The main focus of this review is to assess the level of compliance against the six ClimateWise Principles. The analysis of the consolidated 26 Member submissions demonstrates high levels of compliance across all six Principles. The consolidated membership now achieves over 70% compliance in each Principle and 90% compliance in all but two.

The compliance result is supported by a continued decrease in the proportion of responses that achieve no compliance. Only 6% of submissions were allocated a ‘no compliance’ score (usually a result of not submitting a response against a Sub-Principle), compared with 15% in 2009 and 28% in 2008. In addition, the proportion of responses that achieved partial compliance scores also fell from 20% in 2009 to 12% in 2010.

In considering the results for this years’ independent review, it is important to view both the results of the full consolidated membership and a consistent member group analysis (i.e. those that have reported in each of the three years). The impact of consolidating Lloyd's Market members’ reports into one submission means the 2010 full membership comprises a much smaller number of submissions (26 compared with 41 in 2009). As a result, the membership as a whole has posted strong progress in the year, while the consistent memberships’ compliance levels have been more constant, largely due to starting at already very high levels (Figures 1 and 2 below).

Figure 1: Principle by Principle comparison at group level (2008-2010), % Level of compliance

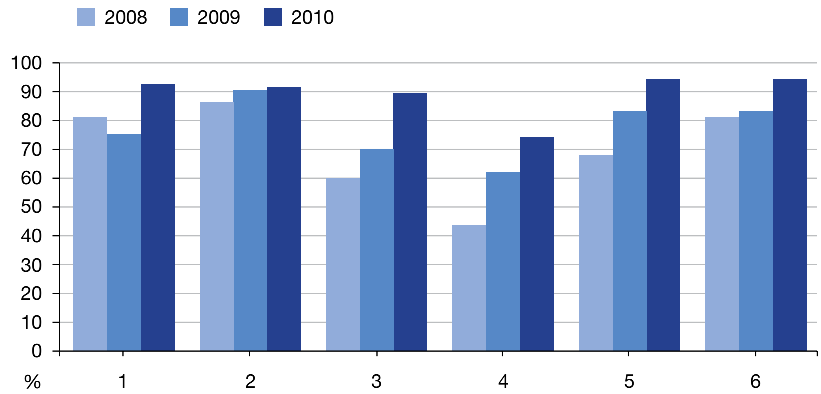
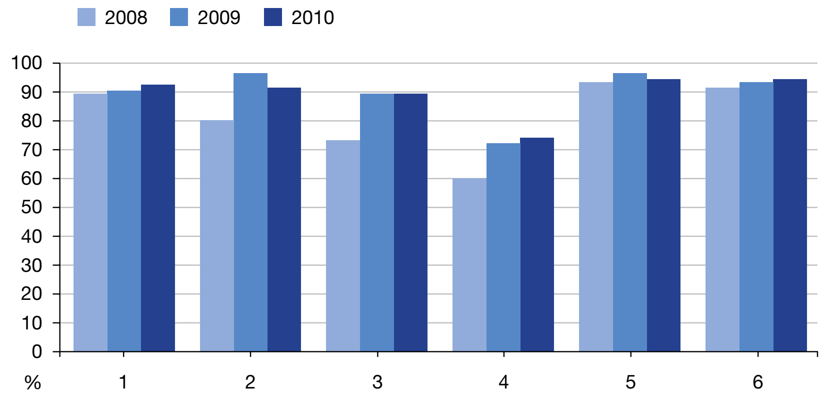


Figure 2: Principle by Principle comparison with consistent membership (2008-2010), % Level of compliance



5 Summary of findings (Continued)

Compliance against **Principle 1 – 'Lead in risk analysis'** was strong in this reporting period. Virtually all members complied with the various components of this Principle with scores substantially above previous years'. Among the most important Sub-Principles in the ClimateWise Initiative is 1.3 'Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks'. Compliance and progress in this area is fundamental to the integration of climate risks into core business functions across the sector and critical to the accurate anticipation and consideration of climate risk. If these risks cannot be adequately modelled and built into underwriting and investing activities then the sector puts at jeopardy its financial integrity. It is therefore a positive sign that ClimateWise members appear to have made strong progress against this Sub-Principle in the year. Many members highlight the value of this research in their submissions.

With already high levels of compliance achieved in the previous two review periods, the members continue to show progress against **Principle 2 – 'Inform public policy-making'**. Indeed, members now achieve 90% compliance across this Principle. The most comprehensive and wide-ranging evidence was in members' engagement in contributing to the public debate on climate change (Sub-Principle 2.2). In the course of interviews, many members noted the benefits of internal debate and discussion through such collaborative forums as ClimateWise and United Nations Environment Programme Finance Initiative (UNEP FI) among others.

There has been a considerable improvement in compliance with **Principle 3 – 'Support climate awareness amongst customers'**. The consolidated membership now achieves 88% compliance with the requirements of this Principle, up from 69% of members in the last review. However, the improvement in compliance with this Principle in the 2010 reporting period hides a number of challenges faced in progressing this agenda for example, difficulties in engaging with mainstream consumers on climate change issues in relevant and meaningful ways.

There is a good deal of commonality in members' current approaches to informing customers about climate risk and providing support and tools so that they can assess their own levels of risk, in accordance with Sub-Principle 3.1. For the most part the members are making use of normal communication channels (webpages, sales teams and promotional literature) in the customer life-cycle to raise the issues and influence behaviour.

This year's reports delivered very strong development in compliance against Sub-Principle 3.2 – 'Encourage customers to adapt to climate change and reduce their greenhouse gas emissions though insurance products and services'. This does not necessarily reflect a significant increase in the launch of specific new products. A large proportion of the consolidated membership achieves compliance against this Sub-Principle by stating that cover for domestic renewable energy systems (solar and wind usually) is provided as part of standard home insurance products at no additional premium. It is worth noting that new guidance issued by ClimateWise ahead of the reporting

period outlined this as an example of industry compliance and members have clearly taken this on-board.

Further progress against Sub-Principle 3.3 – ‘Increase the proportion of repairs that are carried out in a sustainable way through dialogue with suppliers and developers and manage waste material appropriately’ has been observed this year. A number of members have highlighted ClimateWise initiatives as helpful in developing actions this year.

While progress has been made, Sub-Principle 3.4 – ‘Consider how to use expertise to help the developing world to understand and respond to climate change’ remains a challenging element for the membership. Members who have no direct operations in developing markets continue to find it difficult to find ways to make meaningful use of expertise in this space and often report philanthropic activity, while achieving compliance through an explanation that the Sub-Principle is not relevant.

However, it is clear that the members continue to find **Principle 4 - Incorporate climate change into investment strategies** most difficult to comply with, nevertheless, there has been progress in the year. In many cases, we see a disconnect between demonstrable progress in Principle 1 – ‘Lead in risk analysis’, and action to develop fund management and pension fund trustees’ understanding of climate change risks and implications. A number of members report difficulties in engaging with the investment functions on these issues, some pointing to the economic situation as a key driver in the lack of momentum on engagement. There are, of course, notable exceptions and these are outlined further in the analysis of Principle 4.

Members demonstrate the highest levels of compliance against **Principles 5 – ‘Reduce the environmental impact of their own business’ and Principle 6 – ‘Report and be accountable’**, both at 93% compliance across the membership. In both cases, the increasing scrutiny and pressure to report on the actions of their operations and governance structures is clearly driving action.

6 Summary of recommendations

Principle 1 – Lead in risk analysis

While compliance across the consolidated membership did progress in the year, many of the recommendations from last years' independent review remain valid. As in previous years, members report that research into weather forecasting has tended to focus on the short-term, flood-related impacts of climate change. Those that are best able to articulate how this research is being integrated across all Principles and therefore wider business strategy demonstrate best practice in this area.

In addition to development in compliance, this year's review was looking for progress and evidence that leadership in risk analysis is feeding into action on Principle 3 - Support climate awareness amongst customers and 4 - Incorporate climate change into investment strategies. However, as outlined in the above analysis, this remains a challenge for most in the sector. While continuing efforts to generate more granular catastrophe and, in particular flood, risk models have been observed, in most cases this effort is yet to fully feed through to premiums, capital and reserves. Nevertheless, the interviews conducted this year highlight a strong desire and intention to eventually do this. It is therefore anticipated that greater evidence that climate change risk analysis influences action in other Principles will continue.

This is an area in which the ClimateWise Initiative can play an important role, particularly in progressing the linkages between research and analysis functions and commercial and investment operations. Collaborative efforts to understand and develop the right internal communication channels and structures to share such research, demonstrate its strategic importance and commercialise the risks and opportunities are critical to moving this agenda forwards.

Principle 2 – Inform public policy making

A key recommendation from last year's review focused on the need to increase dialogue on adaptation. This remains a valid recommendation. Work to enhance the resilience of infrastructure and communities following, or in preparation, of a weather-related disaster, in line with Sub-Principle 2.4, is still not as strong as it could be.

It is recommended that a proactive and collaborative approach is required to move this agenda forward. Greater integration of progress in Principle 1 into efforts here would be also advantageous. Similarly, integration of investment strategies to facilitate the development of resilient infrastructure is an important area for insurers to investigate and act upon.

Principle 3 – Support climate awareness amongst customers

Members report challenges in engaging with mainstream consumers on climate change issues. The long-term and largely intangible nature of carbon emissions makes it a difficult agenda to engage the consumer on. For general insurers, the conversation is made easier by the direct link to property and casualty risk exposure, and by a greater number of customer touch-points in the relationship. For life and pensions, the risks are more difficult to articulate and engagement is harder to create. A number of members, from all sides of the sector, raised this challenge in this year's review. It is clear that striking the right balance in communication with private individuals is not an easy task, particularly in a more constrained economic cycle when price is even more paramount as a driver of consumer choice.

The sector needs to create solutions that effectively articulate climate-related risks and to reward mitigation and adaptation – to make it easy and accessible for consumers to take action. Like other sectors, the challenge is to create mainstream solutions that deliver all the consumer expects in terms of price and performance, as well as support activities that mitigate emissions or promote risk adaptation. Insurance products are no different. There is a need to link the activity in Principle 1 – Lead in Risk Analysis, with Principle 3 in informing product development but also education and engagement solutions. Insurers need to look at a partnership approach with other sectors who are trying to engage consumers to take action (e.g. banks, property developers, utilities, retail and consumer, ICT) and with NGO's, to produce simple yet innovative products that incentivise and finance action.

There is evidence of progress on creating sustainable claims and resilient repairs. The motor insurers have developed effective solutions that can be replicated in other sub-sectors. Continued collaboration with loss adjusters and other third parties in the supply chain is crucial in the development of this agenda in the property and construction sector.

Principle 4 – Incorporate climate change into our investment decisions

There remains a need for investment teams to be more actively engaged in climate change and for this to be linked to their company's overall business strategy and operations discussions. This is certainly the case where companies have outsourced investment management to external fund managers, some of which are more limited in their understanding and consideration of climate change issues. Where investments are managed internally, greater dialogue should also take place in communicating the importance and strategy behind the integration of climate issues in overall investments. In theory, insurance companies should be well-placed to have such a dialogue, as they can harness their in-house risk expertise.

It is important for asset managers not only to identify assets particularly vulnerable to the physical, regulatory and reputational impacts of climate change over the lifetime of the investment, but also to strategically target those that are particularly resilient or well-placed to respond. By increasing asset allocation to low carbon investments, insurers may provide a hedge to likely increases in climate-related risks, indeed in the case of infrastructure (e.g flood defence systems) they may actively reduce the risks. In addition they should ensure outsourced asset managers have ESG frameworks in place to actively manage climate related risks and investment opportunities (perhaps through UN PRI signature).

Principle 5 – Reduce the environmental impact of our business

As regulation becomes a reality for some countries, it would be useful to see how members are preparing for this and the strategies that are in place to adapt to the increasing burden on collating and reporting the data required. Not all members outline the basis for how the data is calculated, how it is reported and used internally or if it is independently verified. Taking steps to enhance disclosure on these areas would represent progress.

Members who are leading the agenda on staff engagement are developing the approach to promote greater involvement and action among staff members, for example by introducing environmental champions within teams or locations to help disseminate environmental policy. This action-oriented approach appears to meet with success in creating awareness and encouraging behaviour change in and out of the workplace.

Principle 6 – Report and be accountable

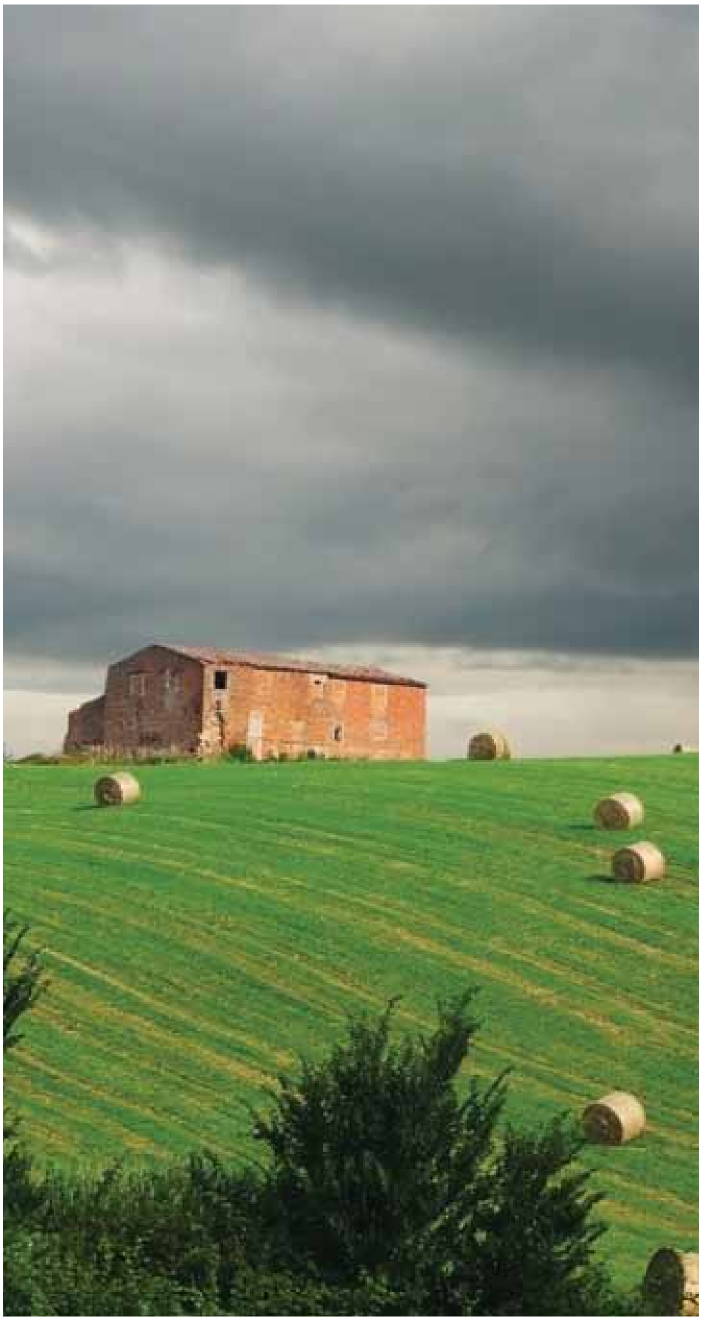
By naming a specific board level sponsor, companies can better ensure that climate change is incorporated into strategy, risk and decision making. It is recommended that members should clearly articulate the type of climate change responsibility assumed at the Board level and the concrete actions taken over the course of the year.

Members can make further efforts in improving the quality of evidence cited and the visibility of the reports prepared. For members that produced publically available reports and engaged different departments across the company, many cited the benefits of understanding at a deeper level the process by which diverse business units incorporated climate change. The value for members is in communicating this process and in sharing examples of activities to diverse audiences.

Finally, further work can be done across some member companies in having senior management publicly demonstrate their commitment and initiatives in dealing with and integrating climate change into their commercial strategy. Anecdotal evidence suggested that where a proactive climate change position was firmly established, the residual impacts could have positive effect in terms of corporate reputation, employee engagement and customer satisfaction.

7 The Independent Reviewer's Main Conclusions

Within the commendably high levels of compliance achieved by the membership in this reporting year, it is clear that there is a spectrum of action to address the issues. This spectrum varies from a 'tick the box' approach to achieve compliance to leading examples that deliver compliance but also demonstrate best practice. The level of sophistication in approach is driven less by levels of compliance within each separate Principle, but according to the extent to which the member is taking a proactive approach to the integration of all ClimateWise Principles into core business activity.



Members that are able to demonstrate the strategic links that exist in research and pricing activity, enhancing external engagement with public policy makers and influencing investing activity are at the leading edge of this agenda. There are few that demonstrate this sophisticated level of integration across all Principles. This is to an extent influenced by the nature of the business in terms of scope of insurance services provided and international market presence.

Additionally, regardless of data and modelling constraints, basic economic fundamentals continue to limit the ability of insurance companies to accurately evolve climate risk pricing decisions. Consumer decisions on policy selection are often driven by price alone, effectively punishing the insurance company that responsibly prices technically modelled climate risk into the premium charged. In the current economic climate, consumers are even more price sensitive than they were before the 2008 financial crisis. Conscious of consumers' price sensitivity, and limited by the fact that the vast majority of contracts are renewed on an annual basis, few insurance companies are able to incorporate the medium to longer-term insurance risks into short-term policy pricing.

The above economic realities also present difficulty in insurance pricing on the opportunity side. Many members noted examples of different insurance product initiatives that have been or are being developed that target energy efficient behaviour or renewable energy technologies. Likewise, adaptation-related opportunities have been pioneered around providing novel climate insurance solutions in developing countries, including microinsurance, and around offering policy incentives for implementing risk reducing measures in developed countries. However, the challenge at present is that many of these initiatives are limited in their ability to significantly scale. Furthermore, where market opportunities may exist, insurance companies are hesitant to be first-movers for the fear of assuming all market risk within a new product area.

These findings illustrate the importance of Principle 2 in particular and the need for coordinated discussions with government and policy makers. In light of the pricing challenges presented by climate change, and the almost universal recognition of its existence, government must play a critical role in both a regulatory and market-based capacity to ensure the effective operation of insurance markets and their continued resilience in the aftermath of future climate-related catastrophes.

8 Principles Analysis

8.1 Principle 1

Lead in risk analysis

1.1 Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests.

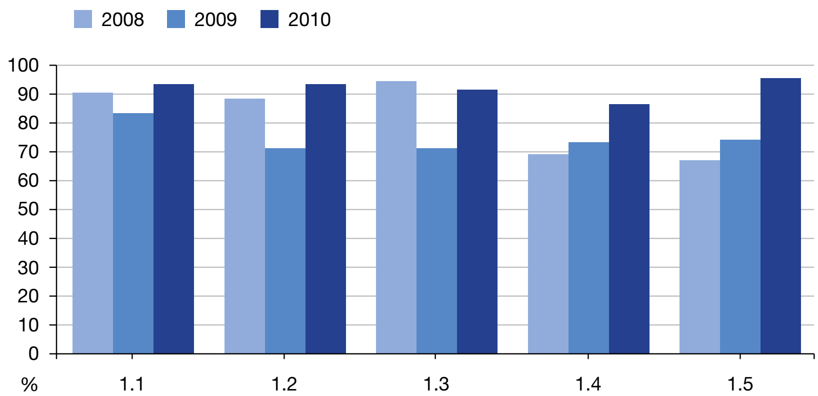
1.2 Support more accurate national and regional forecasting of future weather and catastrophe patterns affected by changes in the earth's climate.

1.3 Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.

1.4 Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.

1.5 Share our research with scientists, society, business, governments and NGOs through an appropriate forum.

Figure 3: Principle 1 – Lead in risk analysis, % level of compliance



Introduction:

It is widely accepted that the frequency, intensity and impact of extreme weather will, in many locations, increase as a result of climate change. Insurance companies, their partners and suppliers are at the forefront of understanding and integrating the risks identified by climate science into fundamental business strategies.

Summary of findings:

Virtually all members complied with the various components of this Principle with scores slightly up on previous years. Sub-Principle 1.4 'Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments' again proved to be one area where members encounter barriers. Sharing research through public forums and collaboration with academia institutions are common behaviours demonstrated by members.

Some of the collaboration projects that have been supported by members during the year include:

- UNEPFI project on understanding and integrating Environmental, Social and Governance (ESG) factors in insurance underwriting and product development.
- Geneva Association research project on climate change and the financial consequences for the insurance business.
- ClimateWise Working Groups looking at areas including understanding the health impacts of climate change, improving the sustainability of the claims process, issued 'A Developing World Statement for Insurance' (with the Geneva Association, the Munich Climate Insurance Initiative (MCII) and UNEP FI) and promoting loss prevention measures in relation to climate-related perils.
- As in previous years, members are undertaking or supporting a number of research projects. This appears a well established and a key aspect of business strategy.

Prominent research action areas include climate change adaptation measures, catastrophe modelling, flood risk data enhancements, health and the impact of climate change on morbidity and mortality rates. Also notable examples in the year included more general research into climate change issues and water scarcity. These were mostly aligned with the member's core business activity.

- General insurers continue to invest in research that will help them calculate overall risk exposures in relation to major flood or storm events. Indeed, the work undertaken here has led to numerous members developing enhanced flood risk mapping techniques that can improve the accuracy of individual property underwriting.
- Members disclosed work they were doing to better understand weather patterns and catastrophe forecasting. It is widely agreed that it is important to improve understanding of climate change and physical risks from more frequent and extreme weather and to determine how this links to the industry's sophisticated risk modelling and risk management capabilities to protect the availability and affordability of insurance solutions. **Lloyd's of London** included a wide number of examples citing climate shadowing, seasonal forecasting and local climate change impacts. There have been projects looking at short-term forecasting and a research project undertaken by **Lloyds Banking Group** in conjunction with Reading University looking at supporting more accurate weather forecasting in the medium-term and included examining the impact of warmer summers and the potential for increased subsidence, which in turn is being used to consider pricing buildings insurance.

Among the most important Sub-Principles in the ClimateWise Initiative is 1.3 'Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks'. Compliance and progress in this area is fundamental to the integration of climate risks into core business functions across the sector and critical to the accurate anticipation and consideration of climate risk. If these risks cannot be adequately modelled and built into underwriting and investing activities then the sector puts at jeopardy its financial integrity. It is therefore a positive sign that ClimateWise members appear to have made strong progress against this Sub-Principle in the year. Many members highlight the value of this research in their submissions. Some also highlight that greater insight and accuracy is ultimately fairer for customers.

We have observed continuing efforts to generate more granular catastrophe and, in particular flood risk models. In most cases, this effort is yet to fully feed through to premiums. Nevertheless, the interviews conducted this year highlight a strong desire and intention to eventually do this. The Association of British Insurers (ABI) is looking to improve the data quality of flood risk and hosted a workshop with The UK's Department for Environment and Rural Affairs (Defra), The UK Climate Impacts Programme (UKCIP), The European Space Agency, The UK's Environment Agency and the Met Office to debate the data needs of the industry in relation to flood risk.

Case study

RMS: Data Quality Toolkit

In June 2010, RMS announced a major upgrade to its Data Quality Toolkit. The Toolkit is a client-server application which allows insurers and reinsurers to improve the completeness and accuracy of their exposure data, and target data improvements in the areas that will have the greatest impact on catastrophe model loss results.

The Toolkit provides single data quality scores for both data completeness and accuracy, distilling a comprehensive set of analytics into a simple representation of data quality across a company's exposure data set. It also enhances their ability to select between previously undifferentiated risks and to offer competitive pricing structures on the risks selected. Data can be viewed at a macro level, e.g. by cedant or portfolio, or honed in to the location level. It delivers objective and independent insight into data quality and provides metrics to inform portfolio management and underwriting decisions.

The scoring metrics produced by the Toolkit weight the quality of data by the importance of vulnerability, hazard, and net exposure. Scores account for the severity and gradient of the hazard, the relative importance of modelling attributes (e.g. occupancy, construction class, year built and number of stories) for that region and peril, and the implications of financial structures, including attachment points.

The toolkit provides over 100 validation heuristics against which the data is compared in order to identify inconsistent or illogical combinations of geocoding, building, valuation, and financial attributes. In addition, users can access a rule builder that enables the creation of additional validation heuristics. These customised heuristics can be incorporated into unique validation heuristics profiles alone or with RMS defined rules, allowing evaluation of datasets against a variety of profiles to adjudge data quality. The results from each run are stored in the results database to allow comparisons.

8 Principles Analysis (Continued)

Developing insurance products that help support new technologies for tackling climate change appears to remain an emerging arena for many. Members are at differing levels of the development scale and predominantly focus on renewable energy. The lack of insurability has typically been seen as a barrier to investment but members are beginning to meet the unique demands of the technologies. Insurance of the physical asset is the most common example highlighted but there are some members who are looking to integrate or research further the role of liability insurance in this sector. Products are typically provided in property insurance for wind turbines and solar panels and insurance for offshore wind farms.

It is important that the insurance industry shares its research into the issues surrounding climate change so that adaptation can succeed. There is real evidence from the submissions that this is being done by all members. It is encouraging to see so many members participating in the ClimateWise working groups and engaging with policy makers and academia.

Recommendations:

While compliance across the consolidated and core membership did progress in the year, many of the recommendations from last year's independent review remain valid. As in previous years, members report that research into weather forecasting has tended to focus on the short-term, flood-related impacts of climate change. However, there is a need to demonstrate how this research is being integrated across all Principles and therefore wider business strategy.

Research into health and the impact of climate change has been progressed during the year but not all members with life insurance business are researching this area.

Case study

Swiss Re: Shaping climate-resilient development

In 2009, Swiss Re undertook research on climate adaptation through a collaborative project on the economics of climate adaptation. The report ‘Shaping climate-resilient development’ was authored by the Economics of Climate Adaptation (ECA) working group of which Swiss Re is a member. The working group developed a methodology intended to help decision-makers understand the impact of climate on their economies and identify cost-effective actions to minimise those impacts.

The report’s aim was to look at the potential climate-related loss to economies and societies over the coming decades. It looks at how much of that potential loss can be averted and with what measures. It also looked at addressing what level of investment would be required to fund those measures and to find out if the benefits of that investment will outweigh the costs.

The report gives national and local leaders the facts they need to understand the impact of climate on their economies and identify actions to minimise that impact at the lowest cost to society. The ECA methodology has been tested across hugely diverse locations, representing a variety of climate hazards, economic impacts and development stages. Case studies on US-Florida, UK-City of Hull, India, Guyana, Tanzania, Mali, China and Samoa are included in the report. It found that existing climate patterns are responsible for annual losses of 1-12% of GDP and are likely to rise up to 19% of GDP by 2030. Although a worrying trend the report highlighted that cost-effective adaptation measures can prevent anywhere between 40 and 68 percent of the expected economic loss in the regions studied. The Economics of Climate Adaptation working group is a partnership between the Global Environment Facility, McKinsey & Company, Swiss Re, the Rockefeller Foundation, ClimateWorks Foundation, the European Commission and Standard Chartered Bank.

8.2 Principle 2

Inform public policy making

2.1 Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.

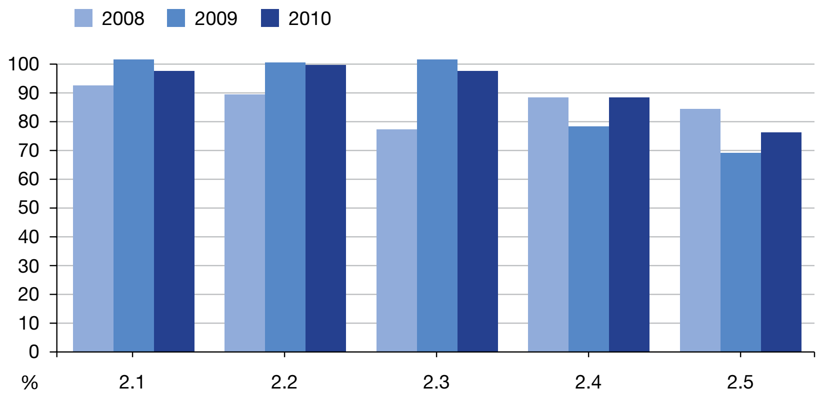
2.2 Promote and actively engage in public debate on climate change and the need for action.

2.3 Support work to set and achieve national and global emission reduction targets.

2.4 Support Government action, including regulation that will enhance the resilience and reduce the environmental impact of infrastructure and communities.

2.5 Work effectively with emergency services and others in the event of a major climate-related disaster.

Figure 4: Principle 2 – Inform Public Policy Making, % Level of Compliance



Introduction

Climate change is expected to alter, and in many cases increase the magnitude and frequency of weather related catastrophes. As evidence has shown, the financial impacts of weather catastrophes are severe. There is an imperative for insurance companies to engage with public policy makers in a consultative dialogue to help guide society's adaptation to climate change and its financial impacts. ClimateWise members' adherence to Principle 2 demonstrates continuing work with government agencies, civil society and international bodies to advance regulatory responses that protect the interests of consumers and the financial sustainability of insurance markets.

Summary of findings

Members demonstrated strong performance in working with policymakers to develop and maintain an economy resilient to climate change (Sub-Principle 2.1). Indeed, this is the area with the second highest performance across Principle 2 at 90% with a large number of members citing evidence of collaborative work with the **ABI** in promoting flood risk management within the UK. For its part, the **ABI** contributed to Parliamentary discussion on behalf of its members to debate and support the Floods and Water Management Act, which aims to promote more comprehensive management of flood risks for businesses, communities and homes.

8 Principles Analysis (Continued)

The most comprehensive and wide-ranging evidence is in members' engagement in contributing to the public debate on climate change (Sub-Principle 2.2). In the course of interviews, many members noted the benefits of internal debate and discussion through such collaborative forums as ClimateWise and UNEP FI among others. Most significantly, work streams – aimed at adaptation, developing country responses and The ClimateWise Copenhagen Statement to name a few – were critical in building common understanding, positions and momentum to identify focus areas and actions going forward.

With regard to members' external engagements around the public debate, a range of targeted and innovative examples are cited. **F&C** highlighted co-signed letters to the US Congress on the climate change legislation and support for renewable energy as part of the fiscal stimulus, as well as letters to the Securities and Exchange Commission and European parliamentarians around climate change and related policy issues. **Lloyd's of London** evidenced its blog activity highlighting climate change and risk considerations in advance of COP 15.

A majority of members highlighted their support of the ClimateWise Copenhagen Statement and the Copenhagen Communiqué in noting commitments to set and achieve national and global emission reductions (Sub-Principle 2.3). For example, the **Co-Operative Group's** Chief Executive co-signed a letter to the British Prime Minister ahead of the G8 meeting in Italy calling for the UK to push for mid-term emission reduction targets of 25-40% by 2020 to be adopted by developed countries. Many members also demonstrated evidence as to their own internal targets for emission reductions and progress against these targets.

Whereas performance was strong in Sub-Principle 2.4, evidence of supporting government action to enhance the resilience of infrastructure and communities is more limited with members scoring 87%. One notable example was **Santam's** representation of the South African Insurance Association before Parliament with the aim to assist the government in understanding climate change, its impacts in South Africa, and the specific actions needed to promote adaptation and mitigation at a national level.

Case study

The ABI work with public policy makers

As an industry association, the Association of British Insurers (ABI) is activity involved in working with policy makers – indeed its mandate is to speak out on issues of common interest; help to inform and participate in debates on public policy issues; and act as an advocate for high standards of customer service in the insurance industry. Speaking on behalf of the UK insurance industry, which pays out £230 million per day in claims, represents the third largest market globally and manages £1.5 trillion in investments, the ABI is a powerful voice. It represents interests of more than 300 members, which together account for 90% of premiums in the UK domestic market.

The ABI is a recognised and highly respected contributor to public policy thinking on climate change. As part of its work with Government, the ABI has worked to ensure that the views and needs of the financial services sector are understood. Key initiatives that received public debate and attention related to climate change on behalf of the ABI included the Flood Insurance Agreement with Government in Northern Ireland; the Floods and Water Management Act; presence on DEFRA's Adaptation Stakeholder Board; and discussions with Government and other stakeholders that helped inform the UK's negotiating position for UNFCCC discussions at Copenhagen and Cancun.

Critical to its climate change work in this past year was the launch of 'Preparing the UK for climate change: ABI's New Adaptation Strategy'. The position paper was built on two pillars: improving the understanding of current and future risks; and securing Government policy reforms to help protect people and businesses to better manage climate risks. The importance of this aligned strategy in working with government to ensure effective coverage of climate risks is critical to help ensure the protection of customers, businesses and insurers alike.

Case study

RMS disaster relief research cost/benefit analysis

RMS undertook a research project in this reporting year focussing on the management of natural hazard responses in developing countries. Titled "The Costs and Benefits of Reducing Risk from natural Hazards to Residential Structuring in Developing Countries", the findings detail the nature of responses to large scale natural disasters. The work draws on case studies in St Lucia (for hurricane), Istanbul (for earthquake) in Indonesia and India (for flood and drought).

The research draws on RMS models and the International Institute for Applied Systems Analysis. The findings and conclusions will be published in an edition of The World Bank Observer.

Findings offer insight for emergency relief and government entities in effectively responding to specific disasters in order to more quickly deploy food, shelter and assistance for effected communities. These also have important implications for emergency response preparedness with application to both the developed and developing countries. The lessons indicate that a frequent outcome of emergency response can be the misdirection of funds and prolonged recovery.

Members also had difficulty this year in demonstrating specific work with emergency services (Sub-Principle 2.5) often noting the lack of relevant climate-related disasters over the past year. However, best practice highlighted evidence of planning work that they continue to engage in. For example, **Chartis** noted its continuing work with 'Property Partners in Recovery', an emergency service programme set up after Hurricane Andrew. **Chartis** continues to meet regularly on catastrophe, hurricane and disaster recovery issues with Florida state agencies and is provided with a first responder special badge issued by the US Department of Insurance to support efficient disaster relief in the event of any future catastrophe. Another leading example is **RMS**, which has conducted a cost benefit analysis of providing efficient and targeted emergency relief funding to ensure more successful outcomes (See case study).

Recommendations

Members had less evidence to communicate related to Sub Principle 2.4 and specifically work to enhance the resilience of infrastructure and communities following or in preparation for a weather-related disaster. Evidence was highlighted at national and international policy making levels, but few could demonstrate local level initiatives of work around business continuity or storm warning systems aimed at the community level where impacts are experienced most acutely.

Members demonstrated and communicated a range of membership in national and international collaborative efforts to advance the public policy debate. Going forward, members can also work towards ensuring the increased alignment of initiatives which share similar mandates. Equally, with wide opportunity for public debate, greater emphasis can be placed on demonstrating tangible action against statements of public commitment.

Members could also consider opportunities to move from dialogue with policy makers to action required to roll-out low carbon technologies and climate adaptation infrastructure. By working collaboratively with policy makers, insurers could help design low carbon economic pathways and the required infrastructure needed both to mitigate and adapt to climate change, which would reduce risks for the sector and enable insurance cover to remain intact.

8 Principles Analysis (Continued)

8.3 Principle 3

Support awareness amongst customers

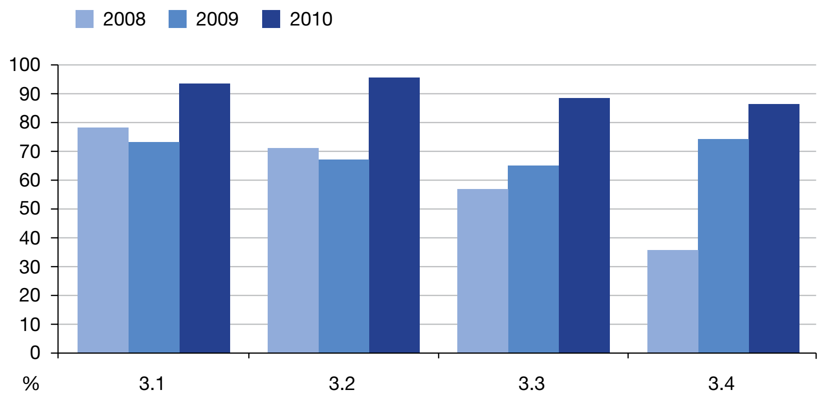
3.1 Inform customers of climate risk and provide support and tools so that they can assess their own levels of risk.

3.2 Encourage customers to adapt to climate change and reduce their greenhouse gas emissions though insurance products and services.

3.3 Increase the proportion of repairs that are carried out in a sustainable way through dialogue with suppliers and developers and manage waste material appropriately.

3.4 Consider how to use expertise to help the developing world to understand and respond to climate change.

Figure 5: Principle 3 – Support climate awareness among customers, % Level of Compliance



Introduction:

The sector has an important role in educating and influencing the behaviour of government, corporate and private customers to help promote stronger mitigation of the causes and successful adaption to the consequences of climate change. The long-term risks posed by inadequate adaptation and mitigation of climate change are significant for both the underwriting and the investment activities of insurers and many members recognise and reflect in their reporting the importance of the role as educator and influencer of behaviour change.

Summary of findings:

A significant improvement in the memberships' compliance with this Principle in the 2010 reporting period hides a number of significant challenges faced in progressing this agenda. While most members recognise the importance of engaging with customers on the issues of climate change and the need to develop products and services that support adaptation and encourage mitigation, we find that members continue to struggle to comply effectively with Sub-Principle 3.4 in particular.

As observed in other consumer markets, 'green', carbon or climate change focused products and services generally only appeal to a niche market. Engaging with mainstream consumers on these issues also represents a challenge. The long-term and largely intangible nature of carbon emissions makes it a difficult agenda in which to engage the consumer on. For general insurers, the conversation is made easier by the direct link to property and casualty risk exposure, and by a greater number of customer touch-points in the relationship. For life and pensions, the engagement is more difficult to create. A number of members, from all sides of the sector, raised this challenge in this year's review. It is clear that striking the right balance in communication with private individuals is not an easy task, particularly in a more constrained economic cycle when price is even more paramount as a driver of consumer choice.

For corporate customers, the conversation appears to be an easier one. The business case for mitigation is made by increasing regulation and for adaptation, more resilient operations prevent disruption and protect business continuity.

There is a good deal of commonality in members' current approaches to informing customers about climate risk and providing support and tools so that they can assess their own levels of risk, in accordance with Sub-Principle 3.1. For the most part the members are making use of normal communication channels (webpages, sales teams and promotional literature) in the customer life-cycle to raise the issues and influence behaviour. For property insurers, the main focus remains flood protection but some are beginning to broaden the scope to include other weather-related issues. In the reporting period, **Zurich** launched and continued to update its severe weather microsite (www.zurich.co.uk/severeweather). This provides 'before', 'during' and 'after' guidance to people coping with severe weather. It is intended to offer practical support to assist customers and non-customers assess their risk exposure to severe weather, prepare for incidents and what to do in the event of a claim.

Motor insurers continue to provide advice on eco-friendly driving. Those with corporate general insurance customers are raising awareness and rewarding action. For example, **Catlin**, a member through the Lloyd's Market, has introduced 'FleetDirections', an initiative targeted at informing the commercial motor fleet manager. It provides a free CO2 emissions calculator and green fleet health check. **Catlin** claim to be the first insurer to recognise green credentials in pricing for motor fleet insurance.

This year was also seen a large number of members point to their corporate responsibility or CSR report as a medium for informing customers, both corporate and private.

Case study

Chartis: LexElite Eco-Homeowner – providing cover for renewable generation interruption

In 2009-2010, Chartis saw an increased take-up of existing green products in residential and commercial property insurance that enable customers to rebuild to a higher standard of sustainability in the event of a covered loss. As part of a portfolio of sustainable insurance products, branded Ecosurance®, provided by Lexington Insurance, LexElite Eco-Homeowner® has been developed to respond to the unique risks faced by homeowners who generate their own power and feed surplus energy back into the local power grid.

If a homeowner's alternative-energy system has a covered outage, LexElite Eco-Homeowner will protect the homeowner against lost income generated from selling surplus energy back to the grid and will cover the extra expenses incurred to purchase replacement electricity.

There has been very strong development across the members in compliance with Principle 3.2 – 'Encourage customers to adapt to climate change and reduce their greenhouse gas emissions though insurance products and services'. This does not reflect a significant increase in launching of specific new products. What we have observed this year is a larger proportion of the consolidated membership stating that cover for domestic renewable energy systems (solar and wind usually) are covered in standard home insurance products at no additional premium. While not specifically encouraging behaviour change, this clearly removes a potential obstacle for consumers.

This review period has also seen a substantial increase in compliance with Sub-Principle 3.3 – Increase the proportion of repairs that are carried out in a sustainable way through dialogue with suppliers and developers and manage waste material appropriately. Claims fulfilment has been given a good deal of attention in terms of both reporting and compliance with a majority of motor insurers developing repair over replace programmes and a stronger focus on waste management. **Aviva** has measured and communicated its efforts in this area, demonstrating strong progress in the reporting period.

Resilient rebuild activity remains on the agenda for commercial and domestic property insurers, usually providing post-flood adaptation solutions. A number of members highlight work with loss adjusters in developing this solution. Consumer take-up appears mixed. Where there is no significant cost implication, there is usually support, re-siting power sockets at higher levels were frequently mentioned. However, where the cost or personal impact is larger, consumer response is understandably poorer.

While progress has been made, Sub-Principle 3.4, - 'Consider how to use expertise to help the developing world to understand and respond to climate change' remains a challenging element for the membership. There is clear evidence of a maturity spectrum of responses in this area. Members who have no direct operations in developing markets continue to find it difficult to find ways to make meaningful use of expertise in this space and often report philanthropic activity, while achieving compliance through an explanation that the Sub-Principle is not relevant (an E score). Others demonstrate compliance through extending core products to the developing world though the development of micro-insurance products focused on providing coverage for weather-related risks, often in the agriculture sector. **Standard Life**'s compliance on this Sub-Principle was achieved in the feedback call process where its activity with joint venture partners to reduce direct emissions footprint was referenced. This demonstrated direct action in developed markets that is not connected to the core product offering but nevertheless helps understanding and response in the developing world.

8 Principles Analysis (Continued)

Case study

Aviva: Sustainable claims in property and vehicle repair

Following on from Aviva's work on flood resistance and resilience and more sustainable claims reinstatement mentioned in last year's ClimateWise response, Aviva has widened the scope to look at other innovative claims fulfilment. While not necessarily entirely unique - others have pioneered repairer incentive schemes in the motor sector - this case study serves to highlight on-going development of the waste-minimisation concept in sustainable claims, particularly in the property and buildings sector. It also demonstrates the value in measuring and reporting the benefits of such activities to fully understand the value created for Aviva and wider stakeholders.

In the property area, a pilot began in summer 2009 looking at repair versus replace in respect of accidental damage to sanitary ware. The objectives of the pilot were to minimise wastage, improve claims lifecycle and reduce cost. Aviva's repair suppliers are encouraged to report on a job-by-job basis the savings resulting from repair over replace in terms of reduced waste to landfill (weight) and CO_2 savings from non-replacement. Aviva is looking to roll this out due to a successful pilot nationally with an approved supplier network throughout 2010.

In the vehicle repair area, Aviva began working with a supplier in 2009 to develop innovative solutions to contain costs, reduce waste and energy consumption and to support job creation. Earthshine consultancy (a not-for-profit organisation) reviewed the benefits of the change in process. It identified that there was a 34% reduction in operational carbon footprint, mainly due to the more efficient and localised drying technology. Significant savings are also made with embedded carbon. Energy costs have gone down from £16.50 to £10.89 per repair, amounting to savings in the region of £74,000 a year. By throwing fewer parts away, 42% waste is avoided in the first place. It currently costs £1.50p for each part to be taken away. With the reduction of panels and bumpers thrown away this multiplies up to a total annual saving in the region of £77,000 for waste management costs. On average the new approach saves 3.9 parts on each repair job. Also, as a direct result of the new way of working, 30 jobs have been saved. This represents 13% of the total workforce. Apart from the direct benefit to the employees concerned, this also has a significant benefit to the local economy, maintaining spending power and avoiding the social cost of redundancies. For the entire workforce, skills have been enhanced 'to an all time high' and job satisfaction increased, as the emphasis has shifted to skilled repairs rather than simply replacing panels.

A similar repair over replace model was adopted by Aviva's accident repair centre network subsidiary, Solus. This business is made up of 20 locations and along with the above programme accounts for one third of all Aviva UK customers' repairable vehicles that have been involved in an accident.

Best practice response to this Sub-Principle is demonstrated by those that have global footprints and that have access and expertise in working with governments in developing regions. **RMS** has shown strong activity through R&D efforts to help developing world regions understand climate catastrophe risk and options for risk management. **RMSI** (a wholly-owned subsidiary of **RMS** based in India), for example, has a modelling team dedicated to undertaking projects for policymakers, NGOs and development banks focused on integrating climate risk management into development policy by enhancing the understanding of climate and climate-related issues primarily in the water and agricultural sectors. This work aims to generate better information and understanding on how current climate risk management strategies are coping in response to droughts and floods; to develop and demonstrate how a climate modelling framework can be used to identify future climate risks; to use this information to help determine the key elements of an adaptation plan that can help improve climate resilience and adaptive capacity; and to raise awareness of the climate change risks and effective solutions among all stakeholders.

Swiss Re also demonstrates best in class compliance in this area; many of **Swiss Re's** customers are also government and public bodies in the developing world. The company recognises and has responded to the need for adaptation financing and has put a special focus on devising innovative risk transfer solutions that extend cover to developing countries, which are particularly exposed to climate impacts. Newly completed solutions covered windstorm, earthquake and weather volatility risks. In October 2009, **Swiss Re** joined with the World Bank and Mexico to develop a single risk-transfer solution for earthquake and hurricane risks, linking governments with capital markets.

Recommendations

Despite strong progress demonstrated at the consolidated group level, across the consistent core group of members, progress is more limited in compliance with Principle 3. Members report challenges in striking the correct tone and communicating effectively, particularly during a tighter economic cycle for business and private customers alike on climate change. This is common to all but most acute for life and pension providers.

The sector has an important role and vested interest in the realisation of an adapted infrastructure, but in order to engage with domestic customers effectively, trust is essential. The UK Financial Services Authority (FSA) 'Climate change thematic review: flooding – do your customers know what they are covered for?' identified a number of communication issues that could undermine consumer trust and credibility of communications in this area. The sector needs to make sure that reputational and engagement efforts on this agenda are not undermined by commercial practice but that each enhance one another.

Solutions that effectively communicate climate-related risks and reward mitigation and adaptation need to be made accessible and acceptable for the mainstream. Like other sectors, the challenge is to create solutions that deliver all the consumer expects in terms of price and performance, as well as support mitigation or promote adaptation. Insurance products are no different. There is a need to link the activity in Principle 1 - Lead in Risk Analysis, with Principle 3 in informing product development but also education and engagement solutions.

The development of sustainable claims and resilient repairs needs to continue. There is evidence of progress on this journey; motor insurers have developed effective solutions that can be replicated in other sub-sectors. Continued collaboration with loss adjusters and other third parties in the supply chain for development of this agenda in the property and construction sector is anticipated.

Case study
Tokio Marine & Nichido

In May 2009, **Tokio Marine & Nichido** initiated the Green Gift Project that aims to reduce the environmental impact of its business and of its customers by reducing the use of paper it also links an environmental program designed to protect mangrove areas to this effort.

Customers are invited to read the terms and conditions of their insurance contracts on the company's website, instead of on paper. In addition to the paper reduction, for each customer who chooses a Web contract, **Tokio Marine** donates funds equivalent to two mangrove saplings and thus contributes to the promotion of the Mangrove Planting Project.

This project focuses on ecosystem restoration and coastal breakwater protection from tsunamis and other natural disasters. The cultivation of mangrove forests also absorbs and stores large quantities of CO_2 and provides residents of the afforested areas with fish and forestry resources, promoting sustainable development in the afforested regions. **Tokio Marine** has designated mangrove forests, which protect the earth and lives of people, as "insurance for the future of the Earth" and has declared its intention to continue this project for the next 100 years.

So far, **Tokio Marine** has switched more than 7 million contracts to the web-based format and reduced paper consumption by 1,400 tons per year. The Mangrove Planting Project has planted a total 6,293 hectares as of the end of March 2010.

8 Principles Analysis (Continued)

8.4 Principle 4

Incorporate climate change into our investment decisions

4.1 Consider the implications of climate change for company performance and shareholder value, and incorporate the information into our investment decision making.

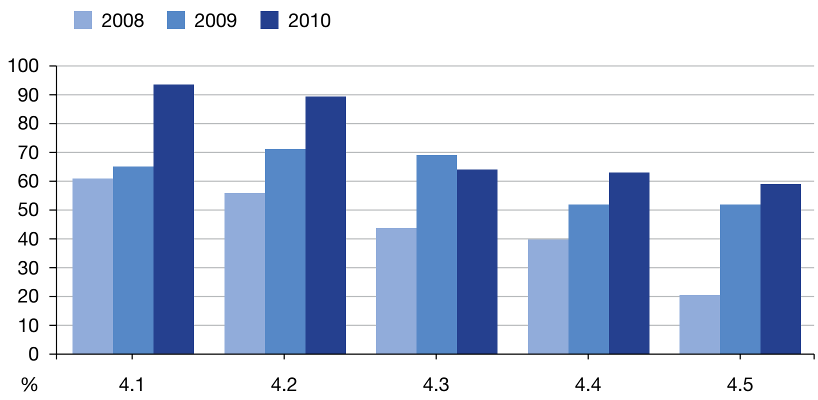
4.2 Encourage appropriate disclosure on climate change from the companies in which we invest.

4.3 Encourage improvements in the energy-efficiency and climate resilience of our investment property portfolio.

4.4 Communicate our investment beliefs and strategy on climate change to our customers and shareholders.

4.5 Share our assessment of the impacts of climate change with our pension fund trustees.

Figure 6: Principle 4 – Incorporate climate change into investment decisions, % level of compliance



Introduction

In the medium to long-term, the ability of companies to manage climate change issues will determine the extent to which they face regulatory, physical, reputational, financial and legal risks. For institutional investors, such as insurance companies, where asset allocation decisions are made on the basis of longer-term outlooks, climate change presents a critical investment consideration as its impacts will have significant implications for global corporates, particularly in energy intensive sectors. While risks abound, the opportunities are equally significant – the International Energy Agency project energy investment of USD $37 trillion is needed by 2030 to stabilise greenhouse gas emissions.

Summary of findings:

The incorporation of climate change issues into investment strategies (Principle 4) has proven the most difficult of all six Principles for members to implement. Compliance against Principle 4 was 73% across the consolidated membership – a slight improvement over 2009 – and yet remains considerably lower than Principle 3, the second lowest performing Principle at 88%. A heavy focus of corporate investments in highly liquid and fixed income assets, combined with outsourced investment strategies partially explains companies' limited ability to actively manage and engage on climate issues within their investment portfolios. That said, a number of leading best-practice examples were demonstrated across the membership and are highlighted below.

Across the Sub-Principles, companies demonstrated that they are evolving their ability to recognise where climate change is a driver for financial value, and many are at the stage of taking active positions – performance in this space (Sub-Principle 4.1) is 92%. **Santam**, for example, this year formalised a Responsible Investment Mandate that once implemented (in 2011) will allow the company to make investments that will offset or displace its environmental footprint with regard to energy, waste and water, incorporate ESG issues into its investment decisions and analysis and will aim to align with the UN Principles for Responsible Investment (PRI).

For companies where climate change has been a component of their investment strategies over a number of years, there were no shortage of innovative approaches and focus areas. **Tryg** dedicated 100 million Danish Kroner to an investment strategy in climate change activities, while committing 50% of the total to a specific climate focused fund targeting developing countries. Another best-practice example was that of **Allianz** which provided a percentage and financial value breakdown of investments between debt and equities and highlighted the climate focus areas of its equity investments. Swiss Re also noted the investment value and target sectors in energy, water and resource efficiency.

Engaging with investee companies to encourage their disclosure of carbon emissions (Sub-Principle 4.2) was another area of notable performance at 88%. Many companies, including Lloyd's of London, evidenced their work with **F&C Asset Management** which, on their behalf, has actively worked with companies on a one-on-one basis to reduce greenhouse gas emissions (see case study for a description of **F&C's** ReoEngagement Tool). The **Co-operative** also evidenced its work in 2009 to formalise a comprehensive climate change voting policy and action plan (see case study for a description of the **Co-operative's** process and results). Other companies described the focus of their work with companies in assisting them to disclose emissions, implement a carbon management strategy and set quantitative targets for emissions reduction.

With the regulatory introduction of the Carbon Reduction Commitment in the UK, and its implications for property portfolios, members' performance in Sub-Principle 4.3 did improve relative to previous years but still remains a difficult action area for many companies. **PRUPIM** cited evidence of its 'FairVal' software evaluation tool that assigns a sustainability score to each property (addressing flood risk, resource efficiency and renewable energy generation) and in subsequent years will form a component of the financial valuation with regard to property acquisition and disposal decisions. It has also worked with the CarbonTrust to develop a 'tenant information review' process where it works with clients to reduce energy, waste and water usage. **NFU Mutual** carries out Energy Performance Certificates on each of its investment properties, and in certain instance considers whether it can upgrade the rating through planned maintenance programmes.

While many members cited their communication of investment strategies in annual and sustainability reports, many others had difficulty providing evidence of engagement with customers and shareholders (Sub-Principle 4.4) and pension fund trustees (Sub-Principle 4.5). Indeed, many members discussed their association, collaboration, and in some instances partnership with such external entities as UNEP FI and Institutional Investors Group on Climate Change (IIGCC) to name a few to help inform these activities. **RSA** Insurance, for example, is collaborating with WWF to help guide its engagement with pension fund trustees around climate change issues. **F&C** also hosted a workshop for ClimateWise members and other industry representative to explore how climate change can affect the value of invested assets across classes and how insurers can develop effective strategies.

Case study

F&C responsible engagement overlay (*reo*®)

F&C uses its influence as one of Europe's biggest largest investors to engage companies to adopt better environmental, social and governance (ESG) practices across their business operations. The methodology used to engage and assess companies' performance on ESG issues is known as the Responsible Engagement Overlay (***reo***®). The service is applied to all in-house equity and corporate bond funds, £53 billion of funds managed by other institutions.

Through ***reo***®, F&C encourages companies in relevant sectors to report on how their strategy positions them to maximise the opportunities and minimise the business risks associated with climate change. In 2009, F&C engaged over 700 companies across a wide range of sectors including utilities, oil and gas, finance, transport, retail, and property, reflecting F&C's view that the transformational impact of climate change will have an effect across the whole economy. Through the course of its engagements, F&C has encouraged better policies and practices at the corporate level focused around monitoring, measurement and disclosure of climate change impacts and transparent reporting, enhanced understanding of the impacts of climate change across the business, and engagement with industry-led initiatives on business and climate change.

In 2009, F&C recorded 92 instances where company policies or practices on climate change improved as a result of its intervention. Examples include LUKOIL and Gazprom, which both reported against the Carbon Disclosure Project for the first time in 2009, and SAP, which released a suite of sustainability-related software.

8 Principles Analysis (Continued)

Recommendations

Companies will need to give greater attention within the investment space on how to address climate issues within their fixed income portfolios as often these represent over 90% of their total investment portfolio. It is important for asset managers not only to identify assets particularly vulnerable to the physical, regulatory and reputational impacts of climate change over the lifetime of the investment, but also to strategically target those that are particularly resilient or well-placed to respond. Within submitted responses, and through the course of interviews, many reiterated the need to better understand climate considerations that can be considered on the debt side of portfolios. Whereas certain members, most notably **F&C**, have undertaken some work in this area, more can be done to share findings and strategies.

There remains a need for investment teams to be more actively engaged in climate discussions within companies overall business strategy and operations discussions. This is certainly the case where companies have outsourced investment management to external fund managers, some of which are more limited in their understanding and consideration of climate change issues. Where investments are managed internally, greater dialogue should also take place in communicating the importance and strategy behind the integration of climate issues in overall investments.

Members have an opportunity to increase their asset allocation to new public-private forms of finance that will be required to fund climate mitigation and adaptation as part of the disbursement of fast-start funds, These financial instruments

are likely to be significantly de-risked by public sector participation, and have similar profiles to investment grade, low risk fixed income bonds. Not only does this present a new, potentially high growth investment area, but also the opportunity to reduce risks to insurers by ensuring climate mitigation and adaptation infrastructure is rolled out.

Generally, all companies can better communicate externally to shareholders and customers the strategy behind their investment. Where dialogue remains weak between investment and operation teams, this clearly is the first channel for improved communication. However, where this does exist and strategies are in place, companies can further detail the nature of climate change within their investment strategy, the indicators assessed, and target metrics both in terms of sectors and emission reduction levels.

Case study

Co-operative and climate change voting policy

In 2005, Co-operative Insurance became the world's first insurance company to launch a customer-led 'Ethical Engagement Policy' to guide the social, ethical and environmental aspect of its investments. Building off of this policy, Co-operative formalised a comprehensive climate change voting policy in 2009 to encourage management resolutions that could commit companies to a more demanding stance on climate change.

Where Co-operative believes emission improvements can be made, it writes to the company offering advice and explaining the voting intention, often using Carbon Disclosure Project data as a primary information source. As one example of its engagement with a company it invests in, Co-operative Insurance approached International Power regarding its use of 'Brown Coal', which is typically 37% more carbon-intensive than a power station using conventional coal. International Power's Australian power stations are among the most carbon-intensive in the developed world. In early 2009, International Power was encouraged to adopt meaningful and challenging targets for reducing the carbon intensity of its operations.

Over the course of 2009, 31 reports and accounts were not supported due to concerns over environmental and climate change issues. Particular focus has been given to oil sands development, where Co-operative Insurance co-sponsored two shareholder resolutions at Royal Dutch Shell and BP, asking each company to justify their planned oil sands development and the specific carbon impacts.

8.5 Principle 5

Reduce the environmental impact of our business

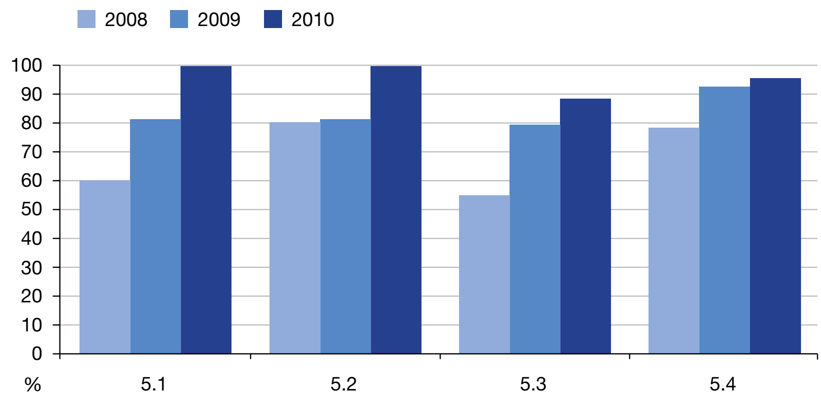
5.1 Encourage our suppliers to improve the sustainability of their products and services.

5.2 Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.

5.3 Disclose our direct emissions of greenhouse gases using a globally recognised standard.

5.4 Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.

Figure 7: Principle 5 – Reduce environmental impact of our business, % Level of Compliance



Introduction

Organisations are facing increasing scrutiny and pressure to report on the actions of their operations.

Summary of findings

Principle 5 had the strongest performance in terms of compliance of any of the Principles for 2010 and built on the increase noted in 2009. The components of this Principle are fairly well established in members' CSR strategies but it is important to identify those areas which have seen progress, and where best practice exists. Sub-Principle 5.3 (disclosure of direct emissions using a globally recognised standard) was again the area that members had difficulty in communicating progress and achievements, largely as a result of not reporting the standard used to quantify emissions.

It is crucial that organisations fully analyse their supply chain so that they understand who, where and how their products and services are derived. This is supported by the strong performance this year by members in relation to 5.1 (encourage suppliers to improve the sustainability of products and services). Members are also finding a variety of ways to compile the information necessary to make environmentally sound procurement decisions. These include: developing environmental and social risk (ESR) policies that contain minimum criteria; creating supplier questionnaires at the pre-qualifying and renewal phases; or asking suppliers to demonstrate their credentials. Some go further, requiring information regarding a suppliers' supply chain and operations or requiring suppliers to disclose carbon footprints, which could be incorporated into the member's own Scope 2 and 3 emissions reporting.

The type of suppliers that members evaluate is fairly diverse. This depends on the nature of the member's business as those insurers with mainly office-based operations tend to focus on paper, printers and other IT equipment compared to general

8 Principles Analysis (Continued)

Case study
L&G: Procurement collaboration

Legal & General (L&G) is working in collaboration with its suppliers to calculate and subsequently reduce the level of its indirect carbon emissions.

Over the last 18 months, L&G has set up and implemented a programme to work in collaboration with its suppliers to calculate and report its indirect carbon emissions and reduce its overall impact on the environment. It initially issued questionnaires to suppliers in order to establish and report the carbon footprint of the supply chain for inclusion in future CSR reports. Suppliers were also invited to a seminar so that L&G could understand supplier views on carbon strategy and obtain feedback to determine whether the questionnaires are an appropriate method of obtaining information about indirect carbon emissions.

The second phase of the initiative was progressed through 2009, where L&G worked with further suppliers to record carbon emissions and the proportion indirectly attributable to L&G. In 2010, L&G have moved onto working with its suppliers with the largest indirect emissions to understand how collaboration can reduce emissions across the value chain. The carbon strategy is under review in respect of the supply chain with the aim of integrating carbon reduction into the selection process from 2011.

insurers who have to include those suppliers with responsibility in relation to claims. Some members are taking a collaborative approach and are working with their suppliers to improve their performance or embarking on innovation sharing exercises.

The disclosure of member's progress in communicating measures to reduce their internal impact on the environment was very good. Internal operational environmental reduction processes are well established and all members reported activities and progress in these areas. New regulation is having an impact with some members who are based or have operations in the UK commenting on the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme and the need in some areas to obtain accreditation from external organisations and introduce more stringent energy monitoring initiatives such as the installation of smart meters (**Aviva**).

Reporting of direct GHG emissions is well established and included energy consumption of offices, business travel and waste. In relation to reporting of reduction targets it is worth noting the differing levels of maturity among members, with some achieving year on year reduction targets against those who were setting targets for the first time.

Disclosure of direct GHG emissions was fairly strong with members publicly communicating their position via annual reporting or on their website. Fewer members though described how these were calculated and whether a globally recognised standard was used for reporting. Independent verification of this information was also prevalent although there were cases where this was not being progressed.

There were varying levels of progress in relation to employee engagement this year. All members provided information describing their efforts during the review period to communicate environmental policy and activities to staff. This was usually done in conjunction with an awareness campaign such as World Environment Day. Some members though are now further developing their strategy by introducing environmental champions within teams or locations to help disseminate environmental policy, create awareness and change behaviour in and out of the workplace.

Members are also using educational tools to engage employees with web based e-learning applications and feedback opportunities to gauge how important climate change is to them and for suggestions on how to improve the environmental efficiency of the workplace. These were seen as an alternative to the traditional way of engagement, which may increase the level of interest as this was seen to be low for many members.

Case study

Allianz: ideas to success (i2s) CSR campaign

In November 2009, Allianz launched a strategic innovation campaign, which challenged all teams across the business to reduce their environmental impact. The campaign re-emphasised the message that it is everyone's responsibility to take action and that collaborative efforts create results.

The 'Ideas to Success' (i2s) campaign is focused on encouraging employees to innovate and improve the way they operate. Allianz ran the first i2s-CSR campaign at the end of 2009. It challenged business teams to think about how they could reduce their environmental impact. Standard i2s campaigns ask for ideas for improvement, most of which are already known to people as ways to reduce environmental impact. The common barrier to the success of these types of initiatives is to get people to carry out the activities suggested – in other words, to change behaviours effectively. To tackle this, Allianz challenged each team in the business to come up with three environmentally beneficial actions and then to commit to taking action on the ideas for the duration of the campaign. 88 teams made pledges to commit to three environmental actions – 250 pledges in total. Allianz hope that by establishing the behaviour change over the period and keeping people engaged, their actions will be permanent and have a long-term benefit, rather than part of a short-term programme.

Recommendations

Many members are now publicly disclosing their GHG emissions and communicating reduction targets and plans. However, not all members outline the basis for how the data is calculated, how it is reported and used internally or if it is independently verified. Taking steps to enhance disclosure on these areas would represent progress.

As regulation becomes a reality in many countries, it will be useful to see how members are preparing for this and the strategies that are in place to adapt to the increasing burden on collating and reporting the data required.

Many members reported that they have employee engagement programmes in place by making information available on issues, policies and procedures. It is important for members to find innovative ways of encouraging their staff to engage with these activities either through improved education and awareness-raising or through incentivisation schemes. Members who are leading this agenda are now developing the approach to involve staff more specifically and promote action, for example by introducing environmental champions within teams or locations to help disseminate environmental policy. This action-oriented approach appears to meet with greater success in creating awareness and encouraging behaviour change in and out of the workplace.

8 Principles Analysis (Continued)

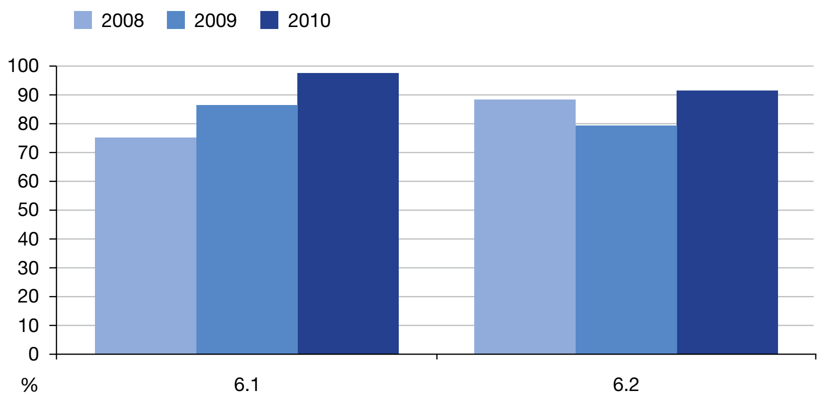
8.6 Principle 6

Report and be accountable

6.1 Recognise at company Board level that climate risk has significant social and economic impacts and incorporate it into our business strategy and planning.

6.2 Publish a statement as part of our annual reporting detailing the actions that have been taken on these Principles.

Figure 8: Principle 6 – Report and be accountable, % level of compliance



Introduction

Strong governance structures and a designated authority demonstrate accountability at the highest level to ensure commitments are fulfilled. As with adherence to all other strategic initiatives, the ClimateWise Secretariat requires that its membership demonstrate evidence of this commitment as represented in Principle 6.

Summary of findings

Reporting and accountability (Principle 6) remain the strongest performance areas across the Group membership at 93%. That the Principle as a whole has noted an improvement over past years' performance is attributable to further evidence of senior management and board level sponsorship. Indeed, as more detailed evidence demonstrated, strong integration of climate change issues within the overall governance structure, and direct accountability (e.g. delegating a Head of Climate Change) facilitates comprehensive performance against all of the ClimateWise Principles.

Most notable submissions included evidence of Board level review of climate change and its impact at the overal group strategy level. For example, **Tryg's** CSR Committee, chaired by the CEO, identified 11 strategic issues and structured them within the company's four strategic pillars (profitable growth, peace-of-mind delivery, self service and human competencies) as part of their review of climate change and its impact to the business.

Other members demonstrated evidence of how climate change was being further analysed and studied at the Board level. **L&G** for example conducted senior level management development sessions on risk and reputation management, for which climate change was a component. Equally, **Zurich** has dedicated a Weather Underwriting Steering Group to initiate projects and make strategic decisions on how to accommodate climate change within underwriting risk management.

Many members continue to make public their reports on adherence to the ClimateWise Principles via their websites. Evidence of this included stand-alone glossy reports, references to the Principles and specific performance within Group Sustainability reports, as well as dedicated websites with the ability to filter examples Sub-Principle performance over the course of the year.

Case study
L&G Group Report:

L&G publishes all material related to its reporting against the ClimateWise Principles. The extent of its public disclosure includes its own assessment report to the ClimateWise Secretariat, the feedback report related to its specific performance and areas for improvement, and its overall ranking across all ClimateWise members.

The strength of its example is in the commitment to transparency and accountability regarding the ClimateWise Principles. ClimateWise members and other insurance companies can learn from the examples of L&G's own initiatives across the Principles, helping to inform others' strategies in demonstrating commitment, capacity and a track record on integrating climate change into management decisions and operations.

Recommendations

In certain instances, members' ability to demonstrate year-on-year progress is only as significant as the power bestowed to the committee responsible for climate change issues. This can often plateau at the level of environmental committee or sustainability departments. By naming a specific board level sponsor, companies can better ensure that climate change is incorporated into risk, strategy and client engagement. Going forward, members should clearly articulate the type of climate change responsibility assumed at the Board level and the concrete actions taken over the course of the year.

Members can make further efforts in improving the quality of evidence cited and the visibility of the reports prepared. For members that produced publically available reports and engaged different departments across the company, many cited the benefits of understanding at a deeper level the process by which diverse business units were incorporating climate change. The value for members is in communicating this process and in sharing examples of activities to diverse audiences.

Finally, further work can be done across some member companies in having senior management publicly demonstrate their commitment and initiatives in dealing with and integrating climate change into their business decisions. Anecdotal evidence suggested that where a proactive climate change position was firmly established, the residual impacts could have positive effect in terms of corporate reputation, employee engagement and customer satisfaction.

Appendices
Appendix A: Member disclosure

ClimateWise issued guidelines on reporting to all members that highlighted the type of information that should be included in the submission together with examples of where compliance and disclosure would be awarded. The guidance was updated in February 2010 as a number of members sought further guidance, in particular to the difference between partial and full compliance. It should be noted that ClimateWise does not mandate how the annual reporting should be recorded.

Disclosure was scored in accordance with the information provided in the guidance notes. These notes provide detailed information for each of the Sub-Principles so that members are better equipped to be able to respond to the set criteria needed to be awarded the full disclosure score.

The level of disclosure across the Principles has improved this year due to better reporting but more importantly an increase in the breadth of activities that members quoted as part of their submission. This shows a developing maturity in the strategy employed by members.

It should also be noted that those members who gave a satisfactory explanation as to the Principle or Sub-Principles' non-applicability to their business, full disclosure scores were recorded in line with methodology applied in previous reviews.

Overall, disclosure was high across the Principles for all of the membership. Principle 4 again appeared to be the area where members faced problems with the relevant issues (these reasons are explained earlier in the report). Sub-Principle 4.5 - Share our assessment of the impacts of climate change with our pension fund trustees, again proved to be a difficult area. The scores were approximately the same as 2009 and there appeared to be only a couple of instances where this subject had been significantly progressed.

In relation to Sub-Principle 5 member reporting has now matured. The type of information required in Sub-Principle 5.2 – Measure, and seek to reduce the environmental impact of the internal operations and physical assets under our control requires all members to measure and disclose the GHG emissions emitted by their offices. This information is now available and companies are in a position to calculate and communicate the data and disclose publicly.

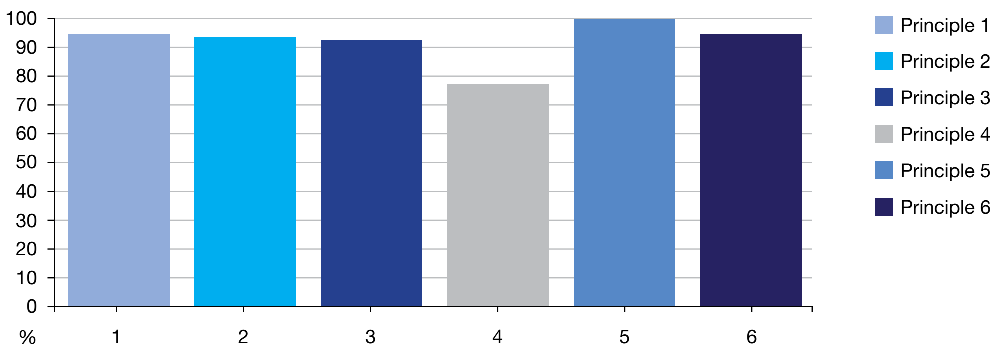
Disclosure in relation to Principle 3 - Support climate awareness amongst our customers has risen from 69% (2009 score) to 91% for this year. As seen in the compliance analysis, the main driver for this uplift has been members' taking on of the guidance provided by ClimateWise in relation to stating that cover for domestic renewable energy systems (solar and wind usually) is provided as part of standard home insurance products at no additional premium.

Recommendations for improvement

Enriching achievements with quantitative values – A number of members communicate the achievements that their initiatives have contributed to during the review period. One of the areas where members could be more proactive is in providing quantitative values to support the effectiveness of these initiatives where possible.

Providing a response to all Sub-Principles - Not all members provided a response to each of the Sub-Principles. While some members provided reasons why it was not applicable to their business, others appeared to ignore the Sub-Principle completely. In future, it would be beneficial for members to state reasons in their submission why a Principle had not been addressed or why it was not applicable.

Figure 9: Member disclosure



Appendix B: Detailed description of the methodology used in this review

Phase 1 – Detailed review and scoring of ClimateWise submissions

Individual member reports were collated by the ClimateWise secretariat and sent to PwC for review and scoring. The reviewing team developed individual and membership-wide scoring matrices to assess disclosure and compliance. Previous years' scores were added to the matrix to create a three year picture. The review retains the base scoring methodology of the previous independent reviewers, Forum for the Future.

Disclosure

ClimateWise provide all members with guidance for reporting which includes details of disclosure requirements and specific examples of compliance for each of the 25 Sub-Principles. PwC studied all submissions and noted where a member had provided sufficient disclosure for each Sub-Principle. It was important to the reviewing team that not only did the member explain their progress but also outlined their approach as and when appropriate. These were both used to determine whether the member had achieved full or partial disclosure. Where a member explained that the Principle was not relevant to their business, this was marked as explanation provided and scored as full disclosure.

For each Sub-Principle, the response was added to a table together with commentary from PwC. This commentary was to be used for the interview phase whereby it was necessary to discuss marginal decisions or case studies. Only the responses submitted by the member's report were used to determine disclosure.

Compliance

In its guidance, ClimateWise defines compliance scoring as given according to the quality of the information provided in relation to each element of each Principle. Compliance was assessed using the same method of scoring as disclosure in that full, partial and explanation scores were awarded, this was to ensure a consistent approach with previous years was taken. Only information provided in the member's submission was evaluated with further clarification being noted for discussion during the interview phase.

Phase 2 – Identifying and evaluating case studies

During the submission review phase, potential case studies were identified for each of the members. The use of case studies is a positive way to illustrate actions taken by members to showcase interesting and thought leading activities that have taken place during the review year. These examples were discussed with each appropriate member in the first instance to acquire additional information and seek high level approval for its consideration.

Phase 3 – Distribution of one-page tentative scores

A scoring template was created for each member showing their tentative score for the year in both disclosure and compliance for each of the six Principles and highlighted where scores were in relation to the previous year. Also included were markers to identify areas where further clarification was required. See Appendix H for an example of the template used.

Phase 4 – Discussions with members

All members were given the opportunity to participate in a telephone conversations to discuss our review, potential case studies and general thoughts on the issue of climate change within the insurance industry and to obtain feedback on any aspect of the ClimateWise process. In total, 24 telephone conversations were conducted with designated representatives, resulting in extremely meaningful discussions and adding further insight to member's submission.

Phase 5 – Reassessment of scores

As a result of the discussions that took place with members some scores were amended to reflect clarity where this had been provided. The changes made were largely minimal overall as the quality of submissions had improved. There were a small number of scores that improved when new information was provided that had not been communicated through the report, usually from partial to full compliance.

Phase 6 – Report production

This report has been prepared using all of the information and analysis that had been accumulated and submitted to ClimateWise.

Phase 7 – Individual member detailed feedback and benchmarking report

Following the reassessment of scores where appropriate, a two-page document was produced and submitted to each member. These documents included a breakdown of the final scores for both disclosure and compliance. In addition, detailed feedback was provided in appropriate areas that were felt would be of benefit to the member. Finally, peer group benchmarking analysis was provided to give members a better understanding of their position.

Appendix C: Reporting organisations

	Organisation	Geography	Key business lines	Size (number of employees*)
1	Allianz (UK)	UK	Non-life	1,001-10,000
2	Aon-Benfield	US, International	Reinsurance broker (non-life)	1,001-10,000
3	Association of British Insurers (ABI)	UK	Trade association (all lines)	51-200
4	Aviva	UK, International	Non-life and life, Asset manager	50,000+
5	AXA (UK)	UK	Non-life	1,001-10,000
6	Chartered Insurance Institute (CII)	UK, International	Professional body (all lines)	51-200
7	Chartis Insurance (formerly AIG)	US, International	Non-life	50,000+
8	Ecclesiastical	UK	Non-life and life	201-1,000
9	F&C Asset Management	UK	Asset manager	201-1,000
10	Fireman's Fund	US	Non-life	1,001-10,000
11	Friends Provident	UK	Life	1,001-10,000
12	Legal & General	UK, International	Non-life and (mainly) life	10,001-50,000
13	Lloyd's of London**	UK	Marketplace for all lines	1,000-10,000
14	Lloyds Banking Group	UK	Non-life and life	50,000+
15	NFU Mutual	UK	Non-life and life	1,001-10,000
16	Prudential	UK, International	Non-life and (mainly) life	1,001-10,000
17	RBS Insurance	UK, International	Non-life and life	50,000+
18	Risk Management Services (RMS)	UK, International	Risk modelling firm	1,001-10,000
19	RSA	UK, International	Non-life	10,001-50,000
20	Santam	South Africa	Non-life	1,001-10,000
21	Standard Life Plc	UK, International	Life (and health)	201-1,000
22	Swiss Re (UK)	UK	Reinsurer (all lines)	201-1,000
23	The Co-operative Insurance	UK	Non-life and life	1,001-10,000
24	Tokio Marine & Nichido Fire Insurance	Japan	Non-life	10,001-50,000
25	Tryg	Denmark	Non-life	1,001-10,000
26	Zurich (UK)	UK	Non-life and life	1,001-10,000

* Employee base is used purely as a high-level proxy for size to contextualise analysis.
Categorisation used the ranges: 1-50; 51-200; 201-1,000; 1,001-10,000; 10,001-50,000; 50,000+

** 15 Managing agents consolidated into the Lloyds of London report (2010):
Ace, Amlin, Argo International, Ark, Beazley, Catlin, Chaucer, Equity Group, Hardy's Underwriting, Hiscox, Navigators, QBE European Operations, RenaissanceRe, RJ Kiln

Appendix D: Ranking Tables Disclosure

Member	1. Lead in risk analysis					2. Inform public policy making					3. Support climate awareness in customers			
	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4
Member H	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Member B	D	E	E	E	D	D	D	D	D	E	D	E	E	D
Member U	D	D	E	D	D	D	D	D	E	E	D	D	E	D
Member Z	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Member E	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Member G	D	E	D	E	D	E	D	D	E	E	D	E	E	D
Member A	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Member I	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Member J	D	D	D	D	D	D	D	D	D	D	D	D	E	D
Member F	D	D	D	P	D	D	D	D	D	E	D	D	E	D
Member K	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Member M	D	D	D	D	D	D	D	D	P	D	D	D	D	D
Member O	P	E	E	E	E	D	D	D	E	E	P	D	E	P
Member P	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Member L	D	D	D	D	D	D	D	D	D	N	D	D	D	E
Member Q	D	P	D	D	D	D	D	D	N	N	D	D	D	E
Member S	D	D	D	D	D	D	D	D	D	D	D	D	D	E
Member X	D	D	D	D	D	D	D	D	D	D	D	D	N	D
Member T	D	D	D	D	D	D	D	D	D	P	D	D	D	D
Member C	D	D	D	P	D	D	D	D	P	P	D	D	P	E
Member W	D	D	P	P	D	D	P	D	D	P	D	E	E	N
Member R	D	D	D	D	D	D	D	D	D	N	D	D	D	N
Member V	D	D	D	D	D	D	D	D	D	D	D	D	D	N
Member N	D	D	D	N	D	D	D	D	D	N	D	D	N	D
Member Y	D	D	D	N	P	D	D	D	N	D	D	D	D	N
Member D	P	D	P	N	N	D	D	D	D	N	D	D	N	N

Note: the letter coding for each member (e.g. Member X) above has been allocated on an entirely random basis to preserve the anonymity of the individual ClimateWise members, and should not be assumed otherwise

Appendix E: Ranking Tables Compliance

Member	1. Lead in risk analysis					2. Inform public policy making					3. Support climate awareness in customers			
	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4
Member H	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Member B	C	E	E	E	C	C	C	C	C	E	C	E	E	C
Member U	C	C	E	E	C	C	C	C	E	E	C	C	E	C
Member Z	C	C	C	P	C	C	C	C	C	C	C	C	C	C
Member F	C	C	C	C	C	C	C	C	C	E	C	C	E	C
Member A	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Member J	C	C	C	C	C	C	C	C	C	C	C	C	E	C
Member E	C	C	C	C	C	C	C	C	C	P	C	C	C	C
Member K	C	P	C	C	C	C	C	C	C	P	C	C	C	C
Member L	C	C	C	C	C	C	C	C	C	P	C	C	C	E
Member I	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Member X	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Member P	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Member O	E	E	E	E	P	C	C	C	E	E	P	P	E	C
Member G	P	E	P	E	C	C	C	C	E	E	P	E	E	N
Member R	C	C	C	C	C	C	C	C	C	C	C	C	C	C
Member T	C	C	C	C	C	C	C	C	C	P	C	C	C	C
Member S	C	C	C	E	C	C	C	P	C	C	C	C	P	E
Member C	C	C	C	P	C	C	C	C	C	P	C	C	P	E
Member Q	C	P	C	C	C	C	C	P	P	N	C	C	P	E
Member V	C	C	C	C	C	C	C	C	C	P	C	C	C	E
Member M	C	C	C	C	C	N	C	C	N	C	P	C	P	P
Member N	C	C	P	E	C	C	C	C	C	P	P	P	P	C
Member W	P	P	P	N	C	C	P	C	P	P	C	E	E	P
Member Y	C	C	C	N	C	C	C	C	N	C	C	P	C	N
Member D	N	P	N	N	N	C	C	C	P	P	C	C	N	N

Note: the letter coding for each member (e.g. Member X) above has been allocated on an entirely random basis to preserve the anonymity of the individual ClimateWise members, and should not be assumed otherwise

4. Incorporate climate change into investment strategies					5. Reduce environmental impact of business				6. Report and be accountable		Total	Ranking
4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	6.1	6.2		
C	C	C	C	C	C	C	C	C	C	C	50	1
C	C	C	C	C	C	C	C	P	C	C	49	Joint 2
E	E	E	E	E	C	C	C	P	C	C	49	Joint 2
C	C	C	C	C	C	C	C	C	C	C	49	Joint 2
C	E	C	C	P	C	C	C	C	C	C	49	Joint 2
C	C	P	C	P	C	C	C	C	C	C	48	Joint 6
E	E	E	C	E	P	C	C	C	C	P	48	Joint 6
E	E	E	E	E	C	C	P	C	C	C	48	Joint 6
C	C	C	C	C	C	C	C	C	C	C	48	Joint 6
C	C	C	C	C	C	C	P	C	C	C	48	Joint 6
E	E	E	E	P	C	C	P	P	C	C	47	Joint 11
C	C	N	C	p	C	C	C	C	C	C	47	Joint 11
C	P	N	C	C	C	C	C	C	C	C	47	Joint 11
C	C	C	C	P	C	C	C	C	C	C	46	14
C	C	C	P	C	C	C	C	C	C	C	44	Joint 15
C	C	N	N	N	C	C	C	C	C	C	44	Joint 15
C	C	N	N	N	C	C	C	C	C	C	43	Joint 17
P	P	P	P	P	C	C	C	C	C	C	43	Joint 17
C	C	N	N	C	C	C	P	C	C	C	42	19
C	C	C	P	P	C	C	P	C	C	C	41	20
P	N	N	N	N	C	C	C	C	C	C	40	21
C	C	C	P	P	C	C	N	C	C	P	38	22
P	P	P	N	N	C	P	C	C	C	C	37	23
C	C	C	N	N	C	C	C	C	P	P	35	Joint 24
P	P	N	N	N	C	C	C	C	C	C	35	Joint 24
C	C	N	N	N	C	C	C	C	P	N	26	26

Appendix F: Details of disclosure by Sub-Principle

		Full disclosure	Partial disclosure	No disclosure	Explanation
1	**Lead in risk analysis**				
1.1	Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests.	24	2	0	0
1.2	Support more accurate national and regional forecasting of future weather and catastrophe patterns affected by changes in the earth's climate.	22	1	3	0
1.3	Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.	21	2	0	3
1.4	Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.	17	3	3	3
1.5	Share our research with scientists, society, business, governments and NGOs through an appropriate forum.	23	1	1	1
2	**Inform public policy making**				
2.1	Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.	25	0	0	1
2.2	Promote and actively engage in public debate on climate change and the need for action.	25	1	0	0
2.3	Support work to set and achieve national and global emissions reduction targets.	26	0	0	0
2.4	Support Government action, including regulation, that will enhance the resilience and reduce the environmental impact of infrastructure and communities.	19	2	2	3
2.5	Work effectively with emergency services and others in the event of a major climate-related disaster.	13	3	5	5
3	**Support climate awareness amongst our customers**				
3.1	Inform our customers of climate risk and provide support and tools so that they can assess their own levels of risk.	25	1	0	0
3.2	Encourage our customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services.	23	0	0	3
3.3	Increase the proportion of repairs that are carried out in a sustainable way through dialogue with suppliers and developers and manage waste material appropriately.	15	1	3	7
3.4	Consider how we can use our expertise to assist the developing world to understand and respond to climate change.	16	1	5	4

		Full disclosure	Partial disclosure	No disclosure	Explanation
4	**Incorporate climate change into our investment strategies**				
4.1	Consider the implications of climate change for company performance and shareholder value, and incorporate this information into our investment decision-making process.	21	1	0	4
4.2	Encourage appropriate disclosure on climate change from the companies in which we invest.	18	1	2	5
4.3	Encourage improvements in the energy-efficiency and climate resilience of our investment property portfolio.	12	1	9	4
4.4	Communicate our investment beliefs and strategy on climate change to our customers and shareholders.	12	4	7	3
4.5	Share our assessment of the impacts of climate change with our pension fund trustees.	9	8	6	3
5	**Reduce the environmental impact of our business**				
5.1	Encourage our suppliers to improve the sustainability of their products and services.	24	2	0	0
5.2	Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.	26	0	0	0
5.3	Disclose our direct emissions of greenhouse gases using a globally recognised standard.	25	0	1	0
5.4	Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.	25	1	0	0
6	**Report and be accountable**				
6.1	Recognise at Company Board level that climate risk has significant social and economic impacts and incorporate it into our business strategy and planning.	23	2	1	0
6.2	Publish a statement as part of our annual reporting detailing the actions that have been taken on these Principles.	23	3	0	0

Figures represent a member under each column

Appendix G: Details of compliance by Sub-Principle

		Full disclosure	Partial disclosure	No disclosure	Explanation
1	**Lead in risk analysis**				
1.1	Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests.	22	2	1	1
1.2	Support more accurate national and regional forecasting of future weather and catastrophe patterns affected by changes in the earth's climate.	19	4	0	3
1.3	Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.	19	3	1	3
1.4	Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.	15	2	3	6
1.5	Share our research with scientists, society, business, governments and NGOs through an appropriate forum.	24	1	1	0
2	**Inform public policy making**				
2.1	Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.	25	0	1	0
2.2	Promote and actively engage in public debate on climate change and the need for action.	25	1	0	0
2.3	Support work to set and achieve national and global emissions reduction targets.	24	2	0	0
2.4	Support Government action, including regulation, that will enhance the resilience and reduce the environmental impact of infrastructure and communities.	18	3	2	3
2.5	Work effectively with emergency services and others in the event of a major climate-related disaster.	10	9	2	5
3	**Support climate awareness amongst our customers**				
3.1	Inform our customers of climate risk and provide support and tools so that they can assess their own levels of risk.	22	4	0	0
3.2	Encourage our customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services.	20	3	0	3
3.3	Increase the proportion of repairs that are carried out in a sustainable way through dialogue with suppliers and developers and manage waste material appropriately.	13	5	1	7
3.4	Consider how we can use our expertise to assist the developing world to understand and respond to climate change.	15	2	4	5

		Full disclosure	Partial disclosure	No disclosure	Explanation
4	**Incorporate climate change into our investment strategies**				
4.1	Consider the implications of climate change for company performance and shareholder value, and incorporate this information into our investment decision-making process.	18	4	0	4
4.2	Encourage appropriate disclosure on climate change from the companies in which we invest.	16	4	1	5
4.3	Encourage improvements in the energy-efficiency and climate resilience of our investment property portfolio.	11	3	8	4
4.4	Communicate our investment beliefs and strategy on climate change to our customers and shareholders.	11	4	8	3
4.5	Share our assessment of the impacts of climate change with our pension fund trustees.	8	8	7	3
5	**Reduce the environmental impact of our business**				
5.1	Encourage our suppliers to improve the sustainability of their products and services.	24	2	0	0
5.2	Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.	25	1	0	0
5.3	Disclose our direct emissions of greenhouse gases using a globally recognised standard.	19	6	1	0
5.4	Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.	23	3	0	0
6	**Report and be accountable**				
6.1	Recognise at Company Board level that climate risk has significant social and economic impacts and incorporate it into our business strategy and planning.	24	2	0	0
6.2	Publish a statement as part of our annual reporting detailing the actions that have been taken on these Principles.	22	3	1	0

Figures represent a member under each column

Appendix H: Details of compliance by Sub-Principle

MEMBER NAME

PwC Interim Review of ClimateWise Principles Reports 2010

ClimateWise

Summary Review

This one page summary provides PwC's interim review of [MEMBER]'s performance against the ClimateWise Principles. The performance noted has been prepared on the basis of the 2010 ClimateWise submission and is scored in both Disclosure and Compliance, while also noting the percentage change relative to 2009. The scoring methodology used in previous years has been retained. We have indicated areas where we perceived gaps in the submission or have further questions. In the course of a scheduled interview, we would like to discuss [MEMBER]'s performance generally and specifically the areas indicated. On the basis of this interview, we will review any further information or material discussed and prepare a final summary score and feedback report. The feedback will provide analysis of reporting relative to all members and relative to previous reporting (where possible) as well as analysing the strengths and areas for development in individual and peer group reporting, by principle.

Principle	Sub-Principle		2010 Disclosure	2010 Compliance	Clarification Required
1 Lead in risk analysis	1.1	Support and undertake research on climate change to inform our business strategies and help to protect our customers' and other stakeholders' interests.			
	1.2	Support more accurate national and regional forecasting of future weather and catastrophe patterns affected by changes in the earth's climate.	↑		
	1.3	Use research and improve data quality to inform levels of pricing, capital and reserves to match changing risks.			
	1.4	Evaluate the risks associated with new technologies for tackling climate change so that new insurance products can be considered in parallel with technological developments.	↓	↓	✓
	1.5	Share our research with scientists, society, business, governments and NGOs through an appropriate forum.			
2 Inform public policy making	2.1	Work with policy makers nationally and internationally to help them develop and maintain an economy that is resilient to climate risk.			
	2.2	Promote and actively engage in public debate on climate change and the need for action.	↑	↑	
	2.3	Support work to set and achieve national and global emissions reduction targets.	↑		
	2.4	Support Government action, including regulation, that will enhance the resilience and reduce the environmental impact of infrastructure and communities.			
	2.5	Work effectively with emergency services and others in the event of a major climate-related disaster.		↓	✓
3 Support climate awareness amongst our customers	3.1	Inform our customers of climate risk and provide support and tools so that they can assess their own levels of risk.			
	3.2	Encourage our customers to adapt to climate change and reduce their greenhouse gas emissions through insurance products and services.	↓		
	3.3	Increase the proportion of repairs that are carried out in a sustainable way through dialogue with suppliers and developers and manage waste material appropriately.			
	3.4	Consider how we can use our expertise to assist the developing world to understand and respond to climate change.		↓	✓
4 Incorporate climate change into our investment strategies	4.1	Consider the implications of climate change for company performance and shareholder value, and incorporate this information into our investment decision-making process.	↑		✓
	4.2	Encourage appropriate disclosure on climate change from the companies in which we invest.			✓
	4.3	Encourage improvements in the energy-efficiency and climate resilience of our investment property portfolio.	↑	↑	✓
	4.4	Communicate our investment beliefs and strategy on climate change to our customers and shareholders.		↑	✓
	4.5	Share our assessment of the impacts of climate change with our pension fund trustees.		↑	✓
5 Reduce the environmental impact of our business	5.1	Encourage our suppliers to improve the sustainability of their products and services.			
	5.2	Measure and seek to reduce the environmental impact of the internal operations and physical assets under our control.			
	5.3	Disclose our direct emissions of greenhouse gases using a globally recognised standard.	↑	↓	✓
	5.4	Engage our employees on our commitment to address climate change, helping them to play their role in meeting this commitment in the workplace and encouraging them to make climate-informed choices outside work.			
6 Report and be accountable	6.1	Recognise at Company Board level that climate risk has significant social and economic impacts and incorporate it into our business strategy and planning.			
	6.2	Publish a statement as part of our annual reporting detailing the actions that have been taken on these principles.		↓	✓

Legend

The shaded boxes below represent Full (F), Partial (P) , or No (N) Disclosure/ Compliance. An E is given where explanation is provided as to why a particular element is not applicable. Arrows denote a change relative to the institution's performance in 2009

F P ↑

E N ↓

Tentative Disclosure Score

The left hand box represents the tentative Disclosure score taken out of a total of 50 points from the 25 principle sub-elements. The right hand box provides an indication of the relative percent change from 2009.

40	+11%

Tentative Compliance Score

The left hand box represents the tentative Compliance score taken out of a total of 50 points from the 25 principle sub-elements. The right hand box provides an indication of the relative percent change from 2009.

40	-2%

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