Striking a balance between professional judgement and data-driven conclusions in LVIA

The Third Edition of the Guidelines for Landscape and Visual Assessment (GLVIA3) places a strong emphasis on the importance of professional judgement in Landscape and Visual Assessment. However, it can sometimes be difficult for clients to rely on the opinion of their consultant on this subject due to the perceptual nature of landscape and visual effects. It is often the case that decision makers, stakeholders and members of the public have differing ideas on what may or may not constitute a landscape or visual effect which oppose those of the landscape professional. This can place pressure on the landscape professional where a question on their judgement may be made if a planning or PLI decision refutes their professional opinion. As such, there is sometimes a desire to ‘automate’ the process through use of standardised ‘toolkits’, matrices or GIS analysis for example. This can provide stronger justification for results which may be conceived as harder to refute.

Arriving at data-driven conclusions
Data-driven conclusions could potentially be reached in various ways and an element of data collection is necessary to support any assessment. As with the majority of EIA assessments, conclusions on significance will be reached through consideration and categorisation of Sensitivity and Magnitude of Change. In a data-driven scenario, this may include methods of reaching judgement through measurements, and use of computer programmes such as GIS.

Measurement judgement may comprise conclusions based on hard fact dimensions such as distance, occupied area of view or coverage by Zone of Theoretical Visibility diagrams (ZTVs). This method may dictate for example, that where a viewpoint is within a certain distance, and a development would occupy a certain proportion of the view, a particular level of effect should result.

GIS provides an effective way of collating data and there are several advantages to the use of this technique in LVIA. One of the most useful aspects is the ability to share data with the knowledge that it is being presented accurately by all parties. However, there can also be more in-depth use of GIS, through data analysis. One example of this is the ZTV which uses a terrain model to indicate where one or more features may theoretically be visible. Other information such as vegetation type, degree of slope, distances from certain features etc. can be overlaid and further interpolated to form diagrams indicating where a greater or lesser degree of certain aspects might be present. An example of this technique is the Map of Relative Wildness produced by Scottish Natural Heritage (SNH).

Potential problems of data-driven conclusions
Whilst use of data in this way may seem to provide a robust method for assessment, there are inherent problems with such techniques if replied on too heavily as a method for identifying potential effect. Data interpretation and analysis will always be restricted by the limitations of the input data.
For example, a GIS dataset may show presence of woodland and can even indicate other variables such as species or height. However, it cannot illustrate how the woodland contributes to landscape character. Similarly, using measurements can indicate the extent to which a development would be visible within a view, but the effect will depend on how this influences the composition and valued aspects of the view. This cannot be expressed through data measurements alone.

Landscape character is essentially experiential. This is something data measurement and analysis techniques struggle to portray. Whilst areas of particular character can be delineated, it is difficult to recognise, through data alone, the way in which characteristics vary and combine across the landscape and transition into other character areas. Without this baseline understanding, judgements regarding level of effect cannot be dependable and an element of human interpretation and decision making will always be required. This therefore reintroduces the importance of professional judgement in LVIA.

Human interpretation and judgement may inevitably lead to different opinions and this is where the role of the independent landscape professional is key. Whilst views of community members or other stakeholders (who sometimes believe they have better knowledge of their local landscape) might differ from that of the landscape professional, these can be influenced by other associations or subjective experiences. The considered opinion of a landscape professional with experience and understanding of a range of landscapes and development types, backed by appropriate data collection and interpretation, therefore provides the best way to identify effect in an objective manner. A chartered landscape professional is committed to providing an independent, impartial conclusion through the Landscape Institute’s Code of Conduct.

**Conclusions**

GIS and other data-driven techniques provide useful tools but cannot and never should be used as replacement for professional judgement.

Whilst the fundamentally perceptual aspect of landscape and visual effects can lead to conflicting arguments, this is also the very aspect which necessitates the informed and independent opinion of a professional. The effects of development on the valued aspects and compositional components of a view or landscape cannot be measured. A chartered landscape professional has the recognised experience and judgement to consider the overarching values of a landscape or view from all angles, and the potential changes resulting from development, and is therefore best placed to reach an informed decision on the degree of effect.

_Ash Design + Assessment Team, June 2018._

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