Disaster Impact Information Services for the Australian Government

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SUMMARY

The scale and impact of recent disaster events across Australia has continued to highlight the need for trusted, timely disaster insights at the nationally scale to support Commonwealth response and recovery decisions. To respond to this need, Australia's National Emergency Management Agency (NEMA) partnered with the Australian Bureau of Statistics (ABS) and Geoscience Australia (GA) to develop a new spatial capability providing a consistent, national dashboard of natural hazards and their potential impact on assets across the social, economic, natural, and built domains. The objective of the new Disaster Impact Analysis Service (DIAS) is to advance Australia's disaster resilience by providing an integrated geospatial capability designed to support NEMA's decision needs. The DIAS integrates and automates data from trusted custodians to provide insights on what assets are exposed to hazard events such as near real time floods and bushfires. By leveraging automated workflows, DIAS enhances situational awareness by delivering consistent hazard exposure insights at multiple geographic levels across Australia. Previously, bringing this information together at the national level was challenging due to varying data sources and manual integration processes. The journey to develop the DIAS has involved extensive collaboration efforts. Together, NEMA, ABS and GA embarked on a new and transformative way of working together to better understand each agency's business needs, capabilities and shared opportunities. Through extensive shared collaboration time, each agency has contributed unique expertise and skills to the development and ongoing refinement of the DIAS. The collaborative relationships forged through this process stand as one of the most impactful outcomes of this work, extending far beyond the development of the automated spatial dashboard itself. Each agency shares a greater ambition that the DIAS can continue being improved to enhance recovery, response and resilience outcomes over time. Along with the spatial capability, new data integration pipelines, automation workflows, governance arrangements and collaborative approaches have been developed so that the DIAS is scalable and designed for continuous improvement. It provides an ongoing data pipeline

for future advancements, such as the integration of emerging disaster impact and risk models. This presentation will explore the deployment of DIAS and its contributions to Australia's disaster resilience, underscoring the importance of scalable geospatial analytics and multi-agency collaboration as a cornerstone of modern emergency management.