

# Unlocking the Puzzle: Managing Conflicting Priorities in Nuclear Security, Safety, and Sustainability

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## Abstract

Nuclear applications present a complex interplay of conflicting priorities between security, safety, and sustainability. The pursuit of nuclear security, ensuring the protection of nuclear materials and facilities from unauthorized access or malicious intent, frequently poses difficulties that may conflict with the objectives of safety and sustainability. This paper delves into the intricate puzzle of resolving these conflicting priorities to establish a harmonious and balanced approach. The paper begins by exploring the inherent tensions between nuclear security, safety, and sustainability, and then investigates innovative solutions and strategies aimed at reconciling the conflicting factors. Moreover, the paper addresses the significance of regulatory frameworks that integrate safety, security, and sustainability requirements, ensuring that compliance does not undermine any of these priorities.

By unraveling the complexities and intricacies of the puzzle, this paper aims to provide an information for policymakers, regulators, and stakeholders in the nuclear sector, so that they can navigate the delicate balance between security, safety, and sustainability. It highlights the importance of a comprehensive, integrated approach that recognizes the connections and synergies among these priorities, paving the way for a secure and sustainable future in the nuclear industry.

**Keywords:** nuclear security, safety, sustainability, conflicting priorities, regulatory frameworks