

Chapter 7

Covers the Route to Humanitarian Support Centers with Unmanned Aerial Systems (UAVs)



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7.1 Introduction

In the recent decades, natural and man-made disasters have increased, impacting the world population on a global scale [1–3]. Pollution is changing the global atmosphere and contributing to climate change [4–7]. The earth is composed of water that occupies three-quarters of the earth’s surface [8]; with global warming caused by climate change, some zones suffer from severe droughts, while others experience intensified flooding [9–13]. Research suggests that climate change could alter the frequency of tropical storms [14], and their severity may also increase [4, 15, 16]. Hirabayashi et al. [17] talks about a scenario where floods triggered by rainfall will increase by 42%, and the world’s land grid will decrease by 18%.

Natural disasters cause extensive damage and disrupt communities; however, logistics and technology can be crucial in aiding recovery efforts. Unmanned aerial systems (UAVs) have emerged as a valuable technological tool in post-disaster response. In logistics, UAVs have been deployed in humanitarian supply chains

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