

Addressing Information-related Issues in Sri Lanka's Smallholder Plantation Sector: A Web-based Approach (AGISSP)

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The advent of the digital revolution has sparked a remarkable transformation in information utilisation. With the widespread accessibility of the internet and mobile technologies, it allows people to access vast knowledge and connect effortlessly, leading to an era of efficient information utilisation. However, many developing countries, including Sri Lanka, have not fully harnessed these opportunities. Despite being vital for optimal agricultural production, timely and relevant information remains overlooked. The plantation sector, crucial to Sri Lanka's economy, is currently declining, necessitating innovative solutions for its revival. Therefore, this study aimed to identify information-related issues within the smallholder plantation sector in the Western Province, Sri Lanka. Additionally, it sought to design and develop a web-based system for plantation crops, addressing the identified issues effectively. A survey involving 134 smallholder plantation growers was conducted, gathering data through structured questionnaires via online and face-to-face methods. The analysis of the data led to the creation of a web-based agricultural information system, with its frontend designed using HTML and CSS, and the backend implemented with MySQL and PHP. Survey results emphasised the importance of information like suitable varieties, fertilisers, pests and diseases in their cultivation. A significant proportion of respondents agreed that an internet-based solution could efficiently and effectively provide agriculture-related information to farmers. The development of AGISSP (Agricultural Information Systems for Smallholder Planters), a web-based agricultural information system, aimed to address their information needs. AGISSP is a user-friendly platform that offers comprehensive information related to plantation crops, their best management practises, fertiliser recommendations, and pest and disease management. Over time, agricultural systems have proven successful, addressing challenges like climate change, food security, and sustainable farming. Their effectiveness highlights the need for ongoing research and development to further improve the agricultural sector.

Keywords: Agricultural information, Agricultural system, Smallholder plantation sector, Web-based solution