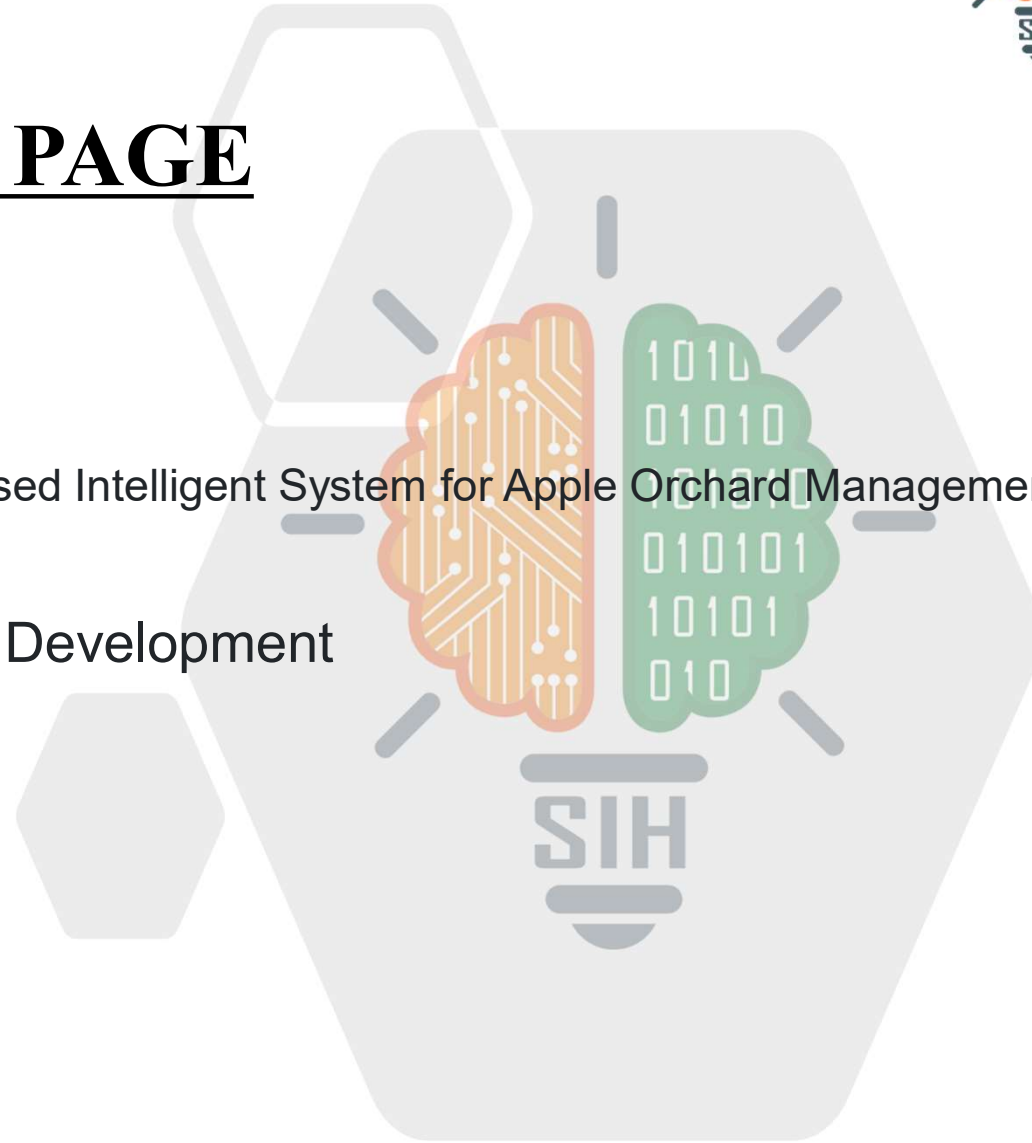


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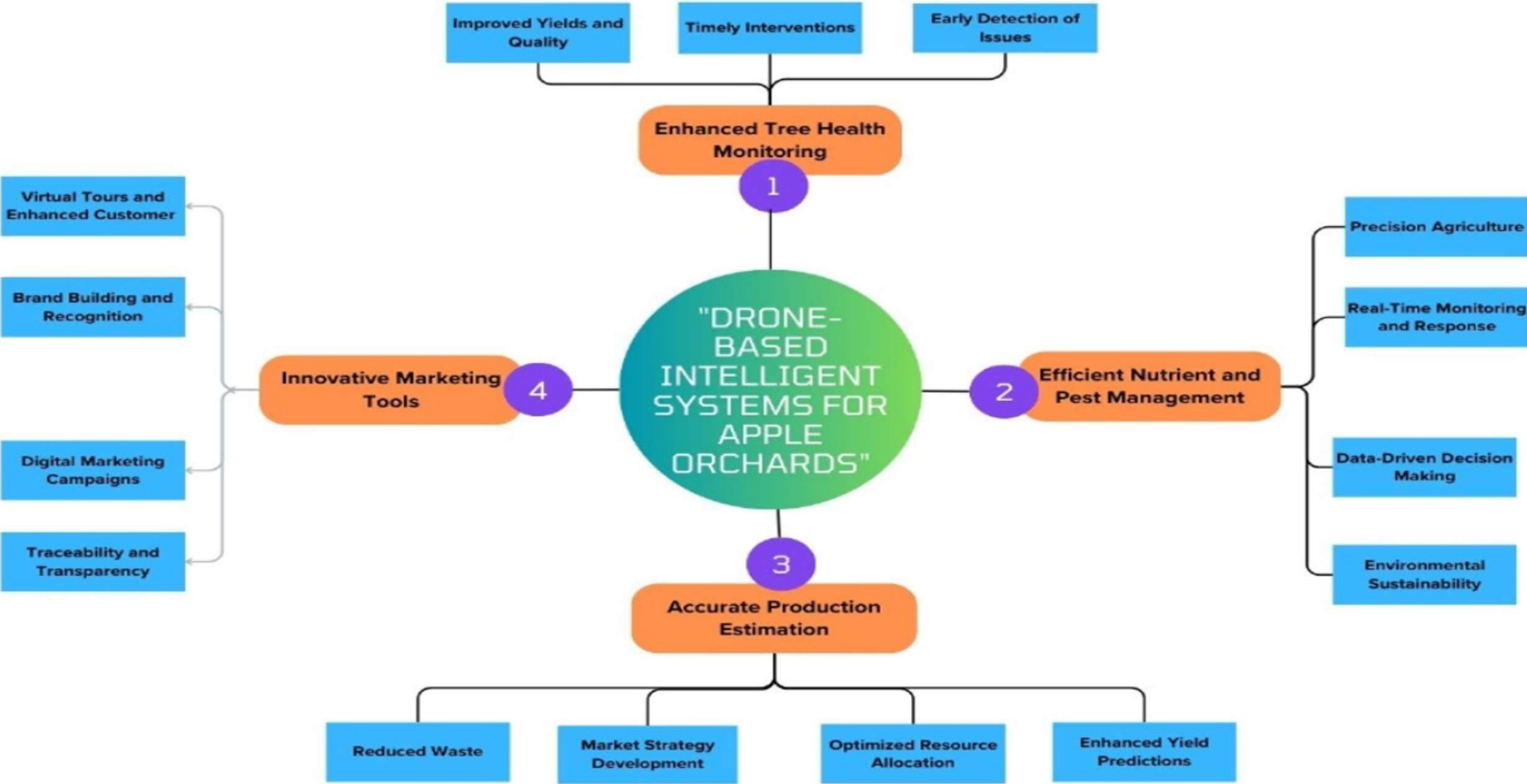


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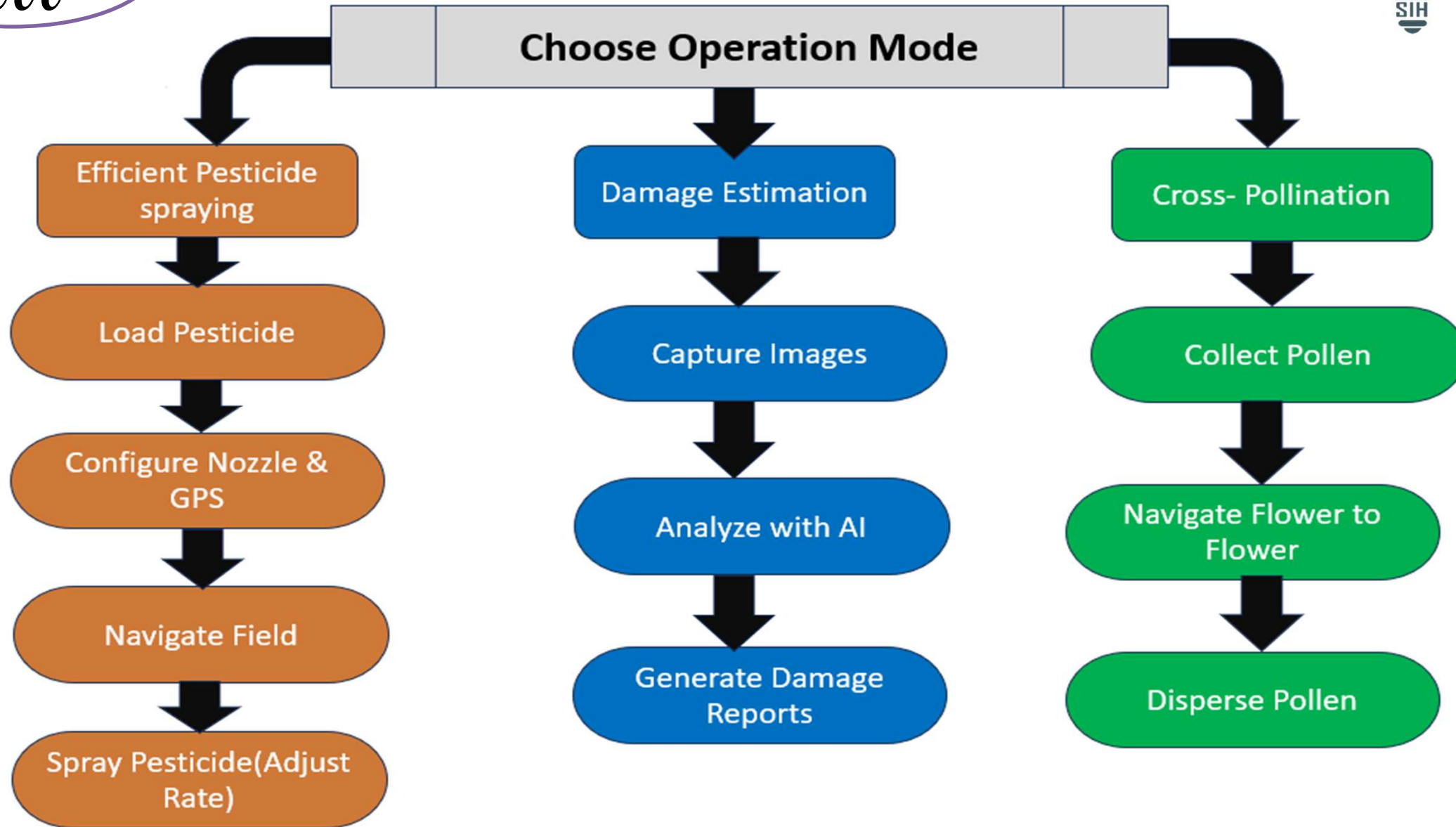
- **Problem Statement ID** – 1611
- **Problem Statement Title-** Drone-Based Intelligent System for Apple Orchard Management Himachal Pradesh
- **Theme-** Agriculture, FoodTech & Rural Development
- **PS Category-** Hardware
- **Team ID-**
- **Team Name-** Nimbus2000



IDEA TITLE



TECHNICAL APPROACH



Feasibility

- Well developed drone and AI technology.
- Scaled to existing orchards
- Easy access to hardware
- Industrial marketing is easier due to associations

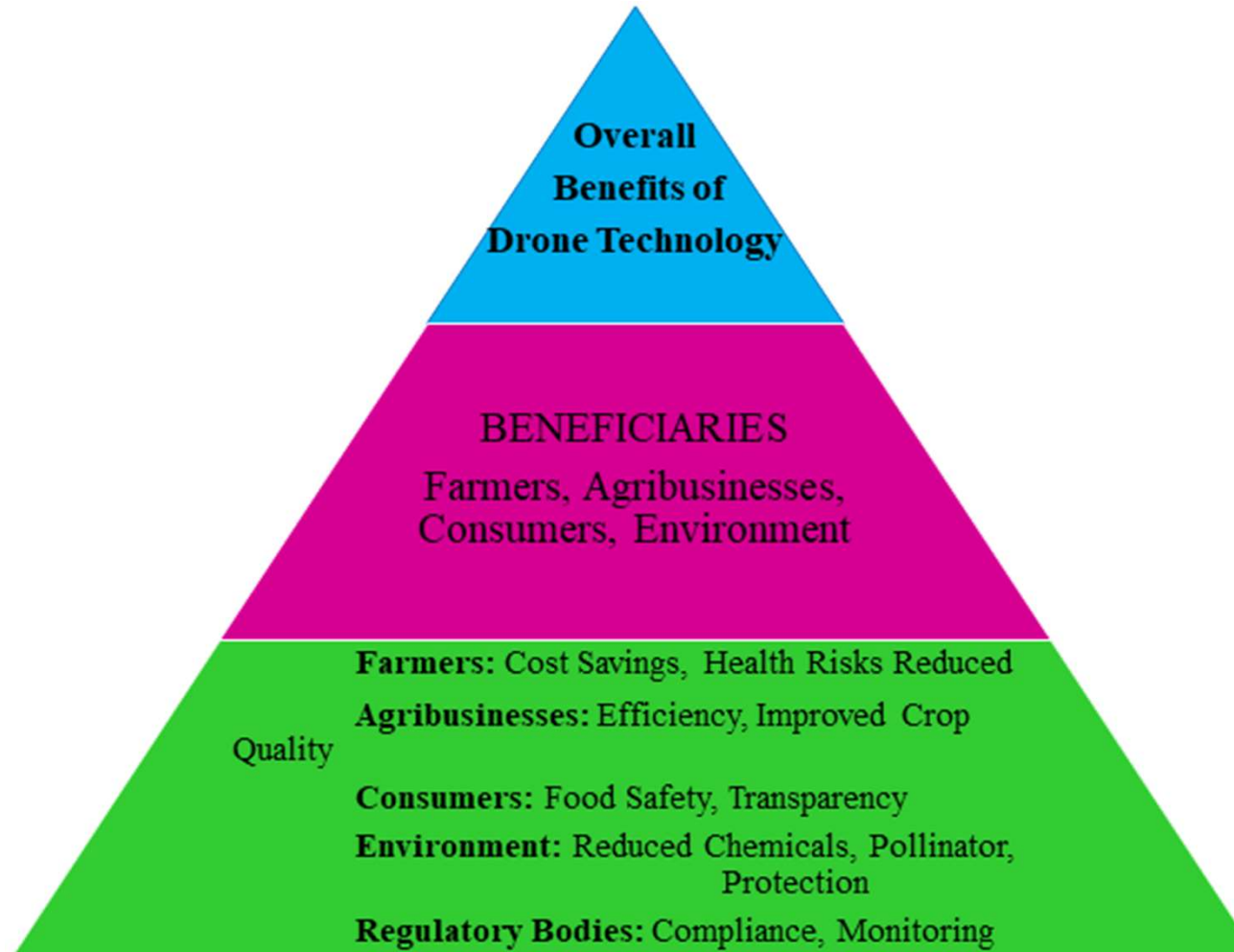
Risk:

- Patented technology and drone licensing is hard to get.
- Affordability of drones
- Digital illiteracy of farmers
- Potential job loss of daily wage laborers

Overcoming challenges:

- Minimize use of patented technology
- Government subsidy
- Awareness camps for orchard workers
- Upskilling daily wage workers

BENEFITS



- S. Jain, "Advancements in Drone Technology for Fruit Crop Management: A Comprehensive Review," International Journal of Environment and Climate Change, vol. 13, no. 11, pp. 4367-4378, Dec. 2023, doi: 10.9734/IJECC/2023/v13i113617
- R. KhushiKhandelwal, M. Gupta, S. Mishra, S. K. Ekka, R. Kujur, and J. Lakra, "Development Prospects of Apple Farming in India," Asian Journal of Advances in Agricultural Research, vol. 24, no. 1, pp. 11-18, 2024. DOI: 10.9734/AJAAR/2024/v24i1483.
- B. Basannagari and C. P. Kala, "Climate Change and Apple Farming in Indian Himalayas: A Study of Local Perceptions and Responses," *PLOS ONE, vol. 8, no. 10, pp. e77976, Oct. 2013, doi: 10.1371/journal.pone.0077976