MOUNTAIN EVO INSIGHTS

Hydrological data **visualisation** in remote mountain communities

Visualisations can be powerful tools to engage remote communities with hydrological information, potentially useful for day-to-day water management.

Visual products or tools should be driven by user needs and characteristics and ideally co-developed in collaboration with community members (end users). This poster summarises **three options** we co-developed during this project.

Paper-based infographic poster

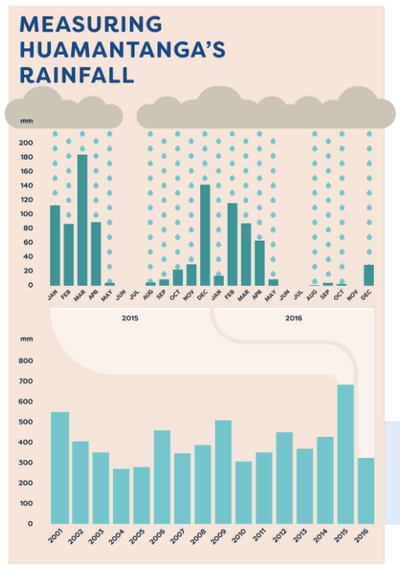

***Figure 1**. An example infographic poster.*

Pros

- Low cost/tech
- Easy to install
- Publically accessible
- Large display

Cons

- Limited information complexity
- Limited user interaction
- Out of date quickly
- Requires specialist design expertise

***Figure 2**.*
Above: A co-designed matrix board from the Peruvian case.
Right: A concept illustration for an on-site board.

LED matrix board

Pros

- Publically accessible
- Real time data.
- Weather resistant
- Does not require specialist design expertise

Cons

- Limited information complexity
- Limited user interaction / immersion
- Development, testing and maintenance cost
- Energy consumption, especially when installed outdoors

Monitoring screen in rural information centres

Pros

- Real time / complex / detailed information
- User interaction / immersion

Cons

- High development and maintenance cost and energy consumption
- Requires specialist design expertise

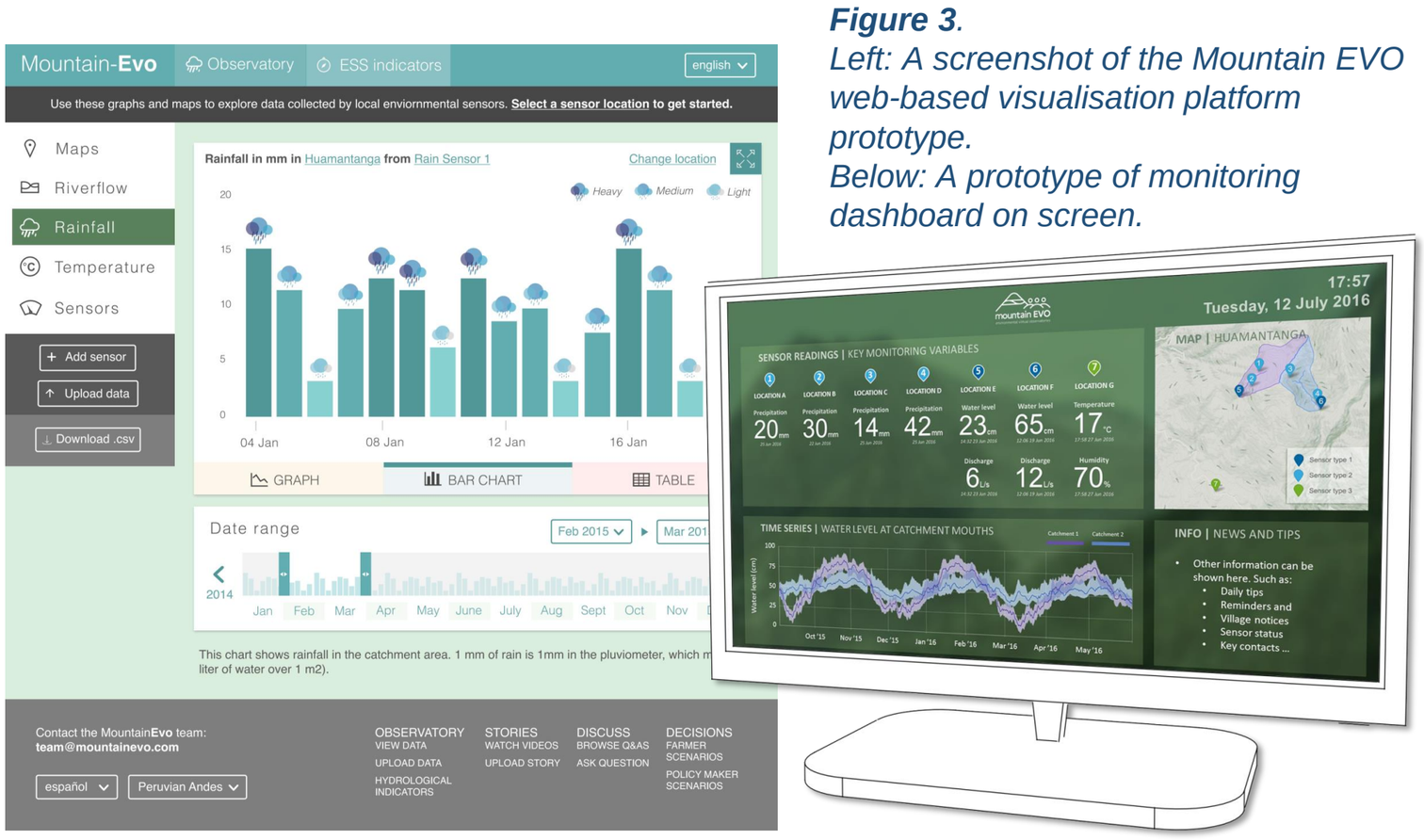

***Figure 3**.*
Left: A screenshot of the Mountain EVO web-based visualisation platform prototype.
Below: A prototype of monitoring dashboard on screen.

References: Zulkafli, Z., Perez, K., Vitolo, C., Buytaert, W., Karpouzoglou, T., et al. (2017) User-driven design of decision support systems for polycentric environmental resources management. Environmental Modelling & Software, 88, 58–73. http://doi.org/10.1016/j.envsoft.2016.10.012 | Grainger, S., Mao, F., & Buytaert, W. (2016) Environmental data visualisation for non-scientific contexts: Literature review and design framework. Environ. Model. Softw. 85, 299–318. http://doi.org/10.1016/j.envsoft.2016.09.004 | Buytaert, W. et al., (2014) Citizen science in hydrology and water resources: opportunities for knowledge generation, ecosystem service management, and sustainable development. Front. Earth Sci. 2, 1–21. https://doi.org/10.3389/feart.2014.00026

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