

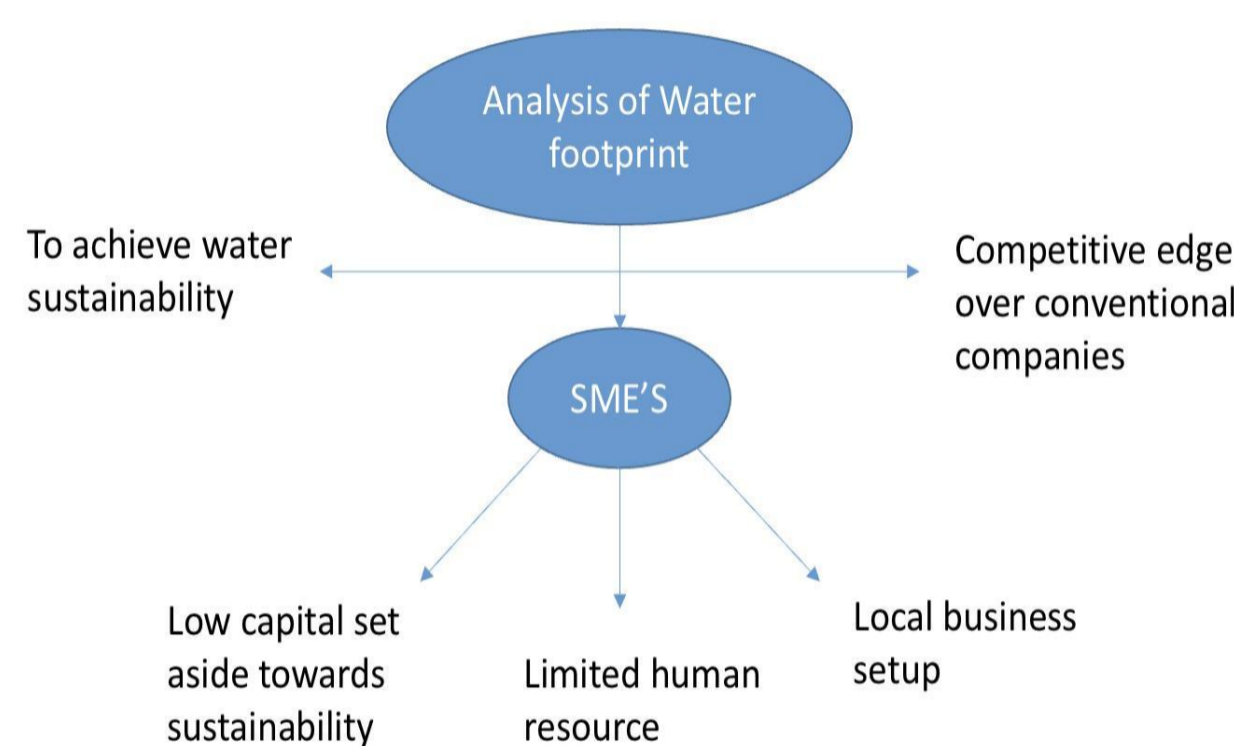
# SME's Water footprint

Manoj Samuel Baptist

## Analysis of water footprint in SMEs and evaluation of its socio-economic impact

### Background:

- Growing population, climatic changes and global economic developments have resulted in freshwater scarcity issues, where the demand is more than sustainable supply.
- SMEs that form more than 99% of the companies in Germany are less perused for their water usage. Traditional measuring methods use only direct consumption, whereas indirect consumption in the supply chain is overlooked.
- To ensure a sustainable future, SMEs need to monitor their water footprint and take actions towards responsible water use.



### Results:

- WF values showed that considered SMEs might be water sustainable but not yet water-neutral
- SMEs can enhance water sustainability by strategizing actions. Thereby, create positive impact on business, environment and people.
- Risks due to water can be reduced by taking company specific measures.
- Monitoring the WF in SMEs and taking necessary actions was both "ambitious" and "authentic" in several ways.

### Methods:

- The study analyzed the water consumption pattern by conducting expert interviews with considered SME heads.
- The WF data were assessed for their sustainability stance using the Chain Summation Approach.
- Different aspects of sustainability were evaluated. Water risk to SMEs was examined using the FMEA method. Business tools such as SWOT, PEST and blue ocean strategy were used.

Results from WFA of SMEs considered for this study. (Blue, green and grey water footprints were analyzed)	Direct WF business M <sup>3</sup> /month	Indirect WF business M <sup>3</sup> /month	Total WF business M <sup>3</sup> /month (~)
<b>Bildbrauerei</b> (Photography/Videography)	0	96	96
<b>Sindbad Food GmbH</b> (Food catering)	1073 <sup>+</sup>	1371	2444 <sup>+</sup>
<b>Innofil GmbH</b> (Dust collection systems)	0	9.6	9.6



### References:

Arjen Y. Hoekstra, A. K. (2011). The Water Footprint Assessment Manual. Earthscan.

Fabricio Carlos Schmidt, R. R. (2018). Evaluation of Sustainability Practices in SMEs. MDPI,

<https://futurefitbusiness.org/>

<https://waterfootprint.org/en/water-footprint/>

