



“GREEN GLAM”: AN ECO-LUXURY ELEVATED CASUAL WEAR COLLECTION FOR MODERN SRI LANKAN WOMEN AGED 25–30, INSPIRED BY THE SPIRAL ALOE VERA

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This study investigates the integration of sustainable practices into luxury casual wear for Sri Lankan women aged 25–30, emphasising the balance between eco-consciousness and contemporary style. The research aimed to develop a functional and aesthetically appealing collection inspired by the spiral aloe vera (*Aloe polyphylla*), whose geometric structure and symbolic resilience informed both design motifs and conceptual philosophy.

A mixed-methods research design was employed. Initially, trend analysis, fabric testing, and pattern development guided the design process. An online survey of 250 target consumers assessed willingness to invest in sustainable fashion and preferences for eco-luxury elements. Survey findings indicate that 89% of respondents prioritise sustainability without compromising elegance or individuality, confirming market demand for eco-luxury garments.

The collection was realised using Taiwan linen, silk-cotton blends, and chiffon, selected for their breathability, aesthetic appeal, and environmental suitability for tropical climates. Design techniques included sublimation printing, fabric manipulation, and hand embroidery, reflecting the spiral motif while adhering to sustainable practices. Low-waste construction, grain optimisation, and zero-waste pattern drafting exemplify the 3R principles (Reduce, Reuse, Recycle).

Results demonstrate that eco-luxury casual wear can meet functional, stylistic, and ethical expectations, offering a viable approach for sustainable fashion in the Sri Lankan context. This research contributes to the emerging discourse on conscious fashion, offering actionable insights for designers, manufacturers, and consumers who seek to integrate style, individuality and environmental responsibility.

Keywords: Eco-luxury, Sustainability, Casual wear, Spiral aloe vera, Zero-waste designs

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INTRODUCTION

Fashion not only reflects personal identity and confidence but also shapes environmental values in contemporary society. Amid the escalating climate crisis, the global fashion industry is increasingly expected to adopt sustainable practices that minimise ecological impact while catering to evolving consumer preferences. Green Glam exemplifies an approach where luxury, functionality, and sustainability converge within a contemporary casual wear collection for Sri Lankan women aged 25–30. The project positions eco-luxury as both a design philosophy and a practical framework for integrating sustainable fashion into everyday life. The study specifically addresses the gap in Sri Lanka’s fashion market for luxurious, environmentally responsible casual wear tailored to upper-middle-class, urban women. Responding to this demand, the Green Glam collection was developed under the eco-luxury brand GITORD, emphasising a consumer-driven design process grounded in market research and material experiments.

The conceptual inspiration derives from the spiral aloe vera plant (*Aloe polyphylla*) (Figure 1(a)), a unique species renowned for its geometric symmetry, resilience, and air-purifying qualities. Integrating the 3R principles (Reduce, Reuse, & Recycle) of the circular economy, the collection employs deadstock fabrics, hand embroidery, sublimation printing, and zero-waste pattern engineering.

METHODOLOGY

A mixed-methods approach was adopted to systematically examine the preferences, needs, and lifestyle choices of the target demographic, drawing on over 250 responses collected through physical interviews and online surveys. Participants were selected based on professional background, income level, fashion awareness, and interest in sustainable living. The survey investigated fabric preferences, garment fit, colour perception, aesthetic values, and attitudes toward eco-conscious fashion consumption. Survey results revealed that 78% of respondents were willing to invest in sustainable clothing that preserved elegance and individuality, indicating a strong market potential for eco-luxury casual wear.

Design conceptualization (Figure 1(b)) incorporated mood boards, trend boards, colour palettes, sketches, and technical pattern drafting, followed by muslin prototyping to refine drape, fit, and movement. Advanced techniques such as fabric manipulation, sublimation printing, and hand embroidery were applied. Functional innovations, including invisible zippers, metal D-buckles, open-end zippers, and modular layering, were integrated to enhance usability.

A research-based design process resulted in six finalised garments that balance luxury, functionality and sustainability. By systematically combining survey insights, material testing, sustainable techniques, and design innovation, this study provides a framework for future eco-luxury collections that are responsive to both consumer demands and environmental imperatives.



Figure 1: Inspiration & concept developments: (a) inspiration - Spiral Aloe Vera, (b) concept development pegs.

RESULT AND DISCUSSION

The Green Glam collection comprises six distinct outfits, meticulously designed to integrate eco-luxury principles with the functional and aesthetic requirements of elevated casual wear. Drawing inspiration from the spiral aloe vera plant (*Aloe polyphylla*), the garments incorporate asymmetrical lines, organic pleats, layered structures, and textural contrasts, reflecting the harmony, balance, and resilience inherent in the plant's natural form. Surface embellishments, including hand embroidery, fabric manipulation, and chiffon overlays, elevate traditional casual wear into versatile, sophisticated ensembles suitable for both professional and social contexts.

Survey findings revealed that over 89% of participants prioritise clothing that simultaneously addresses individuality, luxury, comfort, and ethical responsibility. Furthermore, consumer willingness to invest sustainably was significantly higher when garments met high standards of style, fit, and quality, confirming the necessity of integrating aesthetic excellence with sustainability. The materials selected, Taiwan linen, silk-cotton blends, and chiffon, were chosen for their breathability, comfort, and suitability to Sri Lanka's tropical climate, aligning with both consumer preferences and sustainable production goals. Muslin fittings and iterative prototype assessments enabled refinement of drape, fit, and movement, ensuring optimal wearer comfort and garment performance. Sustainable techniques, including zero-waste cutting, precise grain alignment, and multi-fabric manipulation, minimised material waste while enhancing garment structure and longevity. Functional elements such as concealed zippers, practical pockets, and soft linings further increased usability without compromising aesthetic appeal.

The colour palette of the collection, featuring earthy greens, cyan, coral, and mustard yellow, was deliberately chosen to evoke renewal, tranquillity, and vitality.

Embroidery motifs replicate the aloe's spiral formation, while fabric draping and manipulation emulate the natural folds and dynamic movement of leaves. These design strategies exemplify biomimetic principles, translating the plant's geometric elegance into wearable fashion while reinforcing the conceptual link between sustainability and aesthetic innovation.

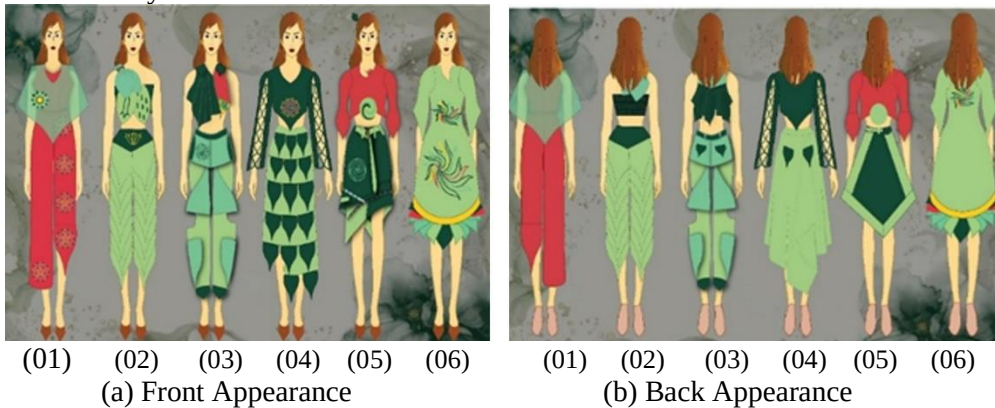


Figure 2: Fashion Illustration: Front and Back appearance of Six designs

Overall, the results demonstrate that eco-luxury casual wear can successfully meet both consumer-driven and environmental objectives, confirming the feasibility of integrating sustainability, functionality, and style. The survey and design validation collectively highlight the potential for biomimetic-inspired, ethically produced fashion to resonate with modern Sri Lankan consumers, offering insights for future sustainable design initiatives and contributing to the broader discourse on conscious fashion development.



Figure 3: Final Range development with live modelling

The *Green Glam* collection (Figure 3) exemplifies a contemporary, research-driven approach to eco-luxury fashion, translating sustainable principles into aesthetically sophisticated and functional casual wear. Each of the six finalised looks demonstrated a deliberate integration as discussed in detail below.

- **Look 01:** features a tailored jumpsuit paired with an elbow-length sheer overcoat, adorned with hand embroidery. Overcoat's leaf-shaped neckline and hem mirror the plant's geometric precision.

- **Look 02:** comprises layered trousers with leaf-inspired panelling and a contoured waistband embroidered with aloe motifs, combined with an asymmetrical crop top.
- **Look 03:** integrates semi-fitted trousers with an attached over-skirt achieved through layered fabric manipulation and detailed embroidery, paired with a dual-structured asymmetrical top.
- **Look 04:** presents an asymmetrical layered skirt with functional patch pockets and sculpted V-back hem, paired with a curved-neckline top featuring statement sleeves and corded cut-outs.
- **Look 05:** includes an asymmetrical wrap skirt with visible zippers, fabric manipulation, and a statement belt, styled with a top whose neckline and hem mirror the organic curves of aloe leaves.
- **Look 06:** showcases an A-line dress with layered hem manipulation, expressive embroidery, and distinctive neckline and sleeve detailing.

CONCLUSION AND RECOMMENDATIONS

The *Green Glam* collection demonstrates that eco-conscious fashion can successfully fulfil the expectations of luxury, functionality, and trend relevance. By integrating consumer insights, sustainable materials such as deadstock fabrics, and craft-based techniques including hand embroidery and zero-waste pattern drafting, the project confirms that style and environmental responsibility are not mutually exclusive. Challenges relating to fit and fabric behaviour. This study highlights the potential for eco-luxury fashion in the Sri Lankan context, offering a model for future innovation in sustainable design. Recommendations include the exploration of modular garment systems, digital patterning technologies, and artisan collaborations to enhance scalability and reduce environmental impact. By establishing a framework that merges research-informed consumer preferences with sustainable design methodologies, this project contributes to the evolving discourse on conscious fashion, providing actionable insights for designers, manufacturers, and industry stakeholders aiming to integrate sustainability without compromising aesthetic and functional quality.

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