

Towards Sustainable Urban Development: Policies for the Adaptive Reuse of Administrative Buildings with Historical and Architectural value Applied to the Tahrir Complex Building

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Abstract

Due to modern cities' challenges, reusing buildings has become an effective method of achieving sustainable urban development. This research focuses on reusing administrative buildings with historical value as an essential part of urban and cultural development

As part of Egypt's 2030 Sustainable Development Plan, the government established the New Administrative Capital to alleviate congestion in Cairo. Government ministries, agencies, foreign embassies, and consulates, are scheduled to relocate there. This is expected to leave many administrative buildings vacant, necessitating the development of an innovative methodology and mechanism for exploiting them in a way that preserves their historical value while ensuring economic returns that contribute to their maintenance and sustainability.

The research explores the importance of reusing these buildings from an environmental, economic, and cultural perspective, and its role in enhancing urban identity and revitalizing city centers by repurposing old buildings for new functions such as cultural centers, hotels, and mixed-use administrative spaces. The research also discusses the challenges facing reuse processes, including regulatory constraints, technical barriers, and financing, and proposes innovative policies and strategies to address them.

By analyzing local and international experiences in the reuse of administrative buildings, the research offers recommendations for promoting sustainable urban policies that balance preservation with the revitalization of buildings in ways that meet modern needs. It aims to provide a practical framework that can be applied to future reuse projects, focusing on design, economic, and social aspects to ensure the success of these projects and maximize their benefits.

Keywords

Adaptive reuse, sustainable urban development, administrative building, Historical and Architectural value

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Introduction:

Reusing buildings for sustainability is an architectural and urban concept that aims to transform existing buildings to meet new needs, rather than demolishing them and constructing new ones. Reusing buildings is a key strategy for achieving sustainable urban development. This approach reduces demolition waste, minimizes environmental impact, and preserves the architectural and cultural identity of cities. Rehabilitating these buildings also adds new functions that revitalize the urban fabric and transform them into vital centers of economic and social activity.

Tahrir Complex building is one of the most prominent examples of historically significant

administrative buildings, a landmark that reflects mid-20th-century modern architecture. This building has served as a central administrative center for decades, but its strategic location in downtown Cairo and its historical significance makes it an ideal opportunity for reuse rather than neglect or demolition. Through innovative urban policies, it can be repurposed and transformed into a multi-use center that combines commercial, cultural, and administrative functions, while preserving its historical and architectural value. However, the reuse of historic administrative buildings is not an easy task, facing numerous challenges, including regulatory restrictions, technical complexities, and economic feasibility. Therefore, it requires strategic policies, collaborative planning, and sustainable design

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solutions that ensure a balance between preservation and modernization.

This research aims to examine the policies and strategies that can be adopted to reuse historic administrative buildings, focusing on the Tahrir Complex as a case study. By analyzing international and local experiences, the research seeks to provide insights that contribute to achieving sustainable urban development while preserving architectural heritage.

Research Problem:

Administrative buildings with historical value face significant challenges related to their continued performance of their traditional functions. Many of them have become unsuitable for modern uses due to urban obsolescence, high maintenance costs, and incompatibility with sustainability requirements. At the same time, the demolition or neglect of these buildings results in significant cultural and environmental losses, given their heritage and architectural value, in addition to the negative environmental impact resulting from the disposal of the resources and materials used in their construction.

- 1- Challenges of Historic Administrative Buildings: These buildings face problems such as high maintenance costs, and incompatibility with modern uses.
- 2- Loss of Architectural and Cultural Identity: Neglecting or demolishing these buildings leads to the loss of their historical and architectural value, affecting the city's identity.
- 3- Environmental and Economic Impact: Disposing of old buildings wastes resources and increases the carbon footprint, while reuse can contribute to sustainability.
- 4- Lack of Clear Reuse Policies: There are no clear and effective strategies for reusing these buildings in a sustainable manner that meets modern urban need-
- 5- Searching for Innovative Solutions: There is a need to explore successful strategies and policies inspired by international experiences to reuse historic administrative buildings in sustainable and effective ways.

Research Goals:

The aims of reusing administrative buildings encompass several key objectives that contribute to sustainable development, efficient resource management, and community enhancement. Here are some primary aims:

- 1- Preservation architectural heritage: as many administrative buildings possess historical and architectural significance.
- 2- Repurpose aims to preserve these buildings

and adapt the building to modern functional requirements.

- 3- Cost Efficiency: Repurposing existing buildings is often more cost-effective than constructing
- 4- Sustainability Efficiency: Reusing administrative buildings can be a sustainable and cost-effective strategy that not only preserves architectural heritage but also addresses space needs.

Research Methodology:

- 1- Descriptive Analytical Approach: Analyzing theoretical concepts related to administrative buildings of historic value, while reviewing current relevant laws and policies.
- 2- Comparative Approach: Studying successful international experiences in reusing administrative buildings of historic value to identify challenges, how to address them, and the factors that contributed to the success of the reuse process.
- 3- Applied Approach: Analyzing the status of the Tahrir Complex and assessing the potential for its reuse according to sustainable development standards.

1- A literature review

A literature review focus on adaptive reuse definitions and the international frame work for preserving buildings value while achieving sustainable development. This review includes an analysis of policies issued by international organizations such as ,UNESCO as well as lawsand regulations in Europe and the United States.

Adaptive reuse is defined as the aesthetic process of adapting buildings for new uses while retaining their historic features. Using an adaptive reuse model can prolong a building's life by retaining all or most of the building system, including the structure, the shell, and even the interior materials. This type of revitalization is not restricted to buildings of historic significance and can be a strategy adopted in case of obsolete buildings [1]. Some urban planners see adaptive reuse as an effective way of reducing urban sprawl and environmental impact. Revitalizing the existing built fabric by finding a new use or purpose for obsolete buildings can be a wonderful resource to a community by "keeping neighborhoods occupied and vital" [2].

According to Yung and Chan [3], "adaptive reuse is a new kind of maintainable rebirth of the city, as it covers the building's lifetime and evades destruction waste, encourages recycles of the embodied dynamism and also delivers substantial social and economic profits to the world".

Adaptive reuse is the process of reusing an existing

building for a purpose other than which it was originally built or designed for. It is also known as recycling and conversion. The adaptive reuse of buildings can be a viable alternative to new construction in terms of sustainability and a circular economy [4].

1.1 Advantages of adaptive reuse

According to Zaitzevsky and Bunnell.[5], old buildings physically link us to our past and become a part of our cultural heritage; they should be preserved because of their "architectural beauty" and the "character and scale they add to the built environment". Retention and rehabilitation of existing buildings also reduces the consumption of building materials, resources, energy and water needed for new construction

1.2 Adaptive reuse stakeholders

In an adaptive reuse decision-making setting, there is usually an occurrence of conflicting beliefs, opinions, interests, and resources among relevant stakeholders.[6] Knowing who these stakeholders are and why, through a collaborative approach, will allow stakeholders with diverse interests regarding adaptive reuse to come together and participate either directly or indirectly in any stage of the decision-making process. There are four typical categories of stakeholders involved in an adaptive reuse decision-making process: investors, producers, regulators and users.

2- International Experiences:

2.1 The Adlai House– London, United Kingdom:

• About the project:

Originally a Victorian-era government office building, the structure has been repurposed as a luxury hotel while preserving its classical architectural details [7].

• Reasons for reuse:

- Preserving a historical government building while adapting it to modern needs.
- Utilizing the building's central location for high-end hospitality.
- Maintaining the architectural and cultural heritage of London.

• Benefits:

- Environmentally: Reduces the carbon footprint by reusing existing materials and structures.
- Economically: Supports the local tourism industry and creates job opportunities.
- Socially: Preserves historical value and enhances the city's cultural appeal.

• Challenges:

- Upgrading outdated infrastructure to meet modern luxury standards.
- Balancing historical preservation with contemporary hotel amenities.

• Redesigning interior spaces:

- Transforming old office spaces into elegant hotel suites while maintaining original decorative elements like wooden paneling and chandeliers.



Figure 1. The Adlai House – London, United Kingdom

2.2 The Velvet Baron – Berlin, Germany:

• About the project:

Originally the administrative headquarters of a 19th-century banking institution, this historic building was converted into a boutique hotel while retaining its grand neoclassical façade [8].

• Reasons for reuse:

- Preserving an iconic financial building with

significant historical value.

- Capitalizing on the prime location for luxury accommodation.
- Blending historic charm with modern hospitality trends.

• Benefits:

- Environmentally: Avoids demolition waste and promotes adaptive reuse.

- Economically: Attracts high-end tourism and boosts the hospitality industry.
- Socially: Enhances the architectural heritage of Berlin's city center.
- **Challenges:**
 - Reinforcing the structural integrity of the old building.
- Modernizing utilities such as plumbing, heating, and electrical systems.
- **Redesigning interior spaces:**
 - Converting former executive offices into spacious guest rooms while repurposing the grand banking hall into a luxurious hotel lobby.



Figure 2. The Velvet Baron – Berlin, Germany

2.3 Cadogan Gardens– London, United Kingdom

• About the project:

Once an administrative building for the British government in the 19th century, the structure has been transformed into a high-end boutique hotel with Victorian elegance [9].

• Reasons for reuse:

- Preserving a landmark building with cultural significance.
- Offering an upscale lodging experience in a prime location.
- Maintaining the historical ambiance while upgrading facilities.

• Benefits:

- Environmentally: Reduces material

consumption and supports heritage conservation.

- Economically: Encourages high-end tourism and local employment.
- Socially: Contributes to London's historical and luxury tourism appeal.

• Challenges:

- Retrofitting old office layouts into comfortable and functional hotel rooms.
- Ensuring modern accessibility without compromising historical integrity.

• Redesigning interior spaces:

- Transforming old meeting rooms into refined guest suites and converting the central atrium into a stylish dining area.



Figure 3. Cadogan Gardens – London, United Kingdom

2.4 Sofitel Le Grand Duc – Brussels, Belgium

• About the project:

Previously a government administrative building from the 19th century, this historic structure was repurposed into a luxury hotel while maintaining its European classical design [10].

• Reasons for reuse:

- Avoiding the loss of a historic landmark in Brussels.
- Utilizing the central location for a premium hospitality experience.
- Showcasing European architectural heritage through adaptive reuse.

- **Benefits:**

- Environmentally: Reduces construction waste and preserves heritage materials.
- Economically: Attracts high-profile visitors and contributes to the local economy.
- Socially: Maintains a cultural connection to Brussels' historical past.

- **Challenges:**

- Retrofitting modern heating and cooling systems into an old structure.
- Adapting the rigid layout of government offices for hotel use.

- **Redesigning interior spaces:**

Converting former offices into stylish suites and repurposing grand halls into event spaces and luxury dining areas.



Figure 4. Sofitel Le Grand Duc – Brussels, Belgium

2-5 The Reform Club – Edinburgh, Scotland

- **About the project:**

- Originally a 19th-century administrative and political club, the building has been converted into a luxury hotel while preserving its elegant Georgian-style architecture [11].

- **Reasons for reuse:**

- Revitalizing an iconic establishment without demolishing its historic structure.
- Providing a luxury stay experience with a historic atmosphere.
- Promoting cultural tourism by maintaining the original character of the building.

- **Benefits:**

- Environmentally: Reduces material waste and supports sustainable restoration.
- Economically: Boosts high-end tourism and local businesses.
- Socially: Preserves an important part of Edinburgh's architectural legacy.

- **Challenges:**

- Updating outdated structural elements while preserving authenticity.
- Adapting the grand, formal layout for modern hospitality needs.

- **Redesigning interior spaces:**

Transforming stately club rooms into luxurious suites while repurposing meeting halls into elegant lounges and dining areas.



Figure 5. The Reform Club – Edinburgh, Scotland

2-6 The Gilded Hall – Portland, USA

- **About the project:**

Once a historic bank building in downtown Portland, The Gilded Hall has been repurposed into an upscale restaurant that pays homage to its past with lavish interiors inspired by its original early 20th-century design [12].

- **Reasons for reuse:**

- Preserving the building's unique architectural

features, including marble columns and vaulted ceilings.

- Offering a fine-dining experience in an elegant, historic setting.
- Supporting adaptive reuse as an alternative to urban redevelopment.

- **Benefits:**

- Environmentally: Minimizes construction waste by repurposing existing structures.

- Economically: Attracts high-end clientele and promotes local food culture.
- Socially: Maintains a piece of Portland's history as a vibrant gathering space.
- **Challenges:**
 - Upgrading kitchen and plumbing systems while preserving historic finishes.
 - Balancing the grand scale of the space with a

cozy dining atmosphere.

- **Redesigning interior spaces:**

- Transformed the bank's main hall into an open dining area, with the former vault repurposed as a private dining room for exclusive events.



Figure 6. The Gilded Hall – Portland, USA

2-7 London House – Chicago, USA

- **About the project:**

- Originally built in 1923 as the London Guarantee Building, this historic skyscraper in downtown Chicago has been transformed into the luxurious London House Hotel. The renovation preserved its neoclassical Beaux-Arts architecture while integrating modern hospitality features [13].

- **Reasons for reuse:**

- Preserving a historically significant building instead of demolishing it.
- Revitalizing the Chicago Riverwalk with a premium hotel experience.
- Blending historical charm with contemporary luxury.

- **Benefits:**

- Environmentally: Supports sustainable restoration by reducing demolition waste.
- Economically: Boosts the hospitality industry and local businesses in the Loop area.
- Socially: Retains a landmark that reflects Chicago's architectural heritage.

- **Challenges:**

- Integrating modern amenities without compromising historical details.
- Reinforcing the aging structure to meet current building codes.

- **Redesigning interior spaces:**

- Converted office spaces into high-end hotel rooms, with a rooftop bar and lounge offering panoramic views of the Chicago skyline.



Figure 7. London House – Chicago, USA

Table 1. comparison table of these project

hotel	the site	Original use	Current use	Reasons for reuse	Benefits	Challenges	Interior redesign
The Adlai House	London, United Kingdom	Victorian government administrative building	luxury hotel	<ul style="list-style-type: none"> - Preserve the historic building - Take advantage of the central location - Support luxury tourism 	<ul style="list-style-type: none"> - Environmentally: Reducing the carbon footprint - Economically: Supporting the hospitality sector - Socially: Enhancing cultural heritage 	<ul style="list-style-type: none"> - Modernizing old infrastructure - Achieving a balance between heritage and modernity 	Converting administrative offices into luxury hotel suites while retaining classic elements
The Velvet Baron	Berlin, Germany	Administrative headquarters of a historic bank	luxury boutique hotel	<ul style="list-style-type: none"> - Preserving a historical landmark - Taking advantage of the building's luxurious design - Attracting high-end tourism 	<ul style="list-style-type: none"> - Environmentally: Reducing waste and reusing materials - Economically: Promoting tourism - Socially: Preserving architectural identity 	<ul style="list-style-type: none"> - Enhancing the infrastructure to make it suitable for the hotel - Updating the electrical and heating systems 	Converting executive offices into hotel rooms and converting the bank's grand hall into a luxurious lobby
Cadogan Gardens	London, United Kingdom	Government administrative building	luxury boutique hotel	<ul style="list-style-type: none"> - Preserving the historic building style - Achieving sustainability - Supporting luxury hotels 	<ul style="list-style-type: none"> - Environmentally: Preserving original materials - Economically: Supporting high-end tourism - Socially: Promoting heritage identity 	<ul style="list-style-type: none"> - Adapting office spaces to suit hospitality - Incorporating modern amenities 	Converting meeting rooms into hotel suites and converting the main lobby into an elegant restaurant
Sofitel Le Grand Duc	Brussels, Belgium	Old government administrative building	International luxury hotel	<ul style="list-style-type: none"> - Benefit from a strategic location - Maintain a classic design - Attract luxury tourism 	<ul style="list-style-type: none"> - Environmentally: Reducing the consumption of new resources - Economically: Increasing tourism revenues - Socially: Preserving heritage 	<ul style="list-style-type: none"> - Updating heating and cooling systems - Converting office spaces into hotel rooms 	Converting government offices into guest rooms and meeting rooms into luxurious spaces
The Reform Club	Edinburgh, Scotland	political and administrative club	Upscale hotel and fine dining restaurant	<ul style="list-style-type: none"> - Preserving an important historical landmark - Supporting luxury tourism - Enhancing the city's cultural character 	<ul style="list-style-type: none"> - Environmentally: Renovate the building instead of demolishing it - Economically: Increase tourist attraction - Socially: Preserve local identity 	<ul style="list-style-type: none"> - Updating facilities to suit hotel use - Balancing formality and comfort 	Converting luxury rooms into hotel suites and converting meeting rooms into reception halls
The Guildhall Restaurant	Portland, United States	Historic government administrative building	fine dining restaurant	<ul style="list-style-type: none"> - Revitalizing an old building instead of demolishing it - Taking advantage of the prime location in the city center - Supporting tourism and fine dining 	<ul style="list-style-type: none"> - Environmentally: Reducing demolition and recycling materials - Economically: Supporting the hospitality sector - Socially: Enhancing the dining experience in a historic building 	<ul style="list-style-type: none"> - Modernization of the kitchen and bathroom facilities - Balancing historical character with modern design 	Converting government offices into an elegant dining hall while retaining the original architectural elements
London House Chicago	Chicago, USA	Historic administrative and commercial building	luxury hotel	<ul style="list-style-type: none"> - Capitalizing on its unique riverside location - transforming a historical landmark into a tourist destination - supporting luxury tourism in the city 	<ul style="list-style-type: none"> - Environmentally: Reuse the building structure - Economically: Promote tourism and increase revenue - Socially: Preserve the city's architectural heritage 	<ul style="list-style-type: none"> - Rehabilitation of the building to make it suitable for a hotel - Updating of modern heating and cooling systems 	Converting offices into luxury hotel rooms with a bar and restaurant on the top floor to take advantage of the river view.

Comparative Summary and Analysis

These examples demonstrate how administrative buildings have been repurposed while preserving their historical significance. They highlight the challenges governments face in supporting the reuse of buildings. These challenges can be summarized in four points:

- Lack of comprehensive legal frameworks
- Funding issues
- Conflict between modern development and the preservation of historic value

- Technical difficulties in the restoration and reuse of interior elements.

Reasons for Reuse:

- Heritage preservation (7/7)
- Strategic location (6/7)
- Support for luxury tourism (6/7)
- Environmental sustainability (5/7)

Main Challenges:

- Infrastructure upgrades (6/7)
- Balancing old and new (5/7)
- Adapting internal use (4/7)

3. Case study Tahrir Complex building: practical study of the Tahrir Complex building

3.1 General Description of the Building:

- **Location:** Downtown Cairo, Egypt.
- **Date of Construction:** Construction began in 1948 and was completed in 1951.
- **Designer:** Architect Mohamed Kamal Ismail.
- **Architectural Style:** Functional Modernism.
- **Area:** Approximately 58,000 square meters.
- **Previous Use:** Administrative government building housing ministerial offices and government institutions [14], [15].

3.1.1 Significance of the Building:

- Represents part of Egypt's modern architectural heritage.
- It has historical value as one of the most important government buildings in downtown Cairo.
- It is a prominent urban element in Tahrir Square.

3.1.2 Reasons for Reuse:

- Relocation of government departments to the New Administrative Capital.
- Urban and economic challenges associated with the building.
- Possibility of using it for new activities that contribute to sustainable development.

3.1.3 Objectives of Reuse:

- Preserving the building's heritage and architectural value.
- Generating economic returns by repurposing the building for new functions.
- Enhancing the role of downtown Cairo as a regenerating urban center.
- Supporting sustainability and reducing the environmental impact of demolition and reconstruction.

3.1.4 Expected challenges:

- Legal and bureaucratic constraints.
- High costs of the rehabilitation process.
- Compatibility of the new use with the building's historic character.
- Preserving the integrity of the urban landscape of Tahrir Square.

3.1.5 Sustainability Features of the Project

- Repurposing the original building materials to preserve its historical character.
- Improving energy efficiency using energy-efficient lighting systems and natural ventilation technology.
- Reusing graywater to irrigate the green spaces on the rooftop and in the interior courtyards.
- Solar systems on the rooftop provide

electricity for lighting and public facilities.

3.2 Proposed Reuse of the Tahrir Complex Building

In line with the Egyptian strategic vision to revitalize historic downtown Cairo, Tahrir Complex building, with its new function, constitutes the cornerstone and catalyst for a new promising investment. It was approved to repurpose the Tahrir Complex building and transform it into an iconic hotel destination that reflects Cairo's rich history and adds a new dimension to its charm, enhancing its position on the global stage.

Vision:

Transforming the Tahrir Complex into a multi-use center that combines hotel, commercial, cultural, and administrative activities, while preserving the building's historical and architectural character and promoting sustainability in design and operation.

- First: Distribution of Internal Spaces
- Ground Floor and Mezzanine
- A luxurious reception lobby with interactive exhibits that tell the building's history.
- Commercial Spaces (restaurants, cafes, retail stores).
- A Cultural and Arts Center: Includes a modern art gallery, workshop spaces, and an urban library.
- A small museum on the history of Downtown Cairo and the Tahrir Complex.

Floors 1-5:

- Converted into coworking spaces and flexible administrative offices for startups and international offices.
- Providing meeting rooms, open-plan workspaces, and smart conference rooms.
- Some spaces can be leased to government agencies to provide services in a modern and expedited manner.

Floors 6-10:

- A luxury boutique hotel targeting businessmen and tourists seeking a different experience in the heart of Cairo.
- The hotel features rooms with distinctive views, conference rooms, and upscale hospitality services.
- Part of the hotel has been designated as hotel apartments for long- or short-term rental.

Floors 11-13:

- Upscale serviced residential spaces, featuring small and medium-sized apartments with hotel services.
- A gym and spa for residents and visitors

Rooftop:

- A sustainable urban garden with urban agriculture to produce organic herbs and vegetables for the restaurant interior.

- A panoramic restaurant and café offering a unique experience overlooking Tahrir Square.



Figure 8. Tahrir Complex building

- Open spaces for cultural and musical events and art performances.



Figure 9. Proposal for the facade of Cairo House (formerly Tahrir)



Figure 10. Tahrir Complex building inner court



Figure 11. Proposal for the inner court



Figure 12. Tahrir Complex building top roof



Figure 13. Proposal for the top roof



Figure 14. Tahrir Complex building duct



Figure 15. Proposal for the duct



Figure 16. café and restaurant



Figure 17. Lotus-shaped celebration area



Figure 18. The relationship of Cairo House (formerly Tahrir Complex) to the urban environment

3-2 Adaptive reuse framework: Evaluation of the suitability of the Tahrir Complex building for reusing

Through an examination of successful instances of adaptive reuse in administrative buildings, we determined key parameters for establishing a performance-based framework. This framework aims to highlight the best building options for

adaptive reuse from a selection of underused structures. The accompanying table presents fundamental criteria to facilitate decision-making, including structural integrity, historical significance, architectural adaptability, financial implications, and environmental and legal considerations.

Table 1. Adaptive reuse framework

Standard	Description	Rating (Weak - Average - (Good - Excellent
Construction status	The structural safety of the building and the possibility of restoring it without major risks.	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent
Historical and architectural value	The importance of the building in terms of heritage and architectural value and the extent of the impact of the modifications on it.	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent
design flexibility	The extent to which the current design can be adapted to new functionality without radical changes.	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent
Accessibility and location	The location of the building and its accessibility by public transportation and services.	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent
economic cost	The cost of rehabilitation compared to the cost of constructing a new building.	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent
Compliance with laws	The building's compliance with urban planning laws and reuse requirements.	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent
Environmental sustainability	The extent to which sustainable technologies can be used in rehabilitation (such as energy efficiency).	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent
community value	The extent of community acceptance of the re-use of the building and the new use function.	<input type="checkbox"/> Weak <input type="checkbox"/> middle <input type="checkbox"/> good <input type="checkbox"/> excellent

Based on the proposed criteria, Tahrir Complex building is considered an ideal model for administrative buildings that can be re-adapted to perform another function. Recommendations can be made to ensure the quality of implementation and follow-up through the following elements:

- **Preservation of Historical Architecture:** Ensure that the conversion maintains the integrity of the Tahrir Complex's historic architecture. This includes preserving façades, ornamental features, and significant interior spaces that reflect the building's heritage.
- **Adaptive Reuse of Existing Spaces:** Repurpose existing administrative offices and public areas into hotel facilities. For example, administrative offices could be converted into guest rooms, while public spaces like lobbies and courtyards could be transformed into reception areas, lounges, or restaurants.
- **Expansion and Renovation:** Depending on the scale of the hotel project, consider renovating and expanding the Tahrir Complex to accommodate additional guest rooms, amenities, and services. This might involve constructing new wings or annexes while

adhering to architectural guidelines to harmonize with the existing structure.

- **Cultural and Historical Themes:** Incorporate elements of Egyptian culture and history into the hotel's design and décor. This could include showcasing artifacts, artworks, and photographs that highlight Egypt's rich heritage throughout the property. Themed suites or themed dining experiences could further immerse guests in the local culture.
- **Meeting and Event Spaces:** Utilize existing conference rooms and assembly halls within the Tahrir Complex for meeting and event spaces catering to business travelers and special events. These spaces could be equipped with modern technology and amenities while preserving historical features.
- **Wellness and Recreation Facilities:** Integrate wellness and recreation facilities such as a spa, fitness center, or swimming pool into the hotel design to enhance guests' comfort and relaxation.
- **Restoration and Conservation:** Implement a comprehensive restoration and conservation plan to address any structural issues, preserve

historical elements, and ensure the long-term sustainability of the building as a hotel property.

- **Community Engagement and Tourism:** Foster community engagement by offering guided tours of the hotel's historical features and hosting cultural events that promote local heritage. Collaborate with local artisans, businesses, and tour operators to provide authentic experiences for guests and support the local economy.
- **Sustainable Practices:** Incorporate sustainable design principles and eco-friendly technologies into the hotel's operations to minimize environmental impact and promote responsible tourism.

3-4 The Expected Impact of the Adaptive Reuse Economically:

- Attracting local and international investment and increasing the value of real estate in the surrounding area.
- Creating new job opportunities in the hospitality and administrative services sectors.

Socially:

- Providing new community spaces that support arts, culture, and entrepreneurship.
- Enhancing urban life in downtown Cairo through recreational and cultural activities.

Environmentally:

- Reducing the need for new construction through the rehabilitation of the building.
- Increasing green spaces and improving air quality in the area.

Results:

Adaptive reuse of buildings can play a pivotal role in regenerating the built environment by meeting the growing demand for buildings and preserving buildings with historical value. It develops and improves building performance to meet modern standards and changing user requirements while preserving most of the original structure. Demolishing existing buildings is a waste of energy and materials. Adaptive reuse can significantly reduce new construction and land acquisition costs, revitalize neighborhoods, and add value to unproductive properties. Strategies and policies that encourage adaptive reuse and sustainable maintenance of existing buildings are urgent. Many developed countries have already begun incorporating adaptive reuse of buildings (ARB) policies into their legislation.

Recommendation

To achieve successful re-employment of buildings, the following must be taken into account:

- **Effective Strategies for Adaptive Reuse:** Investigate best practices and innovative

strategies for transforming administrative buildings to accommodate modern functions while preserving architectural and historical integrity.

- **Barriers and Challenges:** Identify and analyze the barriers that hinder the adaptive reuse of administrative buildings, such as regulatory constraints, financial viability, technical limitations, and public perception.
- **Environmental and Economic Impacts:** Evaluate the environmental benefits of adaptive reuse compared to new construction, including energy efficiency, carbon footprint reduction, and lifecycle cost analysis.
- **Community Engagement and Stakeholder Perspectives:** Explore the role of community engagement in decision-making processes and the importance of stakeholders' perspectives in shaping adaptive reuse projects.
- **Policy and Regulatory Frameworks:** Examine the effectiveness of existing policies, incentives, and regulatory frameworks in supporting adaptive reuse initiatives and promoting sustainable urban development.

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