

theoretical and experimental domains, facilitating the translation of scientific knowledge into practical applications. Its sophisticated design is optimized for precision and accuracy, ensuring that experimental data is accurately interpreted and translated into meaningful knowledge. The essential function of the translation module in scientific research is unrivalled and indispensable for pushing back the frontiers of knowledge. The control diagram for the module is shown in Figure 1.

It has been proposed that additional modules responsible for automating auxiliary operations, such as loading the friction component, should be incorporated into the tribometer design. In this manuscript, an elementary design of a torque component for use in a tribological apparatus is investigated in detail. In the most basic scenario, a module of this caliber would take the form of a dynamic mechanism in which a cylindrical sample is placed on the shaft. It is important to note that this specimen is inherently susceptible to erosion during testing.

The modular manufacturing principle of the friction device will allow tribological studies not only based on the above-mentioned friction patterns, but also the integration of new components that facilitate other friction mechanisms. In addition, it will facilitate the automation of the friction device, which will further broaden the scope of experiments.

Conclusion

In conclusion, optimizing the geometric performance of raised kinematic couplings is an important task in the field of mechanical engineering. This task requires an in-depth knowledge of the subject, a diversified methodology and the consideration of many factors. The successful implementation of advanced methodologies and optimization techniques results in state-of-the-art mechanisms that will last for a long time and operate with maximum reliability and efficiency. In-depth studies of the machines and equipment required for tribological experiments are reviewed. The concept of a modular tribological study and the associated algorithms for optimizing its performance are formulated. The modular tribological study is created.

References

1. Agwoko, M.P. Experimental and Numerical Studies on Dynamic Characteristics of Long-Span Cable-Supported Pipe Systems/ M.P. Agwoko, Z.Chen and H. Liu// Int J. Steel Struct. 2021. № 21. P. 274-298. URL: <https://doi.org/10.1007/s13296-020-00438-x>.
2. A new approach to the design of a delta robot with a desired workspace/ X.J. Liu, [et al.]// J. Intell. Robot Syst. 2004, vol. 39, no. 2, pp. 209-225, doi: <https://doi.org/10.1023/B:JINT.0000015403.67717.68>.
3. Artificial-Neural-Network-Based Mechanical Simulation Prediction Method for Wheel-Spoke Cable Truss Construction/ Z. Liu, [et al.]// Int J. Steel Struct. 2021. № 21. P. 1032-1052. URL: <https://doi.org/10.1007/s13296-021-00488-9>.

ASSESSING THE EFFECT OF THE YEMENI CONFLICT ON THE ACCOMPLISHMENT OF THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

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Abstract: The ongoing conflict in Yemen, which began in 2014, has had disastrous consequences on the country's development trajectory and its ability to achieve the Sustainable Development Goals (SDGs). The conflict has caused immense human suffering, widespread destruction of infrastructure, and economic collapse, making it extremely challenging to address the multifaceted goals outlined in the SDGs. This article aims to assess the impact of the Yemeni conflict on the accomplishment of the SDGs and highlight the urgent need for international support to mitigate the effects of the crisis.

Key words: Yemen, SDGs, Sustainable Development.

Introduction

The Yemeni conflict, which commenced in 2014, has had a profound impact on the achievement of the Sustainable Development Goals (SDGs) in the country. The conflict has unleashed a series of devastating consequences, including widespread poverty, food insecurity, healthcare system collapse, disrupted education, gender inequality, and water scarcity. These challenges have severely hindered Yemen's progress towards attaining the SDGs, which were designed to address global issues and improve the well-being of all individuals by 2030. The SDGs encompass a comprehensive set of 17 goals and 169 targets that aim to eradicate poverty, promote sustainable development, and ensure social, economic, and environmental progress. Each goal covers a specific aspect of human development, such as poverty eradication, quality education, gender equality, and clean water and sanitation. These goals provide a roadmap for countries to follow in their pursuit of a more equitable, prosperous, and sustainable future. However, the Yemeni conflict has disrupted the path towards achieving these goals in the country. The destruction of infrastructure, displacement of populations, and economic collapse have created an environment that is highly challenging for implementing and sustaining development initiatives. The conflict has not only exacerbated pre-existing challenges but also introduced new obstacles that impede progress towards the SDGs. This study aims to assess the effect of the Yemeni conflict on the accomplishment of the SDGs, highlighting the specific goals and targets that have been most affected. By understanding the magnitude of the challenges faced by Yemen, we can identify the urgent interventions required to mitigate the consequences of the conflict and work towards restoring the nation's development trajectory. It is crucial to recognize the interconnectedness of the SDGs and the need for a holistic approach to address the multifaceted issues arising from the conflict. The assessment will shed light on the current state of affairs in Yemen and emphasize the importance of international support and collaboration to overcome these challenges. By doing so, we can strive towards a more inclusive, sustainable, and prosperous future for the people of Yemen and contribute to the global efforts of achieving the SDGs by 2030 [1].

Results and discussion

The impact of the Yemeni conflict on poverty has resulted in millions of people being pushed into extreme poverty. The destruction of livelihoods, disruption of economic activities, and collapse of public services have significantly impeded poverty eradication efforts, exacerbating the poverty situation in Yemen.

Yemen was already experiencing high levels of food insecurity prior to the conflict, but the crisis has been further escalated, leading to a severe humanitarian emergency. Agricultural activities have been disrupted, infrastructure has been damaged, and restrictions on the movement of goods and services have severely affected food production, distribution, and access. Consequently, Yemen is facing a massive hunger crisis, with millions of individuals requiring urgent food assistance.

The healthcare system in Yemen has been devastated by the conflict. Hospitals and healthcare facilities have been destroyed or rendered non-functional, and healthcare workers have been displaced or killed. This lack of access to essential healthcare services, including vaccinations, reproductive healthcare, and disease treatment, has resulted in a significant decline in the health and well-being of the population. Recurrent outbreaks of preventable diseases such as cholera and diphtheria have further strained an already fragile health system.

The Yemeni conflict has disrupted the education system, depriving millions of children of their right to education. Schools have been damaged, used for military purposes, or occupied by displaced individuals, rendering them unsafe for learning. Insufficient funding, a shortage of qualified teachers, and a lack of learning materials have further hindered access to quality education. The long-term consequences of interrupted education for Yemen's children are profound, hindering their future opportunities and perpetuating a cycle of poverty.

Women and girls have been disproportionately affected by the conflict in Yemen. The breakdown of social structures, displacement, and increased gender-based violence have undermined efforts towards gender equality. Women and girls face heightened risks of sexual and gender-based violence, early marriage, and limited access to healthcare and education. The conflict

has widened existing gender disparities, impeding progress towards achieving gender equality.

Yemen, already one of the most water-scarce countries worldwide, has seen its water scarcity issue exacerbated by the conflict. The destruction of water infrastructure, contamination of water sources, and limited access to sanitation facilities have resulted in a severe water and sanitation crisis. The absence of clean water and proper sanitation has contributed to the spread of waterborne diseases, further compromising public health.

Conclusion

The Yemeni conflict has had a devastating impact on the accomplishment of the Sustainable Development Goals. It has exacerbated poverty, hunger, and inequality, while undermining access to healthcare, education, and basic services. Urgent action is required to address the immediate humanitarian needs and rebuild Yemen's infrastructure and institutions. International support, including financial aid, humanitarian assistance, and diplomatic efforts, is crucial to mitigate the effects of the conflict and ensure Yemen's progress towards achieving the SDGs. Only through a comprehensive and sustained approach can Yemen escape the cycle of conflict and work towards a more sustainable and prosperous future.

References

1. Assessing the Impact of War in Yemen on Achieving the Sustainable Development Goals [Electronic resource] – <https://reliefweb.int/report/yemen/assessing-impact-war-yemen-achieving-sustainable-development-goals>. – Access date: 27/09/2019.

CLIMATE CHANGES AND THEIR IMPACT ON SUSTAINABLE DEVELOPMENT IN YEMEN

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Abstract: Yemen, a country located in the Arabian Peninsula, faces significant challenges in its pursuit of sustainable development due to the adverse impacts of climate change. The combination of rising temperatures, changing rainfall patterns, and increased frequency of extreme weather events poses severe threats to Yemen's fragile ecosystems, water resources, and socio-economic stability. This article aims to explore the effects of climate change on sustainable development in Yemen and highlight the urgent need for adaptation and mitigation measures.

Key words: Yemen, Sustainable Development, Biodiversity Loss.

Introduction

Yemen, a country located in the Arabian Peninsula, is facing significant challenges in achieving sustainable development due to the adverse impacts of climate change. Climate change is leading to a range of environmental and socio-economic consequences that are hindering Yemen's progress towards sustainable development goals. This article provides an overview of the climate changes occurring in Yemen and examines their profound impact on various aspects of sustainable development in the country. Yemen, already grappling with multiple socio-economic challenges, is particularly vulnerable to the effects of climate change. The altering weather patterns, rising temperatures, and increased frequency of extreme events have far-reaching implications for the country's ecosystems, water resources, food security, public health, and overall socio-economic stability. Climate change poses a significant threat to Yemen's unique and fragile ecosystems, including its coastal areas, mountains, and deserts. Rising temperatures, coupled with altered precipitation patterns, disrupt the delicate balance of these ecosystems, resulting in habitat loss, species migration, and reduced biodiversity. The degradation of ecosystems not only impacts the natural environment but also has direct consequences for livelihoods dependent on agriculture, fisheries, and tourism. Addressing the impacts of climate change on sustainable development in Yemen requires a combination of adaptation and mitigation measures. Adaptation efforts should focus on building resilience in key sectors such as water management, agriculture, and infrastructure