RAUN 2019 – 2020
Research Topics

1.   UNIDO I - Population Change and Sustainable Agricultural Development

The world population is expected to continue growing in the coming decades, reaching 9.8 billion in 2050. This population growth will considerably shape and increase the demand for agriculture-based products in the future. This research project shall help to project future needs from agriculture (food and non-food) in light of social and population developments and identify strategies for the best natural resource management given the expected impact of climate change on agricultural production. A particular focus should be placed on the nexus between water and land management as well as bio-economies. These are promoted as the most effective model for sustainable growth in both developed and developing countries. However, climate change affects the availability of natural resources necessary for bio-economies, in particular access to water. The paper should provide an overview on the global issue and propose a methodology for assessing the impact on natural resources in concrete regions. How is the projected world population growth going to impact the future needs from agriculture (food and non-food)? What is the impact on natural resources, in particular access to water under future bio-economies?

2.   UNIDO II – Increasing Trade Capacity among Developing Country SMEs in the Advent of the Fourth Industrial Revolution

Producing safe, competitive, reliable and cost-effective products and services, and successfully selling them in domestic and international markets, can lead to increased productivity and competitiveness, and ultimately increased prosperity. However, developing countries find it difficult to develop the capacity to participate in the global trading system. In particular, enterprises from developing countries and economies in transition often face barriers to trade due to limited human, institutional and infrastructural capacity. Companies may be unable to produce the goods and services at competitive prices in the quantities and qualities demanded by the global market. Moreover, these goods and services may fail to meet market access conditions such as international standards, market conformity, private buyer requirements and technical requirements. How can small and medium enterprises (SMEs) in developing countries improve their capacity to overcome barriers of trade, comply with international quality and other standards, and trace their goods by making use of modern "fourth industrial revolution" technologies? How can Industry 4.0 help these companies to increase their competitiveness, reduce the costs of standards compliance and ease the integration in global market systems, while overcoming the lack of skills and capacities that they usually face?

3.   UNIDO III – Sustainability through Renewable Energies

To achieve the objectives defined in the Paris Agreement, a change in the consumption and production of energy is inevitable. Aside transportation and industrial production, the energy sector is responsible for a major share of emissions worldwide. Although the market for renewable energies has grown

considerably in the past years, representing a large potential for emission reduction, fossil fuels, such as petroleum, natural gas, or coal, have seen a come-back in many countries. This is due to improved technologies, such as fracking, and reduced extraction costs. At the same time, despite a decrease in the price of renewable technologies, the equipment you need to convert free green energy to electricity is still expensive. The research project shall analyse the potential of renewable energies in achieving the environmental sustainability targets and barriers that impede the full utilization of renewable energy sources. A particular focus shall be placed on biogas and biomethane. How can innovative applications and modern technologies support the transition from fossil fuels to renewable energies and what are social and environmental gains from this transition? What industries can take a leading role in this process and which barriers need to be overcome? The applicable academic paper shall support the development of a policy framework to accelerate the biogas and biomethane market and deliver a technology trends analysis based on recent developments in the field.

4. UNODC I – Achieving Sustainable Partnership in the UN: Cooperation among UN Organizations in the Framework of the SDGs

The adoption of the 2030 Agenda and its SDGs represent a change of paradigm of the international policies on development cooperation. The goals are related to the mandates and activities of different UN organizations, making a strong case for enhanced cooperation among the different stakeholders. The need for continued cooperation is also emphasized in Goal 17, which is related to strengthening the means of implementation and revitalization of the global partnership for sustainable development. However, although the United Nations organizations have aligned themselves with specific goals, which are crosscutting in nature, allowing for greater cooperation among different agencies to ensure effective implementation, cooperation and partnerships between the organizations are not easily achieved. Given the complex structure of the UN system and its multiple sub-organizations, are the SDGs really the magic bullet for kick starting a much-needed cooperation within the UN? What are some of the innovative approaches being undertaken to overcome the inherent challenges of the lack of cooperation? The research should provide an overview of the status of cooperation within the UN system and analyse the potential system-wide impact of the SDGs on inter-agency cooperation. A major focus should be placed on the identification of best practices and gaps. The research should develop concrete recommendations that can help overcoming some of the barriers and building bridges between different entities in the UN system.

5. UNODC II – Civil Society Involvement in the Fight against Corruption

An active and well-functioning civil society, as the aggregate of non-governmental organizations and institutions that manifest the interests and will of citizens, is a fundamental constituting element of democracies. Civil society overlooks and controls the activities of state actors as well as public and private organizations, thus being a key player in the fight against corruption. In 2012, the UNODC Civil Society Team launched a small grants scheme aimed at strengthening the partnership of civil society organizations (CSOs) with the private sector, in particular Small and Medium-sized Enterprises (SMEs), in the fight against corruption. To date, in the framework of this scheme, 26 grants amounting to USD 5000 have been given out to CSOs across Africa, with five more to be disbursed in May 2019. Although this scheme proved to bring immediate and measurable results at the grassroot level, due to limited resources there has not been a follow-up by UNODC with the grantees to measure and evaluate the sustainability and impact of the CSO projects on the ground beyond the grants' lifespan. This research project should explore to what extent the UNODC Society Team's Small Grants Scheme created lasting impacts to achieve socioeconomic sustainability? What is the role of civil society and cooperation projects between civil society and the private sector in promoting anti-corruption policies and what are common barriers encountered by the projects?

6. UNODC III – The Linkages between Organized Crime and Cybercrime: A Legal Analysis

The problem of transnational organized crime is compounded by ever increasing global connectivity and the borderless realm of cyberspace and the increasing connections with different crimes, including terrorism. These intersections, as also recognized by the UN Security Council, represent a significant threat to international security. Not a single State is unaffected. The same way internet has become successful in our daily life, facilitating almost all our actions and activities of our daily routine, it has also become crucial and always present in the criminal world, having led to new offences that are enabled or enhanced by technologies—so-called cybercrimes. Without understanding the exact nature of the threat, States continue to struggle in containing the security threat emanating from organized criminal groups and their engagement. Research over the last decades has improved our understanding of cybercrimes, however this body of research is regarded as still limited and is not always based on evidence, but rather on trends. Only little research has been done based on real adjudicated cases. The United Nations Convention against Transnational Organized Crime (UNOTC), which nears universal adherence with 189 parties, is the only international convention dealing with organized crime. This research project shall focus on the concept of "participation in an organized criminal group" enshrined in article 5 of the UNOTC and aims at understanding, through the legal analysis of concluded court cases, the linkages between organized crime and cybercrime, namely how the latter influences and impacts the traditional activities of organized crime, focussing on jurisprudence that illustrates cybercrime-enabled organized crime and cybercrime-dependant organized crime. Understanding this phenomenon on the basis of real, adjudicated cases – as opposed to media reporting – shall add to our understanding of the phenomenon and contribute to the scarce literature on the topic. How does cybercrime enable organized crime? Which manifestations of organized crime are dependent on cybercrime?

7. UNODC IV – Sustainable Solutions to Prevent Youth Radicalization: The Role of Psychosocial Interventions

Preventing violent extremism and the radicalization of youth has become a high priority for the United Nations and its member states. Global incidents of conflict, homicides, terrorist incidents and violent crime are all rising, some quite significantly. Yet the drivers of this insecurity are becoming increasingly challenging to understand and respond to, as the perpetrators range from internet-enabled virtual attacks to lone wolves. It is important to emphasise that violent extremism is a global problem, which can manifest itself in all cultures and all religions but with different specific characteristics. Often, young people are particularly susceptible to the influence of extreme ideologies and extremist groups, especially if they face personal hardships and problems. UNODC has developed a range of technical tools on family-based drug use prevention and the treatment of drug use disorders that, beyond their intended outcome, also have a preventive potential on other areas such as violence/crime prevention. This research project shall explore the potential of such psychosocial interventions on preventing the recruitment of vulnerable adolescents into violent extremist groups. The research project could include a literature review to identify psychosocial interventions used in the field of violent extremism prevention and an assessment of available evaluation data of such initiatives. Another or an additional angle could be to reach out to organizations and practitioners involved in this work and understand better what has worked, what is needed and what challenges have been identified. The outcome of the research project should help inform practitioners and policy makers about inclusive and sustainable solutions to address youth radicalization.

8. FAO I – Monitoring and Evaluation of Climate-Smart Agriculture (CSA)

Monitoring and evaluation (M&E) measures of development activities are instrumental as they provide program managers and policy makers with better means for learning from past experiences to improve service delivery and planning. The study will be part of a FAO initiative currently consisting

of two work streams, which aim at: 1) Developing guidance on M&E frameworks for CSA, including 1a) a review of existing M&E frameworks, tools and guidance documents for agriculture and climate change that are applicable for CSA ; 1b) the development of operational guidelines for the design and implementation of national M&E frameworks for CSA; and 2) mapping and assessing the synergies and trade-offs between CSA and the SDGs and providing guidance for national policy makers and development practitioners on the effective integration of CSA within the 2030 Sustainable Development Agenda. The proposed study will help to link the two work streams of the initiative to support governments in integrating and streamlining their M&E efforts related to SDGs and CSA. In particular, it should help to understand how practitioners can design projects at country level and use the indicators that were designed for the SDGs and the targets related to them, for monitoring CSA projects. What are existing frameworks to use the indicators for the SDG targets at project level? How can these frameworks be used for CSA monitoring? How can CSA M&E indicators help governments to monitor progress on SDG targets? The desired outcome of the research is a framework, best practices and recommendations on how to successfully monitor and evaluate CSA activities as part of the targets of the Sustainable Development Goals (SDGs), on the national and international level.

9. FAO II - Trade Policies and Environmentally Sustainable Farming

The trade of agricultural products has steadily increased in the past decades, becoming a major income source for agriculturally dependent countries. Since 1st January 2019, the EU has changed its import policies on cadmium for different products, including cocoa. This has significant consequences for cocoa exporting countries, such as Ecuador, where cocoa is an important means of livelihood for many family farmers. While the country is famous for its fine flavour cocoa, farmers' lack of understanding and capacities to manage cadmium pollution in cocoa products could result in a limit of exports. FAO is developing a project in Ecuador on Climate Smart Agriculture and Cocoa and this initiative will be part of the project's activities. The research shall analyse to what extent new policies on cadmium implemented by the main trading partners of Ecuador can represent a threat or opportunity for its economy. How can the changes in the international trade environment be approached by governments and international organizations to find sustainable solutions? At the same time, the project shall also deal with the question how the cocoa farmers in Ecuador can be best supported to reduce the pollution from the cocoa production and to meet the regulations of their trading partners in a sustainable way. What are strategies that could be implemented by the government and local farmers to reduce the pollution and increase the quality of the soil? How could FAO support these processes? The desired outcome of the research are guidelines or policy recommendations for governments and international organizations working in the field of rural development and environmental protection.

10. UNOOSA I – Inclusive Education, Gender Equality, and Sustainability

As of today, women account for almost two thirds of the world's illiterate population. In many regions, gender disparity still widens in secondary and tertiary education, e.g. in Sub-Saharan Africa. At the same time, girls are also more likely to be completely excluded from primary education: 15 million girls will likely never enter a classroom compared to 10 million boys. The participation of women in education drops globally with higher education, which is particularly striking in science, technology, engineering, and mathematics (STEM) fields. Women represent only 35% of all students enrolled in STEM-related fields of study. These educational gaps translate into disadvantages on the labour market. Only 49 percent of world's women in working age are in participating in the labour force compared to 75 percent of men. Globally women earn 23 percent less than men and are less likely to be employed in a leading position. Gender equality itself is a fundamental human right, and is specifically mentioned in the UN Charter, the core document of the organization signed in 1945. UNOOSA has established a Space for Women Project, aiming at promoting gender equality in STEM education and providing policy-relevant advice, knowledge management and evidence-based

awareness raising, research and data to institutions and governments. The research project should study innovative solutions that can help increasing the share of women in the STEM fields. What are common reasons in different countries explaining the low representation of women in these areas and what are possible ways to narrow the gap? How specifically can greater access to STEM education and gender equality in the Space field promote the empowerment of women in support of the SDG implementation?

11. UNOOSA II – Space-Based Technologies and Environmental Protection

Space-based technologies, such as satellites and earth observation data, have seen major improvements and innovations in the past decades with an increasing number of applications. This research project shall explore the usability of space-based technologies and its methodologies and models in the area of maritime security and water protection. How can modern technologies help preventing and mitigating marine accidents (capsized vessels, oil spills etc.)? How are data derived from space technologies used for informed decision-making on a policy level related to the SDGs focusing on targets/indicators related to water? Are there any gaps in the knowledge derived from space-based technologies and if so, what are these gaps? The research can be carried out on a local, regional or "global" level. However, it should focus on policies by developing countries, or, if the global level was selected their implementation and effect in developing countries. Depending on the background of the students, the focus of the applied research can vary both in geographic scope and methodology. The outcome of the research should be a technical paper presenting the research findings with concrete examples as well as conclusions. Results should mainly focus on best cases and the gaps in informed decision making that is based on earth observation data and space-based technologies, which can be used for water management. Which policies aiming at solutions towards the SDGs/targets/indicators are based on information derived from space-based technologies? Where are gaps between the information that can be derived by scientists and the information, actually taken into consideration by decision-makers on a policy level?

12. Ban Ki-moon Centre for Global Citizens – Strategies for a Successful Implementation of the SDGs: Best Practices and Cases

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. While the SDGs provide common objectives and concrete targets to be achieved by the United Nations and its member states, the concrete steps of implementation and strategies are developed and devised mainly on country level. The desired research would be a case-study on SDG implementation in the top "best-practice" countries as ranked by the SDSN Index and Dashboards 2018, particularly related to Environmental and Socioeconomic Sustainability with a focus on one or more of the SDGs that the Ban Ki-moon Centre emphasizes, including Education (SDG4), Climate Action (SDG 13), Gender Equality (SDG 5), Health and Wellbeing (SDG 3), and Sustainable Cities and Communities (SDG 11). How do different national strategies affect the successful implementation of the Sustainable Development Goals and the 2030 Agenda and what similarities can be found between the "best-practices" for SDG implementation? Is there a recipe for success? What recommendations can be offered to help these and other countries excel further in SDG implementation?

13. OSCE I – The Gendered Impact of Climate Change across the World

A discussion on Environmental and Socioeconomic Sustainability and on the issues to be faced by future generations is incomplete without analysis of the world we are leaving them to inherit. Indeed, one of the goals should be to provide for a safer future by engaging with youth and promoting sustainable development, among other measures. The single greatest issue affecting the future for youth is, of course, climate change. This research project shall focus on the gendered impacts of climate change, particularly as they relate to young women and girls. Women and girls are disproportionately vulnerable to the effects of climate change. As many women and girls are the principal users and managers of natural resources, the primary caregivers and the keepers of the home, they are involved with and depend on the resources that are most likely to be affected by climate change. In addition, there is a growing body of research indicating that climate change is likely to increase the risk of conflict, which will in turn lead to the conflict-related impacts on young women and girls. Conflict and natural disasters spurred by climate change will also generate increased migration creating unique risks and challenges faced by migrant women and girls, a population that is sure to grow as climate change worsens. This research project shall study the gendered impact of climate change in different regions of the world and derive recommendations to inform policy makers and practitioners. How are women differently affected by environmental change and to which degree does gender development and equality on a national level impacts climate change policies and its consequences?

14. OSCE II –Sustainable Solutions to Achieving Gender Equality

In many countries of the world, women still face considerable disadvantages, ranging from their professional to their private life. This lack in equality comes at a cost. Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable world. In his address after inauguration, the United Nations Secretary-General Antonio Guterres has pledged to make gender equality one of his top priorities. "I think that one very important element of the agenda (the Secretary-General agenda for his first 100 days in office) will be to give a clear signal that gender parity is a must, [….] gender parity will become a clear priority from top to bottom in the UN. And it will have to be respected by all." This research project should focus on the current state of achievements in gender equality worldwide and highlight some of the remaining key challenges. It could address issues related to women empowerment, the participation of women in political and public life, and violence against women (also considering the implementation of the UNSCR 1325 on Women, Peace and Security with its 20th anniversary in 2020). Although women are among the groups most affected by conflicts, they can also play a pivotal role in conflict resolution. What are sustainable solutions in achieving gender equality that help to leave no one behind? How can greater inclusiveness and equality, on the other hand, positively influence sustainability (for example in the environmental dimension)?