Research Guidelines and Call for Research projects

Summary of the proposal/grant: The main vision of this project is sustainability of human and natural systems by leveraging actions that enhance diversity (agricultural, human, natural). Basically, we increase respect for ourselves, for each other (regardless of background, nationality, gender etc), and for nature. Funded by the EU Peace Initiative, the three year project leverages resources of the Palestine Institute for Biodiversity and Sustainability (PIBS) at Bethlehem University, the Palestine Center for Rapprochement (PCR), and the Galilee society (GS) to create three regional centers: a Biodiversity Center (BC), a Human Diversity Center (HDC), and an Education center (EC). While located at those three organizations they operate and function via collaboration on areas of research, service, conservation, and learning towards behavioral change. *For the relevant section from the proposal related to research, see Annex 1 below.*

We are issuing a call for research projects of up to euros 4000 including use of existing extensive facilities and equipment available. We especially encourage master student to apply after engaging with their advisors.

DRAFT APPLICATION BELOW

General Guidelines:

1) All applying researchers must attend a research workshop before acceptance of proposal that will exchange knowledge in these areas: criteria for research, communication of research output, research methodology, publications. [This is a condition of acceptance]
2) Research subject must be in line with sustainability of human and natural communities (see UN relevant SDGs and Annex 1)
3) Research must relate to proposal themes and be **applied** in one (preferably two) of these subjects: biodiversity, human diversity, and education. The word applied here means it relates directly to point 2 (sustaining human and natural communities) in tangible ways. For biodiversity we must go in line with CBD guidelines and NBSAPP (National Biodiversity Strategy and Action Plan for Palestine).
4) The outcome of the research must be easy to translate into educational modules to school and university systems usable by a diversity of communities and across borders**.**
5) Must do collaborative research and use the resources developed in one (preferably more than one) of the three centers (EC, BC, HDC) and the published papers credits in acknowledgements both the centers that helped, the name of the project, and the EUPI funding.
6) Researchers must be willing to publicize based on visibility and communication strategy
7) Research should involve young people (students at universities or research institutions)
8) Must produce a publishable paper in peer-reviewed journals.
9) Research progress should be reported on a bimonthly basis to the centre manager and to project research committee.

Specific guidelines for biodiversity research:

1) Must be related to biodiversity conservation and/or utilization, species, genetics and ecology in Palestine (as a whole)
2) Must help in biodiversity conservation and mitigation and adaptation to human induced environmental damage (including Climate Change)
3) Must follow of the guidelines of the CBD and the national strategies

Examples of applied biodiversity research: Agro-biodiversity in rain fed ecosystems; Biological control via local species; Medical Zoology relevant to human communities; Use of medicinal plants among our Canaanite ancestors; Tangible and Intangible cultural heritage related to biodiversity conservation; improved methods of composting and other recycling strategies; Ecosystem functions; Endangered species and their genetics, genetics, and biotechnology.

Specific guidelines for human diversity research:

1) Must highlight the ancient history and the diversity (but also unity) of human diversity in Palestine (as a whole). Since civilization/agriculture originated here first in the fertile crescent, it is imperative to have locally produced research material that reconnects all people to their heritage.
2) Must promote understanding and conservation of human diversity: promotion of multiethnic, multicultural, multi-religious society. This includes research that highlights the destructive aspects of separateness, racism, chauvinism, sexism etc.

Examples of applied human diversity research: Linking current populations biologically/genetically to ancient populations; ethnographical research showing connectivity of languages, cultures, costumes; Ethnobotanical and ethno-zoological research (shared between certain communities); Identity and culture issues that relate to mutual respect; Wadi Natuf: origin of human agriculture in Palestine.

Specific guidelines for education research:

1) Must take results of the two other research areas to translate into pedagogies of awareness/education that promote human and natural diversity
2) Must produce tailored educational modules that are age sensitive (School and University students) and community (Bedouins, women, and other marginalized communities).
3) Must be demonstrably able to effect audience/learners behavior in a positive way.

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Annex 1. Relevant sections from the Proposal on research

By definition, addressing sustainable development is an interdisciplinary venture. Addressing the challenges of sustainable development requires collaboration that is focused on both sustaining human as well as natural diversity. This requires research, education, and bridging the gap between knowledge and practice to build and maintain sustainable human and natural communities.

With regards to **research** on sustainability and cultural heritage there is a deficit and if it exists it is typically weak and underutilized [1]. Implementing **conservation and human diversity** actions on the ground is difficult due to occupation, segregation, and inequality (apartheid). The significant threats that we face can be addressed through a combination of environmental [2] and cultural[3] efforts (see also see http://palestinenature.org).

This is a problem that can be addressed through engagement in sustainability issues from various perspectives (environmental, human, agricultural), using the knowledge and resources that exists in the research community (and that the 3 applicants hold and can connect to). At the same time, practical work that is being undertaken of mutual interest by researchers in both Israel and Palestine can be strengthened especially in areas of transfer of knowledge to the common people. By addressing these problems through increased collaboration, cooperation and outreach to stakeholders opportunities can be identified and action taken of mutual benefit to all.

We propose to address these challenges via a three-pronged approach:

1) Biodiversity: It is now well recognized that biodiversity is important for poverty reduction and sustainability[4]. There are earlier studies of biodiversity in Palestine/Israel done mostly by non-indigenous people (mostly European travelers). In 2014 we established the Palestine Museum of Natural History at Bethlehem University and have since published some significant findings related to environmental issues and biodiversity in Palestine[5]. There are key biodiversity areas that are applied and can be used to ensure human and natural ecosystem sustainability: 1) Basic surveys and biodiversity inventories used for monitoring and evaluation of conservation efforts, 2) natural resource management including assessments of risks and interventions, c) molecular genetic research to monitor populations,, d) sustainability research such as agro-biodiversity and biological pest control, e) environmental awareness leading to behavioral change.

2) Human diversity: Cultural heritage protection preserves identities and protects community wellbeing (UNESCO 2003) as well as rights and responsibilities [6] As part of the Fertile Crescent, Palestine/Israel has a rich heritage of proverbs, behavioral patterns, and linguistic peculiarities (both Palestinian Arabic and Aramaic and Hebrew) reflecting interactions with nature over centuries. This ethnology heritage is threatened via modernization and political instability. Valorising can act as a glue to hold societies together. Cultural heritage and biodiversity conservation are also intertwined[7]. In the context of Palestine/the Holy Land some ethno-ecological work was done by travelers such as pilgrims and researchers of the British survey of Western Palestine in the 19th century. Modern studies are few (e.g. [8]). Narratives of how our ancestors (going back to Netufian and Canaanite agricultural periods) lived in proximity to nature, and how the skills they developed – organic farming, rain harvesting, using traditional seeds, gathering wild plants for food and medicine – could help improve sustainability today. Many studies demonstrate the ecosystem benefits provided by re-examining close human-nature interactions or the cultural-ecological landscape. [9] If we as humanity want to have a future, we need to learn from our shared past in living together in this region. Significant ancestral knowledge and skills exist that can be helpful today, such as organic farming, rain harvesting, using traditional seeds, the use of wild plants for food and medicine and many more. Appreciating the value of the large diversity of communities that live in this area (composed of many religions, ethnic backgrounds, cultures and lifestyles) will be key to protecting this diversity which is antithetical to the causes of war (greed, ethnocentric nationalism etc).

3) Bridging knowledge with practice: The above two areas of knowledge can be translated into action that makes a difference in people's lives via awareness and education that lead to behavioral changes and projects that bring people together to address the challenges they face.

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[3] Qumsiyeh, MB. 2018. Ethnoecology of Palestine: Preserving Culture Heritage of Palestine's Natural History. Conference Proceeeding. In 4th Hyperheritage International Seminar Proceedings (International Conference): Smart Heritage. http://europia.fr/HIS4.

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