Objectives: The study aims to enhance the protection of the rights of Panama’s Embera and Kuna communities over their medicinal plant knowledge by exploring: TK ownership and transmission, customary laws for use of TK and customary authorities and decision-making. The participatory approach entailed discussion groups with traditional authorities, forming Societies of Traditional Kuna and Embera-Wounaan Doctors, analysing their understanding of TK, environment, natural resources and biodiversity, consulting government institutions, and offering recommendations to the indigenous congresses (governments) for establishing customary laws and visitation protocols in the communities.

Context: The study takes place in two different areas rich in biodiversity and TK: The Kuna territory, legally established on the Atlantic islands and coast of Panama, one of the last remaining areas with 80% natural forest cover; and the Embera and Wounaan communities in riverside and inland areas of Darién province, with high forest cover. Part of the Emberá and Wounaan population occupy ancestral territories without legal recognition, and therefore their territories, culture, TK and traditional ways of life are constantly challenged. The Kuna, Emberá and Wounaan are farmers, fishermen and hunters.

Challenges and Opportunities for Protection of Collective Bio-Cultural Heritage: The main challenge to indigenous rights is the invasion of their territories by loggers, hunters, cattle farmers, migrants and tourism companies. The Kuna have minor invasion problems at their borders caused by people washing for gold, loggers and hunters. This threat is stronger and more frequent in the ancestral lands occupied by the Embera and Wounaan that do not have legal recognition. This forested land is considered to have no use or social function and therefore is threatened by migrants searching for new land to deforest for cattle and agriculture. The agrarian reform law supports these threats in considering land as not viable for property titles if it does not serve a social function, in other words, if it is not being worked (cultivated, occupied by cattle, etc.). In the case of the Kuna, the challenges to TK and biodiversity come mainly from development plans in education, health and tourism that are not in compliance with the customary vision and norms. In addition, there are concerns over bioprospecting and the unauthorised use of traditional medicine in the absence of adequate policy and legal protection.

There are many opportunities for recognition of indigenous rights: laws that recognise indigenous territories and their collective use, the law for protection of traditional knowledge and the general law of the environment for free, prior and informed consent, and coordination with traditional authorities offer opportunities for modification of existing laws or establishment of specific laws for recognition, protection of customary laws, and management and co-management of resources within indigenous territories. Institutions such as the Department of Industrial Property Registration and the National Environment Board seek protection of TK and territories and can form alliances for indigenous recognition. Embera and Wounaan communities are fighting to obtain a collective property title for which a law project is being discussed in the legislative assembly of the Panamanian government.

Collective Bio-Cultural Heritage – Interlinked systems: The TK of the Kuna, Embera and Wounaan consists of a complex system of knowledge based on their intimate relationship with nature, and forms part of their culture and therefore is the basis for customary laws. TK is based on their worldview that the earth maintains people; the earth, land or territory with its diverse components are God’s creation, each one has a spirit. These components are: land, soil, landscape, forest, water, sacred places, biological and genetic resources and non-renewable resources. The communities believe that TK of these resources is natural and therefore is also from God. In this way, the Kuna, Embera and Wounaan have created a “Praxis” and established systems for specific knowledge such as: i) Worldview, or belief system about the earth and natural resources and the role of man (Material and spiritual world), ii) System of customary laws and traditional practices, iii) System of social, cultural and spiritual values, and iv) System of Code of Ethics for the users of medicinal plants or users of biological/genetic resources. Ensuring compliance with these systems is responsibility of the traditional authorities and institutions at a community as well as territorial level. In this praxis, social, cultural and spiritual values play an important role, ensuring the conservation of the forest, sacred places, biodiversity and culture itself.

Nature is described in the relationship between TK and BRS/GRs and indigenous worldview or outlook:
• Territory: Is considered by indigenous communities their main resource where life of indigenous cultures is carried out collectively. Landscapes and forest cover are maintained and conserved by indigenous communities because of their worldview of nature.
Customary Laws and Practices: The customary laws are based on TK of BRs/GRs. Therefore, the use and exploitation of these resources is based on respect for nature, in the request for permission from the plant spirits for cutting them, in not performing massive removal of soil, in not disturbing sacred places that may cause hatred and bring about epidemics and disease. This TK is maintained by specialized people who are versed in traditional culture and medicine and ensure that the population complies with these laws. Nonetheless, current generations of youth that are acquiring western education and lack cultural knowledge do not accept this knowledge and tend to deforest and destroy ecosystems.

The principles that guide all aspects of life in Kuna, Embera and Wounaan communities are: reciprocity, solidarity, unity and equilibrium, duality and equity. The principles can be grouped into social, cultural and spiritual values, and are fundamental principles that guide customary laws and traditional practices. Important principles are reciprocity, duality, spirituality in nature; solidarity, brotherhood, societal unity; productivity of the land, conservation of nature, compliance with the Code of Ethics. Specific Customary laws exist for: 1) Use, transmission and protection of TK; 2) Exploitation and use of biological resources; 3) Use and management of ecosystems and non-renewable resources, 4) Ritual and ceremonial practices in traditional medicine. Customary laws establish requirements and procedures for learning, and for protection against bad medicinal practices, theft of knowledge and special use of language for the names of plants, animals and specific knowledge. Customary laws and practices for the exploitation and use of biological resources establish rules and sanctions in cases of over-exploitation, indiscriminate hunting and ecosystem destruction.

Clear customary laws exist in the Kuna communities for these matters. For the Embera and Wounaan, customary laws also exist but the loss of these is more accelerated since they do not have a defined territory and their socio-cultural relations are more intimate with non-indigenous rural farmers, but they try to conserve their traditional laws. In general customary laws are practiced by those with specialized cultural training such as doctors, traditional leaders, traditional specialist or some other branch of cultural knowledge. The youth, with western education and professionals do not know of these laws or no very little about them.

TK of traditional medicine and BRs/GRs are considered collective property of the Kuna, Embera and Wounaan, even though the accumulation of experience is individual. It is said that this TK is God’s and therefore it should benefit humanity as a whole without distinctions. The Kuna, Embera and Wounaan have jurisdiction over these areas of defined extension for the exploitation of the natural resources, and the borders are respected by traditional authorities of each community. Users of one community must request permission to access the resources of neighbouring communities. TK is given to people who demonstrate interest in conservation, practice their specialization correctly, are disciplined and show good conduct. The primary interest is as a service to humanity and not an economic interest. It is said that benefit from TK must be collective, since it belongs to God, and therefore individuals cannot claim property rights of TK. In the same way, the distribution of benefits is performed in an equal manner and according to the experience of each person or specialist.

Lessons for Sui Generis Systems and ABS regimes: Systems of TK of BRs/GRs are based on practices where geographical borders are not defined, nor are timeframes, and the predominant concept is of collective use and benefit, with reciprocity. Individual and economic benefit is not the basis of the experience. All of the environmental components are considered to be important with defined roles and with reciprocity. Generally, national and international policies and development programs that affect indigenous peoples contradict their worldview and customary laws, because these policies define geographical borders, timeframes, and their focus is individual and commercial. Therefore it is necessary to create laws that protect customary laws and practices within indigenous territories and ensure that development programs and planning are based on these laws and indigenous worldview. The implementation of these sui generis systems should start with the systematic cataloguing of TK and traditional laws in order to form part of the territorial laws as in the case of the Kuna, where administrative laws were developed to deal with the development of the region, based on their worldview and traditional practices. Later, these laws must be recognized by States for cultural cohabitation in accordance with their way of life and traditional practices.