Cooperating Organization Report

of

Circum Pacific Council for Energy and Mineral Resources (CPC)

Submitted by

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(For Agenda Item 6.2)
1. Summary

The Circum Pacific Council for Energy and Mineral Resources (CPC) was founded in 1972 by Michel Halbouty as an international, non-governmental, tax-exempt association of earth scientists and engineers who represent industry, academia, and government. The mission of the Council is to foster better understanding and communication about earth resources and understanding risk in the Pacific Region. The Council’s goals include: improving knowledge of earth resources and damaging natural hazards in the Pacific Region; increasing collaboration among geologists, hydrologists, biologists, oceanographers, and related scientists; and disseminating earth science information through maps, publications, symposia and workshops.

In the early years, as part of its main activities, CPC had organized major conferences every 4 years from 1974 to 1986. After that, a series of symposia and workshops were organized once every one or two years to assist countries in the Circum Pacific region by providing a forum for in-depth discussions on topics germane to their needs. Framework geology has been the key to understand potential hydrocarbon and mineral resources as well as potential risk from natural hazards. More recent workshops have begun to analyze the demand side of resources, particularly as it relates to sustainable development.

CPC also published papers that include new data and new maps; report on CPC sponsored conferences, symposia and workshops and describes the results of onshore and marine geological and geophysical research and explorations in and around the Pacific Basin. Topics of interest include framework geology, petroleum geology, hard minerals, geothermal energy, environmental geology, volcanology, oceanography, tectonics, geophysics, geochemistry, and applications of renewable energy.

CPC has under the map project published the following series of maps: The Circum-Pacific Map Project (CPMP) and the East Asia Geographic Map Series. Other projects of CPC that have been completed in the past few years include: Circum Pacific Geospatial Data Project, Crowding the Rim initiative, HazPac, RimSim and CTR Educational Module.

Several new initiatives have been embarked by CPC to address the needs of the people of the Circum Pacific Region. Among some of the major activities are: Powering the Rim - the future of energy security in the Circum-Pacific region, Aggregates – the building blocks of infrastructure, Geothermics – an energy source not yet fully realized, and Tsunamis – the waves that destroy.
Some publications of CPC have been provided to CCOP for information dissemination and could be of use for GRID-net.

2. Review of current technical activities and geoscience programmes in the CCOP Region (Multilateral or Bilateral)

CPC has under the map project published the following series of maps:

The Circum-Pacific Map Project (CPMP): This is a cooperative international effort to assemble and publish new geographic, geological, geophysical and resource maps of the Pacific Basin and surrounding continental areas. The Circum-Pacific Maps are intended to aid in the exploration for new resources and to stimulate research in all aspects of the earth sciences and natural resources of the region.

The East Asia Geographic Map Series: This is a series of eight overlapping 1:2 million sheets useful for the compilation and display of resource and environmental information have been published. This project was undertaken in joint cooperation with CCOP and USGS.

Other projects of CPC that have been completed in the past few years include:

Circum Pacific Geospatial Data Project: This contains a digital geoscience databank including a lexicon of geologic names and a compilation of bio- and chronostratigraphic data for East and Southeast Asia. This project was undertaken in cooperation with the USGS and CCOP, and with financial support from the Industrial Associates.

Crowding the Rim initiative: Under this initiative, a partnership among the American Red Cross, Circum-Pacific Council, Stanford University and the United States Geological Survey was established to understand the increasing potential for catastrophic social and economic disasters. The Crowding the Rim Project creates tools to promote cross-sector international discussion to mitigate regional catastrophes. Some of the outputs of this initiative include:

HazPac, short for hazards of the Pacific is a compilation of digital data on natural hazards, population and infrastructure. Utilizing GIS technology, one can view and query the HazPac dataset to discover the regional interconnections and shared risks of the Pacific Rim region. This dataset is available on CD-ROM from the USGS or can be downloaded for free from the website.

RimSim, short for Pacific Rim Simulation is a conflict negotiation simulation that provides an opportunity to address risk in an increasingly interconnected global community. Participants are introduced to a collaborative problem-solving approach that emphasizes face-to-face dialogue and multinational cooperation in dealing with humanitarian concerns as well as long-term efforts to reconstruct local and regional infrastructure. Workshops featuring RimSim have been held in Palo Alto, USA; San Jose, Costa Rica; Shanghai, China; and Bangkok, Thailand.

CTR Educational Module, a set of secondary-level classroom curricula, was developed to educate young people and others about risk in the context of the Pacific Rim. These teacher-friendly lesson plans and exercises incorporate group discussions,
collaborative problem solving and Geographic Information Systems (GIS) technology. This module was published by the Stanford Program on International and Cross-Cultural Education (SPICE).

3. Proposed future activities and assistance to CCOP in support to current and future activities

The CPC is embarking on several new initiatives that address the needs of the people of the Circum Pacific Region. Among some of the major activities are:

**Powering the Rim - the future of energy security in the Circum-Pacific region.** Although much is known about the distribution of energy resources throughout the Pacific Rim, no synthesis of this information exists to aid decision-makers in evaluating geopolitical risks and opportunities associated with energy resource production, transportation, and consumption in this region. The CPC proposes to develop, compile, and present the fundamental energy resource data necessary to make well-informed, strategic energy policy decisions for the Pacific Rim. These data will include estimates of reserves and resources of fossil fuels, including oil, natural gas, and coal; sources of renewable energy production and potential, including geothermal, wind, solar, and biomass; and strategic minerals such as uranium. The occurrence of these energy resources combined with consumption data and projected demand will provide a graphic representation of where energy resources can be produced, where they are used and where they will be needed in the next two decades. We propose to create an energy resource atlas designed to illustrate these critical relationships.

**Aggregates – the building blocks of infrastructure:** The availability of materials and the environmental impacts of extraction are critical issues for a number Pacific rim countries. The CPC wishes to elevate this local issue to international status and develop a methodology for conflict resolution among construction industry, city governments, environmentalists, and the recreation community.

**Geothermics – an energy source not yet fully realized:** The goal of this project is to develop a workshop curriculum designed to highlight how and where small supplies of geothermal energy can have significant impact on selected local areas. The intent is to broaden the application of geothermics.

**Tsunamis – the waves that destroy:** Tsunamis may be locally generated or they may travel at high speeds across an entire ocean. The project is designed to work with the Civil Defense and local authorities of coastal zones around the pacific margin. Outcome objectives include better education, improved warning systems, enhanced responders capability and more prudent land use planning.

CPC appreciates the opportunity it has to work closely with CCOP for the past 30 years. With the signing of the CCOP-CPC ADPC Memorandum of Understanding in April 2004, it looks forward to an even enhanced level of cooperation and partnership in the coming years.
4. Reports/publications of technical activities for dissemination to CCOP Member Countries including contributions to GRID-Net


   b. RimSim in Shanghai DVD; Circum-Pacific Council for Energy & Mineral Resources (CPC) in cooperation with the US Geological Survey (USGS) and the Earthquakes Megacities Initiative.