Evaluación Internacional FORECOS 2007

Resultados de la evaluación de las Memorias Anuales 2007 de Institutos y Núcleos Científicos de la Iniciativa Científica Milenio

SERVICIOS ECOSISTÉMICOS DEL BOSQUE NATIVO A SISTEMAS ACUÁTICOS, BAJO FLUCTUACIONES CLIMÁTICAS - FORECOS

Component 1: Advanced Scientific/technological research

Grade component 1 - 9

1. Coherence of the central objectives with the orientation, actions and methodologies developed.

1. Coherence of the central objectives with the orientation, actions and methodologies developed.

There is generally good correspondence of reported activities, including publications, with central objectives of the Nucleus. There do seem to be some projects focused on very small details of a scientific topic, e.g. sedimentology, and hydraulic conductance of tree branches, with no readily apparent connection to central objectives, although connections may exist in the minds of the scientists. The records of publications, education of students, outreach activities and collaborations are very good. There is obviously very strong emphasis on communication with the general public via news media interviews and commentaries.

2. Advances in each research line, and of the Nucleus as a whole (achievements, impacts, front edge research, others).

Several integrative papers do seem to indicate significant advances, i.e. the Nahuelhual et al. paper "Valuing ecosystem services of Chilean temperate rainforests", the Meynard et al. paper, "La integracion de la ciencia…" and the contributions to the documents on "Fire, Ecosystems and People", "Biodiversity Loss and Conservation...", and "Salmon Farming in the Lakes…" . However, it is not clear from the documentation, especially the scientific publications, what is the "impact" significance in any of the individual research lines. Publications seem significant, and are likely building a base and framework for future advances in each of the lines that may be more clear as the work develops.

3. Collaborative and interdisciplinary work among scientists, within research lines and at the Nucleus.

The integrative papers listed above in 2 seem to be excellent examples of collaborative and integrative work within lines and at the Nucleus.

4. Productivity level of the Nucleus, especially taking into account the following concepts informed in the report:

• Publications (level and quantity reached according to the subject and its possible impacts; ISI publications or equivalent standard, SCIELO or equivalent standard, depending on the discipline, and other publications).
• Presentations to Congresses/Seminars and others (level, quantity, participation).
• Innovation and patenting resulting from the research.
• Researchers participating in ISI journals' editorial committees or equivalent.
• Resources obtained from the private sector

Productivity of the Nucleus for one year, 2007, is very good for the points listed. The integrative papers listed above, and some of the outreach activities and workshops are innovative and demonstrate the dedication of the Nucleus scientists to communication with the general public, as well as with scientific colleagues. There is excellent record of obtaining resources from the private sector.

5. General comments and suggestions about this component:

It might be useful in the regular meetings of the Nucleus people to emphasize the connections and interrelationships among individual projects and the overall objectives. It might also be useful to consider more careful focus of funded projects on the major objectives on the Nucleus, recognizing that some "basic" research is needed to satisfy the scientific potentials of excellent scientists to keep them in the Nucleus.

Component 2: Training of young researchers

Grade component 2 - 9

1. a. Quantity and level of students (undergraduate, MSc, PhD) and of postdocs with tutors from the Nucleus.
b. Number of young people graduated during the period.

Quantity and level are very good, with exception of only one Masters level student. More students at this level could contribute significantly to objectives, especially when working along with Ph.D. students and post-doctoral scientists acting as mentors. Perhaps some of the numerous undergraduates will be encouraged to pursue masters level studies.

2. Publications of the associated, junior or senior researchers, coauthored by students.
Very good as best I can tell.

3. Participation of the Nucleus, or of the center's researchers, in formal programs of young scientists training at different levels. Based on the record of publications, regular meetings, and outreach activities it appears that the primary scientists are actively engaged with mentoring and training of young and aspiring scientists at all levels. It would be useful to know exactly how each of the undergraduates is involved.

4. General comments and suggestions about this component.

Achievement in this component is excellent.

Component 3: Networking

Grade component 3 - 10

1. Participation of the Nucleus' teams of researchers in formal networks, national and/or international, already established or in process to be established. Quantity and quality.

Based on documentation presented participation is excellent and will certainly continue. Participation at the national and regional (e.g. with colleagues in Argentina) scales is excellent, and, there is good participation at the continental and broader international levels.

2. Relevance, projection and achievements of these networks.

It is evident that participation of Nucleus scientists is highly valued by colleagues, as demonstrated by contributions to the documents on "Fire, Ecosystems and People" sponsored by the Nature Conservancy and Global Fire Partnership, and the volume, "Biodiversity Loss and Conservation in Fragmented Forest Landscapes".

3. Participation of the Nucleus in other collaborative activities. Quantity, quality, achievements.

The work on the topics of "ecosystem services", stream and near-shore water quality, and salmon issues will surely lead to additional highly-recognized collaborations and interactions with international scientists.

4. General comments and suggestions about this component.

The Nucleus leaders and team have been outstanding in their networking and collaborative activities, based on their excellent scientific achievements and active participation in publicizing their work. The Nucleus will continue to attract the attention of national, regional, and international scientists and policy makers.

Component 4: Outreach

Grade component 4 10

1. Outreach activities carried out by the Nucleus. Quantity and quality. Relevance, projection, and achievements of outreach activities.

The quality and quantity of outreach activities as documented in the Annexes of the Nucleus report are outstanding. They are relevant to the objectives of advancing understandings of interactions of forests, ecosystems, landscapes and hydrological processes. As greater pressures build for intensive forest management for wood fiber and other uses the outreach of the Nucleus will be very important to influence the general populous in supporting sound policy and political decisions that impact maintenance of ecosystems and ecosystem services, and economic well-being of the people of Chile.

2. Connections with productive and services sectors (public and private), education sector, and with the community in general: joint ventures, development projects, others. Quantity and quality. Relevance, projection, and achievements of these connections.

The comments in 1 above address this topic. Connections are well-documented in the Nucleus documents. It is clear that Nucleus leaders and managers have strong commitment to and emphasis on effective outreach.

3. General comment and suggestions about this component.

This component is very strong in the Nucleus FORECOS. It could well be a model for outreach and connections by other nuclei.

General Comments:

General appreciation, suggestions and recommendations about the MSI Nucleus.

The FORECOS Nucleus is an excellent organization of talented and dedicated scientists. It is clear that the Director, Deputy Director and scientists and students are all dedicated to the objectives of the Nucleus and to a spirit of excellence and service to the scientific community and for the people of Chile. It is apparent that the work and "products" of the people of the Nucleus FORECOS do now and will continue to benefit the people of Chile, their individual and community economies and their native and intensively managed forest ecosystems and watersheds with their attendant ecosystem services. This Nucleus is an excellent investment for Chile and for many others. The people of the Nucleus FORECOS should be encouraged to continue to develop integrative, "transdisciplinary" work and documents to take advantage of the full potentials of the organization and its people.