

**XVI. RECOMMENDATIONS AND REPORT  
FROM THE SECOND FLORA MALESIANA WORKSHOP  
held in Yogyakarta 11 and 12 September 1992**

As an integrated part of the highly successful second Flora Malesiana Symposium held in Yogyakarta from 7–12 September 1992, a workshop on four major aspects included in the Flora Malesiana Action Plan (viz.: 1. Fund raising; 2. Recruitment of new authors; 3. Training and exchange programmes; 4. Flora Malesiana Checklist) was conducted on 11 and 12 September. On 11 September four groups discussed these items under the chairmanships of respectively John Burley, Marco Roos, Mien Rifai, and Peter van Welzen. The discussion group on training attracted by far the largest number of participants. Recommendations by the discussion groups were submitted to a plenary session on 12 September, chaired by Pieter Baas. The resulting recommendations to the Board of the Flora Malesiana Foundation and to all with an interest in the plant diversity of the Malesian region were unanimously adopted.

### 1. FUND RAISING

**The need:**

1. To complete Flora Malesiana within 20 years under the current action plan will require the following additional resources:
  - 350 fte/yrs of systematic research;
  - editorial and secretarial support;
  - some indirect cost recovery for participating institutions.

The total funds required are estimated at US\$ 50–100 million.

**The working assumptions:**

2. Flora Malesiana, as a product in its own right, is unlikely to attract major funding.
3. Rather, potential funding agencies must come to view the completion of the Flora is an essential first step in the process of understanding and managing S.E. Asian biodiversity, without which products such as biodiversity databases will not have a sound scientific base.
4. Funding of the magnitude required will be available only if international and national private sources are all successfully tapped.
5. Training components must be incorporated in any major proposal for funding.
6. Funding agencies ranked according to available funds are:
  - GEF (World Bank / UNEP);
  - EC;
  - National AID agencies (DANIDA / CIDA / FINNADA / GTZ / JICA / NORAD / ODA / SIDA / USAID);
  - FAO / TFAP;
  - National science/education/research organizations;
  - Private foundations (Alton Jones / Asahi / Ford / Indonesian Forestry Association / ITTO / McArthur / Rockefeller / Mazda / Mitsubishi / Pew / Toyota / Welcome etc.);
  - Private companies/sponsors.

### Recommended actions:

7. The chairman/vice chairman of the Board will:
  - seek information from GEF about the availability of regional funds and the procedures for applying;
  - send letters of interest to private foundations, FAO and TFAP;
  - informally explore funding potential for Flora Malesiana-related activities under present US-Japan environmental initiative;
  - pending GEF initiative, seek secondment to Flora Malesiana Foundation of (or funding for) a full-time person to coordinate fund raising efforts.
  
8. Individual member institutions will:
  - explore potential funding for inventory and floristic research under the present or future programs of their respective national AID agencies;
  - seek support of their national GEF representative for any application for funding by the Board;
  - seek funding for family/generic treatments from their appropriate national research agencies, private foundations and companies. Individual applications should include requests for additional funds for M.Sc./Ph.D. students whenever possible.
  - Institutions seeking sponsorship from companies with horticultural or pharmaceutical interest are cautioned that the intellectual and genetic property rights of the Flora Malesiana member countries should carefully be safeguarded.
  - The approval of the Board should first be obtained before sponsorship is sought in the name of the Flora Malesiana Foundation.
  - To avoid competitive approaches to the same potential sponsor, institutions should inform other participants and the Board of ongoing fund raising activities.
  
9. Kew and the Rijksherbarium will explore opportunities for EC support and report to the Board.
  
10. Kew will explore the possibilities of producing a 'Flora Malesiana' colour book.

## 2. RECRUITMENT OF NEW AUTHORS

The Board of Foundation Flora Malesiana should publish calls for new authors in *Taxon*, *Newsletter of the Australian Society of Systematic Botany*, and other relevant periodicals.

The Board is advised to explore the possibilities of recruiting taxonomists in small botanical University departments.

Without funds hardly any other steps can be taken to recruit 'pre-existing' specialists. Perhaps present collaborators of the Flora of Australia can be recruited for taxa with a strong Australian component.

To recruit new authors funds are a prerequisite, e.g. to contract new taxonomists now or formerly contracted for adjacent flora projects. More important, however, is to train botanists in the region.

The Board is asked to let the representatives of the Malesian nations make an inventory of talented B.Sc. botanists presently tenured in Malesian Universities, Institutes, and Herbaria. Many of these might be able to treat smaller-sized taxa. Funds are needed for overseas training and herbarium visits as well as for intensifying the existing training programs in the region. The possibilities in connection with e.g. the expected Indonesian GEF Project on systematic resources for biodiversity inventory, and the general international education funds should be explored. Possibilities of sponsoring by unexpected and unrelated sources should not be underestimated. The Board is invited to provide a list of possible M.Sc. and Ph.D. projects.

The Board should develop a system to intensify the relation with the collaborators within the existing network. Treatments can be chased up by frequent communication. Each collaborator must be contacted at least once a year. Each year the Board is requested to publish a progress report on all family treatments in the *Flora Malesiana Bulletin*.

Working teams on families need money for the organization and expenses of regular workshops. The Board has advised the organization of workshops for all working teams, at least for the *Araceae*, *Arecaceae*, *Asclepiadaceae*, *Euphorbiaceae*, *Myrtaceae*, *Orchidaceae*, *Papilionaceae*, *Poaceae*, *Zingiberaceae*, and preferably also *Pteridophytes*, in conjunction with the third *Flora Malesiana Symposium*.

### 3. TRAINING AND EXCHANGE PROGRAMMES

#### **Recommendations:**

As a general rule, the Board is requested to see that training is part of all relevant *Flora Malesiana* projects eligible for funding.

The discussion group expresses its appreciation for the various national and international training programs already in progress, and advises the Board to support these initiatives wholeheartedly.

The Board is asked to find support for training at all levels of education (basic, M.Sc., Ph.D., post-doc, technical staff).

The Board should note that next to taxonomic training, attention should be paid to the following subjects: field work and collecting, herbarium practice and management, identification (both in the field and in the herbarium), computer use, English language.

The Board is asked to note that there is an urgent need for a regional clearing house for the collection and dissemination of information pertaining to the possibilities for training at local university and institutional centres and field stations. This information should be disseminated through a tight network of contact persons directly to those in need of such training.

The Board is asked to seek funding so that taxonomists posted from non-taxonomic institutions are enabled to take leave of absence in order to work on revisions for *Flora Malesiana* at herbaria in- or outside the region.

The Board is requested to support as best it can all attempts at reforms in secondary and higher level education curricula towards a greater emphasis on biodiversity and taxonomy.

#### 4. FLORA MALESIANA CHECKLIST

##### 1. Use of the checklist

###### Recommendations:

- 1a. A checklist for Flora Malesiana will speed up preparation of families still to be revised, provided additional resources are found to staff the compilation of the checklist.
- 1b. The checklist should include an indication of the reliability of the records, in order to minimise unintentional misuse in the hands of any class of user.

##### 2. Data Resources

###### Recommendations:

- 2a. Several taxon-based databases exist already, such as the one compiled by Beaman for Mt Kinabalu. Automatic transfer of such information, particularly where verified, is preferred. It should also be possible to incorporate data from verified specimen-based databases, such as the Brunei checklist.
- 2b. Data to be keyed in (or machine-read) from published sources should preferably be taken from Flora Malesiana, Flora of Java, Tree Flora of Malaya and other reliable local Floras and revisions and also certain local archives such as the LAE card index and Hoogland's New Guinea cards in CANB.

##### 3. Data availability

###### Recommendations:

- 3a. As many institutes as possible, preferably at least all institutes represented on the Board of Flora Malesiana, should be involved with the checklist project; this should minimise problems about access to unpublished data, though unpublished names should not be entered in any form.
- 3b. There are three strands to the successful compilation of the checklist – initial compilation, verification and maintenance. Collaborating Institutes should be willing at least to verify data compiled elsewhere; participation in the compilation should also be considered provided extra funding can be found; maintenance will be discussed under 6a.

##### 4. Minimum dataset

###### Recommendation:

- 4a. The minimum dataset on p. 7 of the document provided for the workshop should be accepted with the following alterations:
  - Add data for genera – full details on the genus as a whole and a bibliographic reference to the latest revision.
  - Intraspecific names should be added.
  - Add an extra field for the reliability: A for recently revised;  
B for partially revised;  
C for not revised for 40 years or more.
  - Author names to be abbreviated according to Brummitt & Powell (1992).
  - Known misapplied names to be entered to the synonym field and suitably flagged.

## **5 . Procedure of compilation**

Recommendations:

- 5a. A start should be made with those families due for revision in the near future.
- 5b. In case of conflict between two equivalent sources as to the rank of a name, a narrow taxon concept is preferable and specific rank should be accepted if possible.
- 5c. Conflicting data which cannot be readily resolved should, in the first instance, be addressed by the compilers between themselves (with reference to IOPI standards). If unresolvable, perhaps an editorial committee should be available.

## **6 . Maintenance and availability of the data**

Recommendations:

- 6a. The whole database should be held in each of BO, L and MO. Maintenance of the database should be shared between them, each accepting responsibility for about one third of the data which should be updated regularly.
- 6b. Data should normally be freely available to all non-profit-making organizations and biologists whether on disk, in hard copy or on line. Commercial organizations should also be permitted access on payment of a fee to be decided by the Flora Malesiana Foundation, to cover the cost of maintenance and materials.
- 6c. Copyright should be vested in the Flora Malesiana Foundation.
- 6d. Users should acknowledge the Flora Malesiana Foundation in all their publications.