

The Project:

Typhoon damage in Binh Tri Thien Province

In October 1985 two strong typhoons struck the province of Binh Tri Thien, central Vietnam. The authorities reported quite severe damage: 875 persons dead, 49,000 houses destroyed, 230,000 houses damaged, 2,600 classrooms destroyed or damaged, 6 hospitals and 250 health centres damaged. In recent years other typhoons have caused extensive losses in the province. Losses have been significant not only because of loss of life and injury, but also because of the cost of replacing damaged buildings.

The UN programme of assistance

The province and the Vietnam government requested assistance from the UNDP, and following a UNCHS assessment mission in 1986, a proposal was made to provide assistance to the building sector, as part of a three project package to the region. This comprised establishing a typhoon early warning system (Sub-Project No.1), establishing a communication system to warn the authorities and the population of the advent of a typhoon (Sub-Project No.2), and designing and implementing a programme to demonstrate storm resistant building techniques (Sub-Project No.3).

The overall objectives of Sub-Project No. 3 are to define and initiate the process by which identified simple and low cost methods for improving the resistance of houses and small community buildings to typhoons can be disseminated and integrated into current building practice in Binh Tri Thien province, and particularly amongst local and self-help builders. Whilst technical know-how is available amongst qualified technicians in the Government institutions, this knowledge of suitable storm-resistant building techniques is not available to individual builders in the province. The vulnerability of buildings is also increasing as people move away from traditional building techniques using tried and tested methods and materials, and build instead "transition" houses with a mixture of imported and traditional techniques and materials. Lack of the appropriate technical knowledge, and in some cases the use of poor materials, contribute particularly to the vulnerability of the "transition" house.

The project is therefore concerned with an exchange of information between technicians and builders, and the communication of techniques to the people in the province most directly concerned with domestic building. At the same time, the project aims to raise institutional awareness of the steps that need to be taken to develop public awareness of storm-resistant building techniques.

To meet these objectives, Development Workshop and GRET, at the invitation of UNCHS, are organising a programme in Binh Tri Thien involving a series of workshops for policy makers, building technicians, and local builders; the construction of demonstration buildings; and the development of communication material aimed at the general public and at decision-makers in Vietnam.

The programme is divided into three phases. The first phase took place in May and June 1989 and included a seminar for policy makers in Binh Tri Thien Province (now divided into three new sub provinces), and theoretical and practical workshops for both the technicians and the builders in the southern part of the province. During this phase a two-classroom primary school has been built by the workshop participants. The purpose

of this phase was to develop and demonstrate a technique of information exchange and training, and to develop with the participants the methods and material to be used in future workshop programmes run by the province's local technicians. The second phase is taking place in November 1989, and involves a training workshop for technicians run by the Vietnamese without external support, and in one initial district of the province, the trial launch of a public education campaign on cyclone resistant building techniques and the help that is available. This will be followed by an evaluation in late November, and a further more substantial round of workshops and public information in February 1990, which includes the construction of a second demonstration building in the centre of the BTT province.

In the medium term, the hope is that the action plan being put into place in the three existing provinces will develop towards a national programme bringing help to a much larger number of provinces touched annually by typhoons.



The Communication Support

The video "My husband builds our house"

The purpose of the video film "My husband builds our house" is to publicize two things: that there is a Building Adviser available in the district to give free advise to the people, and to recommend that one should use the services of a builder trained in Cyclone Resistant Construction techniques when one builds a house.

The video projections will take place as follows:

In the Phu Loc district, each week there are a number of video film presentations using the 11 video machines available in the district. (TV and video player.) The video film "My husband builds our house" will be shown at the beginning of as many video sessions as possible in the district showing a film. At each showing, a form must be filled in, indicating the following information:

- * the place where the video is shown;
- * the date;
- * the number of people who come and watch;
- * the title of the main video film.

The poster (Annexe 1)

The poster shows 10 key principles of CRC. The poster should be displayed in at least the following places:

- * in the office of the Building Adviser;
- * outside the People's Committee building in Phu Loc.
- * on the wall of each school building in the Phu Loc district;
- * on the wall of each health building in the district;
- * in other public places in the district, including in the main village centre of Phu Loc, and in the other settlements, such as Loc Dien.

The location of each poster should be noted by the Building Adviser. 35 copies of the poster in black and white, and several in colour, will be available for display during the Public Education test.

The effect of the poster will be assessed in a survey during the evaluation, to obtain people's comments.

The folders:

A small folder showing the 10 key principles has been produced in the 1st Workshop. The folders will be given out by the Building Adviser to each person who comes seriously for advise.

Record the name of the person to whom the folder is given. There are 80 folders available for distribution. The building adviser can briefly explain the information that the folder contains.

The announcement:

The text of an announcement needs to be prepared to inform the public that the Building Adviser is Available; to explain that advise can be given about Cyclone Resistant Construction techniques, and that there will be a video showing "this evening", called "My husband builds our house". The announcement should be made using a car and a loud speaker. the announcement can also be made using the district public loudspeakers.



Annexe 1. The draft poster "Ten key principles of Cyclone Resistant Design"



NHỮNG ĐIỀU CẦN THIẾT KHI XÂY DỰNG NHÀ CHỐNG GIÓ BÃO

① Tốt là địa thế nơi chôn cất
Cần tránh thổi tới cần nhiều hướng đi.

② Để tiện 2 ta phải khác nhau
Hình dáng lên giảm mỗi khu làm nhà

③ Điều 3 lớp mái dốc to
Bên dưới hay chôn dầm tường

④ Điều 4 mái rộng nên ngắn
Giảm lưu dài mái chỉ sửa lại tí

⑤ Điều 5 liên kết các chi tiết
Neo giữ cho chắc bết nhiều hãm nguy.

Điều 6 ta nhớ khác nhau
Thêm thanh chống chéo thêm

⑥

⑦ Khu làm ta đi một gian
Phải thêm điều 7 mới bền mái lâu
Liên kết tấm lợp chắc chắn
Là điều ta nhớ giữ sâu rồi rồi

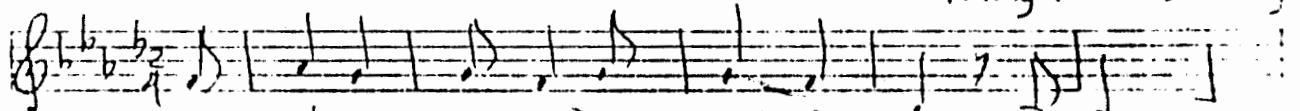
⑧ Điều 8 cửa sổ để mở
Kích thước đi
như 1 tấm kính
nhỏ

⑨ Điều 9 ta phải làm mái
lợp sao để khi bị sạt xuống

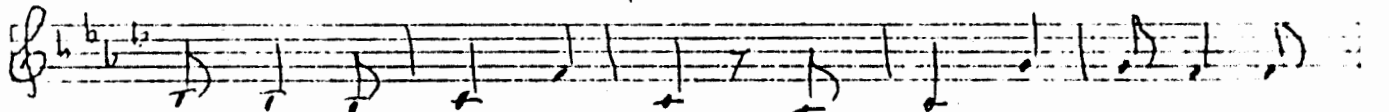
⑩ Tránh cây và cả hàng rào
Cao quá bị thổi vào nhà ta.

BÀI CA CHỐNG BÃO

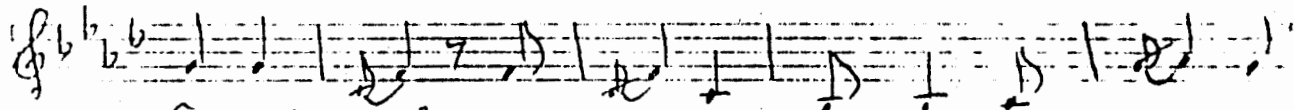
Phan Văn Mạnh
Trưởng T.H số 1 Hoàng Sơ



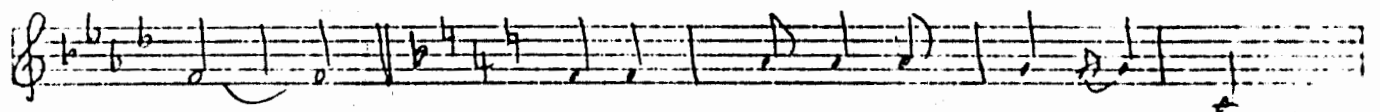
Bão đến quê tôi thường năm năm bảy lượt. Thịnh nộ cuồng



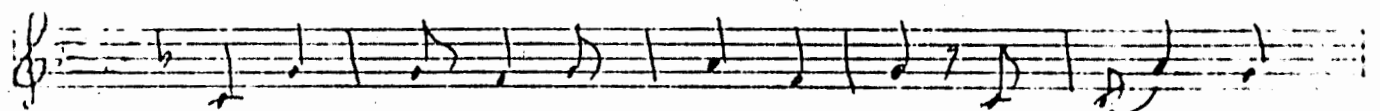
phong làm nhà cửa nát tan. Ruộng vườn hoang xơ cứng rưng



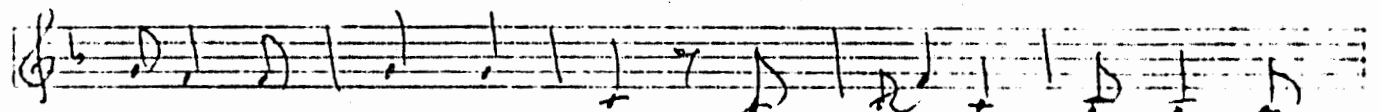
cây nghiêng ngả. Lạc kho' quê mình vì bão tố mìn



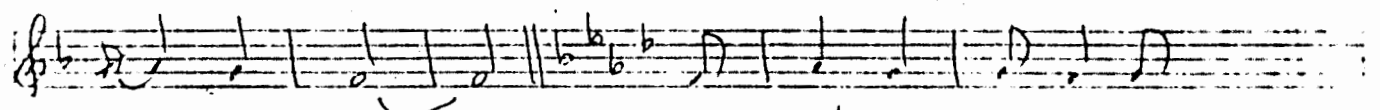
Sa. DK: Nào bọ' bị sao ta đành chịu đứ



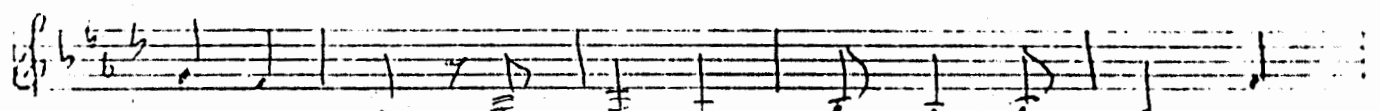
vượt phung ba thời gia cớ nhà ta. Dữ bão đi



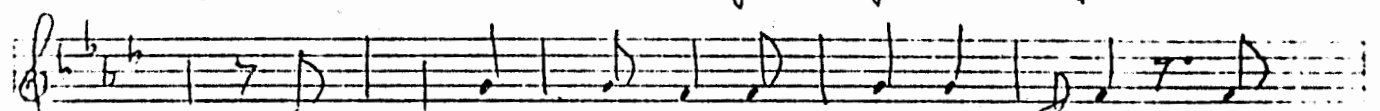
qua mái nhà ta vững trụ. Cuộc sống con người dễ phải



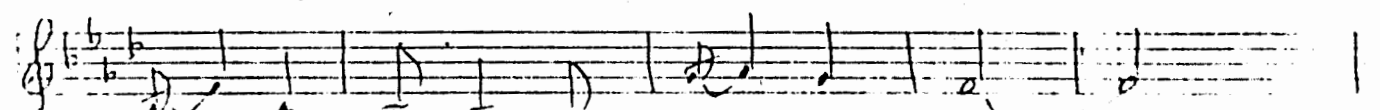
bất gian nan. Biết mấy đời vui quê lương



sống yên bình. Nhà nhà cũng chung sức chống đỡ thiên

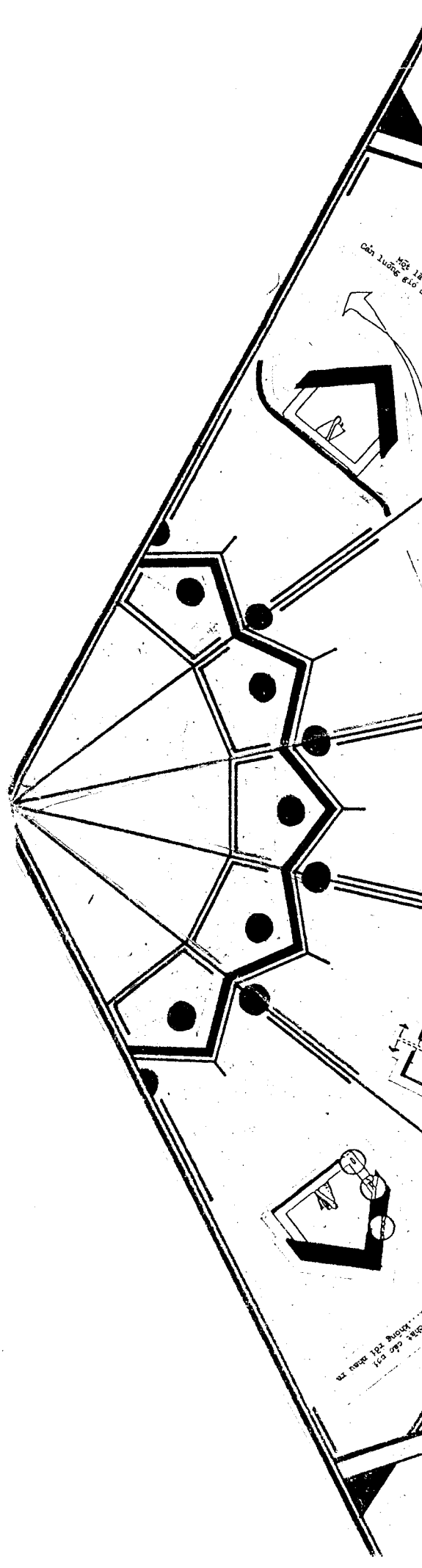


tai. Người người thi đua mà chảm lo mái lợp. Bão



lũ thời về ta vẫn ở yên tâm.

MƯỜI NGUYÊN TẮC XÂY DỰNG NHÀ CHỐNG GIÓ-BẠC



Một là lợi dụng địa hình
Cán nước gió đến công trình của ta

Bên là bình dĩa để đỡ các
đàn đàn cho đỡ gió, và đỡ mưa

Bên là tủ áo, tủ quần áo
Để đỡ tuyết vào nhà đỡ lạnh

Thước kẻ
Để làm
để đỡ
để đỡ
để đỡ

Để đỡ
để đỡ
để đỡ
để đỡ