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Background

The world has watched for many years as the South African educational system known as Bantu Education collapsed. Estimates state that fifty per cent of those who begin primary school do not finish even four years, which is considered the level of basic literacy. In the secondary school system today, the general level of education is summarised in the popular slogan that "no effective learning is taking place".

The rural areas of South Africa. and especially the so-called "homelands", suffer extreme deprivation in education. The schools that do exist teach Bantu Education - notorious for being developed to Tteach the natives to know their place" in an apartheid world. Children are condemned, under this system, to fullfilling the roles envisaged in the establishment of the "native reserves" in 1913: to remain a pool of unskilled.

, uneducated migrant labour for the "white"-owned factories and mines.

At the same time, the homelands remain economically and socially depressed. Men go to urban centres as migrant labour; women and children, the old and the sick are left behind, unemployed and unemployable. With the high rates of unemployment currently in South African industry, many skilled workers are jobless, and forced back to the homelands; yet these too have no possible hope of finding employment there.

It cannot be doubted that the South African State alone must be held responsible for the inadequate provision in terms of quantity and quality of education for the majority of the Population; demands must be made on the state to provide the necessary resources to address the situation. At the same time. it must also be recognised that the South African State's interests are opposed to the interests of the mass of the people. The current government is ideologically incapable of resolving the educational crisis in the interests of the majority of the population. -T

In these circumstances it is appropriate for communities to seize the initiative wherever possible, to provide progressive education of their own design and under their own control. that meets their needs and leads effectively to accelerated job-creation, and helps map out the education of the future.

The KaNgwane Project has been developed within this context.

The Kangwane Project is intended to comprise a complex of community-based institutions in Kangwane aimed at promoting education, development and job-creation. It will offer polytechnical education and training based on the work-study principle and follow the education-with-production (ewp) curriculum.

The Kangwane Project will consist of a main centre and eight sub-centres, spread throughout the homeland. (See map). The institutions making up the Kangwane Project will be agencies of development and production enterprises as well as places of learning. Its farms, factories and workshops will provide opportunities for reinforcing learning as well as for earning, . and may become future workplaces of some of its students.

When complete, the project will cater for 300 students at the main centre (which is intended to upgrade teachers and instructors), and for 300 students at each of the sub-centres. The pedagogy of the Kangwane Project - its content, its methodology and its linkages between theory and practice - will be mass-directed, aimed at minimising the divisions between mental and manual work and maximising student enrolment, designed to educate heads, hearts and hands, to develop the different talents of its learners as fully as possible, in their own and in society's interests, and to cater for a range of intellectual abilities and learning potentials. Using an experimental curriculum and methodology, the project aims to develop an education that prepares students to participate as fully effective and creative members of a new South Africa.

It is hoped that the Kangwane Project will serve as a model of innovative education geared to development and job-creation. for replication in other parts of South Africa, and it will be monitored with this in mind so that necessary adjustments can be made in the process of replication.

Kangwane has been chosen for the location of this model project for several reasons. On the one hand, it remains one of the most depressed homelands in the Apartheid system. On the other hand, the current Kangwane Administration is willing to give support to this approach, and is anxious to look for alternatives to the Bantu Education system the homeland has now.

But paramount in the choice of Kangwane as a location is the fact that progressive mass-based structures have been strongly established in Kangwane, through teacher and youth organisationa-

These organisations, with deep roots in the community and firm democratic structures of their own, are a main force behind the envisaged project, and must play a determining role in its materialisation.

Accordingly, the project is

with local structures of the S

Union (SADTU), of the students organisations, COSAS and SANSCO.

and of COSATU, with Civic Associations and women's organisations

in Kangwane as well as with other community organisations there,

and has the support of the COSATU National Education Committee

(NEDCOM) and of the National Education Co-ordinating Committee and

the ANC.

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The Kangwane Project is currently co-sponsored and jointly

organised at three levels: The local Project Committee in

Kangwane; the Youth Education Trust nationally, the members of

which are drawn (albeit in their private capacities) from the

ANC id in particular COSATU, and internationally with the

Fr ion for Education with Production International.

The Project Committee is composed of representatives of SADTU,

COSAS, and the communities in which the sub-oentres are to be

located. The committee was formed in early 1990, and has held a

series of consultative workshops within Kangwane to explain and

develop the concept of the Project. The Committee has begun to

identify potential teaching staff and skilled workers from

Kangwane who would lead production brigades and units. They have

appointed a Project Coordinator, Sipho Sukati.

In conjunction with NEDCOM the Project Committee has

commitment from the Kangwane homeland government that land will

be donated for the project. This land has been tentatively

identified (see attached map); final agreement is expected soon.

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The curriculum and educational theory to be used in the project

comes from the Foundation for Education

with Production

International. It has evolved through a number of educational

projects in various Front-line . States, including Zimbabwe,

Botswana, Lesotho, Zambia and Tanzania. The curriculum is

Whereever possible, the Project expects to

use teaching and

production staff from the target area.

To achieve this objective, the Pro

ject Will have to make use Of

teachers, instructors and other pers

onnel, who because of the

nature of apartheid education, may not always be adequately and appropriately qualified. Accelerated training and upgrading of teachers and instructional and other personnel will be provided through a mixture of in-service and sandwich courses, seminars, supervision on-the-job, study groups and distance education. The organisational structure of the Project will be designed to enable the best use to be made on-the-job of staff in training. The Project plans to implement this staff training through the system of sub-centres, served by a main, primarily upgrading and training centre. Every teacher from every sub-centre (and other-Kangwane schools associating with the Project) will be required to spend one three-month term a year at the main centre. Staff of the main centre will also visit the sub-centres to conduct on-the-job-training. Each sub-centre will, in addition, have appropriately qualified, full-time facilitators present to assist the staff in their teaching.

The students at the sub-centres will besides have access to support materials based on a distance education concept; including text-books, teachers' guides, study guides, tapes, kits, videos, slides and other audio-visual materials, as aids to learning. A private radio network linking the main and sub-centres will be set up to facilitate expert lectures and make effective use of such materials.

In order to replace teachers from sub-centres who will be attending their three month courses at the main centre, an additional number of mainly academic staff will have to be employed by the project, who will themselves attend three month courses at the main centre and fill in for those who proceed to the courses during their absence from the sub-centres.

The International Foundation for Education with Production (FEP International) will be offering crash courses to teachers identified as the likely staff for the main centre, and the senior staff likely to be chosen for the sub-centres, as well as to other senior teachers nominated by the Kangwane Government in 1990 and 1991, to introduce them to the education-with-production curriculum and the concept and practice of education with production. FEP International will moreover offer continuing crash courses and upgrading courses in these disciplines to teachers and production staff, and is seeking to have progressive Teacher Training Colleges and Universities introduce courses in the ewp curriculum as part of teacher training.

reduced costs, as much as to the ongoing profitable production of goods and services.

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Women often carry the worst burdens of the homeland system. They are expected to sustain families on money sent back by migrant labour husbands; their potential to BuPPlement this is limited to subsistence farming and little more. The Project should provide women participants both with technical and managerial skills to begin effective income generation in their own right. Women should be encouraged to join production units that are not those stereotyped as "womenis jobS", such as car mechanics, plumbing, or construction. Yet at the same time, in chosing production units for the project, skills and opportunities in areas traditionally more available to women must also be developed (given the "traditional" rural gender stereotyping of the area); such as textiles and clothing production

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Whilst most young people learning at the Kangwane Project will follow the half-work, half-study course, an option will be provided for youth who want to specialise in acquiring a craft skill. to enter a Brigade unit for which 25% of time will be allocated to academic and trade theory study on special syllabuses and 75% to craft skill training and production. In particular, and as a pilot project for this approach, a Builders Brigade will be set up as soon as possible during 1990, to begin construction of the initial buildings that will be required for the Project to start operating in 1991.

Community links

One of the key principles of a progressive approach to work-study is that school and community should be closely linked and that students and their teachers should participate actively in the real life activities of the community, on a regular basis. Production, with all its various operations, is a major link in the chain that binds school to its community and is a starting point for other links in the relationship. The school can play an important role in initiating community production enterprises and cooperatives and other development activities, given the reservoir of skills and talents which its professional and technical staff and students constitute. Such community enterprises can, of course, be another source of employment for student graduates. Moreover, the Project will provide adult education on the education-with-production curriculum on special syllabuses (as well as distance education on the M level curriculum), for workers and members of the community during

early evening hours, including technical skill upgrading. The main centre, which will increasingly become a teacher and instructor training centre with extension and support facilities for sub-centres and for schools in Kangwane associating with the Project, will when fully developed have the capacity for a student enrolment of 300 at any time, in ten classes of 30 students.

The academic staff will comprise 8 academic teachers whilst the necessary technical staff will be located mainly in the production units and paid from production income. The academic staff will each teach an average of 40 periods a week, a workload of 26 hours and 40 minutes a week. In addition, each will have some evening study supervision duties on a rotating basis. The technical staff will be responsible for supervising students on the job in production and providing training of a practical and theoretical nature.

Initially, the student body of the main centre will comprise monitors, study group facilitators and teachers from sub-centres and other schools, as well as from distance education study groups. Spending a term at a time, although an increasing number will be full-time trainee teachers.

Students at this main centre will follow the half-work, half-study approach.

Each sub-centre will also have a student enrolment of 300 in 10 classes.

As in the case of the main centre, the half-work, half-study principle will be followed and each academic teacher will teach an average of 40 periods a week, a workload of 26 hours and 40 minutes a week, although they will all have additional duties such as supervising night studies.

In view of the work-study approach, five classrooms, one all-purpose laboratory and one all-purpose workshop will be required at the main centre and at each sub-centre.

Extra provision in the form of a lecture room/theatre and a workshop for teaching aids production will be provided at the main centre.

In general, each sub-centre will have a selection of several different production activities, each under the separate technical management of competent technical personnel. The number

of production units at each will depend on resource availability and student labour requirements. Some 150 students have to be allotted to work on the different projects each morning and the other 150 each afternoon. In general, production activities such as construction and agriculture will absorb a considerable number of these, with smaller groups in the other units.

The aim is to set up 8 sub-centres in addition to the main centre, over three to five years. Initially, whilst sub-centres are under construction, use may have to be made of temporary facilities and buildings belonging to sympathetic organisations, and hopefully the Kangwane Government.

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As a model school piloting the integration of productive work with progressive 'education, the precise balance between the two must remain subject to on-going evaluation by participants in the project; including teachers, students, and production unit managers. Such scheduling must also take into account time spent on community projects as well as production units.

A projected schedule of work-study, for students at the senior secondary school level, probably of between 15 and 20 years of age, is outlined here.

As currently envisaged, students will be expected to devote 40 hours a week (or 8 hours a day) to work and study. The institutional day will start at 7.30 a.m. and continue until 5.30 p.m., with two half hour (mid-morning and mid-afternoon) tea breaks and a lunch break of one hour. Half the students (in all classes) will devote their mornings to study and the other half to productive work, changing roles in the afternoon.

In addition, students will be expected to work one weekend in four on essential services.

Moreover it is recommended that the academic year should be forty weeks. which would normally leave twelve weeks for holidays. It is recommended, however, that every student should have to spend two out of the twelve weeks a year in intensive production to maintain essential services during holiday periods, and that the learning body at the main centre and the sub-centres should be divided into groups to work in rotation alongside the production management and labour force during academic holidays. (The production staff will have different and shorter holiday arrangements from academic staff). Academic staff will be expected to attend courses during the academic holidays.

This arrangement will provide 20 hours a week of academic work (divided into 30 forty-minute periods), over 40 weeks a year, in a three year course.

Periods will be allocated as follows, assuming use of the core FEP curriculum (see syllabuses in accompanying booklet):

Each period will be of 40 minutes duration.

Periods & Hours Per Year

Science 4 160 106 hrs 40 min.

Mathematics 4 160 106 hrs 40 min.

Cultural Studies 4 160 106 hrs 40 min.

Development Studies 3 120 80 hours

Environmental & Social Studies 3 120 80 hours

Fundamentals of Production 3 120 80 hours

Communication - English 3 120 80 hours

Siswati 3 120 80 hours

Introduction to Professional

Knowledge or Trade Theory — 3 120 80 hours

30 1200 800 hrs

Whilst some may feel that the time allocation for academic lessons is inadequate, it should be stressed that students will spend some time on evening study, preferably one hour a night (probably between 20 and 21 hours, after supper) and have access to distance education materials as study aids. It should be remembered, besides, that the student participation in all the various operations related to production will provide a considerable practical basis that should reinforce learning. As is argued in the Introduction to the enclosed ewp curriculum booklet, the diverse content of the curriculum maximises the learning potential of the linkage of work and study, because so much of the realities of productive life find their reflection in the curriculum. In addition, the point has to be made that the education with production curriculum is an integrated one, reflecting a holistic approach, with a great deal of reinforcement of learning between and amongst the different syllabuses.

Physical training and exercises will be offered on a voluntary basis to early risers. Staff members at the sub-centre will be trained at the main centre in this activity by a trained teacher and will be expected to share the task for extra pay. At the end of the day, 30 to 40 minutes will be devoted between 17.45 and 18.30 to sports practice. Weekends, other than the one in four devoted to essential work, will be free for sports, club activities and relaxation.

The Physical Trainer at the Main Centre will also be Sports Master and will teach physical training and gymnastics and facilitate the introduction of diversified sporting activities throughout the Project. To this extent he will, like the extension staff at the main centre, make regular visits to the sub-centres, to conduct courses at each.

Whilst the sub-centres will not be boarding schools, some boarding facilities might be provided for those students who live at great distances from the sub-centres, to facilitate their participation in the productive work programmes, the evening Study arrangements and in physical training, sports, club and recreational activities.

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Production units must be chosen for their educative as well as income-generating capacity, and where possible should be taken into account in academic work. Productive work will entail a blend of manual and mental work, the use of the mind and the intelligent use of the hands, the development of craftsmanship, the development of finger skills and the development of sound working attitudes and non-exploitative working relationships. Students will gain a pride and satisfaction in their work. All the learning domains, the cognitive, the affective and the psychomotor will be reinforced in a process that should be satisfying and challenging. This will be particularly so because the level of mechanisation chosen as part of appropriate technological application will not require either excessively heavy manual or repetitive work. This alternation of 4 hours each of work and study, with adequate breaks in between, should by providing variation, offer stimulation rather than exhaustion.

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The choice of productive activities will depend to some extent on resource potential and availability in the areas served by the main centre and sub-centres of the Project, but perhaps more heavily on projections of demand (which of course should not be static), and production units may vary from sub-centre to sub-centre accordingly. Ultimately, decisions on which activities will be incorporated will depend upon evaluation by community groups and project participants, jointly.

Given actual experience and studies undertaken elsewhere in socio-economic conditions not dissimilar from Kangwane, as well as on the basis of what is known about the territory, it is felt

that there is enough information to start productive activities in some of the following fields, which are not dependent on special local resource requirement or exceptional conditions: afforestation, seedling nursery, and timber utilisation, arable agriculture (adopting Permaculture principles), conservation, animal husbandry, game ranching, fish farming and beekeeping, dam and weir construction, road construction, brick and tilemaking and ceramics and glassmaking, monumental masonry, tannins and leather goods production, small hotel management and catering, food processing, retail trading, textile manufacture, cotton and wool spinning and weaving, milling, light engineering, vehicle repair and maintenance, autobody repair (panel-beating), engine reconditioning, printing and binding, construction, carpentry, plumbing, electrical wiring, and electrical and electronic appliance repair.

Productive activities are being considered in other fields but information is still to be gathered. These activities would only be introduced in the third and later phases of the project although rough estimates of likely costs are included in the project costings for these phases. These will be reviewed as the project develops. The fields being considered include: small scale mining and mineral processing (including limeburning and a mini-cement plant), essential oil distillation, and chemical manufacture, biotechnology, electroplating, engraving, renewable energy utilisation and plant manufacture, soapmaking, and hand-made paper production. Further studies and consultations currently being undertaken by FEP International may result in the identification of additional activities.

Computer studies will be offered to selected students working in the relevant units as a professional or technical study option. For this purpose a Computer studies teacher will be employed at the main centre, who will tour the sub-centres.

In addition to these productive activities, students may choose to take part in service activities like participating in literacy campaigns, working in the early childhood centres, teaching in pre-primary and primary schools and acting as study group leaders in adult and distance education, working in the accounting and administration offices, and the libraries, of the institutions (which will all have word processing and some computer facilities).

There will be a need to set up management units both at the main centre and the sub-centres to service the production units in all aspects of management and these will have a core body of specialist students but will also admit other students for exposure to management practices, in short courses designed to back RE the study of Fundamentals of Production:

All productive activities will be backed up by appropriate courses in technical studies on syllabuses which FEP International is presently developing with qualified experts. These subjects will be examined and the results incorporated in the general certificate of education to be issued by the University of Cambridge Syndicate. Each course will be conducted by an appropriately qualified instructor.

An educational radio network and a weekly newspaper will be run from the main centre, with taped inputs in the case of the radio, and written contributions and reports in the case of the newspaper, from the sub-centres. This can also be a student productive work option and courses in elementary Journalism and broadcasting can be taken as the professional course options. These service units will of course need to generate income, and efforts should be made to gain permission to enable the radio to broadcast commercially and seek advertising. The newspaper can become a Kangwane and Lowveld regional paper in English and Siswati and seek advertising. Both the radio and the newspaper will each need a full-time professional as technical or production staff, probably at the main centre.

In addition, a full-time librarian will be required at the main centre, who will also have to spend time regularly visiting the sub-centres to conduct Courses. Elementary librarianship can be taken as a technical option.

Budget and Phasing of Project

Project memoranda showing budgets for capital requirements and annual production expenditure and income are attached together with capital and income and expenditure estimates of the academic components of the project.

The Builders Brigade will start as soon as possible to erect the initial buildings required at the main centre and at as many of the proposed sub-centres as possible so that a start can be made in these (and other buildings) in 1991.

The initial intakes at the sub-centres will be students entering a three year senior secondary M level Cambridge course in the ewp curriculum. These will be selected through admission and aptitude tests from second year junior secondary students. The total first intake will be 100 at each sub-centre. It is also

intended that any underutilised facilities at the main centre will be used to take in additional senior secondary students or fulltime teacher trainees. Not more than 10% of urban residents will be permitted to enrol as full time students. Facilities can be used in the evenings for distance and adult education students.

A later stage of the project, to cover junior secondary courses, will depend on progress in developing the ewp curriculum. a production plan and technical studies courses at that level and identifying a suitable examining authority. Further development of the project at primary level will again depend on progress in formulating acceptable primary syllabuses related to the ewp 'curriculum at the higher levels. Position papers on the sponsors's approach to ewp at these levels are attached.

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It is generally desirable that the management of the academic components of this proposed institution should reflect the objectives of the centre as a whole in encouraging democracy and student initiative, and should be the same in the workplace as in the school.

Attached papers show the proposed organisational structure. These include a chart and explanatory notes.

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If feasibility studies are required for any component of the project, the terms of reference for such study should be drafted by the Coordinator designate in consultation with the parties that have been involved in conceiving and promoting the project and any donor involved. Attached is a rough outline of points that might be examined in a feasibility study.

The composition of any feasibility study team should be agreed between the sponsoring parties and the major potential donors.

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This concept paper, together with budget outlines, phased annual development and costing outlines - including an initial budget for launching the project, to be raised in 1990 - and other attachments noted earlier, comprise the substantive project Proposal for submission to donors.

Certain basic assumptions on which the financial estimates are based are as follows:

1. The Kangwane Government will be expected to finance some of the capital and recurrent expenditure relating to the academic component and more especially teachers' salaries;
2. Students as well as student teachers will be expected to contribute to the costs of their education and upkeep through their productive unit activities; student teachers will be expected to pay for board and lodging while at the main centre. If the student labour earnings exceed agreed contributions, a payment approved by school authorities and students for personal expenses will be made and the balance kept in trust for the student until completion of the studies.

Financial Control

It is proposed that the organisations which have taken the main initiative in raising the funds for this project should appoint an interim financial committee to receive and administer the funds until the management, accounting and auditing structures of the project are in place.

5 December 1990